

# Roadway Access Control and Functional Class Characteristics, North Carolina Department of Transportation, Prioritization 7.0, February 2023

## Geodatabase Feature Class



**Tags** Roadways, North Carolina, NC, Roads, Road Characteristics, Access Control, Functional Class, Streets, Centerline, Prioritization 7.0 (P7), Strategic Prioritization Office of Transportation (SPOT), North Carolina Department of Transportation (NCDOT)

### Summary

A visual representation of access control and functional class characteristics of roadways.

### Description

This feature class provides a visual representation of a subset of road characteristics for the state road system. Each arc/record is split where road characteristics change along a route. This is a digital file of the North Carolina Department of Transportation's road inventory database that represents the access control and functional class characteristic attributes of the NCDOT state road system. The state road system is comprised of functional classes that include Interstate, US, NC, Secondary Routes and ramps (see full list below). Additional routes are also included to meet the Federal Highway Administration's (FHWA) data requirements for the Highway Performance Monitoring System (HPMS). HPMS is a national level highway information system that includes data on the extent, condition, performance, use, and operating characteristics of the Nation's highways. States are required to submit a HPMS report to the FHWA annually. The additional routes include: Projected Routes - generalized locations of projected routes that will become part of the National Highway System (NHS) when they are built and Non-state maintained roads - generalized locations of roads that are owned by local, state and federal entities. Only non-state maintained roads that are eligible for federal aid are included. Currently there is no connectivity enforced between the state-maintained roads and the non-state maintained roads.

Functional Classifications :

- 1 Interstate
- 2 PA-FrwyExp Principal Arterial – Other Freeways and Expressways
- 3 PA-Other Principal Arterial – Other
- 4 Minor Arterial
- 5 Major Collector
- 6 Minor Collector

## 7 Local

For the purposes of the Strategic Planning Office of Transportation Prioritization 7.0 (P7) Project, various fields present in previous versions that are no longer needed were deleted from the attribute table. A new field was added which defines the access control value (a measure of control of through-movements of a roadway in relation to interchanges, intersections, driveways and medians). Values are defined as 1: Full Access Control, 2: Limited Access Control , 3: Partial or 4: No Access Control. Data for P7 was not updated after February 2023.

For further information about domains and fields used in SPOT see the SPOT P7 Domains document here:

<https://xfer.services.ncdot.gov/gisdot/metadata/spot/NCDOT%20SPOT%20Prioritization%207%20Online%20Domain%20Reference.pdf>

## Credits

North Carolina Department of Transportation GIS Unit, Strategic Prioritization Office of Transportation (SPOT)

## 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.

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## Extent

**West** -84.421464

**East** -75.418363

**North** 36.615122

**South** 33.751362

## Scale Range

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

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

## Topics and Keywords

**Themes or categories of the resource** Transportation

**Content type** Downloadable Data

**Theme keywords** Roadways, North Carolina, NC, Roads, Road Characteristics, Access Control, Functional Class, Streets, Centerline, Prioritization 7.0 (P7), Strategic Prioritization Office of Transportation (SPOT), North Carolina Department of Transportation (NCDOT), Transportation.

## Thesaurus

**Title** User

**Publication date** 2023-07-17 00:00:00

**Place keywords** North Carolina

### Thesaurus

**Title** User

**Publication date** 2023-07-17 00:00:00

## Citation

**Title** Roadway Access Control and Functional Class Characteristics, North Carolina Department of Transportation, Prioritization 7.0, February 2023

**Publication date** 2023-07-17 00:00:00

**Presentation formats** digital map

## Citation Contacts

### Responsible party - originator

**Organization's name** North Carolina Department of Transportation Strategic Prioritization Office of Transportation (SPOT)

#### Contact information

##### Phone

**Voice** 919.707.4742

##### Address

**Type** postal

**Delivery point** Century Center Building B, 1020 Birch Ridge Drive

**City** Raleigh

**Administrative area** NC

**Postal code** 27610

**Country** US

**e-mail address** spot@ncdot.gov

##### Hours of service

8am-5pm, M-F

##### Contact instructions

Phone or email

### Responsible party - resource provider

**Organization's name** North Carolina Department of Transportation Geographic Information Systems Unit

**Contact's position** GIS Help Desk

#### Contact information

##### Address

**Type** postal

**Delivery point** Century Center Building B, 1020 Birch Ridge Drive

**City** Raleigh

**Administrative area** NC

**Postal code** 27610

**Country** US

**e-mail address** gishelp@ncdot.gov

## Resource Details

**Dataset languages** English (UNITED STATES)

**Dataset character set** utf8 - 8 bit UCS Transfer Format

**Spatial representation type** vector

**Processing environment** Version 6.2 (Build 9200) ; Esri ArcGIS 10.8.1.14362

## Credits

North Carolina Department of Transportation GIS Unit, Strategic Prioritization Office of Transportation (SPOT)

## ArcGIS item properties

**Name** AccessControl\_FunctionalClass

**Location** file://\\DOT\DFSROOT01\GROUPS-GISCC\GIS-SpatialDataMgmt\Metadata\Spot\BackupSchemaProd20231218\P7\_Data.gdb

**Access protocol** Local Area Network

## Extents

### Extent

#### Temporal extent

**Date and time** 2019-09-01 00:00:00

#### Vertical extent

**Minimum value** 0.000000

**Maximum value** 0.000000

### 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

**westBL** 406980.080272

**eastBL** 3051823.000288

**southBL** 42564.600160

**northBL** 1042848.119824

**exTypeCode** Yes

## Resource Points of Contact

## Point of contact - point of contact

**Organization's name** North Carolina Department of Transportation Strategic Prioritization Office of Transportation (SPOT)

### Contact information

#### Phone

**Voice** 919.707.4742

#### Address

**Type** postal

**Delivery point** Century Center Building B, 1020 Birch Ridge Drive

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**Postal code** 27610

**Country** US

**e-mail address** spot@ncdot.gov

#### Hours of service

8am-5pm, M-F

### Contact instructions

Phone or email

## Resource Maintenance

### Resource maintenance

**Update frequency** annually

**Scope of the updates** dataset

### Maintenance contact - point of contact

**Organization's name** North Carolina Department of Transportation Geographic Information Systems Unit

**Contact's position** GIS Help Desk

### Contact information

#### Phone

**Voice** 919.707.2165

**Fax** 919.707.2210

#### Address

**Type** postal

**Delivery point** Century Center Building B, 1020 Birch Ridge Drive

**City** Raleigh

**Administrative area** NC

**Postal code** 27610

**Country** US

**e-mail address** gishelp@ncdot.gov

#### Hours of service

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## Contact instructions

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## Resource Constraints

### Constraints

#### Limitations of use

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### Security constraints

**Classification** unclassified

**Classification system** none

#### Limitations of use

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## 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

#### ProjectedCoordinateSystem

**WKID** 102719

**XOrigin** -121841900

**YOrigin** -93659000

**XYScale** 1893.9393939393938

**ZOrigin** -100000

**ZScale** 9.9999999999999982

**MOrigin** -100000

**MScale** 10000000

**XYTolerance** 0.00528

**ZTolerance** 0.20000000000000004

**MTolerance** 9.999999999999995e-07

**HighPrecision** true

**LatestWKID** 2264

**VCSWKID** 105703

**LatestVCSWKID** 6360

#### WKT

```
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["NAD_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)

## Spatial Data Properties

### Vector

**Level of topology for this dataset** geometry only

### Geometric objects

**Feature class name** AccessControl\_FunctionalClass

**Object type** composite

**Object count** 73584

### ArcGIS Feature Class Properties

**Feature class name** AccessControl\_FunctionalClass  
**Feature type** Simple  
**Geometry type** Polyline  
**Has topology** FALSE  
**Feature count** 73584  
**Spatial index** TRUE  
**Linear referencing** TRUE

## Data Quality

### Scope of quality information

**Resource level** dataset

### Data quality report - Conceptual consistency

#### Conformance test results

**Test passed** Yes

#### Result explanation

The dataset is converted to file geodatabase (FGDB) format using tools in ArcGIS. Quality checks were performed by the Strategic Prioritization Office of Transportation (SPOT) and the North Carolina Department of Transportation Geographic Information Systems Unit and errors were accepted as within business range or identified as exceptions.

#### Product specification

**Title** NCDOT Geospatial Data Specifications

**Publication date** 2019-09-01 00:00:00

### Data quality report - Quantitative attribute accuracy

#### Data quality measure reference

#### Measure description

Quality checks were performed and errors were accepted as within business range or error or identified as exceptions.

#### Conformance test results

**Test passed** Yes

#### Result explanation

Pass

#### Product specification

**Title** NCDOT Geospatial Data Specifications

**Publication date** 2019-09-01 00:00:00

## Lineage

### Lineage statement

An ArcMap layer for visual representation of a subset of road characteristics for the state road system. The data were further manipulated by the North Carolina Department of Transportation Geographic Information Systems Unit and/or the North Carolina Department of Transportation Strategic Prioritization Office of Transportation (SPOT) to produce the required data for Prioritization 7.0.

## Process step

### Description

From the North Carolina Department of Transportation's road inventory database, The North Carolina Department of Transportation Geographic Information Systems Unit placed the data into ArcGIS 10.8 to process and create the desired product for the Strategic Prioritization Office of Transportation (SPOT).

## Process contact - originator

**Organization's name** North Carolina Department of Transportation Strategic Prioritization Office of Transportation (SPOT)

### Contact information

#### Phone

**Voice** 919.707.4742

#### Address

**Type** postal

**Delivery point** Century Center Building B, 1020 Birch Ridge Drive

**City** Raleigh

**Administrative area** NC

**Postal code** 27610

**Country** US

**e-mail address** spot@ncdot.gov

#### Hours of service

8am-5pm, M-F

### Contact instructions

Phone or email

## Process step

### Description

Metadata is updated for publication

## Process contact - resource provider

**Organization's name** North Carolina Department of Transportation Geographic Information Systems Unit

**Contact's position** GIS Help Desk

### Contact information

#### Phone

**Voice** 919.707.2165

**Fax** 919.707.2210

#### Address

**Type** postal

**Delivery point** Century Center Building B, 1020 Birch Ridge Drive

**City** Raleigh

**Administrative area** NC

**Postal code** 27610

**Country** US

**e-mail address** gishelp@ncdot.gov

**Hours of service**

8am-5pm, M-F

**Contact instructions**

Phone or email

**Distribution**

**Distributor**

**Contact information - distributor**

**Organization's name** North Carolina Department of Transportation Geographic Information Systems  
Unit

**Contact's position** GIS Help Desk

**Contact information**

**Phone**

**Voice** 919.707.2165

**Address**

**Type** postal

**Delivery point** Century Center Building B, 1020 Birch Ridge Drive

**City** Raleigh

**Administrative area** NC

**Postal code** 27610

**Country** US

**e-mail address** gishelp@ncdot.gov

**Hours of service**

8am-5pm, M-F

**Contact instructions**

Phone or email

**Distribution format**

**Version** ArcGIS 10.3

**Name** File Geodatabase Feature Class

**Fields**

**Details for object AccessControl\_FunctionalClass**

**Type** Feature Class

**Row count** 73584

**Definition source**

NCDOT

**Definition**

A visual representation of access control and functional class characteristics of roadways.

## 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.

## Field Rte\_Id

**Alias** Rte\_Id  
**Data type** Double  
**Width** 8  
**Precision** 0  
**Scale** 0

### Field description

The 11-digit route number is a route naming convention used by NCDOT

### Description source

North Carolina Department of Transportation GIS Unit

### Description of values

Unique ten digit route identifier number

## Field BegMp1

**Alias** BegMp1  
**Data type** Double  
**Width** 8  
**Precision** 0  
**Scale** 0

### Field description

Beginning Milepost for route

### Description source

North Carolina Department of Transportation GIS Unit

### Description of values

Beginning milepost for each segment

## Field EndMp1

**Alias** EndMp1

**Data type** Double

**Width** 8

**Precision** 0

**Scale** 0

### Field description

Ending Milepost for route

### Description source

North Carolina Department of Transportation GIS Unit

### Description of values

Ending milepost for each segment

## Field FC\_TYP\_CD

**Alias** FC\_TYP\_CD

**Data type** Integer

**Width** 4

**Precision** 0

**Scale** 0

### Field description

A classification system of roads based on the character of traffic service that they are intended to provide. Approval of changes is granted by the Federal Highway Administration

### Description source

North Carolina Department of Transportation GIS Unit

### List of values

**Value** 1

**Description** Interstate

**Enumerated domain value definition source** North Carolina Department of Transportation GIS Unit

**Value** 2

**Description** Principal Arterial - Other Freeways and Expressways

**Enumerated domain value definition source** North Carolina Department of Transportation GIS Unit

**Value** 3

**Description** Principal Arterial - Other

**Enumerated domain value definition source** North Carolina Department of Transportation GIS Unit

**Value** 4

**Description** Minor Arterial

**Enumerated domain value definition source** North Carolina Department of Transportation GIS Unit

**Value** 5

**Description** Major Collector

**Enumerated domain value definition source** North Carolina Department of Transportation GIS Unit

**Value** 6

**Description** Minor Collector

**Enumerated domain value definition source** North Carolina Department of Transportation GIS Unit

**Value** 7

**Description** Local

**Enumerated domain value definition source** North Carolina Department of Transportation GIS Unit

### Description of values

Enumerated Domain defined

### 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.

### Field AccessControl

**Alias** AccessControl

**Data type** SmallInteger

**Width** 2

**Precision** 0

**Scale** 0

### Field description

Used to indicate where some degree of control of through traffic movement is made to a road.

### Description source

North Carolina Department of Transportation GIS Unit

### List of values

**Value** 2

**Description** Limited Access Control

**Enumerated domain value definition source** North Carolina Department of Transportation GIS Unit

**Value** 1

**Description** Full Access Control

**Enumerated domain value definition source** North Carolina Department of Transportation GIS Unit

**Value** 4

**Description** No Access Control

**Enumerated domain value definition source** North Carolina Department of Transportation GIS Unit

### Description of values

Enumerated Domain defined

### 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.

## Metadata Details

**Metadata language** English (UNITED STATES)

**Scope of the data described by the metadata** dataset

**Scope name** dataset

**Last update** 2024-02-26

## 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** 2023-12-06 09:07:20  
**Last modified in ArcGIS for the item** 2024-02-26 15:55:05

## Automatic updates

**Have been performed** Yes  
**Last update** 2024-02-26 15:55:05

## Metadata Contacts

### Metadata contact - point of contact

**Organization's name** North Carolina Department of Transportation Geographic Information Systems Unit  
**Contact's position** GIS Help Desk

### Contact information

#### Phone

**Voice** 919.707.2165  
**Fax** 919.707.2210

#### Address

**Type** postal  
**Delivery point** Century Center Building B, 1020 Birch Ridge Drive  
**City** Raleigh  
**Administrative area** NC  
**Postal code** 27610  
**Country** US  
**e-mail address** gishelp@ncdot.gov

#### Hours of service

8am-5pm, M-F

### Contact instructions

Phone or email

## Metadata Maintenance

### Maintenance

**Update frequency** annually

**Scope of the updates** dataset

### Maintenance contact - resource provider

**Organization's name** North Carolina Department of Transportation Geographic Information Systems Unit  
**Contact's position** GIS Help Desk

## Contact information

### Phone

**Voice** 919.707.2165

**Fax** 919.707.2210

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## Contact instructions

Phone or email

## Metadata Constraints

### Constraints

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## Security constraints

**Classification** unclassified  
**Classification system** none

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## **Thumbnail and Enclosures**

### **Thumbnail**

#### **Thumbnail type**

Image file