

North Carolina Smoothed Urban Boundaries - 2026 (Revised) - NC Department of Transportation Geodatabase Feature Class



Tags Urbanized Area, Urban Cluster, Boundaries, Roads, Major Roads, State Maintained Roads, Interstate, Highways, Streets, Centerline, Smooth Boundary, Functional Class, Urban, Rural, County, North Carolina, Division

Summary

Polygon layer representing urban areas and clusters in North Carolina. The boundaries were originally generated by the US Census Bureau and have been adjusted (smoothed) by the North Carolina Department of Transportation, in cooperation with North Carolina's Metropolitan Planning Organizations.

Description

The boundaries were originally generated by the US Census Bureau and have been adjusted (smoothed) by the North Carolina Department of Transportation, in cooperation with North Carolina's Metropolitan Planning Organizations. The population estimates for all of the boundaries have been updated using the 2024 Standard Population Estimates from the Office of State Budget Management, the 2023-2024 NCDOT Municipal Boundaries, and the 2020 Census block data.

Credits

Transportation Planning Division, NCDOT. 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.

Extent

West -83.528676
East -75.528491
North 36.693720
South 33.438236

Scale Range

Maximum (zoomed in) 1:5,000
Minimum (zoomed out) 1:625,000

Topics and Keywords

Themes or categories of the resource Boundaries, Transportation, Location, Society

Content type Downloadable Data

Theme keywords Polygon, Urbanized Area, Urban Cluster, Boundaries, Smooth Boundary, Urban, Rural

Thesaurus

Title User

Publication date 2026-08-03 00:00:00

Revision date 2026-06-17 00:00:00

Place keywords North Carolina

Thesaurus

Title User

Publication date 2026-08-03 00:00:00

Revision date 2026-06-17 00:00:00

Citation

Title North Carolina Smoothed Urban Boundaries - 2026 (Revised) - NC Department of Transportation

Alternate titles Urban Boundaries

Publication date 2026-08-03 00:00:00

Presentation formats digital map

FGDC geospatial presentation format vector digital data

Citation Contacts

Responsible party - originator

Organization's name North Carolina Department of Transportation, Transportation Planning Division

Contact's position TPD Data Manager

Contact information

Phone

Voice 919-707-0900

Address

Type physical

Delivery point 1 South Wilmington Street

City Raleigh

Administrative area NC

Postal code 27601

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 NC Planning Geodatabase. If it is an immediate need, please call the contact number or indicate as such in the subject line in an email.

Responsible party - resource provider

Organization's name North Carolina Department of Information Technology -Transportation, GIS Unit

Contact's position GIS Help Desk

Contact information

Address

Type physical

Delivery point Century Center Building B, 1020 Birch Ridge Drive

City Raleigh

Administrative area North Carolina

Postal code 27610

Country US

e-mail address gishelp@ncdot.gov

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

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Responsible party - point of contact

Organization's name North Carolina Department of Information Technology -Transportation, GIS Unit

Contact's position GIS Help Desk

Contact information

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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 Version 6.2 (Build 9200) ; Esri ArcGIS 10.8.1.14362

Credits

Transportation Planning Division, NCDOT. 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.

ArcGIS item properties

Name BoundarySmoothUrban

Size 3.362

Location file:///\\DOT\DFSROOT01\GROUPS-GISCC\GIS-SpatialDataMgmt\Maintenance\QuarterlyDataRefresh\Boundary\2026Q2\Final\BoundarySmoothUrban.gdb

Access protocol Local Area Network

Extents

Extent

Geographic extent

Bounding rectangle

West longitude -83.524014

East longitude -75.533645

South latitude 33.448299

North latitude 36.574755

Extent contains the resource Yes

Extent

Geographic extent

Bounding rectangle

Extent type

Extent used for searching

West longitude -83.528676

East longitude -75.528491

North latitude 36.693720

South latitude 33.438236

Extent contains the resource Yes

Extent in the item's coordinate system

westBL 671019.978591

eastBL 3018453.431025

southBL -84319.280969

northBL 1071468.852332

exTypeCode Yes

Resource Points of Contact

Point of contact - point of contact

Organization's name North Carolina Department of Information Technology -Transportation, GIS Unit

Contact's position GIS Help Desk

Contact information

Address

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Resource Maintenance

Resource maintenance

Update frequency as needed

Scope of the updates dataset

Other maintenance requirements

Transportation Planning Division, NCDOT. 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.

Maintenance contact - point of contact

Organization's name North Carolina Department of Information Technology -Transportation, GIS Unit

Contact's position GIS Help Desk

Contact information

Address

Type physical

Delivery point Century Center Building B, 1020 Birch Ridge Drive

City Raleigh

Administrative area North Carolina

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

Legal constraints

Limitations of use

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Security constraints

Classification unclassified

Classification system None

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Constraints

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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 3048.0060960121918

ZOrigin 0

ZScale 1

MOrigin 0

MScale 1

XYTolerance 0.0032808333333333331

ZTolerance 0.001

MTolerance 0.001

HighPrecision true

LatestWKID 2264

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],AUTHORITY["EPSG",2264]]
```

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 BoundarySmoothUrban

Object type composite

Object count 78

ArcGIS Feature Class Properties

Feature class name BoundarySmoothUrban

Feature type Simple

Geometry type Polygon

Has topology FALSE

Feature count 78

Spatial index TRUE

Linear referencing FALSE

Data Quality

Scope of quality information

Resource level dataset

Data quality report - Completeness commission

Data quality measure reference

Measure description

After processing, the dataset is checked for drawing display and number of records and file sizes compared with source materials.

Conformance test results

Test passed Yes

Result explanation

Pass

Product specification

Title NCDOT Geospatial Data Specifications

Creation date 2023-12-11 00:00:00

Publication date 2024-02-12 00:00:00

Data quality report - Conceptual consistency

Data quality measure reference

Measure description

This dataset is converted to file geodatabase (FGDB) format using tools in ArcGIS. The geometry is checked, and if needed repaired.

Conformance test results

Test passed Yes

Result explanation

Pass.

Product specification

Title NCDOT Geospatial Data Specifications

Creation date 2023-12-11 00:00:00

Publication date 2024-02-12 00:00:00

Data quality report - Quantitative attribute accuracy

Data quality measure reference

Measure description

The source data was checked using standard review procedures. Attributes were checked by using visual inspection as well as automated verification routines. Geometry checks were conducted using Esri's Data Reviewer tool.

Conformance test results

Test passed Yes

Result explanation

Pass.

Product specification

Title NCDOT Geospatial Data Specifications

Creation date 2023-12-11 00:00:00

Publication date 2024-02-12 00:00:00

Lineage

Lineage statement

This dataset was originally created by the North Carolina Department of Transportation to provide a geographic representation of the urban areas and clusters in North Carolina. The data were then used by the NC Department of Transportation GIS Unit for further data processing

Process step

Description

Polygon layer representing the smoothed boundaries for the Census urban areas in North Carolina. The boundaries were originally generated by the US Census Bureau and have been adjusted (smoothed) by the North Carolina Department of Transportation, in cooperation with North Carolina's Metropolitan Planning Organizations.

Process contact - processor

Organization's name North Carolina Department of Information Technology -Transportation, GIS Unit

Contact's position GIS Data and Services Consultant

Contact information

Address

Type physical

Delivery point Century Center Building B, 1020 Birch Ridge Drive

City Raleigh

Administrative area North Carolina

Postal code 27610

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.

Distribution

Distributor

Contact information - distributor

Organization's name North Carolina Department of Information Technology -Transportation, GIS Unit

Contact's position GIS Help Desk

Contact information

Address

Type physical

Delivery point Century Center Building B, 1020 Birch Ridge Drive

City Raleigh

Administrative area North Carolina

Postal code 27610

Country US

e-mail address gishelp@ncdot.gov

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Distribution format

Version 10.8.1

Name File Geodatabase Feature Class

Transfer options

Online source

Online location (URL) <https://connect.ncdot.gov/resources/gis/Pages/GIS-Data-Layers.aspx>

Fields

Details for object BoundarySmoothUrban

Type Feature Class

Row count 78

Definition

Urbanized Area or Urban Cluster

Definition source

U.S. Census Bureau

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 POP_EST_YR

Alias POP_EST_YR

Data type Integer

Width 4

Precision 0

Scale 0

Field description

Year of US Census population estimate for the area.

Description source

U.S. Census Bureau

Description of values

Values vary.

Field POP_EST

Alias POP_EST

Data type Integer

Width 4

Precision 0

Scale 0

Field description

US Census population estimate for the area.

Description source

U.S. Census Bureau

Description of values

Values vary.

Field TYPE

Alias TYPE

Data type String

Width 15

Precision 0

Scale 0

Field description

Urban boundary type.

Description source

U.S. Census Bureau

List of values

Value Urbanized Area

Description The polygon represents an urban area, the region surrounding the city.

Enumerated domain value definition source U.S. Census Bureau

Value Urban Cluster

Description The polygon represents an urban cluster. Areas defined based on the same criteria as urbanized areas, but represent areas containing at least 2,500 and less than 50,000 people.

Enumerated domain value definition source U.S. Census Bureau

Field FHWA_5_Dig

Alias FHWA_5_Dig

Data type Integer

Width 4

Precision 0

Scale 0

Field description

Federal Highway Administration five-digit ID.

Description source

FHWA

Description of values

Values vary.

Field NAME

Alias NAME

Data type String

Width 50

Precision 0

Scale 0

Field description

Urban area or cluster name.

Description source

U.S. Census Bureau

Description of values

Values vary.

Field SHAPE_Leng

Alias SHAPE_Leng

Data type Double

Width 8

Precision 0

Scale 0

Field FHWA_5_Txt

Alias FHWA_5_Txt

Data type String

Width 50

Precision 0

Scale 0

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 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.

Field Shape_Area

Alias Shape_Area
Data type Double
Width 8
Precision 0
Scale 0

Field description

Area of feature in internal units squared.

Description source

Esri

Description of values

Positive real numbers that are automatically generated.

Field FHWA_UA

Alias FHWA_UA
Data type String
Width 11
Precision 0
Scale 0

Field description

FHWA defined Urban Area.

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 2026-07-27

ArcGIS metadata properties

Metadata format ArcGIS 1.0
Standard or profile used to edit metadata ISO19139
Metadata style ISO 19139 Metadata Implementation Specification

Created in ArcGIS for the item 2026-07-27 14:00:07
Last modified in ArcGIS for the item 2026-07-27 13:57:29

Automatic updates

Have been performed Yes
Last update 2026-07-27 13:57:29

Metadata Contacts

Metadata contact - point of contact

Organization's name North Carolina Department of Information Technology -Transportation, GIS Unit
Contact's position GIS Help Desk

Contact information

Address

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

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Metadata Maintenance

Maintenance

Update frequency as needed

Scope of the updates dataset

Maintenance contact - point of contact

Organization's name North Carolina Department of Information Technology -Transportation, GIS Unit

Contact's position GIS Help Desk

Contact information

Address

Type physical

Delivery point Century Center Building B, 1020 Birch Ridge Drive

City Raleigh

Administrative area North Carolina

Postal code 27610

Country US

e-mail address gishelp@ncdot.gov

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Contact instructions

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Metadata Constraints

Security constraints

Classification unclassified

Classification system None

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Thumbnail and Enclosures

Thumbnail
Thumbnail type
Image file