



The GIS Unit is pleased to announce the release of our 4th Quarter 2023 Publication data updates.

If you have any questions, please contact gishelp@ncdot.gov.

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Updated Data Sets

The following datasets were updated:

BoundaryCountyArc
BoundaryCountyPolygon
BoundaryCountyShoreline
BoundaryDOTDistrict
BoundaryDOTDivision
BoundaryMpoRpo
BoundaryMunicipal
BoundarySmoothUrban
BoundaryStateNCPolygon
NCRouteArcs
NCRouteCharacteristics
NCRoutes
NHSRoutes
RoadAccessControl
RoadBarePvmnt
RoadFederalAid
RoadFunctionalClass
RoadPostedRoute
RoadSpeedLimit
RoadUnpaved
RoadFederalAid
RailroadCrossings
RailroadTrack
RailroadFacility
StructuresPoint

Schema Updates



NCDOT MilePost Hatching- New service replaces NCDOT MileMarker Hatching:

The service named NCDOT MilePost hatching is replacing the existing NCDOT MileMarker Hatching service. This new service has been slightly modified:

- Added Milepost Endpoint markers
- Truncated layer order: Visualization will largely remain unchanged, except for the inability to turn individual route types off.
- Removed redundant Milepost Zero Markers: The same Zero markers are used at all zoom scales.

The legacy layer NCDOT MileMarker Hatching service is now deemed “retired”, and is slated for deprecation during 4th quarter 2024 publication. Please modify your GO!NC Maps or apps as soon as possible to replace this layer with the new MilePost Hatching service

New NCDOT MilePost Hatching Service:

https://gis11.services.ncdot.gov/arcgis/rest/services/NCDOT_MileMarkerHatching_Updated/MapServer

GO!NC Metadata page:

<https://ncdot.maps.arcgis.com/home/item.html?id=861af7f703f74bafb6ba9ec58da54123>

For any questions or concerns, please contact Raquel Bensadoun at rbbensadoun@ncdot.gov

Rail Data-STRACNET field added

This field addition should be present on our NCDOT Railroads and NCDOT Rail System services. This additions should not affect existing products, but you may need to remove/re-add the layer to any existing maps or apps to see the new field.

GIS Unit Products Affected by the Update

The following GIS Unit products will reflect the data updates:

Geospatial Web Services

- [NCDOT District Boundaries](#)
- [NCDOT Division Boundaries](#)
- [NCDOT County Boundaries](#)
- [NCDOT County Boundaries Shoreline](#)
- [NCDOT Structures](#)
- [NCDOT Bridges](#)
- [NCDOT MPO & RPO Boundaries](#)
- [NCDOT North Carolina Rail System](#)
- [NCDOT North Carolina Railroads](#)
- [NCDOT Road Characteristics](#)
- [NCDOT State Maintained Roads](#)
- [NCDOT Access Control](#)
- [NCDOT Bare Pavement](#)

- [NCDOT Federal Aid Routes](#)
- [NCDOT Functional Class](#)
- [NCDOT MileMarker Hatching](#)
- [NCDOT NHS](#)
- [NCDOT Posted Roads - Light Traffic](#)
- [NCDOT Speed Limits](#)
- [NCDOT Unpaved Roads](#)
- [NCDOT Shields](#)

GO!NC/AGOL Web Maps

(available at <http://ncdot.maps.arcgis.com>)

- [NCDOT 2021-2029 STIP Map](#)
- [NCDOT Structures Map](#)
- [NCDOT Distance Hatches & Bridges Map](#)
- [NCDOT Bridges Map](#)
- [NCDOT Bridges, State Maintained Roads, and MPO/RPO Boundary Map](#)
- [NCDOT Access Control Map](#)
- [NCDOT Federal Aid Routes Map](#)
- [NCDOT Road Events Map](#)
- [NCDOT State Boundary Roadway Maintenance Status Change Map](#)
- [NCDOT State Maintained Network Map](#)
- [NCDOT State Maintained Roads, State Orthoimagery, and Parcels](#)
- [NCDOT RoadNC Viewer Map](#)
- [NCDOT Connecting North Carolina's Military and Families](#)

Downloadable Data

(available at <https://connect.ncdot.gov/resources/gis/Pages/GIS-Data-Layers.aspx>)

- [Structure Locations Statewide](#) (aka Bridges)
- [NCDOT Rail Track Shapefile](#)
- [NCDOT Rail Crossing Shapefile](#)
- [NCDOT Rail Facility Shapefile](#)
- [NCDOT Rail Layers Geodatabase](#)
- [Road Characteristics Arcs Shapefile](#)
- [Road Characteristics Arcs File Geodatabase](#)
- [NCRoutes Shapefile](#)
- [NCRoutes File Geodatabase](#)
- [NCRouteArcs Shapefile](#)
- [NCRouteArcs File Geodatabase](#)

Status of the Route Data

The following is the status of the route/road data provided at this quarterly data update:

Improvements

Route Data Currency:

For visual representation of public roads in North Carolina. System roads (state maintained) are current through September 2023 for changes by NCDOT Petitions and Municipal Agreements process. Non-system roads (maintained by local governments) are up to date for Alamance (up to date as of 3/1/2023), Alexander (up to date as of 1/28/2021), Alleghany (up to date as of 11/25/2021), Anson (up to date as of 8/3/2012), Ashe (up to date as of 4/16/2019), Avery (up to date as of 1/25/2021), Beaufort (up to date as of 5/25/2021), Bertie (up to date as of 5/19/2021), Bladen (up to date as of 8/11/2020), Brunswick (up to date as of 5/12/2023), Buncombe (up to date as of 6/1/2023), Burke (up to date as of 10/27/2021), Cabarrus (up to date as of 7/11/2023), Caldwell (up to date as of 8/6/2018), Camden (up to date as of 11/3/2020), Carteret (up to date as of 11/15/2021), Caswell (up to date as of 5/26/2020), Catawba (up to date as of 10/14/2020), Chatham (up to date as of 7/10/2023), Cherokee (up to date as of 8/18/2021), Chowan (up to date as of 6/6/2022), Clay (up to date as of 5/25/2021), Cleveland (up to date as of 9/28/2022), Columbus (up to date as of 11/1/2021), Craven (up to date as of 10/4/2021), Cumberland (up to date as of 3/16/2023), Currituck (up to date as of 1/10/2023), Dare (up to date as of 2/1/2021), Davidson (up to date as of 6/1/2023), Davie (up to date as of 12/1/2021), Duplin (up to date as of 1/26/2021), Durham (up to date as of 7/18/2022), Cherokee (up to date as of 9/17/2018), EBCN Graham (up to date as of 9/21/2018), EBCN Haywood (up to date as of 9/17/2018), EBCN Jackson (up to date as of 9/17/2018), Edgecombe (up to date as of 4/22/2020), Forsyth (up to date as of 5/17/2023), Guilford (up to date as of 5/15/2023), Gaston (up to date as of 10/4/2022), Gates (up to date as of 1/13/2023), Graham (up to date as of 5/16/2022), Granville (up to date as of 1/11/2023), Greene (up to date as of 4/21/2020), Guilford (up to date as of 1/11/2021), Halifax (up to date as of 5/31/2022), Harnett (up to date as of 8/22/2021), Haywood (up to date as of 1/11/2023), Henderson (up to date as of 10/24/2022), Hertford (up to date as of 6/1/2021), Hoke (up to date as of 8/24/2020), Hyde (up to date as of 2/2/2021), Iredell (up to date as of 5/15/2023), Jackson (up to date as of 4/1/2021), Johnston (up to date as of 5/1/2023), Jones (up to date as of 2/15/2023), Lee (up to date as of 6/16/2021), Lenoir (up to date as of 2/5/2020), Lincoln (up to date as of 8/18/2021), Macon (up to date as of 11/3/2020), Madison (up to date as of 8/18/2020), Martin (up to date as of 6/9/2023), McDowell (up to date as of 12/31/2019), Mecklenburg (up to date as of 8/19/2022), Mitchell (up to date as of 3/11/2022), Montgomery (up to date as of 1/25/2021), Moore (up to date as of 6/4/2020), Nash (up to date as of 3/22/2022), New Hanover (up to date as of 4/12/2022), Northampton (up to date as of 3/15/2022), Onslow (up to date as of 8/18/2021), Orange (up to date as of 10/24/2022), Pamlico (up to date as of 11/10/2020), Pasquotank (up to date as of 8/25/2020), Pender (up to date as of 10/31/2019), Perquimans (up to date as of 1/25/2021), Person (up to date as of 1/29/2020), Pitt (up to date as of 11/1/2022), Polk (up to date as of 3/20/2023), Randolph (up to date as of 5/11/2021), Richmond (up to date as of 12/7/2021), Robeson (up to date as of 12/13/2019), Rockingham (up to date as of 5/4/2021), Rowan (up to date as of 6/6/2023), Rutherford (up to date as of 3/20/2023), Sampson (up to date as of 11/16/2020), Scotland (up to date as of 11/4/2020), Stanly (up to date as of 5/1/2023), Stokes (up to date as of 2/20/2023), Surry (up to date as of 11/10/2020), Swain (up to date as of 10/22/2020), Transylvania (up to date as of 1/10/2020), Tyrrell (up to date as of 2/2/2021), Union (up to date as of 5/24/2022), Vance (up to date as of 10/26/2020), Wake (up to date as of 2/9/2023), Warren (up to date as of 2/5/2021), Washington (up to date as of 5/1/2023), Watauga (up to date as of 4/14/2021), Wayne

(up to date as of 5/26/2022), Wilkes (up to date as of 5/9/2022), Wilson (up to date as of 1/11/2021), Yadkin (up to date as of 4/6/2022), Yancey (up to date as of 1/26/2021).

Non-System Route Data Updated This Quarter:

Brunswick (up to date as of 5/12/2023), Buncombe (up to date as of 6/1/2023), Cabarrus (up to date as of 7/11/2023), Chatham (up to date as of 7/10/2023), Davidson (up to date as of 6/1/2023), Martin (up to date as of 6/9/2023), Rowan (up to date as of 6/6/2023).

Route Data Updated this Quarter:

This layer is a visual representation of public roads in North Carolina. State maintained roads are current through September 2023 for changes by NCDOT Petitions and Municipal Agreements processes.

All represented non-system roads are maintained by local governments and are reflective of the last uploaded datasets. Non-system roads specifically updated this quarter: Brunswick, Buncombe, Cabarrus, Chatham, Davidson, Martin, Rowan counties.

If you have any questions, please contact gishelp@ncdot.gov.

Known Issues:

There are overlapping / duplicate segments in Road Characteristics and NCRouteArcs:

- RouteId 80007152018 begin 0.490121 end 1.160062/80007160018 begin 0.421 end 1.497971
- RouteId 80007154018 begin 0.867076 end 1.526513/80007161018 begin 0.421371 end 0.748295
- RouteId 80004251041 begin 0.971671 end 1.009/80004254041 begin 0.3 end 0.338
- RouteId 80006531026 begin 0.077149 end 0.539079/80006532026 begin 0.072623 end 0.536

There are parametric curves present on these routes which can cause issues with geoprocessing tools. The curves need to be densified before using such tools

- RouteId 40001326061 XY location 1044836.81279, 855448.392442
- RouteId 40001576067 XY location 2544695.55134, 343110.781666

Requested changes being researched

- 40001358023 – route location being researched
- 40001238090 – route length being researched
- 40001845004 – route alignment being researched

Improvements:

No improvements this quarter