The GIS Unit is pleased to announce the release of our 2nd Quarter 2023 Publication data updates.

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

Contents

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

NC MileMarker Hatching- Addition of Milepost Endpoints and proposed geoservice modification for Q3:

The Milemarker Hatching service has added Milepost Endpoint markers, initially provided as an enhancement for application support purposes. Because the addition of this layer will affect the native display and layer id configurations, we have decided to modify the service to truncate all Milepost Zero markers into one layer. Visualization will largely remain unchanged, except for the inability to turn route types off individually.
A draft service
https://gis11.services.ncdot.gov/arcgis/rest/services/NCDOT_MileMarkerHatching_Updated/MapServer
will be available for review during this first quarter, with the plan to replace the existing service with this draft version by 3rd quarter 2023. For any questions or concerns, please contact Jeremy Aycock at
jtaycock@ncdot.gov

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

NCDOT GIS: Shapefile Data Format Discontinued

Starting with the Quarter 1, 2023 release of the GIS Data layers, the GIS unit will no longer distribute data in shapefile format. Any data currently released only in shapefile format will be released in file geodatabase format moving forward.

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

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 March 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 6/21/2022), 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 of4/16/2019), 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 8/19/2022), Buncombe (up to date as of 7/1/2022), Burke (up to date as of 10/27/2021), Cabarrus (up to date as of 9/27/2022), 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 9/27/2022), 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 10/4/2022), 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 7/21/2022), Guilford (up to date as of 4/1/2021), 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 11/8/2019), 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 8/3/2022), Jackson (up to date as of 4/1/2021), Johnston (up to date as of 8/5/2022), 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 11/16/2020), 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 2/5/2020), 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 10/19/2020), 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 11/19/2020), 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 1/25/2021), 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:

Cumberland (up to date as of 3/16/2023), Currituck (up to date as of 1/10/2023), Gates (up to date as of 1/13/2023), Granville (up to date as of 1/11/2023), Jones (up to date as of 2/15/2023), Rutherford (up to date as of 3/20/2023), Stokes (up to date as of 2/20/2023), Wake (up to date as of 2/9/2023).

Route Data Updated this Quarter:

This layer is a visual representation of public roads in North Carolina. State maintained roads are current through March 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: Cumberland, Currituck, Gates, Granville, Jones, Stokes, and Wake counties.

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

Known Issues:

There are overlapping / duplicate segments in Road Characteristics and NCRouteArcs
- RouteId 10000026011 begin 27.037805 end 28.241804/20000074011 begin 17.291804 end 18.495804
- 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

Improvements:

No improvements this quarter