**Metadata format: ISO 19139**

**Bus Routes, New York NY, January 2017**

**ISO 19139 metadata content**
- Resource Identification Information
- Spatial Representation Information
- Reference System Information
- Data Quality Information
- Distribution Information
- Metadata Information

---

**Resource Identification Information**

**CITATION**

**TITLE** Bus Routes, New York NY, January 2017

**PUBLICATION DATE** 2017-01-31

**EDITION** jan2017

**PRESENTATION FORMAT** mapDigital

**SERIES**

**NAME** NYC Mass Transit Spatial Layers

**RESPONSIBLE PARTY - POINTOFCONTACT**

**ORGANIZATION’S NAME** Newman Library, Baruch CUNY

**CONTACT’S POSITION** Geospatial Data Librarian

**CONTACT INFORMATION**

**ADDRESS**

**DELIVERY POINT** 151 E 25th St Box H-0520

**DELIVERY POINT** Newman Library, Baruch CUNY

**CITY** New York

**ADMINISTRATIVE AREA** NY

**POSTAL CODE** 10010

**COUNTRY** UNITED STATES

**THEMES OR CATEGORIES OF THE RESOURCE** structure, transportation

**PLACE KEYWORDS**

**KEYWORDS** City of New York, 2395220, Borough of Bronx, 978756, Borough of Brooklyn, 978759, Borough of Manhattan, 979190, Borough of Queens, 979404, Borough of Staten Island, 979522

**THESAURUS**

**TITLE** Geographic Names Information Service (GNIS)

**ALTERNATE TITLES** ANSI INCITTS 446:2008

**PUBLICATION DATE** 2008-01-01

**PLACE KEYWORDS**

**KEYWORDS** Bronx County, 36005, Kings County, 36047, New York County, 36061, Queens County, 36081, Richmond County, 36085
This line layer was created from the GTFS data feeds from the Metropolitan Transportation Authority (MTA) to represent New York City local bus routes. A python script was written to take the data files as input, process them and save them as a spatial layer in the local state plane coordinate reference system. Lines in this layer represent individual bus routes over a roadway for a specific direction; they were generalized from the GTFS format where lines depicted individual services. The unique ID is route_dir, which is a combination of the bus route id and its direction. This layer was created as part of the NYC Mass Transit Spatial Layers series, and is updated biannually to account for changes in the transit system.

This dataset is intended for researchers, policy makers, students, and educators for basic geographic analysis and mapping purposes. It was created by the GIS Lab at the Newman Library at Baruch College CUNY as part of the NYC Mass Transit Spatial Layers series, so that members of the public could have access to well-documented and readily-usable GIS layers of NYC mass transit features.

Disclaimer: Every effort was made to insure that the data, which was compiled from public sources, was processed accurately. The creator, Baruch College, and CUNY disclaim any liability for errors, inaccuracies, or omissions that may be contained therein or for any damages that may arise from the foregoing. Users should independently verify the accuracy of the data for their purposes. The data is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International license CC BY-NC-ND http://creativecommons.org/licenses/by-nc-nd/4.0/. You are free to share the work as long as you cite the source, do not use it for commercial purposes, and do not distribute derivatives of the data. Although this data is being
distributed by Baruch College CUNY, no warranty expressed or implied is made by the 
College or University as to the accuracy of the data and related materials. The act of 
distribution shall not constitute any such warranty, and no responsibility is assumed by 
the College or University in the use of this data, or related materials. This data was 
derived from Metropolitan Transportation Authority (MTA) sources; it is NOT directly 
created, maintained, or endorsed by the MTA. The MTA should not be approached with 
inquiries about this dataset as they are in no way responsible for it. Since this data is a 
derivative of MTA data sources, it is subject to the terms and conditions presented 

RESOURCE CONSTRAINTS
LEGAL CONSTRAINTS
ACCESS CONSTRAINTS licenseUnrestricted

USE CONSTRAINTS license

SPATIAL REPRESENTATION TYPE vector

PROCESSING ENVIRONMENT Microsoft Windows 7 Version 6.1 (Build 7601) Service Pack 1; Esri ArcGIS 10.3.1.4959

EXTENT
EXTENT DESCRIPTION
City of New York

GEOPGRAPHIC EXTENT
BOUNDING RECTANGLE
EXTENT CONTAINS THE RESOURCE true
WEST LONGITUDE -74.040963
EAST LONGITUDE -73.779182
NORTH LATITUDE 40.762565
SOUTH LATITUDE 40.572425

TEMPORAL EXTENT
BEGINNING DATE 2017-01-09 00:00:00
ENDING DATE
INDETERMINATE TIME unknown

SUPPLEMENTAL INFORMATION
The direction of a bus route is indicated with a 0 (which means that the bus runs either 
northbound or eastbound) or a 1 (the bus runs either southbound or westbound). Bus route 
ids that have a plus symbol + as a suffix represent Select Bus services. These buses make 
fewer stops than the regular services, and riders are required to pay their fare and get a 
receipt from ticket machines located at the bus stop, rather than paying upon boarding the 
bus.

POINT OF CONTACT - pointOfContact
ORGANIZATION'S NAME Newman Library, Baruch CUNY
CONTACT'S POSITION Geospatial Data Librarian

CONTACT INFORMATION
ADDRESS
Spatial Representation - Vector

LEVEL OF TOPOLOGY FOR THIS DATASET  geometryOnly
GEOMETRIC OBJECTS
  OBJECT TYPE  composite
  OBJECT COUNT  499

Reference System Information

REFERENCE SYSTEM IDENTIFIER
  VALUE  2263
  CODESPACE  EPSG
  VERSION  10.2

Data Quality Information

SCOPE OF QUALITY INFORMATION
  RESOURCE LEVEL  dataset

LINEAGE
  LINEAGE STATEMENT
    This line layer was created using the data feeds from the Metropolitan Transportation Authority (MTA). The MTA provides text files that contain route information in a General Transit Feed Specification (GTFS) format, and are geographically referenced so they are able to be plotted. Python scripts were written to take the text files for each New York City borough as input, process them and create a single spatial layer for the entire New York City. The text files used for geometry creation are 'shapes.txt'; they provide geographically referenced data for the routes in the form of points. The script creates geometry object out of the individual points provided for the route, and then creates a line geometry object out of the points grouped by the common id of the segment that they belong to. Then it joins created geometry object with data from text files, 'trips.txt' and 'routes.txt', which contain additional relevant information provided by the MTA. Based on common attribute, individual bus services for different times and days of the week, are dissolved to create lines that represented an individual bus route that travels in one direction. Local routes are separated from express routes based on the naming convention pattern of the route id. Attribute columns that are blank, redundant, or that represent information that is only relevant to specific services and not to individual routes are removed and layers for each borough are merged into a single layer. The final layer is reprojected from NAD 83 to NY State Plane Long Island in feet and saved in a shapefile.
format. The unique ID is route_dir, which is a combination of the bus route id and its direction. This layer was created as part of the NYC Mass Transit Spatial Layers series, and is updated biannually to account for changes in the transit system.

**Source Data**

**Level of the Source Data** Metropolitan Transportation Authority

**Source Citation**

**Title** MTA NYC Transit Shapes, Trips and Routes Files

**Publication Date** 2017-01-09

---

**Distribution Information**

**Distributor**

**Distributor Information - PointOfContact**

**Organization’s Name** Newman Library, Baruch CUNY

**Contact’s Position** Geospatial Data Librarian

**Contact Information**

**Address**

**Delivery Point** Newman Library, Baruch CUNY

**City** New York

**Administrative Area** NY

**Postal Code** 10010

**Country** UNITED STATES

**Format**

**Name** Shapefile

**Version**

**Nil Reason** missing

**Transfer Options**

**Transfer Size** 0.126

---

**Metadata Information**

**Last Update** 2017-02-10

**Maintenance**

**Update Frequency** biannually

**Maintenance Notes** This metadata record was updated by Anastasia Clark in January 2017.

**Metadata Constraints**

**Constraints**

**Limitations of Use**

Metadata for this layer is licensed under a Creative Commons Attribution-NonCommercial license CC BY-NC http://creativecommons.org/licenses/by-nc/4.0/. You are free to share and to adapt the metadata as long as you cite the source and do not use it for commercial purposes.
METADATA CONTACT - pointOfContact

Organization's name: Newman Library, Baruch CUNY
Contact's position: Geospatial Data Librarian

contact Information

Address
Delivery point: 151 E 25th St Box H-0520
Delivery point: Newman Library, Baruch CUNY
City: New York
Administrative area: NY
Postal code: 10010
Country: United States

Scope of the data described by the metadata dataset

Metadata language: English
Metadata character set: utf8

Name of the metadata standard used: NAP - Metadata
Version of the metadata standard: 1.2

Metadata identifier: 2D063420-515F-489E-A232-0DD9FA06EC4C
URI of the data described by the metadata:
https://www.baruch.cuny.edu/confluence/display/geoportal/NYC+Mass+Transit+Spatial+Layers