

Metadata format: ISO 19139**Express Bus Routes, New York NY, August 2017****ISO 19139 metadata content**

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Resource Identification Information

CITATION

TITLE Express Bus Routes, New York NY, August 2017

PUBLICATION DATE 2017-09-21

EDITION aug2017

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

THESAURUS

TITLE US Census ANSI/FIPS

ALTERNATE TITLES ANSI INCITTS 38:2009 (Formerly FIPS 5-2) & ANSI INCITTS 31:2009 (Formerly FIPS 6-4)

PUBLICATION DATE 2009-01-01

TEMPORAL KEYWORDS

KEYWORDS 2017

THEME KEYWORDS

KEYWORDS Buses, Local transit, Commuting, New York City Transit Authority, Transportation

THESAURUS

TITLE Library of Congress Subject Headings (LCSH)

PUBLICATION DATE 2015-02-17

DESCRIPTIVE KEYWORDS

KEYWORDS Downloadable Data

THESAURUS ArcIMS Metadata Service Content Types

ABSTRACT

This line layer was created from the GTFS data feeds from the Metropolitan Transportation Authority (MTA) to represent New York City express bus routes. Express busses are long-distance coaches that take passengers from areas of the outer boroughs to midtown and downtown Manhattan and back, with limited stops. 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.

PURPOSE

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.

DATASET LANGUAGE English

DATASET CHARACTER SET utf8

STATUS completed

MAINTENANCE

UPDATE FREQUENCY biannually

RESOURCE CONSTRAINTS

CONSTRAINTS

LIMITATIONS OF USE

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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

GEOGRAPHIC 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 2017-08-17 00:00:00

ENDING DATE

INDETERMINATE TIME unknown

EXTENT

GEOGRAPHIC EXTENT

BOUNDING RECTANGLE

EXTENT CONTAINS THE RESOURCE true

WEST LONGITUDE -74.253965

EAST LONGITUDE -73.70054

NORTH LATITUDE 40.933765

SOUTH LATITUDE 40.502767

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). Express busses are long-distance express services that make minimal stops. For buses bound for midtown or downtown Manhattan, riders can only board the bus at the outer borough stops (no one may disembark) and may only disembark at Manhattan stops (no one may board). The inverse is true for outer borough-bound buses. The mid-section of each route is express, and no stops are made.

POINT OF CONTACT - POINTOFCONTACT

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CONTACT'S POSITION Geospatial Data Librarian

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Spatial Representation - Vector

LEVEL OF TOPOLOGY FOR THIS DATASET geometryOnly

GEOMETRIC OBJECTS

OBJECT TYPE composite
OBJECT COUNT 148

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Reference System Information

REFERENCE SYSTEM IDENTIFIER

VALUE 2263

CODESPACE EPSG

VERSION 10.3

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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' and 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 2017-08-17

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Distribution Information

DISTRIBUTOR

DISTRIBUTOR INFORMATION - POINTOFCONTACT

ORGANIZATION'S NAME Newman Library, Baruch CUNY

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FORMAT

NAME Shapefile

VERSION

NIL REASON missing

TRANSFER OPTIONS

TRANSFER SIZE 0.126

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Metadata Information

LAST UPDATE 2017-10-02

MAINTENANCE

UPDATE FREQUENCY biannually

MAINTENANCE NOTES This metadata record was updated by Janine Billadello in August 2017.

METADATA CONSTRAINTS

CONSTRAINTS

LIMITATIONS OF USE

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METADATA CONSTRAINTS

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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>[Back to Top](#)