

# DATA DICTIONARY

## SYSTEM FIELDS

### **From/To Date** (*From\_Date, To\_Date*)

MassDOT's data management system has the ability to track historic data and changes to the inventory using the from/to date. The *from date* represents either the date the change was made, or the date the road facility became active. The *to date* represents the day the facility was discontinued. Active roads have no *to date*.

### **From/To Measure** (*From\_Measure, To\_Measure*)

The measured length along the specified route feature where the event or segment starts or ends. Measured in calibrated miles, which may not correlate with shape length.

### **Length** (*Length*)

The length of the record measured in miles, projected using the MA State Plane Coordinate System 2001 (NAD 1983).

### **Route Direction** (*Route\_Direction*)

The cardinal direction a route traverses (NB, SB, EB, WB). For more information see Road Inventory File User Manual.

### **Route ID** (*Route\_ID*)

A unique identifier assigned to each road in Massachusetts. The Route ID consists of three parts: A route system identifier, a numeric code, and a directional value (E.g. L000001 NB).

### **Route Number** (*Route\_Number*)

The official route number designation; need not be exclusively numeric (E.g. 1A, 2A, 8A-L).

### **Road Segment ID** (*Rd\_Seg\_ID*)

A legacy identifier from previous versions of the Road Inventory. This field refers to subsections of road lengths, typically between two intersections.

### **Route System** (*Route\_System*)

The route system is method of categorization to broadly describe a route.

- I = Interstate
- US = US Highway
- SR = State Route
- R = Ramp
- L = Local Route
- B = Bike/Pedestrian Route
- M = Miscellaneous
- N = Non-numbered

### **Shape** (*Shape*)

An automatically generated field describing the geometry type of the data (line, point, multipoint, multipatch, or polygon). The Road Inventory will always have a value of "line" in this field.

### **Shape.STLength()** (*Shape.STLength()*)

An automatically generated field identifying the feature length in the units of the projection.

## ADMINISTRATIVE FIELDS

### City (*City*)

The city in which a road is located. City ID numbers are assigned alphabetically with Abington as 1 and Yarmouth as 351 with the exception of Aquinnah at 104.

### County (*County*)

The county in which a road is located. County ID numbers correspond to census designations. Many counties in MA have been abolished, but are still tracked for administrative purposes.

- 001 = Barnstable
- 003 = Berkshire
- 005 = Bristol
- 007 = Dukes
- 009 = Essex
- 011 = Franklin
- 013 = Hampden
- 015 = Hampshire
- 017 = Middlesex
- 019 = Nantucket
- 021 = Norfolk
- 023 = Plymouth
- 025 = Suffolk
- 027 = Worcester

### Facility Type (*Facility*)

Describes the intended function of a road. Facilities with a value *less than 7\** are included in official statewide road centerline mileage.

- 1 = Mainline roadway\*
- 2 = Roundabout\*
- 3 = Tunnel\*
- 4 = Doubledeck\*
- 5 = Rotary\*
- 6 = Causeway\*
- 7 = Simple ramp
- 8 = Ramp - NB/EB
- 9 = Ramp - SB/WB
- 10 = Collector - Distributor
- 11 = Simple Ramp - Tunnel
- 12 = Bicycle
- 13 = Private Way
- 14 = Commercial Driveway

### Federal Aid Eligible (*Fd\_Aid\_Rd*)

Roads that are able to have federal funding applied to their maintenance or other projects. These roads must be part of the NHS or identified for funding in the Massachusetts Statewide Transportation Improvement Program (STIP).

- 0 = Not Eligible
- 1 = Interstate - NHS
- 2 = Other Road - NHS
- 3 = STP Eligible
- 4 = STP Road - C15

### Federal Functional Class (*F\_F\_Class*)

A general classification system used by the Federal Highway Administration to stratify roads by significance.

- 1 = Interstate
- 2 = Principal Arterial – Freeways & Expressways
- 3 = Principal Arterial – Other
- 4 = Minor Arterial
- 5 = Major Collector
- 6 = Minor Collector
- 7 = Local

### **Functional Class** (*F\_Class*)

A road classification system used by Massachusetts that incorporates urban/rural census designations and the federal classification system. \*The value 4 is no longer used in this field.

- 0 = Local
- 1 = Interstate
- 2 = Urban or Rural Principal Arterial
- 3 = Urban Principal or Rural Minor Arterial
- 4 = Urban Minor Arterial or Rural Major Collector
- 5 = Urban Collector or Rural Minor Collector
- 6 = Urban Collector or Rural Minor Collector

### **From/To Street Name & Type** (*Fm\_St\_Name, To\_St\_Name*)

Where the street ends or begins. When the street ends or begins at a cross-street, the name of the cross street is used. Otherwise the following values are used.

- 1 = Cross-street
- 2 = Dead end
- 3 = Cul-de-sac
- 4 = Private property
- 5 = Town line
- 6 = State line

### **Highway District** (*Hwy\_Dist*)

An administrative unit used by the Massachusetts Department of Transportation to coordinate emergency and maintenance efforts on state-owned roads and interstate routes. There are six districts and twenty subdistricts.

### **Jurisdiction** (*Jurisdiction*)

The owner of a road, usually responsible for maintenance activities and project initiation.

- 0 = Unaccepted by city or town
- 1 = MassDOT
- 2 = City or Town accepted road
- 3 = Dept. of Conservation and Recreation
- 4 = Massachusetts Port Authority
- 5 = State Park or Forest
- 6 = State Institutional
- 7 = State Institutional
- 8 = Federal Park or Forest
- 9 = County Institutional
- B = State college or university
- C = US Air Force
- D = US Army Corps of Engineers
- E = Federal Institutional
- F = Other Federal
- G = Federal Bureau of Indian Affairs
- H = Private
- I = US Army
- J = US Navy

### **National Highway System** (*NHS*)

A network of strategic highways identified by the United States Department of Transportation in 1995. Many state DOTs prioritize spending on these roads.

- 0 = Not on NHS
- 1 = NHS - Interstate
- 2 = NHS - Strategic Defense Highway System (STRAHNET)
- 3 = NHS - STRAHNET Connector
- 4 = NHS - Other - One-way pair
- 5 = NHS - Other - Truck route exclusion
- 6 = NHS - Major Airport
- 7 = NHS - Major Port Facility
- 8 = NHS - Major Amtrak Station
- 9 = NHS - Major Rail/Truck terminal
- 10 = NHS - Major Intercity Bus Terminal
- 11 = NHS - Major Public Transit or Multi-Modal Passenger Terminal
- 12 = NHS - Major Pipeline Terminal
- 13 = NHS - Major Ferry Terminal
- 14 = NHS - Other (not in above categories)
- 15 = NHS - MAP-21

### **Metropolitan Highway System** (*MHS*)

A definition applied to highways that interact with the Boston-area. Specifically includes Interstates 90/93 from the outer ring of State Route 128 (Interstate 95) and the Central Artery tunnels.

- 1 = MHS
- 0 = Not on MHS

### **Metropolitan Planning Organization** (*MPO*)

A transportation planning and policy making organization composed of state and local officials for the purpose of regional coordination. Some of the regions identified are Rural Transportation Planning Organizations\* not MPOs.

- Berkshire
- Boston Region
- Cape Cod
- Central Massachusetts
- Franklin
- Martha's Vineyard
- Merrimack Valley
- Montachusett
- Nantucket
- Northern Middlesex
- Old Colony
- Pioneer Valley
- Southeastern Massachusetts

### **Mileage Counted** (*Mile\_Count*)

Describes whether the segments length is counted towards the official statewide road mileage. The only roads not counted towards the statewide total would be those with private or unaccepted ownership, and opposing route directions (SB, WB) where the primary direction (NB, EB) length is counted toward the total.

- 1 = Mileage Counted
- 0 = Mileage Not Counted

### **Regional Planning Agency** (*RPA*)

Planning agencies that provide planning support to the MPOs. RPA boundaries follow those of the Metropolitan Planning Organizations and Rural Transportation Planning Organizations.

- BRPC = Berkshire Regional Planning Commission
- CCC = Cape Cod Commission
- CMRPC = Central Massachusetts Regional Planning Commission
- FRCOG = Franklin Regional Council of Governments
- MAPC = Metropolitan Area Planning Council
- MRPC = Montachusett Regional Planning Commission
- MVC = Martha's Vineyard Commission
- MVPC = Merrimack Valley Planning Commission
- NMCOG = Northern Middlesex Council of Governments
- NPEDC = Nantucket Planning and Economic Development Commission
- OCPC = Old Colony Planning Council
- PVPC = Pioneer Valley Planning Commission
- SRPEDD = Southeastern Regional Planning and Economic Development District

### **Street Name** (*St\_Name*)

The name of a road. Names in this field are written in all capital letters and their type spelled out in full. (E.g. MAIN STREET, EAST QUINN ROAD).

**Toll Road** (*Toll\_Road*)

A road that vehicle traffic must pay to access.

- 0 = No toll charged
- 1 = Toll charged in both directions
- 2 = Toll charged in one direction only

**Truck Exclusion Type** (*T\_Exc\_Type*)

If trucks are excluded from a route, this field will describe what weight classes or axle layouts are not permitted.

- 1 = Open to all vehicles
- 2 = All vehicles over 2.5 tons excluded
- 3 = All vehicles over 3 tons excluded
- 4 = All vehicles over 5 tons excluded
- 5 = All vehicles over 10 tons excluded
- 6 = All vehicles over 2000 pounds excluded
- 7 = All vehicles over 28 feet in length excluded
- 8 = Gross vehicle weight over 18 tons and greater than 2 axles excluded
- 9 = Gross vehicle weight over 30 tons and greater than 4 axles excluded
- 10 = Commercial vehicles over 5 tons carry capacity excluded
- 11 = All vehicles over 20 tons excluded
- 12 = Hazardous Truck Route
- 13 = Cambridge Overnight Exclusions

**Truck Exclusion Time** (*T\_Exc\_Time*)

If trucks are excluded from a route, this field will describe the time of day when the exclusions are active.

- 1 = None
- 2 = 24 Hours, 7 Days
- 3 = 5AM to 8PM, 7 Days
- 4 = 6AM to 6PM, 7 Days
- 5 = 6AM to 7PM, 7 Days
- 6 = 6AM to 10PM, 7 Days
- 7 = 7AM to 6PM, 7 Days
- 8 = 7AM to 11PM, 7 Days
- 9 = 4PM to 6PM
- 10 = 6PM to 6AM, 7 Days
- 11 = 7PM to 7AM, 7 Days
- 12 = 8PM to 6AM, 7 Days
- 13 = 8PM to 7AM, 7 Days
- 14 = 9PM to 6AM, 7 Days
- 15 = 9PM to 7AM, 7 Days
- 16 = 10PM to 6AM, 7 Days
- 17 = 11PM to 6AM, 7 Days
- 18 = 11PM to 6AM, NB Only, 7 Days
- 19 = 11PM to 7AM, 7 Days
- 20 = 8AM to 930AM and 2PM to 330PM, School Days Only

**Truck Route** (*Truck\_Rte*)

Identifies routes with legal designations for, or restrictions against truck travel.

- 0 = Not a parkway - not on a designated truck route
- 1 = Designated truck route under Federal Authority in 23 CFR 658  
Available to STAA vehicles (Twin 28' Semi-trailer-trailer and 48' Semi-trailer combinations)
- 2 = Designated truck route ONLY under State Authority.  
Fully available to both types of STAA vehicles described above
- 3 = Department of Conservation and Recreation Parkway – No trucks allowed

### **Urbanized Area** (*Urban\_Area*)

Based on the 2010 Census delineations of urban areas, urban clusters, and rural populations. Some roads that exist along the borders of these areas, In these cases, the border roads are included within the urbanized area or cluster.

#### Large Urbanized Area

- 05167 = Barnstable Town
- 09271 = Boston (MA-NH-RI)
- 72505 = Providence (RI-MA)
- 83926 = Springfield (MA-CT)
- 97291 = Worcester (MA-CT)

- 48745 = Lee
- 61003 = Nantucket
- 63460 = North Adams (MA-VT)
- 63568 = North Brookfield
- 83156 = South Deerfield
- 90757= Vineyard Haven
- 91756 = Ware

#### Small Urbanized Area

- 49096 = Leominster-Fitchburg
- 61165 = Nashua (NH-MA)
- 61786 = New Bedford
- 69778 = Pittsfield

#### Small Urban Cluster

- 34678 = Great Barrington
- 72532 = Provincetown
- 84169 = Stafford (CT-MA)

#### Large Urban Cluster

- 03790 = Athol
- 34975 = Greenfield

#### Rural

- 0 = Rural

### **Urban Type** (*Urban\_Type*)

This field describes population density based on the 2010 Census delineations of urban areas, urban clusters, and rural populations.

- 1 = Large Urbanized Area  
Densely settled territory that contains 200K people or more
- 2 = Small Urbanized Area  
Densely settled territory that contains at least 50K people but fewer than 200K people
- 3 = Large Urban Cluster  
Densely settled territory that contains at least 5K people but fewer than 50K people
- 4 = Small Urban Cluster  
Densely settled territory that contains at least 2.5K people but fewer than 5K people
- 5 = Rural

## **DESCRIPTIVE FIELDS**

### **AADT** (*AADT*)

Average annual daily traffic, measured by counting the total number of vehicles in a year and dividing by 365.

### **AADT Station Number** (*Statn\_Num*)

AADT count station location number; used to reference the traffic data collections “counting station number”.

### **AADT Derivation** (*AADT\_Deriv*)

Traffic counts are not collected on every road, every day of the year. Due to this limitation, different models are used to assign road traffic numbers to areas that have not had a recent count.

- 0 = Not applicable
- 1 = Derived from counts collected on or adjacent to the section during the current year
- 2 = Derived from factoring counts from the previous year count-based AADT that is less than three years old
- 3 = Derived from count data that is three or more years old
- 4 = Derived from an estimate
- 5 = Working code for principal arterial counting program
- 6 = MassDOT Highway Special Count
- 7 = RPA Count
- 8 = Other Count

### **AADT Year** (*AADT\_Year*)

Year of ADT collection.

### **Access Control** (*Control*)

Describes the ease of access for traffic to enter and exit the facility. A road with no control would be an undivided, local road with mixed-use driveways on it. A road with full control would be an interstate highway, and partial control would represent a divided state highway with select local or commercial road connections.

- 0 = No control
- 1 = Full control
- 2 = Partial control

### **Curb** (*Curb*)

A raised surface improvement along the edge of the pavement. Curbs also include berms, a term used here to describe the less severe, angled, and often asphalt curbs.

- 0 = None
- 1 = Left side only
- 2 = Right side only
- 3 = Both sides
- 4 = Along median only
- 5 = All curbs (divided highway)

### **Median Type** (*Med\_Type*)

Type of median on divided roadways. Median types typically reflect the security measures present on them. Positive barrier refers to the specific objects used to deter off-side traffic.

- 0 = None - There no median present.
- 1 = Curbed - There is a curbed median, but no additional protections.
- 2 = Positive barrier (Unspecified) - Positive barriers represent any protection that is not just a curb. This might be a g
- 3 = Unprotected - A median is present, but there is no curb or other protections. Typically this is a level painted or grass area.

### **Median Width** (*Med\_Width*)

Width of median in feet on divided roadways. The median should be measured from the edge of the road surface, across the center to the other edge of the road surface.

**Number of Travel Lanes/Opposite** (*Num\_Lanes, Opp\_Lanes*)

Number of travel lanes in any direction of travel on an undivided road. Divided roadways note number of lanes on the given segment only, using the opposite number of lanes field to identify the number of lanes in opposing traffic.

**Right/Left Sidewalk Width** (*Rt\_Sidewlk, Lt\_Sidewlk*)

Width of the sidewalk in feet. The right side represents the side to the right of a driver traveling in the primary (NB/EB) direction of travel.

**Right/Undivided/Left Shoulder Type** (*Shldr\_Rt\_T, Shldr\_UL\_T, Shldr\_Lt\_T*)

A shoulder is used to describe a section of road that is specifically set aside for road users not travelling with the flow of traffic. This could be an emergency break down or stopping area, but is not referring to private property like a yard.

- 0 = No Shoulder
- 1 = Stable - Unruttable compacted subgrade
- 2 = Unstable shoulder
- 3 = Hardened bituminous mix or penetration
- 4 = Combination shoulder

**Right/Undivided/Left Shoulder Width** (*Shldr\_Rt\_W, Shldr\_UL\_W, Shldr\_Lt\_W*)

Width of shoulder measured from the lane closest to the edge of the road, to the end of the area intended to be used by stopped traffic.

**Right of Way Width** (*ROW\_Width*)

A right of way is the area in which road activity is allowed as ceded by the property owners. This will typically include the road surface, any active transportation facilities, and a buffer area between where transportation is allowed and traditional private property begins.

**Speed Limit/Opposite** (*Speed\_Lim, Op\_Dir\_SL*)

The speed limit for traffic travelling on the primary and opposing sides of the road.

**Street Operation** (*Operation*)

The number of directions traffic flow is allowed along a route.

- 1 = One-way traffic
- 2 = Two-way traffic

**Surface Type** (*Surface\_Tp*)

The material used to build the street surface.

- |  |   |
|--|---|
| 1 = Unimproved, graded earth, or soil surface road | 6 = Bituminous concrete road  |
| 2 = Gravel or stone road                           | 7 = Portland cement concrete road   |
| 3 = Brick road                                     | 8 = Composite road; flexible over rigid                                       |
| 4 = Block road                                     | 9 = Composite road; rigid over flexible or rigid over rigid ("white topping") |
| 5 = Surface-treated road                           | 10 = Stone dust   |

**Surface Width** (*Surface\_Wd*)

Surface width in feet. The measurement of traveled way, excluding shoulders/auxiliary lanes.