Functional Reclassification Process

Functional classification defines the character of services that a particular roadway is intended to provide. Roads serve to provide mobility for vehicle access to locations. The process of functional classification was mandated by the Intermodal Surface Transportation Efficiency Act of 1991 and implemented in 1993 by the Office of Transportation Planning in cooperation with the 13 regional planning agencies. Roadways are divided into the following three classification categories:

Arterials

These roadways provide the highest level of mobility at the greatest vehicular speeds for the longest uninterrupted distances. Generally, these roadways provide connections between Massachusetts cities, metropolitan regions, and bordering states and can be broken down into three sub categories:

Limited Access Principal Arterials

These arterials provide the greatest level of regional mobility with all connections between these roadways and other transportation facilities (other roadways or parking lots serving land use) provided by high-speed ramps. Interstates, freeways, and tollways would fall into this category. Vehicular speed limits generally fall between 65 M.P.H and 45 M.P.H. depending on the design of the roadway and density of development. According to the MassHighway Development & Design Guide, these roads must be designed to speeds between 50 and 75 M.P.H. To maintain these higher speeds, these roadways require grade separation with all crossing roadways or rails, and mostly carry two lanes of traffic in each direction, although there are exceptions in Massachusetts along a portion of State Route 2 and US 6, where the roadways have one lane in each direction. These roadways serve as the primary connectors between cities, regions, and bordering states.

Full Access Principal Arterials

These arterials provide a lower level of regional mobility than limited access principal arterials, but provide the highest level of mobility for roadways with

driveway access, unsignalized intersections, and signalized intersections. Vehicular speed limits vary between 25 M.P.H. in urban areas to as high as 55 M.P.H. in rural areas. In the more rural areas of the state (Berkshire and Franklin Regions), these roadways serve as the primary connection between cities, regions, and bordering states. These roadways support major shopping areas, high density residential developments, regional hospitals, and other regional scale developments serving high volumes of traffic.

Full Access Minor Arterials

These arterials provide a lower level of regional mobility than principal arterials, by linking towns and cities together. These roadways can provide the highest level of mobility through rural areas without principal arterials, while providing important connections between the principle arterial and collector network in urban areas. Vehicular speeds vary between 25 M.P.H. in urban areas to as high as 55 M.P.H. in rural areas. These roadways support intra county level shopping centers, moderate residential development, and travel through many urban town centers.

Collectors

These roadways provide an intra regional level of mobility, connecting the arterial network with the local roadways. In rural municipalities with no arterial roadways, these roadways can provide the highest mobility. There are two subcategories for this type of roadway:

Major Collectors

These roadways provide service to any areas of the state not serviced by arterials and service land use of a regional importance such as schools, parks, and smaller scale retail use. Vehicular speeds vary between 25 M.P.H. in urban areas to as high as 55 M.P.H in rural hinterlands. In many rural municipalities, these roadways travel through many town centers.

Minor Collectors

These roadways collect traffic from the local roadway network and distribute them to the major collector or arterial system. In addition, these roadways

provide service to smaller municipalities and link to important small scale land use serving the local community. Vehicular speed limits range between 25 M.P.H in the urban areas to as high as 50 M.P.H. in the rural hinterlands.

Local Roadways

These roadways provide the lowest level of mobility by accessing adjacent land use, serving local trip purposes, and connecting to higher order roadways. Vehicular speed limits range between 15 M.P.H. in urban centers to 40 M.P.H. in the rural hinterlands.

References:

FHWA Functional Classification Guidelines, Concepts, Definitions, and System Characteristics, US Department of Transportation, Federal Highway Administration, 2000
2006 Massachusetts Highway Department Project Development & Design Guide, Executive Office of Transportation, Massachusetts Highway Department, 2006