

# Update to the Major Roadway Network

## Background

**Recent Changes in Law:** US DOT has simplified the federal functional classification system by, among other things, eliminating the reference to urban versus rural. That designation used to be added to each type of roadway (e.g., arterial, collector, etc.) and was based on the facilities location within a MPO-defined Federal Aid Urban Boundary (FAUB).

**Upcoming Planning Efforts:** The MPO is about to embark on a major update to the regional transportation plan. Part of our work involves developing a clear understanding of the roadway network on the ground today, and improvements that are under construction or budgeted for construction through the short-term (FY 2017 in this case) either as part of the MPO's Transportation Improvement Program or as part of a local capital improvement program/budget.

## Tasks

- 1. Evaluate Classification of Existing Roadways:** In coordination with local governments and TDOT, the MPO will be evaluating the current federal functional classification of every roadway in the region designated as a collector street or larger facility. This task should follow a process that provides answers to the following questions:
  - Are existing collectors streets operating/ or intended to function as a minor or major facility?
  - Should any collectors be upgraded to minor arterials, or downgraded to local routes?
  - Are existing arterials streets operating/ or intended to function as a minor or principal facility?
  - Should any arterials be upgraded to freeways/expressways, or downgraded to major collectors?
- 2. Identify Local Routes for Upgrade to Collector Status:** The MPO will work with local staff to identify if any local routes have been improved or if adjacent development patterns have placed new demands on local roads that have effectively caused them to become collector streets.
- 3. Add New or Update Improved Routes to the Network:** The MPO will work with local governments to identify improvements that have been made to the network since 2010 or those that are budgeted for construction through FY 2017. These modifications, which may have been funded locally, will need to be reflected on the major roadway network for MPO modeling purposes as part of the "existing + committed" scenario.

## Definitions/ Guidance

**Principal Arterials:** The principal arterial system should carry the major portion of. trips entering and leaving the urban area, as well as the majority of through movements desiring to bypass the central city. In addition, significant intra-area travel, such as between central business districts and outlying residential areas -- between major inner city communities, or between major suburban centers should be served by this system. Frequently the principal arterial system will carry important intraurban as well as intercity bus routes. Finally, this system in small urban and urbanized areas should provide continuity for all rural arterials which intercept the urban boundary.

Because of the nature of the travel served by the principal arterial system, almost all fully and partially controlled access facilities will be part of this functional system. However, this system is not restricted to controlled access routes. In order to preserve the identification of controlled access facilities, the

principal arterial system is stratified as follows: (1) Interstate, (2) other freeways and expressways, and (3) other principal arterials (with no control of access).

The spacing of principal arterials will be closely related to the trip-end density characteristics of particular portions of the urban areas. While no firm spacing rule can be established which will apply in all, or even most circumstances, the spacing of principal arterials (in larger urban areas) may vary from less than one mile in the highly developed central business areas to five miles or more in the sparsely developed urban fringes.

For principal arterials, the concept of service to abutting land should be subordinate to the provision of travel service to major traffic movements. It should be noted that only facilities within the "other principal arterial" system are capable of providing any direct access to adjacent land, and such service should be purely incidental to the primary functional responsibility of this system.

**Minor Arterials:** The minor arterial street system should interconnect with and augment the principal arterial system and provide service to trips of moderate length at a somewhat lower level of travel mobility than principal arterials. This system also distributes travel to geographic areas smaller than those identified with the higher system.

The minor arterial street system includes all arterials not classified as a principal and contains facilities that place more emphasis on land access than the higher system, and offer a lower level of traffic mobility. Such facilities may carry local bus routes and provide intra-community continuity, but ideally should not penetrate identifiable neighborhoods. This system should include urban connections to rural collector roads where such connections have not been classified as urban principal arterials.

The spacing of minor arterial streets may vary from 1/8 - 1/2 mile in the central business district to 2 - 3 miles in the suburban fringes, but should normally be not more than 1 mile in fully developed areas.

**Collector Street System:** Provides both land access and traffic circulation within residential neighborhoods, commercial and industrial areas. It differs from the arterial system in that facilities on the collector system may penetrate residential neighborhoods, distributing trips from the arterials through the area to the ultimate destination. Conversely, the collector street also collects traffic from local streets in residential neighborhoods and channels it into the arterial system. In the central business district, and in other areas of like development and traffic density, the collector system may include the street grid which forms a logical entity for traffic circulation.

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**More info:** [http://www.fhwa.dot.gov/planning/processes/statewide/related/functional\\_classification/](http://www.fhwa.dot.gov/planning/processes/statewide/related/functional_classification/)

**Contact:** Max Baker | [baker@nashvillempo.org](mailto:baker@nashvillempo.org) | (615) 862-7182