

MASTER STREET PLAN



Jonesboro, Arkansas

Municipal Center

300 S. Church St.

www.jonesboro.org

AS PRESENTED BY
MASTER STREET PLAN COMMITTEE

MARCH 9, 2015

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Table of Contents

Introduction	4
Section 1: Legal Authority and Responsibilities	5
Section 2: Road Classifications and Design Standards	8
Functional Classification	8
Roadway Spacing	9
Criteria for Design Standards	9
Traffic Calming	11
Freeway / Expressway	14
Principal Arterial	15
Minor Arterial	17
Collector	19
Local Street	21
Section 3: Master Street Plan Map	12
Section 4: Recommendations	22

INTRODUCTION

The *Master Street Plan of Jonesboro, Arkansas (Plan)* is the official guide for the City of Jonesboro, Arkansas (City) and the Jonesboro Metropolitan Area Planning Commission (MAPC) in making decisions regarding land development proposals and street improvements within its planning jurisdiction. The *Plan* is designed to provide for the orderly growth and development of the City, particularly concerning the future location and function of its street system.

The street system strongly influences land use patterns and urban activities. Likewise, the type and intensity of land development influence the operation of the street system. For this reason, decisions that affect land use and the street system should be guided by a general plan for the City, and the overall goals and objectives of this general plan should be realized by conformance with the plan and with the enforcement of zoning, subdivision and other regulations adopted by the City.

The primary objectives of the *Plan* are:

- To functionally classify each roadway in the street network;
- To identify the approximate location or conceptual alignment of any new roadways to be added to the street network;
- To provide typical roadway sections, design criteria, and right-of-way widths for each roadway classification; and,
- To recommend general standards to guide street and roadway improvements and new construction.

Since it is intended that this plan be reviewed and amended at least every two (2) years as more detailed traffic studies and corridor specific planning is completed, a twenty (20) year time horizon has been applied to the *Plan*.

The locations of classified streets which do not physically exist at the time of *Plan* adoption are shown as general corridor locations. When an area develops which includes a proposed street, the MAPC will approve that street's specific location, taking into consideration both topography and economics. Further, the MAPC may approve revisions to the stated standards and alignments at the time of subdivision, in order to address site-specific concerns and interests while assuring that the goals of the plan are achieved.

Note that the intent of this plan is not to dictate what improvements are to be constructed as land is subdivided. Rather, it is to preserve sufficient right-of-way so that the desired facilities shown in the typical roadway sections can be constructed as they become necessary.

SECTION 1: LEGAL AUTHORITY AND RESPONSIBILITIES

Preparation

Arkansas municipalities of the first class and second class derive their authority to prepare and adopt a master street plan for the municipal planning area from Arkansas Code (A.C.A.) §14-56-414(d), which states:

- (1) Master Street Plan. The commission may prepare and adopt a master street plan which shall designate the general location, characteristics, and functions of streets and highways.
- (2) (A) The plan shall include the general locations of streets and highways to be reserved for future public acquisition.
- (B) The plan may provide for the removal, relocation, widening, narrowing, vacating, abandonment, and change of use or extension of any public ways.

The “commission” in this case is the MAPC, which was established by Ordinance 1141 of 1966. The role of the MAPC was subsequently clarified by Ordinance 1212 of 1968 and Ordinance 1224 of 1999.

The *Master Street Plan of Jonesboro, Arkansas* is composed of both the text that follows in this document and the map entitled, *Master Street Plan Map, Jonesboro, AR*. It is developed for the City of Jonesboro and any extraterritorial jurisdiction it may choose to exercise in accordance with Act 1053 of 2013, which amended A.C.A §14-56-413 to allow cities with population greater than 60,000 to prepare plans, ordinances, and regulations for an area two miles beyond the corporate limits.

Implementation

Implementation of the Master Street Plan is accomplished at both the state and local government levels. A.C.A. §14-56-417 states what the City may do at the local level:

- (1) (A) Following adoption of a master street plan, the planning commission may prepare and shall administer, after approval of the legislative body, regulations controlling the development of land.
- (B) The development of land includes, but is not limited to:
 - (i) The provision of access to lots and parcels;
 - (ii) The extension or provision of utilities;
 - (iii) The subdividing of land into lots and blocks; and
 - (iv) The parceling of land resulting in the need for access and utilities.

- (2) (A) The regulations controlling the development of land may establish or provide for the minimum requirements as to:
 - (i) The information to be included on the plat filed for record;
 - (ii) The design and layout of the subdivision, including standards for lots and blocks, street rights-of-way, street and utility grades, consideration of school district boundaries , and other similar items; and,
 - (iii) The Standards for improvements to be installed at the developer at his or her own expense such as:
 - (a) Street grading and paving;
 - (b) Curbs, gutters and sidewalks;
 - (c) Street lighting; and
 - (d) Other amenities.
- (3) (A) The regulations may permit the developer to post a performance bond in lieu of actual installation of required improvements before plat approval.
- (B) They may provide for the dedication of all rights-of-way to the public.

The City may also:

- Establish setback lines parallel with street rights-of-way (A.C.A. §14-56-304); and,
- Control entry to streets and roadways (A.C.A. §14-56-419).

Additionally, if it chooses to exercise its extraterritorial jurisdiction under A.C.A. §14-56-413, the City has authority to approve the platting of streets in unincorporated areas and may authorize them to be filed for record; however, Craighead County must determine whether to receive the dedication and future maintenance responsibility.

Adoption

The Master Street Plan is adopted by the process outlined in A.C.A. §14-56-422, which states:

All plans, recommended ordinances, and regulations shall be adopted through the following procedure:

- (1)
 - (A) The planning commission shall hold a public hearing on the plans, ordinances, and regulations proposed under this subchapter.
 - (B) Notice of public hearing shall be published in a newspaper of general circulation in the city at least one time fifteen days prior to the hearing.
 - (C) Notice by first class mail to the boards of directors of all school districts affected by a proposed plan, ordinance, or regulation shall be provided sufficiently in advance to allow representatives of all affected school districts a reasonable opportunity to submit comments on any proposed plan, ordinance or regulation.
- (2) Following the public hearing, proposed plans may be adopted and proposed ordinances and regulations may be recommended as presented or in modified form by a majority vote of the entire commission.
- (3) Following its adoption of plans and recommendations of ordinances and regulations, the commission shall certify adopted plans or recommended ordinances and regulations to the legislative body of the city for its adoption.
- (4) The legislative body of the city may return the plans and recommended ordinances and regulations to the commission for further study or recertification or by a majority vote of the entire membership may adopt by ordinance or resolution the plans and recommended ordinances or regulations submitted by the commission. However, nothing in this subchapter shall be constructed to limit the city council's authority to recall the ordinances and resolutions by a vote of a majority of the council.
- (5) Following adoption by the legislative body, the adopted plans, ordinances and regulations shall be filed in the office of the city clerk. The city clerk shall file the plans, ordinances, and regulations as pertain to the territory beyond the corporate limits with the county recorder of the counties in which territorial jurisdiction is being exercised.

SECTION 2: ROAD CLASSIFICATIONS AND DESIGN STANDARDS

Functional Classification

Functional classification is used to designate the intended purpose or function of roadways based on the character of service they are intended to provide. The following classifications are used in this Plan:

Freeways and Expressways provide high-speed travel through the urban area. Freeways maintain this high level of service by limiting access to adjacent land. Access is provided by freeway interchange ramps that provide a transition for movements between the two roadways. Access on expressways is partially controlled and may include signalized intersections and turn-around median breaks

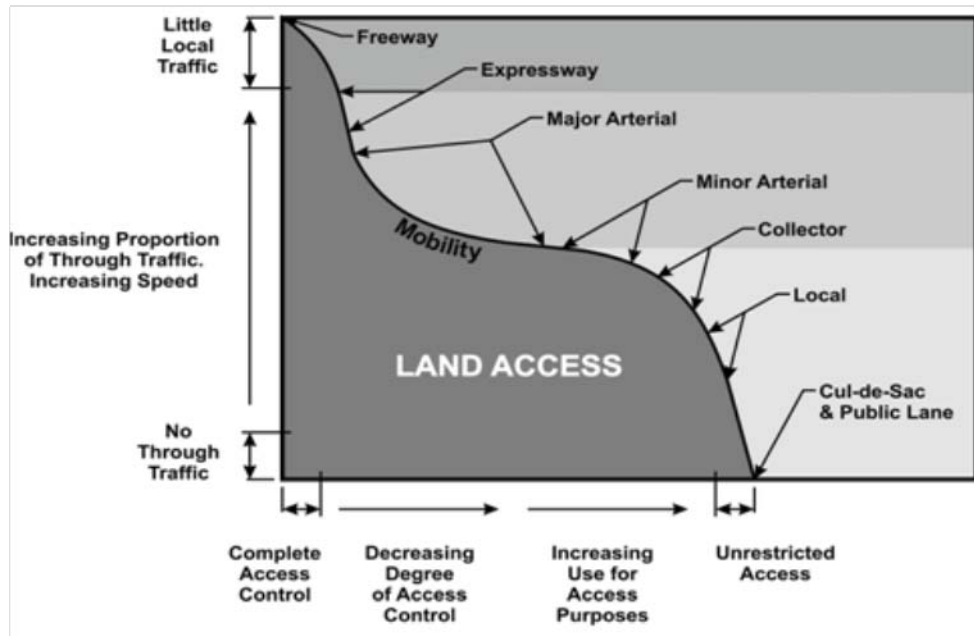
Principal Arterials provide both long distance connections through the urban area and to major traffic generators within the community. Roadways are designated principal arterials to imply the need to focus more on moving traffic rather than providing direct access to adjacent land. Traffic management techniques used to maintain a high level of traffic capacity on these roadways include the use of medians, restricting curb cuts per some spacing policy, and limiting the use of traffic signals to the intersection with other significant roadways.

Minor Arterials function similarly to principal arterials, but operate under lower traffic volumes, serve trips of shorter distances, and provide a higher degree of property access than principal arterials.

Collectors provide for traffic movement between arterials and local streets. They carry moderate traffic volumes over moderate distances and have a higher degree of property access than arterials.

Local Streets serve the lowest traffic volumes. Low traffic volumes combined with slow travel speeds help to create a good residential setting. New developments should be reviewed to avoid creating cut-through streets that become commuter routes that generally lower quality of life for residents,

The functional classification of the roadway determines the spacing of the road from other roadways, and the cross-section and other design elements of the roadway. The functional classification also determines the level of access to the property served by the roadway, as shown in the following figure.



Roadway Spacing

The concept of roadway spacing is closely linked with functional classification. In order to ensure an efficient roadway system, roads that are able to carry a larger volume of traffic at higher speeds should be appropriately spaced throughout the city. A well-connected system of collector roads helps complete the system.

In general, principal arterials should be placed every three to four miles and minor arterials should be spaced at one mile intervals from other arterials (principal or minor). Collector streets should be spaced roughly one-half mile from arterials. Local streets complete the network, with a block spacing of 300-500 feet in business districts and 250-600 feet in residential neighborhoods.

Undeveloped areas or unplanned areas of the *Master Street Plan Map* should be laid out in accordance with these recommendations to help provide connectivity and prevent or reduce traffic and congestion.

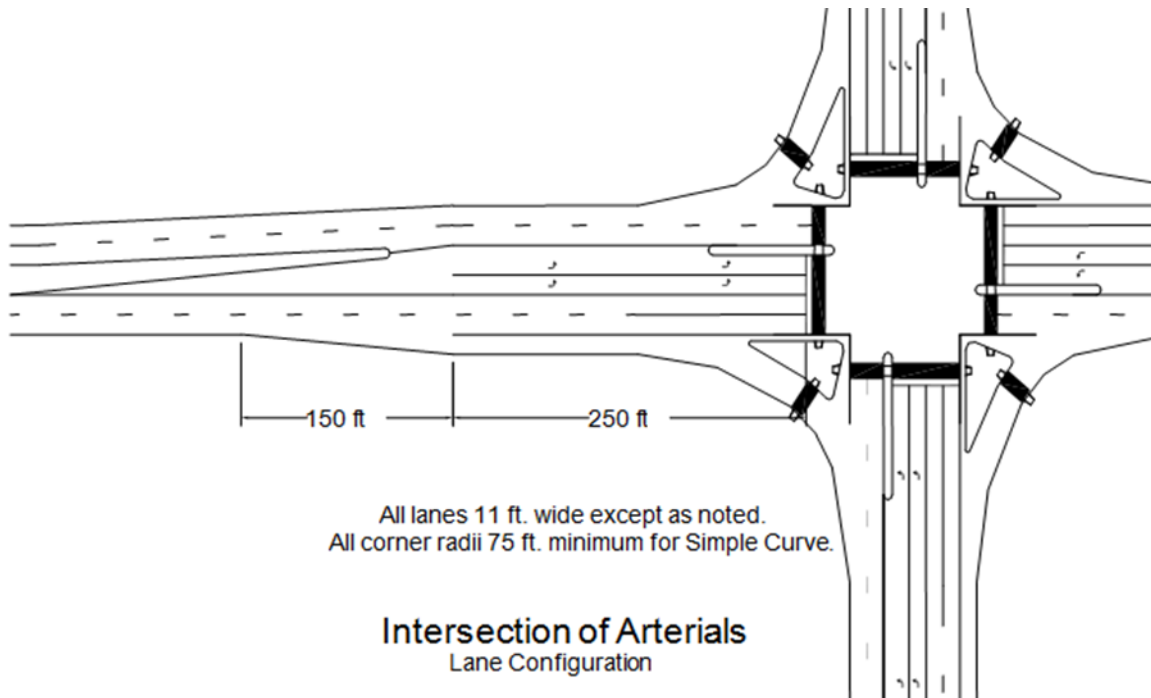
CRITERIA FOR DESIGN STANDARDS

Street design standards promote traffic safety and continuity in street improvements and orderly development of the street system. Right-of-way widths accommodate adequate space for travel lanes plus adequate space between the curb of the traffic lane and the adjacent property line to allow for placement of pedestrian ways and utility lines for water, gas, electricity, telephones, cable TV, etc. Typical standards and cross sections for each road classification are presented in the following subsections. The MAPC, with the advice of City Staff through platting, site plan review, and the conditional use permit processes may approve variances from design standards presented herein.

The City will require additional right-of-way when it is apparent that grade problems, horizontal curve problems, intersections, floodway or other constraints require greater rights-of-way to permit construction. The City also may require additional right-of-way and additional pavement width adjacent to parcels related to a particular development application, where increased traffic demands additional road capacity as determined by the City Engineer.

The City may accept less right-of-way on a particular roadway or roadway section when it has been demonstrated through engineering design that the proposed right-of-way is adequate for all elements of the required roadway section including any drainage and utility improvements. Any reduction in right-of-way must be approved by the City Engineer and the Jonesboro City Water and Light Engineering Services Director.

At the intersection of Arterial and Collector Streets, the City may require additional right-of-way if the anticipated turning movements warrant extra lanes. Each intersection will be reviewed on its own merits at the time of application to the City. The intersection right-of-way requirement shall generally not exceed 120' for a depth of 250 feet from the point of intersection of right-of-way lines as shown in the figure below.



Traffic Calming

All new residential and non-residential developments shall include traffic calming measures on each street, excluding arterial streets, within the development. The intent of the traffic calming devices is to maintain traffic at the design speed for the facility. The location and type of traffic calming measures shall be subject to approval by the City Engineer. Traffic calming measures include but are not limited to: curb extensions, chicanes, splitter islands, traffic circles, roundabouts and changes in horizontal alignment.

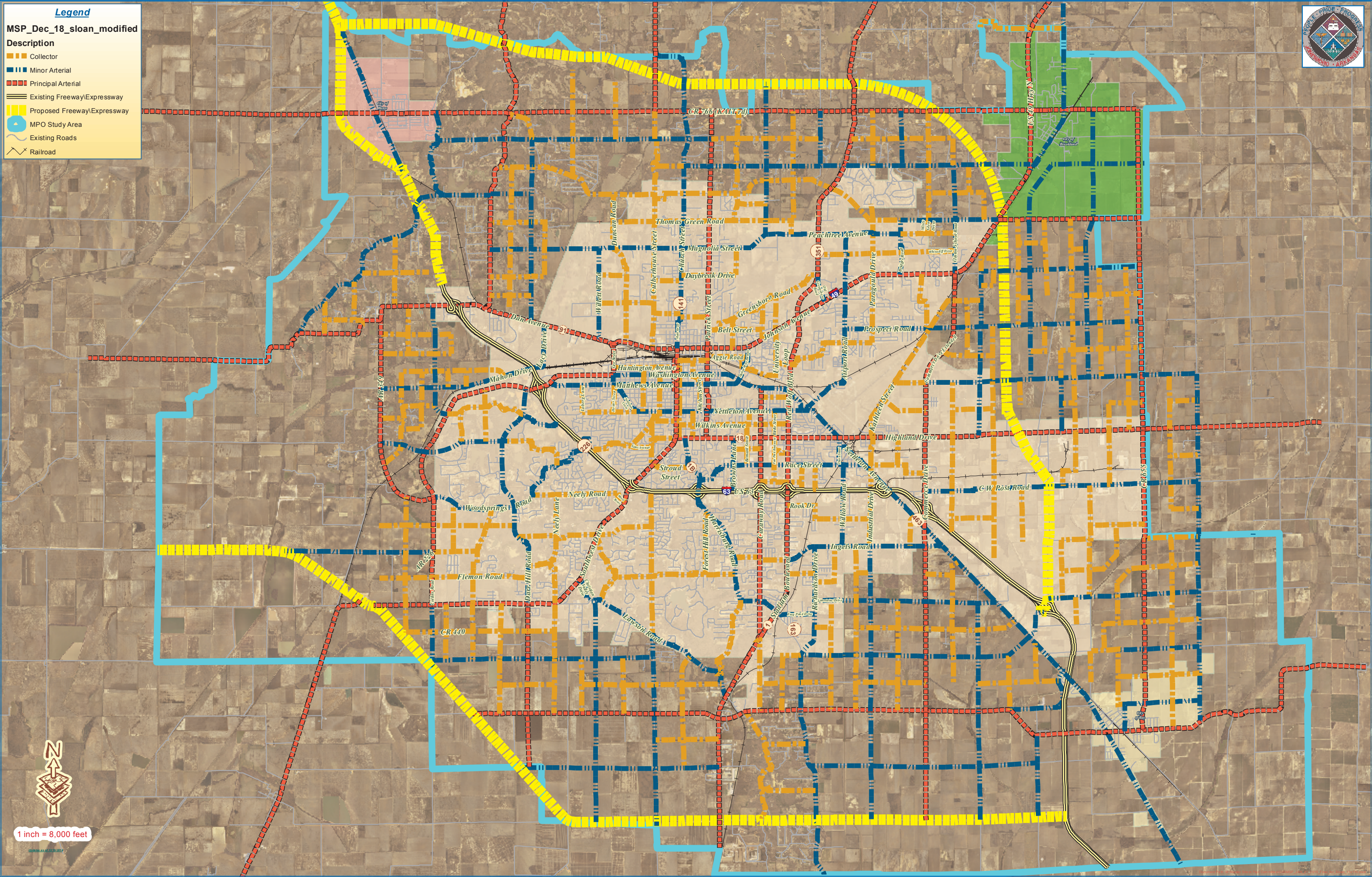
Please see the Institute of Transportation Engineer's book Traffic Calming: State of the Practice Chapter 10 "Traffic Calming in New Developments" for more information on appropriate traffic calming measures.

Legend

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Description

- Collector
- Minor Arterial
- Principal Arterial
- Existing Freeway/Expressway
- Proposed Freeway/Expressway
- MPO Study Area
- Existing Roads
- Railroad



1 inch = 8,000 feet

FREEWAY

FUNCTION: Freeways are generally part of the Interstate Freeway Network, and their design standards are established by the federal government. Because Freeways are intended to serve through long distance trips, they are always designed as full access control roads (no direct access). The spacing of Freeways is variable since they relate to regional transportation needs.

DESIGN: Design considerations for this road class are not included as these are determined by the Federal Highway Administration and State Highway and Transportation Department.

EXPRESSWAY

FUNCTION: Expressways are devoted to movement of traffic with little or no access function. This road class is intended to provide a high level of service to through long distance trips within and around the urban areas. Partial access control is used with wide medians and a right of way of 200 feet or more. Future widening to six lanes plus left and right turn lanes are included in the design. Right of way may vary due to topography and connections with other roads. The spacing of Expressways is variable since they relate to regional needs.

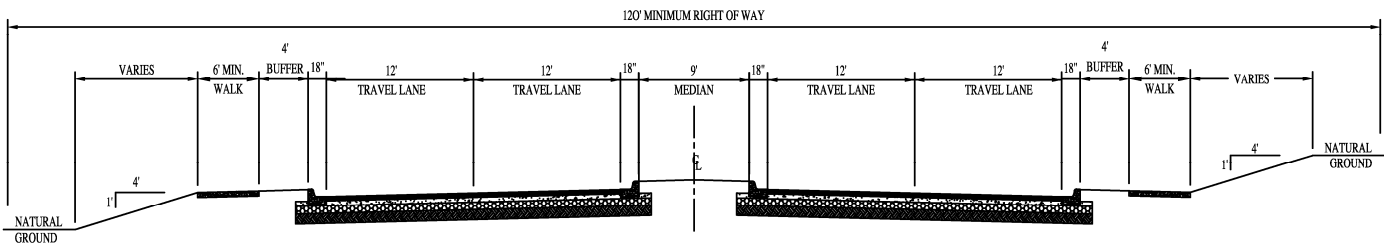
Direct access to abutting property is discouraged except for major commercial centers and breaks in the median are allowed only at intersections with collector or higher classification roads. Special engineering studies have or will be performed for these facilities in order to ensure that specific alignments and rights of way are established prior to development.

DESIGN: Expressways should be designed as designated by Federal Highway Administration and the State Highway and Transportation Department.

PRINCIPAL ARTERIAL

FUNCTION: The primary function of a Principal Arterial is to serve through traffic and to connect major traffic generators or activity centers within an urbanized area. Since these roads are designed for through traffic and are generally located three or more miles apart, dedication of additional right-of-way is required to allow for future expansion to four through lanes plus left and right turn lanes. At intersections with Collector Streets or other Arterials (principal or minor), additional right-of-way may be required if the anticipated turning movements warrant extra lanes.

DESIGN: The standard Principal Arterial is to be used in all cases except where City Staff and the MAPC find that an unusual condition occurs. In such cases, the Other Principal Arterial Design Option provided in this section may be used



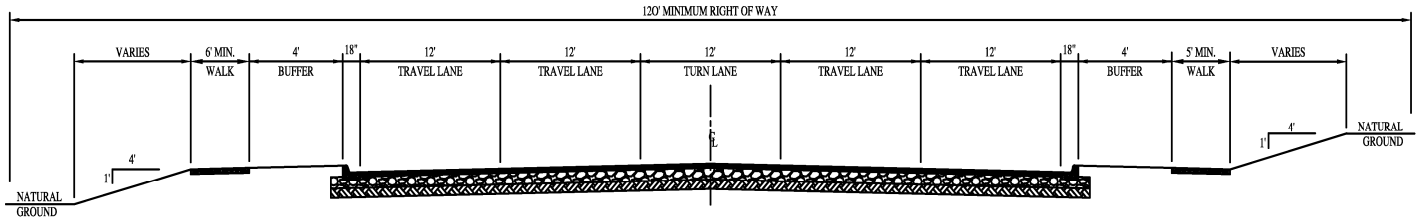
PRINCIPAL ARTERIAL

DESIGN STANDARDS:

Design Speed	45 mph
¹ Lane Width	10 - 12 Feet
Maximum Centerline Grade	7%
Minimum Stopping Sight Distance	475' or latest AASHTO Policy on Geometric Design Manual
Min. Horizontal Radius at Centerline	1400' (normal crown)
Min. Horizontal Radius at Centerline	850' (super-elevated)
Min. Horizontal Tangent Distance between Reverse Curves	400'
¹ Service Volumes	7,000 - 27,000
Standard Right of Way	120'
Intersection Curb Radius	30'
Sidewalks Required	Both Sides
Driveways	Deceleration Lane required

¹U.S. Department of Transportation Federal Administration, Highway Functional Classification Concepts, Criteria and Procedures 2013 Edition

OTHER PRINCIPAL ARTERIAL DESIGN OPTION:

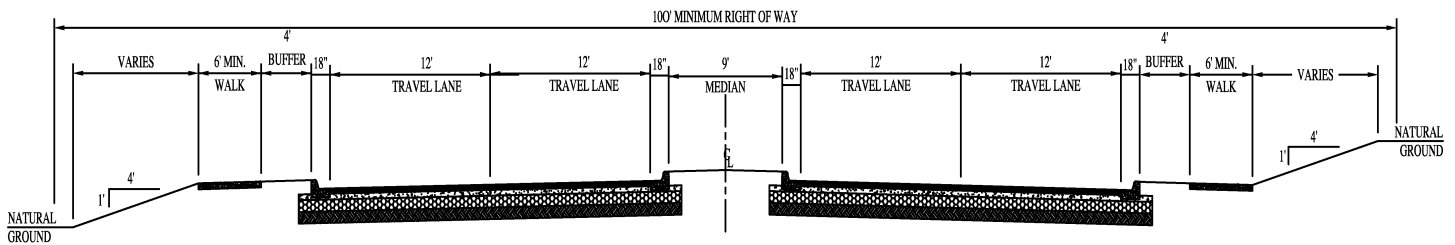


PRINCIPAL ARTERIAL

MINOR ARTERIAL

FUNCTION: Minor Arterials provide the connections to and through an urban area. Their primary function is to provide short distance travel within the urbanized area. Since a Minor Arterial is a high volume road, a minimum of 4 travel lanes is required. At intersections with Collector Streets or other Arterials (principal or minor), additional right-of-way may be required if the anticipated turning movements warrant extra lanes.

DESIGN: The standard Minor Arterial is to be used in all cases except where City Staff and the MAPC find that an unusual condition occurs. In such cases, the Other Minor Arterial



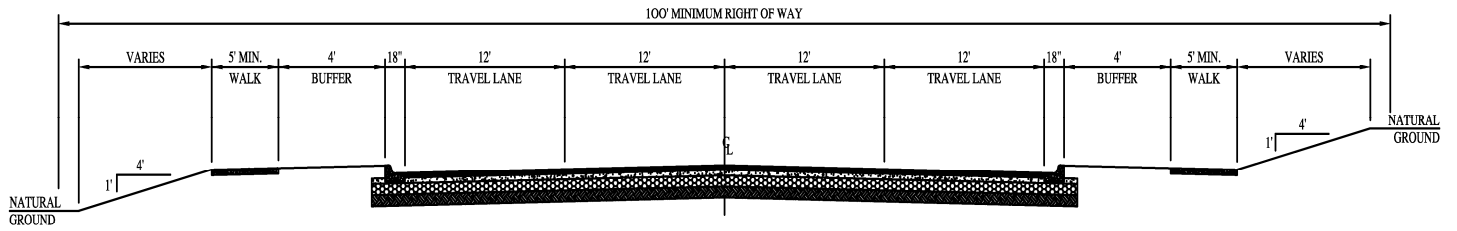
MINOR ARTERIAL

Design Option provided in this section may be used.

DESIGN STANDARDS:

Design Speed	40 mph
¹ Lane Widths	10 - 12 Feet
Maximum Centerline Grade	8%
Minimum Stopping Sight Distance	325' or latest AASHTO Policy on
Geometric	Design Manual
Min. Horizontal Radius at Centerline	700' (normal crown)
Min. Horizontal Radius at Centerline	575' (super-elevated)
Min. Horizontal Tangent Distance between	300'
Reverse Curves	
¹ Service Volumes	3,000 - 14,000 AADT
Standard Right of Way	100'
Intersection Curb Radius	30'
Sidewalks Required	Both Sides
Driveways	Deceleration Lane required

¹U.S. Department of Transportation Federal Administration, Highway Functional Classification Concepts, Criteria and Procedures 2013 Edition



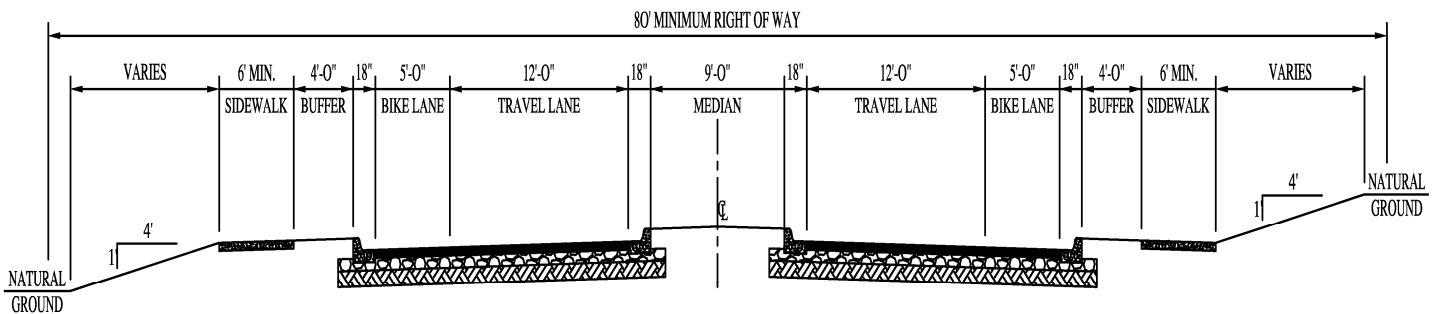
MINOR ARTERIAL

OTHER MINOR ARTERIAL DESIGN OPTION:

COLLECTOR

FUNCTION: A Collector Street is the traffic connection from Local Streets to Arterials, with the secondary function of providing access to adjoining property. The Collector system should not be continuous but should direct traffic to Arterials. This class of road is generally at a spacing of a quarter mile. At the time of the subdivision, the exact location and additional need for Collectors will be determined by the MAPC upon advice of the City Staff.

DESIGN: The standard Collector is to be used in all cases except where City Staff and the MAPC find that an unusual condition occurs. In such cases, one of the Other Collector Design Options provided in this section may be used at the discretion of the MAPC upon advice of the City Staff.



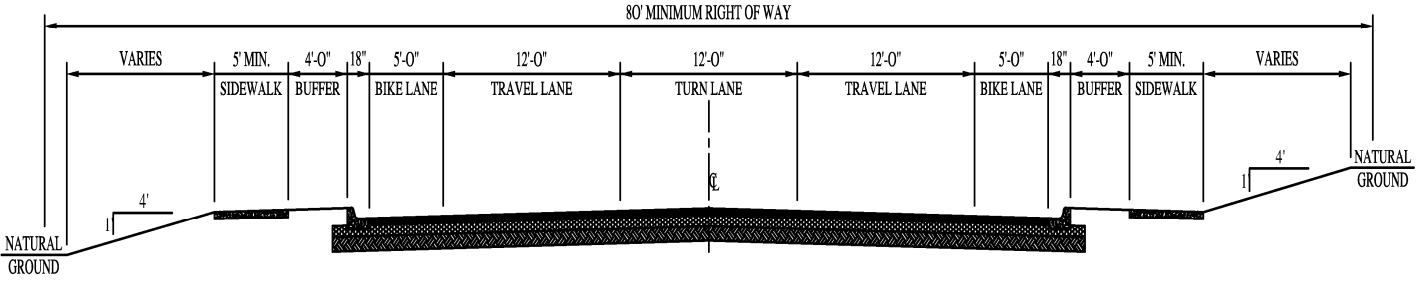
COLLECTOR

DESIGN STANDARDS:

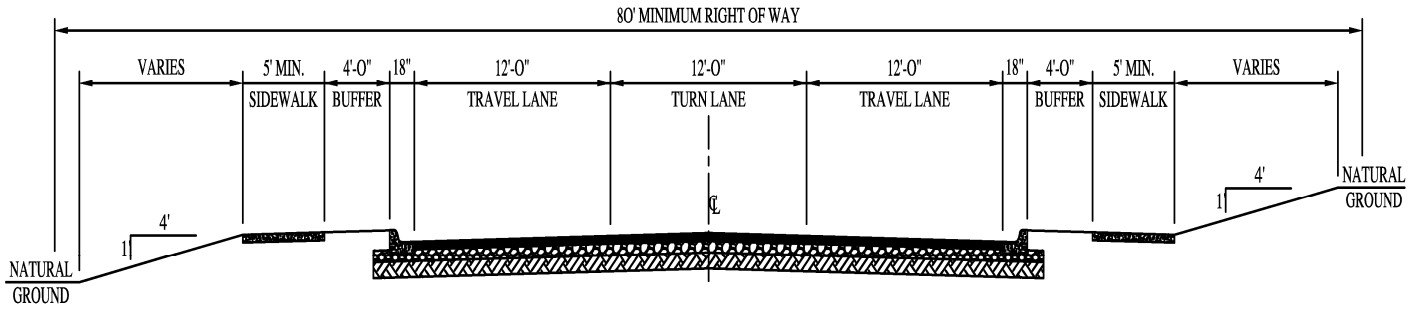
Design Speed	35 mph
¹ Lane Width	11-12 Feet
Maximum Centerline Grade	10%
Minimum Stopping Sight Distance	250' or latest AASHTO Policy on
Geometric	Design Manual
Min. Horizontal Radius at Centerline	500' (normal crown)
Min. Horizontal Radius at Centerline	320' (super-elevated)
Min. Horizontal Tangent Distance between	200'
Reverse Curves	
¹ Service Volumes	1,100 - 6,300 AADT
Standard Right of Way	80'
Intersection Curb Radius	30'
Sidewalks Required	Both sides

¹U.S. Department of Transportation Federal Administration, Highway Functional Classification Concepts, Criteria and Procedures 2013 Edition

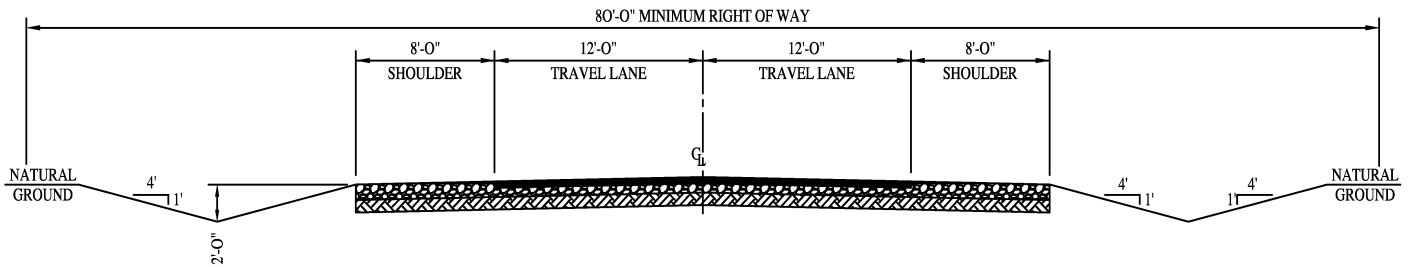
OTHER COLLECTOR DESIGN OPTIONS:



COLLECTOR



COLLECTOR

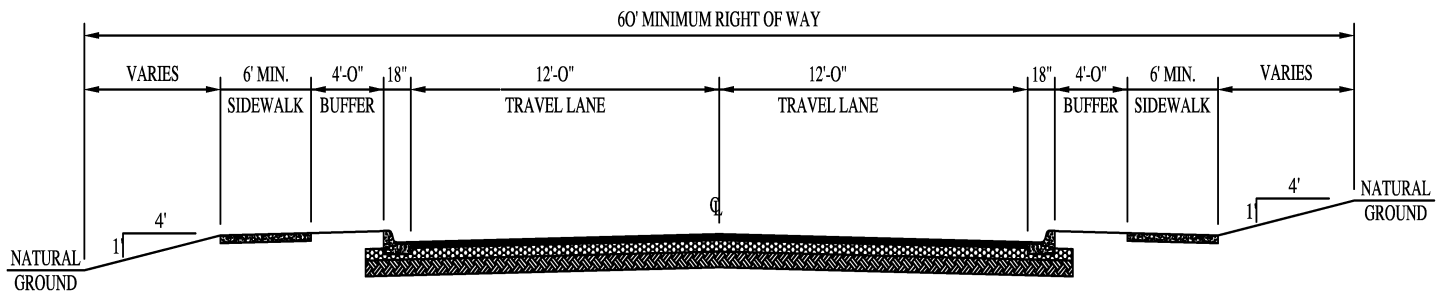


COLLECTOR

LOCAL STREET

FUNCTION: The Local Street function is to provide access to adjacent property. The movement of traffic is a secondary purpose. The use of a Local Street in a residential area by heavy trucks and buses should be minimized.

DESIGN: The standard Local Street is to be used in all cases.



LOCAL

DESIGN STANDARDS:

Design Speed	25 mph
¹ Lane Width	12 Feet
Maximum Centerline Grade	10%
Minimum Stopping Sight Distance	150' or latest AASHTO Policy on Design Manual
Min. Horizontal Radius at Centerline	200' (normal crown)
Min. Horizontal Radius at Centerline	N/A (super-elevated)
Min. Horizontal Tangent Distance between Reverse Curves	50'
¹ Service Volumes	700 AADT
² Standard Right of Way	60'
Minimum Pavement Width (BC to BC)	27'
Intersection Curb Radius	25'
Sidewalks Required	Both Sides

¹U.S. Department of Transportation Federal Administration, Highway Functional Classification Concepts, Criteria and Procedures 2013 Edition
² Cul-de-sacs may have a standard right-of-way of 50'

SECTION 4: RECOMMENDATIONS

The Master Street Plan Committee recommends that the following items be included in future amendments or updates to the *Plan*.

1. Transit Plan
2. Bike Plan
3. Sidewalk Plan
4. Access Management Plan
5. Corridor Specific Planning

