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Introduction

The previous *Master Thoroughfare Plan* for the City of Bloomington was adopted in 1981. Since that time, Bloomington's population has increased from 52,044 to 69,291 according to the Year 2000 Census. More importantly, data gathered from the recently completed *Bloomington/Monroe County Year 2025 Transportation Plan (July 2000)* indicates that traffic congestion is growing at approximately four times the rate of Bloomington's population increase. With that in mind, it is not only important to comprehensively update the Master Thoroughfare Plan, it is even more critical to ensure that the updated plan helps address the City's goal of mitigating traffic congestion and stimulating alternative transportation.

The Master Thoroughfare Plan determines the location and construction standards for all existing and proposed public right-of-ways (IC 36-7-4-506). The requirements of the Master Thoroughfare Plan come into play when a private property owner seeks to expand their property rights (i.e. through subdivision or rezoning petitions) or when a public entity seeks to make an improvement to the public right-of-way.

The transportation network physically links land use activities within the community as well as connects Bloomington to surrounding locations. The Transportation Vision Statement for the City of Bloomington is found in the Bloomington/Monroe County Year 2025 Transportation Plan (July 2000). This vision proposes development of a well-integrated and "all modes" surface transportation system creating a network of streets, bicycle and pedestrian pathways, and greenways that transverse the community, connect activity centers, and link recreation opportunities. The vision encourages actions to reduce dependency upon automobiles and to widen the range of alternative transportation modes.

PART 5: Master Thoroughfare Plan

The Master Thoroughfare Plan attempts to implement the Transportation Vision Statement through the following mechanisms:

- *Requiring sidewalks for all new streets as well as during the widening of existing streets.*
- *Requiring bike lanes for streets identified as arterials or primary collectors.*
- *Reducing the right-of-way and pavement width for all types of street classifications. More specifically, the 2002 Master Thoroughfare Plan greatly reduces the pavement width standards for neighborhood streets.*
- *Requiring street gutters and storm sewers for all new streets as well as during the widening of existing streets.*

Relationship to Other Plans and Regulations

The Master Thoroughfare Plan establishes typical street cross sections including total width, the widths of through, turn and parking lanes, the widths and placement of bicycle and pedestrian facilities, median width, and the widths of border areas composed of landscaping and utilities. The Master Thoroughfare Plan also helps to preserve right-of-way and define construction standards for the transportation improvements contained in the Bloomington/Monroe County Year 2025 Transportation Plan and short-range transportation improvements contained in the *Transportation Improvement Program*. While the long-range transportation plan identifies needed improvements within a period of 25 years to accommodate existing and forecasted development, the horizon year of the Master Thoroughfare Plan is 50 years or more.

The Master Thoroughfare Plan also preserves right-of-way and defines construction standards for the location and types of bicycle and pedestrian facilities defined in the *Alternative Transportation and Greenways System Plan*.

The Master Thoroughfare Plan does not establish rules and procedures for dealing with neighborhood traffic conditions, such as traffic calming mechanisms. These procedures have been established within the City's Neighborhood Traffic Safety Program.

Purpose of the Master Thoroughfare Plan

There are five central purposes accomplished in the Master Thoroughfare Plan:

1. **Preservation of right-of-way:** Right-of-way is to be preserved to accommodate existing and future transportation needs (including vehicle, bicycle, and pedestrian needs).
2. **Continuity:** Strive for continuity in the functional, physical and aesthetic character of various classifications of major streets, transit facilities, bicycle facilities and pedestrian facilities.
3. **Preservation of capacity:** Preserve the capacity of major transportation facilities. The plan establishes a rationale for access management based on existing and anticipated development along the major transportation corridors.
4. **Preservation of neighborhood character:** Preserve the character of existing neighborhoods and neighborhood streets. The intent of this plan is not to require existing neighborhood streets to conform to typical cross sections. Traditional neighborhood street character is an important quality that the City must preserve.
5. **Interdepartmental Coordination:** The Master Thoroughfare Plan directs governmental entities responsible for constructing utility and street improvements within the thoroughfare plan network to coordinate all planning and work schedules in order to complete activities in a timely and efficient manner.

Street Classifications

Streets are classified according to the service function for land use and transportation planning purposes. The primary functions of streets are either to connect destinations or to carry through traffic.
Streets are also important because they are central to defining urban environments. Properly designed streets can help define livable neighborhoods, encourage alternative modes of transportation, as well as enhance the attractiveness of commercial and civic destinations. The typical cross sections and classification description for each street type are illustrated on the following pages.

Streets are functionally classified as "neighborhood" if the primary purpose is to provide access to abutting properties. Streets are functionally classified as "arterials" if the primary purpose is to serve a larger city-wide role by providing a higher degree of mobility. If a street equally serves to provide access to abutting properties and to carry traffic, it is functionally classified as a "collector." These three primary functional classifications may be further stratified for planning and design purposes. The City of Bloomington street network has been stratified into five groups:

Neighborhood Streets

Neighborhood streets have the sole function of providing direct access to abutting land uses and to higher order streets. Neighborhood streets provide the lowest level of mobility and, therefore, generally exhibit the lowest traffic volumes. Through traffic on these streets is deliberately discouraged. The 1981 Thoroughfare Plan defined this type of street classification with pavement widths ranging from 28 to 31 feet and right-of-way widths ranging from 50 to 60 feet. The proposed Thoroughfare Plan greatly narrows both dimensions.

On the Official Thoroughfare Plan Map, a "Neighborhood connecting street" is also identified. Neighborhood connecting streets are indicated in key locations where proposed street connections are necessary to improve neighborhood street circulation.

Collectors

Collectors carry low to moderate traffic volumes and provide a greater balance between access and traffic circulation within residential, commercial, and industrial areas. The characteristics of a collector street are largely related to the density, size, and type of abutting developments. Collectors are classified into the following two subtypes:

- **Secondary collectors:** Secondary collectors refer to streets that collect traffic from streets that are located within neighborhoods. Secondary collectors are typically characterized by larger right-of-ways, greater pavement width, and fewer residential curb cuts in comparison to neighborhood streets.
- **Primary collectors:** *Primary collectors* are streets that typically serve as a link between neighborhood streets and the arterial system. The primary collectors in the City of Bloomington incorporate transit, bicycle and pedestrian facilities within the public right-of-way.

Arterials

The arterial street is designed to provide a higher degree of mobility than the collector streets and most often serve longer trips within the city. The arterial street network serves a larger city-wide function facilitating employment generated trips and connecting major destinations such as the downtown district, industrial areas, suburban commercial centers, residential areas, and other key activity centers. The following two subtypes are typical arterial street designations:

- **Secondary arterials:** Secondary arterials serve trips of moderate length and offer a lower level of mobility than do primary arterial streets. This class interconnects with the primary arterials, and distributes traffic to smaller areas. Secondary arterials are typically characterized by moderate to heavy traffic volumes and incorporate transit, bicycle and pedestrian facilities in the public right-of-way.
- **Primary arterials:** Primary arterials are designed to carry the highest traffic volumes within the street network. The primary arterials in the City of Bloomington incorporate transit, bicycle and pedestrian facilities within the public right-of-way. Unlike freeways, primary arterials typically contain at-grade intersections; however, some manner of access control is still highly desirable.

  Note: Within the primary arterial street network, State Road 37 is the only thoroughfare classified as a Freeway/Expressway. This sub-category is characterized by grade-separated intersections, with occasional intersections being signalized for local traffic access.

Bicycle/Pedestrian Facility Classifications

In the Thoroughfare Plan, bicycle/pedestrian facilities are identified in order to ensure that the most appropriate facilities are constructed both outside and within the street right-of-way. All of the facilities in this subsection are further detailed in the Alternative Transportation and Greenways System Plan (adopted by the City - October 2001). There are five major bicycle/pedestrian functional classifications:

Sidewalk

A hard-surface path within the street right-of-way that is designated for the exclusive use of pedestrian traffic. All new sidewalks will be at least 5 feet wide.

Sidepath

A hard-surface path typically located within the right-of-way but physically separated from the street by a tree plot. A sidepath functions as a two-way route for the use of cyclists, pedestrians and other non-motorized users, and may often be substituted for on-street bike lanes. When determining whether a sidepath should be constructed, the number of driveway or intersection cuts onto a street should not exceed eight per mile (approximately 1 intersection per 600 feet). The reason is that bicyclists travelling on sidepaths are not highly visible to motorists turning into and out of these street intersections. All sidepaths will be constructed at a width of 8-10 feet.

Signed Bike Route

A route indicating that bicyclists are sharing the street with motor vehicles without having a separate lane designation. Bicycle routes must be heavily signed (including pavement signage) along the street to alert motorists to the presence of bicyclists.

Bike Lanes

separate lane within the street designated and designed for the exclusive use of bicycles with distinct signage and pavement markings. For the safety of bicyclists, a bike lane must be continued through to the approaching intersection and should not be merged with the travel lanes. Bike lanes must be 4-5 feet in width.

Multi-use Trail

An off-road pathway designed for the use of bicyclists, pedestrians, and other non-motorized traffic. Multi-use trails are typically located along floodways, major utility corridors and converted rail lines. Multi-use trails vary in surfacing and design width, depending on topography and environmental constraints. However, arterial level multi-use trails are 12 feet wide, with 2 foot shoulders on either side.

Note: Multi-use trails may be classified as Greenways because of their typical location in natural areas or areas of environmental sensitivity.

Typical Cross Sections Introduction

On the following pages are typical cross sections and text descriptions for:

1. *Existing Core Neighborhood* ..... *pg 84*
2. *Neighborhood Streets* ..... *pg 85*
3. *Secondary Collectors* ..... *pg 86*
4. *Primary Collectors* ..... *pg 87*
5. *Secondary Arterials* ..... *pg 88*
6. *Primary Arterials* ..... *pg 90*

Each of these sections states the typical characteristics, priorities for the right-of-way, and examples of traffic management features. Pictures and illustrations are included to better depict the "typical" features of each type of street.

Typical Street Cross Section Standards Overview

For quick reference, the below table notes the typical cross section standards by road classification.

Typical Street Cross Section Standards

Functional Class	Minimum Right-of-Way	Number of Moving Lanes	Number of Parking Lanes	Median Divider	Pavement Cross Section					Border Section	
					Through Lanes	Auxiliary Lanes	Parking Lanes	Bike Lane	Curb & Gutter (each side)	Tree Plot	Sidewalk (each side)
Neighborhood Street	50'	2	1 if density requires	None	10'	None	8'	None	6"	4.5'	5'
Secondary Collector	55'	2	1 if density requires	None	11'	None	8'	None	6"	6.5'	5'
Primary Collector	65'	2	1 if density requires	None	11'	None	8'	4' (b)	6"	7.5'	5'
Secondary Arterial	80' (a)	2	1 if density requires	14' (c)	12'	12'	8'	4' (b)	6"	7.5'	5'
Primary Arterial	100' (a)	4	1 if density requires	14' (c)	12'	12'	8'	4' (b)	6"	7.5'	5'

Notes: (a) Wider right-of-way near intersections might be required for turn lanes. Right-of-way may be reduced in built out areas.
(b) An 8' sidepath accommodating both bicycle and pedestrian traffic may be substituted provided the street has a limited number of access points or is located in a low-density area.
(c) A 14' left-turn lane might be required when a median does not provide traffic separation.

Existing Core Neighborhood Streets

The core neighborhood streets in Bloomington represent a high percentage of the total road mileage in the area surrounding the downtown. Many of these streets are quite narrow in width in comparison to the neighborhood streets that were constructed in the past few decades. The cross-sections of the existing core neighborhood streets are considered an important element of the residents' living environment and often serve as a meeting place for residents. It should be noted that many of these streets feature cross-sections different from what is outlined in the following pages. In order to preserve neighborhood fabric, existing core neighborhood streets shall not be required to conform to the cross section standards that are being proposed for more suburban environments.

Typical Characteristics of a Existing Core Neighborhood Street:

- *Total right-of-way – varies*
- *Travel lane widths – typically 8 to 10 feet*
- *On-Street parking included*
- *Bike lanes – no lanes are included because of lower traffic volumes and speed*
- *Sidewalks and street trees vary; often there is not enough room for both elements*

Priority For the Right-of-Way:

- *Primary Priority Elements*
  - *On-Street parking*
  - *Residential access*
  - *Neighborhood preservation*
- *Secondary Priority Elements*
  - *Width of travel lanes*
  - *Sidewalks*
- *Examples of Traffic Management Features*
  - *On-street parking*
  - *Street trees*
  - *Narrower travel lanes*
  - *Reduced pedestrian crossing distances at intersections (using curb extensions and other measures if necessary)*
  - *Traffic circles*

Jackson Street at 3rd Street looking north

Waldron Street at 6th Street looking south

William Street at 9th Street looking south

Neighborhood Streets

The typical cross section for neighborhood streets is indicated in Figure 1. Neighborhood streets in Bloomington carry low traffic volumes due to their narrow width and high number of signed intersections. Since the traffic volumes are considerably lower than on collector streets, designated bike routes and striped bike lanes are not typically found on neighborhood streets. It should be noted that many existing neighborhood streets will feature cross-sections different from what is outlined below. In order to preserve neighborhood fabric, existing streets shall not be required to conform to these cross section standards.

Typical Characteristics of a Neighborhood Street:

- *Total right-of-way – 50 feet*
- *Travel lane widths – 10 feet*
- *On-Street parking not included (8 foot parking lane(s) may be added for higher density developments with limited on-site parking)*
- *Bike lanes – no lanes are included because of lower traffic volumes and speed*
- *Sidewalk, street trees and 5 foot utility area included*
- *Storm sewers, gutters and curbing (new streets only)*

Priority For the Right-of-Way:

- *Primary Priority Elements*
  - *Residential Access*
  - *Sidewalks*
  - *Street Trees*
- *Secondary Priority Elements*
  - *Width of travel lanes*
  - *On-street parking*

Traffic Management Features:

- *On-street parking*
- *Street trees*
- *Narrower travel lanes*
- *Reduced pedestrian crossing distances at intersections (using curb extensions and other measures if necessary)*
- *Traffic circles*

Woodlawn Avenue at Hunter Street looking north

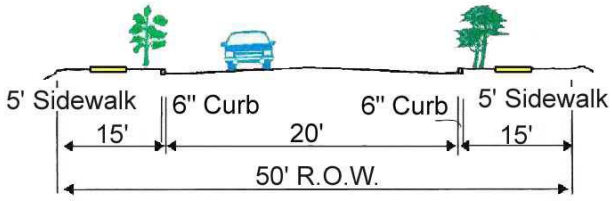


Figure 1: Typical Neighborhood Street Cross Section

University Street at Park Avenue looking east

Secondary Collectors

The typical cross section for a secondary collector street is indicated in Figure 2. Since secondary collectors in Bloomington typically carry less than 3,000 vehicles per day, some streets may require bike route signage in order to alert drivers to share the road. The Alternative Transportation and Greenways System Plan along with the Bicycle and Pedestrian Safety Commission will help to identify those routes that are most accommodating to bicyclists and interconnect with other bicycle facilities.

Typical Characteristics of a Secondary Collector:

- *Total right-of-way – 55 feet*
- *Travel lane widths – 11 feet*
- *Bike lanes – no lanes are included because of low traffic volumes and speed (designated bike routes and pavement signage will be used where appropriate).*
- *On-street parking not included (8 foot parking lane(s) may be added for higher density developments with limited on-site parking)*
- *Sidewalk, street trees and 5 foot utility area included*

Priority For the Right-of-Way:

- *Primary Priority Elements*
  - *Sidewalks with transit access*
  - *Street Trees*
  - *Signage of bike routes where designated*
- *Secondary Priority Elements*
  - *Width of travel lanes*
  - *On-street parking*

Traffic Management Features:

- *On-street parking*
- *Street trees*
- *Narrower travel lanes*
- *Reduced pedestrian crossing distances at intersections (using curb extensions and other measures if necessary)*
- *Traffic circles*

Allendale Drive at Winslow Road looking south

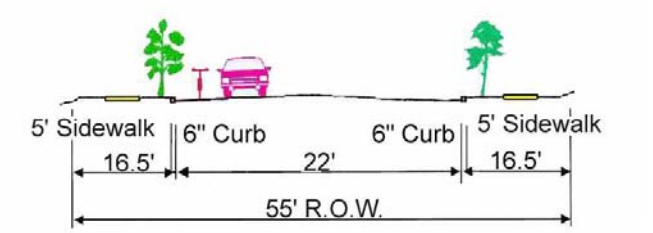


Figure 2: Typical Secondary Collector Cross Section

E. Covenanter Drive at Clarizz Boulevard looking west

Primary Collectors

The typical cross section for a primary collector street is indicated in Figure 3. Since primary collector streets in Bloomington typically carry between 3,000 to 10,000 vehicles per day, bike lanes that interconnect with signed bike routes and neighborhood streets are required. In lieu of bike lanes, an 8 foot sidepath may be considered on one side of the street provided the street has a limited number of access points or is located in a low-density area.

Typical Characteristics of a Primary Collector:

- *Total right-of-way – 65 feet*
- *Travel lane widths – 11 feet*
- *Bike lanes – 4 foot (an 8 foot sidepath may be substituted if appropriate)*
- *On-street parking not included (8 foot parking lane(s) may be added for higher density developments with limited on-site parking)*
- *Sidewalk, street trees and 5 foot utility area included*

Priority For the Right-of-Way:

- *Primary Priority Elements*
  - *Sidewalks with transit access*
  - *Street Trees*
  - *Bike lanes (or other bicycle facilities)*
- *Secondary Priority Elements*
  - *Number and width of travel lanes*

Traffic Management Features:

- *Street trees*
- *High visibility cross-walks*
- *Narrower travel lanes*
- *Reduced pedestrian crossing distances at intersections (using curb extensions and other measures where appropriate)*
- *Roundabouts*

N. Washington Street at 6th Street looking north

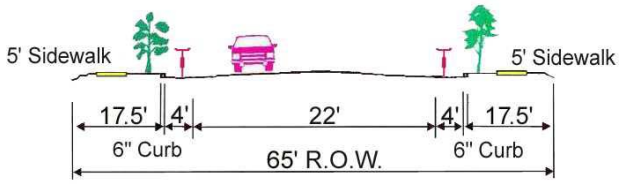


Figure 3: Typical Primary Collector Cross Section

Monroe Street at 14th Street looking south

Secondary Arterials

The typical cross section for a secondary arterial street is indicated in Figure 4. These two-lane divided streets in Bloomington typically carry between 10,000 to 20,000 vehicles per day (depending upon the number of traffic signals per mile). A median of 14 feet provides motorists with a left-turn lane into and out of the arterial street.

Due to higher traffic volumes, 4 foot bike lanes that interconnect with signed bike routes and neighborhood streets are required. In lieu of bike lanes, an 8 foot sidepath may be considered on one side of the street provided the street has a limited number of access points or is located in a low-density area.

Typical Characteristics of a Secondary Arterial:

- *Total right-of-way – 80 feet*
- *Median width – 14 feet or wider*
- *Travel lane widths – 12 feet*
- *Bike lanes – 4 foot lanes (an 8 foot sidepath may be substituted if appropriate)*
- *On-street parking not included (8 foot parking lane(s) may be added for higher density developments with limited on-site parking)*
- *Sidewalk, street trees and a utility area included*

Priority For the Right-of-Way:

- *Primary Priority Elements*
  - *Sidewalks with transit access*
  - *Tree plots*
  - *Bike lanes (or other bicycle facilities)*
- *Secondary Priority Elements*
  - *Width of travel lanes*
  - *Median*
  - *Left-turn lanes*

Traffic Management Features:

- *Street trees and landscaped medians*
- *Narrower travel lanes*
- *Reduced pedestrian crossing distances at intersections*
- *Roundabouts*
- *Acceleration and deceleration lanes*
- *Wider turning radius at intersections and access points*
- *Synchronization of traffic signals*

Kinser Pike with the golf course to the left looking south

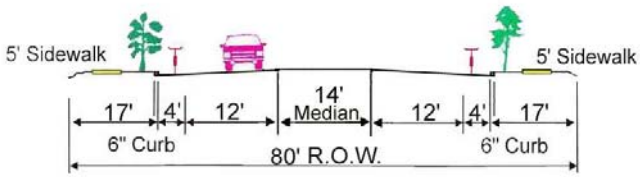
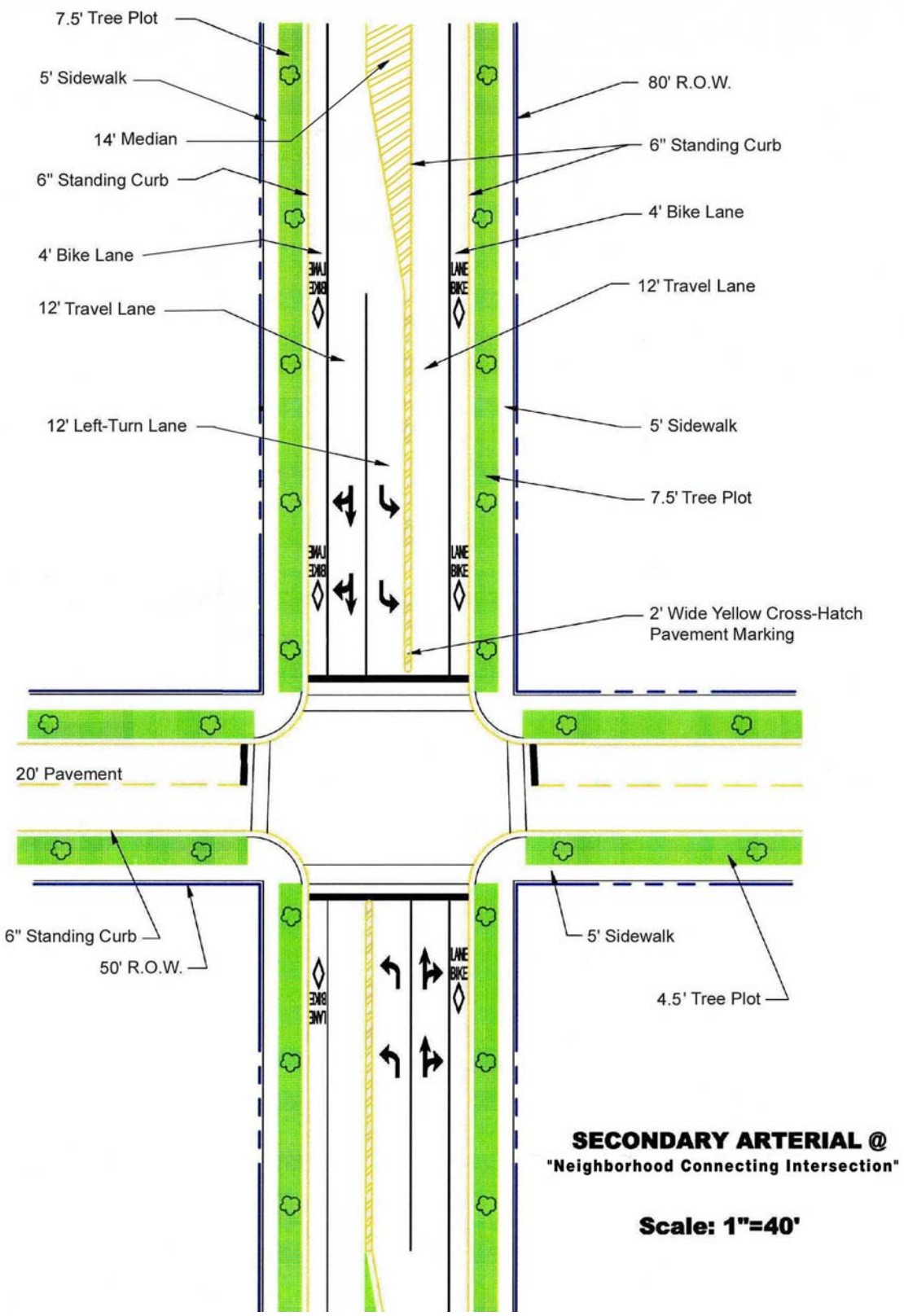


Figure 4: Typical Secondary Arterial Cross Section

10th Street at Fee Lane looking east

Shown here is a typical plan view of a secondary arterial intersecting with a neighborhood connecting street. This figure illustrates the treatment of an on-street bike lane as it passes through this type of intersection. This figure also illustrates the transition from a continuous median to a left-turn lane as the intersection is reached.



Primary Arterials

The typical cross section for a primary arterial street is indicated in Figure 6. This four-lane divided street can typically carry over 20,000 vehicles per day (depending upon the number of traffic signals per mile). Due to this higher traffic volume, a continuous turn lane (with or without a median barrier) is recommended. A median of 14 feet provides motorists with a left-turn lane into and out of the arterial street.

Due to higher traffic volumes, 4 foot bike lanes that interconnect with signed bike routes and neighborhood streets are required. In lieu of bike lanes, an 8 foot sidepath may be considered on one side of the street provided the street has a limited number of access points or is located in a low-density area.

Typical Characteristics of a Primary Arterial:

- *Total right-of-way – 100 feet*
- *Median width – 14 feet or wider*
- *Travel lane widths – 12 feet (4 lanes)*
- *Bike lanes – 4 foot or wider (an 8 foot sidepath may be substituted if appropriate)*
- *On-street parking not included (8 foot parking lane(s) may be added for higher density developments with limited on-site parking)*
- *Sidewalk, street trees and a utility area included*

Priority For the Right-of-Way:

- *Primary Priority Elements*
  - *Sidewalks with transit access*
  - *Street trees*
  - *Bike lanes (or other bicycle facilities)*
- *Secondary Priority Elements*
  - *Number and width of travel lanes*
  - *Median*

Traffic Management Features:

- *Streets trees and landscaped medians*
- *Consolidated driveways*
- *Reduced pedestrian crossing distances*
- *Roundabouts*
- *Acceleration and deceleration lanes*
- *Synchronization of traffic signals*

Walnut Street and College Avenue at State Road 45/46 Bypass looking south

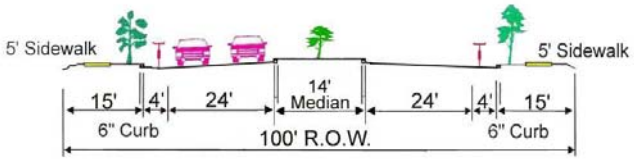
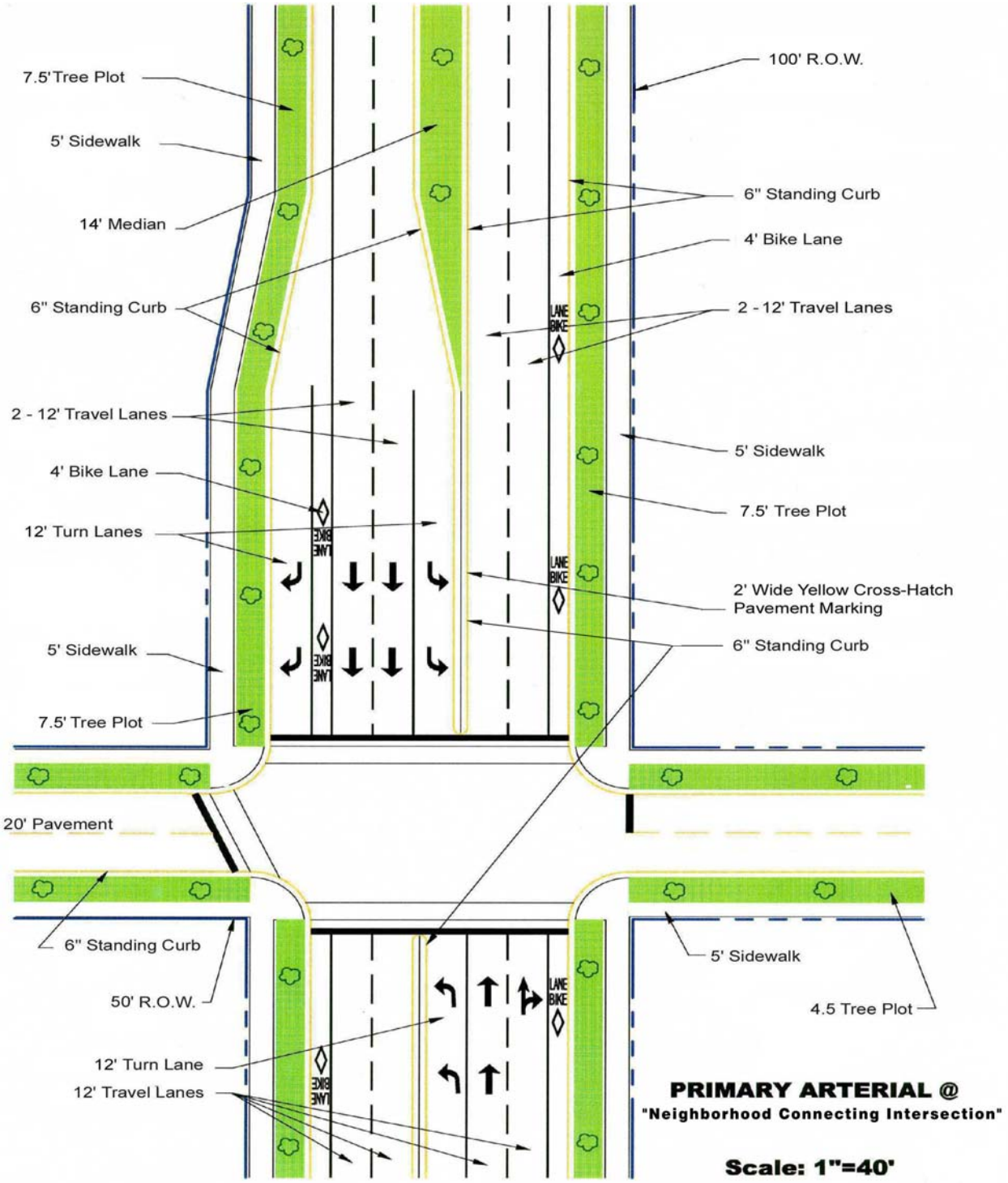


Figure 6: Typical Primary Arterial Cross Section

Winslow Road and High Street Roundabout looking east

Shown here is a typical plan view of a primary arterial intersecting with a neighborhood connecting street. This figure illustrates the treatment of an on-street bike lane as it passes through this type of intersection. This figure also illustrates the treatment of the continuous center-turn lane as it becomes an exclusive left-turn lane. In addition, 10 feet of right-of-way has been added to accommodate a separate right-turn lane. In the case of these right-turn lanes, separate lanes are required where the right-turn volume exceeds 300 vehicles per hour. Right-turn lanes will most often be required at arterial street intersections.



Official Thoroughfare Plan Map

The Official Thoroughfare Plan Map specifically highlights all streets functionally designated as secondary collector and above. Neighborhood streets are shown on the Thoroughfare Plan Map in order for the reader to better understand the overall Bloomington street network. In a few instances, the Thoroughfare Plan Map shows local connecting streets in order to identify key missing connections in the neighborhood street network.

Reading the Map

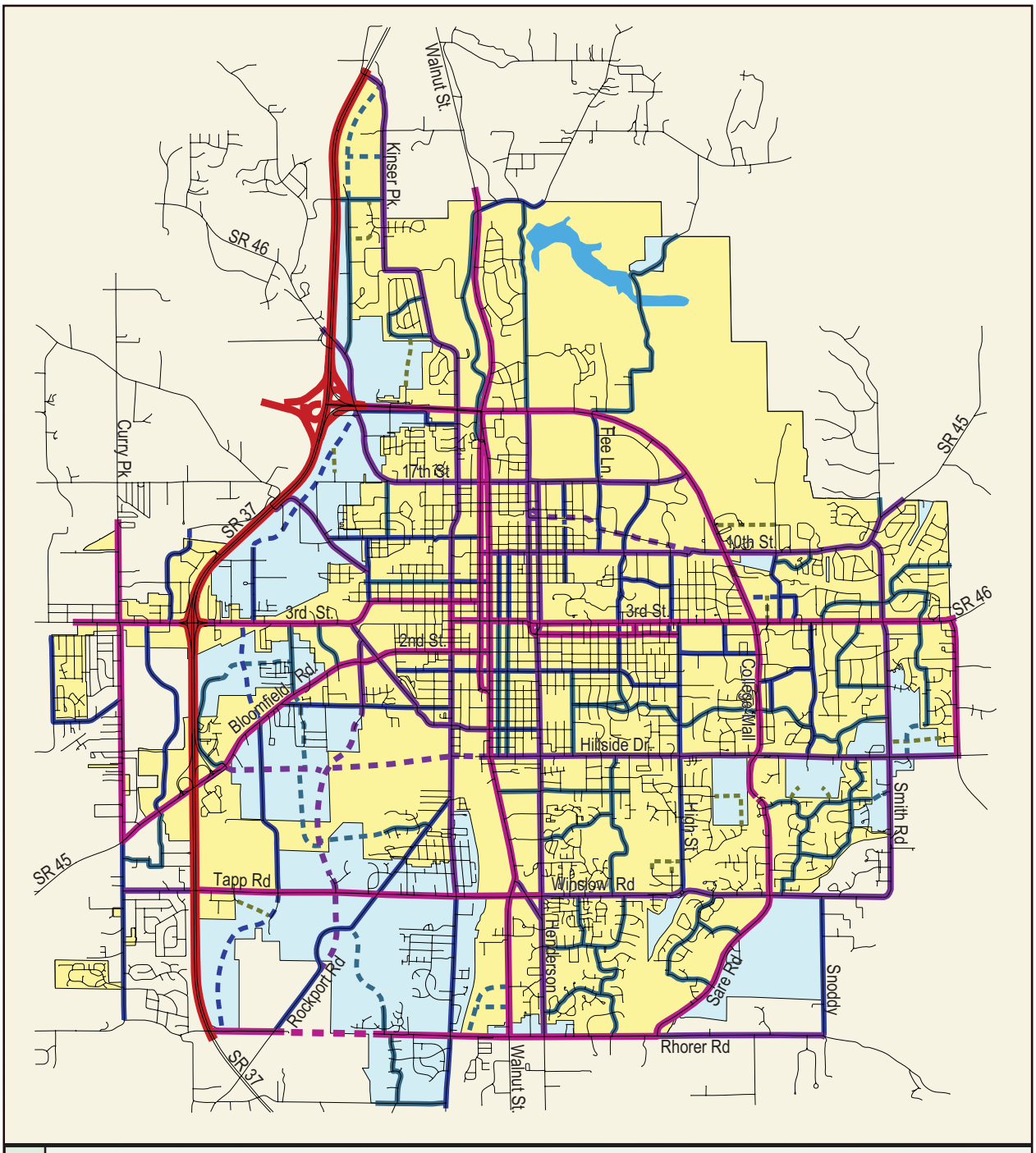
There are two types of primary arterial streets indicated on the Thoroughfare Plan Map – Freeway/Expressways and Urban Corridors. State Road 37 is the only classified freeway/expressway in the map's jurisdiction. There are numerous urban corridors in the jurisdiction, examples of which include Walnut Street, 3rd Street, and College Mall Road.

Secondary arterials, which carry reduced amounts of traffic and are not divided facilities, are also numerous throughout the jurisdiction. Examples of this classification include Hillside Drive, Henderson Street, and Rogers Street. Primary collectors, which carry both through traffic and neighborhood traffic, are represented by such streets as Jordan Avenue, Dunn Street, and High Street. The most typical thoroughfare located proximate to neighborhoods is the secondary collector, examples of which include Covenanter Drive, Morningside Drive, and Woodlawn Avenue. Examples of Neighborhood streets are University Street and Jordan Avenue. Examples of Core Neighborhood streets are Madison Street, Fairview Street and Maple Street.

Thoroughfare Designation Guidelines

Classification Criteria	Thoroughfare Designation			
	Collector	Secondary Arterial	Primary Arterial	Freeway/Expressway
Trip Distance	Provides for short-distance (< 3 miles) traffic movement between neighborhood and arterial systems.	Provides for moderate-distance traffic movement (about 3 miles) within Bloomington and between Bloomington and adjacent communities.	Provides for long-distance traffic movement (+3 miles) between Bloomington and other communities within the metropolitan area.	Provides for long-distance traffic movement (+ 3 miles) between Bloomington and other metropolitan areas.
Access Control	Provides direct access to abutting land uses and some access control through the spacing and location of driveways and intersections.	Partial access control: moderate service to abutting land uses. Access control through raised medians, and the spacing and location of driveways and intersections.	Limited access control: very limited service to abutting land uses. Access control through frontage roads, raised medians, and the spacing and location of driveways and intersections.	Full access control: no service to abutting land uses. Access points limited to other freeways and arterials with a minimum interchange spacing of 1 mile.
Traffic Separation	Opposing traffic flows are generally unseparated.	Oppossing traffic flows are physically separated by a raised median or continuous left-turn lane. Collector and arterial cross streets are signalized as well as major development entrances.	Opposing traffic flows are physically separated by a raised median. Collector and arterial cross streets are signalized.	Opposing traffic flows are physically separated and cross streets are grade-separated except that expressways may have at-grade signalized intersections at least 1 mile apart.
Signalization	Traffic signals exist for those intersections where an arterial street crosses a collector.	Traffic signals are coordinated for progressive movement	Traffic signals are coordinated for progressive movement	not applicable
Traffic Volumes	3,000 to 10,000 average daily trips	10,000 to 20,000 average daily trips	Over 20,000 average daily trips	Over 20,000 average daily trips
Speed	≤ 35 miles per hour	≥ 35 miles per hour	≥ 35 miles per hour	55 to 65 miles per hour
Number of Lanes	2-lane undivided	2-lane divided	4-lane divided	2+ lanes in each direction
Land Use Linkages	Main neighborhood interior streets	Secondary activity centers: occasionally form neighborhood boundaries	Major activity centers and the downtown core; usually form neighborhood boundaries	Major activity centers and the downtown core
Ideal spacing (same type of roadway)	.25 to .50 mile	0.75 to 1 mile	1.5 to 2 miles	Variable, not less than 3 miles
Percent of System (for each classification)	5 to 10%	5 to 10%	5 to 10%	0 to 5%

Source: Bernardin, Lochmueller & Associates, Inc.



MAP LEGEND

- Freeway/Expressway
- Primary Arterial
- Secondary Arterial
- Primary Collector
- Secondary Collector
- Local Street
- Proposed Primary Arterial
- Proposed Secondary Arterial
- Proposed Primary Collector
- Proposed Secondary Collector
- Proposed Local Street
- Municipal Boundary
- Additional Planning Jurisdiction

Master Thoroughfare Plan Map

Prepared by: Ground Rules, Inc

Access Control Guidelines

In addition to specifying cross sections for each major type of street classification, the Thoroughfare Plan also identifies access control measures that should be utilized for the design of new streets as well as widened facilities. Incorporating such measures provides a higher level of safety for motorists, bicyclists, and pedestrians. Outlined below is a list of access management guidelines that should be incorporated into the City's development review ordinances.

Neighborhood Streets

The location, spacing and driveways on neighborhood streets is controlled through the issuance of neighborhood street cut permits. In the case of new subdivisions, driveway spacing and location should be reviewed during the initial development review process.

Primary and Secondary Collectors

Access control on collectors is achieved by the spacing and location of driveways and intersections, primarily through the street cut permit process. While there is no limitation on the frequency of driveways, commercial driveways should be no closer than 200 feet to the approach of an existing signalized intersection.

Secondary Arterial

For extended or new secondary arterials on new right-of-way, access control is achieved through the raised median. Median crossovers and crossroad intersections along new or extended secondary arterials should be no closer than 600 feet, and those median crossovers or intersections anticipated to be signalized should be no closer than 1200 feet. However, driveway spacing may be closer than 600 feet, provided no driveway exit is within 200 feet of the approach to an existing signalized intersection. Frontage/service roads, rear lot access or joint driveways are encouraged to reduce the frequency of commercial driveways, and frontage roads are essential when single-family development faces the extended or new secondary arterial.

In the case of secondary arterials that are widened or reconstructed along existing right-of-way, access rights have already been established and new or reconstructed driveways are controlled through "access by permit." Nevertheless, efforts should be made to reduce the number of median crossovers and the number of driveways in the driveway permit process through:

- *Construction of a raised median so that left-turns out of abutting properties are prohibited and that access to abutting properties is limited to right-in/right-out movements. Left-turns from the arterial into the abutting properties may be desirable for high traffic generators. The retrofitting of a raised median is most appropriate in congested areas near signalized intersections where frequent high volume commercial driveways create safety and traffic operational concerns.*
- *Consolidation of driveways through joint use driveways.*

Primary Arterials

For extended or new primary arterials on new right-of-way, limited access is highly desirable. Access control on the primary arterial is achieved through the raised median. Median crossovers, crossroad intersections or driveways along new or extended primary arterials should be no closer than 600 feet. Those driveways or intersections anticipated to be signalized should be no closer than 1200 feet. Frontage/service roads, rear lot access or joint driveways should be used so that proper spacing of crossroad intersections is achieved. In particular, driveways from single-family development onto new or extended primary arterials should be prohibited.

In the case of primary arterials that are widened along existing right-of-way, access rights are already established and the location and design of driveways is controlled by the driveway permit. Nevertheless, efforts should be made to reduce the number of median crossovers and the number of driveways through the following measures:

- *Closure of median cuts so that left-turns out of abutting properties are prohibited and access to abutting properties is limited to right-in/right-out movements. Left-turns from the arterial into abutting properties may be desirable for high traffic generators.*
- *Consolidation of driveways through frontage/service roads and joint use driveways.*
- *Provision of rear access to properties from parallel neighborhood streets in office, retail, commercial, and/or industrial areas.*
- *Provision of appropriate rear access, in addition to street access from the arterial roadway. This will allow neighborhood access to retail and service uses without the necessity of having to use the arterial street.*