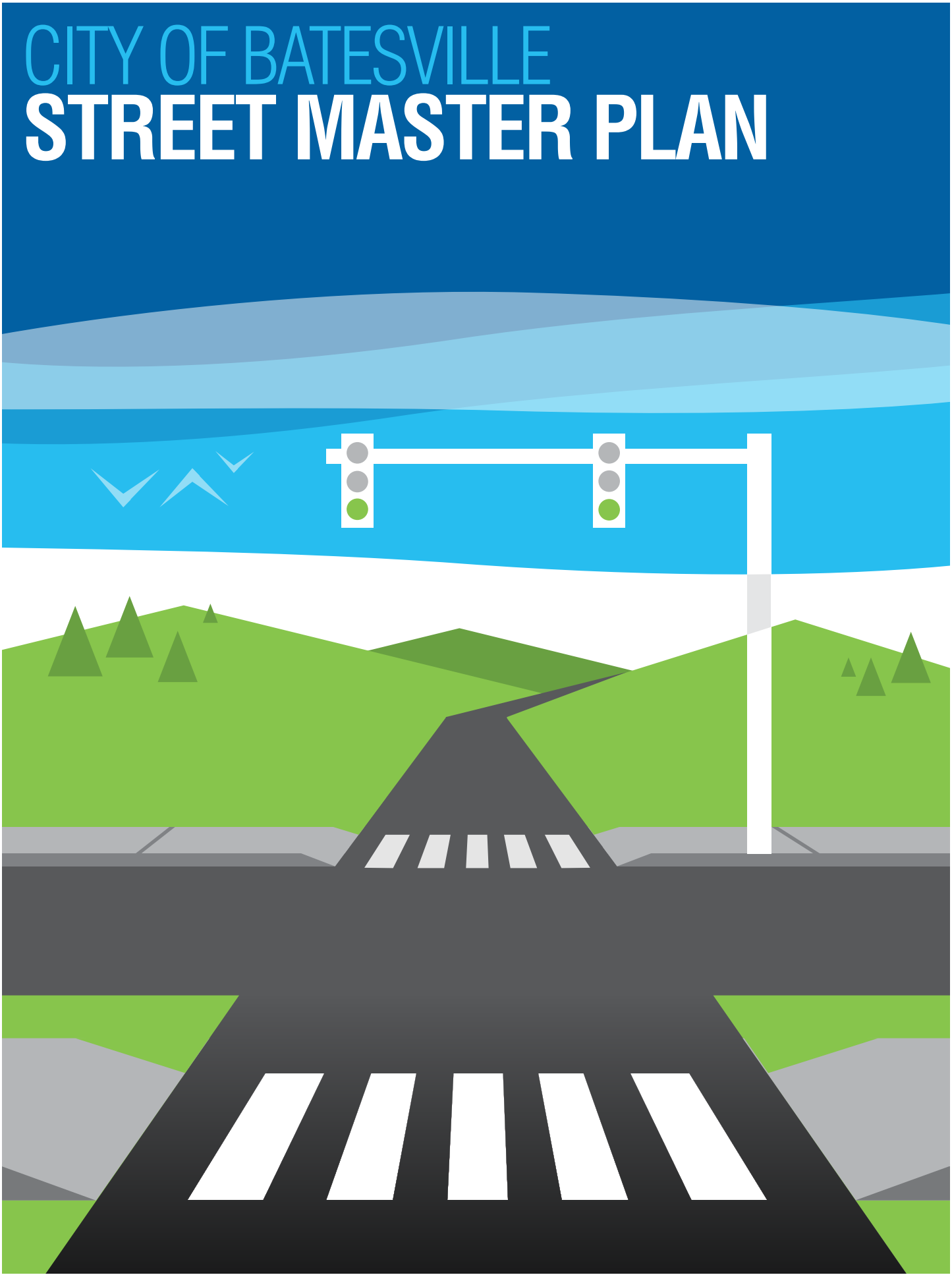
CITY OF BATESVILLE

STREET MASTER PLAN



STREET MASTER PLAN
CITY OF BATESVILLE, AR

APRIL 2019

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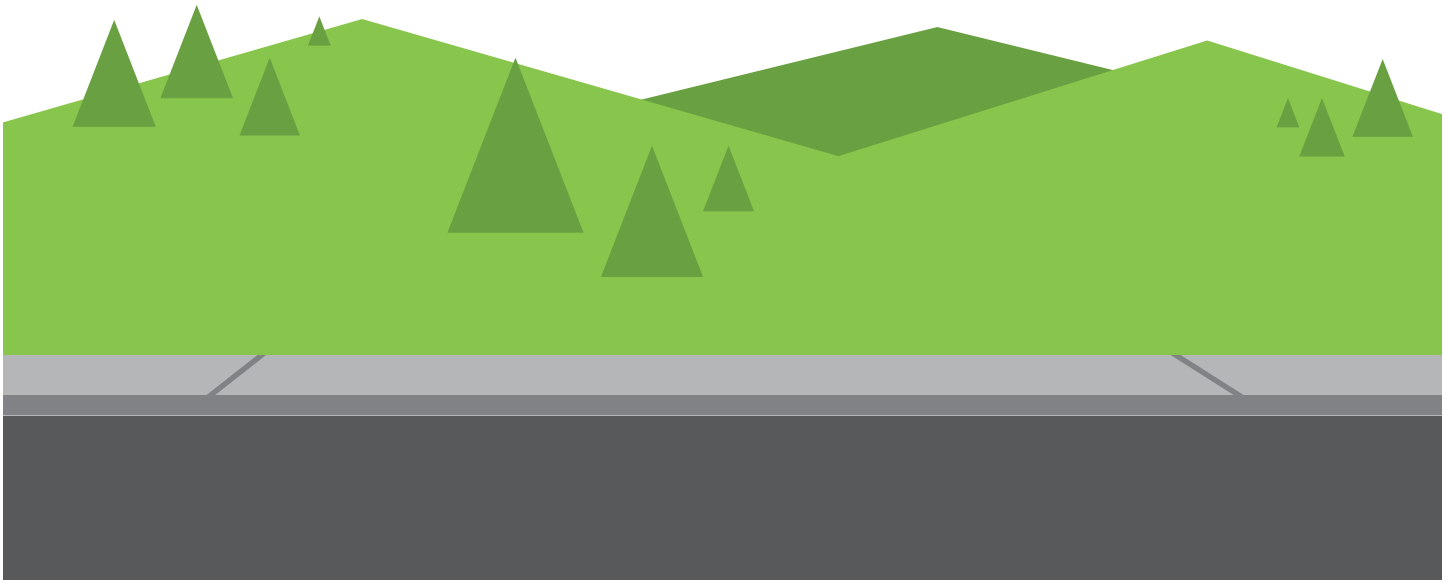
SECTION I INTRODUCTION

The City of Batesville has developed a Master Street Plan to accommodate an efficient, safe, and orderly flow of traffic through the City's planning area. In addition, this plan provides guidelines on the functional classifications of streets and their respective geometric design criteria.

The identification of streets into functional classes and geometric configurations is necessary for clear communication among administrators, engineers, developers, and the general public. Various street classifications identify existing and new cross sections that incorporate the City's adopted Bicycle & Pedestrian Master Plan. Streets are intended for public use via multiple modes of transportation including motorized vehicles, bikes, and pedestrians. The development of a comprehensive multi-modal transportation network is the goal of the City of Batesville.



SECTION II AUTHORITY, JURISDICTION, ENFORCEMENT

AUTHORITY

The Planning Commission of the City of Batesville is vested with the authority to review, conditionally approve and disapprove applications for the development of property including subdivision of land, preliminary, and final plats in accordance with Section 15.01.04 of Title 15 Subdivisions Regulations. All new development within the City of Batesville planning jurisdiction shall comply with the design standards set forth in this street master plan and shall be made a part of the subdivision Regulations.

The Street Master Plan and its design standards are hereby adopted and made effective as of October 1st, 2018 and will become part of the subdivision regulations.

JURISDICTION

As per the subdivision Regulations under section 15.01.05, the design standards set forth in the Street Master Plan shall apply to development that occurs within the corporate limits of the City of Batesville or the City's planning area outside the corporate limits as provided by law.

All applications for subdivision approval, including preliminary plats and site plans, pending the effective date of these regulations shall be reviewed to insure that the design standards are meet.

New development where said property abuts a street included in the Street Master Plan, the property owner shall dedicate one-half of the required right of way as established in the plan. In the event that the proposed centerline of the right of way does not coincide with the existing property lines resulting in a disproportionate amount of right of way required from one property owner, the city will reserve for acquisition any right of way in excess of one half of the total right of way which the property owner is required to dedicate. Where the street traverses the said property, the property owner will be required to dedicate the entire amount of right of way as established in the plan.

Per section 15.01.12 of the Subdivision Regulations, the Planning Commission shall reserve the right to grant variances, exceptions, and waiver of conditions in accordance with this section in the Subdivision Regulations.

ENFORCEMENT

In accordance with Section 15.01.13 of the Subdivision Regulations, the Planning Commission shall exercise the same power of enforcement to ensure the design standards set forth in this Street Master Plan are met.

Right of way required shall be dedicated prior to certificate of occupancy of new development and with the recording of a final plat for the subdivision of land.

SECTION III FUNCTIONAL CLASSIFICATION

FUNCTIONAL CLASSIFICATION SYSTEM

There are four roadway classifications included in the Batesville Street Master Plan: local urban, residential, collector, and arterial streets. These classifications provide a hierarchy of roadways for an overall transportation network. The Street Master Plan map, located on page 29, depicts the general roadway classifications of existing and future streets throughout the City of Batesville and its surrounding planning area.

Two of the four roadway classifications (local urban and residential) are further categorized into existing and improved. Some local urban, residential, and collector streets also include multi-modal designations, which will reflect the recommendations from the Batesville Bicycle and Pedestrian Master Plan, Ordinance No. 2017-09-03.

- Local Urban: Streets that comprise the original grid street network surrounding downtown and early neighborhoods.

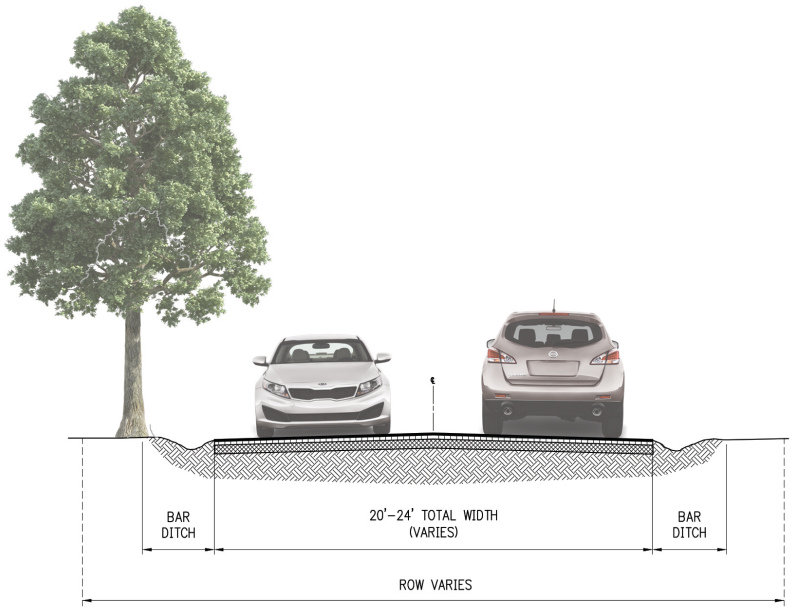
- Minor or Residential: Streets that serve neighborhoods that our outlying or rural. A residential street is not generally continuous through several districts.

- Collector: Streets that connect neighborhoods from local urban streets and residential streets to arterials.

- Arterial: Streets that carry high volumes of through traffic across the City of Batesville to connect to other urban centers.

The Street Master Plan includes recommendations for multi-modal facilities and other bicycle and pedestrian enhancements to encourage alternative modes of transportation as infrastructure improvements are made and development occurs in the City of Batesville. Additional standards and recommendations can be found in The City of Batesville Bike and Pedestrian Plan.

Local Urban (Existing)



FUNCTION

Local Urban streets comprise the original grid street network found in downtown Batesville and near Lyon College. These streets accommodate a variety of land uses, including small-footprint residential and non-residential uses, as well as large employment and institutional facilities. With block lengths ranging from 350'-500', the frequency of streets in this grid pattern functions to distribute traffic in a more even fashion than its modern counterparts. Local Urban streets can accommodate higher traffic volumes than their unconnected residential counterparts, based on the frequency of parallel streets that evenly distributes traffic, rather than consolidating it on fewer higher-functioning roads.

Most Local Urban streets are narrow (18-24') and are lacking curb and gutter. This allows parking along the street in areas where deep ditches are not in close proximity. Further, these streets demonstrate some low-impact development (LID) qualities by filtering water with plant materials and allowing some permeability prior to entering the storm drain system. Sidewalks occur more frequently west of St. Louis and east of the White River.

INTERCONNECTIVITY

The grid network and short block lengths should be preserved in order to maintain the functionality of this type of street network. New development seeking a similar treatment should utilize the Local Urban Improved standard and should do so in a similar fashion, with block lengths not exceeding 500' forming an interconnected network of streets.

MULTI-MODAL/COMPLETE STREET APPLICABILITY

Local Urban streets on which bicycle access is desired or encouraged should be demarked by a sharrow in the center of each lane of vehicular travel, indicating that bicycles and automobiles share the road. Refer to the Batesville Bicycle & Pedestrian Master Plan for appropriate Local Urban streets with this marking, and to the Manual on Uniform Traffic Control Devices (MUTCD), Section 9C.07, for specifications on sharrow placement and frequency. Existing sidewalks should be in good condition and allow access in accordance with the Americans with Disabilities Act (ADA).

Local Urban (Existing)

DESIGN STANDARDS

Design Service Volume	up to 2,500 VPD
Desired Operating Speed	20 mph
Travel Lanes	2
Bicycle Facility	Sharrows; refer to Bicycle & Pedestrian Master Plan for location
Parking	varies
Paved Width (BOC to BOC)	varies 20-24' width, existing curb and gutter varies
Right of Way	varies
Sidewalks	varies
Greenspace	varies
Maximum Centerline Grade	existing; varies
Min. Stopping Sight Distance	existing; varies
Min. Horizontal Radius at Centerline	existing; varies
Min. Horizontal Tangent Distance between Reverse Curves	existing; varies
Intersection Curb Radius	existing; varies
Driveways	existing; varies
Storm Drainage	refer to Drainage Manual

ADDITIONAL TREATMENTS TO SPECIFIC LOCAL URBAN STREETS

Certain Local Urban streets have bicycle and/or pedestrian facilities proposed along them, even if improvements to the street itself have not been indicated. Refer to the Bicycle and Pedestrian Master Plan, pages 25-40 and 68-71 for additional information and specific treatments.

Though the Master Street Plan only depicts connectivity routes associated with streets, the entire network is located on page 27 of the Bicycle and Pedestrian Master Plan.

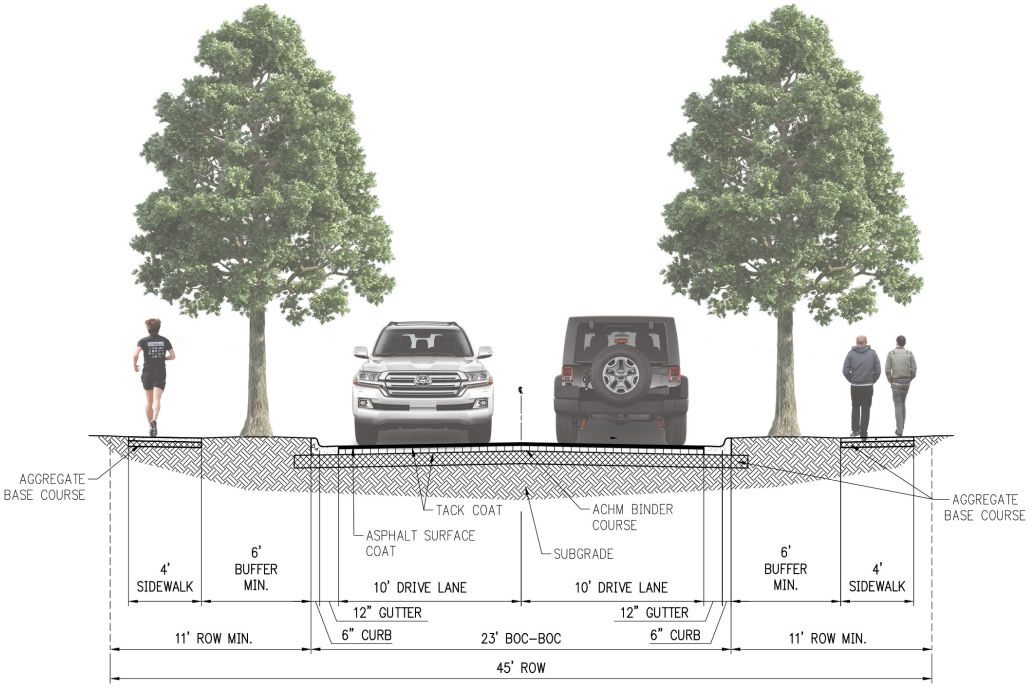
Local Urban Streets with Sharrows:

- Ramsay from Broad to Lawrence
- Lawrence from Ramsay to Sidney
- Sidney from Lawrence to Neely
- Lyon from 22nd to Row
- Row from Lyon to Neely
- 22nd from College to Highland
- Highland from Gwyn to 22nd
- Gwyn from College to Bearette
- Bayou from Charles to Baker
- Heights from Baker to White

Local Urban Streets with Multi-Use Sidepath:

- None indicated in this plan

Local Urban Improved



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Improved Local Urban streets include a curb and gutter, subsurface storm drainage, and sidewalks along each side.

INTERCONNECTIVITY

The grid network and short block lengths should be preserved in order to maintain the functionality of this type of street network. New development utilizing this street type should do so in a similar fashion, with block lengths not exceeding 500' forming an interconnected network of streets.

MULTI-MODAL/COMPLETE STREET APPLICABILITY

Local Urban Improved streets include sidewalks on each side of the road and crosswalks at all intersections, providing safe pedestrian access in accordance with the Americans with Disabilities Act (ADA). Streets on which bicycle access is desired or encouraged should be demarked by a sharrow in the center of each lane of vehicular travel, indicating that bicycles and automobiles share the road. Refer to the Batesville Bicycle & Pedestrian Master Plan for appropriate Local Urban streets with this marking, and to the Manual on Uniform Traffic Control Devices (MUTCD), Section 9C.07, for specifications on sharrow placement and frequency.

Local Urban Improved

DESIGN STANDARDS

Design Service Volume	up to 2,500 VPD
Desired Operating Speed	20 mph
Travel Lanes	2
Bicycle Facility	Sharrows; refer to Bicycle & Pedestrian Master Plan for location
Parking	none
Paved Width (BOC to BOC)	23′
Right of Way	45′
Sidewalks	min. 4′ each side
Greenspace	min. 6′ buffer each side
Maximum Centerline Grade	15%
Min. Stopping Sight Distance	100′ or latest AASHTO Policy on Geometric Design Manual
Min. Horizontal Radius at Centerline	150′ (normal crown)
Min. Horizontal Tangent Distance between Reverse Curves	N/A
Intersection Curb Radius	25′
Storm Drainage	refer to Drainage Manual

ADDITIONAL TREATMENTS TO SPECIFIC LOCAL URBAN IMPROVED STREETS

Refer to the Bicycle and Pedestrian Master Plan, pages 25-40 and 68-71 for additional information and specific treatments.

Though the Master Street Plan only depicts connectivity routes associated with streets, the entire bicycle and pedestrian network is located on page 27 of the Bicycle and Pedestrian Master Plan.

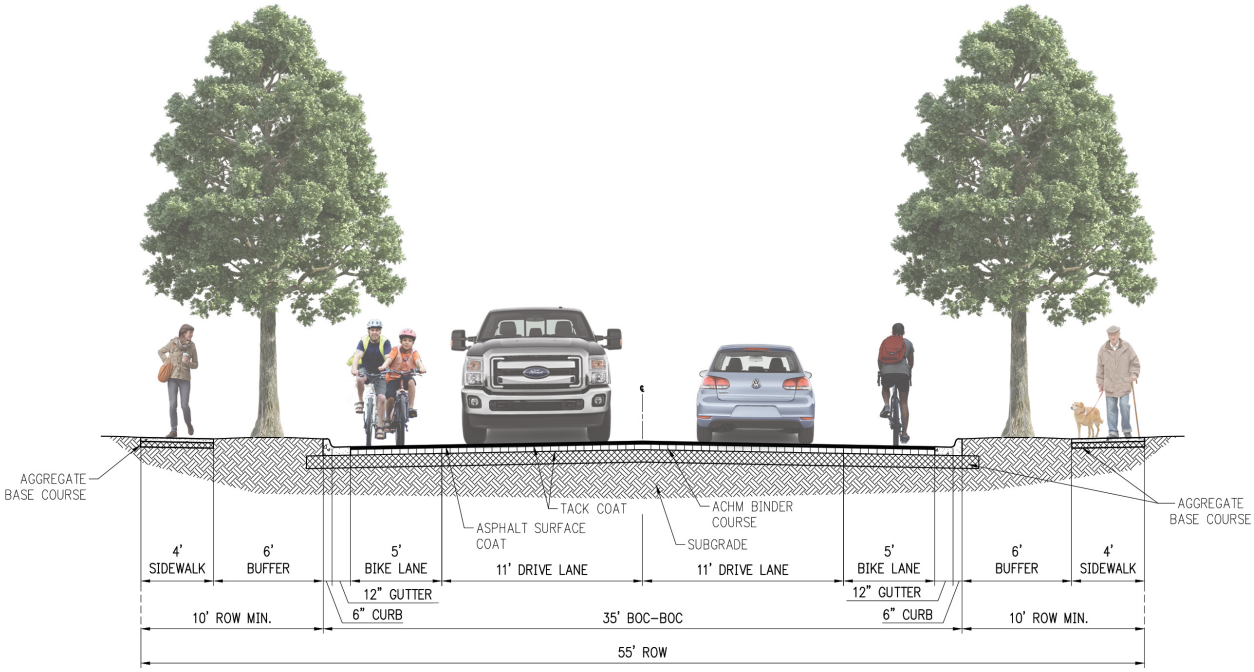
Local Urban Improved Streets with Sharrows:

- Main from Bayou/Broad to 6th
- 20th from Harrison to College
- 22nd from Harrison to College
- 30th from Harrison to Neely
- Neely from St. Louis to 30th

Local Urban Improved Streets with Multi-Use Sidepath:

- College from Central to Ringgold
- Ringgold from College to Boswell
- Jennings from Pioneer to Harrison

Local Urban Multi-Modal



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Local Urban Multi-Modal streets include a curb and gutter, subsurface storm drainage, bicycle lanes, and sidewalks along each side.

INTERCONNECTIVITY

The grid network and short block lengths should be preserved in order to maintain the functionality of this type of street network. New development utilizing this street type should do so in a similar fashion, with block lengths not exceeding 500' forming an interconnected network of streets.

MULTI-MODAL/COMPLETE STREET APPLICABILITY

Local Urban Multi-Modal streets include sidewalks on each side of the road and crosswalks at all intersections, providing safe pedestrian access in accordance with the Americans with Disabilities Act (ADA). Bicycles are accommodated with 5' bicycle lanes in each direction of vehicular travel. Refer to the Batesville Bicycle & Pedestrian Master Plan for appropriate Local Urban Multi-Modal streets with bicycle lanes, and to the Manual on Uniform Traffic Control Devices (MUTCD), Section 9C.04, for specifications on bicycle lane markings. Future Local Urban Multi-Modal streets not indicated on the Batesville Bicycle & Pedestrian Master Plan should follow the standards listed below.

Local Urban Multi-Modal

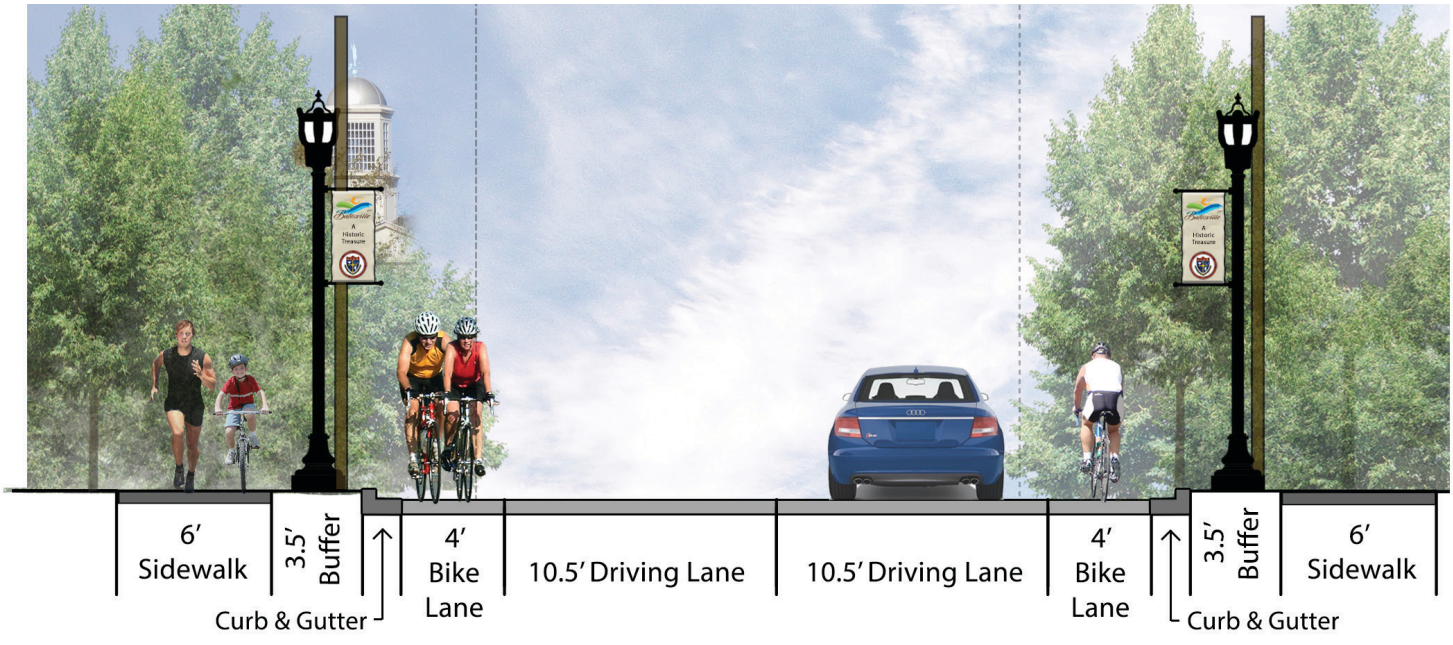
DESIGN STANDARDS

Design Service Volume	up to 2,500 VPD
Desired Operating Speed	20 mph
Travel Lanes	2
Bicycle Facility	5′ Bicycle Lane in each direction of travel
Parking	none
Paved Width (BOC to BOC)	35′
Right of Way	55′
Sidewalks	min. 4′ each side
Greenspace	min. 6′ buffer each side
Maximum Centerline Grade	15%
Min. Stopping Sight Distance	100′ or latest AASHTO Policy on Geometric Design Manual
Min. Horizontal Radius at Centerline	150′ (normal crown)
Min. Horizontal Tangent Distance between Reverse Curves	N/A
Intersection Curb Radius	25′
Storm Drainage	refer to Drainage Manual

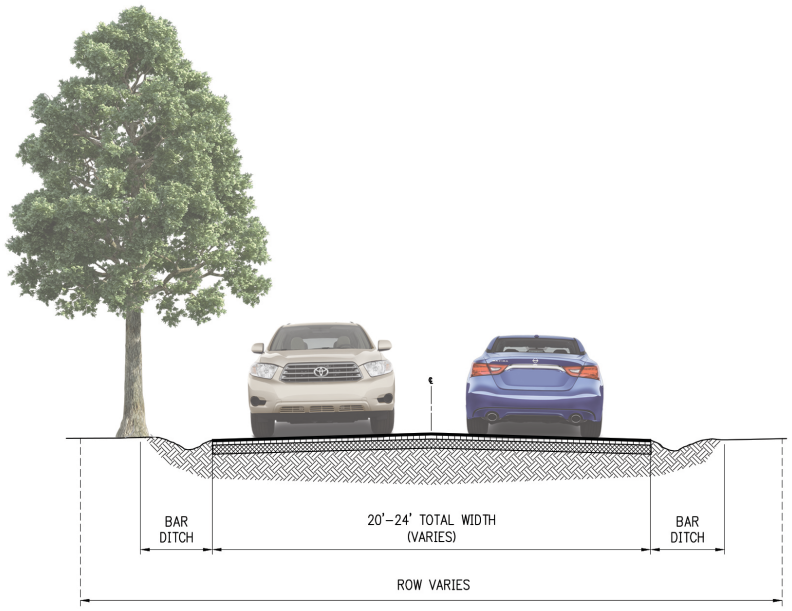
ADDITIONAL TREATMENTS TO SPECIFIC LOCAL URBAN MULTI-MODAL STREETS

All Local Urban Multi-Modal streets include 5′ bicycle lanes in each direction of vehicular travel as well as sidewalks on each side. Therefore, no Residential Multi-Modal streets include sharrows or multi-use sidepaths.

Refer to the Bicycle and Pedestrian Master Plan, pages 25-40 and 68-71 for additional information and specific treatments. Though the Master Street Plan only depicts connectivity routes associated with streets, the entire network is located on page 27 of the Bicycle and Pedestrian Master Plan. Specific design treatments along College Avenue from St. Louis to 22nd are detailed below.



Minor or Residential (Existing)



FUNCTION

Minor roads (or existing Residential roads) serve rural or outlying areas near Batesville or residential neighborhoods. These roads vary in width and were constructed without curbs, gutters, and storm sewer. Sidewalks are not present along the majority of these roads. New residential development as well as future non-residential minor streets should utilize the Minor or Residential Improved standard.

INTERCONNECTIVITY

While some minor roads provide connectivity through outlying areas, most minor or residential roads serve a limited area and have poor connectivity to adjacent developments or roads. Several were constructed without the need or desire for walkability.

MULTI-MODAL/COMPLETE STREET APPLICABILITY

Existing minor or residential roads may include sidewalks on one or each side of the road, if desired, and crosswalks at all intersections, providing safe pedestrian access in accordance with the Americans with Disabilities Act (ADA). Streets on which bicycle access is desired or encouraged should be demarked by a sharrow in the center of each lane of vehicular travel, indicating that bicycles and automobiles share the road. Refer to the Batesville Bicycle & Pedestrian Master Plan for appropriate Minor or Residential streets with this marking, and to the Manual on Uniform Traffic Control Devices (MUTCD), Section 9C.07, for specifications on sharrow placement and frequency.

Minor or Residential (Existing)

DESIGN STANDARDS

Design Service Volume	up to 1,000 VPD
Desired Operating Speed	20 mph
Travel Lanes	2
Bicycle Facility	Sharrows; refer to Bicycle & Pedestrian Master Plan for location
Parking	varies
Paved Width (BOC to BOC)	varies 20-24' width, existing curb and gutter varies
Right of Way	varies
Sidewalks	varies
Greenspace	varies
Maximum Centerline Grade	existing; varies
Min. Stopping Sight Distance	existing; varies
Min. Horizontal Radius at Centerline	existing; varies
Min. Horizontal Tangent Distance between Reverse Curves	existing; varies
Intersection Curb Radius	existing; varies
Driveways	existing; varies
Storm Drainage	refer to Drainage Manual

ADDITIONAL TREATMENTS TO SPECIFIC MINOR OR RESIDENTIAL (EXISTING) STREETS

Some Minor or Residential (Existing) streets have bicycle and/or pedestrian facilities proposed along them, even if improvements to the street itself have not been indicated. Refer to the Bicycle and Pedestrian Master Plan, pages 25-40 and 68-71 for additional information and specific treatments.

Though the Master Street Plan only depicts connectivity routes associated with streets, the entire bicycle and pedestrian network is located on page 27 of the Bicycle and Pedestrian Master Plan.

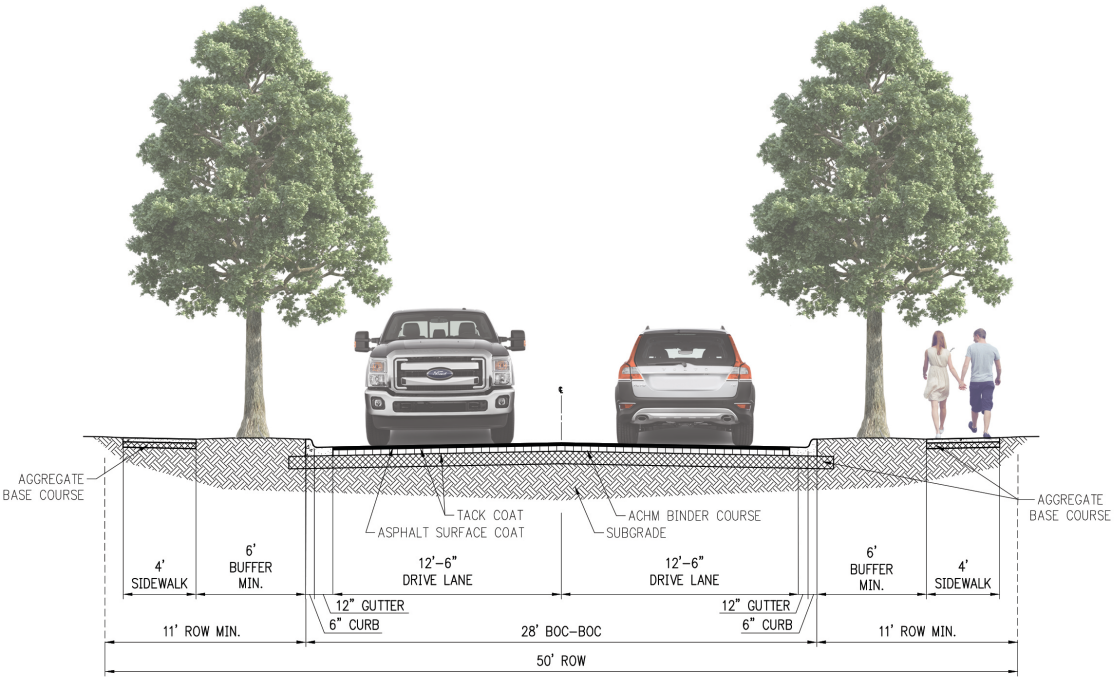
<u>Minor or Residential Streets with Sharrows:</u>

- Dry Kiln
- Sunnyside

<u>Minor or Residential Streets with Multi-Use Sidepath:</u>

- none

Minor or Residential Improved



FUNCTION

Minor roads (or existing Residential roads) serve rural or outlying areas near Batesville or residential neighborhoods. These roads vary in width and were constructed without curbs, gutters, and storm sewer. Sidewalks are not present along the majority of these roads. New residential development as well as future non-residential minor streets should utilize the Minor or Residential Improved standard.

Minor or Residential Improved streets include a curb and gutter, subsurface storm drainage, and sidewalks along each side.

INTERCONNECTIVITY

While some minor roads provide connectivity through outlying areas, most minor or residential roads serve a limited area and have poor connectivity to adjacent developments or roads. Several were constructed without the need or desire for walkability. Future developments should be connected to adjacent developments and employ reduced block lengths to facilitate interconnectivity while reducing new demand on existing collector and arterial streets.

MULTI-MODAL/COMPLETE STREET APPLICABILITY

Minor or Residential Improved streets should include sidewalks on each side of the road and crosswalks at all intersections, providing safe pedestrian access in accordance with the Americans with Disabilities Act (ADA). Streets on which bicycle access is desired or encouraged should be demarked by a sharrow in the center of each lane of vehicular travel, indicating that bicycles and automobiles share the road. Refer to the Batesville Bicycle & Pedestrian Master Plan for appropriate Residential streets with this marking, and to the Manual on Uniform Traffic Control Devices (MUTCD), Section 9C.07, for specifications on sharrow placement and frequency.

Minor or Residential Improved

DESIGN STANDARDS

Design Service Volume	up to 1,000 VPD
Desired Operating Speed	20 mph
Travel Lanes	2
Bicycle Facility	Sharrows; refer to Bicycle & Pedestrian Master Plan for location
Parking	on-street allowed
Paved Width (BOC to BOC)	28′ (existing Improved Residential streets vary from 22′-28′)
Right of Way	50′
Sidewalks	min. 4′ each side
Greenspace	min. 6′ buffer each side
Maximum Centerline Grade	15%
Min. Stopping Sight Distance	100′ or latest AASHTO Policy on Geometric Design Manual
Min. Horizontal Radius at Centerline	150′ (normal crown)
Min. Horizontal Tangent Distance between Reverse Curves	N/A
Intersection Curb Radius	25′
Storm Drainage	refer to Drainage Manual

ADDITIONAL TREATMENTS TO SPECIFIC MINOR OR RESIDENTIAL IMPROVED STREETS

Refer to the Bicycle and Pedestrian Master Plan, pages 25-40 and 68-71 for additional information and specific treatments.

Though the Master Street Plan only depicts connectivity routes associated with streets, the entire bicycle and pedestrian network is located on page 27 of the Bicycle and Pedestrian Master Plan.

Minor or Residential Improved Streets with Sharrows:

- White Oak Court
- Eagle Mountain Golf/Mountain Ridge Road from Gap to White Oak Court extension

Minor or Residential Improved Streets with Multi-Use Sidepath:

- Eagle Mountain from Harrison to Eagle Mountain Elementary
- Aberdeen from Eagle Mountain to the sewer easement trail

APPLICATION TO NEW DEVELOPMENTS

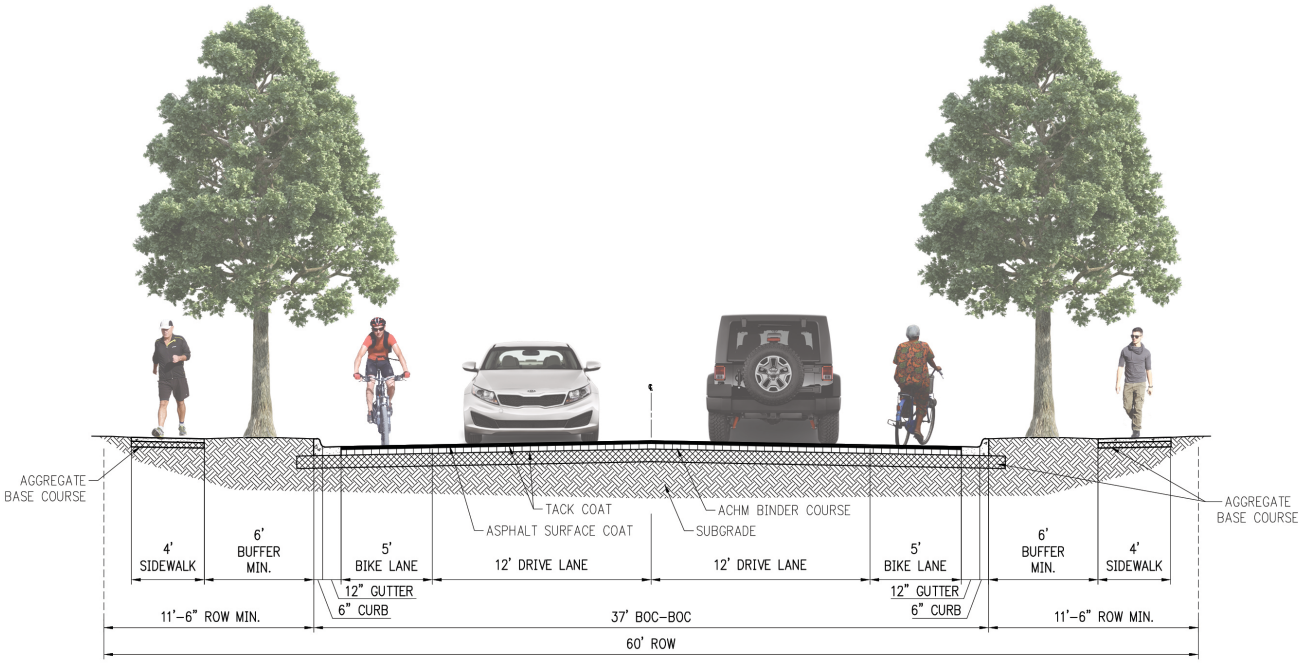
Minor or Residential **Improved Design Standard** to be utilized as follows:

- for internal, secondary streets of a development phase that are not through streets or do not connect to adjacent developments

Minor or Residential **Multi-Modal Design Standard** to be utilized as follows:

- to complete a connection where there is a gap between two developments
- on a development's primary street that connects multiple phases or connects multiple blocks in one or adjacent developments

Minor or Residential Multi-Modal



FUNCTION

Minor roads (or existing Residential roads) serve rural or outlying areas near Batesville or residential neighborhoods. These roads vary in width and were constructed without curbs, gutters, and storm sewer. Sidewalks are not present along the majority of these roads. New residential development as well as future non-residential minor streets should utilize the Minor or Residential Improved standard.

Minor or Residential Improved streets include a curb and gutter, subsurface storm drainage, and sidewalks along each side.

INTERCONNECTIVITY

While some minor roads provide connectivity through outlying areas, most minor or residential roads serve a limited area and have poor connectivity to adjacent developments or roads. Several were constructed without the need or desire for walkability. Future developments should be connected to adjacent developments and employ reduced block lengths to facilitate interconnectivity while reducing new demand on existing collector and arterial streets.

MULTI-MODAL/COMPLETE STREET APPLICABILITY

Minor or Residential Multi-Modal streets include sidewalks on each side of the road and crosswalks at all intersections, providing safe pedestrian access in accordance with the Americans with Disabilities Act (ADA). Bicycles are accommodated with 5' bicycle lanes in each direction of vehicular travel. Refer to the Batesville Bicycle & Pedestrian Master Plan for appropriate Residential Multi-Modal streets with bicycle lanes, and to the Manual on Uniform Traffic Control Devices (MUTCD), Section 9C.04, for specifications on bicycle lane markings. Future Minor or Residential Multi-Modal streets not indicated on the Batesville Bicycle & Pedestrian Master Plan should follow the standards listed below.

Minor or Residential Multi-Modal

DESIGN STANDARDS

Design Service Volume	up to 1,000 VPD
Desired Operating Speed	20 mph
Travel Lanes	2
Bicycle Facility	5′ Bicycle Lane in each direction of travel
Parking	none
Paved Width (BOC to BOC)	37′
Right of Way	60′
Sidewalks	min. 4′ each side
Greenspace	min. 6′ buffer each side
Maximum Centerline Grade	15%
Min. Stopping Sight Distance	100′ or latest AASHTO Policy on Geometric Design Manual
Min. Horizontal Radius at Centerline	150′ (normal crown)
Min. Horizontal Tangent Distance between Reverse Curves	N/A
Intersection Curb Radius	25′
Storm Drainage	refer to Drainage Manual

ADDITIONAL TREATMENTS TO SPECIFIC MINOR OR RESIDENTIAL MULTI-MODAL STREETS

All Minor or Residential Multi-Modal streets include 5′ bicycle lanes in each direction of vehicular travel as well as sidewalks on each side. Therefore, no Residential Multi-Modal streets include sharrows or multi-use sidepaths.

Refer to the Bicycle and Pedestrian Master Plan, pages 25-40 and 68-71 for additional information and specific treatments. Though the Master Street Plan only depicts connectivity routes associated with streets, the entire network is located on page 27 of the Bicycle and Pedestrian Master Plan.

APPLICATION TO NEW DEVELOPMENTS

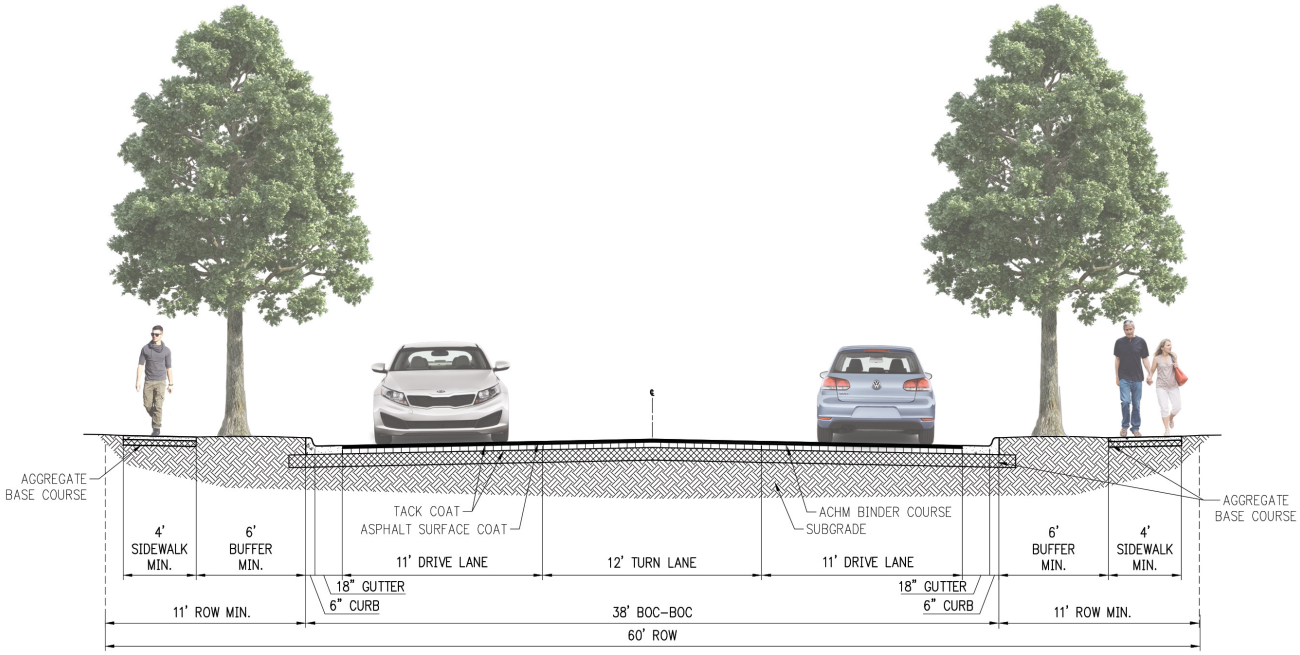
Minor or Residential **Improved Design Standard** to be utilized as follows:

- for internal, secondary streets of a development phase that are not through streets or do not connect to adjacent developments

Minor or Residential **Multi-Modal Design Standard** to be utilized as follows:

- to complete a connection where there is a gap between two developments
- on a development's primary street that connects multiple phases or connects multiple blocks in one or adjacent developments

Collector



FUNCTION

Collector streets are designed to "collect" traffic from residential or local streets onto arterial roads. Collectors accommodate slightly higher traffic volumes at higher speeds than residential streets, but may include residential uses along them. Appropriate design and placement of Collector streets result in a balance between access and mobility. These transitional roads are often times 3 lanes, including a dedicated center turn lane to reduce traffic conflicts from left-turn movements.

INTERCONNECTIVITY

Collector streets provide connectivity to and between residential, local, and arterial roads. Oftentimes, a larger collector network may be established in which collectors intersect other collectors approximately every ½ mile. However, this street network can lead to larger islands of development with little connectivity within.

MULTI-MODAL/COMPLETE STREET APPLICABILITY

Collector streets should include sidewalks on each side of the road and crosswalks at all intersections, providing safe pedestrian access in accordance with the Americans with Disabilities Act (ADA). Bicycle access along Collector streets should be accommodated via Bicycle Lanes, due to traffic volumes and speeds. Refer to Collector Multi-Modal street standards for the inclusion of bicycle facilities along this street type.

Collector

DESIGN STANDARDS

Design Service Volume	up to 12,000 VPD; 7,500 VPD optimal
Desired Operating Speed	30 mph
Travel Lanes	3 (2 lanes with center turn lane)
Bicycle Facility	none
Parking	none
Paved Width (BOC to BOC)	38′
Right of Way	60′
Sidewalks	min. 4′ each side
Greenspace	min. 6′ buffer each side; 8′ preferred
Maximum Centerline Grade	12%
Min. Stopping Sight Distance	300′ or latest AASHTO Policy on Geometric Design Manual
Min. Horizontal Radius at Centerline	275′ (normal crown)
Min. Horizontal Radius at Centerline	235′ (super-elevated)
Min. Horizontal Tangent Distance between Reverse Curves	100′
Intersection Curb Radius	30′
Storm Drainage	refer to Drainage Manual

ADDITIONAL TREATMENTS TO SPECIFIC COLLECTOR STREETS

Certain Collector streets may have bicycle and/or pedestrian facilities proposed along them, even if improvements to the street itself have not been indicated. Refer to the Bicycle and Pedestrian Master Plan, pages 25-40 and 68-71 for additional information and specific treatments.

Though the Master Street Plan only depicts connectivity routes associated with streets, the entire network is located on page 27 of the Bicycle and Pedestrian Master Plan.

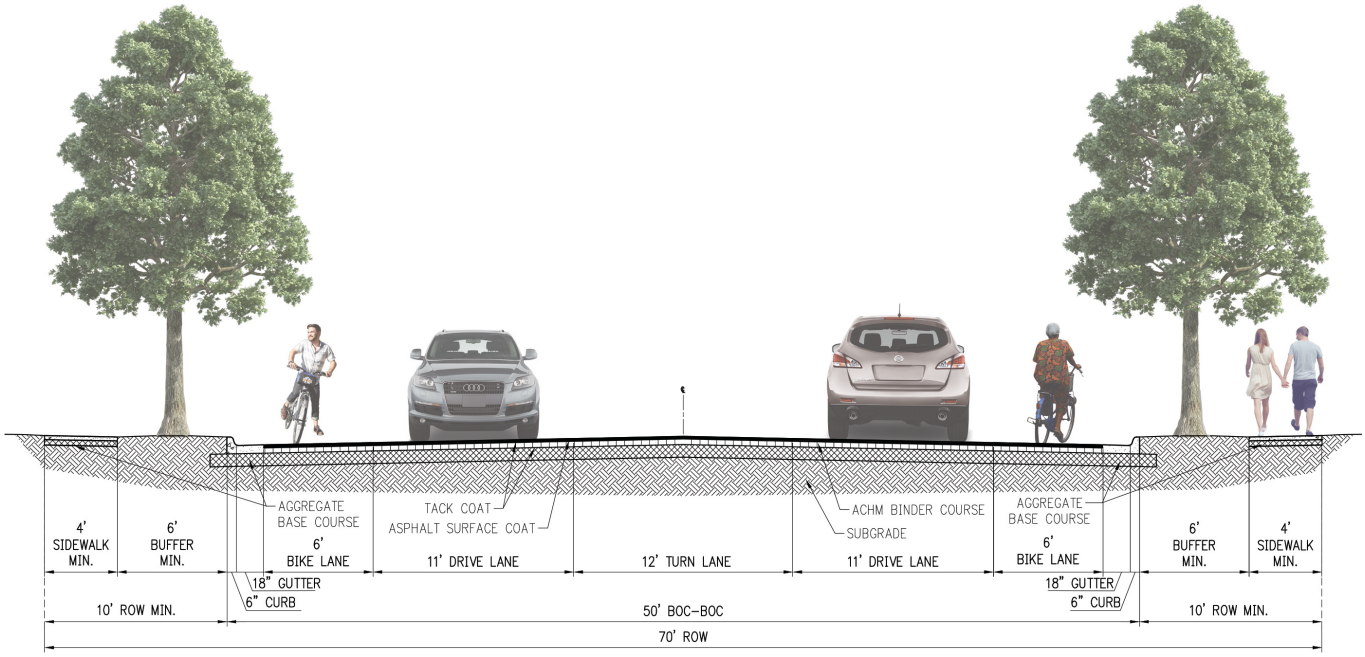
Collector Streets with Sharrows:

- Not applicable. Most Collector streets have traffic volumes and/or speed limits that are too high for the safe application of sharrows.

Local Urban Streets with Multi-Use Sidepath:

- None indicated in this plan

Collector Multi-Modal



FUNCTION

Collector streets are designed to "collect" traffic from residential or local streets onto arterial roads. Collectors accommodate slightly higher traffic volumes at higher speeds than residential streets, but may include residential uses along them. Appropriate design and placement of Collector streets result in a balance between access and mobility. These transitional roads are often times 3 lanes, including a dedicated center turn lane to reduce traffic conflicts from left-turn movements.

Collector Multi-Modal streets also accommodate non-vehicular traffic by including bicycle lanes in each direction of travel, see "Multi-Modal/Complete Street Applicability", below.

INTERCONNECTIVITY

Collector streets provide connectivity to and between residential, local, and arterial roads. Oftentimes, a larger collector network may be established in which collectors intersect other collectors approximately every ½ mile. However, this street network can lead to larger islands of development with little connectivity within.

MULTI-MODAL/COMPLETE STREET APPLICABILITY

Collector Multi-Modal streets include sidewalks on each side of the road and crosswalks at all intersections, providing safe pedestrian access in accordance with the Americans with Disabilities Act (ADA). Bicycles are accommodated with 6' bicycle lanes in each direction of vehicular travel. Refer to the Batesville Bicycle & Pedestrian Master Plan for appropriate Collector Multi-Modal streets with bicycle lanes, and to the Manual on Uniform Traffic Control Devices (MUTCD), Section 9C.04, for specifications on bicycle lane markings. Future Collector Multi-Modal streets not indicated on the Batesville Bicycle & Pedestrian Master Plan should follow the standards listed below.

Collector Multi-Modal

DESIGN STANDARDS

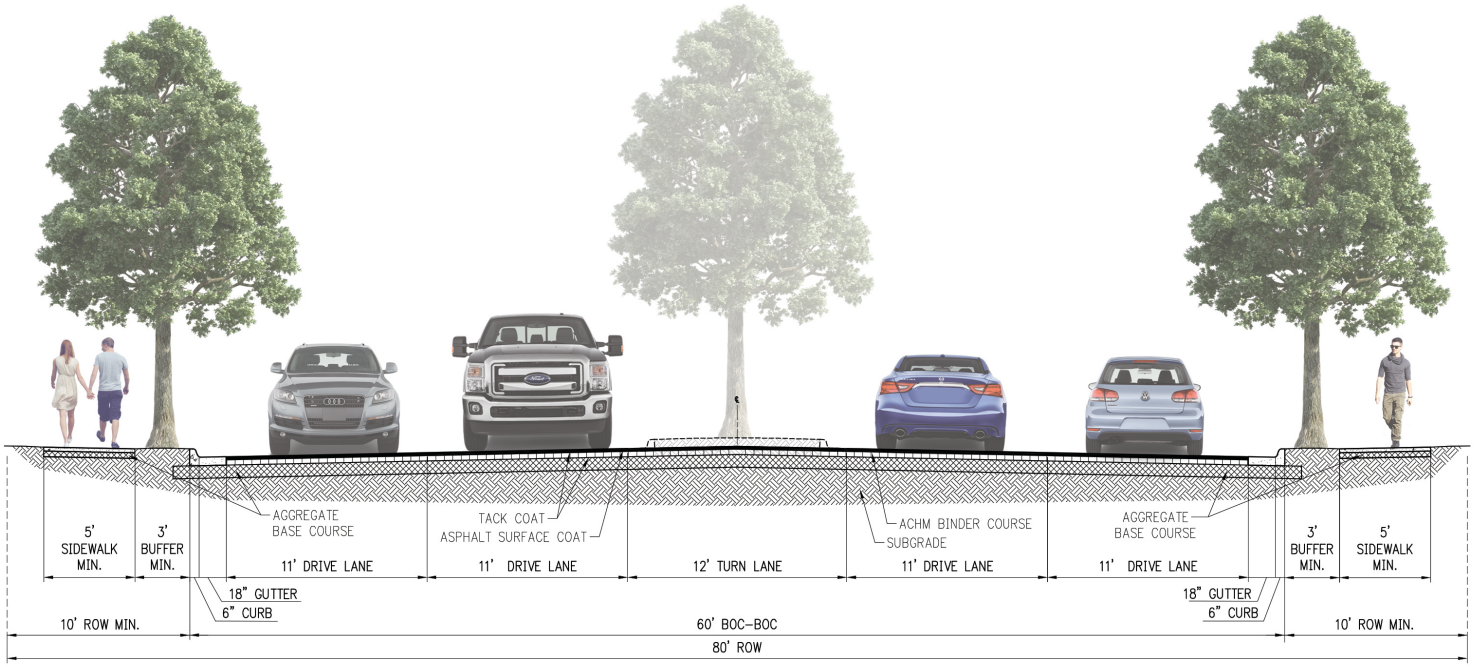
Design Service Volume	up to 12,000 VPD; 7,500 VPD optimal
Desired Operating Speed	30 mph
Travel Lanes	3 (2 travel lanes with center turn lane)
Bicycle Facility	6′ Bike Lane in each direction of travel
Parking	none
Paved Width (BOC to BOC)	50′
Right of Way	70′
Sidewalks	min. 4′ each side
Greenspace	min. 6′ buffer each side; 8′ preferred
Maximum Centerline Grade	12%
Min. Stopping Sight Distance	300′ or latest AASHTO Policy on Geometric Design Manual
Min. Horizontal Radius at Centerline	275′ (normal crown)
Min. Horizontal Radius at Centerline	235′ (super-elevated)
Min. Horizontal Tangent Distance between Reverse Curves	100′
Intersection Curb Radius	30′
Storm Drainage	refer to Drainage Manual

ADDITIONAL TREATMENTS TO SPECIFIC COLLECTOR MULTI-MODAL STREETS

All Collector Multi-Modal streets include 6′ bicycle lanes in each direction of vehicular travel as well as sidewalks on each side. Therefore, no Residential Multi-Modal streets include sharrows or multi-use sidepaths.

Refer to the Bicycle and Pedestrian Master Plan, pages 25-40 and 68-71 for additional information and specific treatments. Though the Master Street Plan only depicts connectivity routes associated with streets, the entire network is located on page 27 of the Bicycle and Pedestrian Master Plan.

Principal Arterial or Principal Arterial with Median



FUNCTION

Arterial roads are designed to move traffic from collector streets to highways, or to provide connections between urban centers or incorporated areas. These roads accommodate the highest traffic volumes and highest vehicular speeds within Batesville's street network.

INTERCONNECTIVITY

Arterials provide connectivity across large areas of a community or between adjacent communities. As the largest street type in communities without divided highways or controlled-access highways, arterials often handle large amounts of vehicular traffic volume and oftentimes at higher speeds than other street types within the network.

SAFE CROSSINGS

As the largest and highest-volume streets, arterial roadways can be dangerous for non-vehicular users to cross. Pedestrian and/or bicycle crossings should be designed to MUTCD standards and limited to controlled access (signalized) intersections or should be protected by user-activated traffic control signals, such as HAWK signals at mid-block crossings. Appropriate spacing of safe crossings will decrease the likelihood of pedestrians crossing in undesignated locations.

MULTI-MODAL/COMPLETE STREET APPLICABILITY

Arterial roads should include sidewalks on each side of the road and crosswalks at all intersections, providing safe pedestrian access in accordance with the Americans with Disabilities Act (ADA). Bicycle access along Arterial roads is not encouraged, unless widths allow for protected bicycle lanes (6' bicycle lanes with a 6' painted buffer and/or a vertical buffer to separate bicycle lanes from vehicular lanes), based on traffic volumes and traffic speed. Separated multi-use paths are also allowable along Arterial roads.

Principal Arterial or Principal Arterial with Median

DESIGN STANDARDS

Design Service Volume	up to 25,000 VPD
Desired Operating Speed	40 mph
Travel Lanes	4
Bicycle Facility	none, unless designated as Multi-Modal
Other Lanes	Left Turn Lane or Center Median
Parking	not allowed
Paved Width (BOC to BOC)	60′
Right of Way	min. 80′
Sidewalks	min. 5′ each side
Greenspace	min. 3′ each side; 6-8′ preferred
Maximum Centerline Grade	9% (5% at intersections – first 30 feet)
Min. Stopping Sight Distance	600′ or latest AASHTO Policy on Geometric Design Manual
Min. Horizontal Radius at Centerline	600′ (normal crown)
Min. Horizontal Radius at Centerline	500′ (super-elevated)
Min. Horizontal Tangent Distance between Reverse Curves	200′
Intersection Curb Radius	30′
Storm Drainage	refer to Drainage Manual

ADDITIONAL TREATMENTS TO SPECIFIC ARTERIAL STREETS

Refer to the Bicycle and Pedestrian Master Plan, pages 25-40 and 68-71 for additional information and specific treatments. Though the Master Street Plan only depicts connectivity routes associated with streets, the entire network is located on page 27 of the Bicycle and Pedestrian Master Plan.

Though the Bicycle and Pedestrian Master Plan designates St. Louis between Meyers and Main as a Complete Street (a street including sidewalks and bicycle lanes on both sides of the street) and the Master Street Plan on page 29 reflects this recommendation, current development patterns along St. Louis will make this a costly modification.
The following three options for St. Louis between Meyers and Main are suggested for consideration:

1. Complete Street: Add sidewalks and bicycle lanes along both sides of St. Louis. Given the traffic volume of this road, bicycle lanes should ideally be buffered or protected bicycle lanes, increasing their width from 6′ to 8-10′ on each side of the street (to include a horizontal striped or vertical buffer between the bicycle lanes and vehicular lanes). This is the most intensive and expensive option, requiring utility pole relocations on both sides of the street, right-of-way acquisition along both sides of the street, and may include some structural conflicts. The resulting street would be the most bicycle and pedestrian-friendly option.
2. Sidewalks only: Add 5′ sidewalks behind the back of curb on both sides of St. Louis. This greatly reduces the amount of right of way acquisition needed, however, will require utility relocations along both sides of the street.
3. Side Path along West side of St. Louis: Construct a 10′ multi-use side path along the west side of St. Louis, which is designed to accommodate bicycle and pedestrian traffic. With a 4′-6′ buffer between the street and the side path, many of the utility poles along the west side of the street can be avoided and left in the newly created buffer. However, right of way will need to be acquired along the west side, and some sites may require retaining walls to reconcile the grade difference between the side path and existing parking lots and/or structures.

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SECTION IV DESIGN STANDARDS SUMMARY

	sharrow applicable **Local Urban (Existing)** *sidepath applicable*	*sharrow applicable* **Local Urban Improved** *sidepath applicable*	*bicycle lanes applied* **Local Urban Multi-Modal *** *bicycle lanes applied*	*sharrow applicable* **Minor or Residential (Existing)** *sidepath applicable*	*sharrow applicable* **Minor or Residential Improved** *sidepath applicable*	*bicycle lanes applied* **Minor or Residential Multi-Modal *** *bicycle lanes applied*	*sharrow not recommended* **Collector** *sidepath applicable*	*bicycle lanes applied* **Collector Multi-Modal *** *bicycle lanes applied*	*bicycle lanes applicable* **Arterial** *sidepath applicable*
Design Service Volume	up to 2,500 VPD	up to 2,500 VPD	up to 2,500 VPD	up to 1,000 VPD	up to 1,000 VPD	up to 1,000 VPD	up to 12,000 VPD; 7,500 VPD optimal	up to 12,000 VPD; 7,500 VPD optimal	up to 25,000 VPD
Desired Operating Speed	20 mph	20 mph	20 mph	20 mph	20 mph	20 mph	30 mph	30 mph	40 mph
Travel Lanes	2	2	2	2	2	2	3 total: 2 travel lanes + center turn lane	3 total: 2 travel lanes + center turn lane	5 total: 4 travel lanes + center turn lane
Bicycle Facility	Sharrows; refer to Bicycle and Pedestrian Master Plan for location	Sharrows; refer to Bicycle and Pedestrian Master Plan for location	5' Bicycle Lane in each direction of travel	Sharrows; refer to Bicycle and Pedestrian Master Plan for location	Sharrows; refer to Bicycle and Pedestrian Master Plan for location	5' Bicycle Lane in each direction of travel	none	6' Bicycle Lane in each direction of travel	see Complete Street
On-Street Parking	varies	none	none	varies	on-street allowed	none	none	none	none
Paved Width (BOC-BOC)	varies 20-24' width, existing curb & gutter varies	23'	35'	varies 20-24' width, existing curb & gutter varies	28'	37'	38'	50'	Min. 60'
Right of Way	varies	45'	55'	varies	50'	60'	60'	70'	Min. 80'
Sidewalks	varies	Min. 4' each side	Min. 4' each side	varies	Min. 4' each side	Min. 4' each side	Min. 4' each side	Min. 4' each side	Min. 5' each side
Greenspace	varies	Min. 6' each side	Min. 6' each side	varies	Min. 6' each side	Min. 6' each side	Min. 6' each side	Min. 6' each side	Min. 3' each side; 6 - 8' each side preferred
Maximum Centerline Grade	varies	15%	15%	varies	15%	15%	12%	12%	9% (5% at inter-sections - first 30 feet)
Min. Stopping Sight Distance	varies	100' or latest AASHTO Policy on Geomentric Design Manual	100' or latest AASHTO Policy on Geomentric Design Manual	varies	100' or latest AASHTO Policy on Geomentric Design Manual	100' or latest AASHTO Policy on Geomentric Design Manual	300' or latest AASHTO Policy on Geomentric Design Manual	300' or latest AASHTO Policy on Geomentric Design Manual	600' or latest AASHTO Policy on Geomentric Design Manual
Min. Horizontal Radius at Centerline: Normal Crown	varies	150'	150'	varies	150'	150'	275'	275'	600'
Min. Horzontal Radius at Centerline: Super-Elevated	varies	n/a	n/a	varies	n/a	n/a	235'	235'	500'
Min. Horizontal Tangent Distance between Reverse Curves	varies	n/a	n/a	varies	n/a	n/a	100'	100'	200'
Intersection Curb Radius	varies	25'	25'	varies	25'	25'	30'	30'	30'
Storm Drainage	Refer to Drainage Manual	Refer to Drainage Manual	Refer to Drainage Manual	Refer to Drainage Manual	Refer to Drainage Manual	Refer to Drainage Manual	Refer to Drainage Manual	Refer to Drainage Manual	Refer to Drainage Manual

** Bicycle lanes are standard and included in Local Urban Multi-Modal, Residential Multi-Modal, and Collector Multi-Modal designations*
*** Refer to Complete Street elevations for specific road treatments for St. Louis within the highlighted areas*

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STREET CHARACTERISTICS SUMMARY

The Street Master Plan map depicts multiple characterstics for each street in Batesville's planning area:

1. Existing street or proposed (future) street

2. Desired Functional Classification (classification goal)

3. Bicycle or Pedestrian treatments:
   - multi-modal including bike lanes and sidewalks,
   - sharrows, or
   - sidepath in lieu of sidewalks

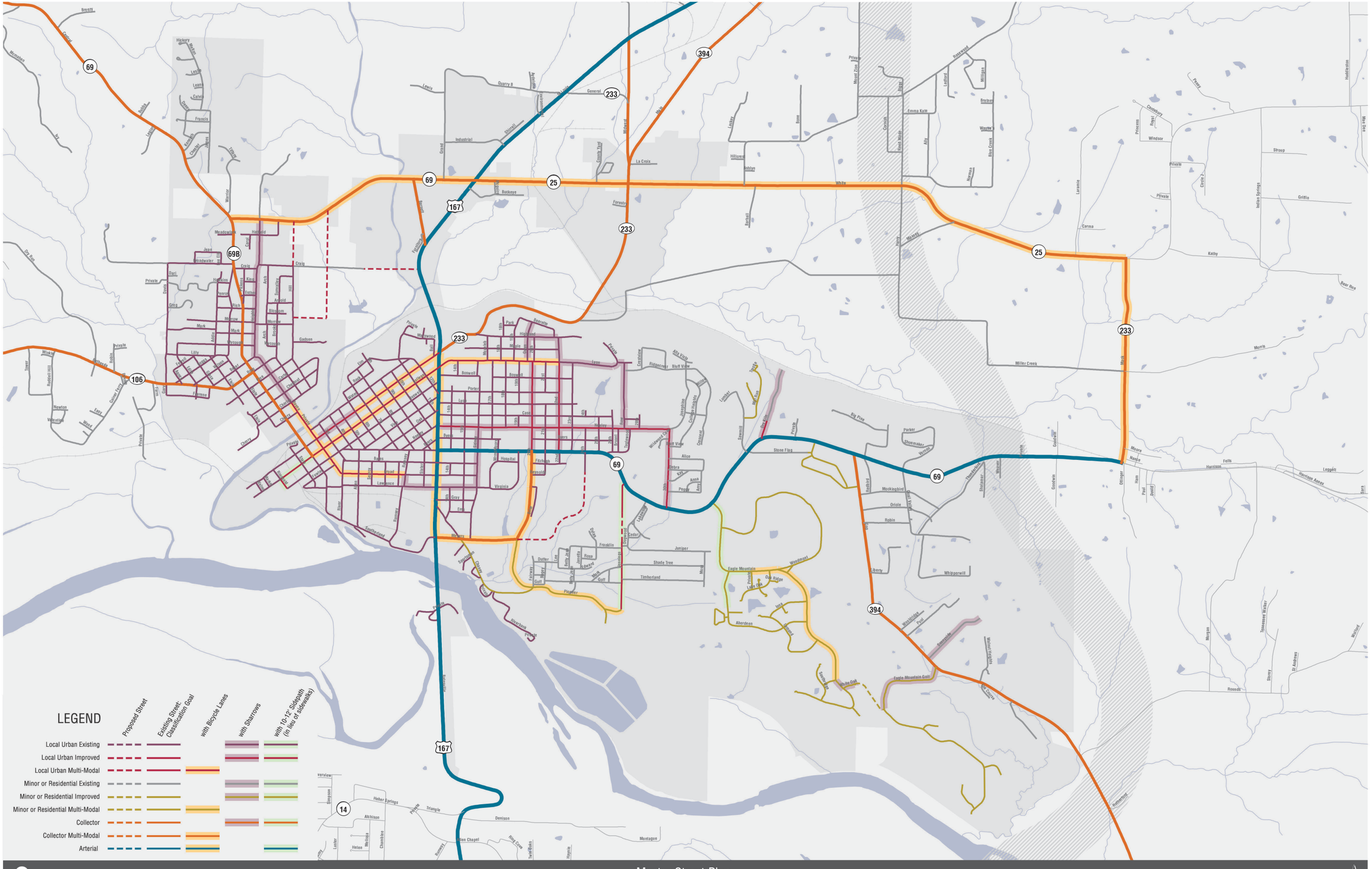
Existing streets are denoted with solid lines, while proposed streets are indicated with a dashed line. Each functional classification category is represented by a unique color, and each bicycle or pedestrian facility is indicated by a unique highlight color.

Each of these characteristics are outlined in the table below, as well as in the map's legend.

	Proposed Road	Existing Road: Classification Goal	with Bicycle Lanes	with Sharrows	with 10-12' Sidepath in lieu of sidewalks
Local Urban (Existing)	No new construction; use Local Urban Improved	solid purple	use Local Urban Multi-Modal	light purple outline	green outline
Local Urban Improved	dashed maroon	solid maroon	use Local Urban Multi-Modal	light purple outline	green outline
Minor or Residential (Existing)	No new construction; use Residential Improved	solid gray	use Residential Multi-Modal	light purple outline	green outline
Minor or Residential Improved	dashed yellow	solid yellow	use Residential Multi-Modal	light purple outline	green outline
Collector	dashed orange	solid orange	use Collector Multi-Modal	n/a	green outline
Arterial **	dashed blue	solid blue	orange outline	n/a	green outline
Local Urban Multi-Modal *	dashed maroon	solid maroon	orange outline	n/a	n/a
Minor or Residential Multi-Modal *	dashed yellow	solid yellow	orange outline	n/a	n/a
Collector Multi-Modal *	dashed orange	solid orange	orange outline	n/a	n/a

** Bicycle lanes are standard and included in Local Urban Multi-Modal, Residential Multi-Modal, and Collector Multi-Modal designations*
*** Refer to Complete Street elevations for specific road treatments for St. Louis within the highlighted areas*

SECTION V MASTER STREET PLAN MAP


LEGEND
Proposed Street
Existing Street: Classification Goal
with Bicycle Lanes
with Sharrows
with 10-12' Sidepath (in lieu of sidewalks)
Local Urban Existing
Local Urban Improved
Local Urban Multi-Modal
Minor or Residential Existing
Minor or Residential Improved
Minor or Residential Multi-Modal
Collector
Collector Multi-Modal
Arterial

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