

**Town of Warrenton
Healthy Lifestyles, Complete Streets
and Active Transportation**

Complete Streets Recommendations

September 2017



Background

Warrenton, VA is a thriving community of approximately 10,000 people located midway between Washington, D.C. and Charlottesville, VA. The Town was incorporated in 1810, and lies at the intersection of the Alexandria to Culpeper and Falmouth to Winchester Roads; originating as a trading post called the Red Store, it is now the seat of government for Fauquier County. Warrenton's historic core sits atop a prominent hill, with newer development radiating out from the core. Buildings in the Town were placed on the National Register of Historic Places in 1983 and the Old Town area retains many of the historic buildings and tight street grid upon which the community was built.

Post-World War II, Warrenton continued to grow with a heavily automobile-focused development pattern featuring lower density housing. In particular, the Lee Street/Broadview Avenue/Shirley Avenue corridor created a by-pass around the Town which, while protecting Old Town from heavy through traffic, spurred more commercial development and created a significant barrier through the middle of the community.

Today, the 4.5 square mile Town of Warrenton is pursuing a community vision built around principles of healthy lifestyles, active transportation, and sustainability, as well as a celebration of the unique historic character of the community. The Town

adopted a Healthy Eating Active Lifestyle Initiative (HEAL) to improve the quality of life of its residents; this initiative incorporates health considerations into decision-making across disciplines, policy areas and government departments. Increasing active transportation—primarily walking and bicycling—offers significant health benefits to individuals and the community at large by improving cardio-vascular and mental health while reducing preventable diseases such as diabetes and most forms of cancer. Specifically, the HEAL Initiative directs the Town to work towards adopting a Complete Streets Policy. This guidance report serves to provide recommendations towards meeting that goal.

Additionally, this report complements suggested updates to the previous trail plan, and has been informed by a series of five Walkability Audits undertaken with community members to identify common issues around walkability and traffic safety that need to be addressed over time. Together, the recommendations of the Walkability Audits, Complete Streets guidance, and trails report will result in an implementation blueprint to enable residents of Warrenton to choose walking and bicycling as safe, convenient and comfortable transportation choices as part of a healthy lifestyle.



What is Complete Streets?

Complete Streets is a transportation planning and design philosophy to provide safe, equitable, and convenient access to the transportation system for all roadway users regardless of age, ability or mode of transportation. A corridor such as Broadview Avenue, for example, may still have a primary focus on through motor vehicle traffic, but should also be made safe and accessible to people on foot or on bicycles traveling both along and across the road. By contrast, Main Street must continue to maintain motor vehicle access and parking, but the predominant roadway user for whom the street is designed is the pedestrian. The challenge with major roads such as the Lee/Broadview/Shirley corridor today is that the design and operation of the corridor effectively precludes safe walking and bicycling and creates a significant barrier to movement across the length of corridor, effectively cutting the community in half.

The Complete Streets approach considers the needs of all roadway users in the design and operation of road or street, as well as the system as a whole. The goal of a Complete Streets approach is a truly multimodal transportation system where residents have a choice of travel modes that is equitable, and where people can make short trips by foot and by bike and use transit or motor vehicles for longer trips or for trips that require additional carrying capacity. Complete Streets also benefit from a multidisciplinary approach to planning and design so that the final product is functional, contextual, and enhances the community.

Accessibility for people with disabilities and safety are cornerstones of Complete Streets planning and design. Warrenton is sufficiently compact that, in most of the community, shops, schools, government services, health care and even jobs are within walking or easy biking distance of home—but today there are missing connections, inadequate or non-existent infrastructure,

and poorly maintained sidewalks and crosswalks that make those short trips unsafe, unpleasant or infeasible by foot or bike. For people with disabilities, these challenges are even greater.

Similarly, for people accessing Old Town by car—particularly visitors from out of town—the goal of a Complete Streets approach is to facilitate parking once, and then make walking a natural, easy and safe way to enjoy the shops, restaurants and services in the heart of the community for the remainder of the visit. As redevelopment occurs along the Lee/Broadview/Shirley corridor, this Complete Streets approach would translate to the reintroduction of a grid of smaller streets connecting shops and services to the surrounding neighborhoods, as well as establishing more opportunities to safely cross the Lee/Broadview/Shirley corridor.

An additional benefit of a Complete Streets approach is that it encourages environmental sustainability and low impact development by offering innovative solutions to stormwater management while minimizing maintenance costs and creating a sense of place through landscaping and design.

Finally, it is worth emphasizing that a Complete Streets approach provides an appropriate balance between modes of travel. Driving will remain the predominant means of transportation for many trips, but reducing automobile dependence a little by encouraging walking and bicycling is good for the physical as well as economic health of the community. In communities across the country, case studies have shown that improving the walkability and bicycle-friendliness of roads and corridors will increase economic activity—especially for local stores and restaurants—and that Complete Streets designs make the roads safer for all users, including motorists.

Review of Existing Standards, Policies and Classifications

Reviewing recent Warrenton standards, policies and classifications helps to more accurately plan for Complete Streets policies and practices. The following documents were reviewed for policies, practices and recommendations that are inconsistent with Complete Streets recommendations.

1. Town of Warrenton Comprehensive Plan 2000 – 2025 (2009 Update)
2. Subdivision Ordinance (2006)
3. Public Facilities Manual (2006)
4. Warrenton Service District Plan (2015)
5. Broadview Access Management Study Update (2012)

Town of Warrenton Comprehensive Plan 2000 – 2025 (2009 Update)

Town of Warrenton Comprehensive Plan 2000 – 2025 (2009 Update) – The goals and objectives to the 2009 Comprehensive Plan Update are consistent with providing safe, multimodal access, especially for pedestrians. Chapter 6 of the Comprehensive Plan update focuses on Transportation and Circulation with the primary goal:

To encourage the development of a safe, efficient and multimodal transportation system for the movement of people, goods and services, in and around the Town, that is consistent with the historic fabric, land use pattern and expected future fiscal needs of the Town.

This goal is consistent with Complete Streets principles and practices in addressing the movement of people, not just automobiles. Additional objectives include improved access to Old Town, promoting walkable areas, developing the transportation system to support projected regional growth areas and apply traffic calming techniques. The Lee/Broadview/Shirley corridor is considered the “Original Bypass” around what’s now known as Old Town Warrenton. These roads are often viewed as a barrier to improved walking and

biking access through Warrenton. The implementation of Complete Street philosophies to the redevelopment of this corridor will help to overcome the barriers.

While the Town owns and controls its own street system, it is required to follow Virginia Department of Transportation (VDOT) standards to receive maintenance funding. For over a decade, VDOT has worked towards implementing Complete Street policies as well. The Town should work with VDOT to update its street classifications with the Comprehensive Plan, as reflected in the Warrenton Comprehensive Plan, Chapter 6 - Transportation & Circulation (Exhibit 1, Figure 1)

- Limited Access: U.S. Routes 29, 17, 15
- Major Arterial: Broadview, Lee Highway, U.S. Route 211
- Minor Arterial: Shirley Avenue, E Main Street,
- Major Collector: Winchester Street, Blackwell Street
- Greenways & Trails Plan

Complete Streets Recommendations:

- Work with VDOT to adopt a new street classification system as proposed below
- Include health outcomes in the vision, goals and objectives of the Comprehensive Plan

Subdivision Ordinance (2006)

The **Town of Warrenton, Virginia Subdivision Ordinance (2006)** regulates the subdivision of properties and provides guidance on plat approvals. The ordinance also establishes standards and procedures to guide growth for the community, promote public health, safety and convenience. The ordinance ensures the continuity of the street network and associated improvements such as alleys, parking lots and utilities. The ordinance should place equal emphasis on the continuity of Warrenton's sidewalk network. Article 4-2 provides stipulations for new street design and construction and ensures consistency with the Public Facilities Manual. Traffic calming measures are allowed while dead-end streets and cul-de-sacs are prohibited in most circumstances. All improvements must be made to streets and intersections as identified in the Comprehensive Plan. Curb, gutters and sidewalks are required in all subdivisions, although the Town Council may grant exceptions of sidewalk requirements with a density of less than one dwelling unit per acre. Allowing exceptions provides developers with an option to not provide sidewalks, which will have a detrimental effect on the overall walkability of Warrenton.

Complete Streets Recommendations:

- Require that sidewalk, pedestrian and bicycle access be continuous and connected to adjacent properties, as well as to existing and proposed active transportation infrastructure
- Do not allow exceptions to the requirement to provide sidewalks in all new developments

Public Facilities Manual (2006)

The **Public Facilities Manual (PFM) (2006)** provides design standards and specifications for all infrastructure improvements to be managed by the Town of Warrenton including water, wastewater, stormwater and streets. The manual is intended to promote quality development within the Town and areas beyond where the Town has agreed to extend public utilities. Standards within the PFM are consistent with Complete Streets practices, although language within Figure 70: R-1A, Figure 71: R-2 and Figure 72: R-3 shall be updated to reflect new street classification nomenclature. Figure 70: R-1A also provides flexibility in design speed minimums to be determined by the engineer whereas shared streets should have a minimum design speed of 15 mph. Figure 71: R-2 for Typical Section—Street with Curb and Gutter provides for a utility strip or buffer between the curb and gutter and the sidewalk.

Complete Streets Recommendations:

- Work with VDOT to adopt a new street classification system, as proposed below
- Update language related to design speeds to stress "maximum" desired speeds, not minimums.

Warrenton Service District Plan (2015)

The Fauquier County Comprehensive Plan - **Warrenton Service District (2015)** applies planning practices to land adjacent to but outside the corporate limits of the Town of Warrenton. As this area has a direct connection to the Town with roadways, utilities and recreational facilities, a Comprehensive Plan to coordinate development of this area between the Town and Fauquier County is appropriate. The Warrenton Service District Comprehensive Plan makes specific transportation recommendations, such as improved vehicular throughput along Broadview Avenue; enhanced street landscaping to hide parking lots; and off street parking use along the side and backs of adjacent buildings. The Fauquier County Comprehensive Plan also makes recommendations on greenway, open space and linear park system development to connect schools, parks and the center of Town with radial paths and sidewalks. (Figure 6-WA-2: Greenway Linear Park). Both these recommendations will encourage more walking and biking and create a healthier Warrenton. As the Service District is within Fauquier County, coordination with the County as it updates its Comprehensive Plan chapters is essential.

Complete Streets Recommendations:

- Ensure that Town and private trail connections to the existing and proposed County trail system are identified.
- Identify the relationship between the Town's new street classification system and the County's existing street classification.

Broadview Access Management Study Update (2012)

The **Broadview Access Management Study Update (2012)** provides a thorough evaluation on existing conditions along Broadview Avenue and provides recommendations on how to improve traffic flow and access to adjacent businesses. While the study has a motor vehicle focus, pedestrian access enhancements are also recommended. Providing more pedestrian crossings with median island refuges encourage a safer walking environment along and across Broadview Avenue. To further improve pedestrian conditions, applying High Intensity Activated Crosswalk (HAWK) signals, slip lane realignments, raised crosswalks, and filling sidewalk gaps are all recommended.

Complete Streets Recommendations:

- The next stage of the design process should emphasize design elements that improve pedestrian and bicycle access and safety, both along and across the corridor.

Proposed Street Classification

Warrenton was founded long before the advent of the automobile. The Town's original street grid was established to accommodate foot, equestrian and wagon travel. With these lower speed modes of transportation used as the 'design vehicle', Old Town Warrenton remains an historic district with narrow streets, limited sight distances and right angle intersections that encourage low travel speeds. As Warrenton grew outward, streets were designed to accommodate automobile traffic. These roadways developed along the Broadview Avenue ring are characteristically wider and straighter. As development along these newer roadways is set back from the existing right-of-way, the possibility to widen these roadways exists even if public right-of-way may not be currently available. Just as land parcels change use and density with the passage of time, so too roadways widen and change in character. The proposed street classifications focus on the function of the street as it

relates to the Town's street system and to adjacent land uses within the available public right-of-way. Achieving Complete Streets goals, specifically with pedestrian and bicycle facilities and still within the existing right-of-way, is possible by retaining flexibility with other street elements including on-street parking, lane widths and landscaped buffers. Recommendations for street classifications consider flexibility in existing and proposed curblines and the number of travel lanes in less restrictive settings.

With its limited area of 4.5 square miles, Warrenton is able to classify its streets into five categories:

- **Boulevards and Gateway Streets**
- **Old Town/Heritage Streets**
- **Signature Streets**
- **Neighborhood Streets**
- **Shared Streets**



Boulevards and Gateway Streets

Boulevards today are represented by the original bypass streets of Warrenton including Broadview Avenue, Shirley Avenue and Lee Highway. These roadways carry most of the through motor vehicle traffic around Warrenton and are generally characterized by four (4) travel lanes (two (2) in each direction), a center turn lane or median, and sidewalks. The streets transect automobile-oriented commercial areas and typically have ample off-street parking. A Boulevard may also have one (1) travel lane in each direction. For example, Shirley Avenue has one through lane in each direction and alternating center and right turn lanes that encourage vehicular throughput and ease of access to the corridor's businesses (at the expense of safe walking and bicycling). Shirley Avenue's unused street space, denoted by periodic striped shoulders and medians, reflect the designer's original intent to plan for increased vehicle capacity and higher operating speeds in the future.

As these roadways are designed and designated to focus on accommodating motor vehicle traffic, less focus has been given to accommodate pedestrian and bicycle traffic. While Boulevards may not have been designed for vulnerable road users in mind, future projects shall incorporate sidewalks, improved crossings and, where possible, parallel shared use paths. With the historic automobile-focused design, Boulevards in Warrenton are typically lined with commercial driveways to accommodate off-street parking. Design speeds for future changes to Boulevards shall not exceed 45 mph.

Rethinking the entire public right-of-way, not just the street between the two curbs, is needed to accommodate safe infrastructure and encourage walking and bicycling. In most cases, the public right-of-way along Boulevards extends beyond the existing curb line. By creatively utilizing the available right-of-way, improved access for all modes can be accomplished. The Broadview Avenue Access Management Study provides recent data and recommendations which consider driveway access as well as existing and projected vehicular volumes. Accommodating projected vehicular volumes should not be the main factor in determining future

streetscapes. As reflected in the study, traffic volumes fluctuated between 2006 and 2012. Some locations experienced an increase in volume, while other areas experienced a decrease in volume. Additionally, some intersections experienced fewer delays at intersections due to less traffic. Traffic congestion can be further decreased by creating safe walking and biking access. For example, evaluating, consolidating or reducing the number of curb cuts and driveways will improve sidewalk and shared use path consistency and safety while generating fewer conflict points for automobiles that thus results in start and stop travel patterns.

Boulevards can more safely accommodate people walking and biking by incorporating separation between motor vehicle travel lanes and sidewalks, bike lanes or shared use paths. The separation between modes improves the level of comfort and safety for vulnerable road users. Off-street separation shall be achieved by adding a 6' minimum buffer between the edge of roadway and sidewalks or shared use paths. The buffer may consist of grass, landscaping or stormwater management facilities. On-street separation can be achieved by placing a 3' minimum buffer between bike lanes and motor vehicle travel lanes. Vertical features, such as flex posts and planters, can further improve the separation and comfort of the bike lane. On-street parking is not currently available on Boulevard Streets, although for future consideration, parked vehicles can serve as a buffer between bike lanes and motor vehicle travel lanes.

At several critical locations, Boulevards serve as a gateway into the Town of Warrenton. **Gateway Streets** cross the Town boundaries into the County and are to be considered a type of Boulevard Street. These roadways carry the heaviest motor vehicle traffic into Warrenton and are currently characterized by four (4) travel lanes (two (2) in each direction), and a wide median. The streets act as the transition zones between the more developed areas of Warrenton and the higher speed, limited access roads radiating out from Warrenton, which are maintained by Fauquier County and the Virginia Department of Transportation. Gateway Streets today are Frost Avenue (US Route 211), East Lee Street at US Routes 15/17/ 29, James Madison

Highway (US Route 17), and south of East Shirley Avenue towards US Routes 29 & 15. The land use surrounding Gateway Streets can also be considered as part of the transition zone. Within a quarter mile distance, the context of Gateway Streets may vary from low density commercial and industrial development to denser commercial and even residential areas.

Gateway Streets also serve as a point of transition for the way in which different modes of transportation are accommodated as part of a Complete Street. To encourage a change in travel behavior, Gateway Streets shall provide street treatments that instill the changing context of the street from a higher speed, rural character to a slower speed, urban character where pedestrians and bicyclists can be expected. As motor vehicle traffic enters Warrenton, Gateway Streets shall provide street treatments such as narrower travel lanes, welcome signs and flashing beacons (if applicable). Gateway Streets may also provide a more pronounced 'entrance' to Warrenton by incorporating roundabouts, curb extensions or raised intersections at the townward end such as the Frost Avenue intersection with Broadview Avenue, East Lee Street intersection with Walker Avenue and East Shirley Avenue intersection with Falmouth Street.

Gateway Streets will also provide a transition for pedestrian and bicycle accommodations. For pedestrian access, sidewalks shall be installed along Gateway Streets as these streets enter the Town of Warrenton. As Gateway Streets transition away from the Town of Warrenton, low density development increases walking distances. With fewer destinations and increased walking distances, pedestrian traffic is not anticipated to increase along Gateway streets away from Town. Here the pedestrian network of sidewalks and shared use paths becomes less frequently used and should provide a transitional walking environment. Sidewalks shall terminate with an ADA compliant transition to a wide, roadway shoulder or connect with the Fauquier County trail system. For bicycle access, Gateway Streets shall have shared use paths and on-street bicycle facilities towards Town but transition to wide, bikeable shoulders or trail connections as biking distances increase away from Town.



Boulevards and Gateway Street Design Elements

Examples of design elements appropriate for Warrenton Boulevards include wide medians, highly visible crosswalks, traffic circles, and sidewalks that retain accessibility across driveways.



Old Town/Heritage Streets

Old Town or Heritage Streets are defined by the original “Main Streets” grid system of Warrenton catering to both through and local traffic. Examples include Main, Waterloo, East Lee, West Lee, Alexandria and Culpeper Streets *within Old Town Warrenton*. Warrenton’s Old Town streets are bounded by mixed use development including local businesses, residential, services, and parks. Being the Fauquier County Seat, Old Town Streets also provide access to government facilities such as courts, library, post office, County and Town offices. Located in the historic area of Old Town Warrenton, Old Town streets are narrower than newer, nearby streets. Coupled with right-angle intersections, on-street parking and 2-3 story buildings constructed to the public right-of-way line, limited sight distances are created which necessitates a slower operating speed for all travel modes. Design speeds for future Old Town Streets improvements shall not exceed 25 mph.

Old Town streets shall have well connected sidewalks to encourage walking and improve access to local businesses. Where possible, landscaping shall be installed to enhance the aesthetics and enhance stormwater management opportunities. Gateway improvements at the intersection of Main Street, Waterloo Street and Alexandria Pike can accentuate the traditional town center and reduce the negative visual impact of a large expanse of asphalt. Traffic traveling

into Old Town through this irregular intersection should clearly understand that they are entering a unique section of Warrenton where slower speeds and safer traffic behavior are expected. This can be achieved through careful design using raised crosswalks, wider sidewalks, curb extensions and textured pavement to increase public space and encourage pedestrian activity. Transforming the area as a raised intersection will also provide a clear sense of transition into and out of Old Town.

Dedicated bike infrastructure such as bike lanes may not be necessary on these street. Motor vehicles are encouraged to operate at lower traffic speeds (of 25 mph and less) that are more compatible with bicycling on the road. Accommodating bike lanes for the uphill direction of travel, such as eastbound Waterloo Street and southbound Alexandria Pike, should be applied as streets are redesigned and or restriped. Bike parking shall be provided to increase parking availability for patrons at local businesses. With narrow sidewalks, bike racks should be placed at street corners; at least one rack per intersection or more where appropriate. Converting an on-street car parking space to an on-street bicycle corral, or grouped rack, can increase bicycle parking availability and reduce sidewalk clutter. On-street car parking is currently available and should be maintained to support local businesses.

Old Town/Heritage Street Design Elements

Examples of design elements appropriate for Warrenton's Old Town streets include accessible sidewalks and crosswalks with curb cuts, raised intersections, traffic calming devices such as speed humps, and well-defined parking for all modes.



Signature Streets

Signature Streets are primarily residential streets, but due to their length, connect several contextually different sections of Warrenton. Streets such as Winchester, Waterloo, and Blackwell/Alexandria Pike streets connect people and places from the by-pass (Shirley Avenue, Broadview) to Old Town Warrenton. Signature Streets are smaller and significantly less busy than Boulevards and typically have one through lane in each direction. Currently, sidewalks are intermittent and marked crosswalks are infrequent along these streets; bicycling infrastructure is not present. Signature Streets typically experience higher traffic volumes than Neighborhood Streets due to their length and connectivity, but traffic speeds are lower than on Boulevards. Signature Streets today are the most multimodal or multipurpose streets in Warrenton as they carry a real mix of people and vehicles including commercial deliveries to Old Town, local students walking to school, residents commuting in and out of their neighborhoods, people running errands, etc. Because of that, the design of Signature Streets needs to have the greatest flexibility and balance between modes.

Active transportation improvements to Signature Streets shall include accessible sidewalks, especially filling gaps to create a continuous pedestrian network. Marked crosswalks should be added at regular intervals along each Signature Street, and each crossing should be evaluated to determine whether increased visibility (e.g. Rectangular Rapid Flashing Beacons) or traffic control (e.g. HAWK signals or regular traffic lights) should be included.

Experienced cyclists can confidently navigate Signature streets as they are today, but less experienced and less confident cyclists require a more clearly defined space in which to feel safe. With limited right-of-way available along Signature Streets, striped bike lanes on both sides of the roadway or shared use paths (sidepaths) may not be possible. However, it may be desirable to install “climbing bike lanes” on uphill roadway sections to provide additional street space for slower moving bicycle traffic.

Local truck traffic, deliveries and transit vehicles are to be expected on Signature Streets. As such, a single unit shall be used as the design vehicle for Signature Streets, although larger vehicles such as WB-50s and WB-67s shall be discouraged. Design speeds for Signature Streets shall not exceed 30 mph.

Signature Street Design Elements

Examples of design elements appropriate for Warrenton's Signature Streets include pedestrian refuge islands, bike lanes and sidewalks, climbing lanes for bikes, and raised intersections and traffic circles as part of overall traffic calming.



Neighborhood Streets

Neighborhood Streets are typically narrow residential streets carrying local traffic on two-way, unmarked roadways (i.e. there is no striped centerline). Traversing residential neighborhoods, these streets shall have well connected sidewalks to encourage more walking trip origins from residences. Neighborhood Streets that currently lack sidewalk access may be considered walkable due to low motor vehicle speeds and volumes, as well as a design that incorporates “green”, no curb and gutter, stormwater management techniques. Where

sidewalk installation is not feasible, traffic calming applications help create a more inviting pedestrian experience as a shared street condition. Bike lanes may not be necessary as general traffic calming applications equalize speed between motor vehicles and bicycles creating low-stress conditions. Narrow public right-of-way limit landscaping opportunities, but can be applied at intersections or neighborhood gateways. Design speeds for Neighborhood streets shall not exceed 20 mph.

Neighborhood Street Design Elements

Examples of design elements appropriate for Warrenton’s neighborhood streets include traffic circles, sidewalk extensions and bulb-outs, and raised crossings for Neighborhood Trails.



Shared Streets

Shared Streets are the narrow side streets of Old Town where pedestrian traffic should be the primary travel mode. Today, these streets have narrow sidewalks which are cluttered, not ADA compliant, and which often disappear altogether. By contrast, the space for motor vehicles is clear, well-marked, in good condition and thus cars dominate the space. Shared Streets still allow vehicle access and should maintain vital short-term parking and loading zones—but the design of the street doesn't encourage car traffic. Regardless of travel mode, all traffic shall operate at a low speed with design speeds no greater than 10 mph. Due to the limited width, low operating speeds and multimodal access, everyone uses the same street space. These streets typically have no dedicated sidewalks; instead, pedestrians can walk in the street and have priority. To ensure low operating speeds, traffic calming such as textured pavement, bollards, planters and chicanes create a low-stress space. Possible Shared Streets in Old Town Warrenton include 1st, 3rd, 4th, and 5th Street

north of Main, as well as 2nd, 4th and 5th Streets south of Main. Transit service on 3rd Street south of Main will require further evaluation.

In addition to the above street classifications, pathways should be considered as a travelway designation. **Trails** are both designated and informal pedestrian walkways connecting streets and destinations for pedestrian, bicycle and equestrian access. In developed areas, informal pedestrian walkways can be created by connecting the existing sidewalk system, shared streets, commercial alleys and adjacent parking lot space to provide a comfortable walking experience. Pathways can also include trails and greenways. The most notable designated trail is The Warrenton Branch Greenway which begins at the intersection of 4th and East Franklin Streets and extends 1.5 miles eastward. The Warrenton Branch Greenway connects with the Fauquier County trail system and ultimately will connect to the Lord Fairfax Community College Connector Trail.

Shared Street Design Elements

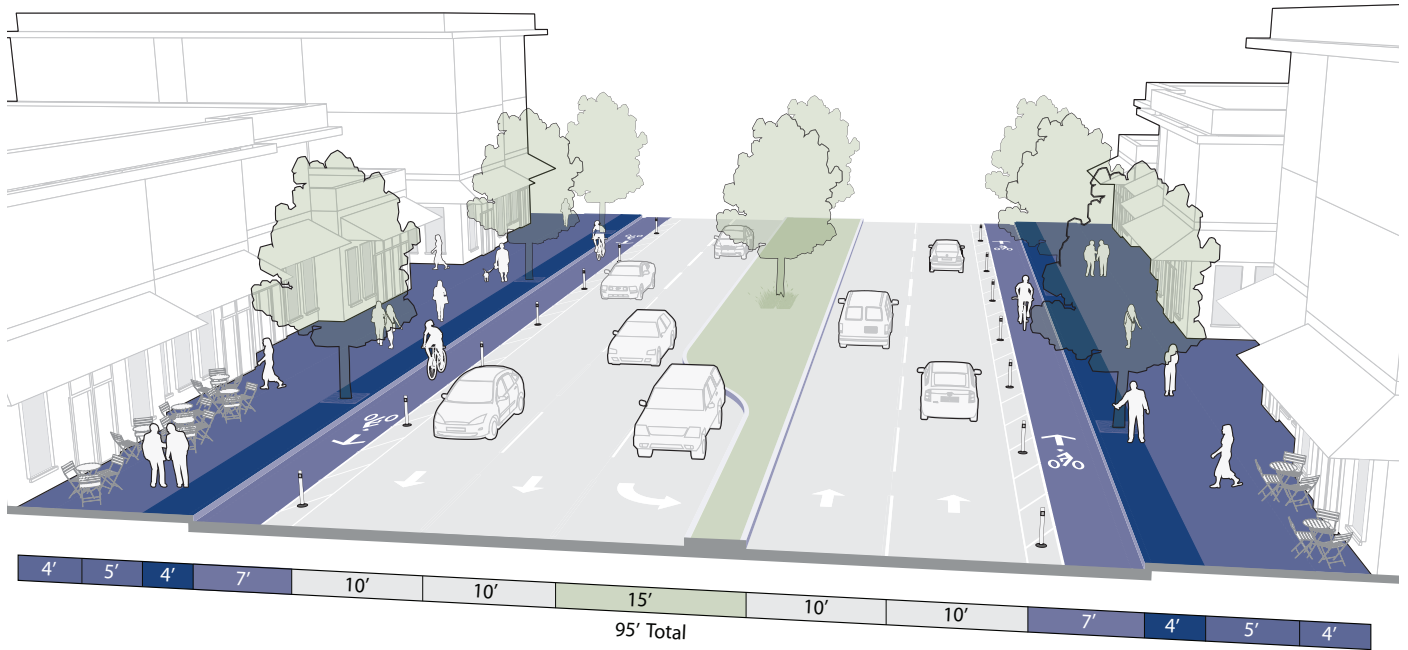
Examples of design elements for Warrenton's Shared Streets include slow speed and level roadway surfaces, street retail to encourage activity, short sightlines and terminating vistas to encourage very slow driving speeds.



Travel Mode Expectations for Each Street Type

	Boulevard	Old Town	Signature	Neighborhood	Shared	Trail
Context	Commercial/ Mixed Use/ Original Bypass	Central Business District/ Mixed Use	Mixed Use/ Residential	Residential	Mixed Use	Varies
Pedestrians	Yes	Yes	Yes	Yes	Yes	Yes
Bicycles	Separated	Shared Lane	Climbing Bike Lanes, Shared Lane	Shared Lane, Climbing Bike Lanes where feasible	Yes	Yes
Transit	Yes	Yes	No, except designated routes	No	No, except designated routes	No
Local traffic	Yes	Yes	Yes	Yes	Yes	No
Thru traffic*	Yes	Discouraged, except tourism	No, except National Scenic Byway tourism	No	No	No
Thru Truck	Yes	No, except designated truck routes	No, except designated truck routes	No	No	No
Local Truck	Yes	Yes	Deliveries Only	Deliveries Only	Deliveries Only	No
Landscaping	Yes	Where appropriate	Yes	Where appropriate	Yes	Yes

Boulevards & Gateway Streets



Broadview Ave (left) and Shirley Avenue (right) are examples of Boulevards. Broadview has 4 through lanes, Shirley has 2 through lanes.

Basic Dimensions for Boulevards

All dimensions are approximate and vary street to street. The dimensions are provided as a general guidance based on average field conditions for existing conditions and nationally accepted design standards for proposed conditions.

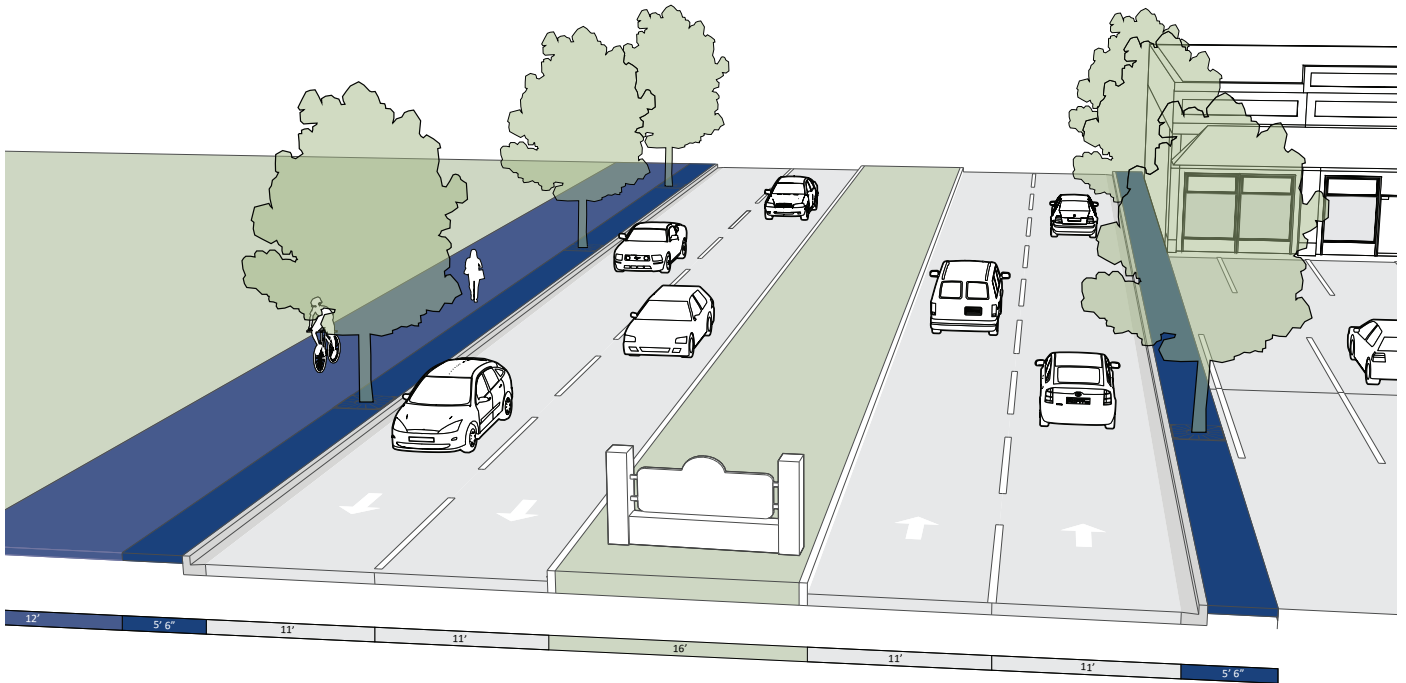
Major Design Element	Recommended	Parameters
Right-of-way	n/a	60' - 100'
Sidewalks	Yes	> 7' clear walk zone
Curbside Buffer Zone (Highest Priority Street Element)	Yes	3' - 6' Width requirements: small trees = 4'; medium trees = 4' (6' preferred); large trees = 4' (6' preferred); smaller widths can be achieved if soil volume minimum met.
Street Trees**	Yes	Locate in curbside buffer or in on-street parking zone soil volume minimums: small trees = 250 ft ³ ; medium trees = 400 ft ³ ; large trees = 400 ft ³ (700 ft ³ preferred)
On-Street Parking*	Limited or none	8'
Diagonal On-Street Parking	no	Back-in parking only, 60°, 17' min. stall depth
Off-Street Parking Access	Limited	Driveways, service and loading preferred from alleys and side streets
Travel Lane Widths*	n/a	10-11', if transit 11' outer lane
Turn Lanes	Yes	10'
Design Speed	slow	< 30 mph
Bicycle Facilities (High Priority Street Element)	Yes	5'-7' bike lanes, 7' separated bike lanes, turn boxes, 10' shared use paths Bicycle parking in curbside Buffer Zone or on-street
Transit Stop Facilities	Yes	Shelters, benches, paved curbside waiting areas, litter receptacle
Traffic Calming	Yes	Roundabouts, medians
Curbs	Yes	Vertical curb, or combination curb and gutter
Gutters	Yes	Combination curb and gutter
Pedestrian Lighting	Yes	16' Height Maximum; see Lighting standards
Street Lighting	Yes	

Major Design Element	Recommended	Parameters
Median	Yes	Recommended to facilitate safe pedestrian crossings on streets with 3 lanes of traffic (can alternate with center turn lane); traffic calming, and stormwater management
Curb Radii	n/a	20' - 30'
Build-To Line/Street Wall Set Back from Public ROW	n/a	5'-10'+; varies by zoning district
Low Impact Design Stormwater Opportunities	Yes	
Sidewalk Pavement Material		Concrete, permeable pavement, permeable pavers
Parking Lane Material		Asphalt, permeable pavement, unit pavers
Roadway Material		Asphalt
Gutter Material		Asphalt, concrete
Curb Material		concrete
Curbside Buffer Zone Material		Unit pavers, permeable pavement, lawn, groundcover, vegetated tree boxes
Utilities	n/a	Separation requirements for street trees/above ground infrastructure: 10' preferred, 5' minimum. Anything under 10', consult with utilities engineer to reach solution.

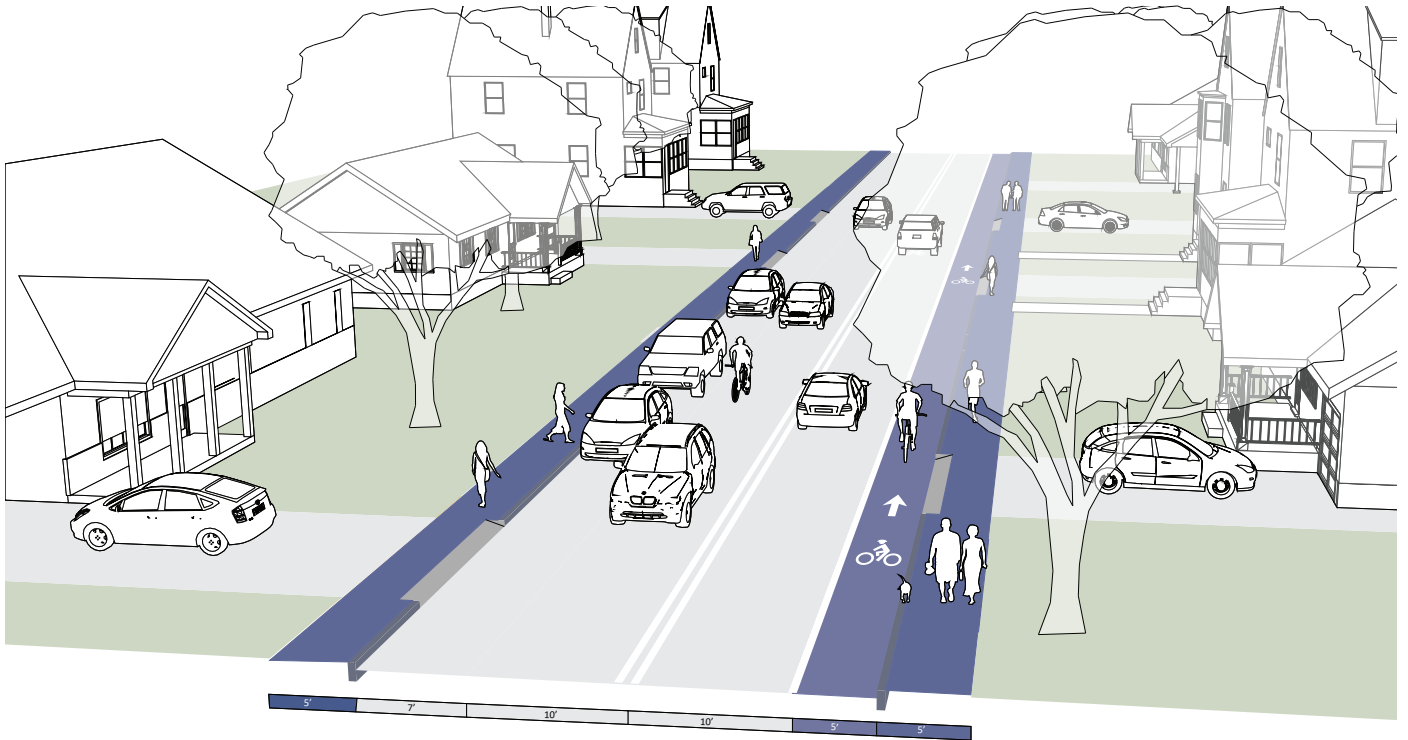
* Combined travel lane and on-street parking width 18' minimum (7' on-street parking, 11' travel lane OR 8' on-street parking, 10' travel lane)

** Trees: small (10' – 30' mature height) ; medium (30' – 50' mature height); large (50' mature height)

Gateways



Signature Streets



Winchester Street (Left) and Blackwell Road (Right) demonstrate the existing conditions of Signature Streets in Warrenton.

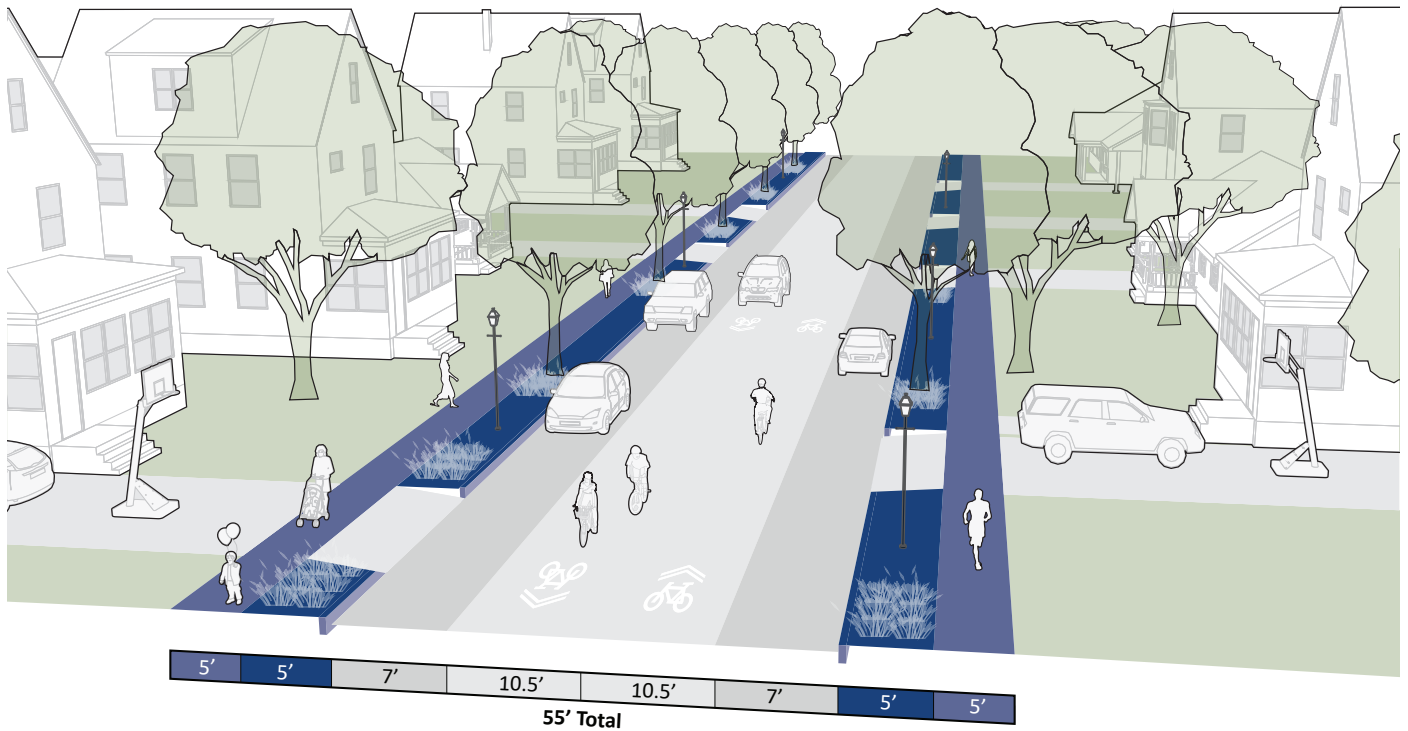
Basic Dimensions for Signature Streets

All dimensions are approximate and vary street to street. The dimensions are provided as a general guidance based on average field conditions for existing conditions and nationally accepted design standards for proposed conditions.

Major Design Elements	Recommended	Parameters
Right-of-way	n/a	60' - 100'
Sidewalks	Yes	> 7' clear walk zone
Curbside Buffer Zone	Yes	3' - 6' Width requirements: small trees = 4'; medium trees = 4' (6' preferred); large trees = 4' (6' preferred); smaller widths can be achieved if soil volume minimum met.
Street Trees**	Yes	Locate in curbside buffer or in on-street parking zone soil volume minimums: small trees = 250 ft ³ ; medium trees = 400 ft ³ ; large trees = 400 ft ³ (700 ft ³ preferred)
On-Street Parking*	Limited or none	8'
Diagonal On-Street Parking	no	Back-in parking only, 60°, 17' min. stall depth
Off-Street Parking Access	Limited	Driveways, service and loading preferred from alleys and side streets
Travel Lane Widths*	n/a	10-11', if transit 11' outer lane
Turn Lanes	Yes	10'
Design Speed	slow	< 30 mph
Bicycle Facilities	Yes	5'-7' bike lanes, 7' separated bike lanes, turn boxes, 10' shared use paths Bicycle parking in curbside Buffer Zone or on-street
Transit Stop Facilities	Yes	Shelters, benches, paved curbside waiting areas, litter receptacle
Traffic Calming	Yes	Roundabouts, medians
Curbs	Yes	Vertical curb, or combination curb and gutter
Gutters	Yes	Combination curb and gutter

Major Design Elements	Recommended	Parameters
Pedestrian Lighting	Yes	16' Height Maximum; see Lighting standards
Street Lighting	Yes	
Median	Yes	Recommended to facilitate safe pedestrian crossings on streets with 3 lanes of traffic (can alternate with center turn lane); traffic calming, and stormwater management
Curb Radii	n/a	20' - 30'
Build-To Line/Street Wall Set Back from Public ROW	n/a	5'-10'+; varies by zoning district
Low Impact Design Stormwater Opportunities	Yes	
Sidewalk Pavement Material		Concrete, permeable pavement, permeable pavers
Parking Lane Material		Asphalt, permeable pavement, unit pavers
Roadway Material		Asphalt
Gutter Material		Asphalt, concrete
Curb Material		Concrete
Curbside Buffer Zone Material		Unit pavers, permeable pavement, lawn, groundcover, vegetated tree boxes
Utilities		Separation requirements for street trees/above ground infrastructure: 10' preferred, 5' minimum. Anything under 10', consult with utilities engineer to reach solution

Neighborhood Streets



Hidden Creek Lane (Left) is an existing neighborhood street built with sidewalks; North Chestnut Street (Right) closer to Old Town, does not have sidewalks.

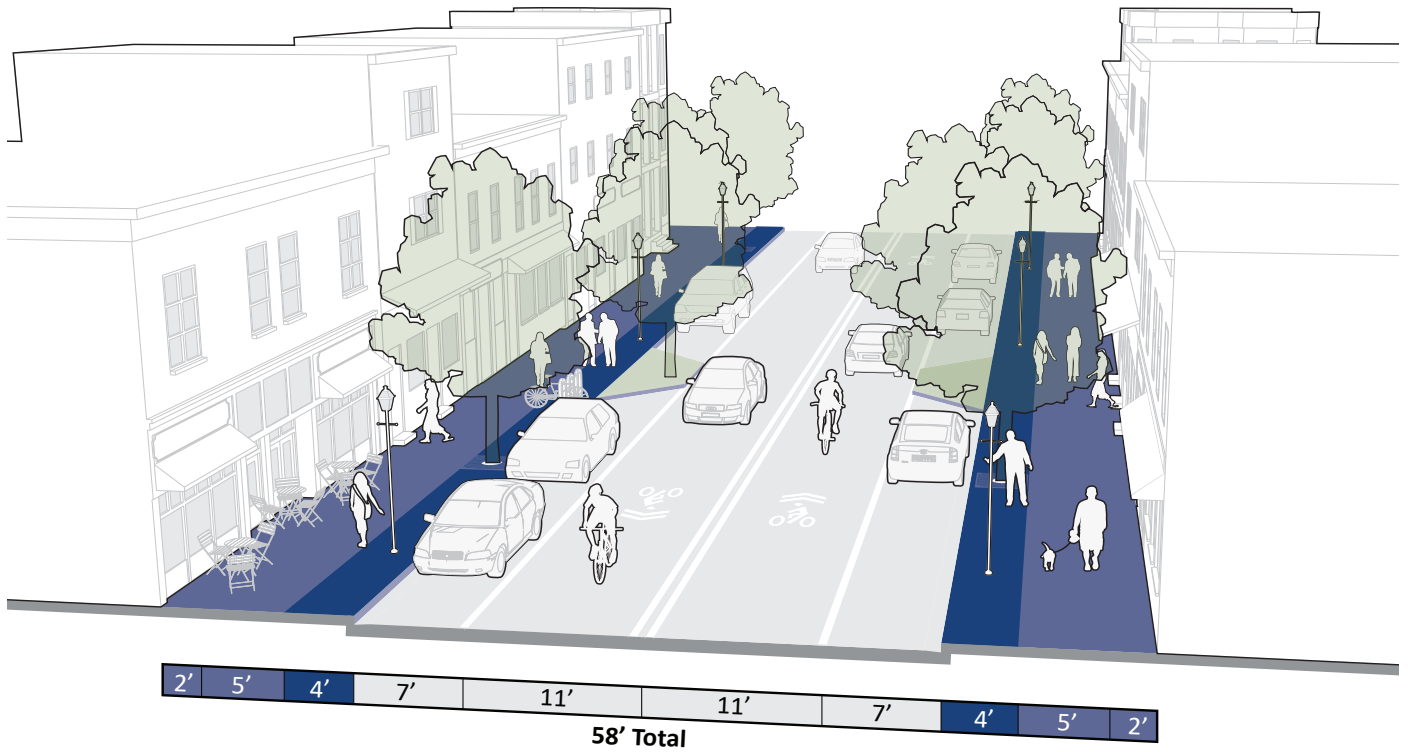
Basic Dimensions for Neighborhood Streets

All dimensions are approximate and vary street to street. The dimensions are provided as a general guidance based on average field conditions for existing conditions and nationally accepted design standards for proposed conditions.

Major Design Elements	Recommended	Parameters
Right-of-way	n/a	25' - 50'
Sidewalks (Highest Priority Street Element)	Yes	5' – 6' clear walk zone
Curbside Buffer Zone	Yes	3' - 6' Width requirements: small trees = 4'; medium trees = 4' (6' preferred); large trees = 4' (6' preferred); smaller widths can be achieved if soil volume minimum met.
Street Trees	Yes	Locate in curbside buffer or in on-street parking zone soil volume minimums: small trees = 250 ft ³ ; medium trees = 400 ft ³ ; large trees = 400 ft ³ (700 ft ³ preferred)
On-Street Parking	Yes	7' - 8'
Diagonal On-Street Parking	no	
Off-Street Parking Access	Yes	Sidewalk level and ADA access to be maintained at all driveways
Travel Lane Widths (High Priority Street Element)	n/a	10-11', if transit 11' outer lane
Turn Lanes	no	
Design Speed	slow	< 25mph
Bicycle Facilities	Yes	Bicycles May Use Full Lane signage, shared Lane Markings, climbing Lanes
Transit Stop Facilities	Yes	Benches, paved curbside waiting areas
Traffic Calming	Yes	Curb extensions (mid-block and corner), speed tables, raised intersections, raised crossings, and mini traffic circles

Major Design Elements	Recommended	Parameters
Curbs	Limited	Vertical curb, or combination curb and gutter
Gutters	Yes	Valley gutter or combination curb and gutter
Pedestrian Lighting	Yes	16' Height Maximum; see Lighting standards
Street Lighting	no	
Median	no	
Curb Radi	n/a	15' - 25'
Build-To Line/Street Wall Set Back from Public ROW	n/a	10' - 25'; varies by zoning district
Low Impact Design Stormwater Opportunities	Yes	
Sidewalk Pavement Material		Concrete, permeable pavement, unit pavers
Parking Lane Material		Asphalt, permeable pavement, unit pavers
Roadway Pavement Material		Asphalt
Gutter Material		Asphalt, concrete, and unit pavers
Curb Material		Concrete, granite
Curbside Buffer Zone Material		Lawn, groundcover, vegetated tree boxes
Utilities		Separation requirements for street trees/above ground infrastructure: 10' preferred, 5' minimum. Anything under 10', consult with utilities engineer to reach solution
*combined travel lane and on-street parking width 18' minimum (7' on-street parking, 11' travel lane OR 8' on-street parking, 10' travel lane)		

Old Town Streets



Main Street (Left) reflects a well-defined Old Town street; East Lee Street (right) and Horner Street have a less well developed streetscape for creating that Old Town feel.

Basic Dimensions for Old Town Streets

All dimensions are approximate and vary street to street. The dimensions are provided as a general guidance based on average field conditions for existing conditions and nationally accepted design standards for proposed conditions.

Major Design Elements	Recommended	Parameters
Right-of-way	n/a	50' - 75'
Sidewalks	Yes	> 6' clear walk zone
Curbside Buffer Zone	Yes	3' - 6' Width requirements: small trees = 4'; medium trees = 4' (6' preferred); large trees = 4' (6' preferred); smaller widths can be achieved if soil volume minimum met.
Street Trees	Yes	Locate in curbside buffer or in on-street parking zone soil volume minimums: small trees = 250 ft ³ ; medium trees = 400 ft ³ ; large trees = 400 ft ³ (700 ft ³ preferred)
On-Street Parking	Yes	7'-8' Loading zones need to be considered
Diagonal On-Street Parking	No	Parallel parking only, 60o, 17' min. stall depth
Off-Street Parking Access	Yes	Driveway, service and loading preferred from alleys and side streets
Travel Lane Widths	Yes	10-11', if transit 11' outer lane
Turn Lanes	Limited	Only at major intersections and major destination access points
Design Speed	slow	25 mph
Bicycle Facilities	Yes	Shared lane markings, climbing lanes
Transit Stop Facilities	Yes	Shelters, benches, paved waiting areas, litter receptacles, lighting
Traffic Calming	Yes	Corner extensions, raised intersections, raised crosswalks
Curbs	Yes	Vertical curb, or combination curb and gutter
Gutters	Limited	Combination curb and gutter
Pedestrian Lighting	Yes	16' height maximum

Major Design Elements	Recommended	Parameters
Street Lighting	Yes	
Median	No	Recommended to facilitate safe pedestrian crossings on streets with 3 lanes of traffic; traffic calming stormwater management
Curb Radii	n/a	15' - 25'
Build-To Line/Street Wall Set Back from Public ROW	n/a	0'-5'; varies by zoning district
Green and Blue Stormwater Opportunities	Yes	Micro-retention, rain gardens
Sidewalk Pavement Material		Concrete, permeable pavement, unit pavers consistent with historic character
Parking Lane Material		Asphalt, permeable pavement, unit pavers
Roadway Pavement Material		Asphalt
Gutter Material		concrete, and unit pavers
Curb Material		n/a
Curbside Buffer Zone Material		Unit pavers, permeable pavement, vegetated tree boxes
Utilities		Separation requirements for street trees/above ground infrastructure: 10' preferred, 5' minimum. Anything under 10', consult with utilities engineer to reach solution.

Shared Streets



Fifth Street, either side of Main Street. Currently low speed, low volume with important parking and loading needs; could be a lot more walkable and welcoming.

Basic Dimensions for Shared Streets

All dimensions are approximate and vary street to street. The dimensions are provided as a general guidance based on average field conditions for existing conditions and nationally accepted design standards for proposed conditions.

Major Design Elements	Recommended	Parameters
Right-of-way	n/a	20'-35'
Sidewalks	Limited	Design of street limits dangerous driving maneuvers so that pedestrians should feel comfortable walking in street. Curb separated sidewalks may limit ADA access
Curbside Buffer Zone	No	Narrow right-of-way and street width typically do not allow space for buffer zones.
Street Trees	Limited	Landscaping options are limited due to restricted space. Portable landscaping in planters may be applicable.
On-Street Parking	Yes	Temporary or loading zone parking is allowed
Diagonal On-Street Parking	No	
Off-Street Parking Access	Yes	Driveway, service and loading preferred from alleys and side streets
Travel Lane Widths	Yes	Narrow lanes reduce traffic speeds. If specification needed, 8' maximum
Turn Lanes	No	
Design Speed	slow	10 mph
Bicycle Facilities	No	
Transit Stop Facilities	Limited	Applied as gateway treatments at corridor edges; shelters, benches, paved waiting areas, litter receptacle
Traffic Calming	Yes	Bollards, planters, corner extensions, raised intersections, raised crosswalks, textured pavement
Curbs	No	
Gutters	Limited	Valley gutters or slopes to meet entrance ways may be needed for retrofits. Drainage towards center of street consolidates underground piping and provides more ADA compliant pedestrian travelways on side of streets.
Pedestrian Lighting	Yes	16' height maximum

Major Design Elements	Recommended	Parameters
Street Lighting	Yes	
Median	No	
Curb Radii	n/a	2' - 20'
Build-To Line/Street Wall Set Back from Public ROW	n/a	0'-5'; varies by zoning district
Low Impact Design Stormwater Opportunities	Yes	
Sidewalk Pavement Material		Delineated walking areas should contrast with driving areas. Concrete, permeable pavement, unit pavers consistent with historic character
Parking Lane Material		Asphalt, permeable pavement, unit pavers
Roadway Pavement Material		Delineated driving areas should contrast with walking areas. Asphalt
Gutter Material		Concrete, and unit pavers
Curb Material		n/a
Curbside Buffer Zone Material		n/a
Utilities		