Transportation Advisory Committee
Meeting Notice & Agenda

Wednesday, November 7, 2012
4:00 p.m. to 5:30 p.m.

King Street Meeting Room
100 North King Street
Hendersonville, NC 28792

1. Meeting Called to Order ..... Renee Kumor
2. Public Input ..... Renee Kumor
3. Approval of Meeting Minutes – September 5, 2012 ..... Renee Kumor

New Business

4. Complete Streets Consideration for SPOT Ranked Projects ..... Matthew Cable (45 min)
5. Transportation Projects Preliminary Review ..... Matthew Cable (5 min)
6. Chairman Comments ..... Renee Kumor (5 min)
7. Municipal Representative Updates ..... Municipal Representatives (5 min)
8. NCDOT Projects Update ..... NCDOT Representative (5 min)
9. FBRMPO: Upcoming Meeting Items ..... Matthew Cable (5 min)
10. Important Dates ..... Matthew Cable (5 min)
    2013 Proposed TAC Meeting Dates: March 6, June 5, September 5, and November 6
11. Adjournment ..... Renee Kumor

CHAIRMAN
Jim Crafton
Phone: 828.329.0203
Email: craftonj@morrisbb.net

VICE-CHAIRMAN
Renee Kumor
Phone: 828.692.7640
Email: rkumor@morrisbb.net

STAFF
Matthew Cable
Phone: 828.694.6557
Email: mcable@hendersoncountync.org

Henderson County believes it is the right of all citizens to participate. All persons with disabilities that need auxiliary aid should contact the Secretary to the Planning Board at (828) 697-4819, at least 48 hours prior to the meeting.

Henderson County
TRANSPORTATION ADVISORY COMMITTEE
September 5, 2012

The Transportation Advisory Committee met September 5, 2012 at 4:00 p.m. in the King Street Meeting Room at 100 North King Street, Hendersonville. Members present were Chairman Jim Crafton; David Jones, at-large; Renee Kumor, at-large; Keith Maddox, at-large; Robert Vickery, Town of Laurel Park; and Bo Ferguson (representing Steve Caraker) City of Hendersonville. Members not in attendance were Steve Caraker, City of Hendersonville; Don Farr, Village of Flat Rock; Eddie Henderson, Town of Fletcher; Roger Snyder, Town of Mills River; Commissioner Mike Edney; and Commissioner Bill O'Connor. Henderson County Staff members included Matthew Cable, Transportation Planner. Steve Cannon, NCDOT District Engineer was also present. Mr. Crafton called the meeting to order at 4:00 p.m.

New Business:

Mr. Crafton opened the meeting by asking if any members of the audience wished to provide public comment. Ms. Kumor read a letter from Mr. Stan Kumor regarding the safety of the intersection of Howard Gap Road and North Clear Creek Road. Mr. Cannon explained that the Howard Gap Road improvements scheduled to let in February included realignment with the addition of a left turn lane at North Clear Creek. Mr. Cannon said, given the concerns expressed in the letter, it would be appropriate to provide additional mowing and safety signs in the interim and that NCDOT would explore these measures.

Approval of Minutes:

Ms. Kumor made a motion to approve of the minutes of the March 7, 2012 meeting. Mr. Maddox seconded the motion and all members voted in favor.

New Business Continued:

Ecusta Rail Trail Planning Study. Mr. Cable gave a brief review of the Ecusta Rail Trail Planning Study presented at the previous TAC meeting.

Chairman Comments. Mr. Crafton discussed the importance of improving relations with the Board of Commissioners. To this end, Mr. Crafton informed the committee that it is his goal to begin providing the Board of Commissioners with reports about the activities undertaken by the TAC.

NCDOT Update. Mr. Cannon provided the following project updates:

- Upward Road is 61% complete. The anticipated completion date is August, 2013
- Howard Gap Section B (Fletcher to Brookside Camp Road intersection) has been awarded and construction should begin soon.
- NC Highway 191 will be resurfaced from US Highway 25 to Mountain Road over a six week period this fall. NCDOT is currently replacing the crosspipes in this section of NC Highway 191.
- Little River Road bridge has been delayed for a redesign, at the request of the County, in light of other design concerns related to recent bridge projects in the Village of Flat Rock.
- Erkwood/Shepherd Street intersection with Greenville Highway public meeting should be occurring in the next few months.

The remainder of the meeting focused on staff reported information and updates to the committee. Mr. Cable provided an update on the NCDOT 2040 Transportation Plan, Blue Ridge Bike Plan, Crab Creek Community Club Meeting, and TEAAS Crash Data Software. He provided a revised copy of the TAC's Draft Work Plan and explained its purposes being to anticipate needed action at the MPO level. Finally, Mr. Cable provided a quick review of the SPOT 2.0 Rankings.

There being no further business, the meeting adjourned at 5:15 p.m.

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Jim Crafton, Chairman
Henderson County Transportation Advisory Committee

Complete Street Cross Section Quick Comparison Tables

Table 1: Two-Lane Street Segments							
Type of 2 Lane Street	**Speeds**	**Bike Lanes**	**Sidewalks**	**Parking/ Transit Zone**	**Sharrows**	**Multi-Use Path**	**Notes**
Rural Road	Varied	Y	Y	N	Y	Y	
Urban/Suburban Main Street	Low (Generally < 35 mph)	Y	Y	Y	Y	N	Noted difference from Rural Village Main Street: Bike Lane Width Prescribed
Rural Village Main Street	Low (Generally < 35 mph)	N	Y	Y	Y	N	Noted difference from Urban/Suburban Main Street: Bike Lane Width Prescribed
Rural Avenue	Low (Generally < 35 mph)	Y	Y	N	N	N	Noted difference from Urban/Suburban Avenue: Access Zone (not included), Green Zone Widths, and Speeds
Local/Subdivision Street: Residential	Low (Generally < 35 mph)	Y	Y	Y	Y	N	
Local/Subdivision Street: Office, Commercial and Industrial	Low (Generally < 35 mph)	N	Y	Y	N	N	

Table 2: Four-Lane Street Segments							
Type of 4 Lane Street	**Speeds**	**Bike Lanes**	**Sidewalks**	**Parking/ Transit Zone**	**Sharrows**	**Multi-Use Path**	**Notes**
Urban/Suburban Parkway	Moderate (35 mph +) to High	N	N	N	N	Y	Noted difference from Rural Parkway: Median Zone (smaller)
Rural Parkway	Moderate (35 mph +) to High	N	N	N	N	Y	Noted difference from Rural Parkway: Median Zone (larger)
Urban/Suburban Boulevard	Moderate (35 mph to 55 mph)	Y	Y	N	N	N	Noted difference from Rural Boulevard: Median Zone (smaller) and Green Zone (smaller)
Rural Boulevard	Moderate (35 mph to 55 mph)	Y	Y	N	N	N	Noted difference from Urban/Suburban Boulevard: Median Zone (larger) and Green Zone (larger)
Urban/Suburban Avenue	Low (Generally > 35 mph)	Y	Y	Y	Y	N	Noted difference from Rural Avenue: Access Zone (included), Green Zone Widths, and Speeds

Street Cross-sections and Guidelines

The following pages illustrate street cross-sections for each street type. The purpose of the illustrations is to provide a general understanding of the intended spatial relationships of the various street components for each street type. These illustrations serve as a diagram of one or more possible street configurations.

Dimensional guidelines are provided for the appropriate combinations of street types with subarea type. The guidelines provide ranges that allow the design input team the flexibility to respond to particular conditions. **These cross-sections should not be used in isolation.** Consideration of the context and the elements discussed previously in this guideline document must be brought into the decision making process, as described in Chapter 2. Please also note that all pavement markings and placement of pavement markings should follow the guidelines specified in the current edition of the Manual on Uniform Traffic Control Devices (MUTCD).

RURAL ROAD

PLAN VIEW

Not all traffic control devices shown

KEY ELEMENTS

- May function as an arterial, collector or local route, but with a range of speeds.
- A road outside of cities and towns serving a range of traffic levels in a country setting.
- Paved shoulders can be used to provide bicycles and pedestrians accommodation.
- Multi-use paths separated from the roadway may be appropriate treatment for bicycle and pedestrian accommodations.
- Accommodates bus facilities including turnouts as appropriate. Public transit stops and shelters should be clearly marked and placed within the right of way.

STREET CROSS-SECTION ZONES

Sidewalk Zone: Sidewalks on rural roads are rare. If sidewalk is provided it should be placed outside of the clear zone.

Green Zone: The landscaped area along the edge of a roadway and could include grass, landscaping or trees (as permitted). Serves as drainage conveyance.

Bicycle Zone: A zone for bicyclists separate from vehicular traffic.

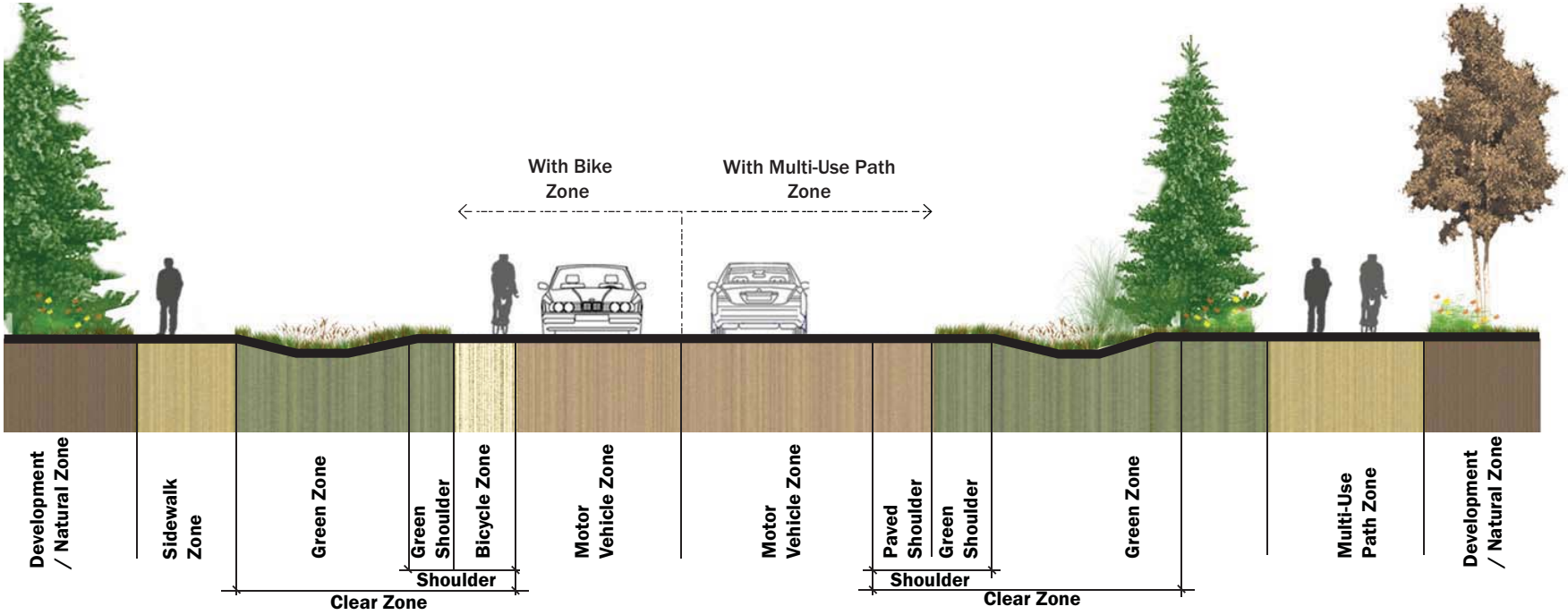
Motor Vehicle Zone: The primary travel way for vehicles.

Multi-Use Path Zone: A zone for pedestrians and bicyclists in a multi-use path separate from the motor vehicle zone. Please see *Multi-Use Path Zone Typology* for more details.

Development Zone / Natural Zone: Land uses are typically set back from the street. This zone may also consist of natural vegetation.

RURAL ROAD

ILLUSTRATIVE STREET CROSS-SECTION



STREET COMPONENT DIMENSIONAL GUIDELINES

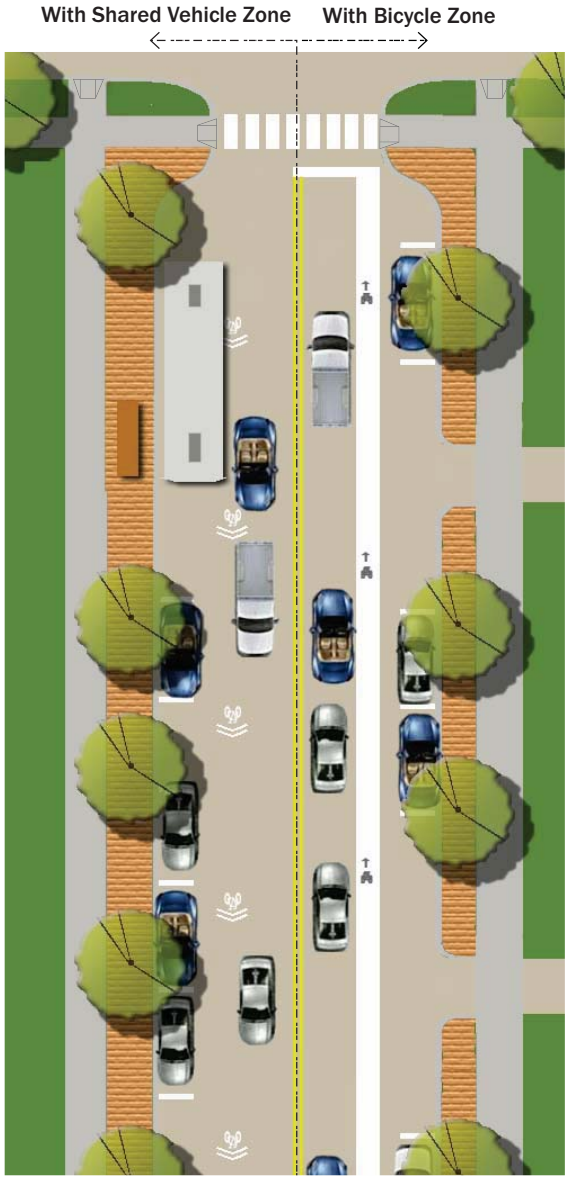
	Sidewalk Zone *(feet)*	Green Zone *(feet)*	Bicycle Zone *(feet)*	Motor Vehicle Zone *(lane width- feet)*	Shoulder Zone *(feet)*	Multi-Use Path Zone *(feet)*
Countryside	**5' minimum**	**See note 2**	**4' - 6' bicycle lanes (see note 3)**	**10' - 12'**	**6' - 8'**	**10' - 12'**

NOTES

1. **Green zone is the grassed roadway shoulder and the ditch or fill slope. At intersections and intermediate locations it may include hardscaping to provide connectivity to pedestrian/bicycle/transit amenities.**
2. **The green zone and the shoulder for resurfacing, restoration, and rehabilitation (R-R-R) work on high-speed rural roads should be a minimum of 15' in width. The green zone and the shoulder for new construction work on high-speed rural roads should be 30' in width.**
3. **A 4' paved shoulder without standard bicycle markings is commonly used in the place of bicycle lanes. A steep grade may require a slightly wider paved shoulder. On rural roads with lower access densities, higher speeds, and higher volumes, a separate 10-12' multi-use path could be considered to provide pedestrians and bicycles accommodation.**
4. **In typical rural settings the roadway shoulder provides the pedestrian walking area.**
5. **If sidewalk is deemed appropriate, it should be located behind the ditch and outside of the clear zone.**

URBAN/SUBURBAN MAIN STREET

PLAN VIEW



KEY ELEMENTS

- May function as an arterial, collector or local street. May function as a collector serving as a primary thoroughfare for traffic circulation in a limited area. May function as a local street for an outlying business district.
- Designed to carry vehicles at low speeds.
- A destination street for a city or town, serving as a center of civic, social and commercial activity.
- Serves substantial pedestrian traffic as well as transit and bicycles.
- Characterized by wide sidewalks, crosswalks and pedestrian amenities, due to emphasis on pedestrian travel.
- Bicycle lanes are allowed but typically not necessary on these streets due to lower speeds and volumes and the desire to keep pedestrian crossing distances to a minimum.

STREET CROSS-SECTION ZONES

Sidewalk Zone: The pedestrian walk area is of sufficient width to allow pedestrians to walk safely and comfortably. Pedestrians are the priority on a main street.

Green Zone: Consists of the area between the sidewalk zone and curb. Includes street trees and other landscaping, as well as interspersed street furnishings and pedestrian-scale lighting in a hardscaped amenity zone.

Parking/Transit Zone: Accommodates on-street parking and transit stops. Width and layout may vary.

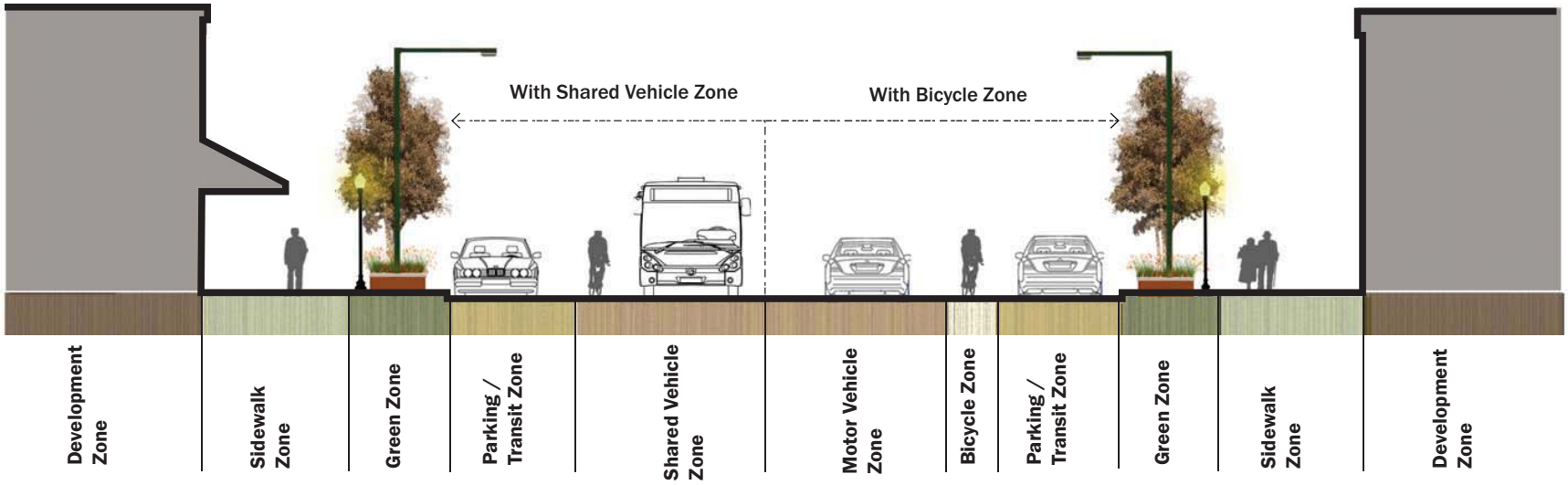
Bicycle Zone: A zone for bicyclists separate from vehicular traffic.

Motor Vehicle / Shared Vehicle Zone: The primary travel way for vehicles. A shared vehicle zone has mixed traffic (cars, trucks, buses and bicycles).

Development Zone: Development should be pedestrian-oriented with narrow setbacks and an active street environment.

URBAN/SUBURBAN MAIN STREET

ILLUSTRATIVE STREET CROSS-SECTION



STREET COMPONENT DIMENSIONAL GUIDELINES

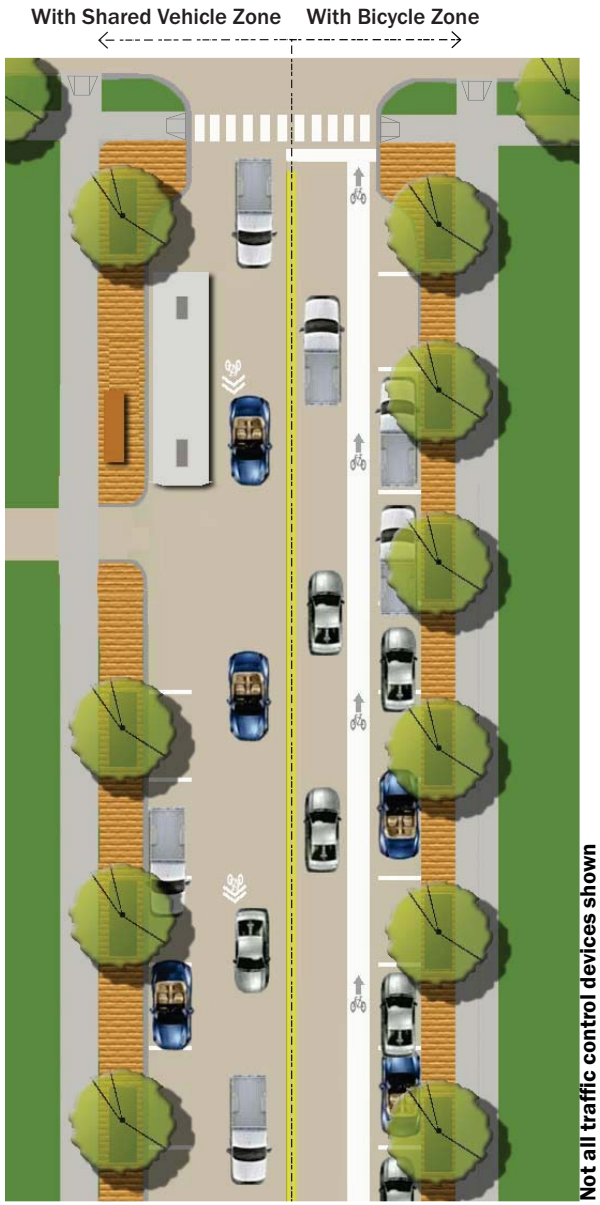
	Sidewalk Zone *(feet)*	Green Zone *(feet)*	Parking /Transit Zone *(feet)*	Motor Vehicle / Shared Vehicle Zone *(lane width- feet)*	Bicycle Zone *(feet)*
Central Business District	10' - 12' 12' - 20' in high volume pedestrian areas	6' - 8'	8' - 10'	10' - 13' (see note 4)	6' lanes (see note 4)
Urban Center / Suburban Center	8' - 12' 12' - 20' in high volume pedestrian areas	6' - 8'	8' - 10'	10' - 13' (see note 4)	6' lanes (see note 4)
Suburban Corridor / Urban Residential / Suburban Residential	8' - 10' 12' - 20' in high volume pedestrian areas	6' - 8'	8' - 10'	10' - 13' (see note 4)	6' lanes (see note 4)

NOTES

1. Sidewalk zone should typically extend to the front of buildings. Sidewalks are the most important element on a main street, because pedestrians are the priority. Therefore, the sidewalk width should typically be at least 10', unobstructed.
2. Green zone may include hardscaping, landscaping, street trees, lighting, and related pedestrian/bicycle/transit amenities. Hardscaping (with street trees in appropriately-designed planters) is typical for access to on-street parking and transit.
3. Parking is expected on main streets. Parking zone dimension may vary depending upon type of parking provided. Angle parking is allowed, preferably reverse angle parking. Angle parking will require a wider dimension than shown.
4. Shared lanes are the preferred treatment, due to the low speeds. In this case, travel lanes should be 13' to allow for maneuvering and opening car doors. Shared lane markings can be used on streets < 35 mph. If bicycle lane is provided, it should be 6' wide, and motor vehicle lane should be narrowed to 10'.

RURAL VILLAGE MAIN STREET

PLAN VIEW



KEY ELEMENTS

- May function as an arterial, collector or local street. Could function as an arterial in rural communities. May function as a collector serving as a primary thoroughfare for traffic circulation in a limited area. May function as a local street for an outlying business district.
- Designed to carry vehicles at low speeds.
- Bicycle lanes are allowed but typically not necessary on these streets, due to lower speeds and volumes and the desire to keep pedestrian crossing distances to a minimum.
- A destination for a rural village serving as a center of civic, social and commercial activity.
- Serves substantial pedestrian traffic as well as transit and bicycles.
- Includes wide sidewalks, crosswalks and pedestrian facilities due to the emphasis on pedestrian travel.

STREET CROSS-SECTION ZONES

Sidewalk Zone: The pedestrian walk area is of sufficient width to allow pedestrians to walk safely and comfortably. Pedestrians are priority on a main street.

Green Zone: This zone consists of the area between the sidewalk zone and curb. It includes street trees and other landscaping, as well as interspersed street furnishings and pedestrian-scale lighting in a hardscaped amenity zone.

Parking/Transit Zone: Accommodates on-street parking and transit stops. Parking zone widths and layout may vary.

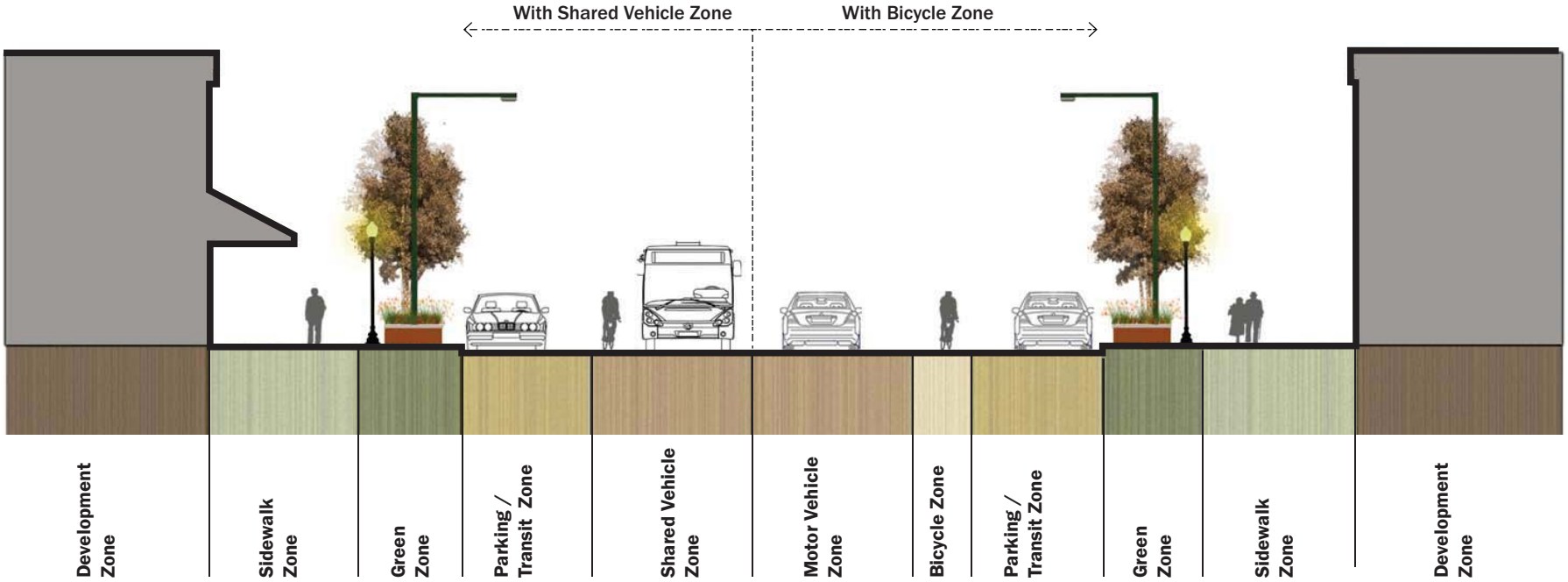
Bicycle Zone: A zone for bicyclists separate from vehicular traffic.

Motor Vehicle /Shared Vehicle Zone: The primary travel way for vehicles. A shared vehicle zone has mixed traffic (cars, trucks, buses, and bicycles).

Development Zone: Development should be pedestrian-oriented with narrow setbacks and an active street environment.

RURAL VILLAGE MAIN STREET

ILLUSTRATIVE STREET CROSS-SECTION



STREET COMPONENT DIMENSIONAL GUIDELINES

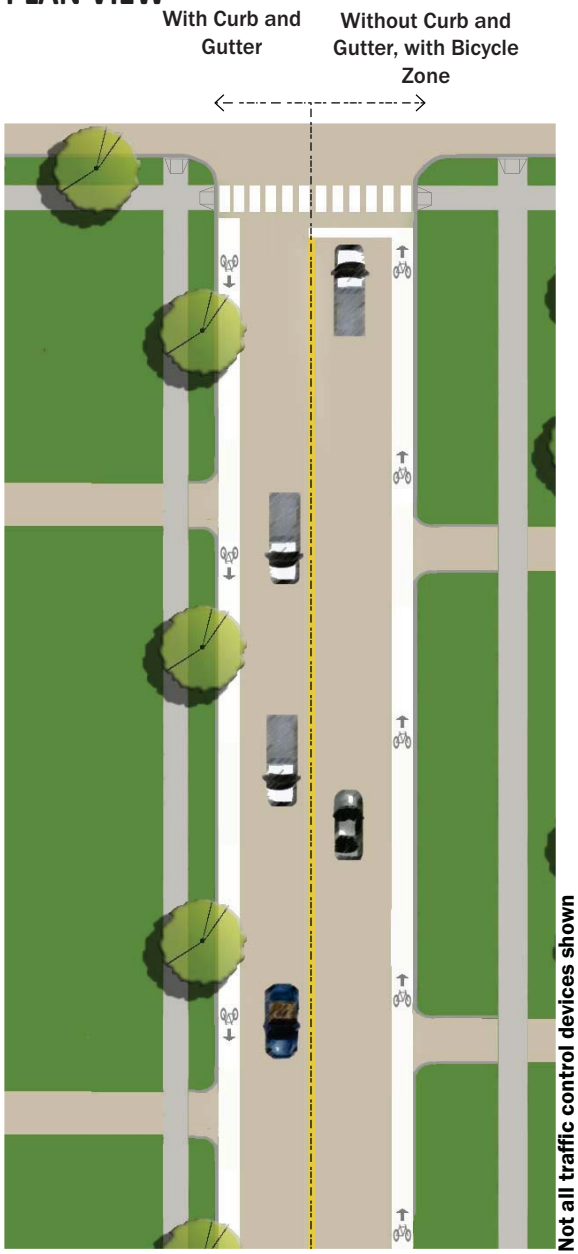
	Sidewalk Zone *(feet)*	Green Zone *(feet)*	Parking /Transit Zone *(feet)*	Motor Vehicle/ Shared Vehicle Zone *(lane width- feet)*	Bicycle Zone *(feet)*
Rural Village	**10' - 12'**	**6' - 8'**	**8' - 10'**	**10' - 13'**	**4' - 6' lanes (see note 4)**
Rural Developed	**8' - 10'**	**6' - 8'**	**8' - 10'**	**10' - 13'**	**4' - 6' lanes (see note 4)**

NOTES

1. **Sidewalk zone should typically extend to the front of the building. Sidewalks are the most important element on a main street, because pedestrians are the priority. Therefore, the sidewalk width should typically be at least 10' unobstructed.**
2. **Green zone may include hardscaping, landscaping, street trees, lighting, and related pedestrian /bike /transit amenities. Hardscaping (with street trees in appropriately-designed planters) is typical, for access to on-street parking and transit.**
3. **Parking is expected on main streets. Parking zone dimensions vary depending upon the type of parking provided. Angle parking is allowed, preferably reverse angle parking. Angle parking will require a wider dimension than shown.**
4. **Shared lanes are the preferred treatment, due to the low speeds. In this case, travel lanes should be 13' wide to allow for maneuvering and opening car doors. Shared lane markings can be used on streets < 35 mph. If a bicycle lane is provided, it should be 6' wide, and the motor vehicle lane should be narrowed to 10'.**

RURAL AVENUE

PLAN VIEW



Not all traffic control devices shown

KEY ELEMENTS

- May function as an arterial, collector or local, route, but generally at low to moderate speeds and volumes.
- A rural street serving a range of traffic levels within and between various area types.
- Characterized by wide sidewalks (scaled to the surrounding land uses) and on-street bicycle facilities.
- May have on-street parking.
- Transit stops, shelters and other amenities are located along the roadway, preferably within the right of way.

STREET CROSS - SECTION ZONES

Sidewalk Zone: The pedestrian walk area is of sufficient width to allow pedestrians to walk safely and comfortably.

Green Zone: The landscaped or hardscaped area along the edge of a street. On avenues this zone should include grass, landscaping, trees in planting strips or, in some cases, hardscaped amenity zones. Pedestrian or decorative lighting may be provided when appropriate for adjacent land uses.

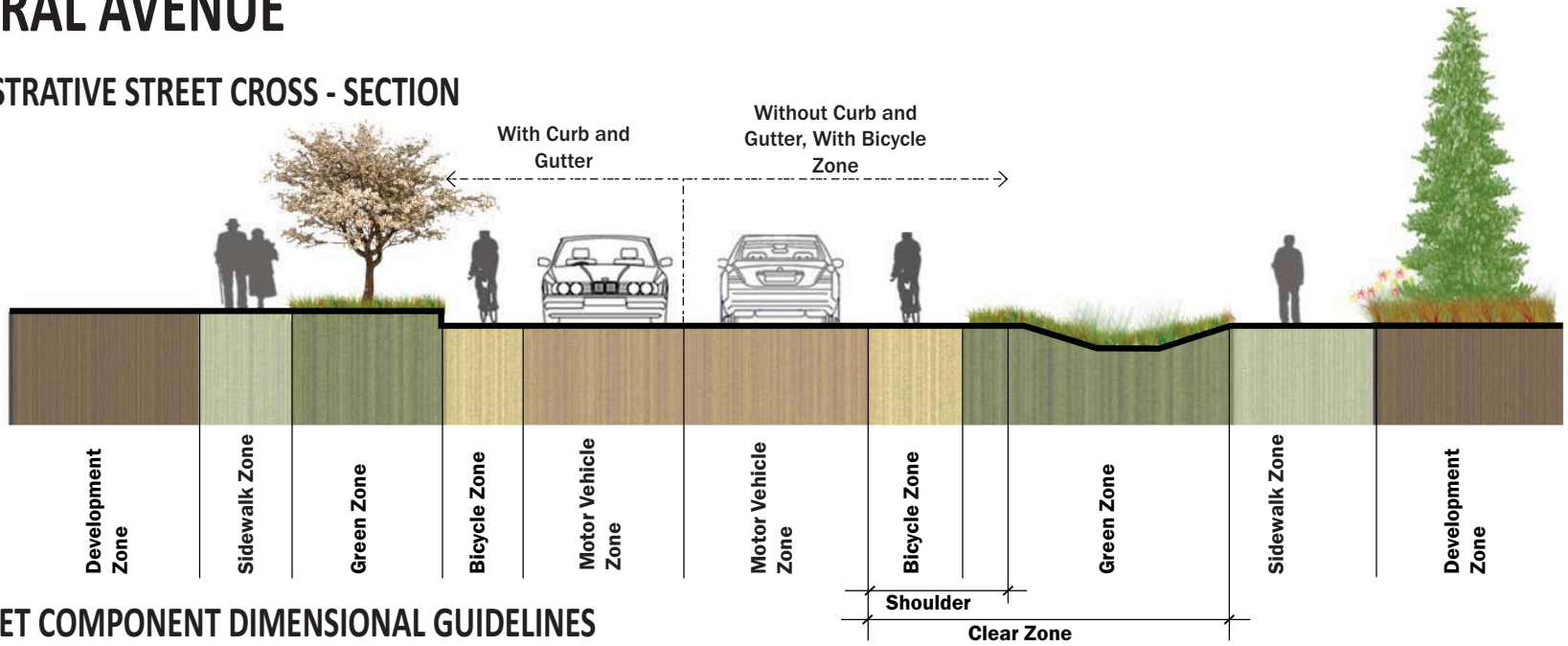
Bicycle Zone: Accommodation for bicyclists in a zone separate from the motor vehicle zone.

Motor Vehicle Zone: The primary travel way for motor vehicles. In a rural avenue without curb and gutter, the green zone would be relied on for drainage conveyance.

Development Zone: Development should be oriented towards the street with good functional and visual connection to the street.

RURAL AVENUE

ILLUSTRATIVE STREET CROSS - SECTION



STREET COMPONENT DIMENSIONAL GUIDELINES

	Sidewalk Zone *(feet)*	Green Zone *(feet)*	Shoulder Zone *(feet)*	Bicycle Zone *(feet)*	Motor Vehicle Zone *(lane width-feet)*
Rural Village	6' - 8'	4' - 12' (see notes 2 and 3)	8' - 10'	4' - 6' bicycle lanes (see notes 5, 6 & 7)	10' - 12' lanes
Rural Developed	5' - 8'	4' - 12' (see notes 2 and 3)	8' - 10'	4' - 6' bicycle lanes (see notes 5, 6 & 7)	10' - 12' lanes

NOTES

1. Sidewalk zone should typically be a minimum unobstructed width of 6'. In areas that are currently or are planned to be pedestrian-oriented or mixed-use development, 8' wide unobstructed sidewalks can be provided.
2. Green zone may include landscaping, street trees, lighting, street furniture, hardscaping in some circumstances and related pedestrian/bike/transit amenities. 8' minimum green zone is preferred, to allow for separation between pedestrians and vehicles, and space for street trees.
3. For areas outside of towns and communities, wider green zones of 10' to 12' are preferred where street trees are provided.
4. Parking is an option on avenues. Parking zone dimensions vary depending upon the type of parking provided. Angle parking is allowed, preferably reverse angle parking. Angle parking will require a wider dimension than shown.
5. 5' bicycle lanes are the preferred treatment. Steep grades may call for wider bike lanes. If bicycle lanes are not possible, shared lanes may be allowed. For a shared lane, the outside lane should be a minimum of 14' wide. Shared lane markings can be used on streets ≤ 35 mph, with either shared lane or standard lane dimensions.
6. In the shared vehicle zone and the bicycle zone, the gutter pan is not considered part of the lane width or the bicycle lane width.
7. Bicycle lanes located next to on-street parking should be a minimum of 5' wide (generally, the combined dimension for parking and a bicycle lane should be at least 13' from the face of the curb).
8. Avenues may or may not include a center turn lane with intermittent landscaped islands. Avenues typically do not include a continuous median, but it may be allowed in some circumstances.
9. Pedestrian lighting should be considered adjacent to development.

LOCAL / SUBDIVISION STREET: RESIDENTIAL

PLAN VIEW

KEY ELEMENTS

- Carries traffic at a low speed.
- Street within a neighborhood or residential development providing direct access to land use.
- Provides additional linkages and connections within and to the overall street network.
- On-street parking typically occurs at different levels depending on land use characteristics. Parking demand will affect street width.
- Pedestrian activity is expected, encouraged, and to be accommodated.
- Local streets provide important connections in the bicycle network.
- Bike lanes are typically not necessary due to low speed and volumes, but are allowed. In some cases, local streets can serve as parallel bicycle or transit route to heavier traveled streets.

STREET CROSS-SECTION ZONES

Development Zone: Density and setbacks will vary, but all should be oriented to the street to support pedestrian access and activity along the street.

Sidewalk Zone: The pedestrian walk area is of sufficient width to allow pedestrians to walk safely and comfortably.

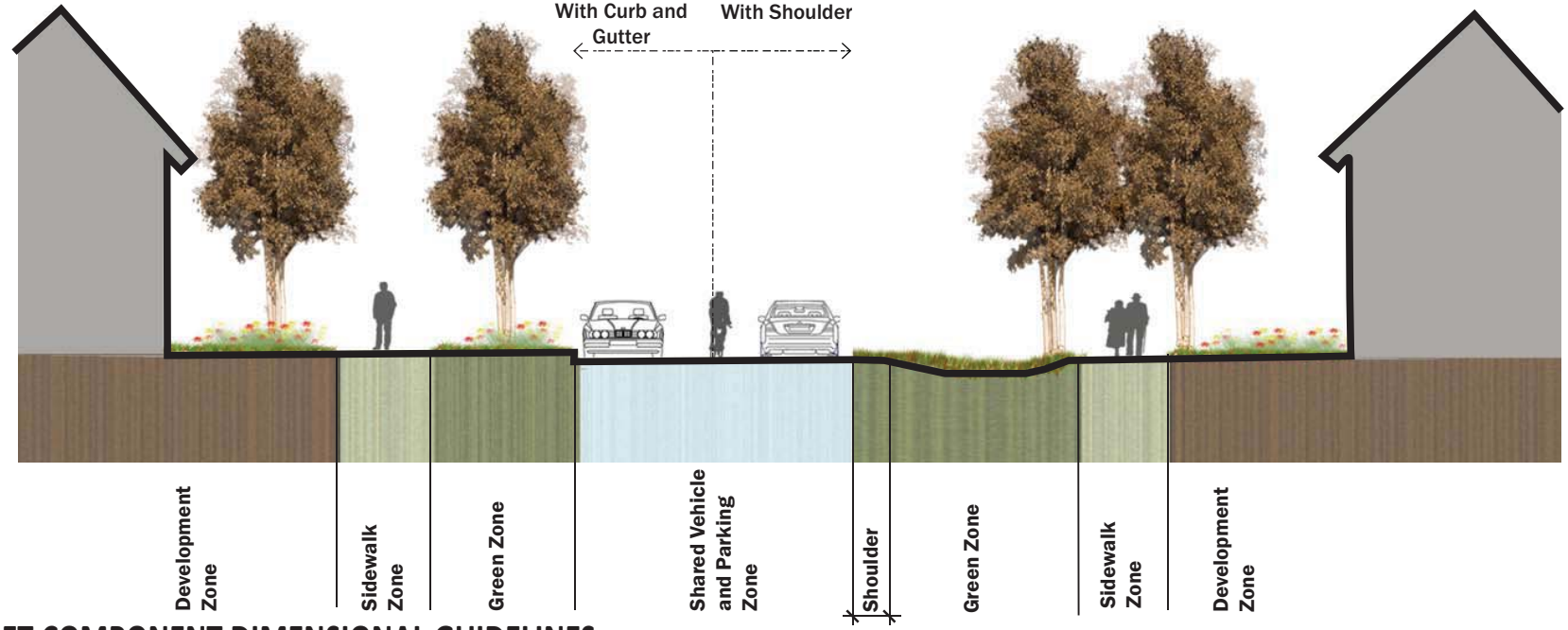
Green Zone: Consists of a planting strip (or, in very urban areas, a hardscaped area), with street trees between the sidewalk zone and the edge of street.

Shared Vehicle and Parking Zone: The primary travel way that includes mixed traffic (cars, trucks, buses and bicycles) and on-street parking. Local streets will be two lanes with varying provisions for parking.

* The discussion of local streets begins on page 59.

LOCAL / SUBDIVISION STREET: RESIDENTIAL

ILLUSTRATIVE STREET CROSS-SECTION



STREET COMPONENT DIMENSIONAL GUIDELINES

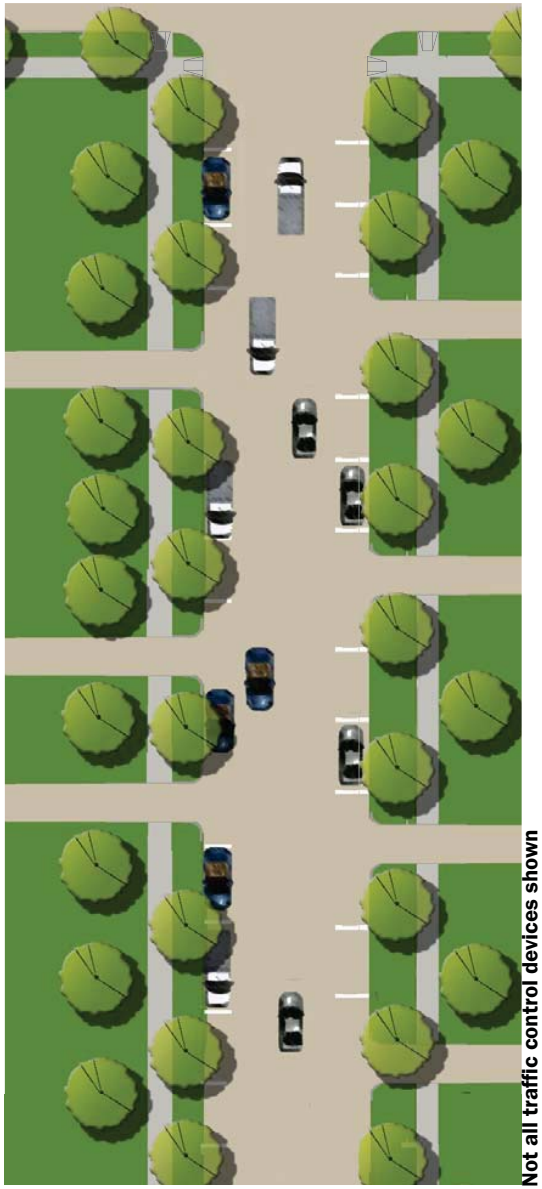
	Minimum Travelway F.O.C. to F.O.C. *(feet)*	Sidewalk Zone *(feet)*	Green Zone *(feet)*	Parking Zone *(feet)*	Lane Width *(feet)*	Shoulder *(feet)*
Local / Subdivision (Traditional Neighborhood Guidelines - Lane)	18’	5’ - 6’	4’ - 8’	very low demand	9’ with no parking	4’ - 6’
Local / Subdivision (Low Parking Demand)	24’	5’ - 6’	4’ - 8’	low demand	10’ with low demand parking	4’ - 6’
Local / Subdivision (Parking On 1 Side)	26’	5’ - 6’	4’ - 8’	7’ on one side	9’ with parking/ 13’ with no parking	4’ - 6’
Local / Subdivision (Parking On 2 Sides)	34’	5’ - 8’	4’ - 8’	7’ on both sides	10’ with one parked vehicle / 9’ with two parked vehicles	4’ - 6’

NOTES

1. Minimum travelway measured from Face of Curb (FOC) to FOC.
2. Median typically not provided on local streets unless for aesthetic reasons. If provided, lane widths will be increased by 2’ - 5’.
3. Shoulder zone on local street typically has grass.

LOCAL / SUBDIVISION: OFFICE, COMMERCIAL AND INDUSTRIAL

PLAN VIEW



Not all traffic control devices shown

KEY ELEMENTS

- Carries traffic at a low speed.
- Street providing local access to adjacent office, commercial, or industrial development.
- Provides additional linkages and connections within and to the overall street network.
- On street parking typically occurs although at different levels depending on land use characteristics. Parking demand will affect street width. In industrial areas, this can include parking for larger vehicles.
- Pedestrian activity is expected, encouraged, and to be accommodated on these streets.
- Bike lanes typically not required due to low parking volumes.

STREET CROSS-SECTION ZONES

Development Zone: Development types and setbacks will vary, but all should be oriented to the street to support pedestrian access and activity. The most pedestrian oriented development types will have small setbacks, entrances directly onto the sidewalk zone, and will front streets that include on-street parking.

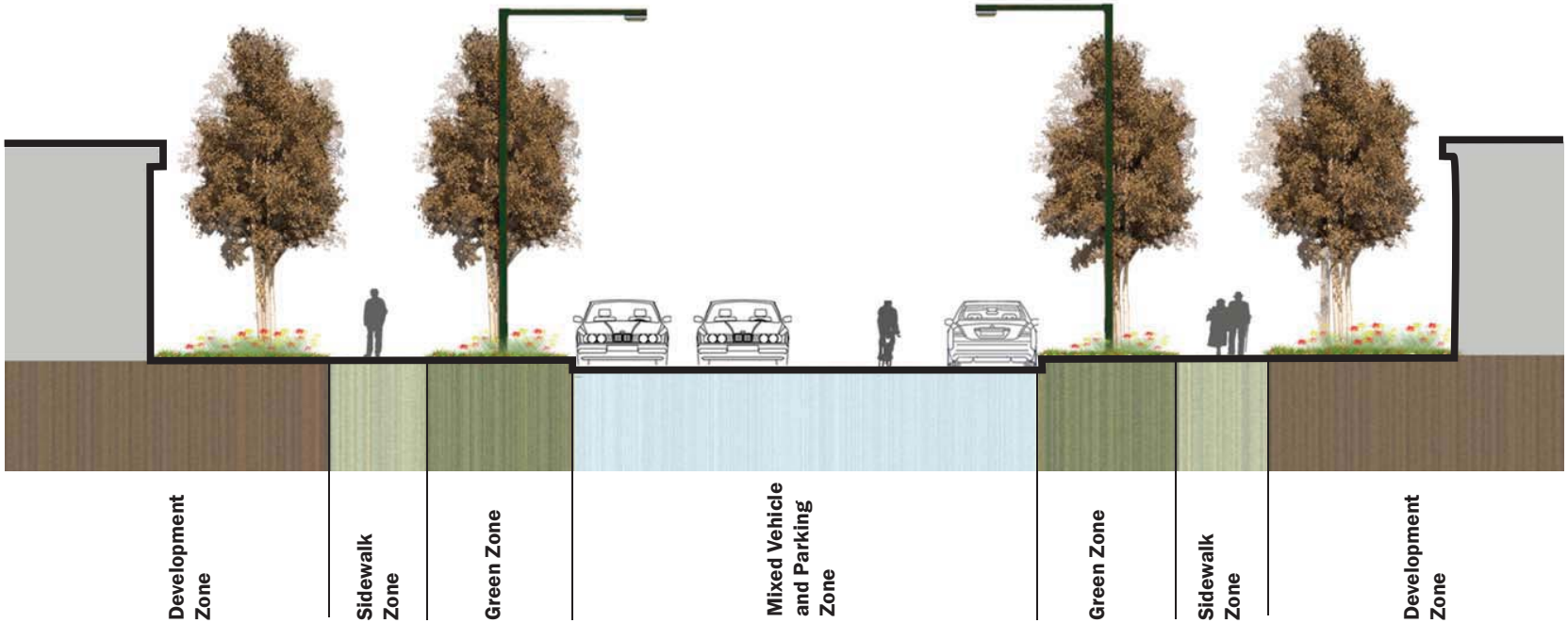
Sidewalk Zone: The pedestrian walk area is of sufficient width to allow pedestrians to walk safely and comfortably.

Green Zone: Consists of a planting strip (or, in very urban areas, a hardscaped area), with street trees between the sidewalk zone and the edge of street.

Shared Vehicle and Parking Zone: The primary travel way that includes mixed traffic (cars, trucks, buses and bicycles) and on-street parking. Local streets will be two lanes with varying provisions for parking.

LOCAL / SUBDIVISION: OFFICE, COMMERCIAL AND INDUSTRIAL

ILLUSTRATIVE STREET CROSS-SECTION



STREET COMPONENT DIMENSIONAL GUIDELINES

	Minimum Travelway (FOC to FOC) *(feet)*	Sidewalk Zone *(feet)*	Green Zone *(feet)*	Parking Zone *(feet)*	Lane Width *(feet)*
Local Office / Commercial (Parking on 1 Side)	**26'**	**5' - 6'**	**4' - 8'**	**7' on one side**	**9' with parking/ 12' with no parking**
Local Office / Commercial (Parking on 2 Sides)	**40'**	**6' - 8'**	**4' - 8'**	**7' on both sides**	**12' with parking on both sides**
Local Industrial Streets (Parking on One Side)	**34'**	**5' - 6'**	**4' - 8'**	**8' on one side**	**12' marked**

NOTES

1. Minimum travelway measured from Face of Curb (FOC) to FOC.
2. The gutter pan can be used for parking, but not for vehicular or bicycle traffic.
3. Median typically not provided on local streets unless for aesthetic reasons. If provided, lane widths will be increased by 2' to 5'.

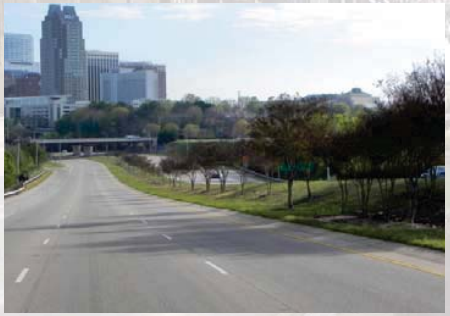
URBAN/SUBURBAN PARKWAY

PLAN VIEW

Not all traffic control devices shown

KEY ELEMENTS

- Most often functions as an arterial designed with control of access to carry vehicles at moderate to high speeds.
- Urban or suburban thoroughfare often characterized by landscaping or natural vegetation along roadsides and medians.
- Land uses are set back from the street and are typically not oriented toward the parkway.
- Pedestrian and bicycle traffic usually provided for on separate multi-use paths ideally located adjacent to the facility.
- Convenient access to off-street transit stations, stops and park-and-ride lots.
- Trailer and semitrailer truck traffic is frequently present.



STREET CROSS - SECTION ZONES

Multi-Use Path Zone: A zone for pedestrians and bicyclists in a multi-use path separate from the motor vehicle zone. Please see *Multi-Use Path Zone typology* for more details.

Green Zone: Consists of a planting strip with trees to separate the multi-use path zone from the motor vehicle zone. On parkways, typically includes a clear zone.

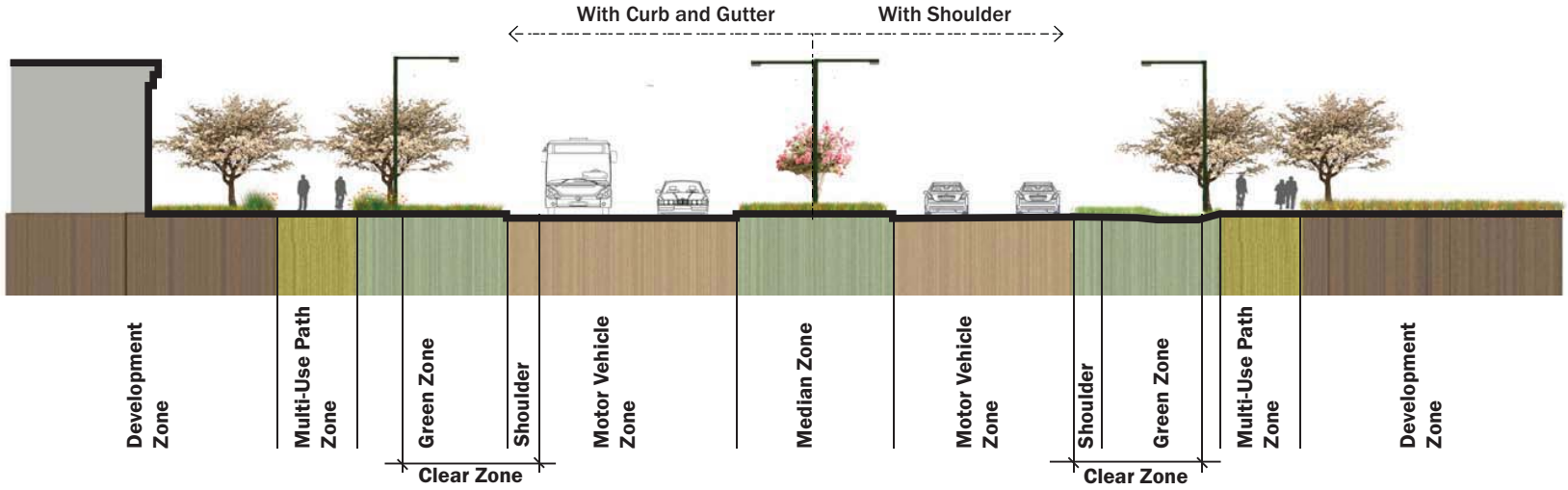
Motor Vehicle Zone: The primary travel way for motor vehicles.

Median Zone: A landscaped zone located between the travel lanes as a center median.

Development Zone: Deep setbacks due to the typically auto-oriented nature of the street. Access to this zone is limited and controlled.

URBAN/SUBURBAN PARKWAY

ILLUSTRATIVE STREET CROSS - SECTION



STREET COMPONENT DIMENSIONAL GUIDELINES

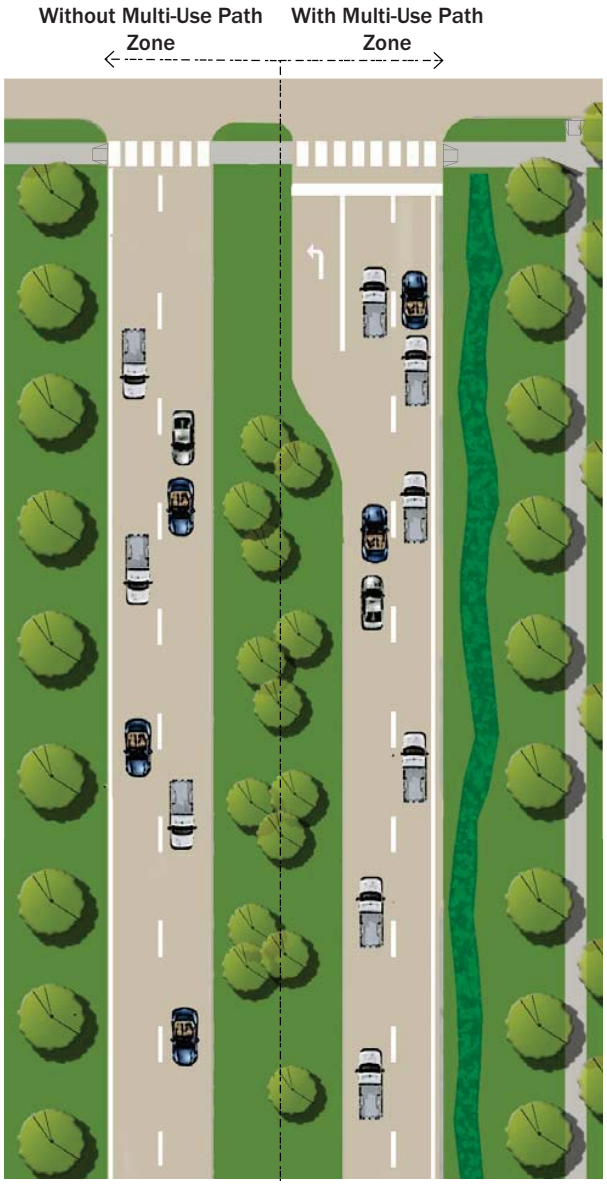
	Multi - Use Path Zone *(feet)*	Green Zone *(feet)*	Motor Vehicle Zone *(lane width- feet)*	Median Zone *(feet)*
Central Business District	10' - 12' 12' - 20' in high volume pedestrian areas	See notes 1 and 2	11' - 12'	17' 6" - 32'
Urban Center / Suburban Center	10' - 12' 12' - 20' in high volume pedestrian areas	See notes 1 and 2	11' - 12'	17' 6" - 32'
Suburban Corridor / Urban Residential / Suburban Residential	10' - 12' 12' - 20' in high volume pedestrian areas	See notes 1 and 2	11' - 12'	17' 6" - 32'

NOTES

1. Green zone may include landscaping and, in areas beyond the clear zone, large-maturing trees.
2. Green zone should provide a minimum width equal to the clear zone requirement, typically 20' - 30'.
3. In the motor vehicle zone, the gutter pan is not considered part of the lane width.
4. Median zone requirements vary depending upon median treatment (landscaping, curb and gutter, or trees).
5. Continuous two-way left turn lanes are not permitted on a parkway.
6. Multi-use path is the preferred treatment for bicycles and pedestrians on a parkway. See multi-use path section.
7. Shoulders are allowable on an urban parkway, if deemed appropriate.
8. On shoulder sections the shoulder may be a combination of pavement and grass.

RURAL PARKWAY

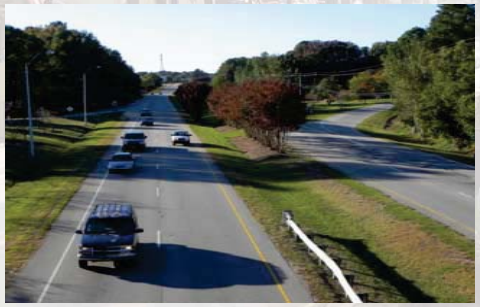
PLAN VIEW



Not all traffic control devices shown

KEY ELEMENTS

- Most often functions as an arterial designed with control of access to carry vehicles at moderate to high speeds.
- Rural thoroughfare often characterized by landscaping or natural vegetation along roadsides and medians.
- Land uses are set back from the street and are typically not oriented toward the parkway.
- Pedestrian and bicycle traffic usually provided on separate multi-use paths ideally located adjacent to the facility.
- Convenient access to on-street transit facilities and off-street stations and park and ride lots.
- Large truck traffic may be present.



STREET CROSS - SECTION ZONES

Green Zone: Consists of a planting strip with trees to separate the multi-use path zone from the motor vehicle zone. A portion of the green zone is the roadway shoulder. Parkways typically include a clear zone.

Motor Vehicle Zone: The primary travel way for through vehicles. A rural parkway would typically not have curb and gutter, and therefore the green zone would be relied on for drainage conveyance.

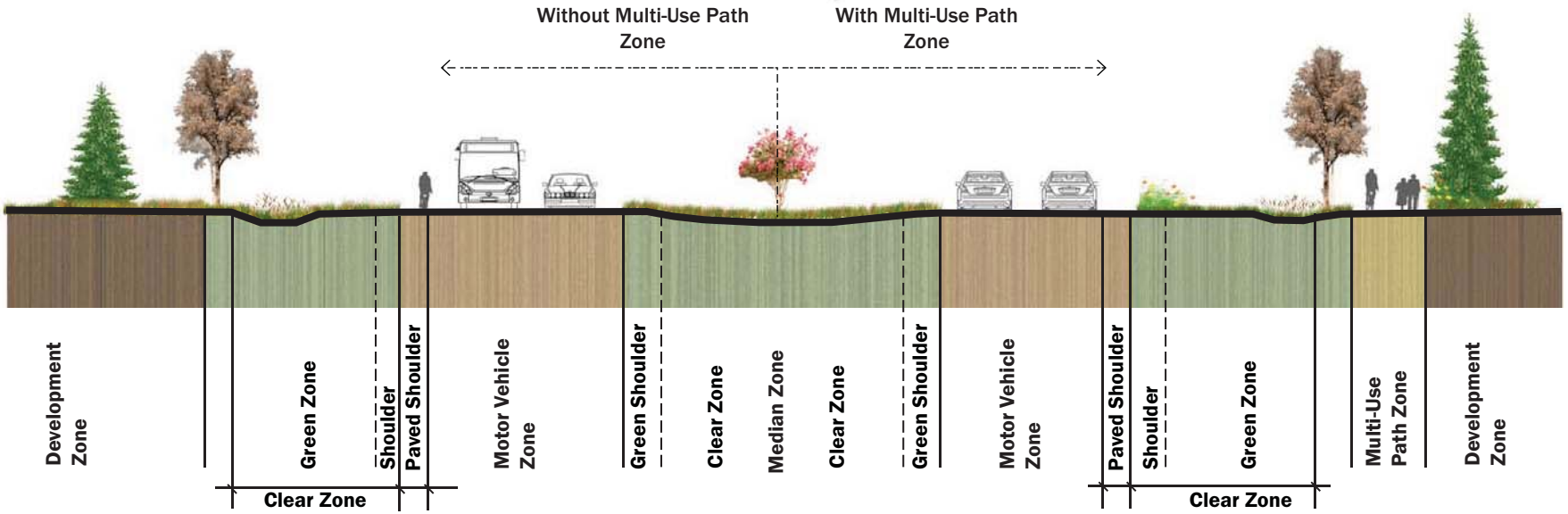
Median Zone: A landscaped zone located between the travel lanes in the center of the street. A wide median would be needed for drainage conveyance.

Multi-Use Path Zone: A zone for pedestrians and bicyclists in a multi-use path separate from the motor vehicle zone. Please see *Multi-Use Path Zone Typology* for more details.

Development Zone: Deep setbacks due to the typically auto-oriented nature of the street. Access to this zone is limited and controlled.

RURAL PARKWAY

ILLUSTRATIVE STREET CROSS - SECTION



STREET COMPONENT DIMENSIONAL GUIDELINES

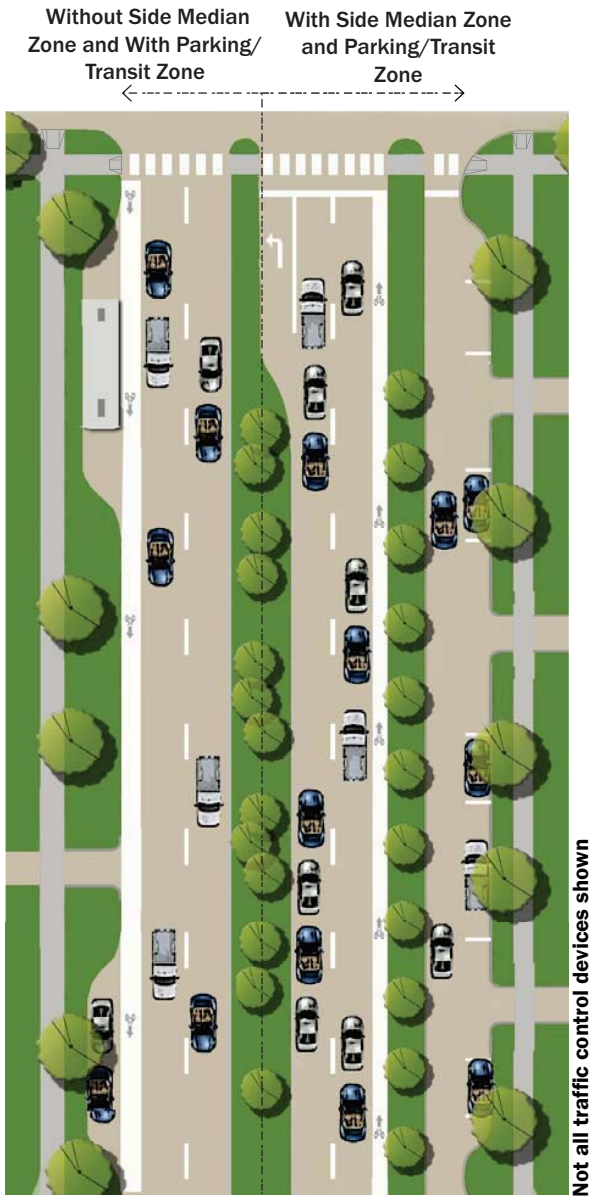
	Multi-Use Path Zone *(feet)*	Green Zone *(feet)*	Shoulder *(feet)*	Motor Vehicle Zone *(lane width- feet)*	Median Zone *(feet)*
Village / Developed	**10' - 12'**	**see notes 3 and 4**	**8' - 10'**	**11' - 12'**	**32' - 46'**
Countryside	**10' - 12'**	**see notes 3 and 4**	**8' - 10'**	**12'**	**32' - 46'**

NOTES

1. **Multi-use path is the preferred treatment for bicycles and pedestrians on a parkway. Multi-use path should be provided on each side behind the green zone, as appropriate. See multi-use path section.**
2. **Multi-use path may be in the right-of-way or in an easement.**
3. **Green zone may include landscaping and, in areas beyond the clear zone, large-maturing trees.**
4. **Median zone requirements vary depending upon median treatment (landscaping, curb and gutter, or trees).**
5. **Green zone should provide a minimum width equal to the clear zone requirement, typically 30'.**
6. **The shoulder may be a combination of pavement and grass. If a paved shoulder is provided, it may serve as a bicycle zone, though a multi-use path is preferred.**

URBAN / SUBURBAN BOULEVARD

PLAN VIEW



Not all traffic control devices shown

KEY ELEMENTS

- Most often functions as an arterial designed to carry vehicles at moderate speeds.
- Thoroughfare characterized by multiple lanes and including a street median.
- Wide sidewalks and on-street bicycle lanes are necessary to accommodate pedestrians and bicyclists due to higher speeds and higher traffic volumes for motor vehicles.
- Transit stops and shelters may be located within the right of way, requiring connections to sidewalks.
- On-street parking is not required. It is allowed where appropriate, but rare due to the nature of the street. If provided, parking should typically be placed on a separate, parallel frontage street separated with a side median.

STREET CROSS-SECTION ZONES

Sidewalk Zone: The pedestrian walk area is of sufficient width to allow pedestrians to walk safely and comfortably.

Green Zone: This zone serves to separate the sidewalk from the vehicles. This zone contains landscaping and trees or, in some circumstances, hardscape treatments.

Parking/Transit Zone: Accommodates on-street parking and transit pull-outs. Parking on the street is rare, but may be separated from the motor vehicle zone by side medians. Width and layout may vary depending on the type of parking provided.

Bicycle Zone: A zone for bicyclists separate from vehicular traffic.

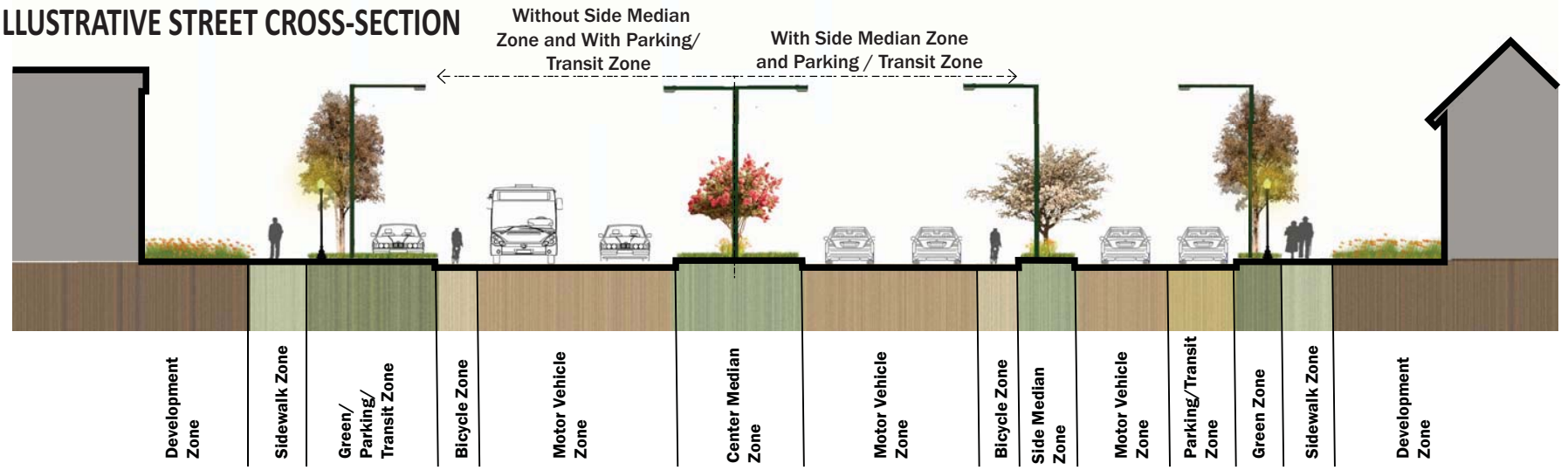
Motor Vehicle Zone: The primary travel way for motor vehicles.

Median Zone: A landscaped zone located between the travel lanes as a center median or as side medians that separate one-way parallel lanes. Median zones should consider provision for turn bays at intersections. May include hardscaping at pedestrian crossings.

Development Zone: Building setbacks vary but are typically deeper than on avenues. Building frontage may not always be directed to the street but physical connections to the street from building entrances are important.

URBAN / SUBURBAN BOULEVARD

ILLUSTRATIVE STREET CROSS-SECTION



STREET COMPONENT DIMENSIONAL GUIDELINES

	Sidewalk Zone *(feet)*	Green Zone *(feet)*	Parking /Transit Zone *(feet)*	Bicycle Zone *(feet)*	Motor Vehicle Zone *(lane width- feet)*	Center Median Zone *(feet)*	Side Median Zone *(feet)*
Central Business District	6' - 10' 12' - 20' in high volume pedestrian areas	6' - 8'	8' - 10'	4' - 6' lanes (see notes 3 and 4)	10' - 11'	8' - 30'	8'+
Urban Center / Suburban Center	6' - 8' 12' - 20' in high volume pedestrian areas	6' - 8'	8' - 10'	4' - 6' lanes (see notes 3 and 4)	10' - 11'	8' - 30'	8'+
Suburban Corridor / Urban Residential / Suburban Residential	6' - 8' 12 '- 20' in high volume pedestrian areas	6' - 8'	8' - 10'	4' - 6' lanes (see notes 3 and 4)	10' - 11'	8' - 30'	8'+

NOTES

1. Sidewalk zone should typically be a minimum unobstructed width of 6'. In areas that are currently or are planned to be pedestrian-oriented or mixed-use development, minimum 8' wide unobstructed sidewalks should be provided.
2. Green zone may include landscaping, street trees, lighting, street furniture, and related pedestrian/bike/transit amenities. 8' minimum green zone is preferred, to allow for separation between pedestrians and vehicles, and space for street trees.
3. 5' bicycle lanes are the preferred treatment. Steep grades may call for wider bike lanes. If bicycle lanes are not possible, shared lanes may be allowed. For a shared lane, the outside lane should be a minimum of 14' wide. Shared lane markings can be used on streets ≤ 35 mph, with either shared lane or standard lane dimensions.
4. The gutter pan is not considered part of the bicycle lane width. Bicycle lanes located next to parking should be a minimum of 5' or 6' wide.
5. The gutter pan is not considered part of the motor vehicle lane width in most circumstances.
6. Median zone requirements vary depending upon appropriate treatment (hardscape, landscape, drainage, curb and gutter, or street trees). Though the median width may vary, the median will typically be 17' 6", to allow for a turn lane and pedestrian refuge at intersections. The minimal 8' width will allow for landscaping and pedestrian refuge at appropriate locations. A 30' wide median should be provided to accommodate double left turn lanes when multi-modal analysis confirms the need.
7. Continuous two-way left turn lanes are not permitted on a boulevard.
8. Parking/transit stop zone is rare, but is allowed where appropriate.

RURAL BOULEVARD

PLAN VIEW

Not all traffic control devices shown

KEY ELEMENTS

- Most often functions as an arterial designed to carry vehicles at moderate speeds.
- Thoroughfare characterized by multiple lanes and including a street median.
- Wide sidewalks and on-street bicycle lanes are necessary to accommodate pedestrians and bicyclists due to higher speeds and higher traffic volumes for motor vehicles.
- Building setbacks will typically be deeper than on avenues.
- Transit stops and shelters may be located within the right of way, requiring connections to sidewalks.
- On-street parking is not required. It is allowed where appropriate, but rare due to the nature of the street and adjacent land uses.

STREET CROSS - SECTION ZONES

Sidewalk Zone: The pedestrian walk area is of sufficient width to allow pedestrians to walk safely and comfortably.

Green Zone: This zone serves to separate the sidewalk from the vehicles. This zone contains landscaping and trees or, in some circumstances, hardscape treatments. The green zone may be wider if providing an intermittent parking / transit zone.

Bicycle Zone: Accommodation for bicyclists either in a separate zone or within the shared vehicle zone.

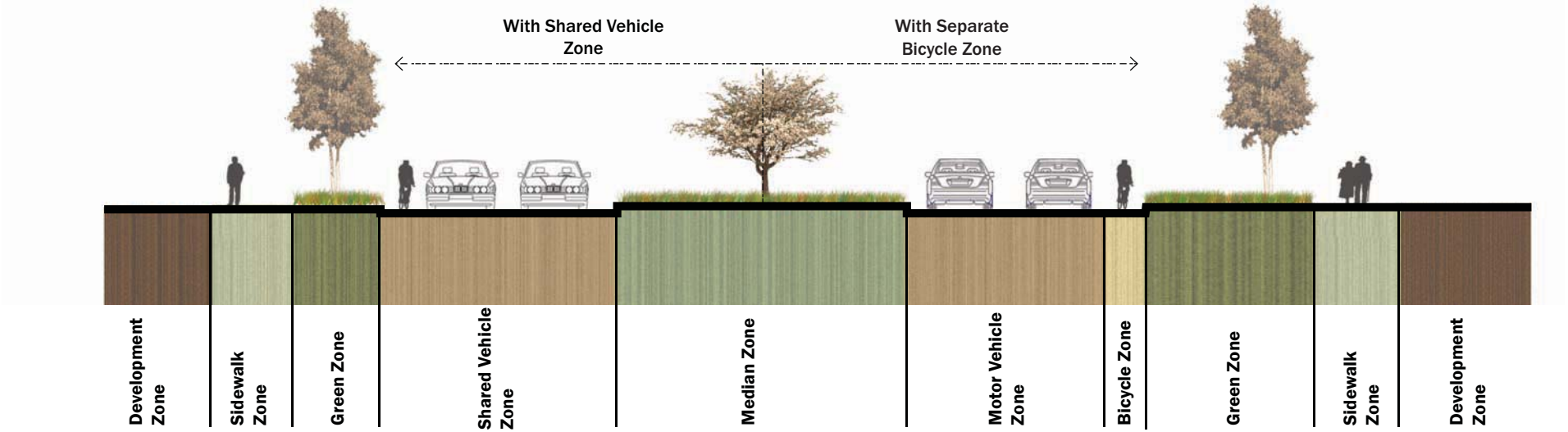
Motor Vehicle/Shared Vehicle Zone: The primary travel way for vehicles. A shared vehicle zone has mixed traffic (cars, trucks, buses and bicycles).

Median Zone: A landscaped zone located between the travel lanes as a center median. Median zones should consider provision of turn bays at intersections. The median zone may include hardscaping at pedestrian crossings.

Development Zone: Building setbacks vary, but are typically deeper than avenues. Building frontage may not always be directed to the street, but physical connections to the street from building entrances are important.

RURAL BOULEVARD

ILLUSTRATIVE STREET CROSS - SECTION



STREET COMPONENT DIMENSIONAL GUIDELINES

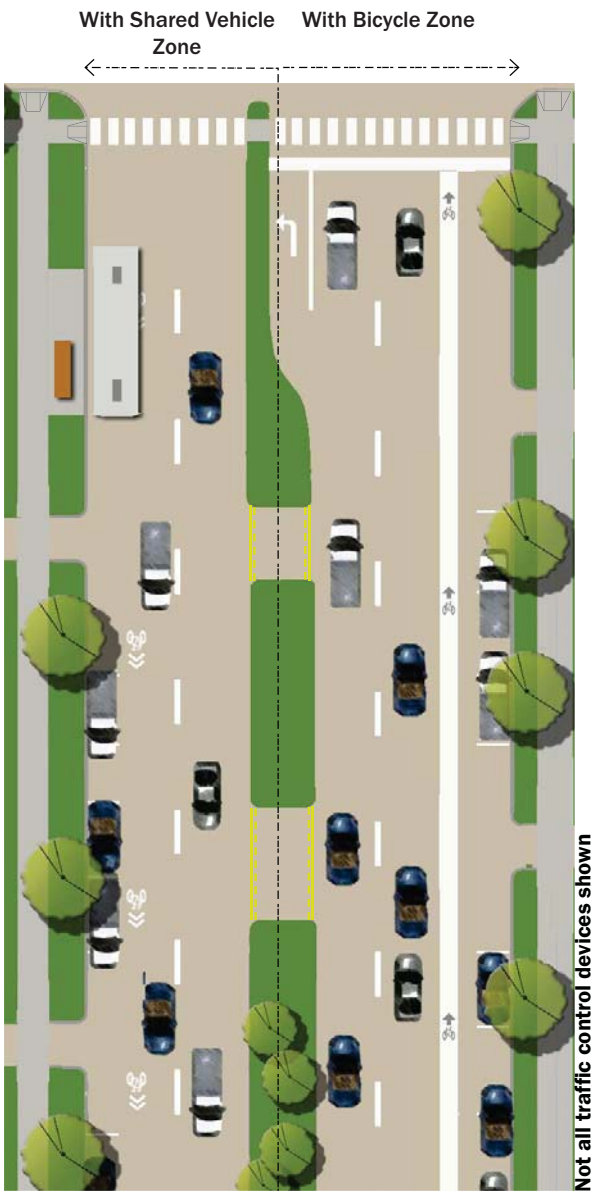
	Sidewalk Zone *(feet)*	Green Zone *(feet)*	Motor Vehicle/ Shared Vehicle Zone *(lane width- feet)*	Median Zone *(feet)*	Bicycle Zone *(feet)*
Rural Village / Rural Developed	6' - 8'	6' - 10' (see note 2)	10' - 12'	17' 6" - 30'	4' - 6' bicycle lanes (see notes 3 & 4)

NOTES

1. Sidewalk zone should typically be a minimum unobstructed width of 6'. In areas that are currently or are planned to be pedestrian-oriented or mixed use development, 8' wide unobstructed sidewalks can be provided.
2. Green zone may include landscaping, street trees, lighting, street furniture, and related pedestrian/bike/transit amenities. 8' minimum green zone is preferred, to allow for separation between pedestrians and vehicles, and space for street trees. Green zone may be wider if providing intermittent parking / transit stop zone. Parking/transit stop zone is rare, but allowed where appropriate.
3. 5' bicycle lanes are the preferred treatment. Steep grades may call for wider bike lanes. If bicycle lanes are not possible, shared lanes may be allowed. For a shared lane, the outside lane should be a minimum of 14' wide. Shared lane markings can be used on streets ≤ to 35 mph, with either shared lane or standard lane dimensions.
4. The gutter pan is not considered part of the bicycle lane width. Bicycle lanes located next to parking should be a minimum of 5' wide.
5. The gutter pan is not considered part of the motor vehicle lane width, in most circumstances.
6. Median zone requirements vary depending upon appropriate treatment (hardscape, landscape, drainage, curb and gutter, or street trees). Though the width may vary, the median will typically be between 17'-6" - 30', to allow for a turn lane and pedestrian refuge at intersections.
7. Continuous two-way left turn lanes are not permitted on a boulevard.

URBAN / SUBURBAN AVENUE

PLAN VIEW



KEY ELEMENTS

- May function as an arterial or collector, but generally at low to moderate speeds.
- An urban street serving a range of traffic levels within and between various area types.
- Characterized by wide sidewalks (scaled to the surrounding land uses) and on-street bicycle facilities.
- May have on-street parking.
- Transit stops, shelters and other amenities are located along the street, preferably within the right of way.

STREET CROSS-SECTION ZONES

Sidewalk Zone: The pedestrian walk area is of sufficient width to allow pedestrians to walk safely and comfortably.

Green Zone: The landscaped or hardscaped area along the edge of a street. On avenues, this zone should include grass, landscaping, and shade trees in planting strips or, in some cases, hardscaped amenity zones. Pedestrian or decorative lighting may be provided when appropriate for adjacent land uses.

Parking/Transit Zone: On-street parking is optional and should be considered in relation to providing convenient access to adjacent land uses. Parking zone width and layout may vary.

Bicycle Zone: Accommodation for bicyclists in a zone separate from the motor vehicle zone.

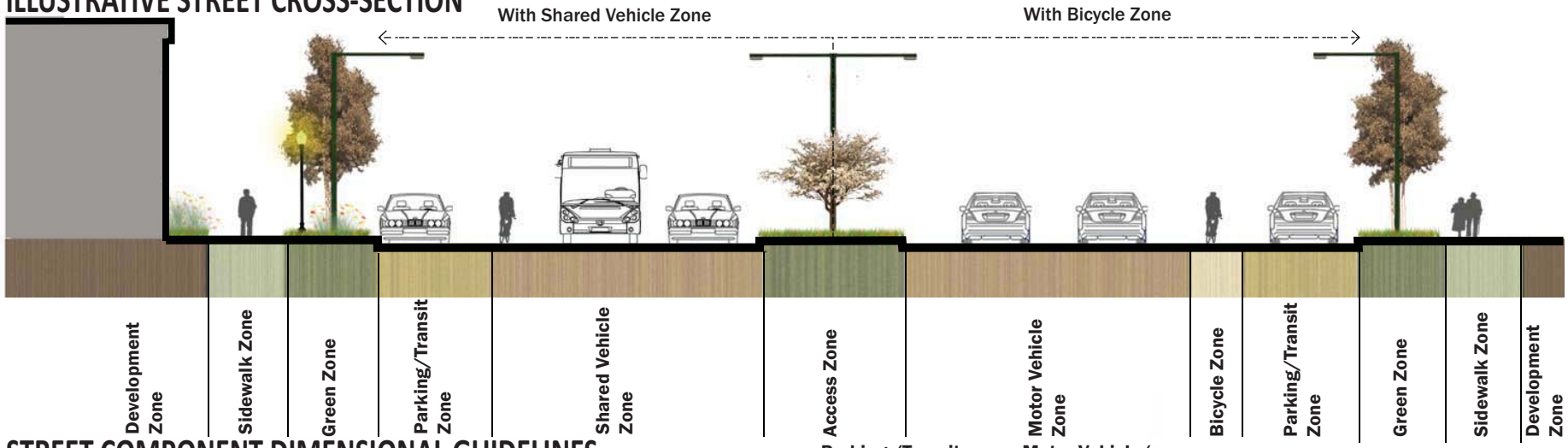
Motor Vehicle/Shared Vehicle Zone: The primary travel way for vehicles. A shared vehicle zone has mixed traffic (cars, trucks, buses and bicycles).

Access Zone: A landscaped zone or turning zone located between the travel lanes as a center median or turn lane. Avenues typically do not include a continuous median.

Development Zone: Development should be oriented toward the street with good functional and visual connection to the street.

URBAN / SUBURBAN AVENUE

ILLUSTRATIVE STREET CROSS-SECTION



STREET COMPONENT DIMENSIONAL GUIDELINES

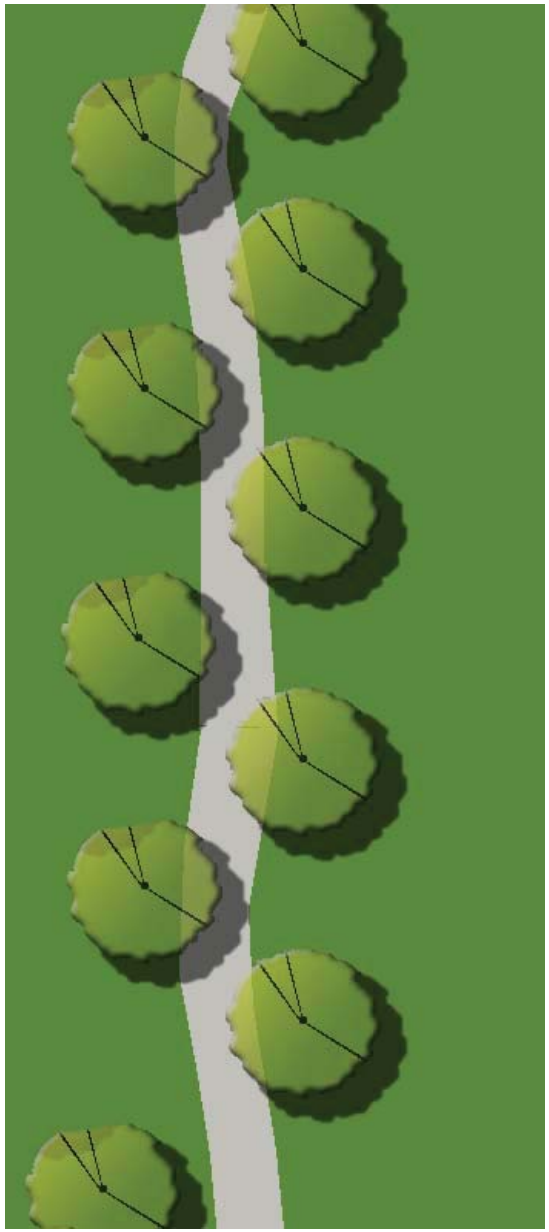
	Sidewalk Zone *(feet)*	Green Zone *(feet)*	Parking /Transit Zone *(feet)*	Motor Vehicle/ Shared Vehicle Zone *(lane width- feet)*	Bicycle Zone *(feet)*	Access Zone *(feet)*
Central Business District	8' - 12' 12' - 20' in high volume pedestrian areas	6' - 8'	8' - 10'	10' - 11' (see notes 4 & 5)	4' - 6' lanes (see notes 4, 5 and 6)	0' - 17'6" (see note 7)
Urban Center / Suburban Center	6' - 10' 12' - 20' in high volume pedestrian areas	6' - 8'	8' - 10'	10' - 11' (see notes 4 & 5)	4' - 6' lanes (see notes 4, 5 and 6)	0' - 17'6" (see note 7)
Suburban Corridor **Urban Residential / Suburban Residential**	6' - 8' 12' - 20' in high volume pedestrian areas	6' - 8'	8' - 10'	10' - 11' (see notes 4 & 5)	4' - 6' lanes (see notes 4, 5 and 6)	0' - 17'6" (see note 7)

NOTES

1. Sidewalk zone should typically be a minimum unobstructed width of 6'. In areas that are currently or are planned to be pedestrian-oriented or mixed-use development, minimum 8' – 10' wide unobstructed sidewalks should be provided to allow for higher pedestrian priority and potential extension to the development zone.
2. Green zone may include landscaping, street trees, lighting, street furniture, hardscaping in some circumstances, and related pedestrian / bike/ transit amenities. 8' minimum green zone is preferred, to allow for separation between pedestrians and vehicles, and space for street trees.
3. Parking is an option on avenues. Parking zone dimension may vary depending upon type of parking provided. Angle parking is allowed, preferably reverse angle parking. Angle parking will require a wider dimension than shown.
4. 5' bicycle lanes are the preferred treatment. Steep grades may call for wider bicycle lanes. If bicycle lanes are not possible, shared lanes may be allowed. For a shared lane, the outside lane should be a minimum of 14' wide. Shared lane markings can be used on streets ≤35 mph, with either shared lane or standard lane dimensions.
5. In the shared vehicle zone and the bicycle zone, the gutter pan is not considered part of the lane width or the bicycle lane width.
6. Bicycle lanes located next to on-street parking should be a minimum of 5' or 6' wide (generally, the combined dimension for parking and bicycle lane should be at least 13' from the face of curb).
7. Avenues may or may not include a center turn lane with intermittent landscaped islands. Avenues typically do not include a continuous median, but it may be allowed in some circumstances.
8. Pedestrian lighting should be considered at mid-block crossings, near transit stops, commercial areas, mixed-use areas or other locations where nighttime pedestrian activity is likely.

MULTI-USE PATH

PLAN VIEW



Not all traffic control devices shown

KEY ELEMENTS

- Multi-use path can be provided as part of a parkway, rural road or greenway.
- Link multi-use paths (especially greenway trails) to make connections between homes, parks, schools, and shopping districts.
- Shade trees are recommended.
- Provide a green zone of 3'- 6' on either side of the path.
- Pedestrian lighting should be considered in more urban environments.

PATH CROSS-SECTION ZONES

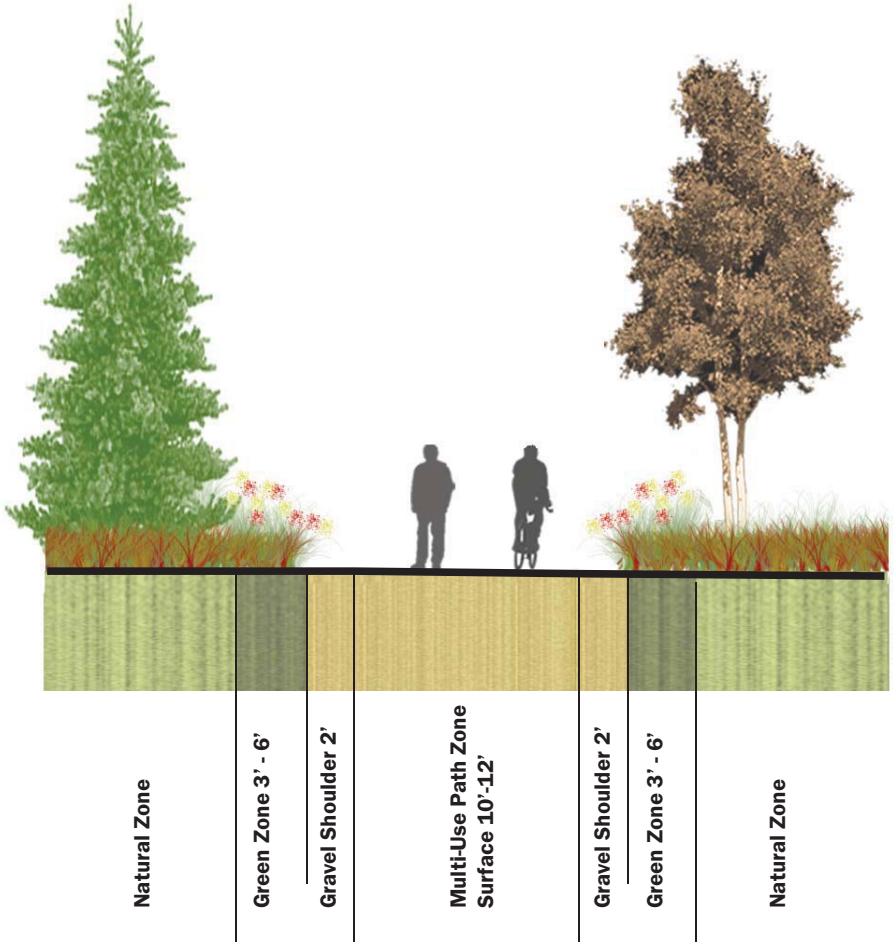
Natural Zone: Buffer and offset for trees and other vegetation.

Green Zone: This zone is a planting strip used to create lateral offset from edge of the multi-use path to trees and other objects.

Multi-Use Path Zone: A zone for pedestrians and bicyclists in a multi-use path separate from the motor vehicle zone. Please see *Multi-Use Path Typology* for more details.

MULTI-USE PATH

ILLUSTRATIVE PATH CROSS-SECTION

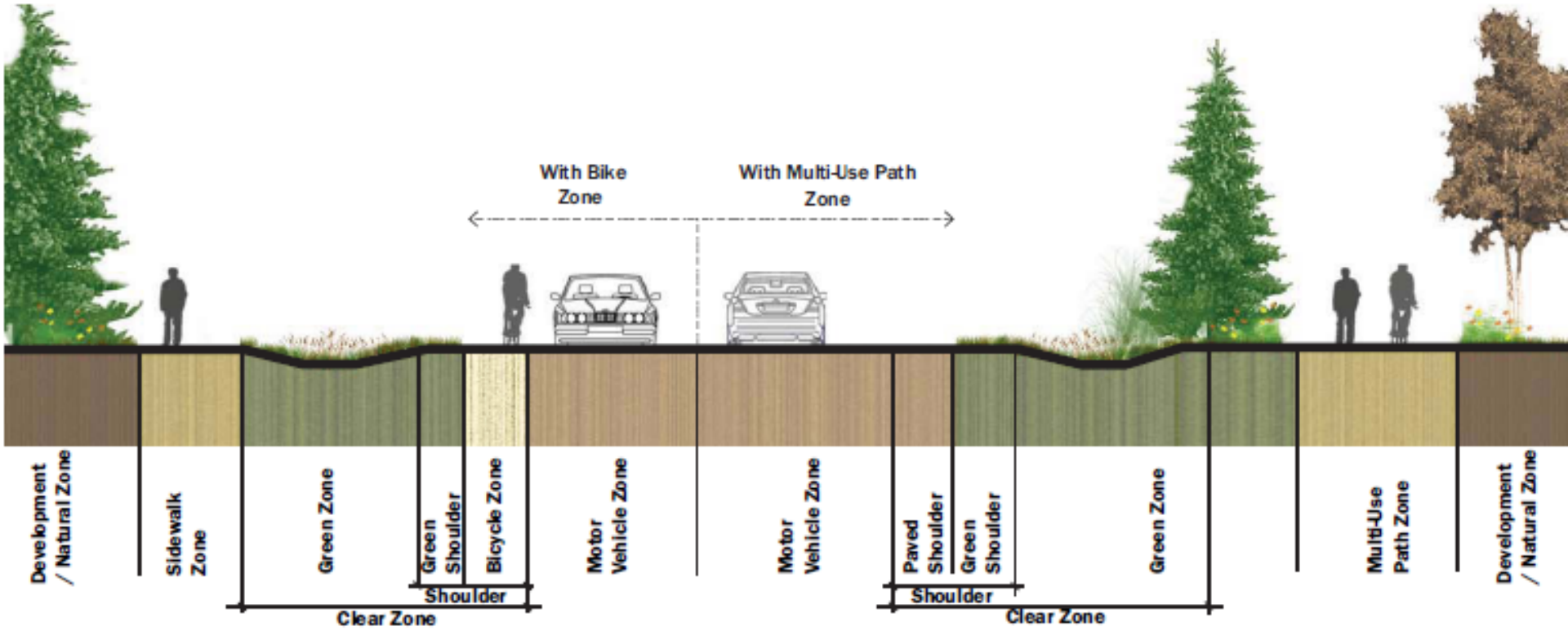


Henderson County Transportation Advisory Committee Meeting

Wednesday, November 7, 2012

Presentation by: Matthew Cable, AICP, Transportation Planner

Complete Streets Consideration for SPOT Ranked Projects (Travel Lanes: 2)



Blythe Street (NC 191 to Hwy64)

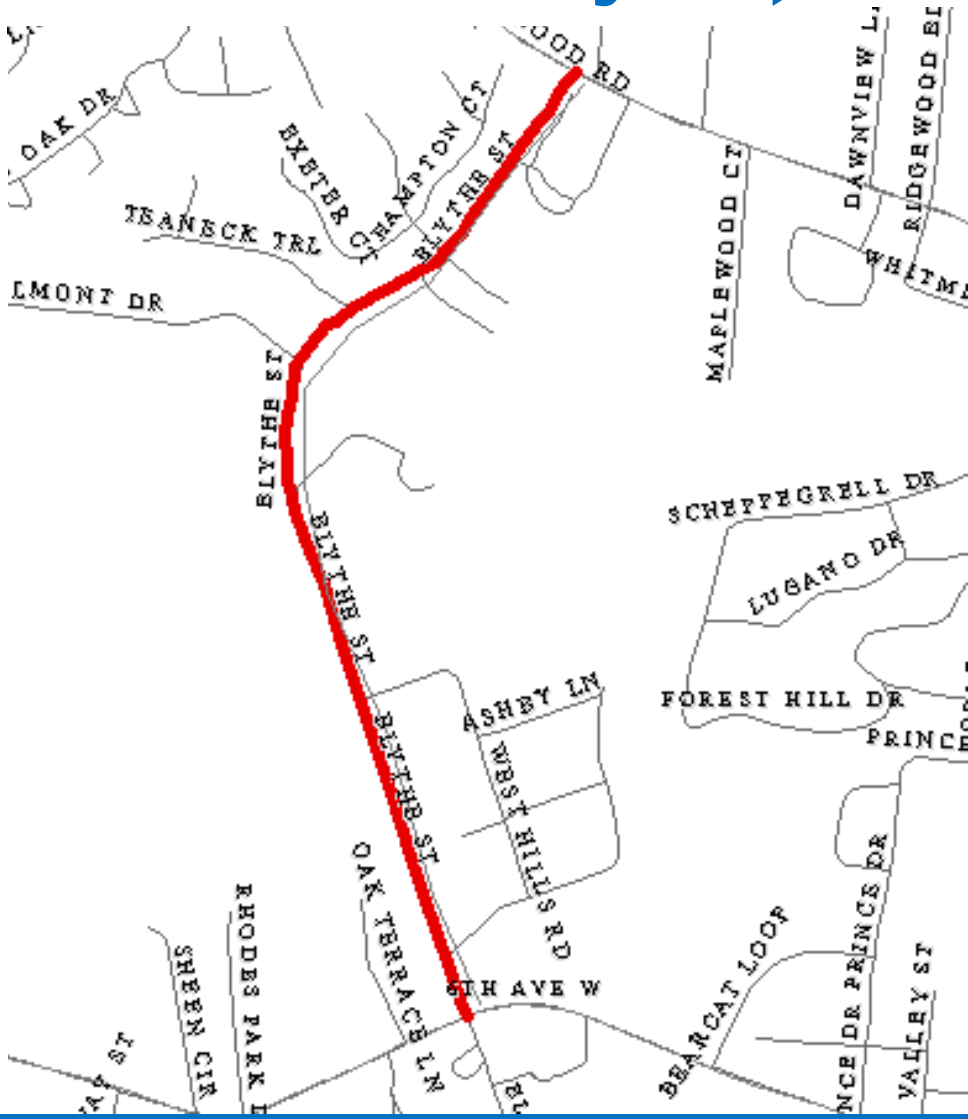
Description

CTP: Add turn lanes, widen shoulder and improve geometrics

LRTP: N/A

SPOT: Add turn lanes, widen shoulder and improve geometrics

Lanes: 2



Brickyard Rd (US 64 to NC 280)

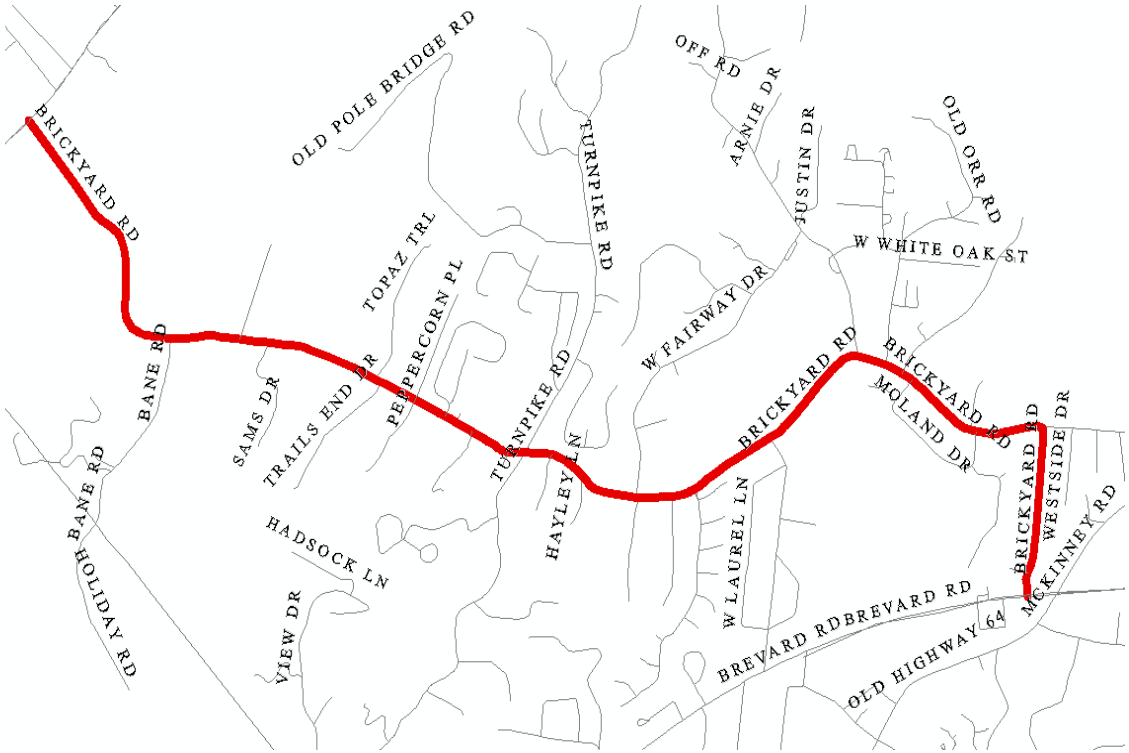
Description

CTP: N/A

LRTP: N/A

SPOT: Construct 24' paved roadway with 6' grass shoulders to Terry's Gap Road

Lanes: 2



Butler Bridge Rd (Jeffries Rd to Fox Hill Rd)

Description

CTP: N/A

LRTP: N/A

SPOT:

Straighten Road

Lanes: 2

Fruitland Rd (US 64 to Sugar St)

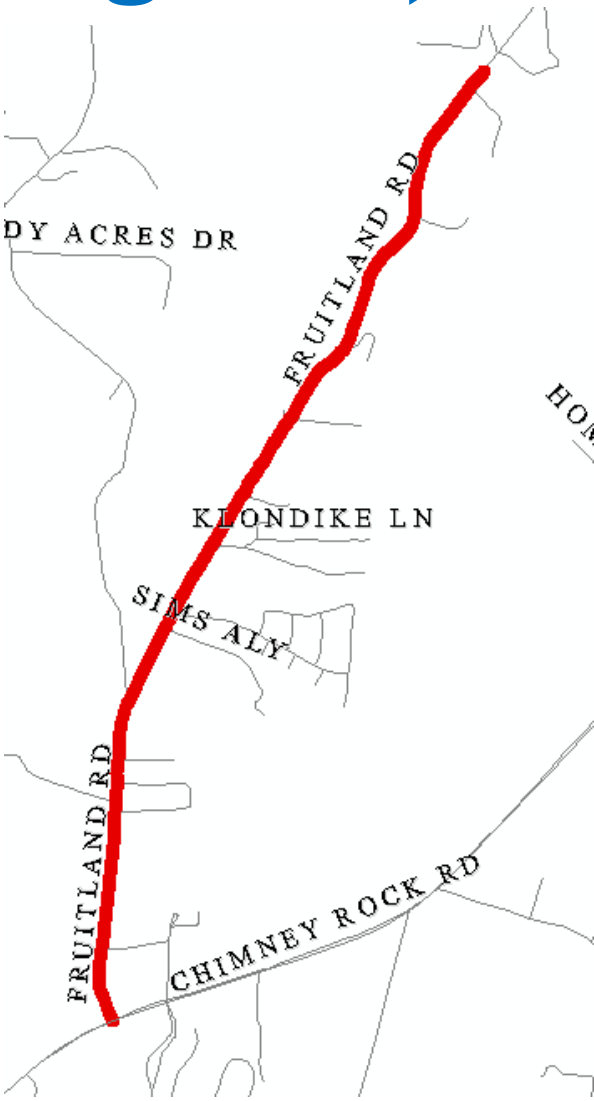
Description

CTP: Add turn lanes, widen shoulders, and improve geometrics as appropriate

LRTP: N/A

SPOT: Add turn lanes, widen shoulders, and improve geometrics as appropriate

Lanes: 2



Highland Lake Rd (NC 225 to US 176)

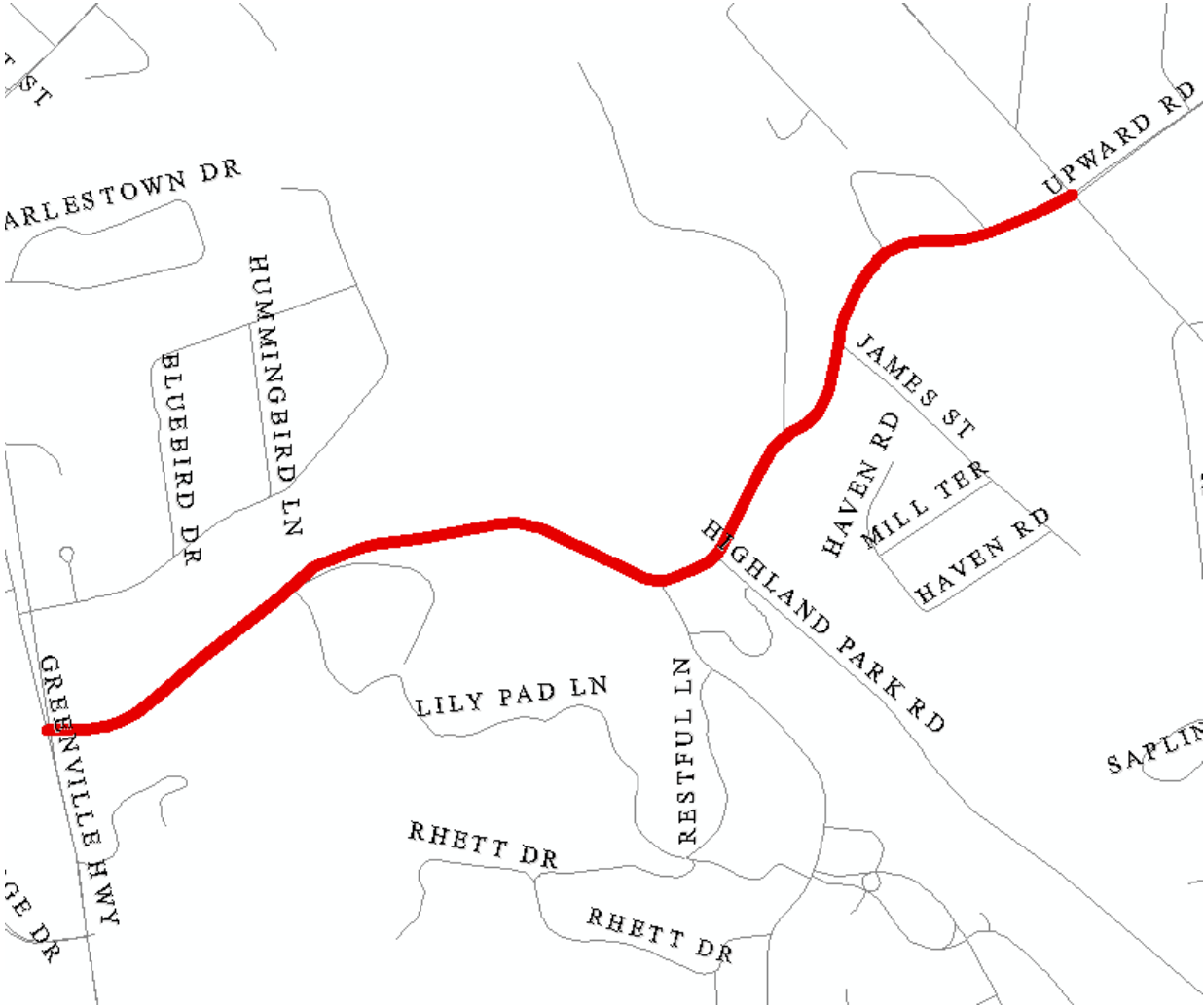
Description

CTP: N/A

LRTP: N/A

SPOT: Construct 24' paved roadway with 4' paved shoulders and 6' grass shoulders

Lanes: 2



Hooper Lane (NC 191 to Jeffries Rd)

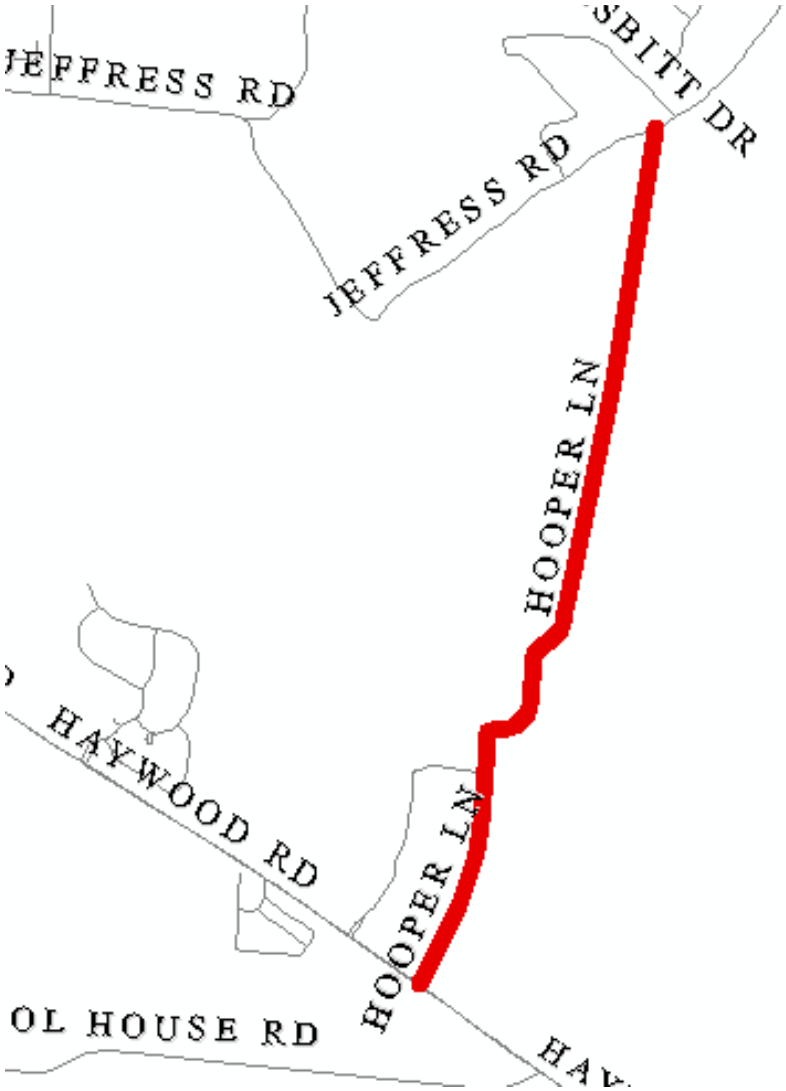
Description

CTP: N/A

LRTP: N/A

SPOT: Paving, bridge approach realignment

Lanes: 2



Kanuga Rd (US 25 Bus to Little River Rd)

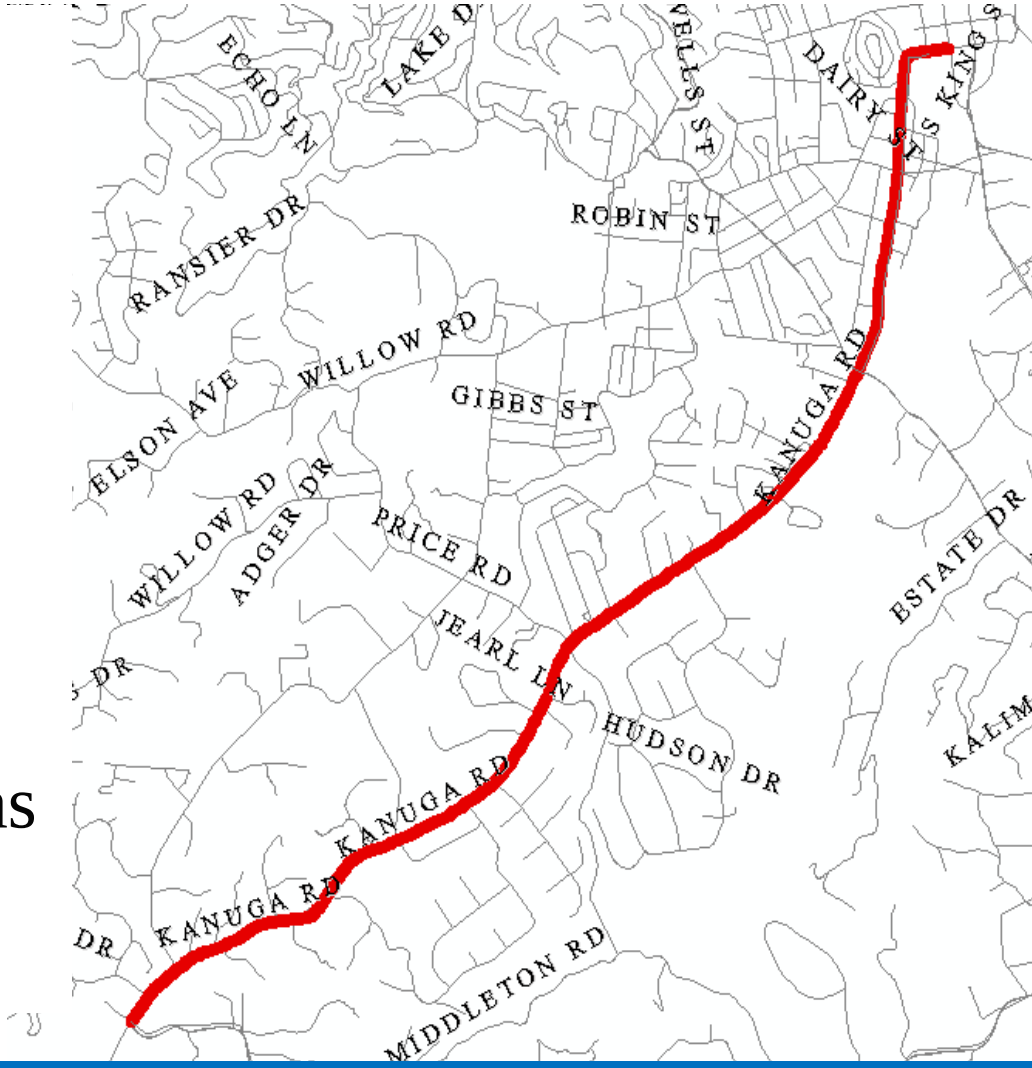
Description

CTP: Add turn lanes, widen shoulders and improve geometrics

LRTP: Resurface and widen to include bike lanes

SPOT: Improve geometrics and align as needed

Lanes: 2



Little River Rd (Kanuga Rd to US 25)

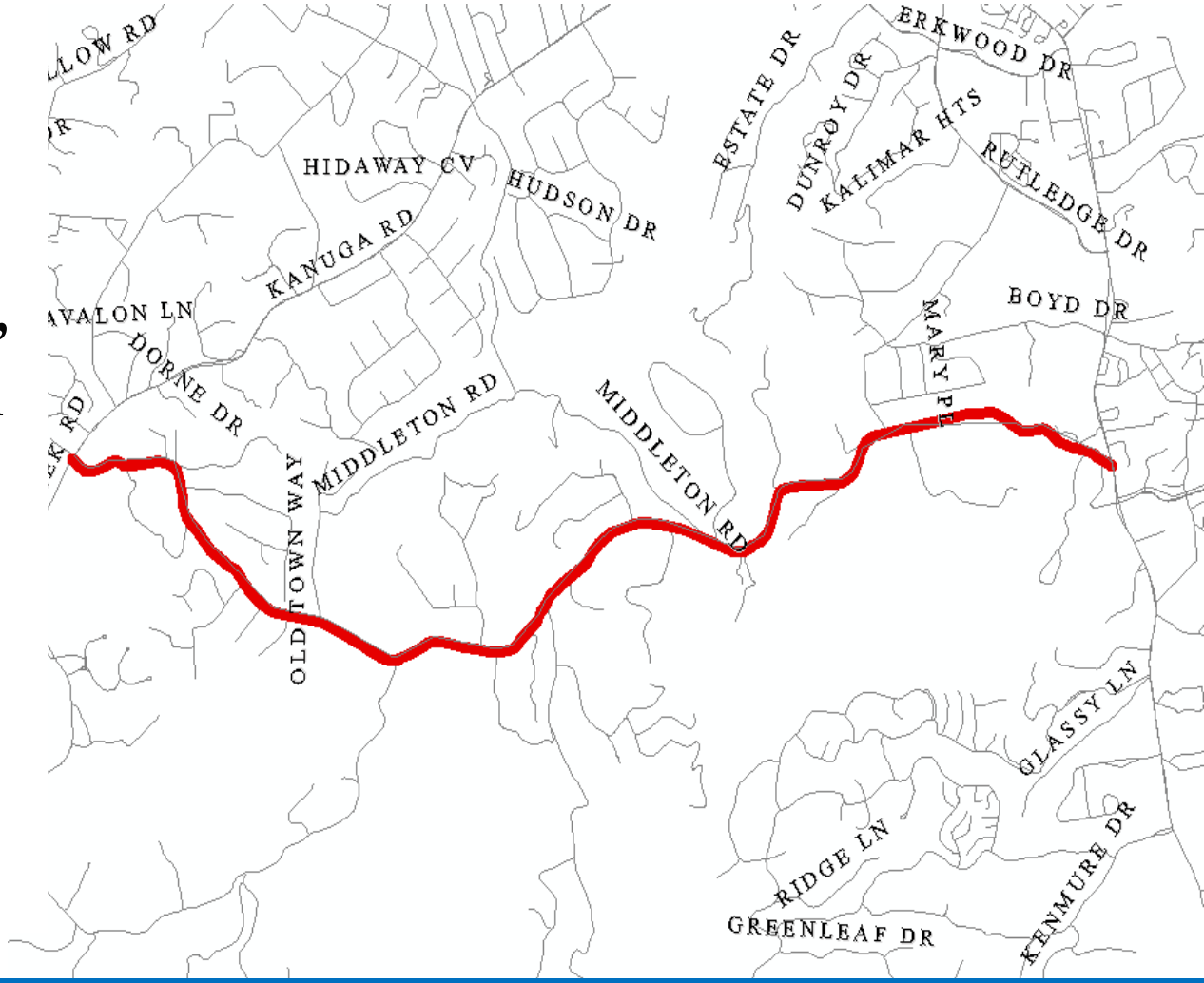
Description

CTP: N/A

LRTP: N/A

SPOT: Resurface, widen and add bike lanes

Lanes: 2



Fanning Bridge Rd Ext. (New Route)

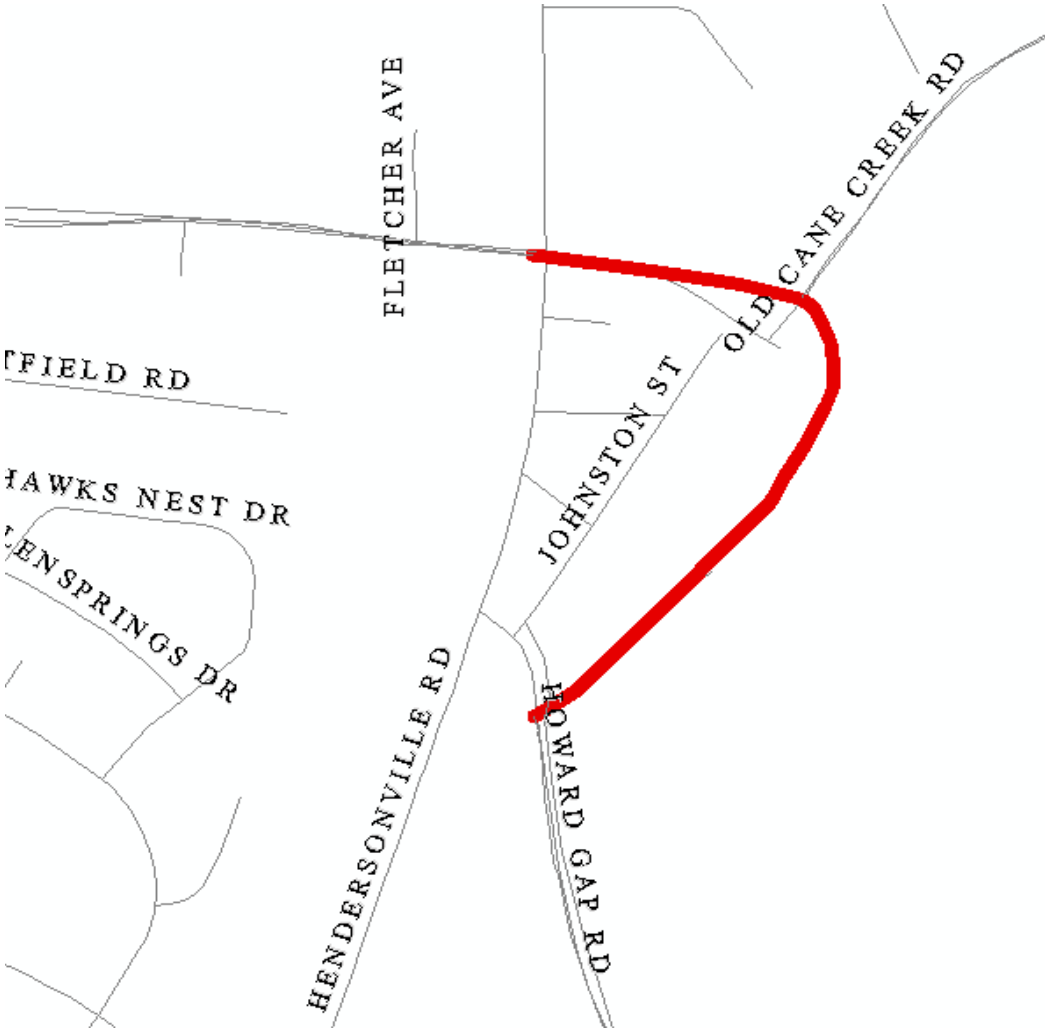
Description

CTP: N/A

LRTP: N/A

SPOT: Road extension

Lanes: 2



Rutledge Dr (Brookdale Ave to NC 225)

Description

CTP: N/A

LRTP: N/A

SPOT: Construct bicycle lanes and geometric improvements

Lanes: 2

Rutledge Rd (Fanning Bridge Rd to Buncombe Co.)

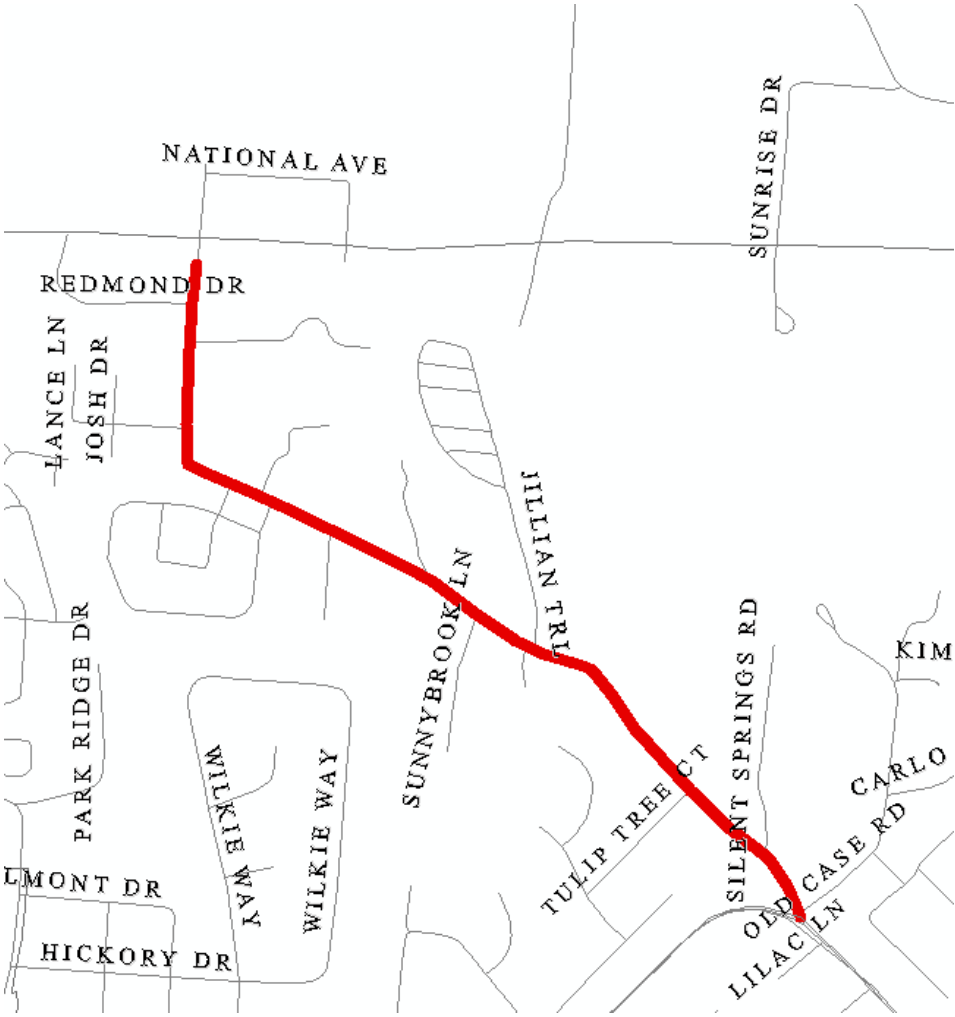
Description

CTP: N/A

LRTP: Widen to 10' lanes, improve geometrics, add lanes to accommodate bikes

SPOT: Widen to 10' lanes, improve geometrics, add lanes to accommodate bikes

Lanes: 2



State St (Hebron Rd to Kanuga Rd)

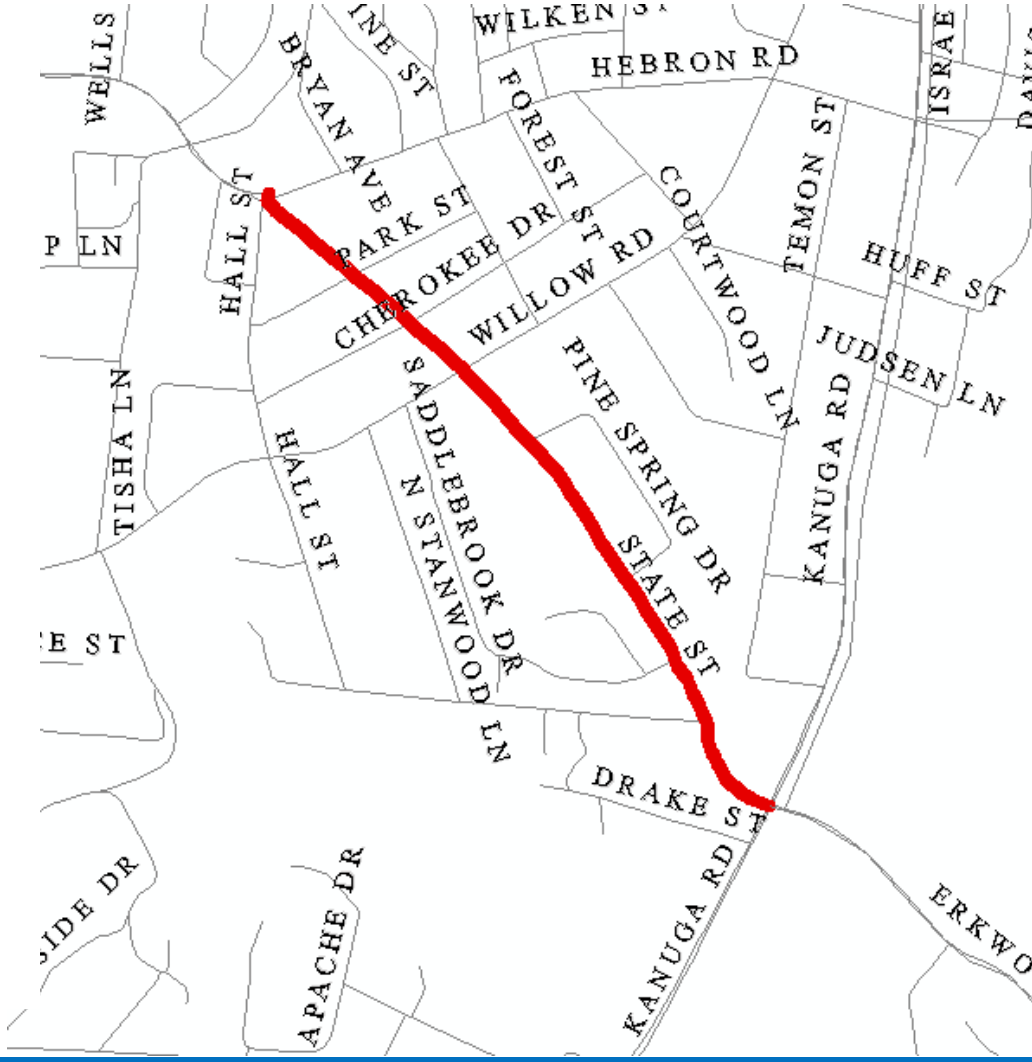
Description

CTP: Add turn lanes, widen shoulder and improve geometrics

LRTP: N/A

SPOT: Add turn lanes, widen shoulder and improve geometrics

Lanes: 2



White St (US 25 Bus to Kanuga Rd)

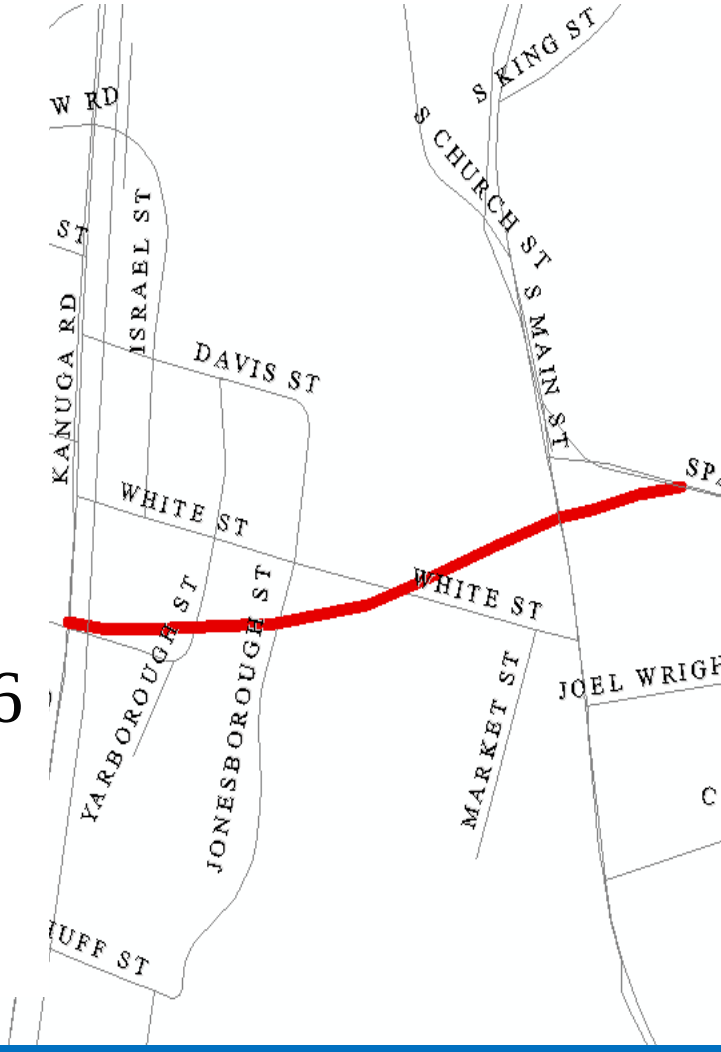
Description

CTP: Construct 3-lane connector; intersection realignment/ improvements at US 25B/176

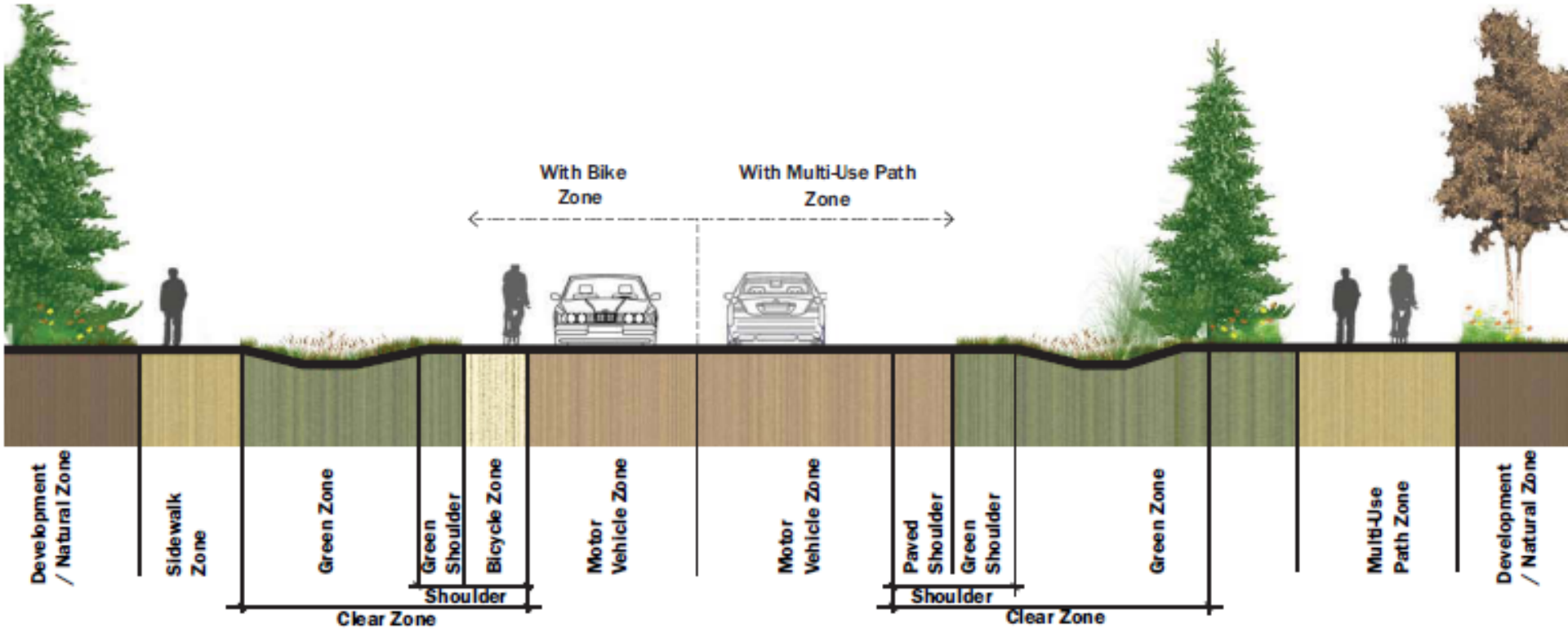
LRTP: Realignment/improvements

SPOT: Construct 3-lane connector; intersection realignment, and improvements at NC 225/US 176

Lanes: 2 (3 lane connection)



Complete Streets Consideration for SPOT Ranked Projects (Intersection Improvement)



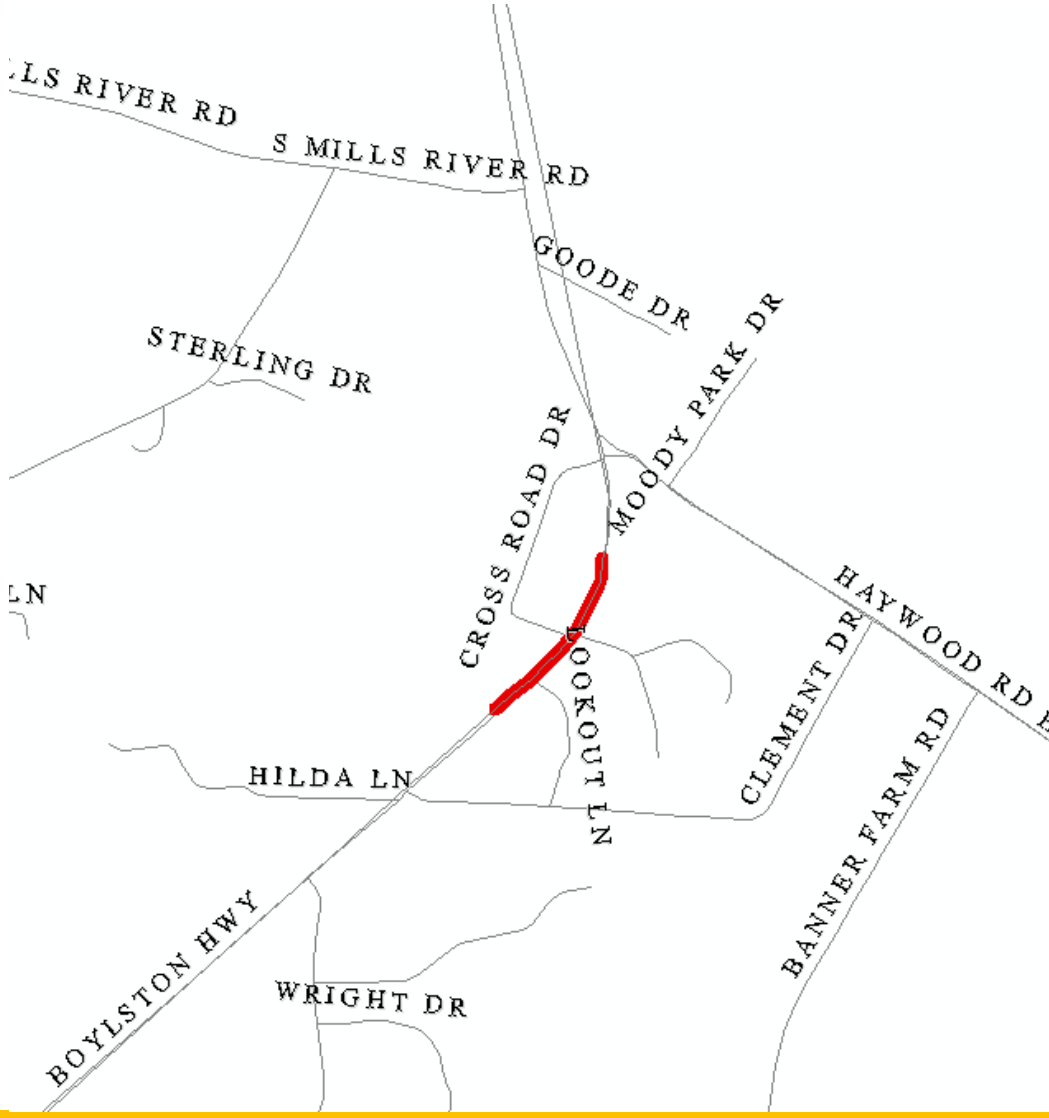
NC 280 Intersection (Parsonage Rd)

Description

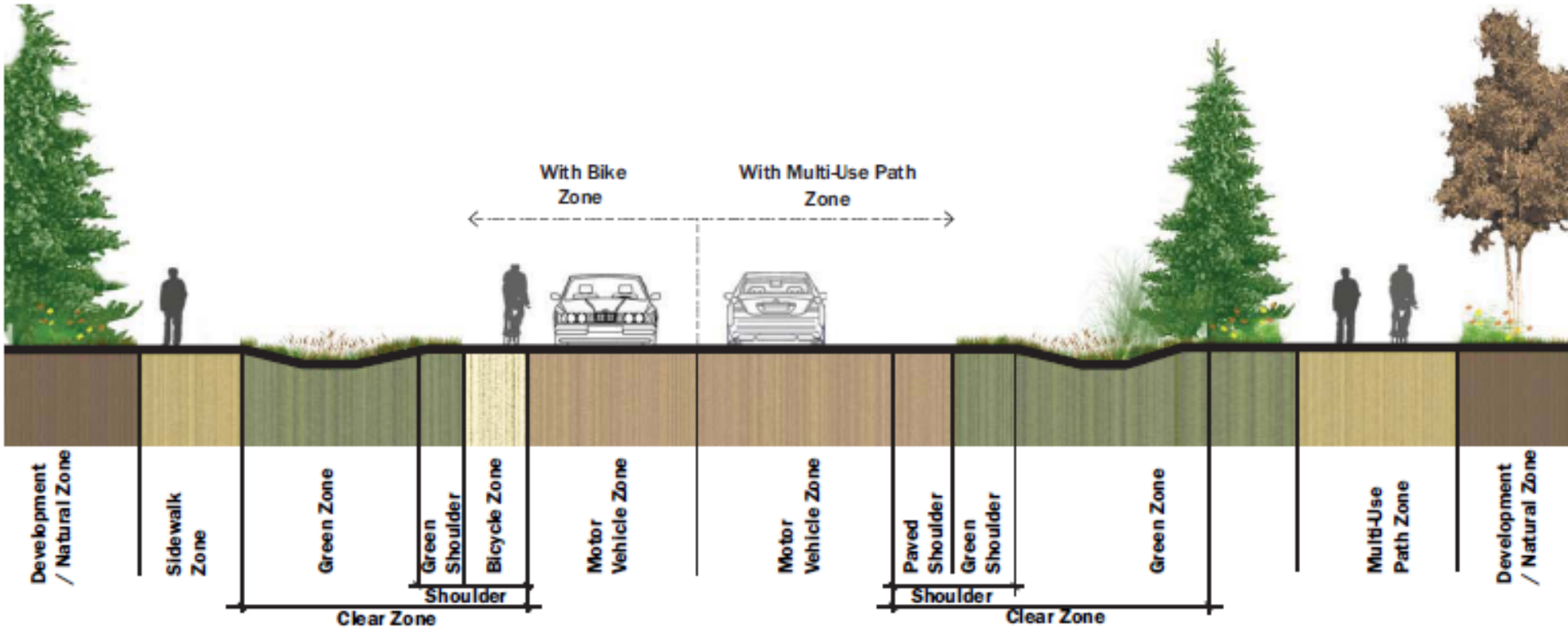
CTP: N/A

LRTP: N/A

SPOT: Intersection improvements



Complete Streets Consideration for SPOT Ranked Projects (Travel Lanes: 3?)



Old Airport Rd/Mills Gap Rd

(US 25 to Hoopers Creek Rd)

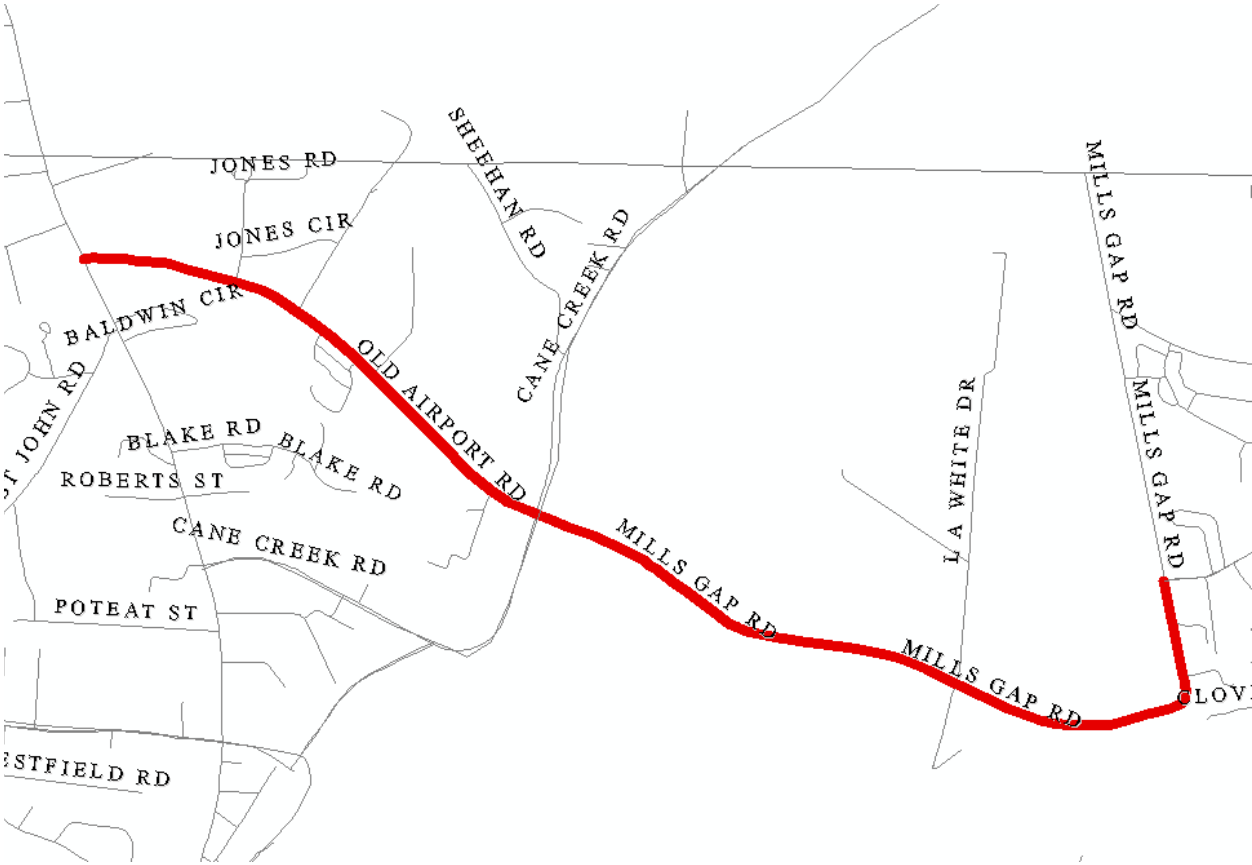
Description

CTP: Widen to 3 lanes, widen shoulder and improve geometrics

LRTP: N/A

SPOT: Widen and improvements

Lanes: 3?



US 64 (Blythe St. to Daniel Dr.)

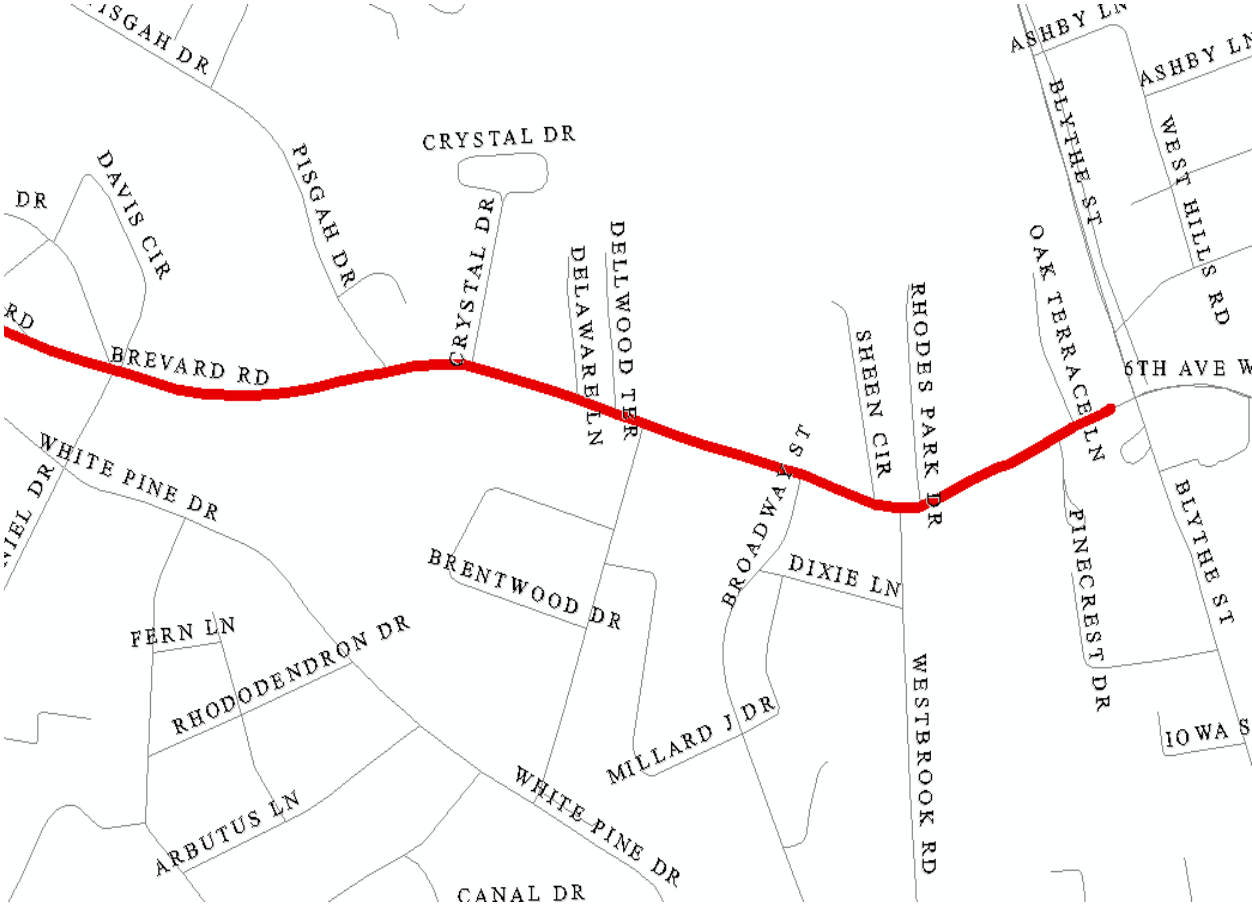
Description

CTP: Add TWLTL; possible multi-lanes

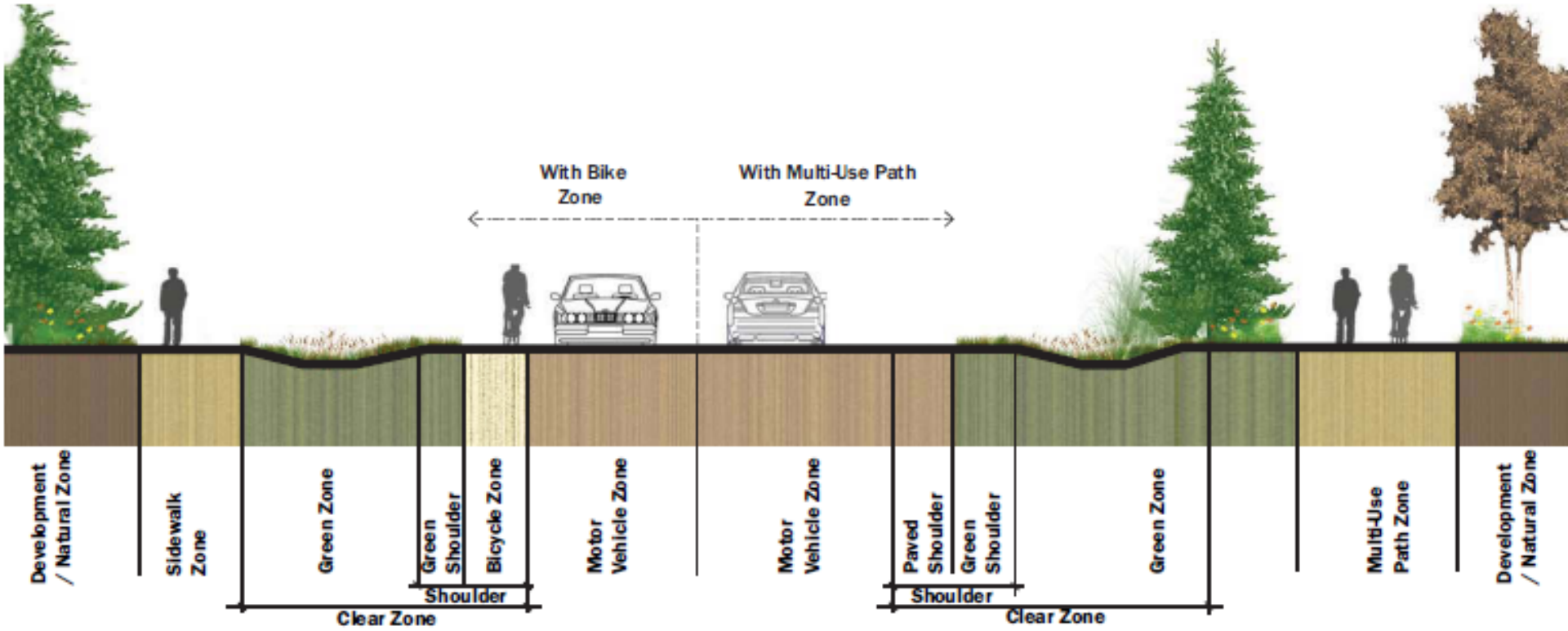
LRTP: Widen to 3 lanes

SPOT: Widening and improvements

Lanes: 3?



Complete Streets Consideration for SPOT Ranked Projects (Travel Lanes: 4)



Butler Bridge Rd (US 25 to NC 280)

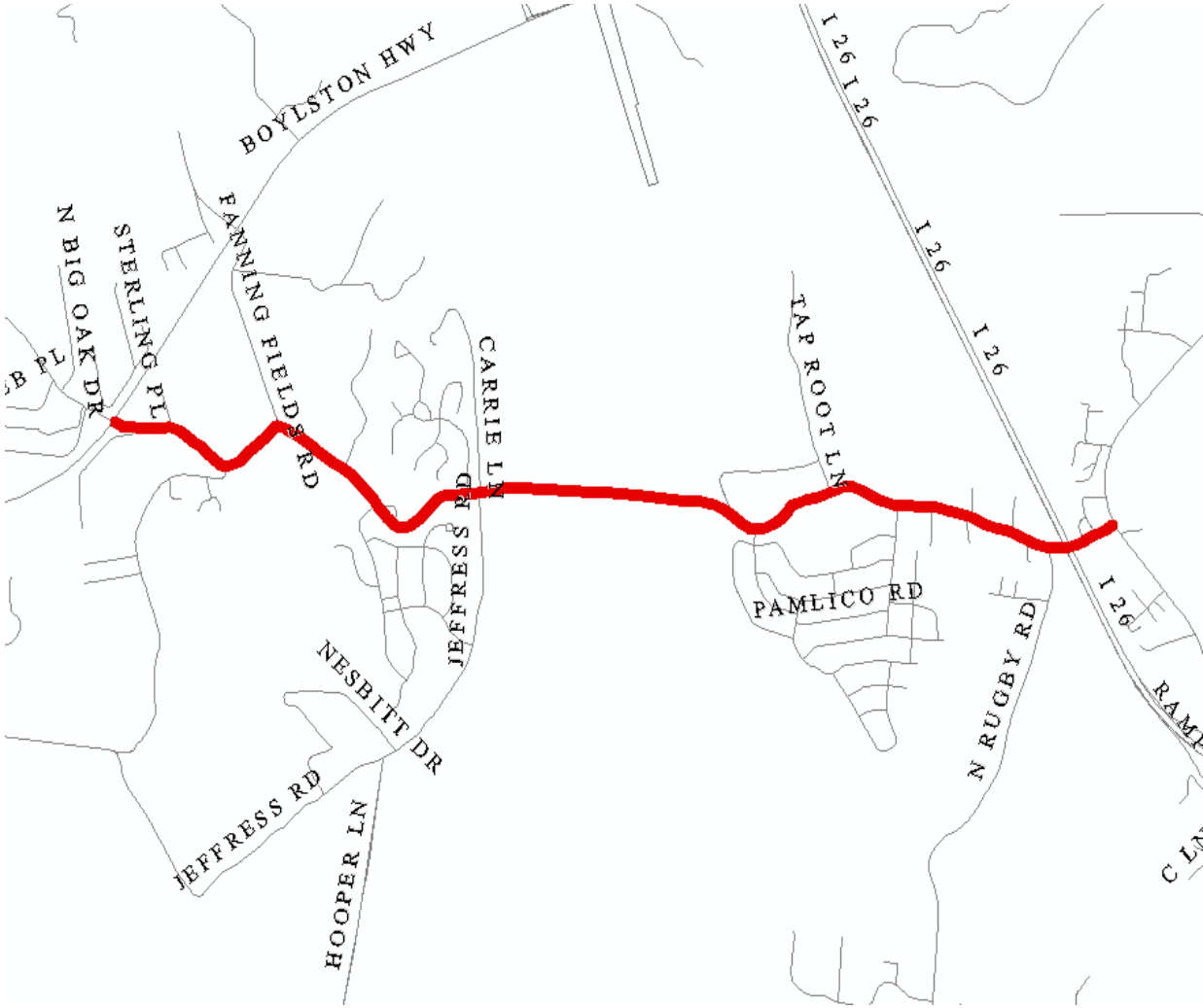
Description

CTP: Widen to 4 lanes with median

LRTP: Safety Upgrades

SPOT: Widen to 4 lanes with median

Lanes: 4



NC 191 (N of Hwy 280 to Bunc.)

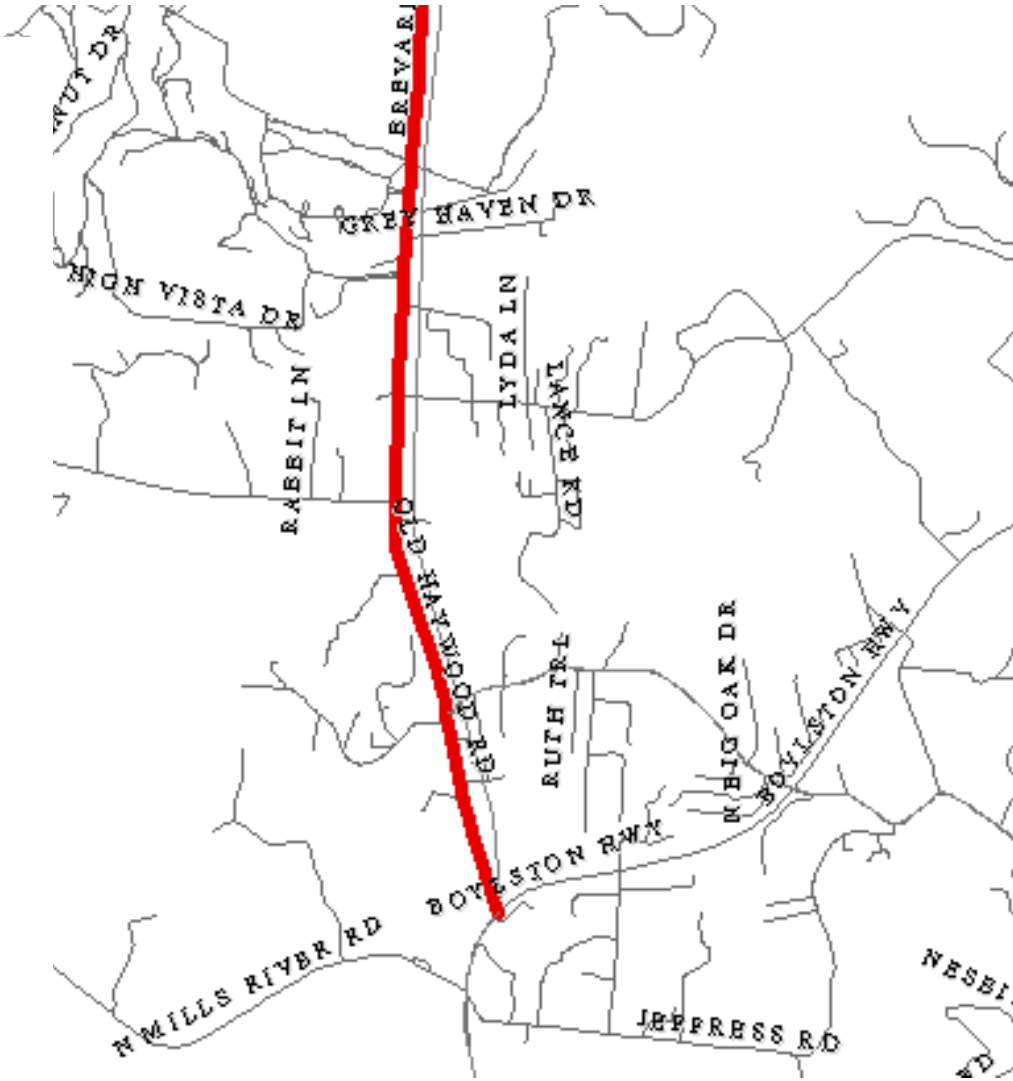
Description

CTP: N/A

LRTP: N/A

SPOT: Widen to multi-lanes

Lanes: 4?



NC 191 (Balfour Pkwy to US 25)

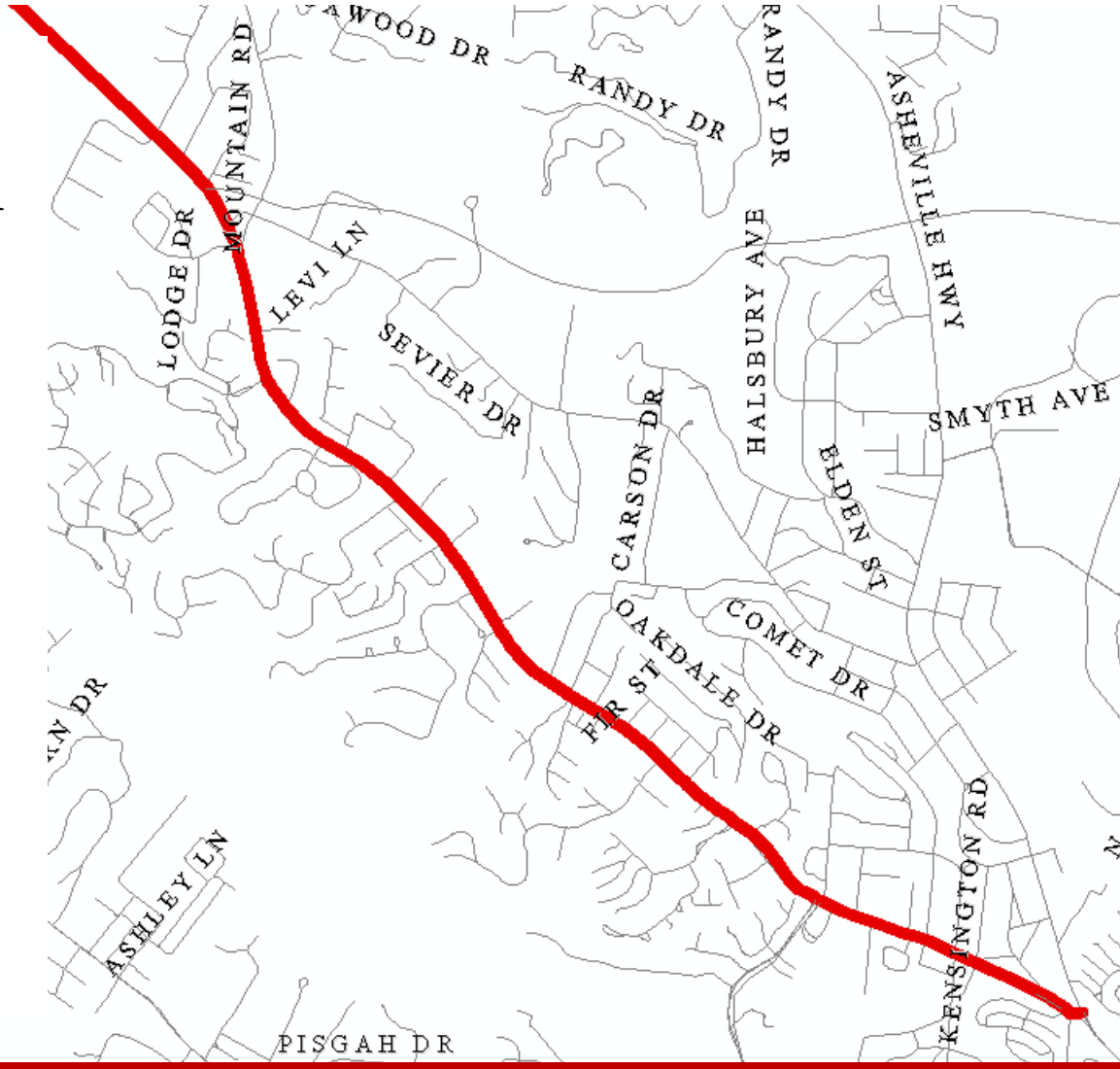
Description

CTP: Add center turn lane

LRTP: Intersection improvements, bike lanes and sidewalks

SPOT: Widen to multi-lanes

Lanes: 4?



NC 191 (NC 280 to Balfour Pkwy)

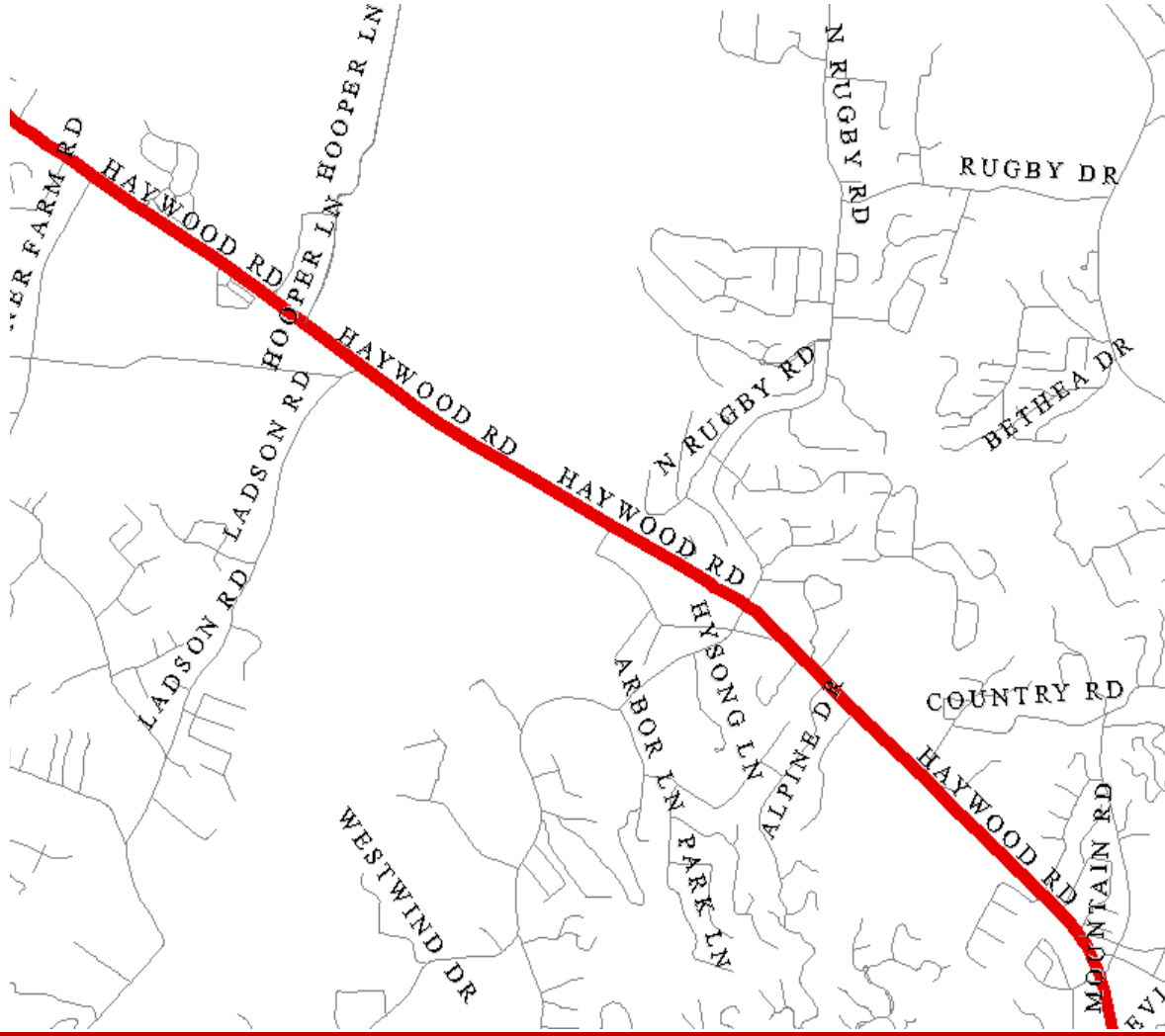
Description

CTP: Widen to 4 lanes with median

LRTP: Widen to 4 lanes with median and paved shoulders

SPOT: Widen to multi-lanes

Lanes: 4?



US 25 (S. Main St to US 176)

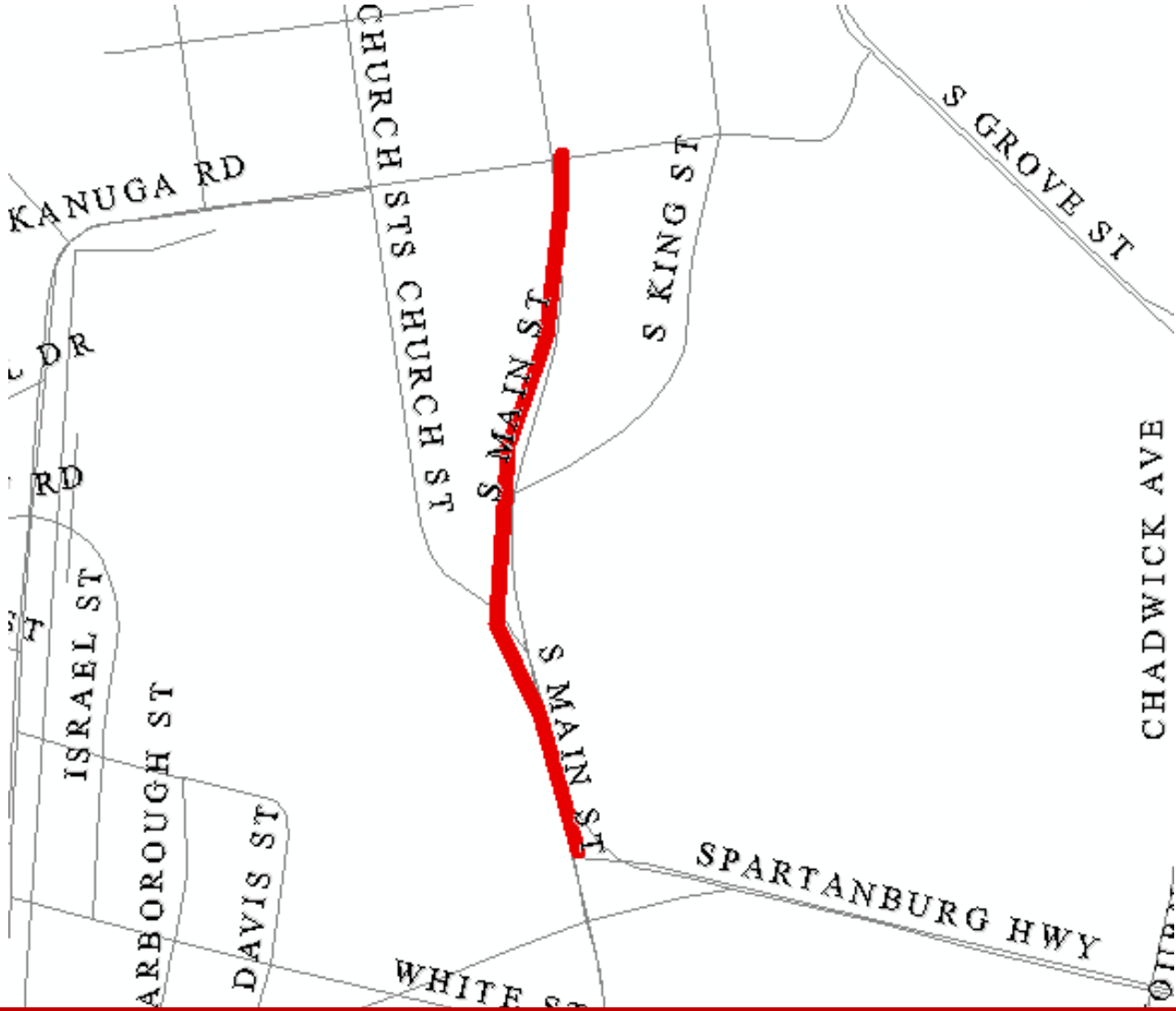
Description

CTP: N/A

LRTP: N/A

SPOT: Widen bridge # 143 to 5 lanes

Lanes: 5



Questions?


Facility	From	To	CTP ID	Prioritization in CTP	CTP Description	LRTP Project #	LRTP Tier	LRTP Description	LRTP Estimate	SPOT 2.0 Ranking	SPOT Score	SPOT Description	STIP 2012-2018	FY Construction Begins/Ends	Total Cost FY 2012 Forward
Howard Gap Road (SR 1006)	US 64	US 25	C09B	Highest Priority	Widen to 4 lanes with median; geometric improvements	R-5207	Tier 1	Widening, turn lanes, and bridge replacements from Jackson Rd to US 64	11512500	NA	NA		R-5207B	2012/?	8400000
Howard Gap Road (SR 1006)	US 64	US 25	C09A	Highest Priority	Widen to 4 lanes with median; geometric improvements	R-5207	Tier 1	Widening, turn lanes, and bridge replacements from Jackson Rd to US 64	11512500	NA	NA		R-5207A	2013/?	7132000
I-26	US 25 (Exit 54)	US 64	C01A	Highest Priority	Widen to 6 lanes	I-4400	Tier II	Widen to 6 lanes or other appropriate treatment	36333333.33	344	42.17		I-4400A	2020/?	39770000
I-26	US 25 Business	NC 280	C01C	Highest Priority	Widen to 6 lanes	I-4400	Tier II	Widen to 6 lanes or other appropriate treatment	36333333.33	409	38.35		I-4400C	2020/?	32060000
I-26	US 64	US 25 Business	C01B	Highest Priority	Widen to 6 lanes	I-4400	Tier II	Widen to 6 lanes or other appropriate treatment	36333333.33	584	26.29		I-4400B	2020/?	39770000
Shepherd St (SR 1779)/Airport Rd	NC 225 (Greenville Hwy)	Tracy Grove Rd (SR 17	C20	NA	Align w/ Erkwood; realign @ New Hope Rd; add TLs, widen shoulder & impr	U-5105	Tier 1	NA	4000000	NA	NA		U-5105	2012/?	1500000
Upward Road (SR 1783)	US 176	US 25 Business	C04	NA	Widen to 4 lanes with median	R-4430	Tier 1	NA	NA	NA	NA		R-4430	?/2013	9274000
US 25	I 26	NC 225 (Greenville Hig	C02	Lower Priority	Upgrade to 4-lanes	R-0505	Tier I	Ungrade to Freeway	12525000	NA	NA		R-0505	?/2012	27530000
US 64	Buncombe Street	Blythe St	C13A	Medium Priority	Add TWLTL; possible multi-lanes	R-4428	Tier 1	Widen to 3 lanes	2500000	NA	NA		U-4428	?/2012	10333000
Erkwood Dr (SR 1164)	Kanuga Rd (SR 1127)	NC 225 (Greenville Hig	C29	NA	Align w/ Shepard; add turn lanes, widen shoulder and improve geometrics	U-5105	Tier 1	Intersection improvement	4000000	NA	NA		U-5105	2014/?	1500000
Balfour Parkway	NC 191	US 64	C03	Highest Priority	Construct 4 lane expressway	None	Tier III	Construct new 4 lane expressway	75000000	51	68.41	4-lane expressway	NA	NA	NA
Blythe St (SR 1180)	NC 191	US 64	C24	NA	Add turn lanes, widen shoulder and improve geometrics as appropriate	NA	NA	NA	NA	474	33.48	Add turn lanes, widen shoulder and improve geometrics	NA	NA	NA
NC 191	NC 280	NC 146	NA	NA	NA	NA	NA	NA	NA	1053	11.43	Widen to multi-lanes	NA	NA	NA
Brickyard Rd	US 64	NC 280	NA	NA	NA	NA	NA	NA	NA	709	21.37	Construct 24' paved roadway with 6' grass shoulders to Terry's Gap Road	NA	NA	NA
Butler Bridge Road	US 25	NC 280	C12	NA	Widen to 4 lanes with median	None	Tier III	Safety Upgrades	750000	678	22.76	Widen to 4 lanes with median	NA	NA	NA
Butler Bridge Road	Jeffries Road	Fox Hill Rd	NA	NA	NA	NA	NA	NA	NA	904	15	Straighten road	NA	NA	NA
Fruitland Rd (SR 1574)	US 64	South of Sugar St (SR	C37	NA	Add turn lanes, widen shoulder and improve geometrics as appropriate	NA	NA	NA	NA	609	24.98	Add turn lanes, widen shoulder and improve geometrics as appropriate	NA	NA	NA
Highland Lake Rd	NC 225	US 176	NA	NA	NA	NA	NA	NA	NA	758	19.44	Construct 24' paved roadway with 4' paved shoulders and 6' grass shoulders	NA	NA	NA
Hooper Lane	NC 191	Jeffries Road	NA	NA	NA	NA	NA	NA	NA	1021	12.22	Paving, bridg epproach relignment	NA	NA	NA
I-26	NC 280	I-40 (Buncombe Count	C01D	Highest Priority	Widen to 6 lanes	NA	NA	NA	NA	529	30.62	Widen to 6 lanes	NA	NA	NA
Kanuga Road (SR 1127)	US 25 Bus (Church Street)	Little River Road (SR 1	C28	Highest Priority	Add turn lanes, widen shoulder and improve geometrics as appropriate	NA	Tier III	Resurface and widen to include bike lanes	15780000	626	24.15	Improve geometrics and align as needed	NA	NA	NA
Little River Road	Kanuga Rd (SR 1127)	US 25	NA	NA	NA	NA	NA	NA	NA	802	18.04	Resurce, wien and bike lanes	NA	NA	NA
NC 191	Balfour Parkway	US 25	C14	Lower Priority	Add TWLTL	R-2588B	Tier II & Ti	Intersection imprpvements, bike lanes and sidewalks	28300000	258	48.49	Widen to multi-lanes	NA	NA	NA
NC 191	NC 280	Balfour Parkway	C05	Medium Priority	Widen to 4 lanes with median	R-2588A	Tier II	Widen to 4 lanes with median and paved shoulders	28300000	825	17.24	Widen to multi-lanes	NA	NA	NA
NC 280 Intersection improvements	NA	NA	NA	NA	NA	NA	NA	NA	NA	1015	12.37	Intersection Improvements	NA	NA	NA
New Route - Fanning Bridge Road	Dogwood Terrace	US 25	NA	NA	NA	NA	NA	NA	NA	1003	12.62	Fanning Bridge Road Extension	NA	NA	NA
Old Airport Road/Mills Gap Road	US 25	Hoopers Creek Road (S	C32	Medium Priority	Widen to 3 lanes; widen shoulder and improve geometrics as appropriate	NA	NA	NA	NA	1111	10	Widening and improvements	NA	NA	NA
Rutledge Drive (Flat Rock)	Brookdale Ave	NC 225 (Greenville Hig	NA	NA	NA	NA	NA	NA	NA	608	24.98	Construct Bicycle Lanes and construct geometric improvements	NA	NA	NA
Rutledge Road	Fanning Bridge Rd Extension	Buncombe County Line	NA	NA	NA	NA	NA	Widen to 10' lanes, improve geometrics and add lanes to accommodate bikes	5000000	916	14.72	Widen to 10', Improve Geometrics and lanes to accommodate bikes	NA	NA	NA
State St	Hebron Rd (SR 1172	Kanuga Road (SR 112	C27	NA	Add turn lanes, widen shoulder and improve geometrics as appropriate	NA	NA	NA	NA	708	21.37	Add turn lanes, widen shoulder and improve geometrics	NA	NA	NA
US 25	South Main	US 176	NA	NA	NA	NA	NA	NA	NA	852	16.57	Widen Bridge # 143 to 5 lanes	NA	NA	NA
US 64	Blythe St	Daniel Drive	C13B	Medium Priority	Add TWLTL; possible multi-lanes	None	Tier II	Widen to 3 lanes	6000000	82	62.42	Widening and improvements	NA	NA	NA
White Street	US 25 Bus	Kanuga Road (SR 112	C19	Highest Priority	Construct 3-lane connector; intersection realignment/improvements at US 25B/	NA	Tier II	Realignment/improvements	5000000	1088	10.47	Construct 3-Lane Connector; Intersection realignment, and Improvements at NC 225/	NA	NA	NA
Berkeley Rd (SR 1508/1511)	N Main St (SR 1503	US 25 Business	C23	NA	Add turn lanes - possibly TWLTL - widen shoulder and improve geometrics	NA	NA	NA	NA	NA	NA		NA	NA	NA
Cummings Rd (SR 1171)	US 64	Hebron Rd (SR 1171)	C34	NA	Add turn lanes, widen shoulder and improve geometrics as appropriate	NA	NA	NA	NA	NA	NA		NA	NA	NA
Duncan Hill Rd (SR 1525) / Signal	US 64	N Main St (SR 1503)	C22	NA	Add turn lanes - possibly TWLTL - widen shoulder and improve geometrics	NA	NA	NA	NA	NA	NA		NA	NA	NA
Fanning Bridge Rd (SR 1358)	US 25	NC 280	C36	NA	Add turn lanes, widen shoulder and improve geometrics as appropriate	NA	NA	NA	NA	NA	NA		NA	NA	NA
Fanning Bridge Road (SR 1358)	US 25	NC 280	C10	Lower Priority	Construct 4-lane median facility w/new RR grade separation	NA	NA	NA	NA	NA	NA		NA	NA	NA
Hebron Rd (SR 1172)	Lake Ave	State St	C26	NA	Add turn lanes, widen shoulder and improve geometrics as appropriate	NA	NA	NA	NA	NA	NA		NA	NA	NA
Hoopers Creek Rd (SR 1553)	Mills Gap Rd (SR 1551)	Terry's Gap Rd (SR 15	C33	NA	Add turn lanes, widen shoulder and improve geometrics as appropriate	NA	NA	NA	NA	NA	NA		NA	NA	NA
Howard Gap Road (SR 1006)	Upward Road (SR 1783)	US 64	C09C	Highest Priority	Widen to 4 lanes with median; geometric improvements	NA	NA	NA	NA	NA	NA		NA	NA	NA
Lake Ave	Blythe St	Hebron Rd (SR 1171)	C25	NA	Add turn lanes, widen shoulder and improve geometrics as appropriate	NA	NA	NA	NA	NA	NA		NA	NA	NA
NC 191	NC 280	Blue Ridge Parkway (B	C06	Medium Priority	Widen to 4 lanes with median	NA	NA	NA	NA	NA	NA		NA	NA	NA
NC 225 (Greenville Hwy)	US 176 / US 25 Bus	Erkwood Dr (SR 1164	C17	NA	Add turn lanes, widen shoulder and improve geometrics; possible multi-lanes	NA	NA	NA	NA	NA	NA		NA	NA	NA
NC 225 (Greenville Hwy)	W Blue Ridge Rd (SR 1812)	Little River Rd (SR 112	C18	NA	Add turn lanes, widen shoulder and improve geometrics as appropriate	NA	NA	NA	NA	NA	NA		NA	NA	NA
NC 280	NC 191 (N int with NC 280)	Transylvania County lir	C07	NA	Convert TWLTL to median and general acces control	NA	NA	NA	NA	NA	NA		NA	NA	NA
Old Cane Creek Rd (SR 1541)	Fanning Bridge Rd Extension	Cane Creek Rd (SR 15	C31	NA	Pave road and shoulder; upgrade road including widened lanes	NA	NA	NA	NA	NA	NA		NA	NA	NA
Sugarloaf Road (SR 1734)	US 64	Pace Road (SR 1726)	C30	Lower Priority	Add turn lanes, widen shoulder and improve geometrics as appropriate	NA	NA	NA	NA	NA	NA		NA	NA	NA
Tracy Grove Rd (SR 1793)	Airport Rd (SR 1755)	Dana Rd (SR 1525)	C21	NA	Add turn lanes, widen shoulder and improve geometrics as appropriate	NA	NA	NA	NA	NA	NA		NA	NA	NA
US 176	NC 225 (Greenville Highway)	Shepherd Street (SR 17	C16	Medium Priority	Access management and spot intersection improvements	NA	NA	NA	NA	NA	NA		NA	NA	NA
US 64	Howard Gap Rd (SR 1006)	Fruitland Road (SR 157	C08	NA	Convert TWLTL to median	NA	NA	NA	NA	NA	NA		NA	NA	NA
US 64	South Rugby Road (SR 1312)	Banner Farm Road (SR	C11	Highest Priority	Widen to 4 lanes with median	NA	NA	NA	NA	NA	NA		NA	NA	NA
US 64	Banner Farm Road (SR 1314)	Brickyard Rd	C13D	Medium Priority	Add TWLTL; possible multi-lanes	NA	NA	NA	NA	NA	NA		NA	NA	NA
US 64	Daniel Dr	South Rugby Road (SR	C13C	Medium Priority	Add TWLTL; possible multi-lanes	NA	NA	NA	NA	NA	NA		NA	NA	NA
US 64	Fruitland Rd (SR 1574)	Gilliam Rd (SR 1577)	C15	NA	Add TWLTL	NA	NA	NA	NA	NA	NA		NA	NA	NA
West Blue Ridge Rd (SR 1812)	NC 225 (Greenville Hwy)	Roper Rd (SR 1807)	C35	NA	Add turn lanes, widen shoulder and improve geometrics as appropriate	NA	NA	NA	NA	NA	NA		NA	NA	NA

Green	STIP Listed Project
Yellow	SPOT Ranked Project
Purple	CTP Projects Not in LRTP, SPOT or STIP