



Fig. 5.1.43 Porter Ridge Village Future Land Use

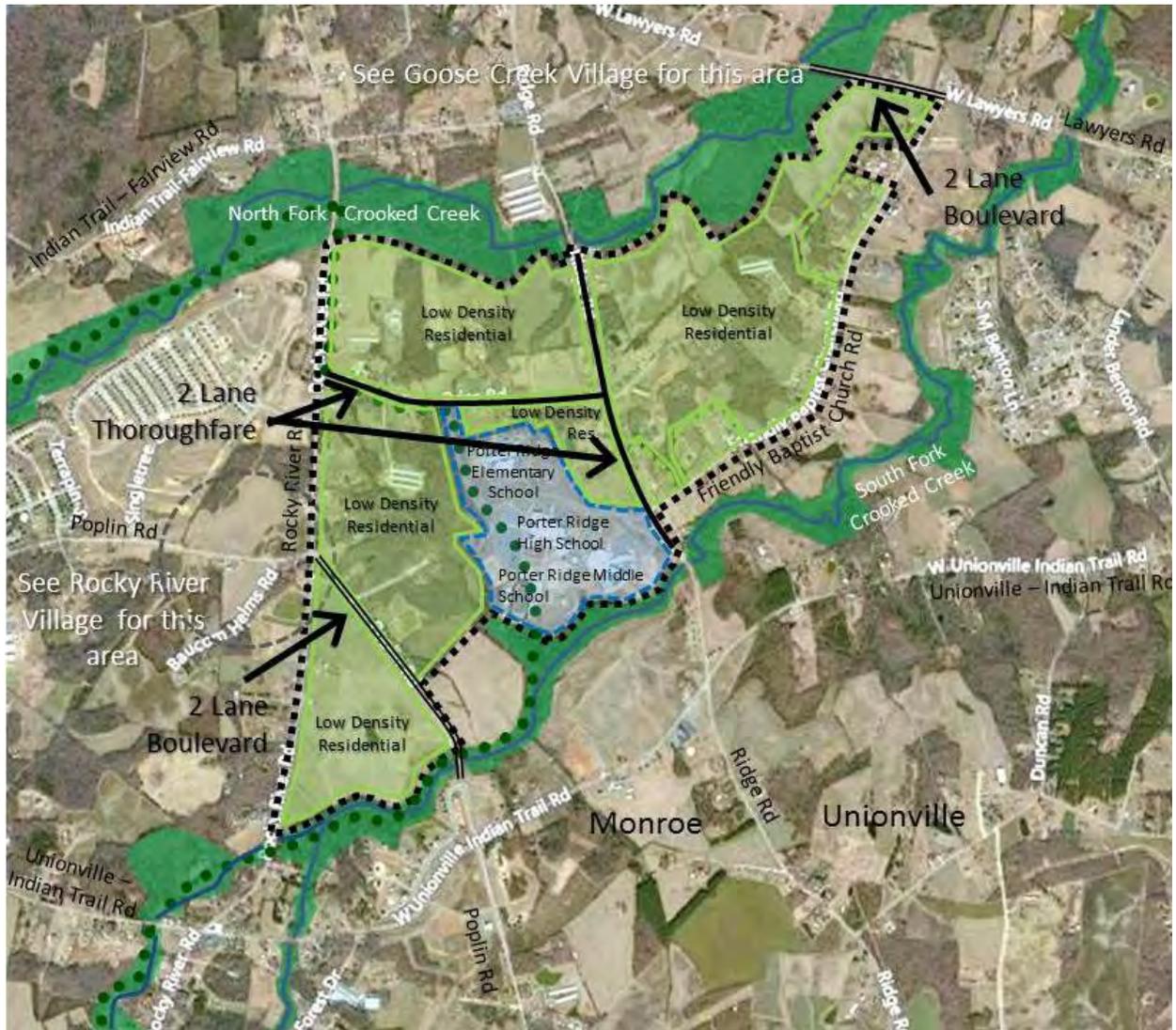


Fig. 5.1.44 Porter Ridge Village Transportation

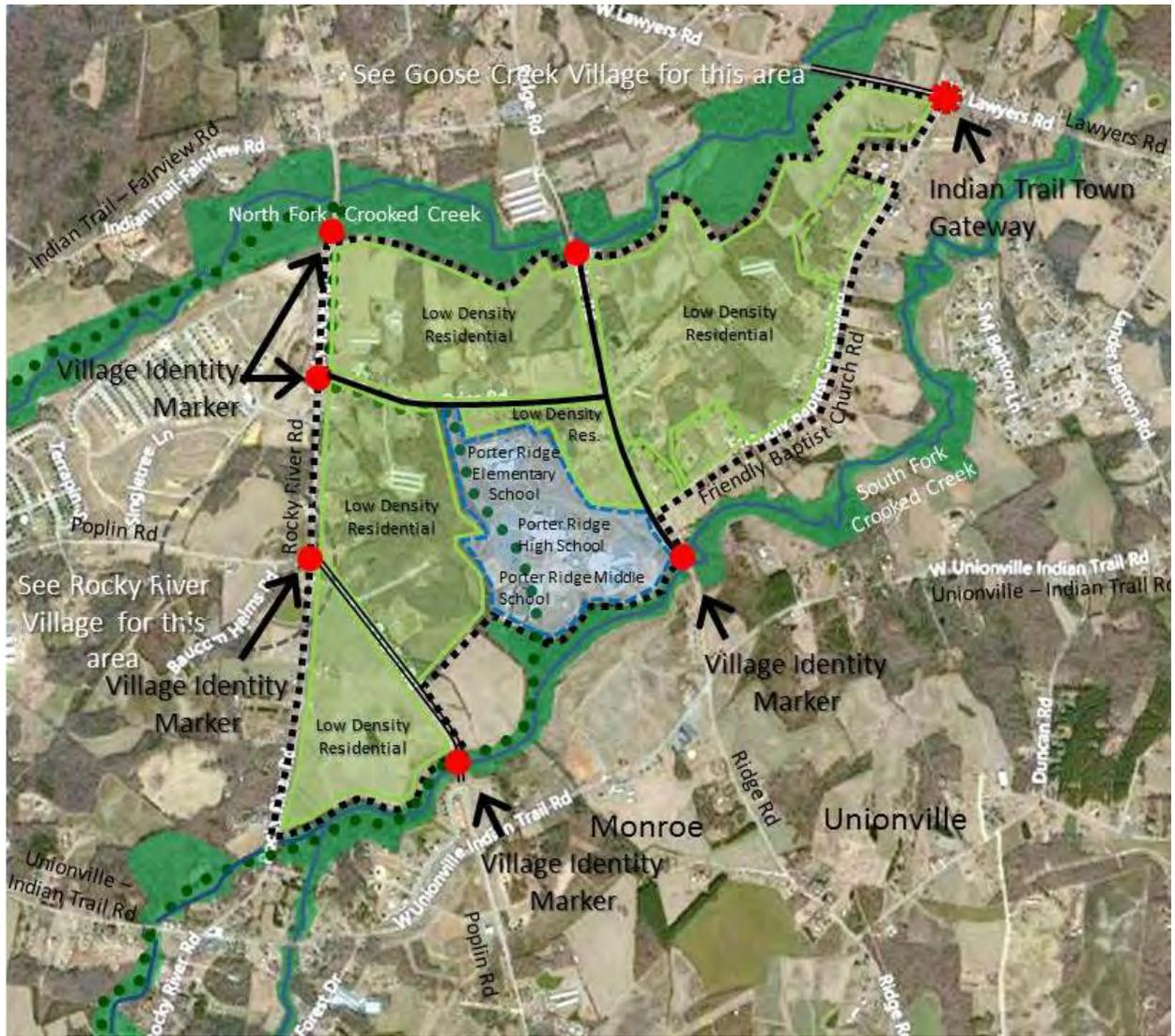


Fig. 5.1.45 Porter Ridge Village Urban Design



Fig. 5.1.46 Porter Ridge Village Plan

5.1.10 Rocky River Village Plan

Rocky River Village development began with the traditional neighborhood development (TND) of Bonterra, which continues to be the model desired for this Village. Bonterra extends across the North Fork of Crooked Creek into North Fork Village, which forms the northern boundary of Rocky River Village. The South Fork of Crooked Creek forms the southern boundary for the Village as well as a boundary with Monroe. The Monroe Bypass will form the western boundary, and the Unionville-Indian Trail interchange will connect Rocky River Village with the Crooked Creek Village Center. Porter Ridge Village on the east is anticipated to maintain its rural atmosphere, but the proximity of the Porter Ridge schools campus will be close to Rocky River Village. The access provided by the Monroe Bypass, Poplin Road, Unionville-Indian Trail Road and Rocky River Road will support the continued development of this Village following the TND model.

Land Use

Rocky River Village is a Traditional Neighborhood Development (TND) Village, based on the existing Bonterra neighborhood and the ability of the village to support higher densities because of the presence of a Monroe Bypass interchange. Poplin Elementary School is located on Poplin Road across from Bonterra.

Future land use in this Village should include a Village Center Overlay at the Monroe Bypass interchange, as part of the Village Center anticipated for Crooked Creek Village at Unionville-Indian Trail Road and Secrest Shortcut Road at the Bypass interchange. A Neighborhood Center planned for the intersection of Poplin Road and Rocky River Road should include a Neighborhood Center Overlay to serve the Bonterra neighborhood and other nearby residences. The remainder of the Village should all be Traditional Neighborhood Development.

Transportation

The Monroe Bypass will provide an interchange at or near the junction of Poplin Road and Unionville-Indian Trail Road. Poplin Road should become a 2 Lane Boulevard and Unionville-Indian Trail Road should become a 4 Lane Village Center Boulevard in the Village Center. Poplin Road should also become a 2 Lane Village Center Boulevard in the Neighborhood Village Overlay. Poplin Road between the Village Center Overlay and the Neighborhood Center Overlay should become a 2 Lane Boulevard, and Unionville-Indian Trail Road from the Village Center Overlay to the South Fork of Crooked Creek should become a 4 Lane Boulevard. These typologies provide for bicycle lanes and pedestrian sidewalks. The Town of Indian Trail Park Master Plan provides for trails along both the North Fork and South Fork of Crooked Creek. The Indian Trail Bicycle Master Plan and the Comprehensive Pedestrian Plan provide for a neighborhood loop throughout the Village. The pedestrian, bicycle and trail plans will help provide enhanced access to the Porter Ridge school campus, and access under the Monroe Bypass.

Urban Design

The Monroe Bypass interchange will create a significant gateway for Indian Trail. The Bypass has proposed a very high quality aesthetic design quality for its bridges and interchanges. This could be supplemented by the Town with landscaping and additional streetscape elements. Village Identity Markers should be placed on Rocky River Road at the North Fork of Crooked Creek, at Poplin Road, and at the South Fork of Crooked Creek. The greenway environment of the North and South Forks of

Crooked Creek should be a part of the Village Identity. A visual and noise buffer should be provided between the new Village Center Overlay and TND developments and the Monroe Bypass.

Village Capacity

Rocky River Village has an estimated current population of approximately 2,500 people. The future land use plan provides for an additional capacity of approximately 7,500 people, for a total future capacity of approximately 10,000 people.

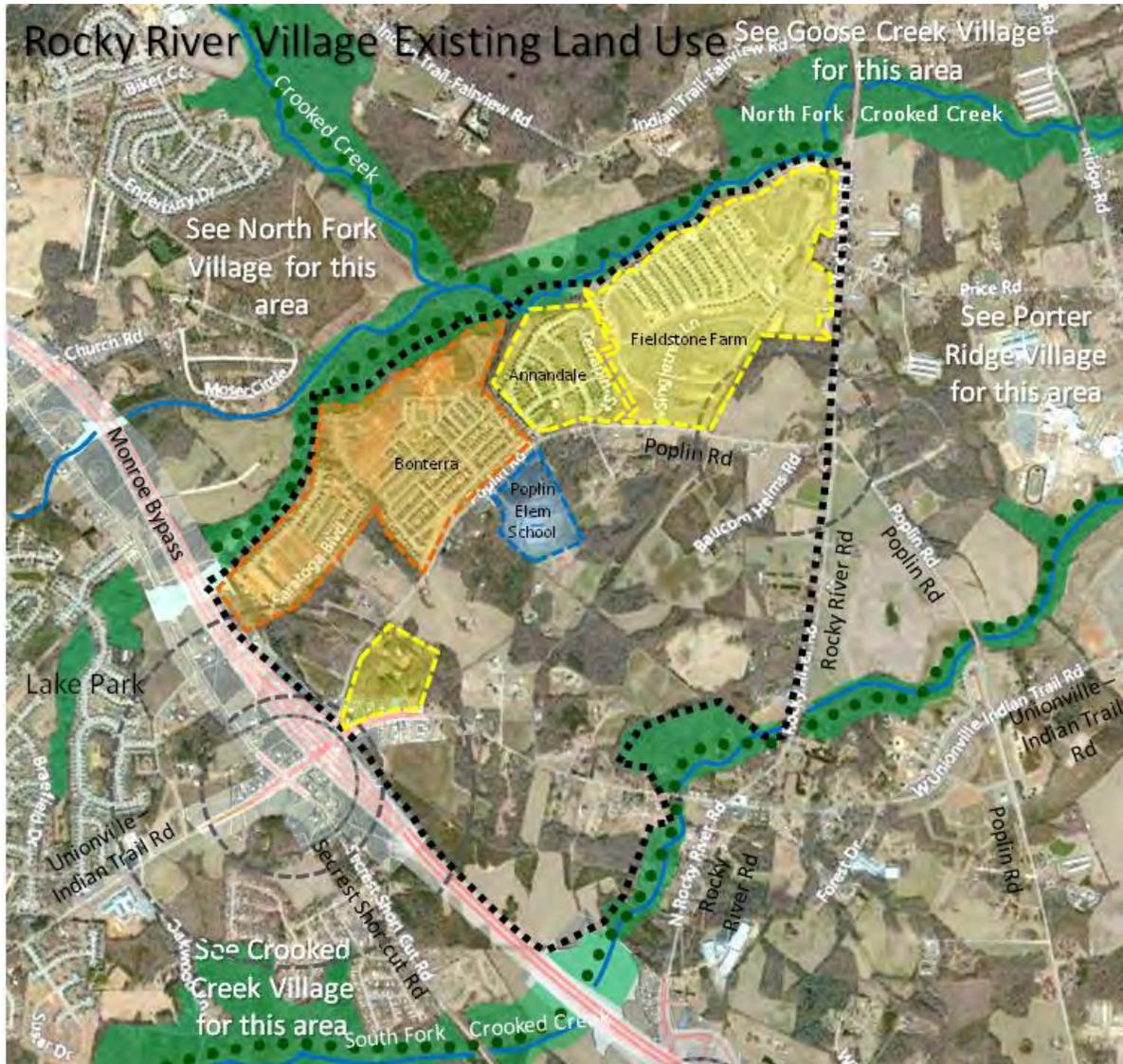


Fig. 5.1.47 Rocky River Village Existing Land Use

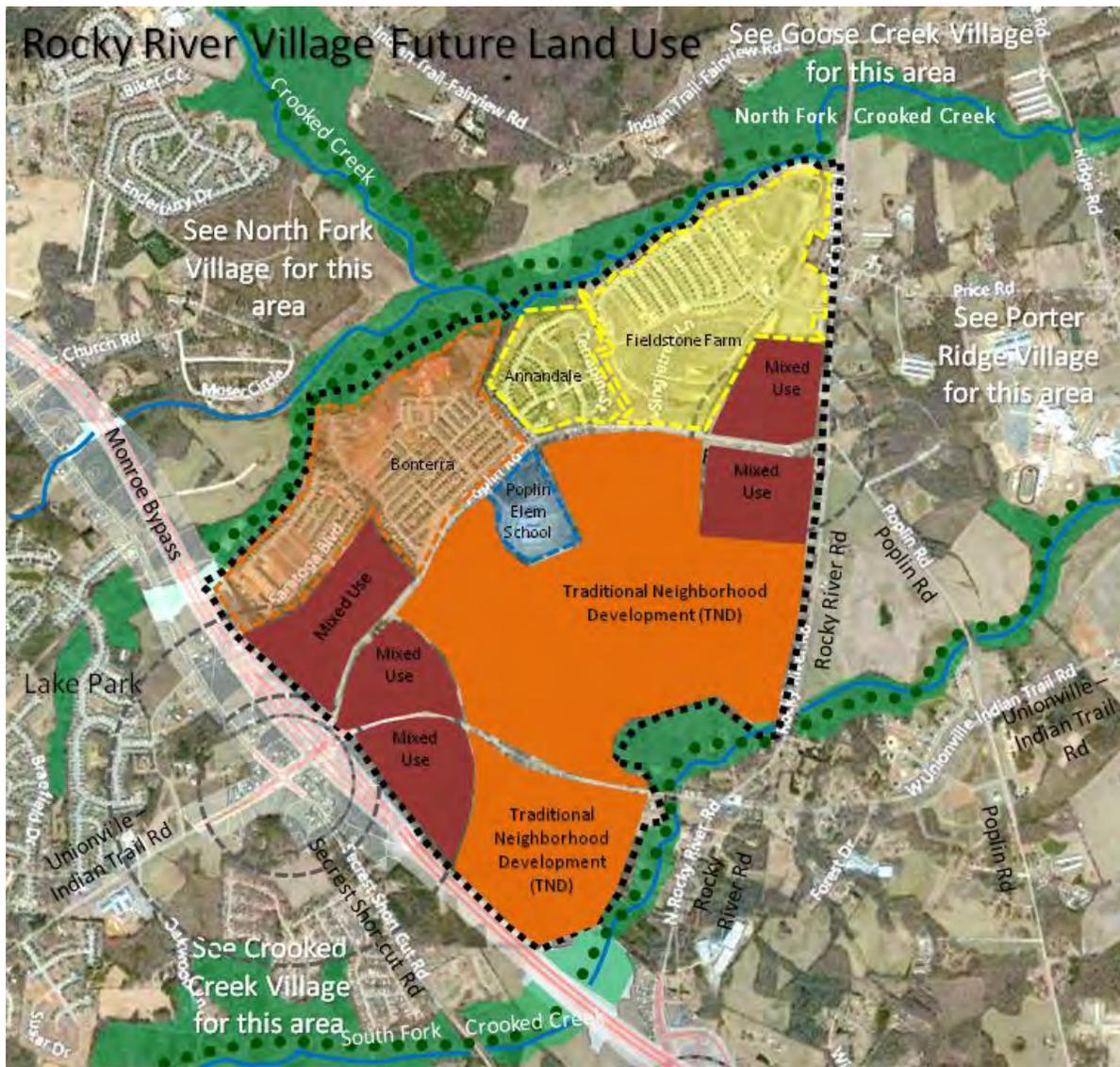


Fig. 5.1.48 Rocky River Village Future Land Use

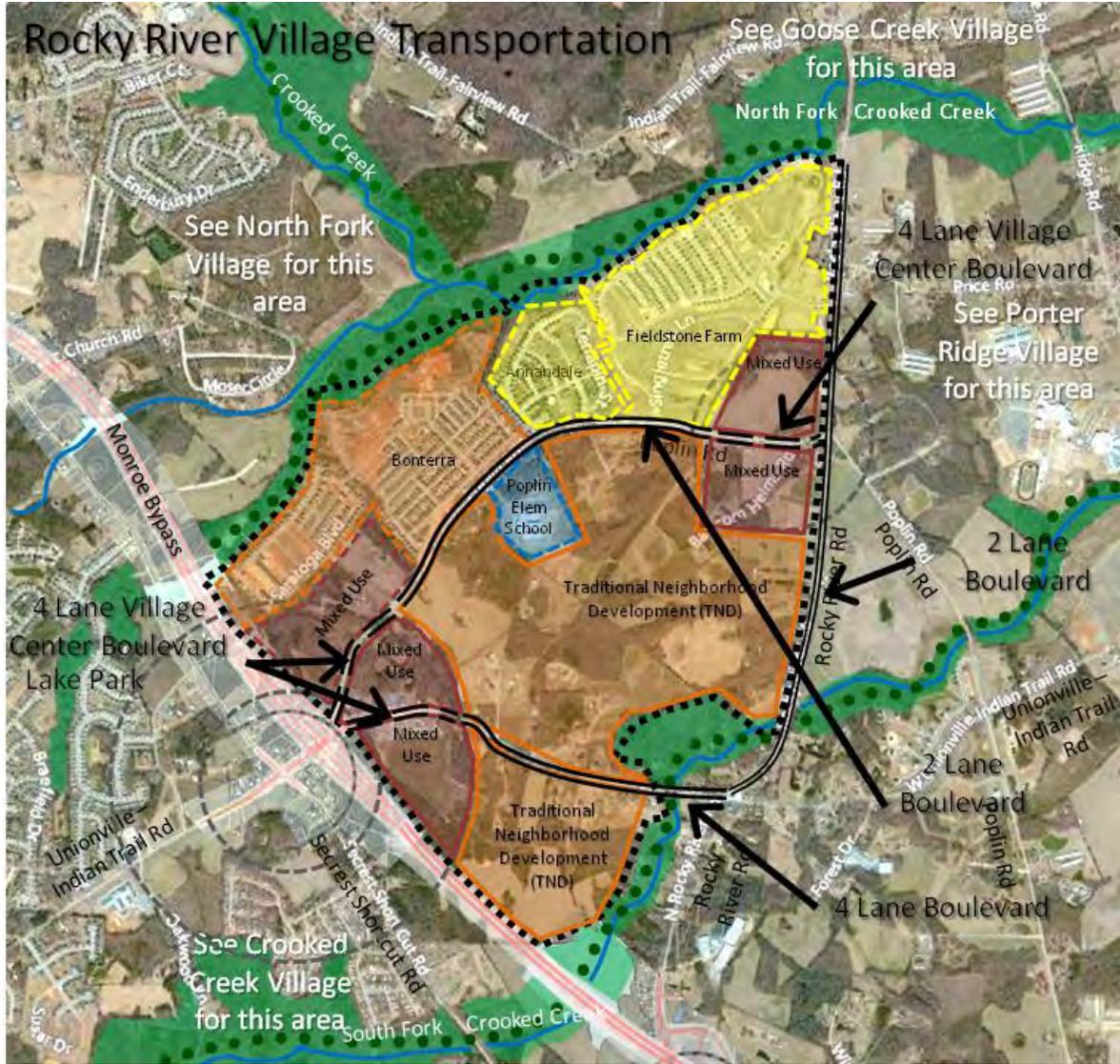


Fig. 5.1.49 Rocky River Village Transportation

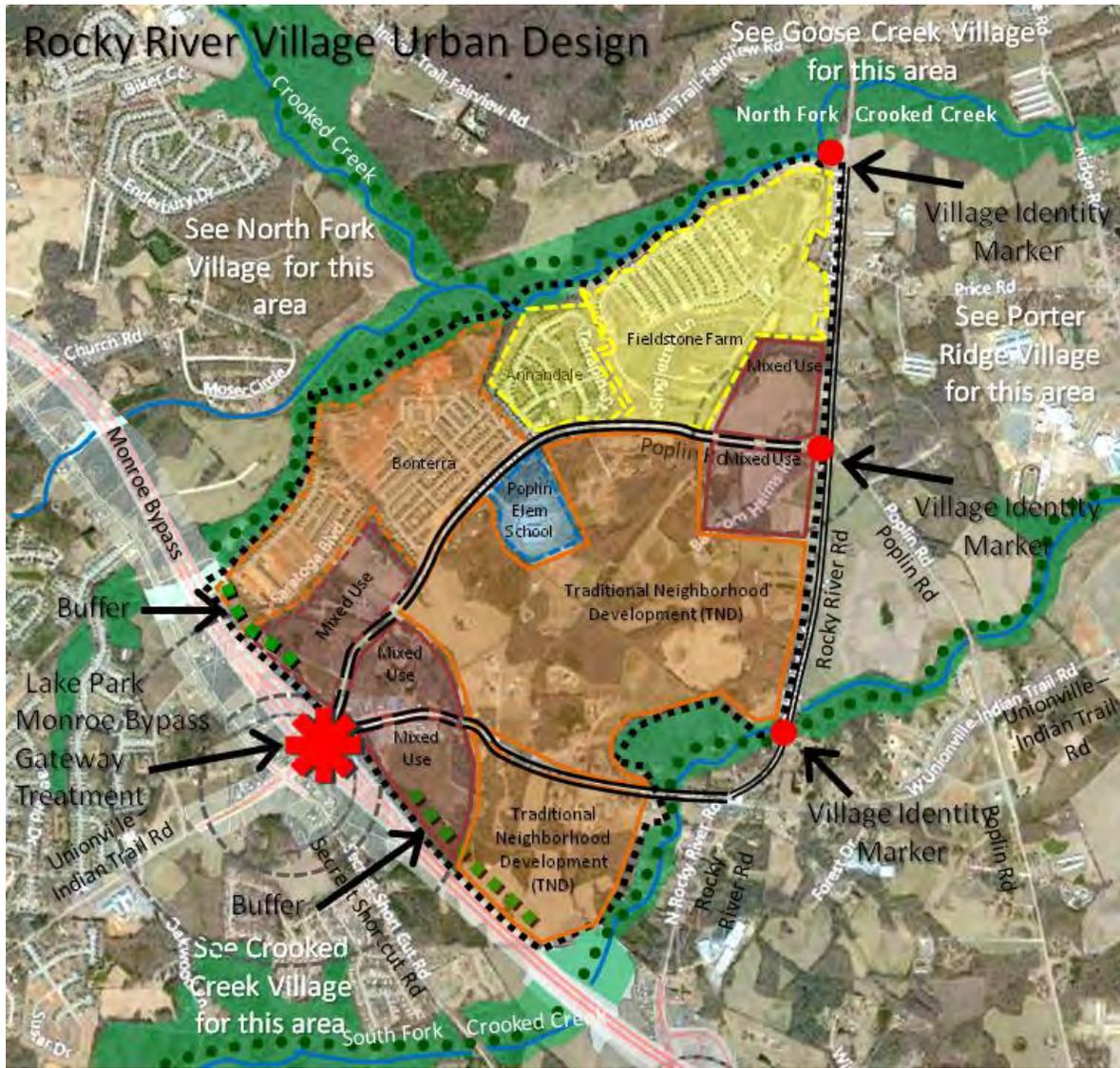


Fig. 5.1.50 Rocky River Village Urban Design

5.1.11 Rogers Village Plan

Rogers Village lies at the southeastern –most corner of Indian Trail, adjacent to the City of Monroe. It is a mix of high- and medium-density subdivisions adjacent to Sun Valley Village on the northwest, industrial development along the CSX Railroad on the northeast and unincorporated Union County land on the south. The eastern side of the Village is the Charlotte-Monroe Executive Airport, which influences some of the light industrial development along Old Charlotte Highway in Rogers Village. Twelve Mile Creek meanders throughout the Village, adding a pleasant natural edge to many of the subdivisions. The Sun Valley schools campus abuts Rogers Village on the northwest, with Sun Valley High School, Sun Valley Middle School, Sun Valley Elementary School and Shiloh Elementary School attracting families to the Village.

Land Use

Rogers Village is a Suburban Mix Village. There are a mix of medium density and high density existing residential subdivisions. There are also industrial properties along Old Charlotte Highway. Part of the large Hanson Brick mining company is partially located in the US-74 Far East Corridor. Union County Public Works has a large property in the southwest corner of the Village, with access from Goldmine Road. Christ Community Church is located on Rogers Road between the Meriwether and Meadow Glen neighborhoods. The Meriwether subdivision in Rogers Village and Brook Valley subdivision in Sun Valley Village have common area open space between the subdivisions and the Union County Public Works properties. Several branches of Twelve Mile Creek run through the Village. While there is no Village Center in this Village, it is served by the Sun Valley Sub-regional Center and Shopping and Entertainment District at Old Charlotte Highway and Wesley Chapel-Stouts Road.

Future land use in this Village should include additional medium density residential development off Old Charlotte Highway adjacent to Sandalwood II, and off Rogers Road, to be compatible with the existing residential subdivisions. Additional light industrial development may occur along Old Charlotte Highway as infill among the existing industrial properties, since it is close to the Charlotte-Monroe Executive Airport, the CSX Railroad and existing industrial uses.

Transportation

Old Charlotte Highway, which is a continuation of Old Monroe Road, should become a 4 Lane Boulevard through Rogers Village, based on the projected traffic volumes described in Chapter 3.6.1 Anticipated Traffic Demand. This typology includes bicycle lanes and pedestrian sidewalks. Rogers Road should be upgraded to a 2 Lane Thoroughfare with the addition of bicycle lanes and pedestrian sidewalks, as well as street trees. The Town of Indian Trail Park and Greenway Master Plan provides for a trail along the East Fork of Twelve Mile Creek from the Sun Valley school campus to the Meriwether/Brook Valley open space area, and along the branch of Twelve Mile Creek on the western edge of Rogers Village. The Indian Trail Bicycle Master Plan and Comprehensive Pedestrian Plan provide for neighborhood loops connecting the Village neighborhoods to the Sun Valley schools campus.

Urban Design

There should be a Town of Indian Trail Gateway on Old Charlotte Highway at the Monroe City Limits. Village identity markers should be placed on Rogers Road and on Old Charlotte Highway where they join Sun Valley Village. A visual buffer should be considered as part of any new development or

redevelopment along Old Charlotte Highway to screen the Hanson Brick mining property, and between the new Suburban Mix residential development and the adjacent existing industrial property on Old Charlotte Highway.

Village Capacity

Rogers Village has an estimated current population of approximately 4,000 people. The future land use plan provides for an additional population capacity of approximately 2,000 people, for a total future population capacity of approximately 6,000 people.

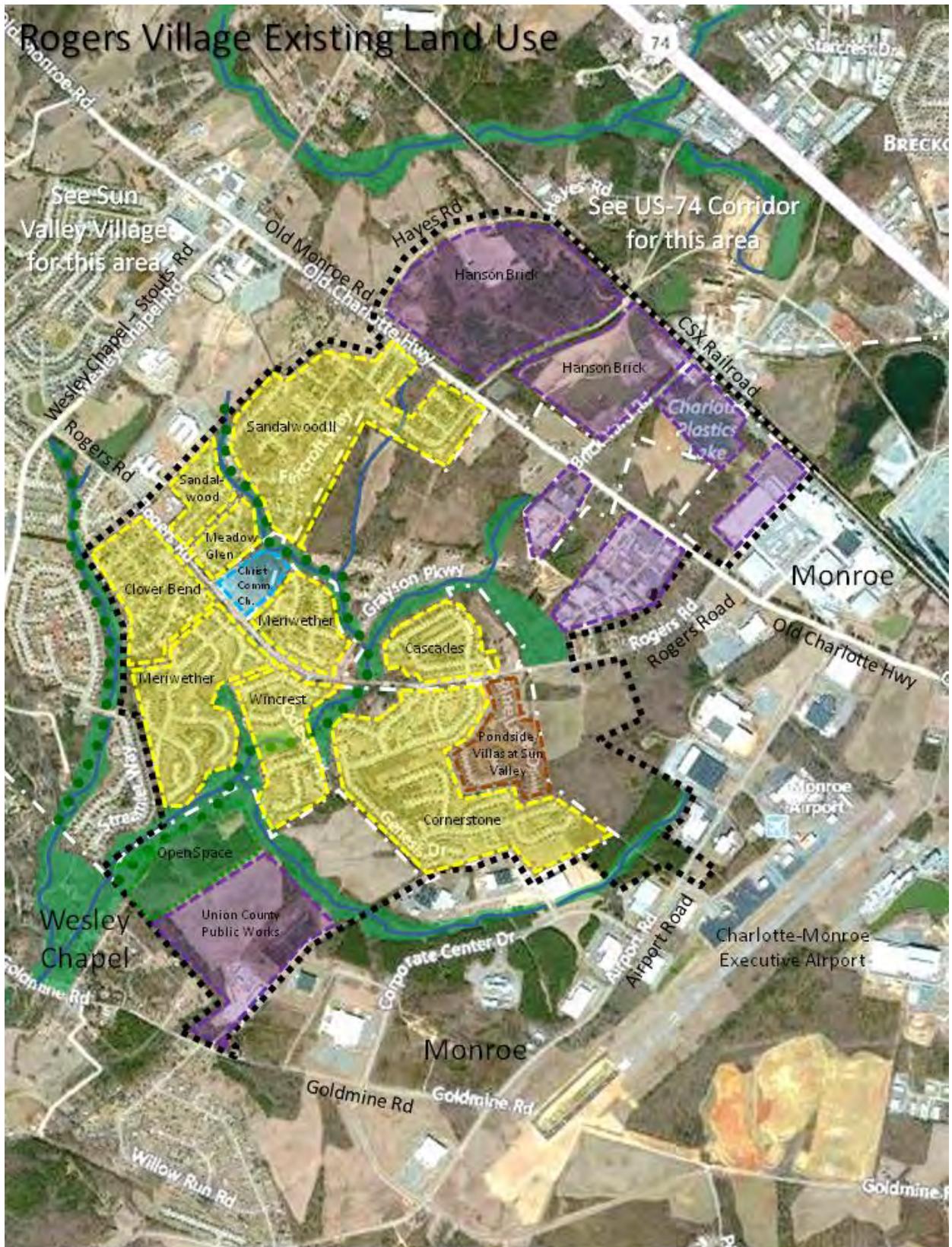


Fig. 5.1.52 Rogers Village Existing Land Use

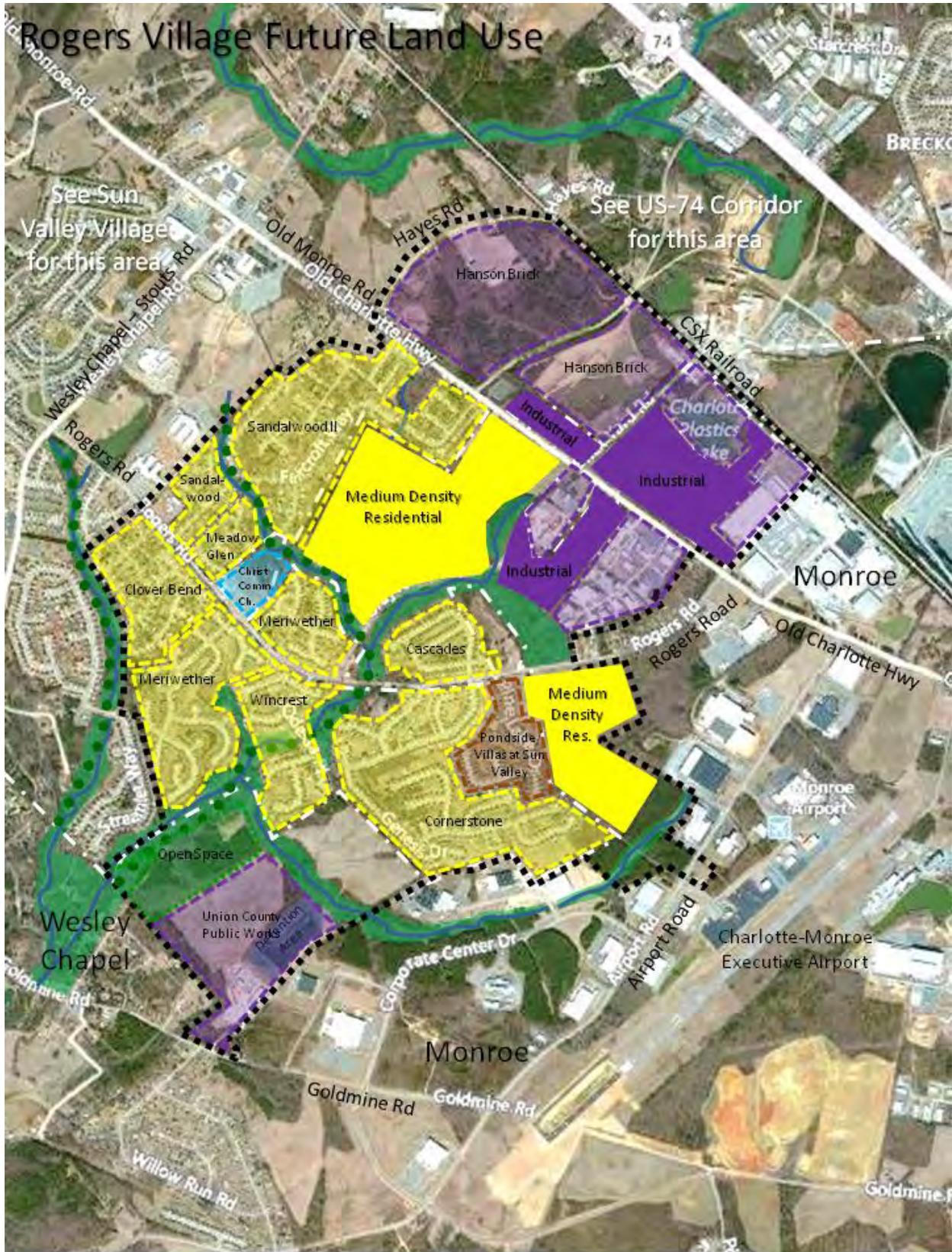


Fig. 5.1.53 Rogers Village Future Land Use

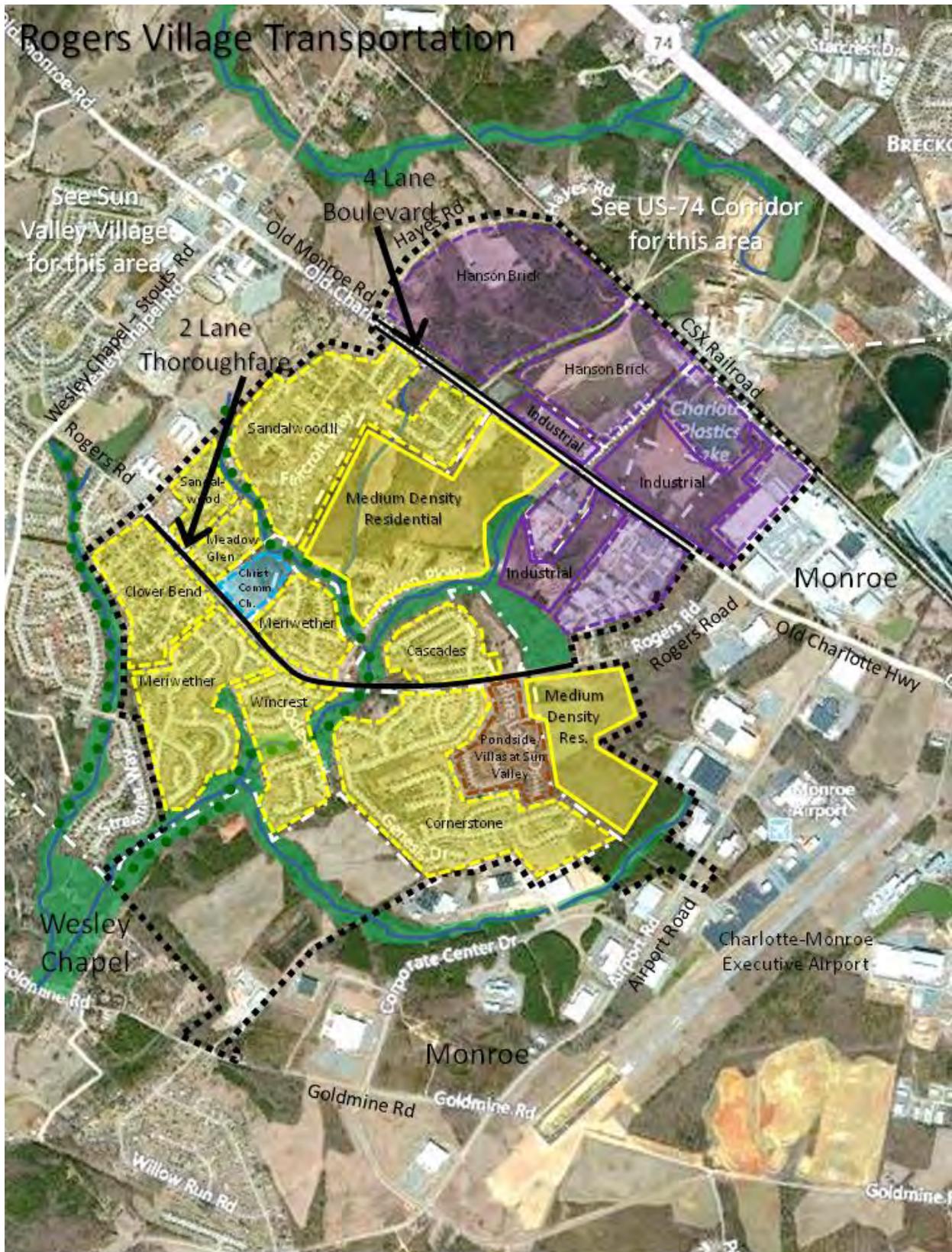


Fig. 5.1.54 Rogers Village Transportation

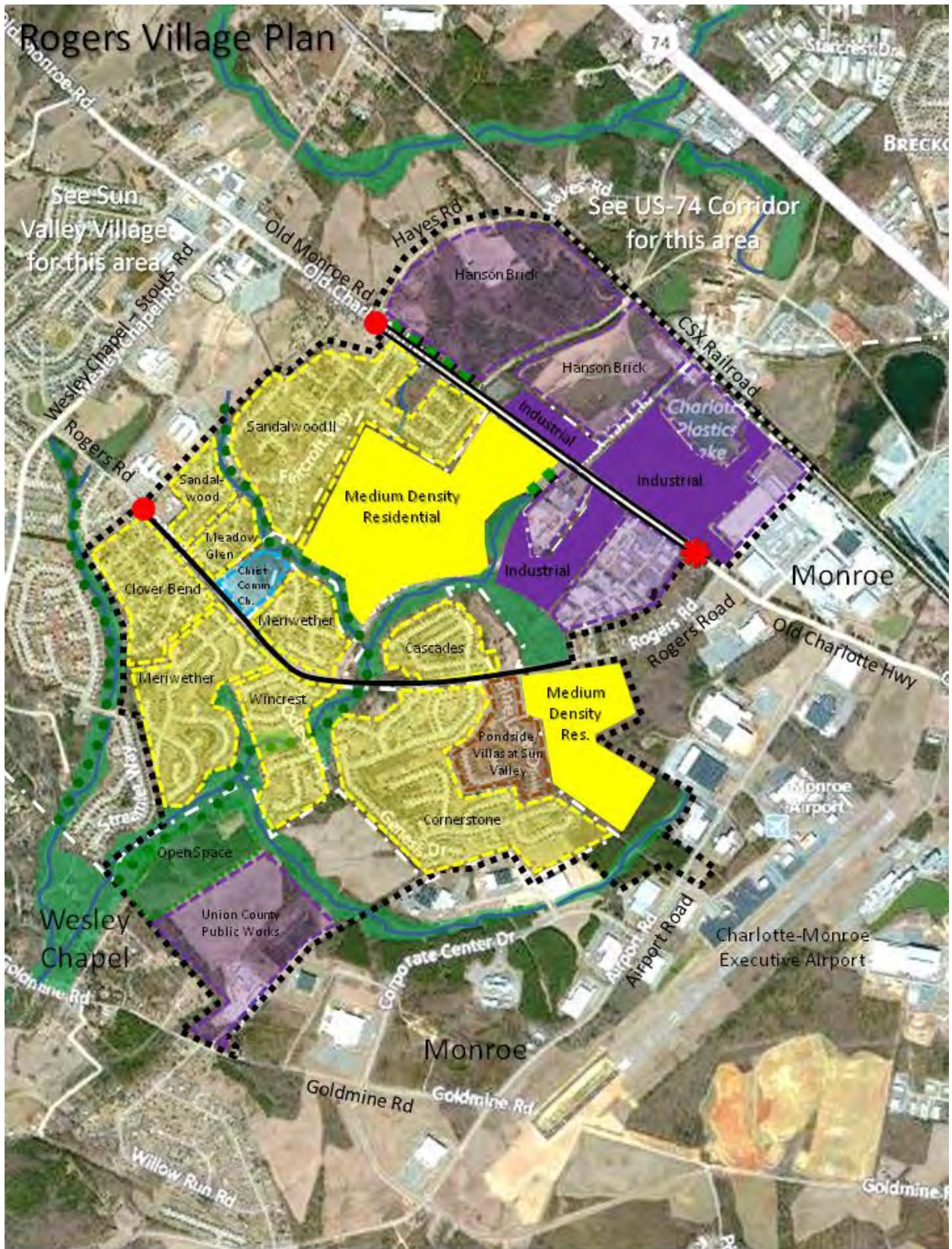


Fig. 5.1.56 Rogers Village Plan

5.1.12 Secrest Village Plan

Secrest Village is at the farthest point east in Indian Trail's planning area, generally located on Secrest Shortcut Road adjacent to the City of Monroe. The South Fork of Crooked Creek on the north separates it from Crooked Creek Village. The US-74 Corridor borders the Village on the west. The Monroe Bypass, on the Village's northeastern edge will have an interchange at Rocky River Road nearby, and the City of Monroe's Land Use Plan calls for a Neighborhood Retail Center surrounded by traditional neighborhood development centered on Rocky River Road and Secrest Shortcut Road at the interchange. Most of the land in Secrest Village is currently unincorporated Union County. Coordination of planning for Secrest Village with the City of Monroe will be important.

Land Use

Secrest Village is a Suburban Mix Village. Existing development consists of two medium density residential subdivisions: Laurel Creek and Oakstone.

Future development west of Secrest Shortcut Road should be Suburban Mix residential. The area within the Village east of Secrest Shortcut Road should be Traditional Neighborhood Development (TND), for compatibility with TND development anticipated by the City of Monroe's Land Use Plan, proximity to that city's anticipated neighborhood retail center at Secrest Shortcut Road and Rocky River Road, and its closeness to a Monroe Bypass interchange at Rocky River Road.

Transportation

Secrest Shortcut Road should become a 4 Lane Boulevard through this Village. A new connection to Myers Road should be provided when the new residential development occurs, for additional access to the area west of Secrest Shortcut Road. The Town of Indian Trail Park and Greenway Master Plan provides for a trail from the Crooked Creek Park adjacent to Secrest Village as part of the Carolina Thread Trail. Pedestrian and bicycle connections from the Village to Crooked Creek park will be important.

Urban Design

There should be a Town of Indian Trail Gateway on Secrest Shortcut Road at the Monroe city limits, coordinated with the Town's adopted Wayfinding Program. A visual and noise buffer should be considered between the new Traditional Neighborhood Development (TND) and the Monroe Bypass.

Village Capacity

Secrest Village has an estimated current population capacity of approximately 400 people. The future land use plan provides for an additional population capacity of approximately 1,600 people, for a total future population capacity of approximately 2,000 people.

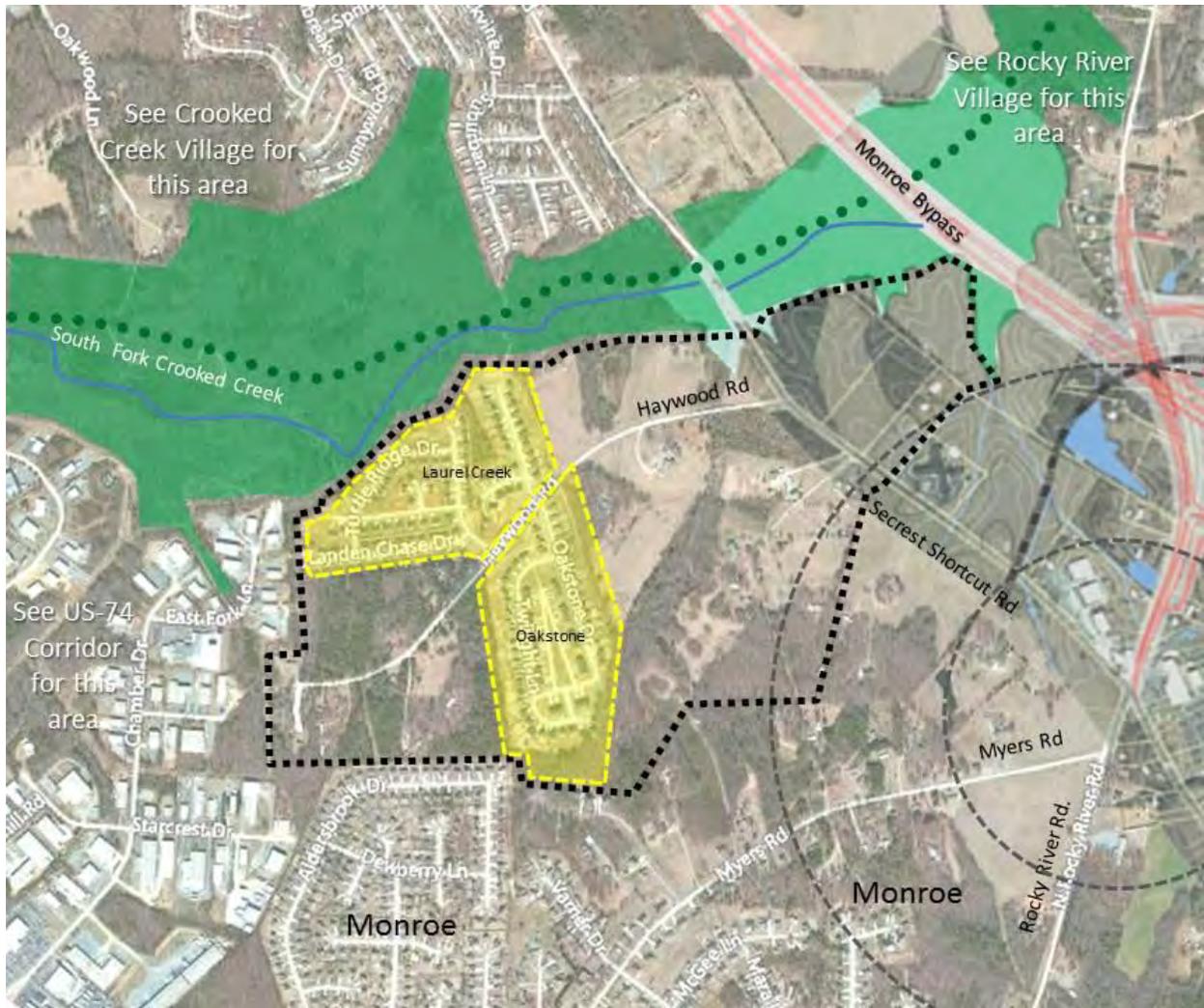


Fig. 5.1.57 Secret Village Existing Land Use

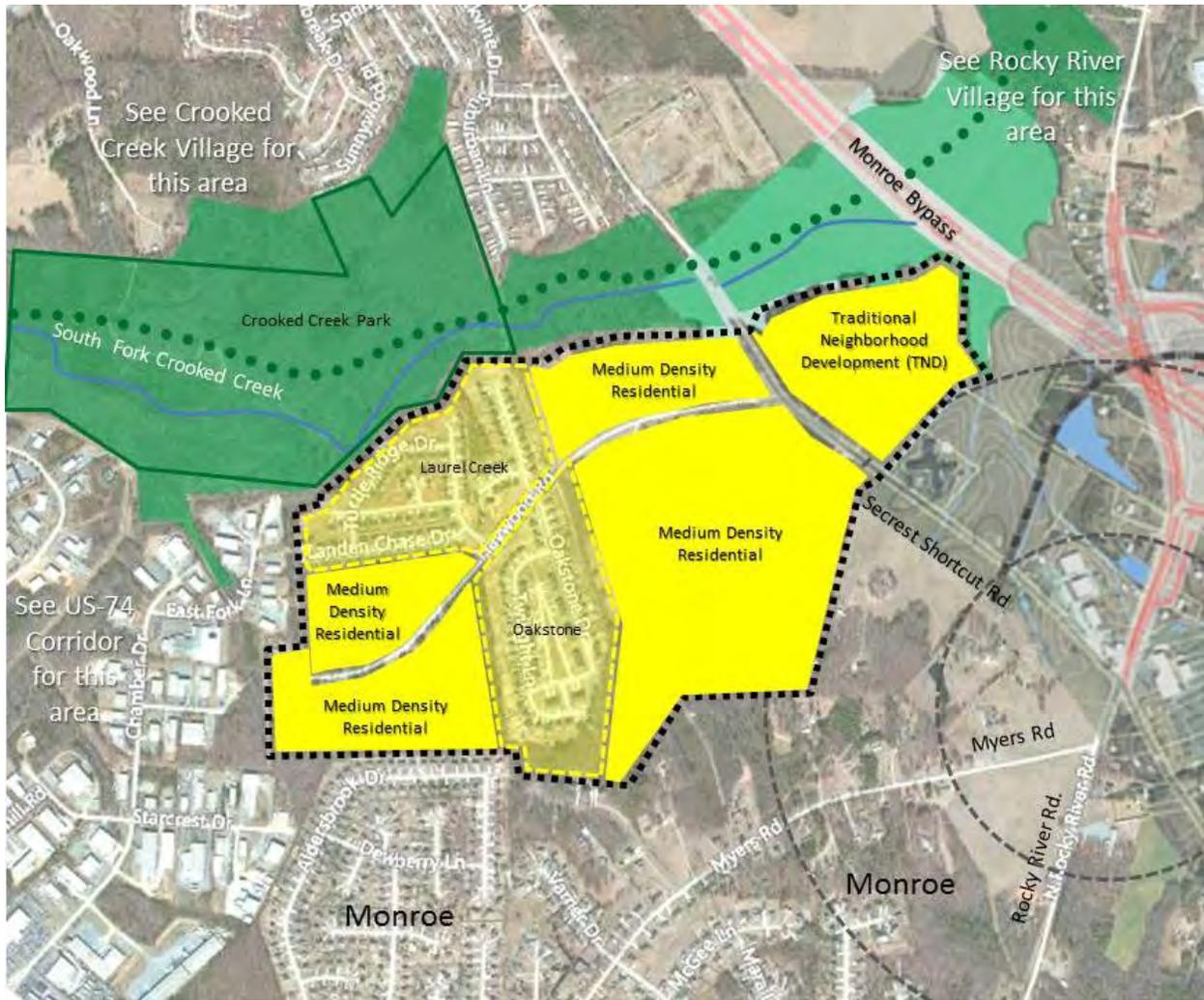


Fig. 5.1.58 Secrest Village Future Land Use

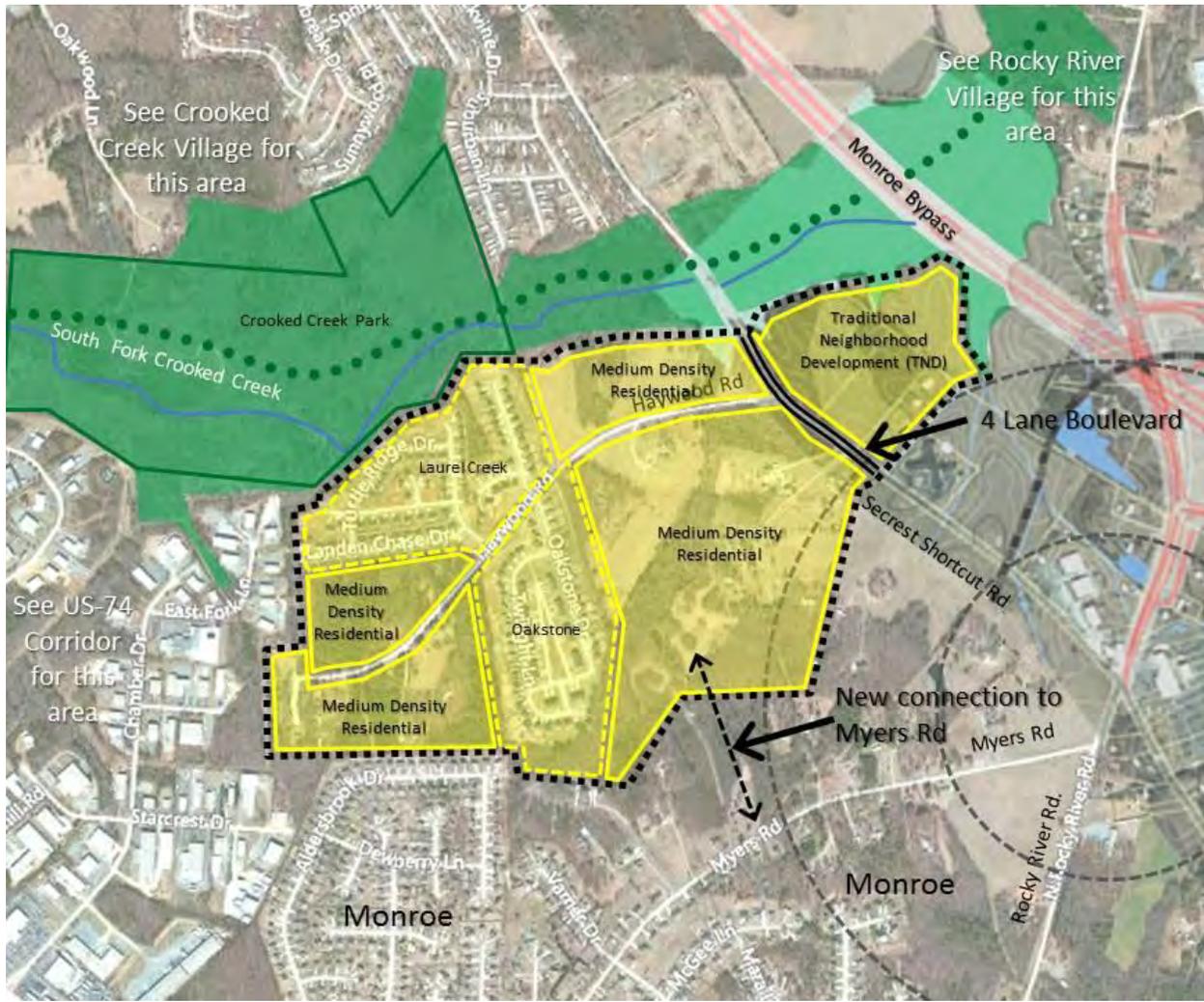


Fig. 5.1.59 Secret Village Transportation

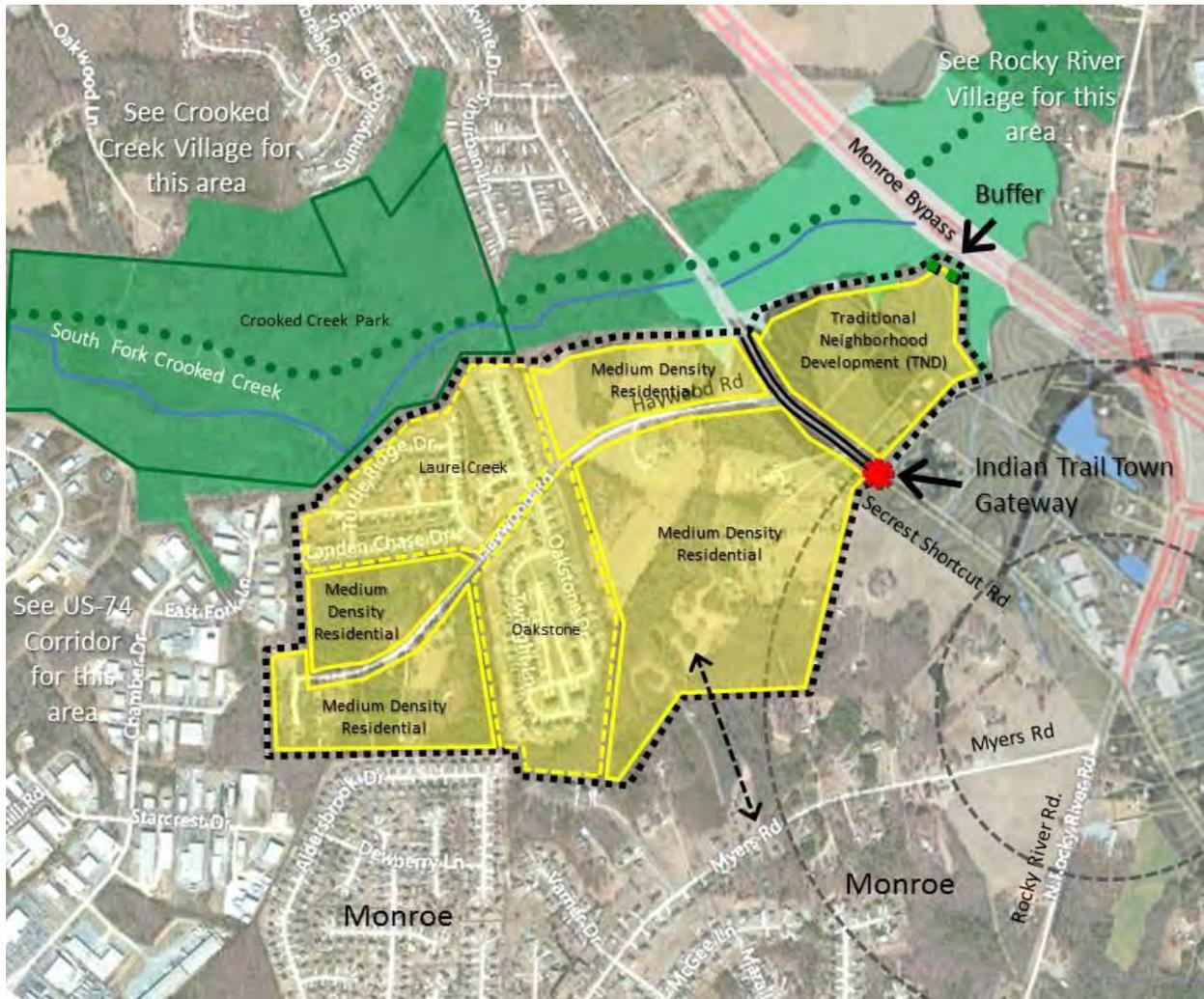


Fig. 5.1.60 Secret Village Urban Design

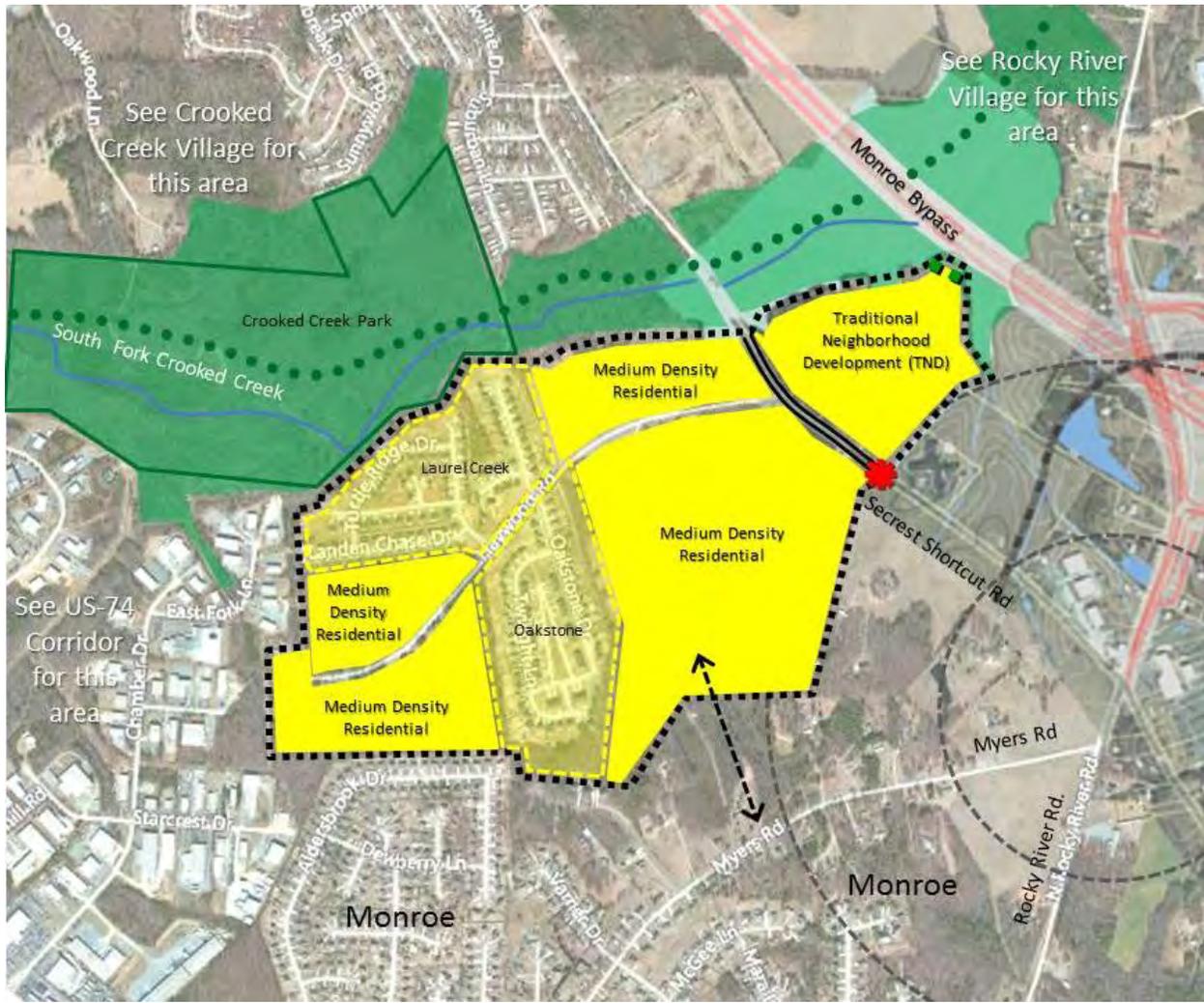


Fig. 5.1.61 Secrest Village Plan

5.1.13 Sun Valley Village Plan

Sun Valley is the largest of the Indian Trail Villages, characterized particularly by the Brandon Oaks subdivision, Union County's largest residential neighborhood and the Sun Valley schools campus, which is one of the oldest campuses in the Union County School District. It is served by Old Monroe Road and Wesley Chapel/Wesley Chapel-Stouts Roads. The CSX Railroad forms the northeastern boundary of the Village. The west side is bordered by Price Mill Creek, which separates it from Moore Farm Village. Old Monroe Village borders Sun Valley to the west along Old Monroe Road, and Rogers Village borders Sun Valley the southeast. The Village of Wesley Chapel forms the southern boundary of the Village.

The commercial center at Old Monroe Road and Wesley Chapel Road is becoming a Sub-regional Center which is planned to be the Town's Shopping and Entertainment District for shopping, dining and other activities. The sub-regional classification developed through the natural merger of the previously identified Sagecroft Village Center (in original Comprehensive Plan) with Sun Valley. The highlight attraction in Sun Valley is the Stone Movie Theater, which is the only theater in western Union County and anchors the Sun Valley Commons Shopping Center. This district needs a small area plan to be completed to further articulate the shopping and entertainment district concepts.

Land Use

Sun Valley Village is a Suburban Mix Village. The area southwest of Old Monroe Road is largely built out or committed as part of existing subdivisions. Sun Valley Sub-regional Center is anchored by the intersection of Old Monroe Road and Wesley Chapel-Stouts Road, and continues to develop. The Sun Valley school campus is located at the southeast corner of the Old Charlotte Highway/Wesley Chapel Road intersection, including Sun Valley High School, Sun Valley Middle School, Sun Valley Elementary School, and Shiloh Elementary School. Land to the northeast of Old Monroe Road/Old Charlotte Highway includes three smaller medium density subdivisions, one low density residential area and one industrial property, and part of the Sub-regional Center, but also includes the most undeveloped land in the Village.

In addition to the currently developing Sub-regional Center, Sagecroft Village has been approved for development along Old Monroe Road where the planned Faith Church Road Extension will cross. Sagecroft Village will include a commercial center and single family detached and attached residential development, as well as a future Town park. Because of the intensity of commercial development that will occur, all of the remaining vacant land along Old Monroe Road is designated as a Village Center Overlay. Three remaining small areas off Wesley Chapel Road are designated as medium density residential, for compatibility with the existing surrounding subdivisions.

Transportation

Old Monroe Road and Wesley Chapel-Stouts Roads should become 4 Lane Village Center Boulevards through Sun Valley Village. Wesley Chapel Road should become a 4 Lane Village Center Boulevard from the intersection with Old Monroe Road past Sun Valley Middle School, and a 4 Lane Boulevard from there to the Wesley Chapel Town Limits. The Faith Church Road extension should be built as a 4 Lane Boulevard. These typologies are based on the projected traffic volumes described in Chapter 3.7 Anticipated Roadway Travel Demand. These typologies all include bicycle lanes and pedestrian sidewalks. The Town of Indian Trail Park and Greenway Master Plan provides for a trail along the East Fork of Twelve Mile Creek from the Sun Valley school campus to the Meriwether/Brook Valley open

space area, and along Price Mill Creek on the western edge of Sun Valley Village. The trails will connect to the Union County Carolina Thread Trail. The Indian Trail Bicycle Master Plan and the Comprehensive Pedestrian Plan include provisions for a neighborhood bicycle and pedestrian loop through the Village.

Urban Design

There should be a Town of Indian Trail Gateway on Wesley Chapel Road and on the Faith Church Road Extension at the Wesley Chapel town limits. Village Identity Markers should be placed on Old Monroe Road where it joins Old Monroe Village and Rogers Village, and on Wesley Chapel-Stouts Road at the CSX Railroad line. A visual and noise buffer should be provided between the new Village Center Overlay and the CSX Railroad. Wesley Chapel-Stouts Road, which is an entrance to Indian Trail from the Monroe Bypass, should receive gateway streetscape treatments, with pedestrian scale lighting, banners, street trees, median plantings and street furnishings.

Village Capacity

Sun Valley Village has an estimated current population of approximately 9,500 people. The future land use plan provides for an additional capacity of approximately 2,000 people, for a total future capacity of approximately 12,000 people. Most of the future residential growth will be in the Village Center Overlay.

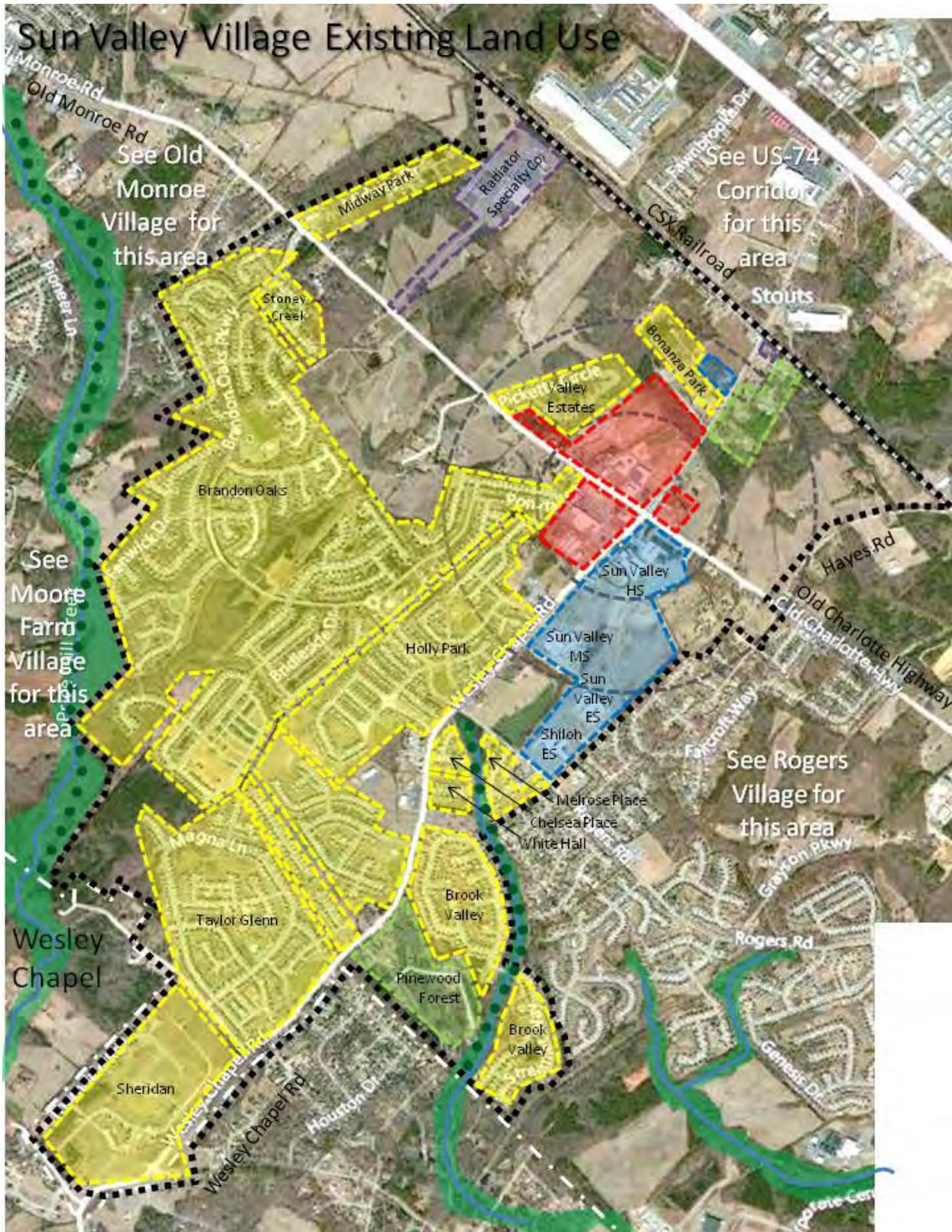


Fig. 5.1.62 Sun Valley Village Existing Land Use

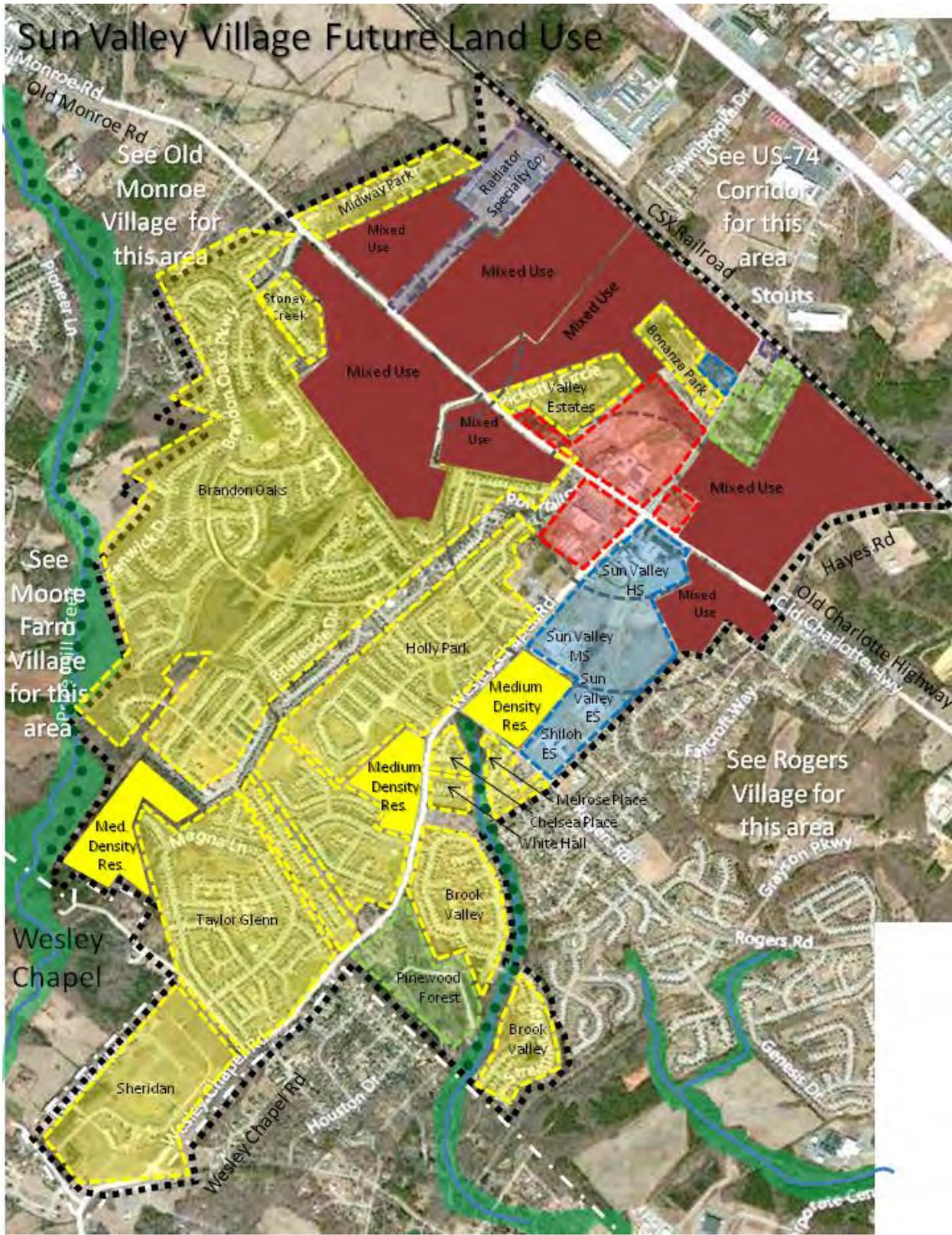


Fig. 5.1.63 Sun Valley Village Future Land Use

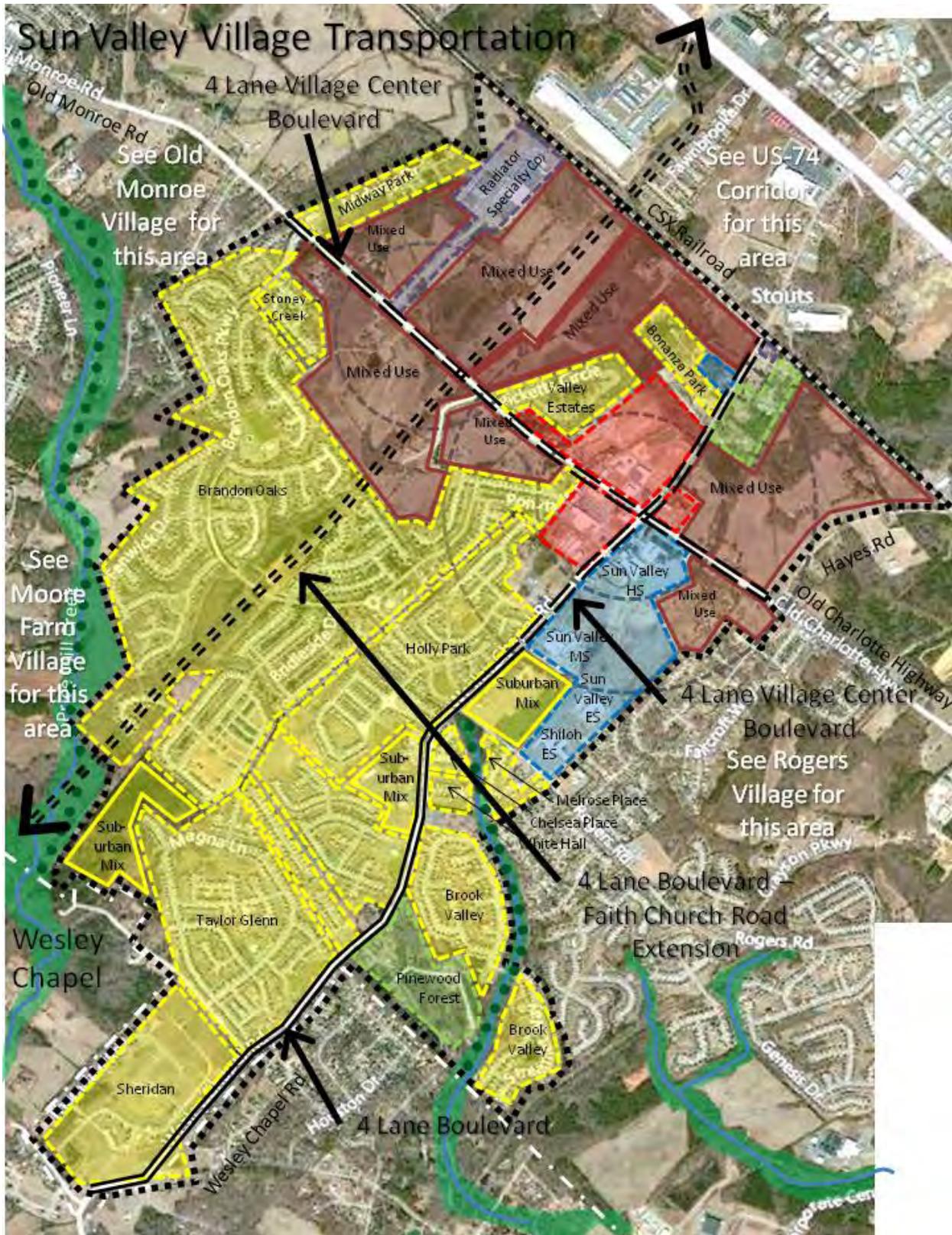


Fig. 5.1.64 Sun Valley Village Transportation

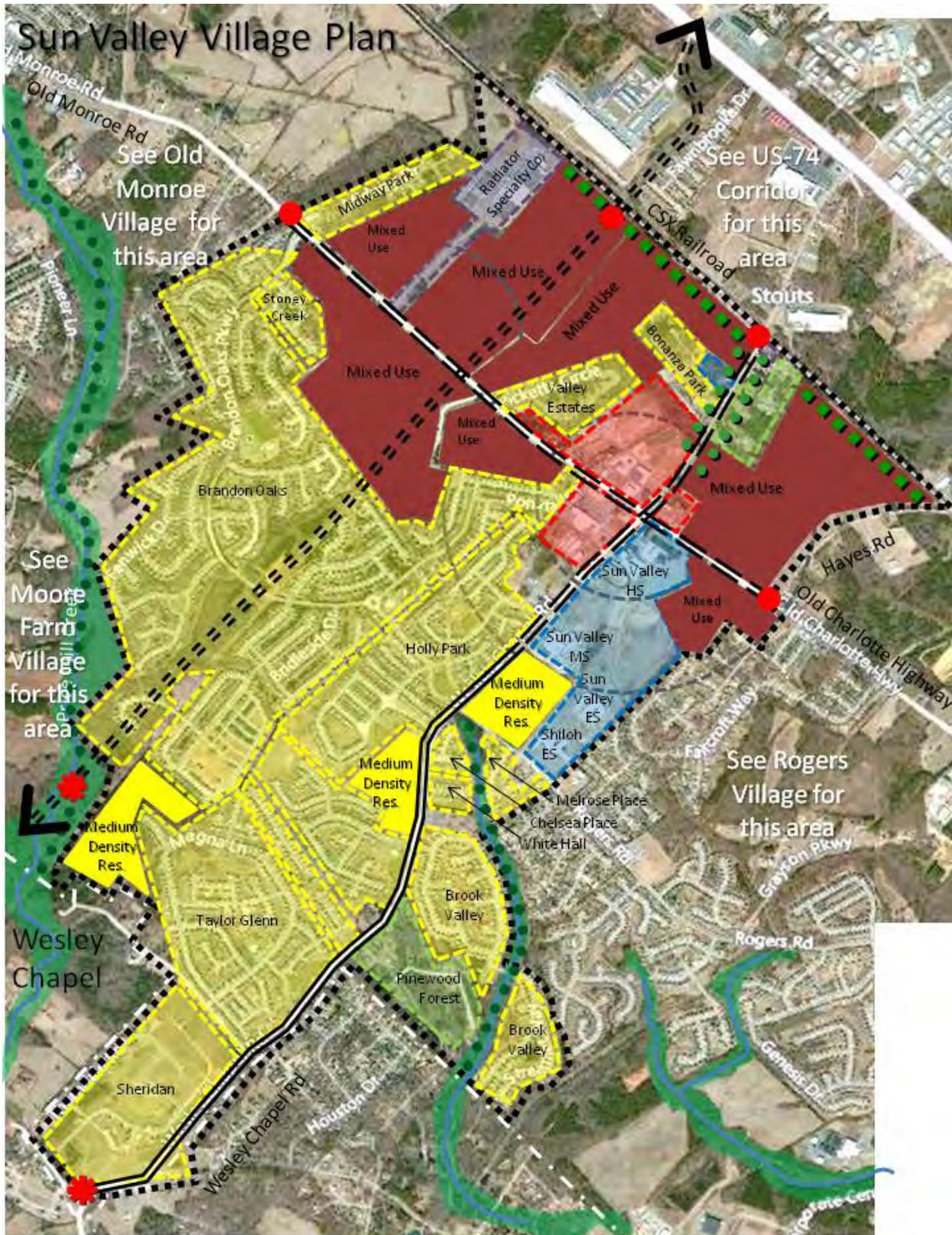


Fig. 5.1.66 Sun Valley Village Plan

5.2 CORRIDOR PLANS

There are two predominantly economic corridors in The Town of Indian Trail Comprehensive Plan: Old Hickory Corridor, and US-74 Corridor.

General planning principles for these corridors were provided in Chapter 3.2.6 US-74 Mixed Use Corridor and Chapter 3.2.7 Old Hickory Business Corridor. They both have been developed in more detail in the US-74 Corridor Revitalization Plan and the Town’s “Pathways to Progress” (P2P) Plan. The following descriptions of the two corridors have been derived from those plans. The legend below is used for the economic corridors and is the same legend used for the Village Plans.

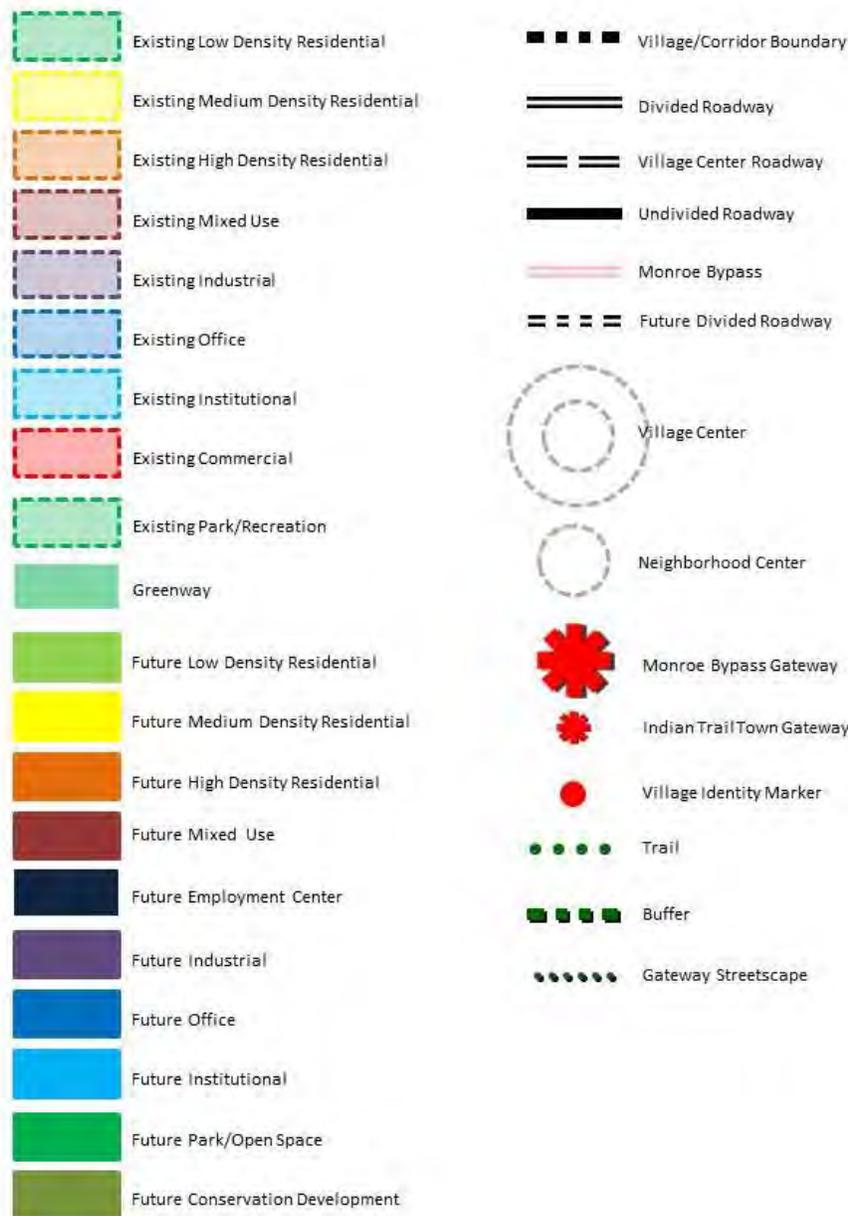


Fig. 5.2.1 Corridor Plan Legend

5.2.1 Old Hickory Corridor Plan

The Old Hickory Corridor is located along Indian Trail-Fairview Road, at the north edge of town adjacent to the Town of Stallings and bounded by the Town of Hemby Bridge to the east. There will be a new Monroe Bypass interchange at Indian Trail-Fairview Road, giving the Old Hickory Corridor excellent regional access from both US-74 and the Bypass. This will create an opportunity to further build upon the success of the Old Hickory Business Park by establishing a Regional Employment Center.

Land Use

The existing non-residential land use in the Old Hickory Corridor consists of the Old Hickory Business Park between Indian Trail-Fairview Road and the new alignment of the Monroe Bypass. There are also individual, small commercial businesses located along the frontage of Indian Trail-Fairview Road. Residential land uses generally consist of a medium density residential subdivision at Green Meadows, some scattered single family residential in the Rosemary Park subdivision and larger lot low density residential along Stinson-Hartis Road west of the new Monroe Bypass alignment.

The area along Stinson-Hartis Road west of the new Monroe Bypass alignment is planned as a Regional Employment Center to take advantage of the enhanced regional access that will be provided by the Bypass. Additional Regional Employment Center development is anticipated on the east side of Indian Trail-Fairview, between Green Meadows and First Baptist Church/Metrolina Christian Academy. Additional Suburban Mix residential development is provided for south of Green Meadows, and Rural Residential development south of Stinson-Hartis Road, which is reflective of the existing, low density residential development pattern in this area.

Transportation

There will be a new Monroe Bypass interchange connection to Indian Trail-Fairview Road. The Bypass construction will provide enlargement of Indian Trail-Fairview for approximately one-quarter mile south and north of the Interchange, and will have an overpass over Stinson-Hartis Road. Indian Trail-Fairview Road should become a 4 Lane Boulevard from the Bypass south. Chestnut Parkway, currently under construction west of US-74, is planned to continue to a connection with a new roundabout at Stinson-Hartis Road. A new roundabout may also be incorporated into the reconstructed intersection of Stinson-Hartis Road and Indian Trail-Fairview Road.

Urban Design

The Monroe Bypass interchange will create a significant gateway for Indian Trail. The Bypass has proposed a very high quality aesthetic design quality for its bridges and interchanges. This could be supplemented by the Town with landscaping and additional streetscape elements. Indian Trail-Fairview Road should receive a gateway streetscape treatment, with pedestrian scale lighting, banners, street trees, median plantings and street furnishings. A visual and noise buffer should be contemplated between the new Rural Residential development and the Monroe Bypass as part of future residential development.

Corridor Capacity

The Old Hickory Corridor has an estimated population of approximately 550 people. The future land use plan provides for an additional capacity of approximately 1,450 people, for a total future capacity of approximately 2,500 people.

The Old Hickory Corridor has an estimated current non-residential capacity of approximately 1.7 million square feet, which would support approximately 6,500 to 7,000 jobs. The future land use plan provides for an additional non-residential capacity of approximately 1.5 to 1.6 million square feet which would support approximately 6,000 to 6,500 additional jobs for a total future non-residential capacity of approximately 3.3 million square feet and approximately 13,000 jobs.

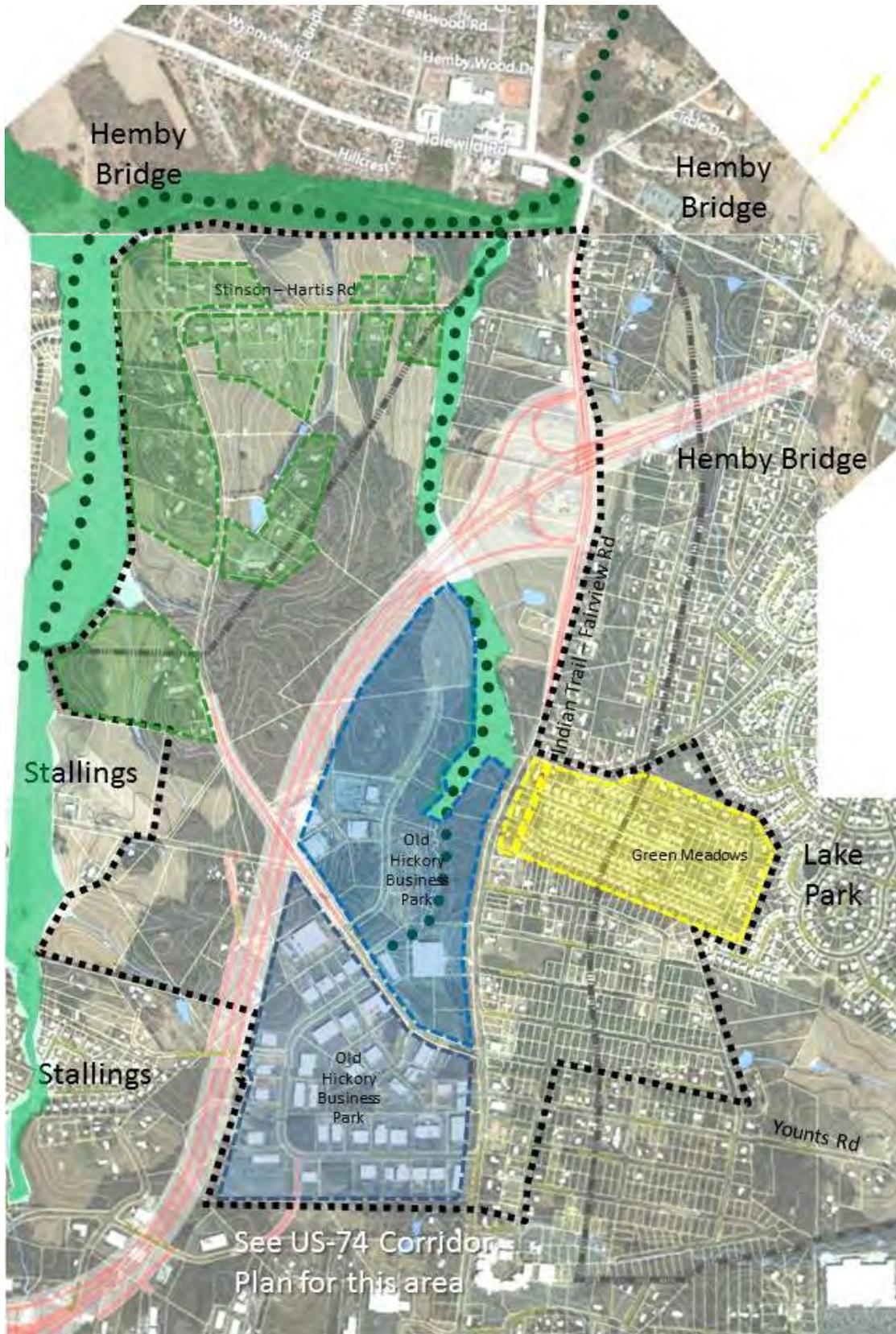


Fig. 5.2.2 Old Hickory Corridor Existing Land Use



Fig. 5.2.3 Old Hickory Corridor Future Land Use

Old Hickory Corridor Transportation

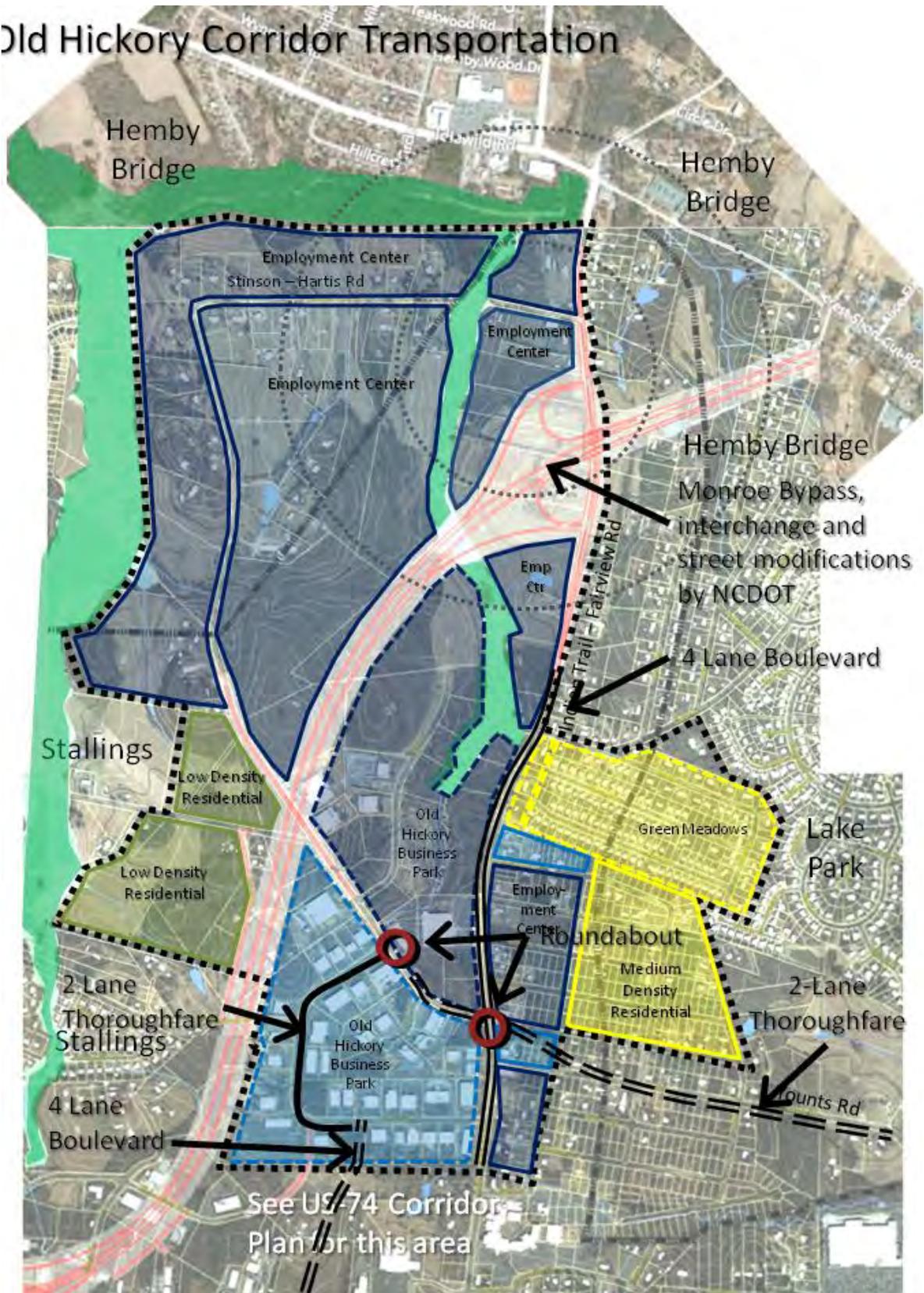


Fig. 5.2.4 Old Hickory Corridor Transportation

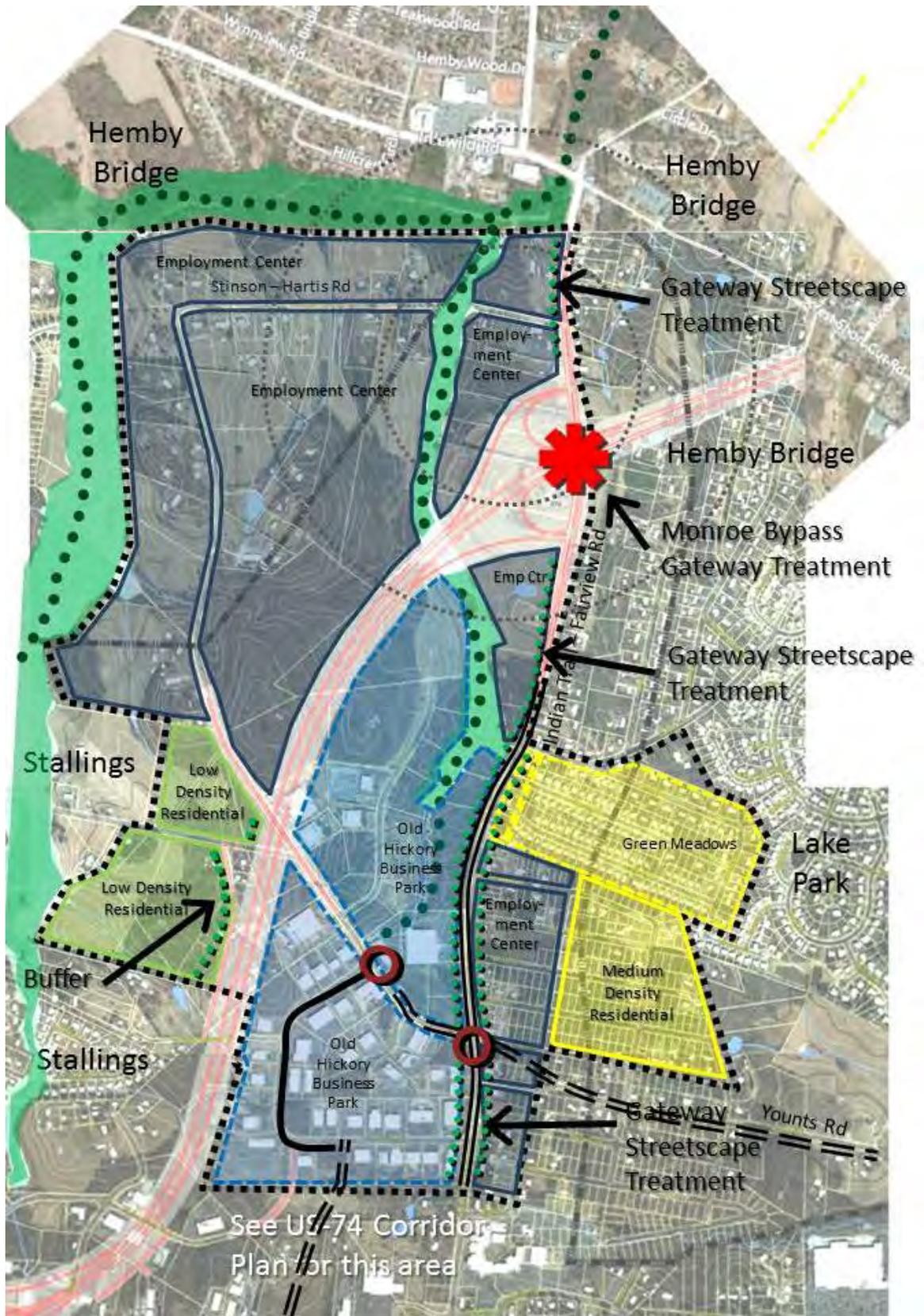


Fig. 5.2.5 Old Hickory Corridor Urban Design



Fig. 5.2.6 Old Hickory Corridor Plan

5.2.2 US-74 Corridor Plan

The US-74 corridor is the economic engine for many municipalities in Union County and for the County itself. It is a major intra-state route that connects North Carolina Mountains to its coast. And in doing so, it provides direct connection between one of the busiest ports in the southeastern United States - Wilmington - to one of the thriving metropolitan centers in the County - Charlotte.

It is also a gateway to three Union County municipalities and Union County itself, as well as a public space that many residents, visitors and business owners use during their daily commute. Until now the corridor has served multiple purposes for various users. It provides access to the beaches of Carolinas and connects the port and freight hubs within the region. It provides commuters an access to employment centers in neighboring Mecklenburg County. Lastly, it provides access for Union County residents to local goods and services. All of this has put severe burden on the roadway as it tries to satisfy multiple objectives of multiple users.

The imminent construction of the Monroe Bypass will bring a rare opportunity for the Town of Indian Trail, Union County, the City of Monroe, and the Town of Stallings. While the Monroe Bypass will address some of the issues of pass-through traffic on existing US-74, it will not address all of the issues that this important corridor currently faces. Even though much traffic will shift to the planned Bypass, many regional residents and business owners will continue to use the existing corridor for their daily use. Union County and the three municipalities undertook a US-74 Corridor Revitalization Study to address land use, market opportunities, aesthetics, and overall mobility of this corridor in a comprehensive fashion. The Corridor Revitalization Plan addresses land use and mobility as integrated concerns, with a vision for land uses that supports the surrounding communities rather than passing motorists, and solutions for more local, shorter trips than through trips. It includes aesthetic treatments within the corridor so that US-74 will become an asset to the communities it passes through.

The sections of the US-74 Corridor Revitalization Study dealing with Indian Trail have been incorporated into the Comprehensive Plan in this Chapter, described in the following three sub-sections: 3.2.11 US-74 West Corridor, 3.2.12 US-74 East Corridor, and 3.2.13 US-74 Far East Corridor, as shown in Fig. 3.4.6. The plan provides for a potential increase in population from the current approximately 3,000 residents to a capacity of as much as 5,500 people. Most significantly, it could increase the business capacity of the corridor to as many as 30,000 jobs, compared to the current number of jobs in the corridor of approximately 3,500.

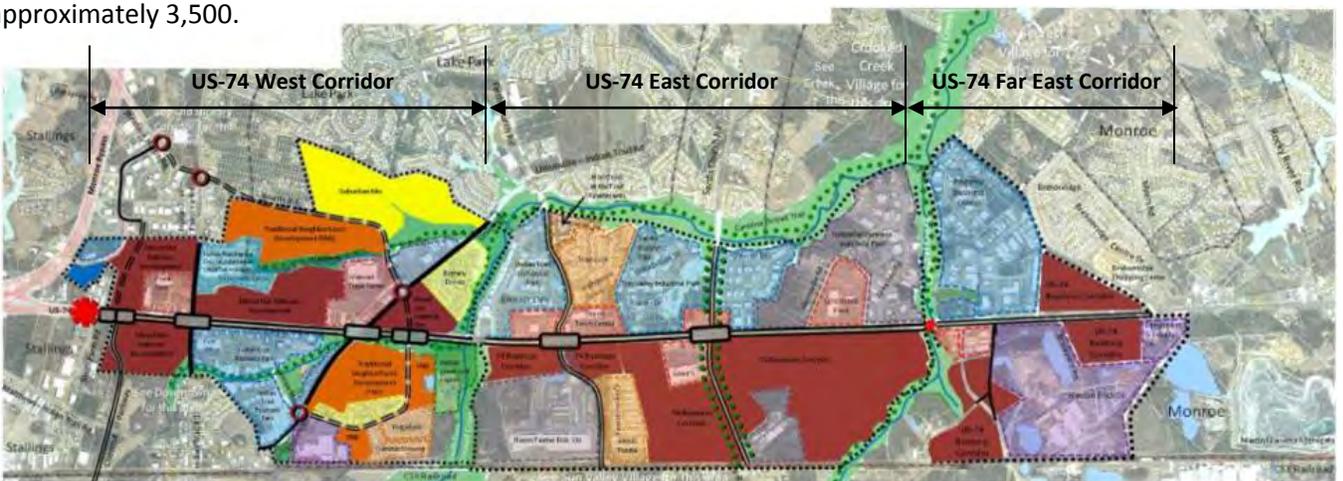


Fig. 5.2.7 US-74 Corridor in Indian Trail - Overall Land Use Plan

5.2.1.1 US-74 West Corridor Plan

US-74 West Land Use

This segment of the US-74 Corridor is currently suburban in character, but is anticipated to become more urban.

Smith Farm Road to Indian Trail Road Land Use

Current land use is predominantly retail along US-74 at Indian Trail Road with Business/Office along the west side of Smith Farm Road. There is some residential on the east side of US-74. Future development is anticipated to be mixed use walkable residential, retail and office development, along with office/employment uses with supporting retail. This is expected to become a Sub-regional Center type of development. Land uses will be oriented toward local streets, including Chestnut Parkway and the potential extension of Chestnut Parkway to Indian Trail-Fairview Road.

Indian Trail Road to Crooked Creek Land Use

Existing land use is currently retail along US-74 with Institutional and Business/Office along Unionville-Indian Trail Road and Indian Trail-Fairview Road. There is single family residential along Plyler Road. Pebble Creek Golf Course borders the eastern edge of this segment

In the future, Sub-regional Center development is anticipated near the Indian Trail Road and Unionville-Indian Trail Road intersections, including traditional neighborhood development with high density residential, retail, business/employment and greenway connectivity along the South Fork of Crooked Creek. The Carolina Thread Trail will connect Crooked Creek to a new park on Chestnut Parkway.

US-74 West Transportation

Stallings to Indian Trail Road Transportation

The portion of US-74 in Indian Trail from Stallings to Indian Trail Road will be rebuilt as part of the Monroe Bypass project as a divided arterial with three westbound and two eastbound lanes.

No intersection is planned as part of the Monroe Bypass project for the new Chestnut Parkway. The first phase of three phases of Chestnut Parkway is currently under construction. NCDOT is considering the conversion of the US-74/Indian Trail Road intersection into a superstreet intersection, along with the Unionville-Indian Trail Road, Faith Church Road and Wesley Chapel-Stouts/Sardis Church Road intersections.

The new intersection of Chestnut Parkway with US-74 is preferred to be constructed as a Michigan Left intersection in coordination with the Indian Trail Road superstreet as shown in Figure 5.2.8, and to provide for through traffic to pass directly across US-74 through a coordinated traffic signal. This connection is important for supporting the revitalization of the district bounded by Chestnut Parkway, Stinson-Hartis Road, Younts Road and Matthews-Indian Trail Road, as shown in Figure 5.2.9.



Fig. 5.2.8 Coordinated Superstreet and Michigan Left intersections at Chestnut Parkway and Indian Trail Road

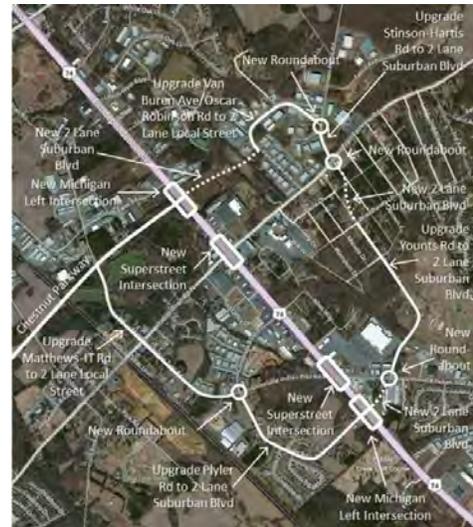


Fig. 5.2.9 Future district revitalization area bounded by Chestnut Parkway, Stinson Hartis Road, Younts Road and Matthews-Indian Trail Road

Left turn only median breaks should be provided for access into the shopping center at the northeast corner of Indian Trail-Fairview Road and US-74, and those should also provide access into the potential development property adjacent to the planned Chestnut Parkway.

The three existing driveways on the east side of the road should be closed and the parking lots be consolidated. There is also enough right-of-way to continue the provision of sidewalks consistent with the 6 Lane Boulevard typology (parts of which already exist).

Indian Trail Road to Crooked Creek Transportation

US-74 in this section, which is projected to have 60,000 Average Annual Daily Traffic by 2035, is to become a 6 Lane Boulevard typology. The Town of Indian Trail has been implementing the sidewalks for this typology as new development occurs.

The Indian Trail Road, Unionville-Indian Trail Road, Faith Church Road and Wesley Chapel-Stouts/Sardis Church Road intersections with US-74 are currently being considered by NCDOT for conversion to superstreet intersections.

The intersection of Plyler Road and US-74 has the potential to complete the Chestnut Parkway/Stinson-Hartis Road/Younts Road/Matthews-Indian Trail Road loop, which would help to stimulate redevelopment of this district in keeping with the Town's Economic Development Plan. The Unionville-Indian Trail Road superstreet intersection should be designed to allow for a future direct connection across US-74 from Plyler Road to a new link with Younts Road, as shown in Figure 5.2.9. Figure 5.2.10 suggests one way this might be accomplished.



Fig. 5.2.10 Coordinated Superstreet and Michigan Left intersections at Unionville-Indian Trail Road and Plyler Road

The Corporate Boulevard intersection with US-74 would remain as an unsignalized intersection.

Between Indian Trail Road and Unionville-Indian Trail Road driveways between Indian Trail Road and Corporate Boulevard should be consolidated to minimize curb cuts along US-74. An alternate access street – Post Office Street - already exists for additional access to these properties. Potential for a parallel street exists on the east side, linking Indian Trail Fairview Road to the Wal-Mart shopping center. Anticipated future redevelopment of the properties on the east side of US-74 will provide the opportunity to eliminate the existing driveways.

US-74 West Urban Design

Smith Farm Road to Indian Trail Road Urban Design

Street trees, lighting, wayfinding signage and street furnishings on US-74 will create a boulevard road typology. Ornamental trees and ground cover in the median near intersections will help reinforce the Indian Trail identity. A gateway element at Chestnut Parkway/US-74 and Indian Trail-Fairview Road/Monroe Bypass Connector will create a sense of arrival into Indian Trail, and can celebrate the history of the Town and its family-oriented lifestyle. The new intersection of Chestnut Parkway with US-74 will be a community gateway for both Stallings and Indian Trail. Each community should have a distinct identity at this gateway, but the designs should be carefully coordinated.

Indian Trail Road to Crooked Creek Urban Design

Pedestrian lighting with banners at Indian Trail Road and the future Chestnut Parkway intersections will emphasize corridor aesthetics. Ornamental landscaping at Indian Trail Road and Chestnut Parkway intersection with street trees will also reinforce the corridor aesthetic. There should be wayfinding signage for destinations, such as Chestnut Square at Indian Trail, downtown Indian Trail, and other significant Indian Trail destinations. Building form and orientation should be toward the street to create pedestrian friendly environment with parking behind the buildings.

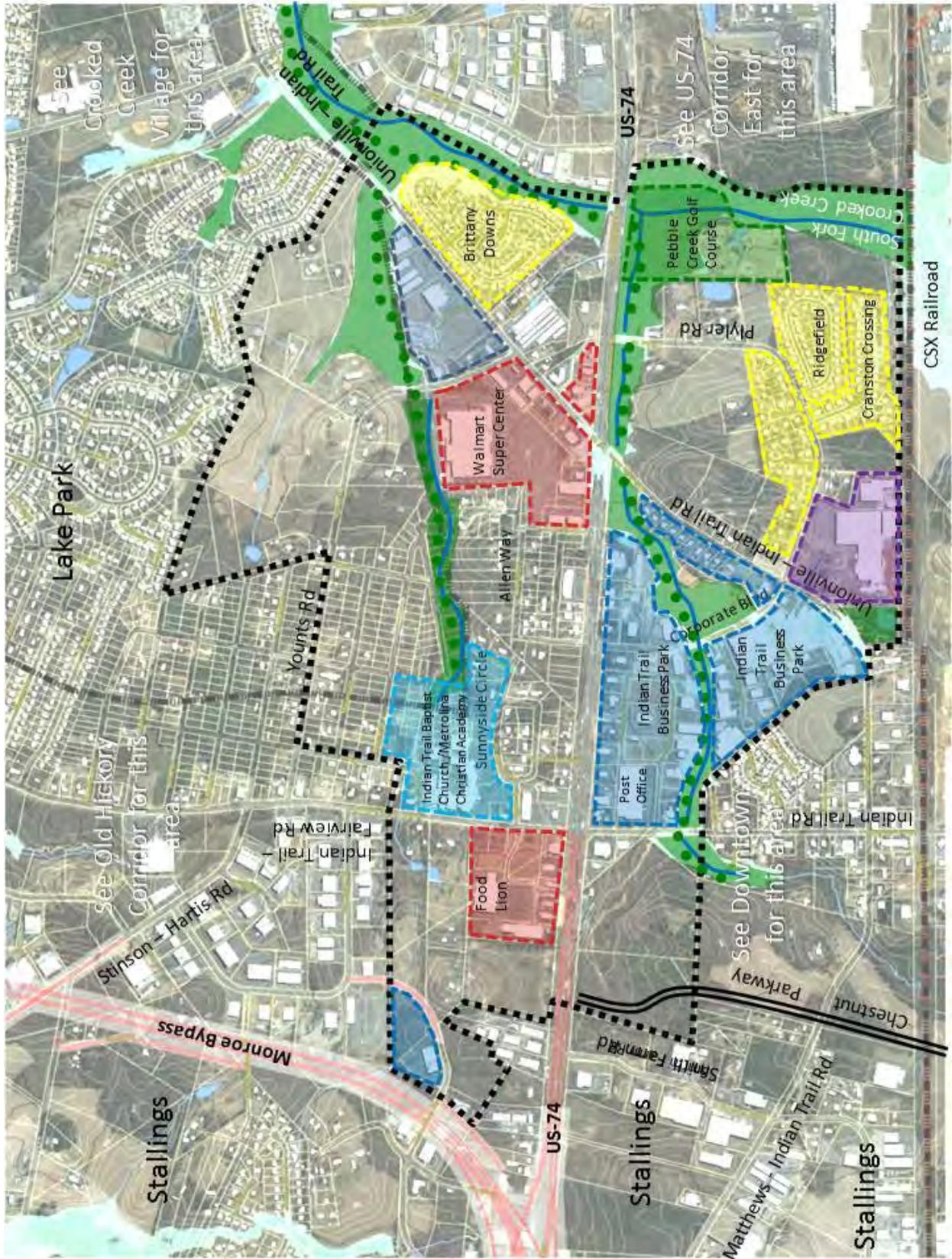


Fig. 5.2.11 US-74 Corridor West Existing Land Use

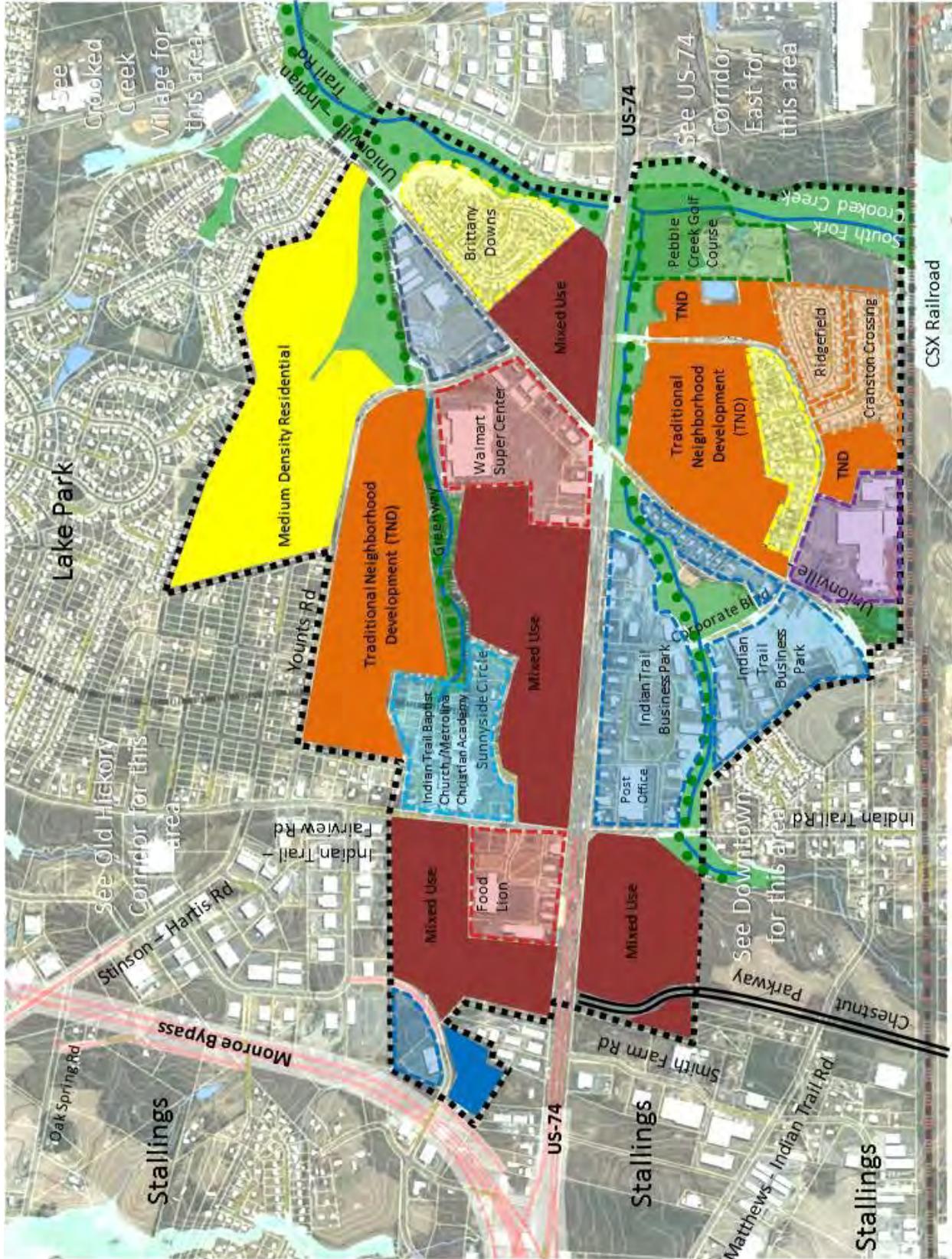


Fig. 5.2.12 US-74 Corridor West Future Land Use

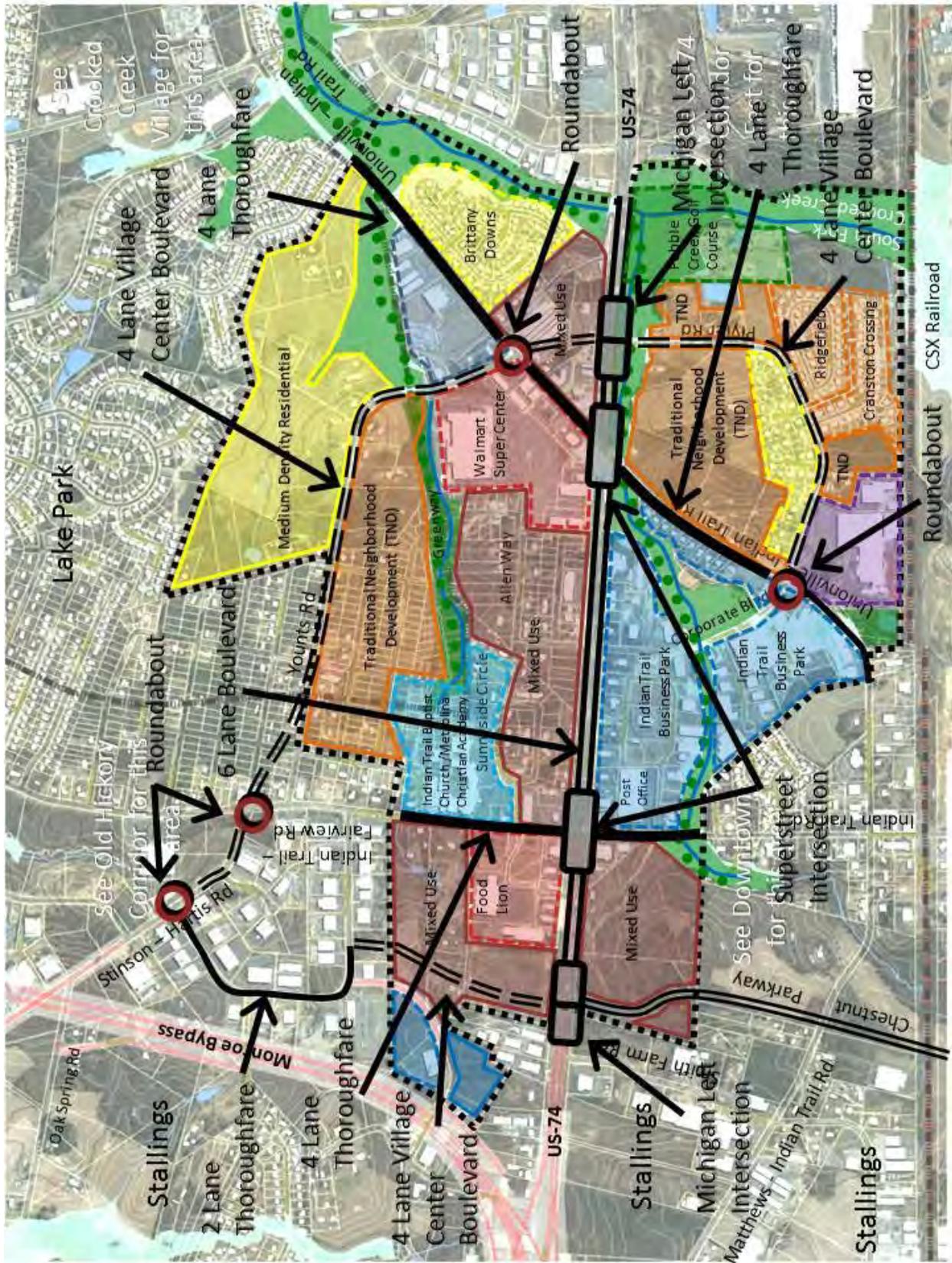


Fig. 5.2.13 US-74 Corridor West Transportation

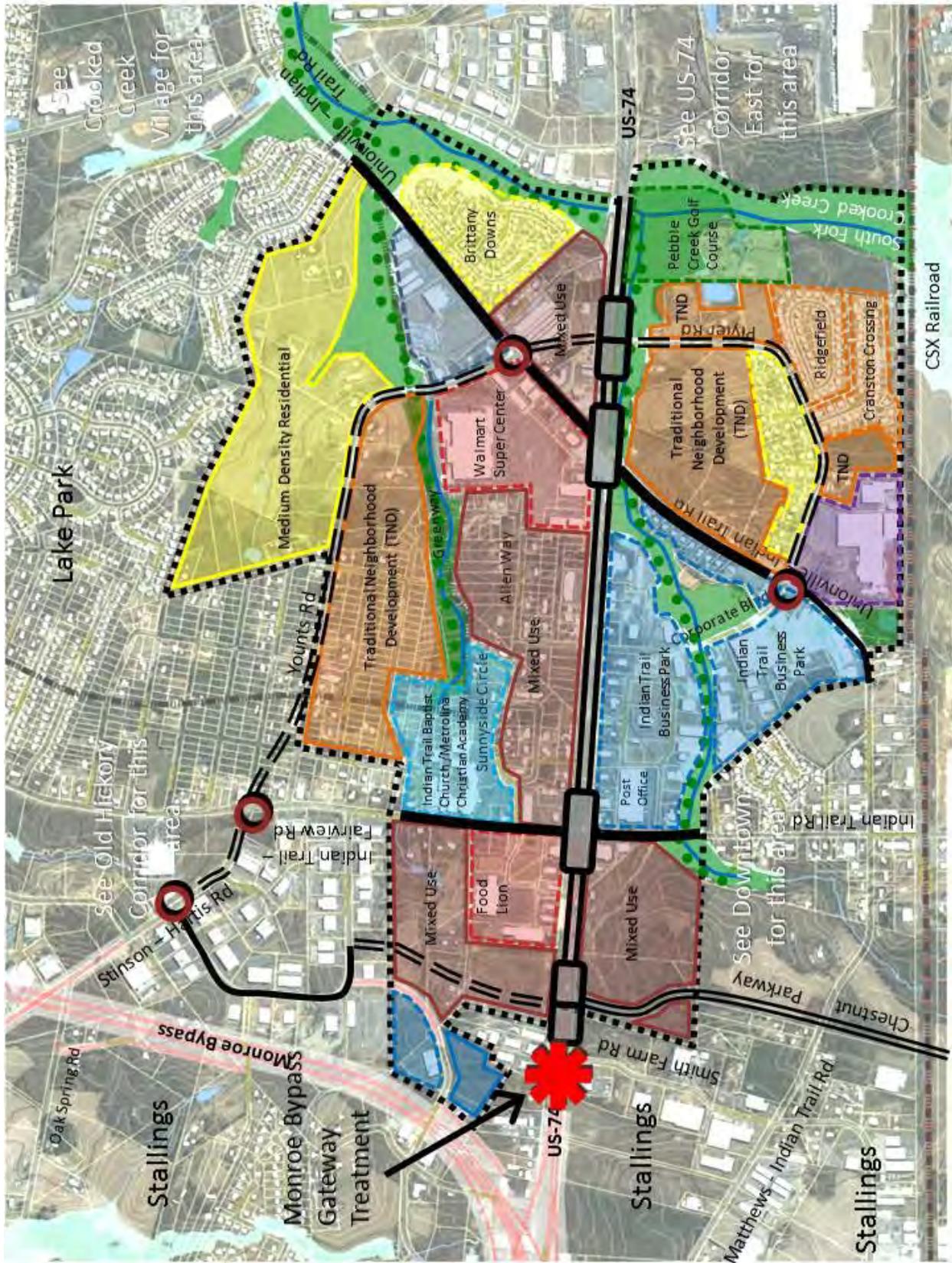


Fig. 5.2.14 US-74 Corridor West Urban Design

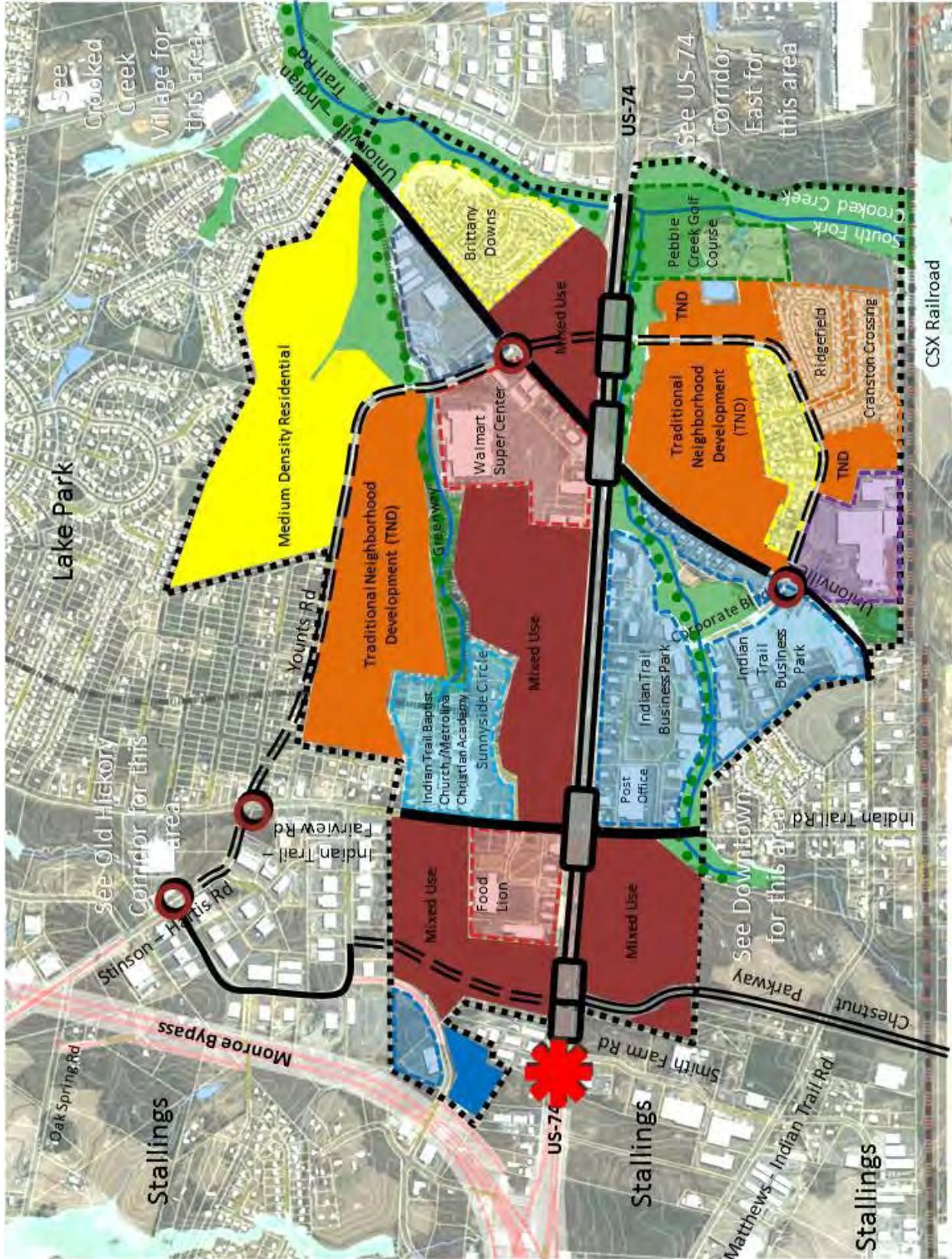


Fig. 5.2.15 US-74 Corridor West Corridor Plan

5.2.1.2 US-74 East Corridor Plan

US-74 East Land Use

Crooked Creek to Wesley Chapel-Stouts Road Land Use

The current setting character is suburban/ industrial. Future mixed-use development on the west side of US-74 will change this setting to more suburban.

The current land use in this segment is Commercial/Retail, Business Park, Industrial and Single Family Residential. Future land use will include Mixed Use, Business/Employment, and greenway Recreation along US-74.

Wesley Chapel-Stouts Road to Laurel Creek Land Use

The current setting is industrial. Future mixed use development on the west side of US-74 will change the setting to suburban.

Current land use is Industrial and Business/Employment on the east side of US-74 and vacant on the west side. Future land use will remain Industrial and Business/Employment on the east side, with potential for substantial mixed use development on the west side of US-74.

US-74 East Transportation

Crooked Creek to Laurel Creek Transportation

This section, which is anticipated to have 41,500 AADT by 2035, should become a 6 Lane Boulevard. The Town has been implementing the sidewalks for this typology as new development occurs.

The Faith Church Road and Wesley Chapel-Stouts/Sardis Church Road intersections with US-74, along with Indian Trail Road and Unionville-Indian Trail Road, are currently being considered by NCDOT for conversion to superstreet intersections.

The Sun Valley Place road that provides access to the Sun Valley Industrial Park will remain as a right-in/right-out intersection. There is an existing unsignalized intersection at Gray Fox Road that will remain. There is an existing “T” intersection at Helmsville Road that will eventually become a new signalized intersection when the land on the west side of US-74 eventually develops as an anticipated mixed use development. The existing left turn median break at Dale Jarrett Boulevard will remain.

Between Crooked Creek and Faith Church Road, there will be a left turn access median break for access to the Indian Trail Industrial Park and a future mixed use development on the west side of US-74. This development and the Harris Teeter Distribution Center will have access from the planned Faith Church Road extension. Access to the office park at the northeast corner of US-74 and Faith Church Road will remain right-in/right-out only. This development also has access from Faith Church Road.

Between Faith Church Road and Wesley Chapel-Stouts/Sardis Church Road, the existing Union Town Center access will remain right-in/right-out only from US-74. This development also has access from Faith Church Road. Southern Market Place currently has three right-in/right-out driveways. This

property is anticipated to eventually redevelop, at which time the driveways should be consolidated into a single access point. The Lowes store has existing right-in/right-out access that will remain, and the gas station/convenience store has two driveways that will remain. Both of these have access from Wesley Chapel-Stouts Road, and have interconnecting drives. A number of small properties on the east side of US-74 have individual driveways. These are anticipated to eventually redevelop, possibly as part of Sun Valley Industrial Park, at which time the access points should be limited to one or two right-in/right-out drives as well as connections to Sun Valley Place. The west side of US-74 in this section is anticipated to develop as a mixed use development. Access should be planned in conjunction with that development when it occurs to minimize conflicts with US-74 traffic.

On the east side of US-74, development is relatively new and has been developed with right-in/right-out driveways which will remain. The vacant property at the northeast corner of US-74 and Helmsville Road is anticipated to eventually develop as industrial or business property, possibly in conjunction with the Indian Trail Industrial Park. When that occurs, access directly onto US-74 should be minimized, with more access provided from Gray Fox Road. The Crossroads Ford and Kia dealerships have relatively new right-in/right-out driveways as well as access from Dale Jarrett Boulevard and Helmsville Road. These will remain. Three smaller car dealerships and repair shops east of Helmsville Road currently have two separate right-in/right-out driveways. Consolidation of these drives and access from Helmsville Road would be desirable.

US-74 East Urban Design

Crooked Creek to Wesley Chapel-Stouts Road Urban Design

Pedestrian lighting with banners at Unionville-Indian Trail Road, ornamental landscaping at Unionville-Indian Trail Road and Wesley Chapel-Stouts Road intersections and street trees along US-74 will reinforce the linear corridor aesthetic. There should be wayfinding directional signage for destinations such as the movie theatre, Sun Valley High School, etc. Building form and orientation for future mixed use development on the west side of US-74 should be toward the street to create pedestrian friendly environment with parking behind the buildings.

Wesley Chapel-Stouts Road to Laurel Creek Urban Design

Pedestrian lighting with banners at Unionville-Indian Trail Road, ornamental landscaping at Unionville-Indian Trail Road and Wesley Chapel-Stouts Road intersections and street trees along US-74 will reinforce the linear corridor aesthetic. Building form and orientation for future mixed use development on the west side of US-74 should be toward the street to create pedestrian friendly environment with parking behind the buildings. Laurel Creek's greenway open space offers an excellent location for an Indian Trail community gateway, enhancing the greenway with monumentation and identity signage. Since this will also be a community gateway for Monroe, each community should have a distinct identity at this gateway, but the designs should be carefully coordinated.

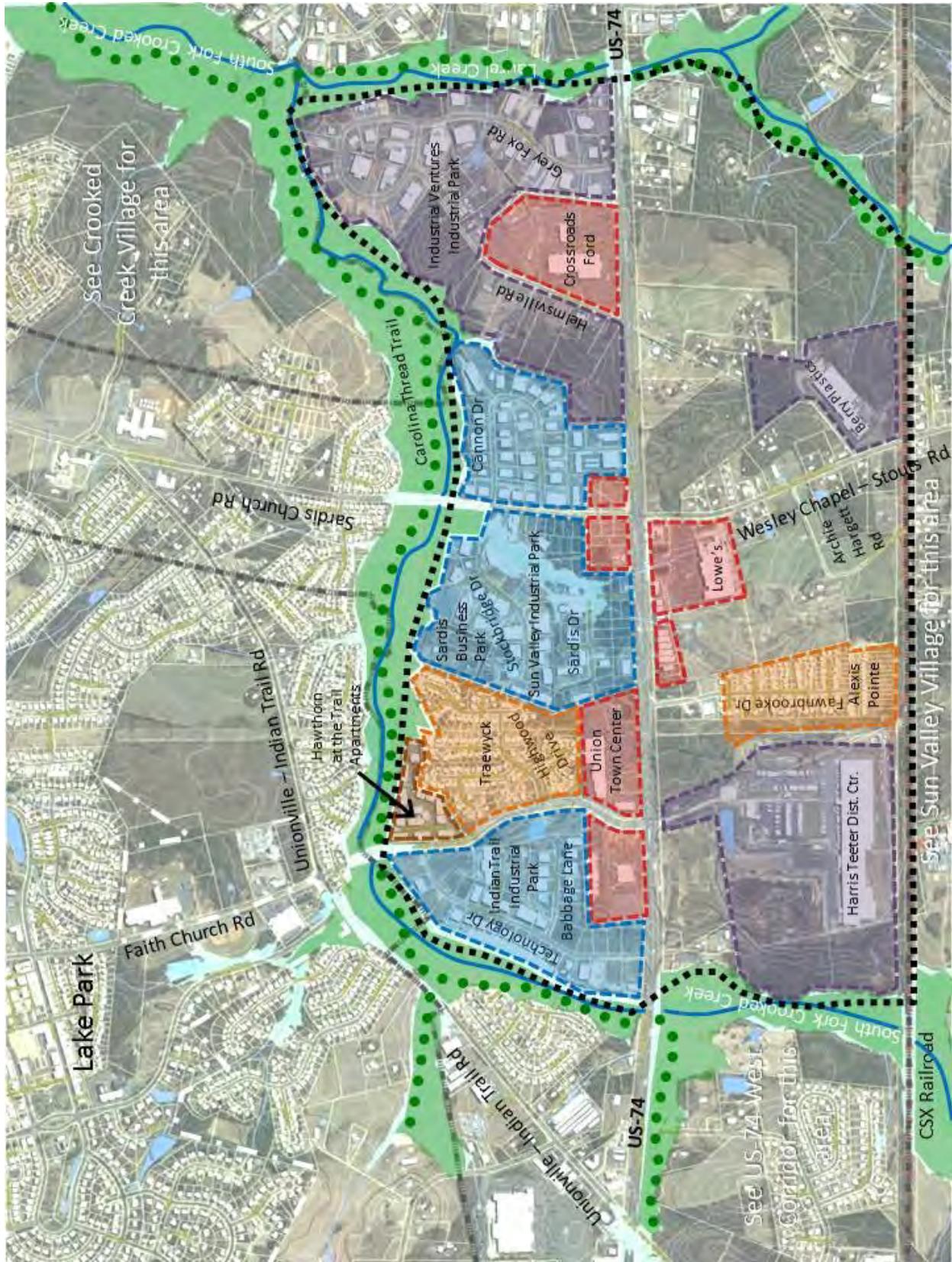


Fig. 5.2.16 US-74 Corridor East Existing Land Use

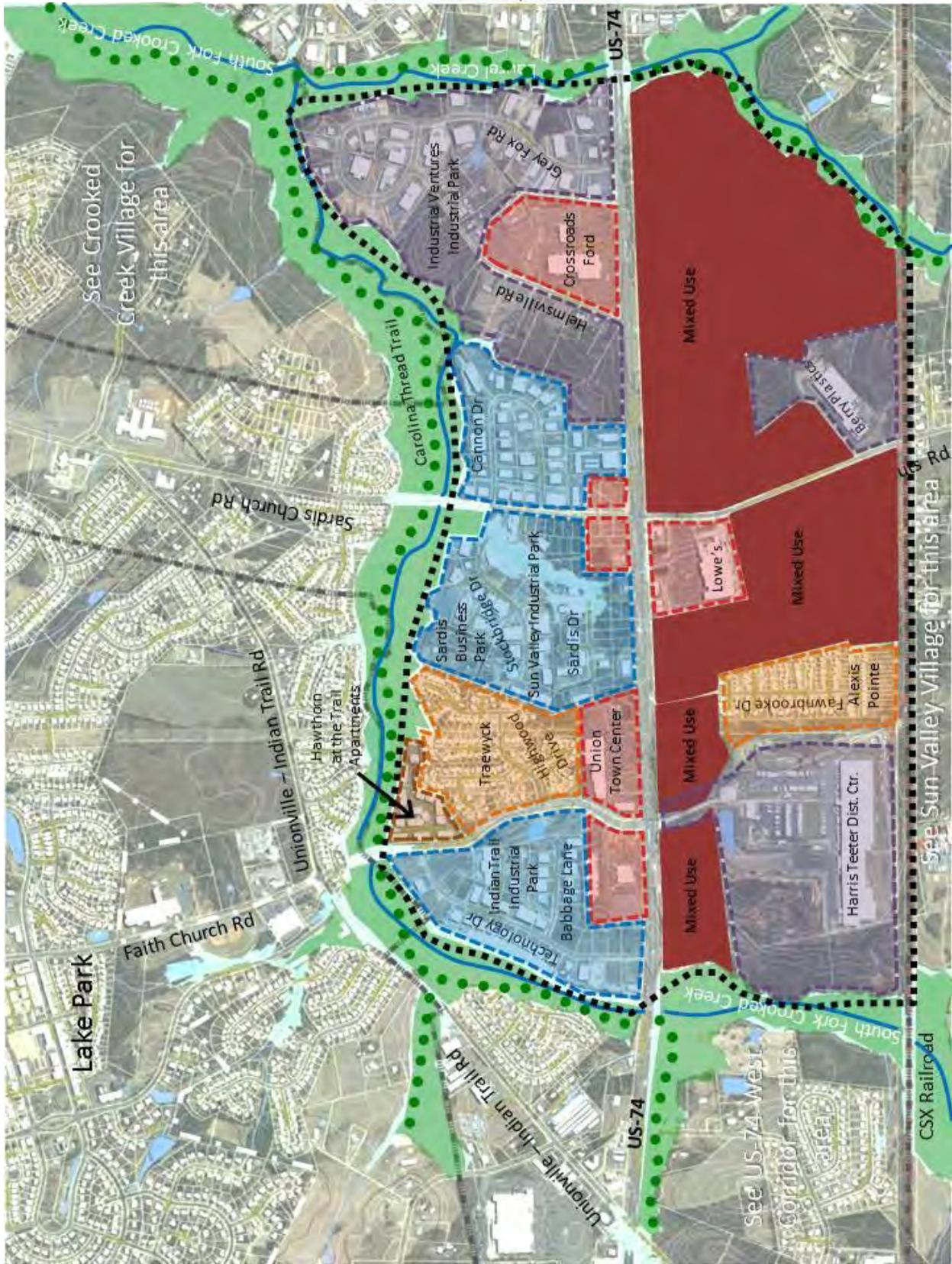


Fig. 5.2.17 US-74 Corridor East Future Land Use

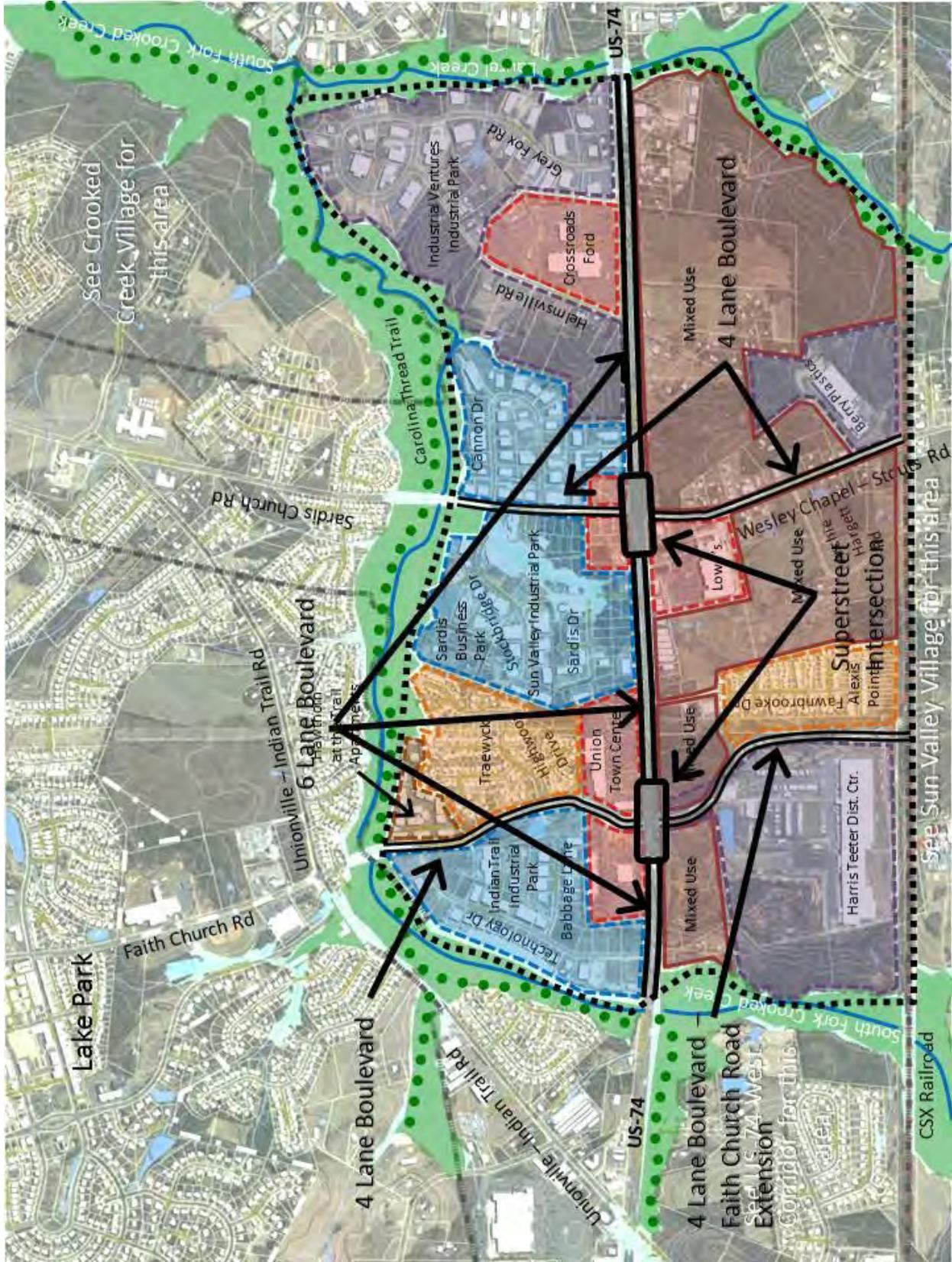


Fig. 5.2.18 US-74 Corridor East Transportation

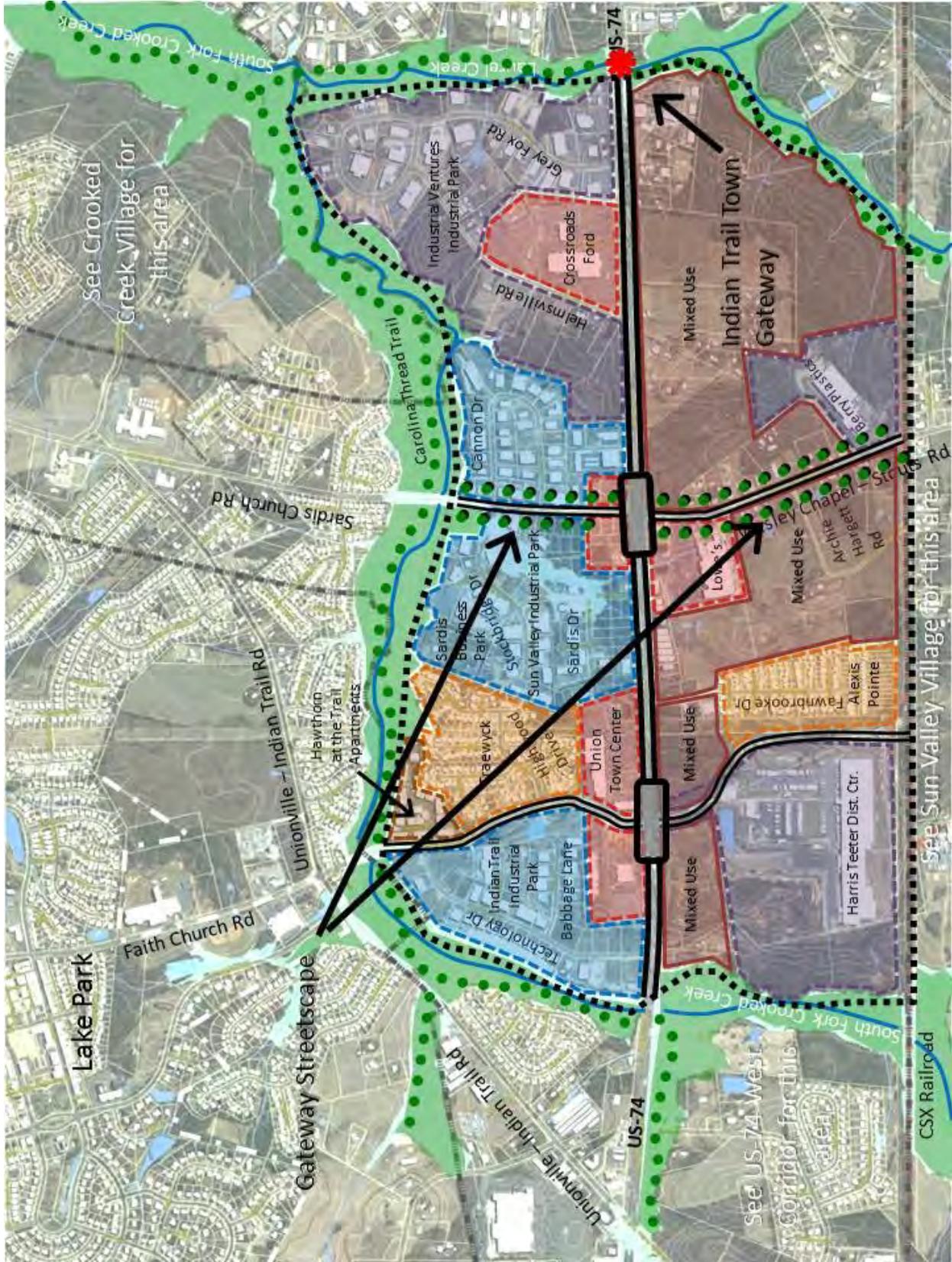


Fig. 5.2.19 US-74 Corridor East Urban Design

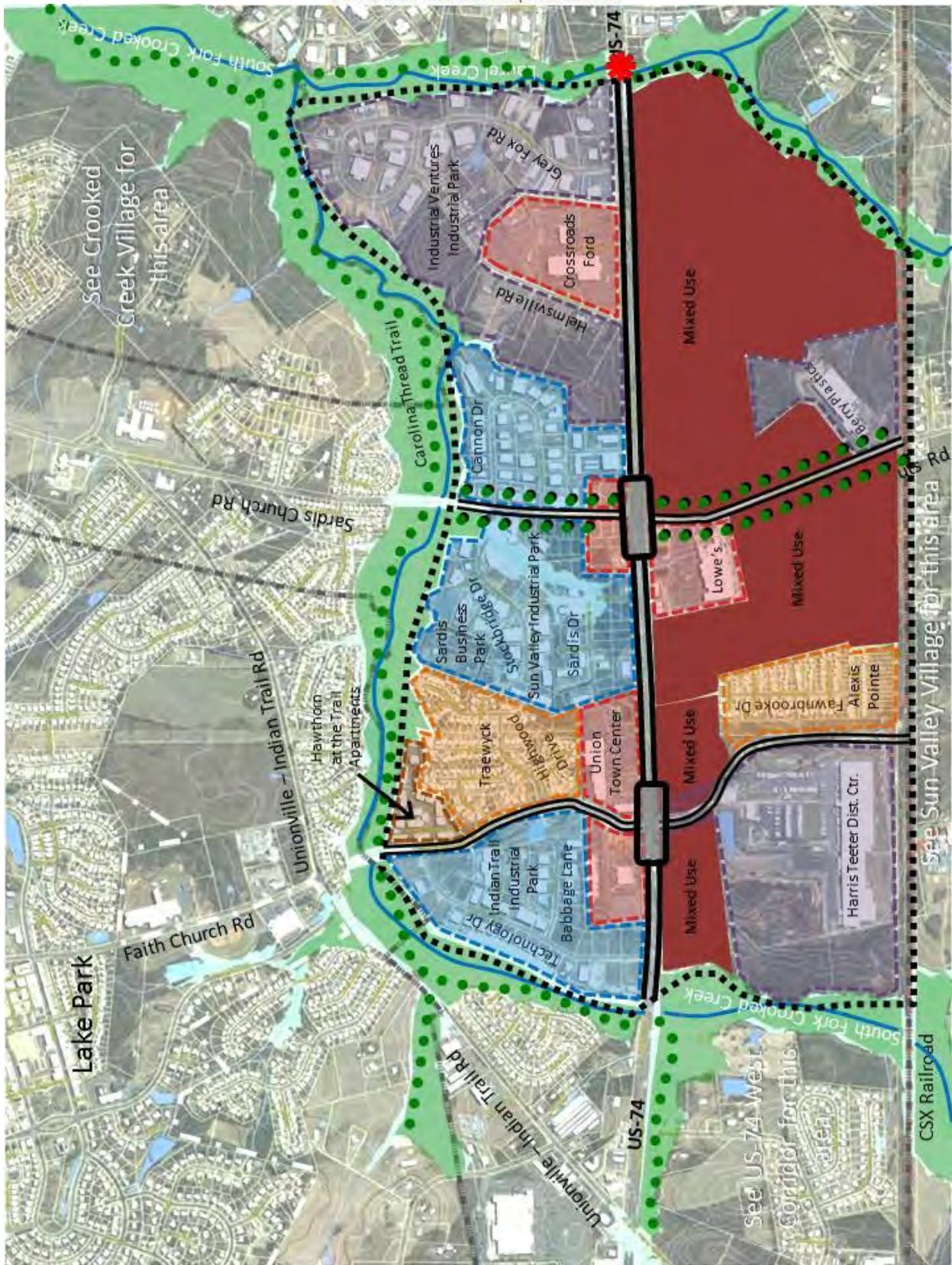


Fig. 5.2.20 US-74 Corridor East Corridor Plan

5.2.1.3 US-74 Far East Corridor Plan

US-74 Far East Land Use

The current setting is predominantly industrial.

Current land use is predominantly business and industrial. The future land use will remain business/employment and industrial, with new development being US-74 Mixed Use Corridor. Development along Hayes Road will be mining. .

US-74 Far East Transportation

This section, which is anticipated to have 41,500 AADT by 2035, should evolve into a 4 Lane Boulevard.

Hayes Road on the west side of US-74 should be realigned to connect to an existing signalized intersection at Chambers Drive. The existing Hayes Road intersection at US-74 would become right-in/right-out only.

There is an existing unsignalized median break with left turn lanes at Brickyard Road. This break would remain and provide access to anticipated new business park development on the east side of US-74, but is proposed to become a left turn only median break intersection.

A new signalized intersection is anticipated at Brekonridge Centre Drive.

Properties along Executive Point Drive are accessed by the right-in/right-out street onto US-74, and that will remain the same. The Better Dog Kennel & Boarding property should be accessed by a single existing right-in/right-out drive and two additional driveways should be eliminated. Two smaller properties to the east of Executive Point Drive should eventually be replaced by a new business park development, which should have planned access as part of its development.

On the west side of US-74, the businesses across from Brekonridge Centre Drive should all be accessed by the proposed new signalized intersection at Brekonridge Centre Drive, and the existing median break with left turn lanes should be replaced. The properties adjacent to Hayes Road currently have consolidated driveways, and they should be accessed from Hayes Road only, with the two existing driveways onto US-74 being closed.

US-74 Far East Urban Design

Laurel Creek's greenway open space offers an excellent location for an Indian Trail community gateway, enhancing the greenway with monumentation and identity signage. Since this will also be a community gateway for Monroe, each community should have a distinct identity at this gateway, but the designs should be carefully coordinated. A Corridor landscape enhancement with street trees along US-74 will create a boulevard road typology.

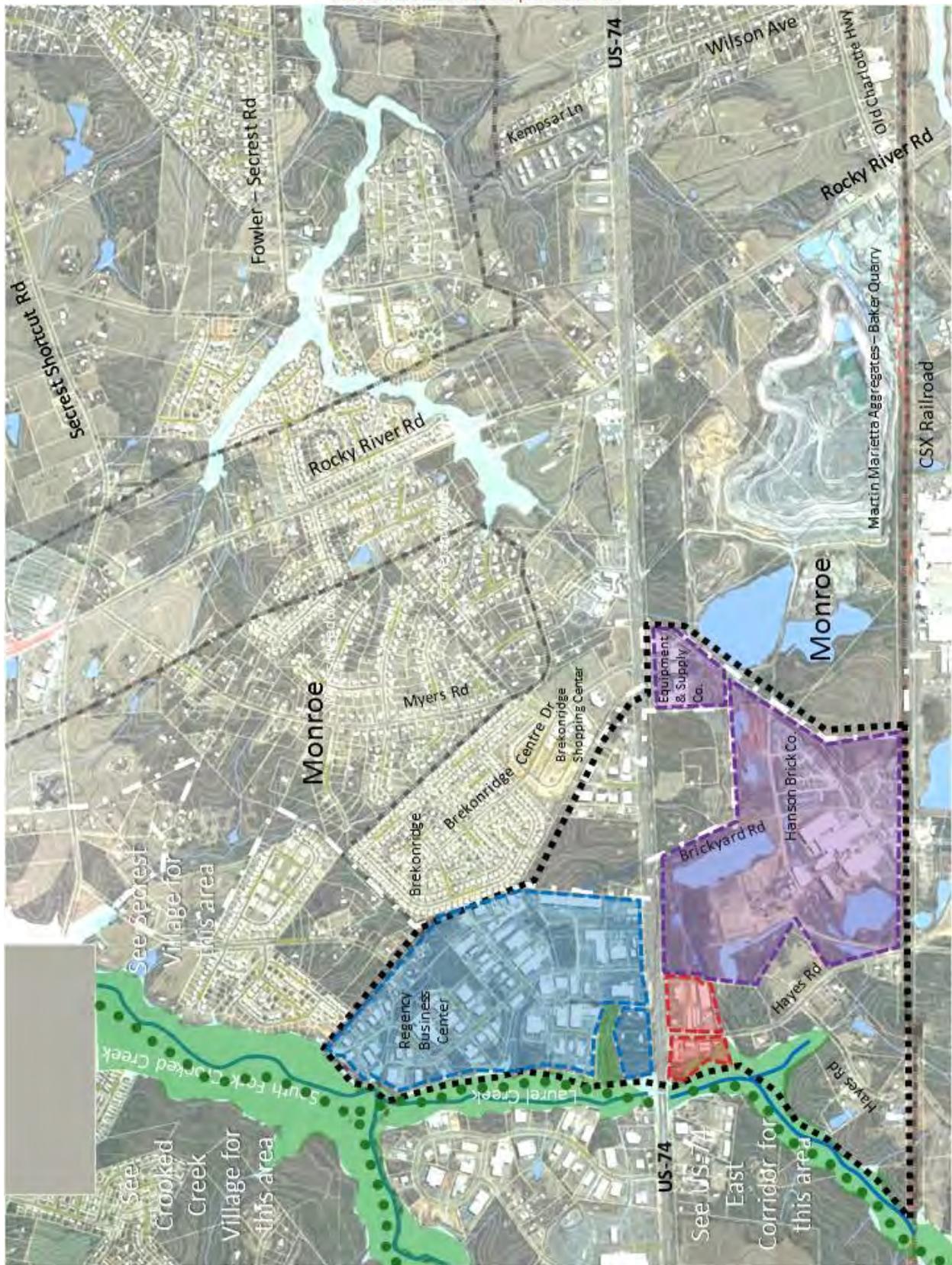


Fig. 5.2.21 US-74 Corridor Far East Existing Land Use

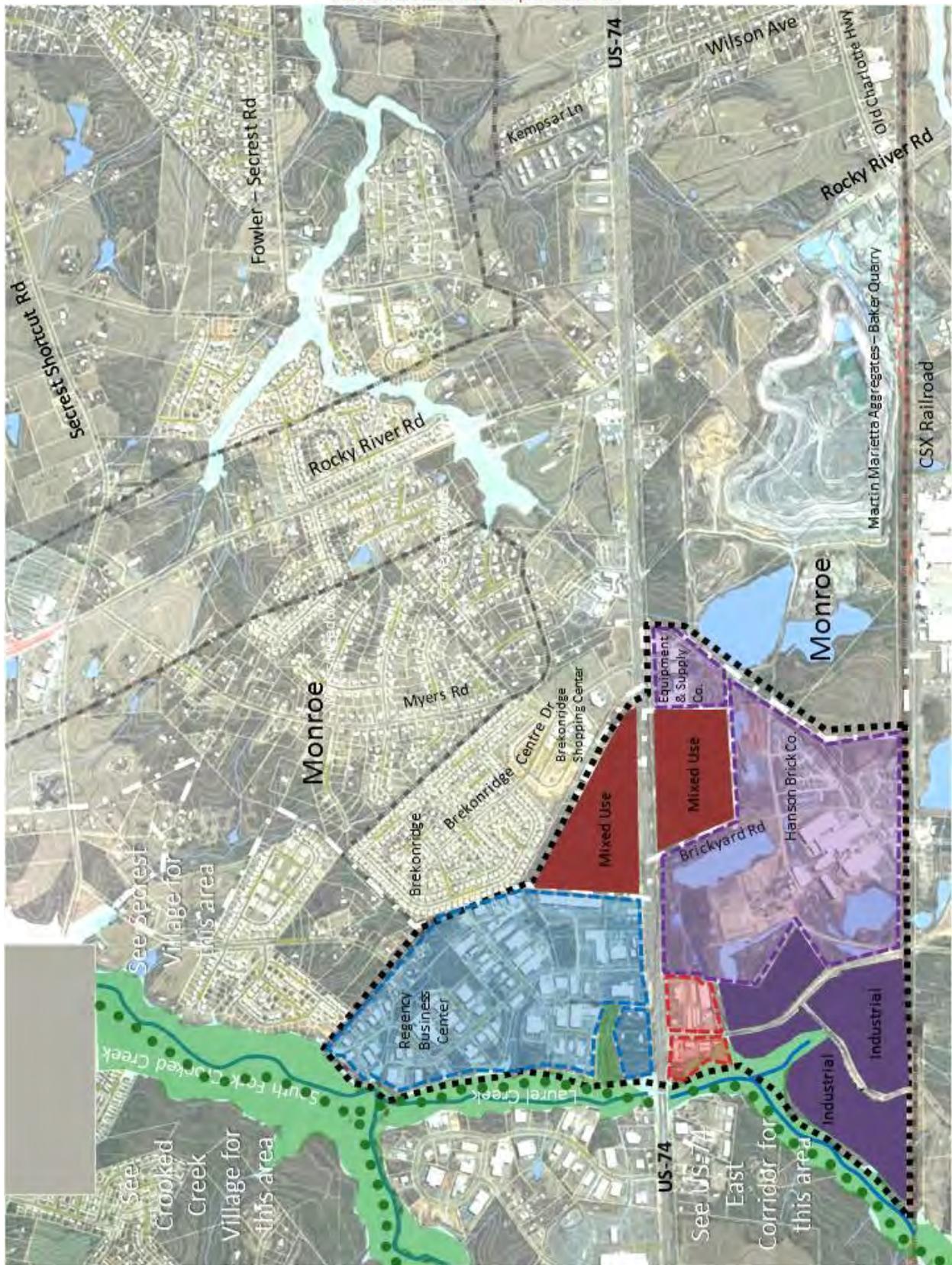


Fig. 5.2.22 US-74 Corridor Far East Future Land Use

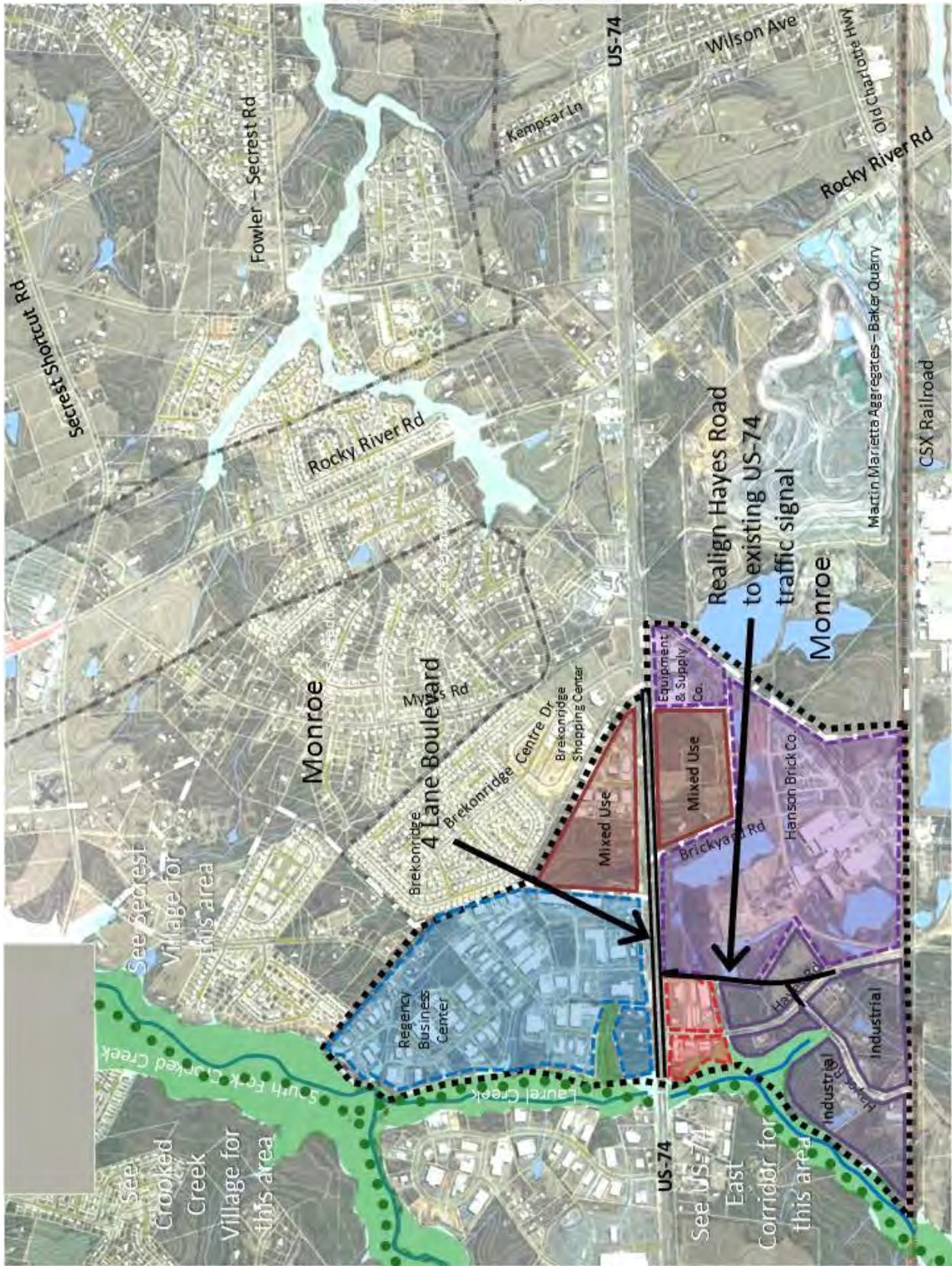


Fig. 5.2.23 US-74 Corridor Far East Transportation

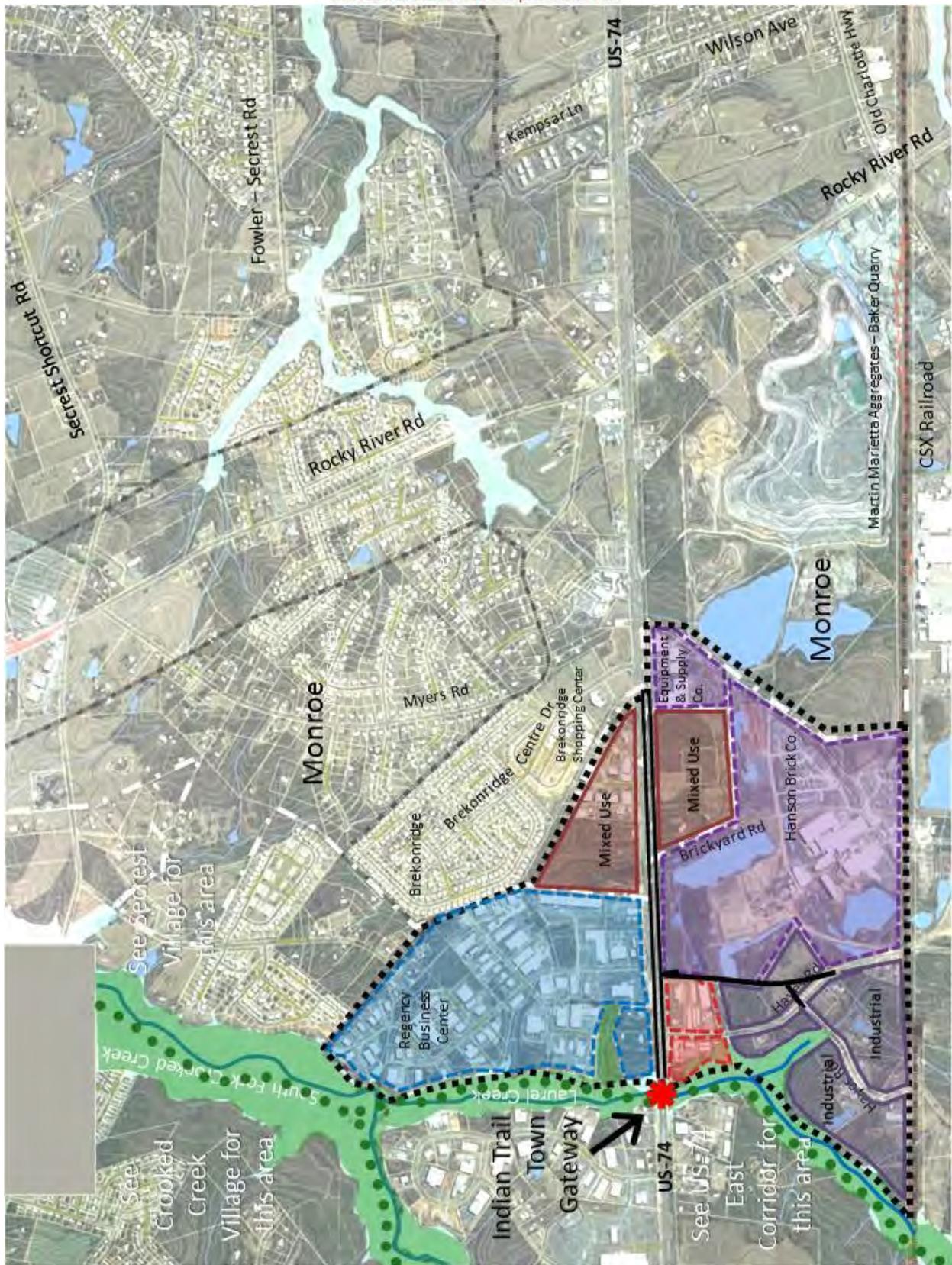


Fig. 5.2.24 US-74 Corridor Far East Urban Design

5.3 DOWNTOWN INDIAN TRAIL PLAN

The Indian Trail Town Council adopted the Downtown Master Plan in 2006. Changes since the plan was adopted include opening Town Government offices and Crossing Paths Park on Blythe Drive, beginning construction of the 51 acre Chestnut Square at Indian Trail park, and beginning construction of Chestnut Parkway. This update adds some land area to the plan, but it otherwise remains virtually the same.

Indian Trail has a rich and diverse history that should be honored as the downtown continues to evolve into the primary identity for the community. The Downtown Master Plan is intended to provide the basis for creating a vibrant downtown which promotes a diversity of uses and users, while promoting opportunities to live, work and play in the vision of its citizens.

The Downtown Master Plan serves to show, through descriptions and photographic examples how to create a lively and attractive downtown. It is the responsibility of property and business owners, developers, elected officials and citizens to use the Downtown Master Plan's Design Guidelines to help guide appropriate development for Indian Trail.

Changes that have occurred since the adoption of the Downtown Master Plan include:

- Town offices have expanded to include a new Cultural Arts Center within the old Town Hall
- Consolidation of departments within the Administrative Services Building located on Blythe Drive
- Development of a new one-acre event park – Crossing Paths Park on Blythe Drive, located adjacent to the Administrative Building
 - Development of a new 51 acre park, still under development, located on Matthews-Indian Trail Road, - Chestnut Square at Indian Trail. This park is a model for public-private partnerships with the relocation of Carolina Courts as an anchor within the park. Carolina Courts is a private indoor recreation facility that will bring tens of thousands of guests to Downtown Indian Trail
- Construction of the first segment of Chestnut Parkway between Matthews-Indian Trail Rd. & US-74
- Expansion of the Downtown boundaries to include single family residential areas along South Fork Road and light industry areas along Gribble Road and Matthews-Indian Trail Road

Land Use

Downtown Indian Trail land use along Indian Trail Road is a mix of older commercial, institutional and residential uses. Notable landmarks include the historic Indian Trail Presbyterian Church, Indian Trail Elementary School and Indian Trail United Methodist Church. The older Town Administrative offices have been converted to an Indian Trail Cultural Center. Along Unionville-Indian Trail Road is a mix of commercial, light industrial and institutional uses, including the Indian Trail Library. The neighborhood to the northwest of Indian Trail Road consists of older single family detached homes. Along South Fork Road are neighborhoods of single family detached residences. The privately owned Edna Love Park and a Town maintained cemetery are on Park Road. A large tract of vacant land, previously approved as a town center mixed use development, is along the CSX Railroad tracks. North of the new Chestnut Parkway along Matthews-Indian Trail Road and Gribble Road is light industry.

Future land uses can vary within the Downtown to include new office, suburban residential, office and mixed use through redevelopment opportunities. A diverse range of residential housing types should be provided to promote a population with varied ages, races and socioeconomic background. Flexibility also needs to be provided to meet economic changes and to allow incremental growth. Future land use

will include Suburban Residential development along Chestnut Parkway west of the CSX Railroad and along South Fork Road. The former town offices site and its surrounding neighborhood should redevelop into a walkable mixed use neighborhood. Undeveloped property elsewhere should develop as walkable mixed use developments, and much of the existing mixed use area might do the same. New office development will be appropriate on the north side of Chestnut Parkway.

The Downtown Village should support limited light industrial land uses at appropriate locations based on their proximity to CSX railroad, adjoining land uses, and property location within the village. Existing Heavy Industrial land uses are located north of the future Chestnut Connector.

Transportation

Indian Trail Road through Downtown, Unionville-Indian Trail Road through Downtown southeast of Chestnut Square at Indian Trail, and Park Road should become 2 Lane Main Streets, with on-street parking and pedestrian sidewalks. Park Road should be extended to connect to Gribble Road. The posted speed limit on these streets should be low enough to allow bicycles to operate in mixed traffic. Matthews-Indian Trail Road through Chestnut Square at Indian Trail and Gribble Road should become 2 Lane Thoroughfares by adding bicycle lanes and pedestrian sidewalks with street trees. Chestnut Parkway, currently under construction, will be a 4 Lane Boulevard which will eventually connect to the Old Hickory Corridor as part of the Town's Pathways-To-Progress initiative. Local streets throughout Downtown should be interconnected as described in the Downtown Master Plan.

The location, accessibility and proper visibility of parking lots are critical to creating an attractive downtown. Downtowns should be designed for the pedestrian while accommodating parked cars, not the reverse.

On-street parallel parking should be designed along the commercial street frontage to deter high speed traffic, buffer pedestrian activity on the sidewalk and promote convenience parking opportunities in front of commercial establishments.

Streets are a significant component of the public space and play a major role in establishing the image of a community. They affect the health, vitality, quality of life, and economic welfare of the downtown as they set the framework for development. The design of a street is only one aspect of its effectiveness. How the street relates to the surrounding transportation network, land use system, and urban/neighborhood fabric is also crucial to its effectiveness.

The Downtown should be designed for the pedestrian and should promote a vital active environment. Uses on the ground floor should promote opportunities for social interaction, shopping, eating and lounging. The area should be pleasing and safe to walk and provide a comfortable experience for the users.

Urban Design

The architectural style, scale and character of new and existing buildings will define the downtown and should promote a pedestrian friendly environment that represents the vision of its citizens. The physical relationship of buildings to the public street and its uses should reinforce the pedestrian scale. To promote a pedestrian-oriented environment in Indian Trail, it is important to maintain consistent and

active storefronts. The public street should be the primary place for community interaction that invites pedestrians to use the downtown as a destination to live, to work, to play and to socialize.

The Downtown should promote a sense of community through the design and construction of a variety of parks, plazas and open spaces. These areas should be designed for safety, comfort, beauty and social gatherings and should become places of community activity, as well as neighborhood identity.

Both active and passive areas should be design to engage citizens and offer different programmatic uses. Neighborhood squares, parks, playgrounds and green spaces are for the use, benefit, and enjoyment of the entire community. These are places where communities can gather for celebrations, families and friends gather for picnics or socializing, and individuals can find solitude. These spaces become the defining places where the community comes to know one another.

Downtown Indian Trail Capacity

Downtown Indian Trail has an estimated current population of approximately 450 people. The future land use plan provides for an additional capacity of approximately 1,550 people, for a total future capacity of approximately 2,000 people.

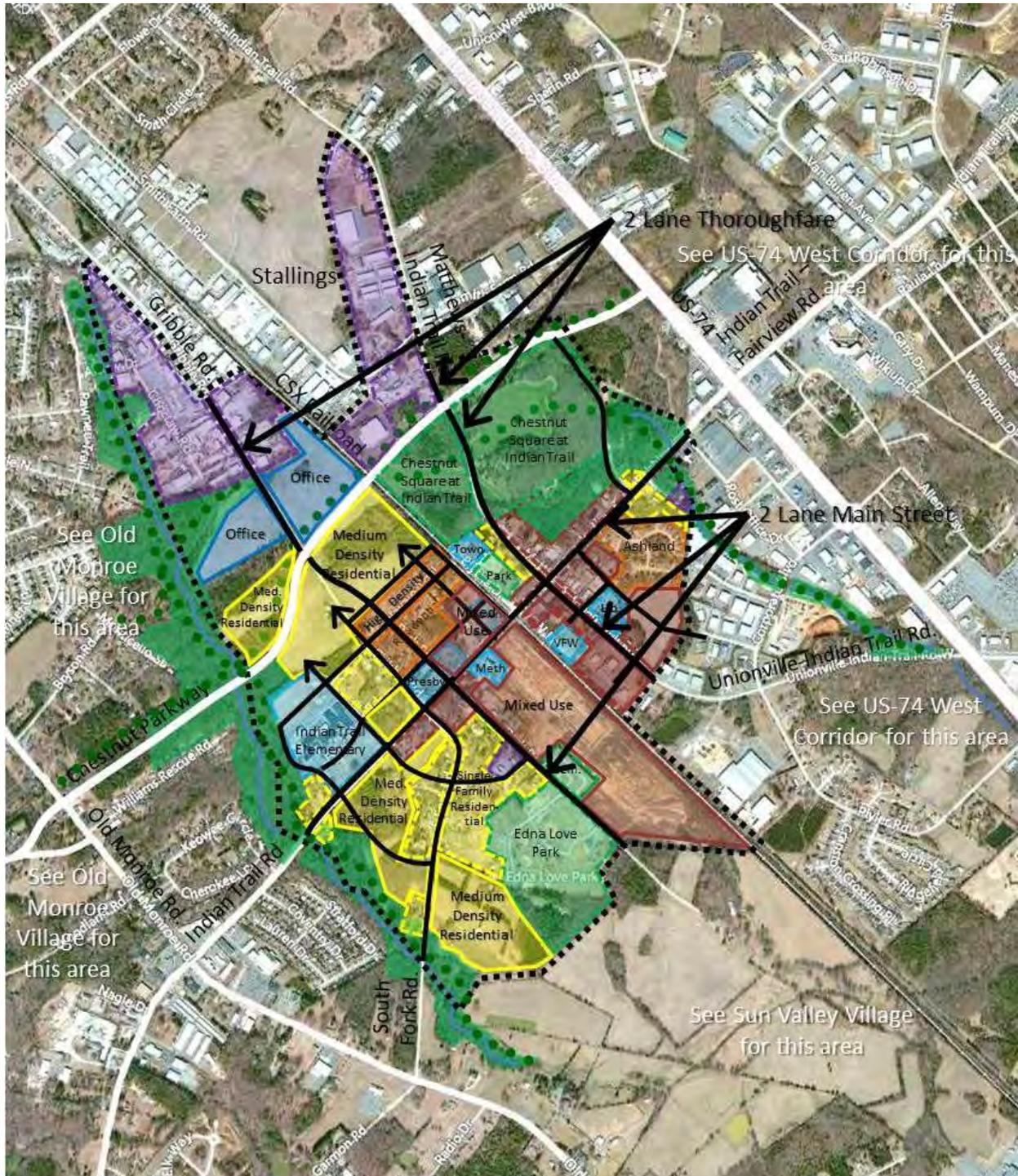


Fig. 5.3.3 Downtown Indian Trail Transportation



Fig. 5.3.4 Downtown Indian Trail Urban Design as depicted in the adopted Downtown Indian Trail Master Plan. Urban Design is described in more detail in the Downtown Indian Trail Master Plan.

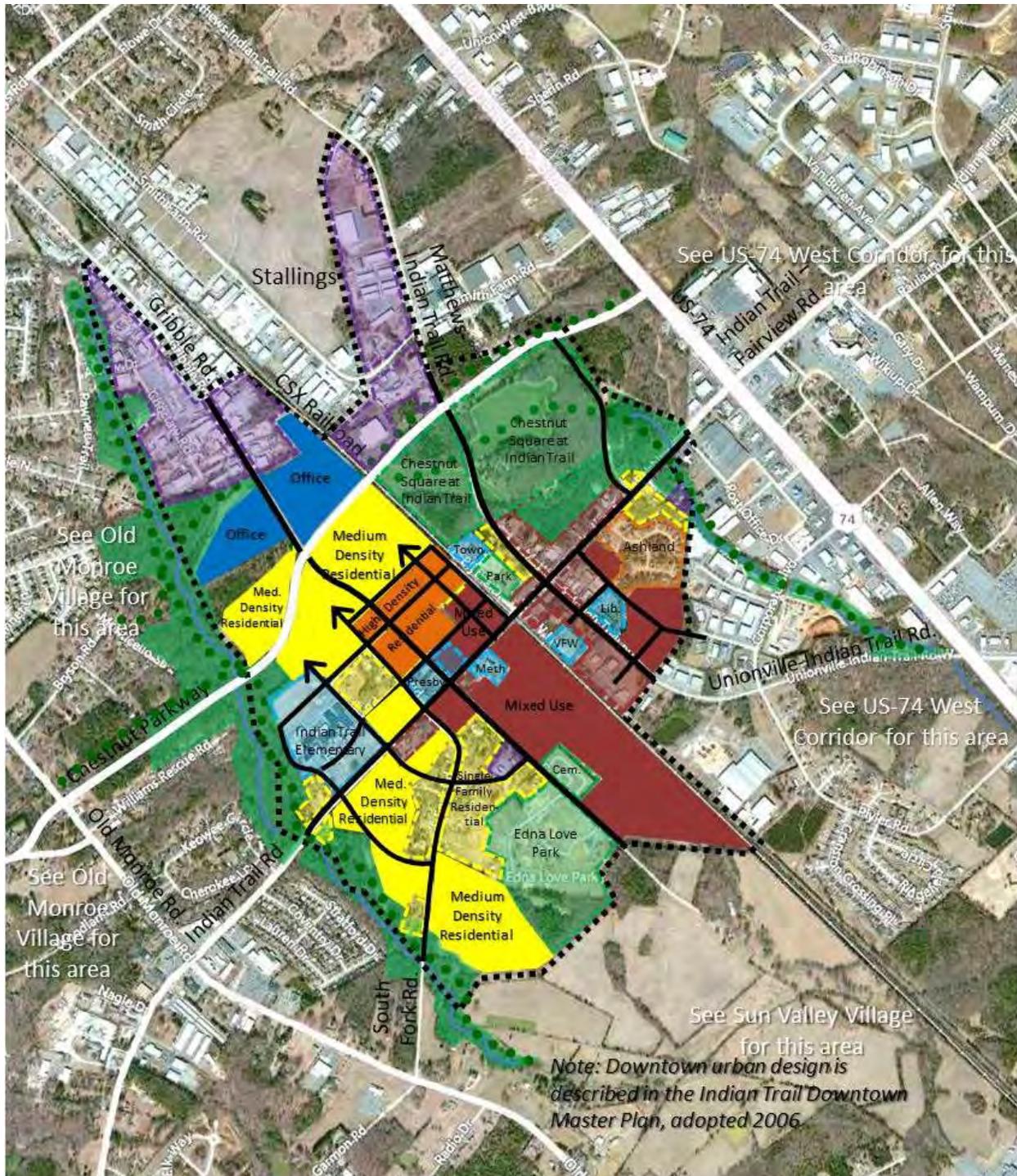


Fig. 5.3.5 Downtown Indian Trail Plan

Chapter 6 Transportation



The Town of Indian Trail Comprehensive Plan

6.1 TRANSPORTATION

The guiding elements in the Indian Trail Transportation Plan are four “C”s: capacity, connectivity, choice and “complete streets.”

Capacity is the amount of transportation system needed to meet or exceed a given demand for mobility. The primary quantitative assessment of system capacity is related to traffic conditions on existing and future roadways, since roads almost exclusively currently define transportation in Indian Trail. The Plan provides adequate capacity for anticipated transportation growth around the Town, by providing expanded facilities, facilities on new alignment, and by identifying areas for realignment to improve the safe and efficient flow of traffic. The capacity needs have been updated since the adoption of the 2005 Comprehensive Plan, as described in section 6.1.1 Anticipated Roadway Travel Demand.

Connectivity, the second “C”, is vitally important in overall transportation system performance, regardless if the trip is made by car, bus, pedestrian or bicycle. Existing traffic problems in Indian Trail can be traced to a lack of connectivity between major roadway facilities, collector streets, and even adjacent neighborhood streets. The 2005 Comprehensive Plan considered land use development patterns, to propose a corresponding transportation plan to link the system together, and that system is maintained. Connectivity is necessary for efficient public transportation systems, as well, since they will share the roadway network with private vehicles. From a safety perspective, probably the most important aspect of connectivity relates to bicycle and pedestrian facilities. Since adoption of the Pedestrian Plan in 2009, the Town and private developers have been constructing sections of sidewalk that connect more than local neighborhoods. The 2011 Bicycle Plan proposed a system that will connect various areas of Town. The 2010 Parks and Greenways Master Plan provides for a connected system of on-road and off-road facilities needed to make non-motorized transportation a viable option for residents.

The third “C” is choice. The Plan identifies ways to allow Indian Trail residents to move around their community and beyond with options beyond the use of an automobile. There are viable possibilities for extended transit service as well as the integration of pedestrian/bicycle greenway trail systems that have been detailed by the 2009 Pedestrian Plan, the 2011 Bicycle Plan and the 2010 Parks and Greenways Master Plan. Overall, the Plan serves to enhance the streets of Indian Trail as an amenity to the Villages, not a barrier between land uses or a place where only cars go.

Finally, the fourth “C” is part of a new trend: creating complete streets. A complete street is defined as a street that works for motorists, for bus riders, for bicyclists, and for pedestrians, including people with disabilities. A complete streets policy is aimed at producing roads that are safe and convenient for all users.² Bicycle advocates have long fought for “routine accommodation” policies. Innovative cities have adopted multimodal plans to free residents from automobile dependence. New urbanist builders have emphasized the need for walkable communities.³ They have been joined recently by public health advocates seeking to increase physical activity and stem the obesity epidemic. Finally, and of particular importance for implementing complete streets in North Carolina, the North Carolina Department of Transportation (NCDOT) adopted a Complete Streets Policy in 2009.

Completing the streets means routinely accommodating travel by all modes. This will expand the capacity to serve everyone who travels, be it by motor vehicle, foot, bicycle, or other means. A complete street in a rural area may look quite different from a complete street in a highly urban area. But both are designed to balance safety and convenience for everyone using the road.⁵

Complete streets improve safety. They reduce crashes through safety improvements. Complete streets also improve safety indirectly, by increasing the number of people bicycling and walking.

Complete Streets encourage more walking and bicycling. Public health experts are encouraging routine physical activity as one response to the obesity epidemic, and complete streets can help. Streets that provide travel choices give people the option to avoid traffic jams, and increase the overall capacity of the transportation network.

² Barbara McCann, "Complete the Streets!" *Planning*, May 2005, pp. 18-23

³ America Bikes webpage, 2005

⁴ *ibid.*

⁵ *ibid.*

6.2 Anticipated Roadway Travel Demand

The anticipated demand and number of lanes needed for each of the Town’s major roadways, as indicated in Table 6.6.1, are based on estimated traffic demands from two sources: historic traffic growth patterns for Town roadways projected forward to the year 2035, and comparison of the projected traffic to the latest approved Charlotte Regional Transportation Planning Organization (CRTPO) travel demand model.

All existing traffic data is from 2011 or 2012. Many Indian Trail roads experienced little or no traffic increase between 2007 and 2012, but a few continued the rapid growth from the mid 2000’s. The latest Metrolina Model is a 2035 future year version, from which Indian Trail data was extracted for Table 6.1.1. The model does not include the whole extent of the Indian Trail road network that is envisioned for the future, but represents the best available representation of the local road network. Although Table 6.1.1 prescribes 2 and 4 lane sections for these roadways, the actual plan is based sometimes on a little more than just the “pure” demand traffic volume estimates, since neither future estimate is based on the future land use concept. Consequently, for example, there are instances where the plan proposes that a road segment will need four-lanes because it is serving a high density area.

Table 6.1.1 Indian Trail Existing and Future Roadway Demand/Capacity

Roadway	Existing Traffic Volume	Existing Lanes	2035 Linear Regression Volume	2035 Model Volume	Lanes Recommended for Capacity
US 74	37,000-53,000	4	44,000-77,000	32,000-53,000	4-6*
Monroe Connector	-	-	-	48,000-67,000	4
Old Monroe Road	12,000-22,000	2	20,000-34,000	11,000-30,000	4
Indian Trail Road	11,000-15,000	2	18,000-25,000	18,000-20,000	-
				9,000-15,000*	2*
Waxhaw-Indian Trail Road	5,000-8,400	2	7,000-15,000	15,000-18,000	2
Unionville-Indian Trail Road	5,000-13,000	2	8,000-15,000	4,000-15,000	4
Mathews-Indian Trail Road	3,300	2	7,000	7,000-9,000	2
Indian Trail-Fairview Road	2,500-7,700	2	5,000-11,000	8,000-16,000	4
Mill Grove Road	2,200-2,800	2	4,000	13,000-17,000	2
Idlewild Road / Secrest Shortcut Road	8,100-18,000	2	15,000-37,000	8,000-37,000	4
Chestnut Lane	4,400-5,200	2	6,000-13,000	10,000-14,000	4
Chestnut Parkway	-	-	-	24,000-30,000**	4
Wesley Chapel-Stouts Road	12,000-18,000	2	23,000-35,000	14,000-24,000	4
Sardis Church Road	8,400	2	16,000	10,000	2
Lawyers Road	3,300-10,000	2	6,000-21,000	10,000-26,000	4
Potter Road	8,700-11,000	2	13,000-18,000	12,000-18,000	2
Rocky River Road	3,800-5,400	2	8,000-10,000	7,000-17,000	2
Ridge Road	1,900-2,300	2	3,000-5,000	8,000-11,000	2
Gribble Road	3,100	2	4,000	3,000	2
Faith Church Road	-	2	-	8,000-15,000	4

* - Estimate is from 2009 Chestnut Connector Feasibility Study - Reflects Traffic Diversion onto Chestnut

** - Not In MRM Model - Estimate is From 2009 Chestnut Connector Feasibility Study

6.3 Roadways

The Transportation Plan for Indian Trail roadways provides adequate traffic movement capacity, based on the estimates from the historic growth projection, Charlotte Regional Transportation Planning Organization (CRTPO) travel demand model, and the Comprehensive Plan's Land Use Plan. The plan also organizes roadways into ordered Street Typologies, to better provide standards and design criteria for roadways in the Town. In addition, the Plan improves connectivity between existing facilities through the development of a network of local connecting roadways. These extensions and realignments of existing roads provide a "backbone" of transportation options through the Town. Thus, there are multiple options for each vehicular trip, which avoids the current pattern of saturating the few major roadways with all trips from a particular subdivision or development.

Roadways are delineated into two major functional classes: boulevards and thoroughfares (the only freeway anticipated in Indian Trail is the Monroe Bypass, which has its own design typology). They are then separated by number of lanes, and by whether the roadway is on existing alignment or new alignment (Plate 6.1). These functional classes are taken from current NCDOT Transportation Planning Branch standards for development of municipal and County Transportation Plans across the state. The functional classes provided the basis for the Town's Street Typologies. Since most major roads in Indian Trail are State-owned and maintained, integrity has been maintained between the Town's Street Typologies and NCDOT's functional classifications.

The Plan is based on the completion of the Monroe Bypass. This major improvement affects many other roadways in the Town's transportation network. Diversion of through travel on the Bypass will lessen some of the through traffic and truck traffic pressure on US-74. Potential interchanges with the Bypass at Indian Trail-Fairview Road, Unionville-Indian Trail Road, and Rocky River Road (nearby in Monroe) will increase the importance of the crossing "Y-Line" roadway (.). New facilities such as Chestnut Parkway and Faith Church Extension will allow increased mobility for cross-town traffic and take the existing demand burden off of Indian Trail Road and Wesley Chapel-Stouts Road. Indian Trail Road is slated to become a Two-lane Main Street in the Plan. All existing NCDOT Transportation Improvement Program and CRTPO Long Range Transportation Plan projects are included in the Plan, and most remain in the same level of proposed improvement as was listed in Table 6.1.1. An important addition to the network of roadways shown is the two-lane connector roadways that will serve to relieve the major trunk roadways and further distribute local traffic. All roadways and improvements were compared to the intensity and location of the various Land Use Plan elements to ensure consistency and viability of a transportation system to support the Land Use Plan.

NCDOT is considering the conversion of the US-74/Indian Trail Road intersection into a superstreet intersection, along with the Unionville-Indian Trail Road, Faith Church Road and Wesley Chapel-Stouts/Sardis Church Road intersections. It is recommended that the new intersection of Chestnut Parkway with US-74 be constructed as a Michigan Left intersection in coordination with the Indian Trail Road superstreet, and that it provide for through traffic to pass directly across US-74 through a coordinated traffic signal. This connection is important for supporting the revitalization of the district bounded by Chestnut Parkway, Stinson-Hartis Road, Younts Road and Matthews-Indian Trail Road.

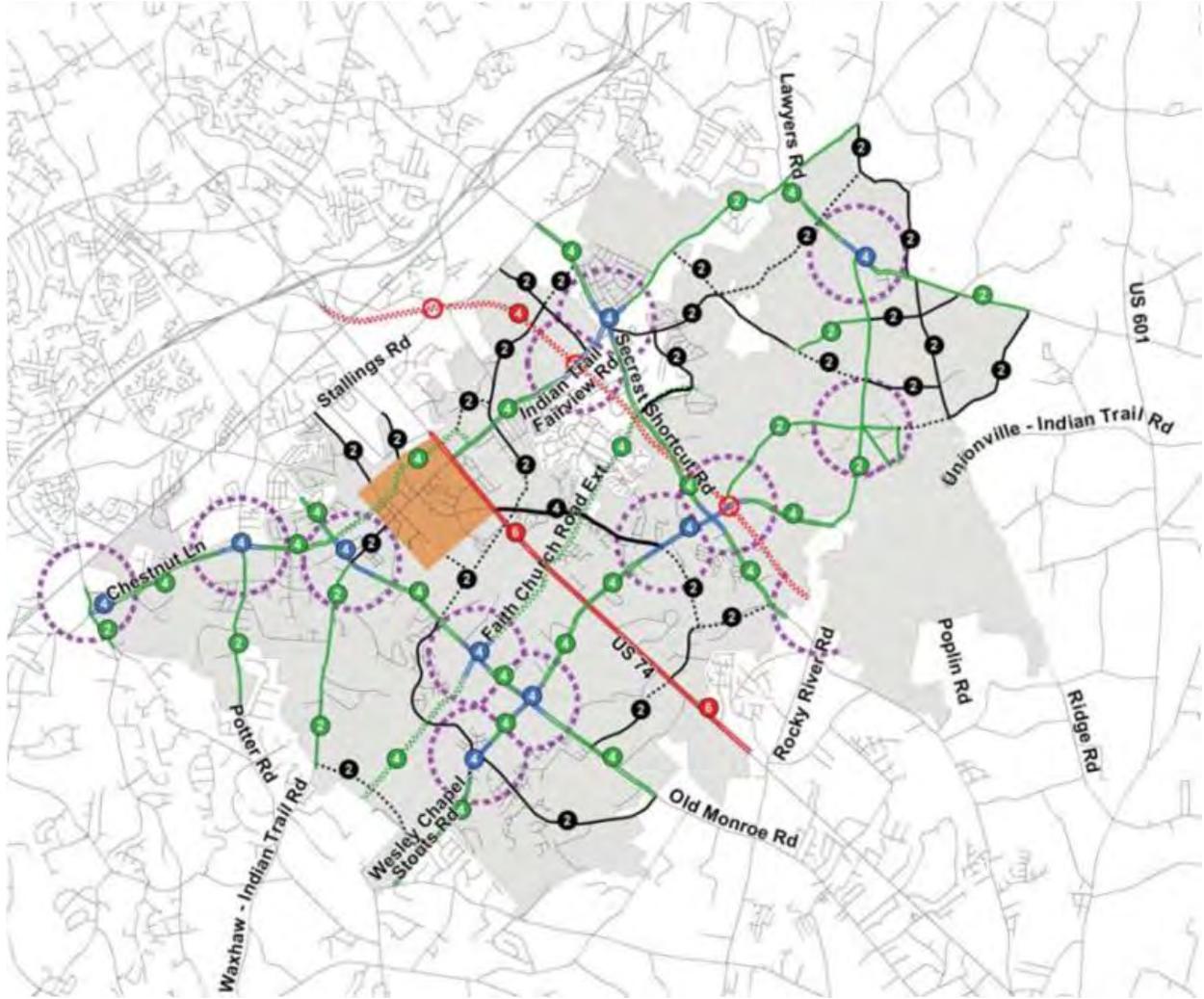


Plate 6.1 Proposed Roadway Network

6.4 Pedestrians

The Comprehensive Pedestrian Plan was adopted 2009. Its purpose is to ensure that the Town develops a pedestrian friendly environment. It was the culmination of over a year of work that began with the award of an NCDOT Pedestrian Planning Grant. The development of the Plan included the selection of a consultant, public outreach, extensive fieldwork, as well as in-depth geographic and planning analyses.

The following is Chapter 3 of the Comprehensive Pedestrian Plan, describing the pedestrian network.

The full plan can be found on the Town's website at:

http://www.indiantrail.org/uploads/file/Planning%20Docs/Adopted%20Plans/IT%20Pedestrian%20Master%20Plan_FINALv3.pdf

Walk Pedestrian Plan

Chapter 3: The Pedestrian Network

3.1 Overview

The development of the Comprehensive Pedestrian Plan established pedestrian connectivity within the Town and the surrounding jurisdictions; realizing that pedestrian improvements do not stop at the town limits. The Plan is based on the community's vision and goals and the inventory of the current pedestrian system. This chapter of the Comprehensive Pedestrian Plan provides an overview of the methodology used to develop the physical aspect of the Comprehensive Pedestrian Plan and descriptions of plan elements, which includes proposed sidewalks, off-road connections, greenways/trails, pedestrian crossing improvements and intersection improvement areas. It also discusses how the proposed pedestrian network will connect the Town to the adjacent municipalities and their pedestrian facilities.

Although the Town's zoning ordinance requires new residential developments to build sidewalks on both sides of the road and commercial developments to build sidewalks along the roadway, previously developed areas of town lack adequate pedestrian facilities. As the Town continues to grow, there will need to be a focus on the interconnectivity of future development.

3.2 Methodology

The Comprehensive Pedestrian Plan was developed by reviewing past planning efforts, inventorying the existing pedestrian facilities and gathering public input. The Comprehensive Pedestrian Plan focuses on the Town's future Village Centers that were developed as a part of the Comprehensive Plan. The Village Centers are areas within the Town where there will be a concentration of higher density residential mixed with commercial, retail and office uses. The Village Centers will be pedestrian friendly, with wider sidewalks, landscaping and lighting that will enhance the overall pedestrian environment. The Town provided the consultants with the most up-to-date geographic information systems (GIS) data, which included:

- Aerial photographs

- Parcels
- Street centerlines
- Streams/creeks
- Water bodies
- Railroads
- Village Center Overlays
- Downtown Overlay

This information was used to develop issues and opportunities, as well as to document the existing pedestrian facilities. Additionally, the consultants conducted site visits to confirm the location and condition of the existing pedestrian facilities. The site visits were vital in determining current intersection conditions. Several high traffic intersections lack the basic elements that are necessary to provide safe crossing for pedestrians. Photographs from the visual audit were used to create a work sheet that illustrated the “good” and “bad” examples as a guide for participants during the audit.

Based on the existing data and site visits, the Pedestrian System Map was developed (Plate 3.5). A review of the Pedestrian System Map was conducted with the Town staff and the Steering Committee to ensure that all potential pedestrian routes and priority areas were documented. The Town staff provided input on future sidewalk projects that are either anticipated to be built as part of an approved development or funded by the Town from Congestion Mitigation and Air Quality (CMAQ) funding (see Chapter 5 of the Comprehensive Pedestrian Plan: Implementation Strategies).

Elements of the Pedestrian System Plan Map include:

- Existing sidewalks
- Proposed sidewalks
- Future sidewalks
- Existing off-road connectors
- Proposed off-road connectors
- Proposed greenways
- Existing – and future destinations
- Intersection improvement areas
- Proposed crossings

The Pedestrian System Map also shows roads, municipal boundaries, and planned pedestrian improvements in neighboring towns. The Pedestrian System Map was reviewed several times by the consultant, the Town Staff, and the Steering Committee. The pedestrian network that was developed is based on the desire to see interconnectivity between residential neighborhoods, Village Centers, schools, and adjacent municipalities.

Potential greenways identified in the Town’s Comprehensive Plan were analyzed in coordination with GIS based flood-plain data and their proximity to existing pedestrian facilities, as well as future destinations. A set of proposed greenways, within and outside of town boundaries, were developed based on a set of criteria used to determine the feasibility of building the potential greenway. These criteria included proximity to flood-plains and utility easements as well as being in an undeveloped area.

The Comprehensive Plan established a context sensitive set of criteria for future 6-lane boulevards, 4-lane freeways, 4-way suburban boulevards, 4-lane village center boulevards, and 2-lane minor thoroughfares. All future thoroughfares should be built with sidewalks on both sides of the road. These

cross sections are illustrated in Section 3.6.6 of the Comprehensive Plan. Additionally; the Pedestrian Plan addresses specific pedestrian improvements within these areas.

3.3 The Pedestrian Network

The Pedestrian System Plan is a reflection of the needs and wants of the residents of Indian Trail. The following portion of Chapter 3 of the Comprehensive Pedestrian Plan provides detailed descriptions for each type of pedestrian facility. The Design Guidelines in Chapter 6 of the Comprehensive Pedestrian Plan address specific treatments for each of the facilities listed below. Table 3.1: Project Prioritization Matrix, in Appendix A of the Comprehensive Pedestrian Plan provides a comprehensive listing of all the pedestrian projects.

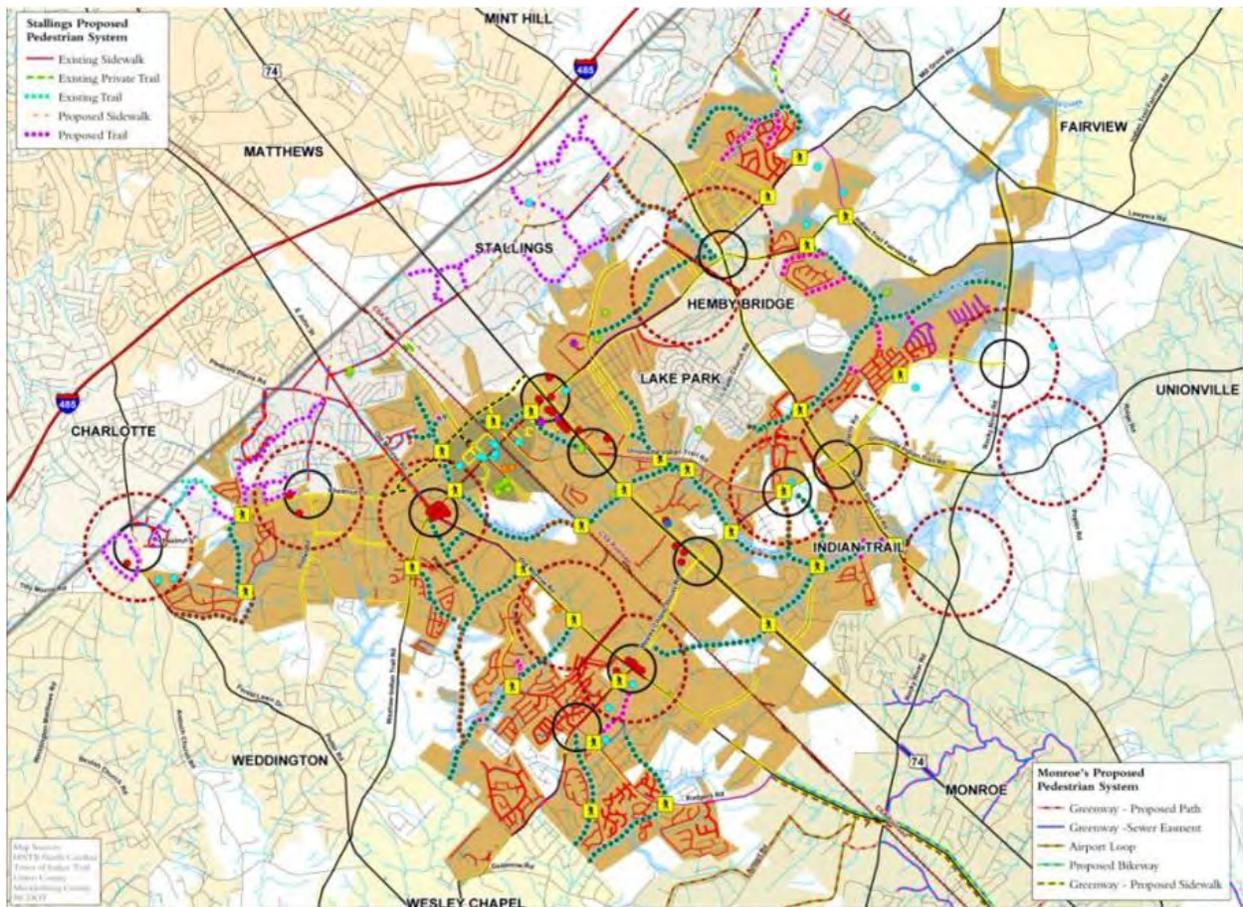


Plate 6.2 Pedestrian System Plan

3.3.1 Proposed Sidewalks

The proposed sidewalk improvement projects identified on the Pedestrian System Plan Map are far ranging. Smaller projects include filling in the gaps of incomplete sidewalks along roadways where the development pattern is scattered. Larger sidewalk improvement projects involve creating adequate pedestrian facilities for existing major roadways lacking safe pedestrian passage. This includes roadways such as US-74, Wesley Chapel-Stouts Road, and Old Monroe Road. Other projects were recommended

based on the current zoning and plans for future development. Combined, these sidewalk projects will provide town-wide connectivity.

A major goal of the Comprehensive Pedestrian Plan is to improve pedestrian mobility within and adjacent to the Village Centers that were developed as part of the Comprehensive Plan. Many of the proposed sidewalk projects provide connections on major roadways feeding these centers and connecting to surround residential areas. There are a total of 463,620 ft. / 87.81 miles of proposed sidewalks.

3.3.2 Greenways

Greenways are most commonly known as asphalt trails that are located along creeks and streams to provide an uninterrupted walking path. However, greenways serve a broader function for communities. According to the National Trails Training Partnership, they make our communities more livable; improve the economy through tourism and civic improvement; preserve and restore open space; and provide opportunities for physical activity to improve fitness and mental health.

At the time the Comprehensive Pedestrian Plan was adopted, there were no greenways within the Town limits; therefore, it was critical to identify potential greenway corridors that connect all parts of Indian Trail. The proposed greenway network within the Pedestrian System Plan Map identifies major greenway corridors that utilize major creeks and streams as well as existing sewer easements. The Comprehensive Pedestrian Plan calls for a network of proposed greenways that are located within the Town limits, as well as in areas outside the Town limits. The greenways that are located outside the town will require coordination with the surrounding jurisdictions. Much like the sidewalk improvement projects, these greenways feed into connections between Village Centers, residential areas, and schools. There are a total of 90,896 ft. / 17.22 miles of proposed greenways that are located within the Town limits, and 17,276 ft. / 3.27 miles outside of town limits.

3.3.3 Off-Road Connections

The proposed off-road connectors that are illustrated on the Pedestrian System Plan Map are short trails that connect the major greenway corridors to destinations, such as schools, commercial/retail areas and residential subdivisions. The existing off-road connections are trails or paths that allow connectivity within neighborhoods and/or from neighborhoods to schools and commercial areas. The proposed off-road connections in the Comprehensive Pedestrian Plan will expand the pedestrian network to allow connectivity between neighborhoods and proposed greenways and create safer routes to schools. There are a total of 19,296 ft. / 3.65 miles of proposed off-road connections, all of which are within the Town limits.

3.3.4 Pedestrian Crossings

There are several ways to create safe pedestrian crossings at intersections and mid-block points such as striped crosswalks that serve as a visual cue to oncoming traffic. Many of the pedestrian crossings within the Comprehensive Pedestrian Plan occur midblock to allow safe passage between institutional areas and surrounding neighborhoods. Others are located at the intersections of proposed greenways and roadways. These crossings are critical pieces to the overall pedestrian system. They not only create a continuous pathway, they allow users to safely cross major roadways. Crossings can occur at grade, at

an overpass or at an underpass. The types of crossings are explained in more detail in Chapter 6 of the Comprehensive Pedestrian Plan.

3.3.5 Intersection Improvement Areas

Ten key intersections within Indian Trail town limits were identified as priority improvement areas, as well as two intersections outside of Town boundaries. These intersections were identified with the help of public participants, town staff and site observations. Though not all of the intersection improvement projects occur within planned Village Center districts, many occur near surrounding retail and institutional areas, as well as high traffic and heavily traveled intersections. Inadequate crossing facilities can confuse both the driver and the pedestrian, creating unsafe barriers between destinations. The following intersections were identified as key improvement areas:

- Chestnut Lane and Forest Lawn Drive
- Chestnut Lane and Potter Road
- Old Monroe Road and Waxhaw-Indian Trail Road
- Old Monroe Road and Wesley Chapel-Stouts Road
- Rodgers Road and Wesley Chapel-Stouts Road
- Wesley Chapel Stouts Road and US-74
- Unionville Indian Trail Road and US-74
- Indian Trail Road and US-74
- Wesley Chapel Stouts Road and Unionville-Indian Trail Road
- Secrest Shortcut Road and Unionville Indian-Trail Road
- Secrest Shortcut Road and Mill Grove Road
- Rocky River Road and Poplin Road

3.3.6 Regional Connections

Pedestrian connections should not stop at the town’s jurisdictional limits. The Town has been and will continue to work with its neighbors to ensure a seamless pedestrian network is achieved. The City of Monroe and the Town of Stallings have completed similar pedestrian plans and information from their plans was incorporated into the Pedestrian System Map.

An important regional effort that is currently underway is the Carolina Thread Trail (CTT). The CTT is a 15 county regional network of greenways and trails centered in Mecklenburg County and located northwest of Indian Trail. The Town along with other municipalities is working with the CTT planning staff to identify opportunities to connect to the proposed regional network.



Fig. 6.4.1 Carolina Thread Trail Concept Map

6.5 Bicycles

The Town of Indian Trail was awarded a grant in 2009 from NCDOT through their Bicycle and Pedestrian Planning Grant Initiative to develop a Town-wide bicycle master plan. The purpose of the plan is to provide a well-connected bicycle network to allow residents an alternative means to safely reach destinations via the bicycle. The Indian Trail Bicycle Master Plan was adopted by the Town Council in 2011. The following is the Executive Summary of the Plan. The full plan is available on the Town's website at:

[http://www.indiantrail.org/uploads/Indian%20Trail%20Bicycle%20Master%20Planfor%20WEB\(1\).pdf](http://www.indiantrail.org/uploads/Indian%20Trail%20Bicycle%20Master%20Planfor%20WEB(1).pdf)



Executive Summary

ES1.1 Overview

The Town of Indian Trail has undergone significant changes in recent years, as residents, businesses and developers have been drawn to its small-town charm and convenient location near the Charlotte metropolitan area. The Town is quickly transitioning from a rural farming community to a vibrant suburban community in one of the fastest growing counties in the United States. Due to this tremendous growth, the Town has been faced with many challenges, such as incorporating bicycle facilities into the roadway network. Most of the major roads within Indian Trail are two lane facilities with no shoulders and drainage ditches on either side. The Town has been and continues to be committed to improving pedestrian and bicycle mobility throughout the community.

ES1.2 Benefits of Bicycling

The vision of the Comprehensive Plan states that:

*“The Town of Indian Trail will be **a vibrant, unique, and self-sufficient** town where people can live, work and play in a safe environment. It will provide a variety of transportation options that provides opportunities for walking, biking, transit, and automobile by **connecting** all of its villages, downtown, and commercial corridors.*

*“The Town will be known for its **strong economic development** focus, great parks and recreational amenities, and will have variety of uses that will create opportunity to **effectively manage metropolitan growth pressures** while at the same time **preserve its small town character.**”*

A multi-modal transportation network in concert with diverse land uses can achieve this vision. Indian Trail can be a place to work, live and play. It can also be a place where people want a better quality of life that includes multiple benefits. These benefits include, but are not limited to the following:

- Health Benefits
- Transportation Benefits
- Environmental Benefits
- Economic Benefits, and
- Quality of Life Benefits

ES1.3 the Process

The adoption of the Bicycle Master Plan is more than just an important step in ensuring the implementation of the Vision set forth in the Comprehensive Plan, but also improving connectivity and bicycle mobility for the community. This Plan establishes a vision for improving bicycle infrastructure over the next 20 years; however, the Plan will need to be assessed and updated on a regular basis to address the changing needs of the community.

The Bicycle Master Plan seeks to identify the users of the future bicycle network, their needs and the best way to serve those needs. This Plan was developed over a 12 month process and included a variety of public outreach methods including Steering Committee meetings, Stakeholder Interviews, Public Workshops, Bike Rodeos, Visual Surveys, a Bicycle Audit, the use of Facebook, and an online survey. The public involvement process engaged a wide cross-section of the community, including many children who participated in the bicycle rodeos and visual surveys. This Plan provides a foundation of bicycle infrastructure improvements as well as bicycle safety and education initiatives that the community identified as critical components to improving bicycle mobility and safety.

ES1.4 Vision and Goals

The input received from the initial public workshop, the stakeholder interviews, meetings with the Steering Committee, discussions with the Town staff and results from the questionnaire led to the development of a vision statement and key goals. The vision statement and the goals from this plan, along with the vision and goals identified in previous plans, have guided the development of the Bicycle Master Plan and will continue to do so once the plan is adopted.

Bicycle Master Plan Vision

“To promote a bicycle-friendly environment within Indian Trail by improving connectivity between neighborhoods and destinations; where multi-use paths, greenways and bicycle facilities are further developed and integrated, and all users are provided safe and convenient access.

“Indian trail will work to forge partnerships, educate the community, and design facilities that are safe and pleasing.”

ES1.4.1 Bicycle Master Plan Goals

The following are the goals that were developed during the process in order to achieve the vision statement. The goals listed below mirror the goals that were identified in the Comprehensive Plan. These goals, like the vision statement, will continue to guide the implementation of the Bicycle Master Plan.

- Future bicycle facilities should be planned and designed with all users in mind
- Future bicycle facilities should be accessible for everyone
- Improve bicycle connectivity between existing and future residential subdivisions, schools, and other destinations throughout town.
- Bicycle facilities that are built should be safe, accessible, inviting and aesthetically pleasing
- The Town should develop programs that educate motorists and bicyclists

- Improve bicycle safety on existing roads
- Plan and design facilities for both recreational and transportation users
- Incorporate bicycle facilities into future roadway projects
- Educate the children on the importance of health, safety, and the use of bicycle facilities
- Indian Trail's future bicycle infrastructure should connect to surrounding communities and their bicycle facilities
- Bicycling has to be an important priority for the community
- The development of partnerships will be critical for the success of this plan
- The Town should work with NCDOT to reduce automobile speeds on roadways
- Future bicycle facilities need to connect to Downtown

ES1.5 Community Concerns, Needs & Priorities

The public input process led to an understanding of the needs and concerns of the community regarding bicycle mobility and safety. This information was essential for developing recommendations that respond to the residents' needs and concerns, and to generate public enthusiasm and interest for the implementation of the plan. The main concerns that were expressed are summarized below.

- The current transportation network is not safe for bicyclists
- There is a lack of connectivity between existing subdivisions, schools and other destinations around town
- Future bicycle facilities should be designed to be accessible for all users
- Educational programs are needed for both drivers and bicyclists
- There are major barriers, such as US-74 and CSX railroad, that impede bicycle mobility throughout the town
- Indian Trail's future bicycle network should connect to adjacent jurisdictions
- Future parks should include off-road bicycle trails
- The high traffic volumes and speeds on the thoroughfares is an impediment to cycling

ES1.5.1 User Groups and Trip Characteristics

To develop an effective and usable bicycle system, it is important to identify the different user groups and the types of facilities they prefer. As mentioned in Chapter 2 of the Bicycle Master Plan, there are three basic types of user groups: Advanced, Basic and Children. A large percent of the general population falls within the basic and children user groups. These users tend to enjoy riding for recreation purposes and use greenways or neighborhood streets to get around. The advanced cyclist tends to ride for exercise or commuting purposes. It is also important to understand the purpose of their trips. An online questionnaire was utilized to compile this information and was useful in determining the types of users and their purpose of bicycling. The questionnaire provided insight to the places people currently cycle and where they would cycle to if there were sufficient bicycle facilities. Most of the respondents (94%) said that they would bicycle to parks or greenways if there were sufficient facilities. Even though this may not be a complete representation of the community, it still provides some valuable information to help identify the types of user groups within Indian Trail.

ES1.6 Existing Bicycle System

Although the Town is working on their initial defined bike routes, there are several small segments of a multi-use path along US-74. These segments have been built due to new requirements that are detailed

in the Town's Unified Development Ordinance (UDO), which is a testament to the Town's commitment to increasing pedestrian and bicycle mobility throughout the town. Currently there are approximately 2600 linear feet (almost a ½-mile) of existing multi-use path along US-74 within Indian Trail. In addition, many residential subdivisions have private trails that are for the residents who live within those communities.

Based on the feedback from the community and physical inventory of the existing transportation network, it is evident that there are many barriers and gaps that have to be overcome to create a safe bicycling environment within Indian Trail. However, the Town continues to be proactive and work with state agencies and surrounding municipalities to develop projects and programs that will one day result in a comprehensive transportation network that includes facilities for bicyclists.

ES1.7 Existing Programs, Plans and Policies

The success of the Bicycle Plan cannot be realized with just physical improvements. Strong programs and policies need to accompany those physical improvements to educate and inform the community about bicycle safety and how to use the facilities. There are many plans, programs and policies that exist today that will contribute to the success of the Bicycle Master Plan. Many of these have already helped lay the groundwork for a successful bicycle program in Indian Trail and will continue to do so in the future.

More specifically, the Town has taken great strides in improving their Unified Development Ordinance (UDO) over the last five years to include measures that will ensure bicyclists are safe; that infrastructure is built in the future; and the infrastructure is connected and coordinated in a comprehensive manner. A detailed summary of these can be found in Chapter 3 of the Bicycle Master Plan.

ES1.8 The Bicycle System

A comprehensive bicycle system will create improved connectivity throughout the town and provide residents and visitors with transportation options not currently available. The Bicycle System (Plate 3.6) was developed by reviewing the Town's previous planning efforts, inventorying existing bicycle facilities and gathering input from the public through stakeholder interviews, public workshops and an online survey. One of the major goals of this plan was to create a bicycle system that provides connections to various destinations throughout the town, which includes the Town's Village Centers. The Village Centers are intended to be pedestrian and bicycle friendly with an improved network of sidewalks and bicycle facilities, including bike lanes and multi-use paths.

Today, the existing major thoroughfares within Indian Trail are not suitable for bicycle travel. Most of the major thoroughfares are two lane roads that have no usable shoulder and contain drainage ditches on both sides. Due to the lack of bicycle facilities throughout the town and funding to improve these roads, alternatives to create connectivity had to be explored. Discussions with the Steering Committee, Town staff, stakeholders and the public led to the creation of Neighborhood Loops, Town-Wide Connectors and Neighborhood Connectors.

- Neighborhood Loops – Primarily use existing and future neighborhood streets to connect users to destinations. There are 19 neighborhood loops totaling approximately 45 miles.
- Town-Wide Connectors – Is a system of longer connections that utilize existing major thoroughfares, overhead electric transmission lines, railroad corridors and sewer easements. There are a total of 12 town-wide connectors, equaling approximately 55 miles.

- Neighborhood Connectors – Currently these are informal connections that exist between subdivisions through off-road connectors. These links can be formalized by creating short paved trails that provide a safe connection between two neighborhoods. There are a total of 7 neighborhood connectors, two of which are listed as pilot projects that are discussed in more detail in Chapter 6 of the Bicycle Master Plan.

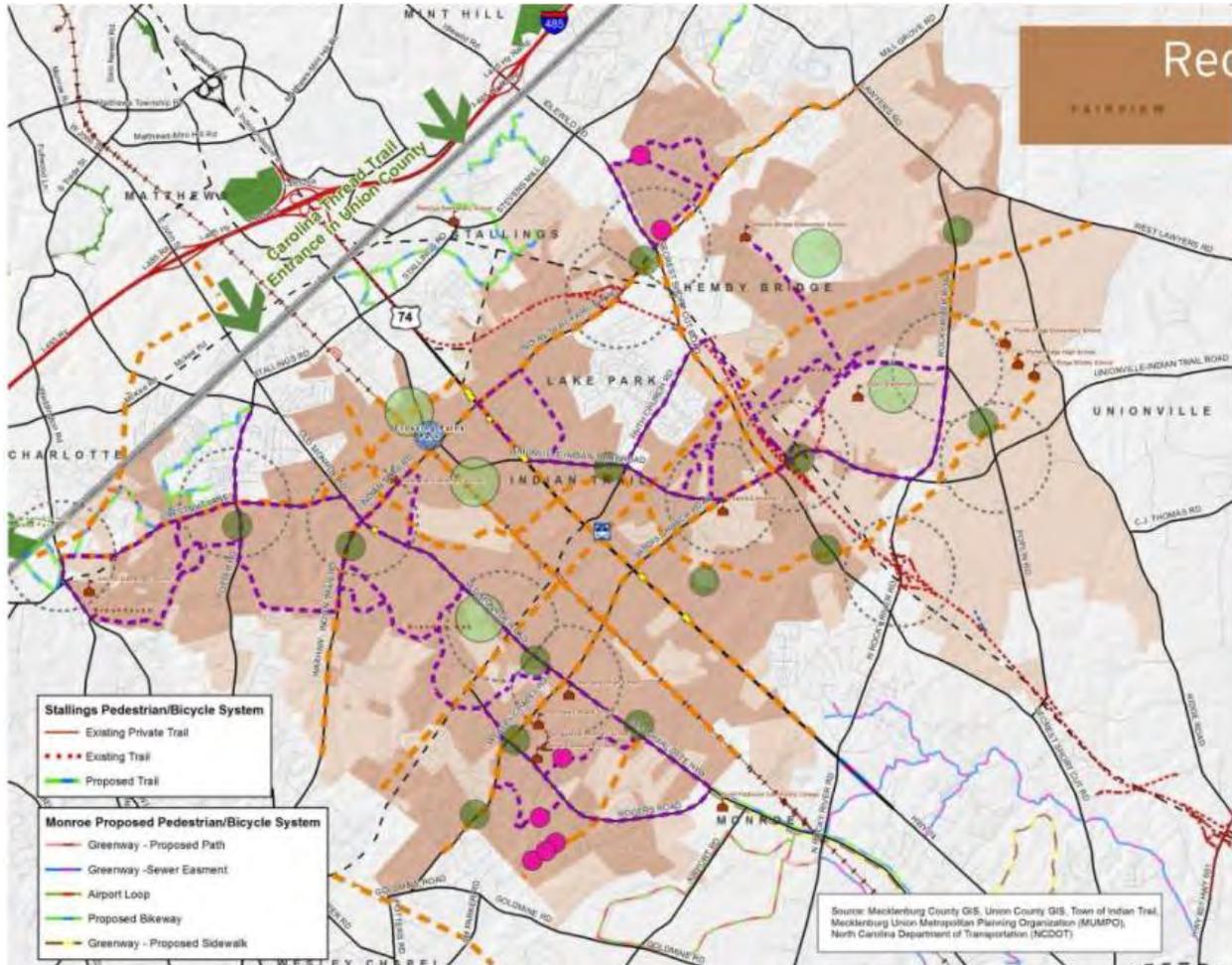


Plate 6.3 Bicycle System Plan

ES1.9 Plan Implementation

ES1.9.1 Project Prioritization

Based on the feedback from discussions with the Steering Committee, Town staff, stakeholders and the public, a total of approximately 120 bicycle improvement projects were identified. It is important for the Town to have some implementation strategies and timeframes for construction to help guide the decision making process. A detailed explanation of this prioritization process can be found in Chapter 6 of the Bicycle Master Plan.

Once the projects were prioritized they were organized into the Bicycle Matrix, which is located in Appendix C of the Bicycle Master Plan. The Bicycle Matrix should be used by the Town to assist in

monitoring the actual implementation of the projects. The list of projects in the Bicycle Matrix should be updated periodically to include new projects as they are discovered and others are completed.

To maintain the momentum from this Plan, four Pilot Projects were chosen to illustrate the commitment of the Town to improve bicycle mobility, and to serve as a precedent for future projects. The Town should focus on implementing these pilot projects over the next three years. A full description of the pilot projects is located at the end of Chapter 6 of the Bicycle Master Plan.

The successful implementation of the Bicycle Master Plan can only be realized through the collaboration of various partners. These partners are illustrated in the Responsibilities Framework graphic provided below. Each of these partners will have a specific role in the implementation of the plan. Details regarding the roles and responsibilities of each can be found in Chapter 6 of the Bicycle Master Plan.

ES1.9.2 Implementation Matrix

To provide guidance the implementation of the recommendations in this Plan, an Implementation Matrix was developed (see Appendix E of the Bicycle Master Plan). This Matrix provides a series of action steps or tasks associated with the implementation of this plan. These action steps have been organized by the following categories:

- Planning
- Funding
- Construction
- Maintenance
- Education
- Coordination

Under each category are tasks that are critical to the implementation of the recommendations in this plan. These tasks have been assigned implementation timeframes including: Immediate (1-3 years), Short-Term (3-5 years), Mid-Term (5-10 years), and Long-Term (over 10 years).

ES1.10 Next Steps

The adoption of the Bicycle Master Plan initiated the implementation of this Plan and the recommendations outlined throughout. This plan was developed with significant input and support from the community, and the Town should ensure that ongoing communication is achieved and updates are provided to the citizens of Indian Trail.

This plan has provided a foundation of projects and programs that the Town will be implementing over the next several decades. The Town should continually assess the effectiveness of the programs and policies as well as update the Bicycle Matrix as projects are completed and new ones are identified.

There are several strategic implementation action items from the Implementation Matrix in Appendix E that the Town should begin working on once this plan is adopted. These items are listed as immediate priority in the matrix and are listed below. The Town began implementing these items over the first 1-3 years after adoption of the plan.

Strategic Implementation Actions

Planning

- Adopt the Bicycle Master Plan
- Implement Pilot Projects through further planning and design
- Draft a Resurfacing and Restriping Policy that requires the consideration of bicycle facilities (bike lanes, wide shoulders, etc.)
- Approve new Resurfacing and Restriping Policy
- Incorporate Facility Standards and Guideline (Chapter 5) into the Town's Development Standards
- Add definitions of bicycle facilities to the Town's Unified Development Ordinance
- Hire an employee to initiate the Town's Parks and Recreation Department
- Add bicycle facility standards to the Town's Development Standards
- Meet with Transportation Advisory Committee to review the Bicycle Master Plan and their involvement in the implementation of the plan

Funding

- Pursue Safe Routes to School grants for programs and policies
- Pursue Safe Routes to School grants for the construction of the pilot projects
- Develop a long-term funding strategy (General Fund, Powell Bill Funds, etc.) for the development of bicycle facilities

Construction

- Initiate Neighborhood Signed Route installation
- Construct Pilot Projects

Maintenance

- Incorporate bicycle maintenance into the Town's maintenance program

Education/Encouragement

- Develop communication program to educate the community about the Bicycle Plan

Construction

- Initiate communication with surrounding municipalities to discuss bicycle related issues and to coordinate on adjacent bicycle projects
- Initiate discussions with local and regional health organizations to educate the community about benefits of bicycling.

6.6 Transit

As Indian Trail continues to grow, more and more of its residents will desire or need public transportation services to supplement the use of private automobiles. These will include elderly, youth, and disabled residents, as well as people who prefer to use transit for some trips instead of driving.

Bus

A relatively simple bus system, as shown in Plate 6.4 will provide service on Indian Trail-Fairview Road, US-74, Unionville-Indian Trail Road, and Poplin Road on the east side of town, and on Chestnut Lane, Old Monroe Road and Wesley Chapel – Stouts Road on the west. These routes will connect all of the Village Centers to Downtown Indian Trail, allowing residents to take advantage of the stores, restaurants, services and activities in Indian Trail's central area. Since the higher density residential areas will be located around the Village Centers, and will be connected to them by sidewalks, this will provide the most convenient service to the most people. This network will also connect to eventual rapid transit or express bus service from Downtown Indian Trail into Charlotte and Monroe. It also could provide service along US-74 to CATS' planned Southeast Corridor light rail or bus rapid transit station in the vicinity of US-74 and I-485.

The timing of beginning this service is indeterminate, depending on population growth to support the system and on the availability of CATS or another operator to run the service. Nonetheless, the street system should be built to accommodate these routes as they develop, as shown in the Street Typologies.

Express Bus

Charlotte Area Transit System (CATS) in 2013 operated two express bus services in the US-74 corridor through Indian Trail, both providing service to Charlotte's Center City. As demand increases, this service should be expanded to provide improved transit commuting opportunities for Indian Trail residents.

Van Pool

Union County has a fairly active van pool program in western Union County, which provides Indian Trail residents with some opportunities for ride sharing.

Rapid Transit

Charlotte Area Transit System's (CATS) proposed Southeast Corridor Rapid Transit Project is one of Charlotte's five rapid transit corridors. The Southeast Corridor extends approximately 13.5 miles from Charlotte's Center City to the border of Mecklenburg and Union Counties, following US-74, terminating at Central Piedmont Community College's Levine Campus in Matthews.⁹

During the Draft Environmental Impact Statement (DEIS) two modes of transportation were evaluated for the Southeast Corridor, Bus Rapid Transit (BRT) and Light Rail Transit (LRT). In September 2006, the Metropolitan Transit Commission (MTC) reviewed study results from the DEIS and adopted the following motion that:

1. BRT be selected as the Locally Preferred Alternative in the SE Corridor; and

2. Implementation of BRT be delayed for at least five years to allow for the future reconsideration of Light Rail (LRT) in the SE Corridor; and
3. That CATS' staff is directed to take the necessary steps in design and engineering with NCDOT on the Highway Project (Independence Boulevard) so that light rail could be considered in the future.¹⁰

CATS' 2030 Corridor System Plan proposed a schedule that would complete construction of rapid transit in the Southeast Corridor in 2026.¹¹

When CATS' Southeast Corridor rapid transit service is completed to Matthews, Indian Trail and other Union County communities should explore opportunities for extending the service into Union County, or for providing connecting transit service to the Southeast Corridor rapid transit.

⁹ Charlotte Area Transit System, "2030 Corridor System Plan," November 15, 2006.

¹⁰ Ibid

¹¹ Ibid

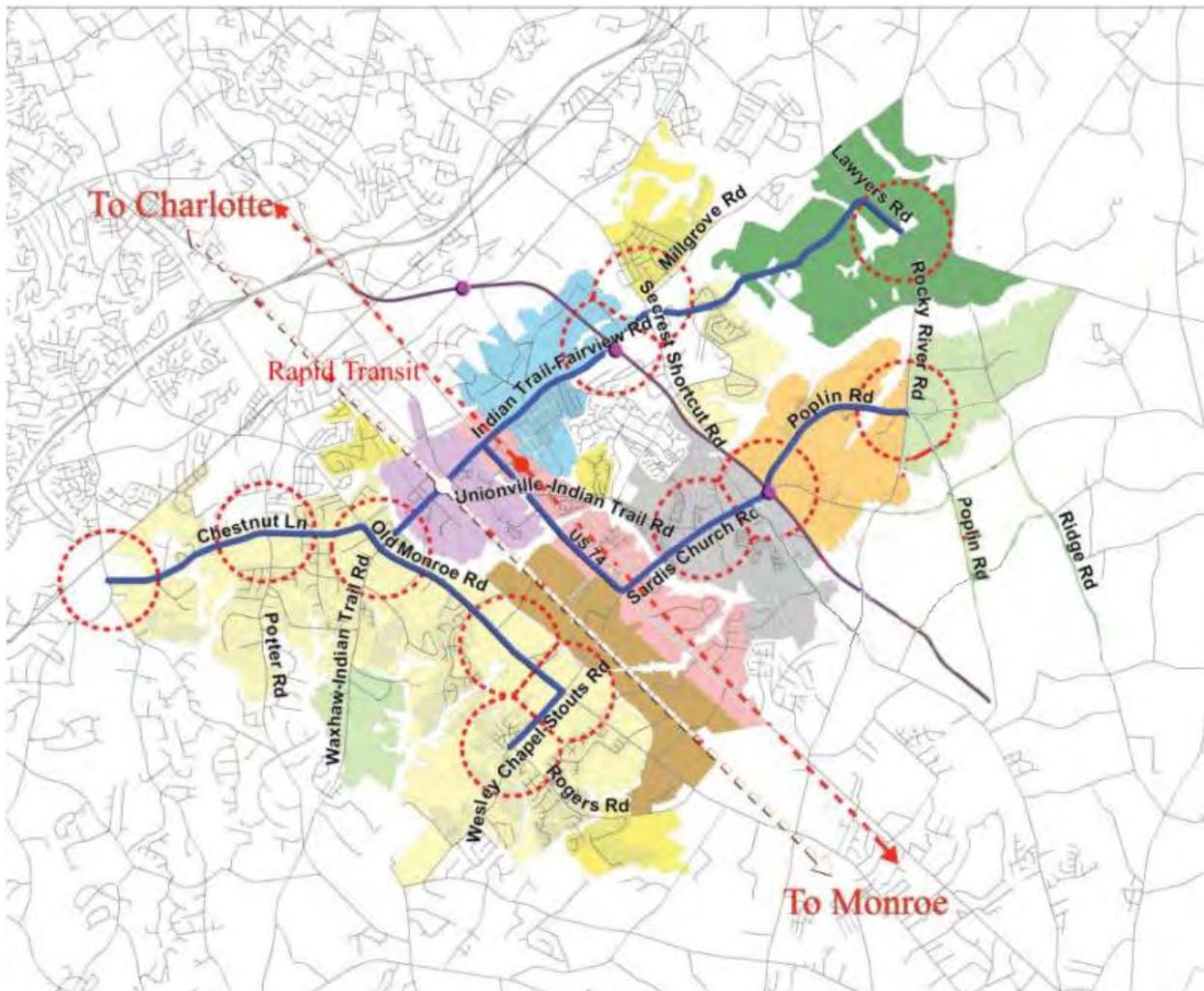


Plate 6.4 Proposed Transit System

6.7 Street Typologies

A series of Street Typologies have been developed as part of the Transportation Plan. The purpose of these typologies is to allow a variety of street designs to fit the varying land use and environmental contexts throughout most of the Boulevards and Thoroughfares. The typologies provide a range from two travel lanes to six travel lanes, in order to meet the anticipated traffic volumes in different locations throughout the Town.

Accommodation of pedestrians and bicycles is incorporated into the street typologies. Trees are located between the roadway pavement and sidewalks wherever possible, to provide a safe and attractive pedestrian environment.

Twelve foot travel lanes are proposed throughout the typologies, which will be appropriate to the proposed speed limits and in compliance with AASHTO standards. The distance between the edge of travel lanes and trees complies with the NCDOT *Guidelines for Planting within Highway Right-of-Way*.

Drainage for all of the street typologies is anticipated to be curb and gutter with underground storm drains. Curb and gutter would be provided on the outside of bicycle lanes, and a mountable curb provided at the median.

The typologies used are the ideally desirable street type. They should be followed by the Town in reviewing development plans, to assure that adequate right-of-way is preserved for the eventual full development of the roadway. They should be used by NCDOT as the Town’s desired configuration of the roadway to be compatible with the intended land uses which will emerge. There will undoubtedly be situations where topography, environmental constraints, existing development, or right-of-way availability will constrain the ability to fully realize the typology.

6.7.1 Two Lane Thoroughfare

The intent of this typology is to provide a suburban scale road that is compatible with predominantly medium density and low density residential development (Fig. 6.7.1).

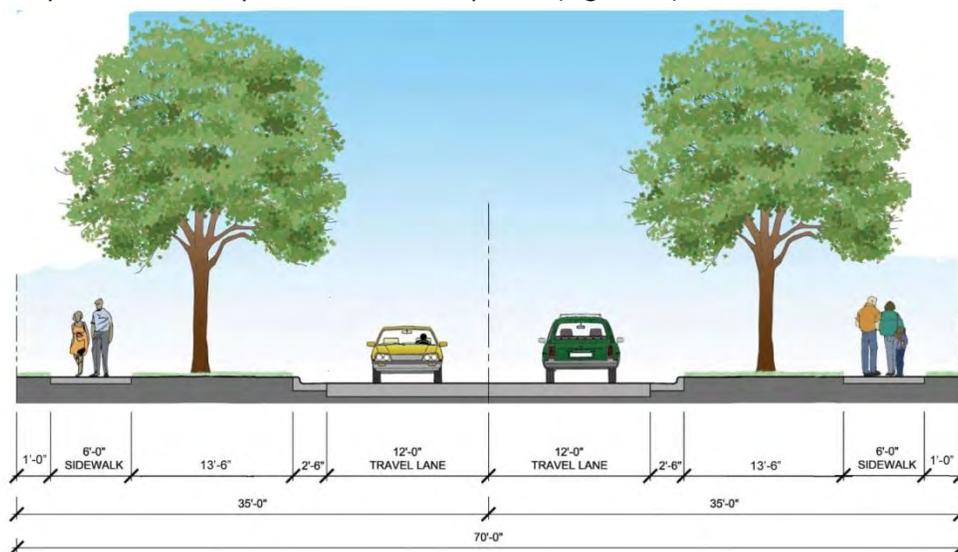


Fig. 6.7.1 Two Lane Thoroughfare Cross-section

This typology will be appropriate for new or existing alignment situations with existing residential, or for new alignment sections. It is intended to be posted for 35 mph speed limits, and should accommodate up to 10 - 15,000 AADT.

In rural villages in East Indian Trail, this typology could be built without curb and gutter, if it is more compatible with the intended rural character of that district.

Pedestrian sidewalks are to be provided as shown, whether or not a curb and gutter section is used. Trees are to be provided between the curb line and the sidewalk for pedestrian comfort and safety.

6.7.2 Two Lane Boulevard

The intent of this typology is to provide a suburban scale road that is compatible with predominantly medium density residential and commercial development (Fig. 6.7.2).

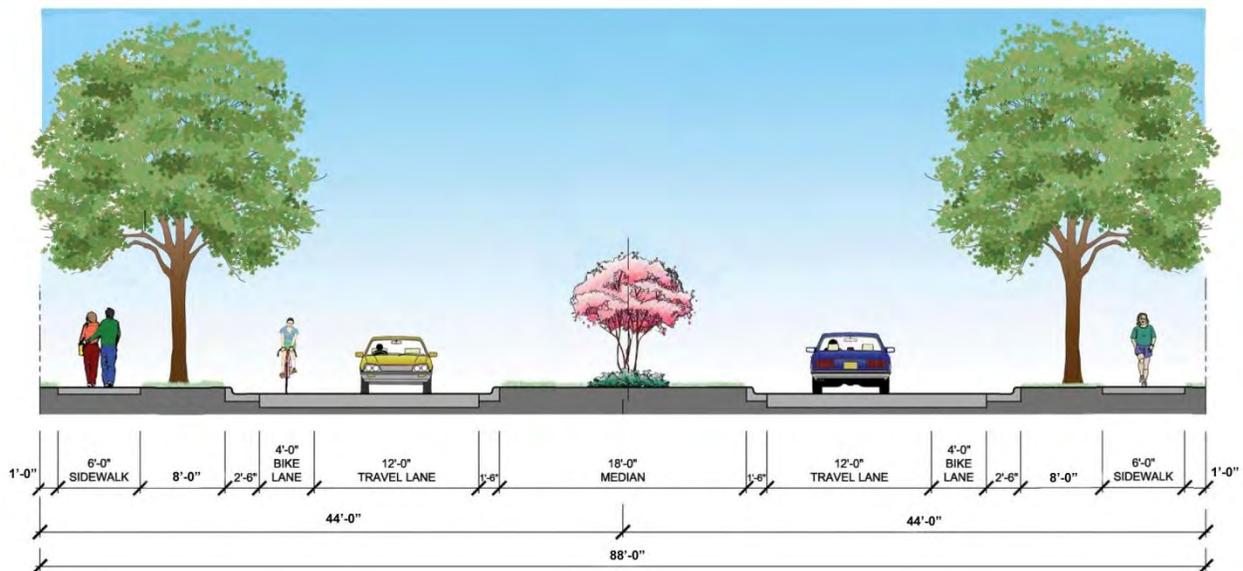


Fig. 6.7.2 Two Lane Boulevard Cross-section

This typology will be appropriate for new or existing alignment situations with existing residential or small commercial development, or for new alignment sections. It is intended to be posted for 35 mph speed limits, and should accommodate up to 15 - 20,000 AADT.

Pedestrians are to be accommodated with sidewalks adjacent to the roadway as shown. Trees are to be provided between the curb line and the sidewalk for pedestrian comfort and safety.

Bicycle lanes are provided adjacent to the travel lanes. The combination of the bicycle lane and travel lane are essential minimum widths, to allow for vehicles to pass in emergency or incident management situations, and to provide room for allowable U-turns.

6.7.3 Two Lane Main Street

The intent of this typology is to provide an urban scale road that is compatible with Downtown Indian Trail mixed use and commercial development, with a strong pedestrian emphasis. It is intended to be posted for 25 mph speed limits, and should accommodate up to 15 - 20,000 AADT (Fig. 6.7.3).

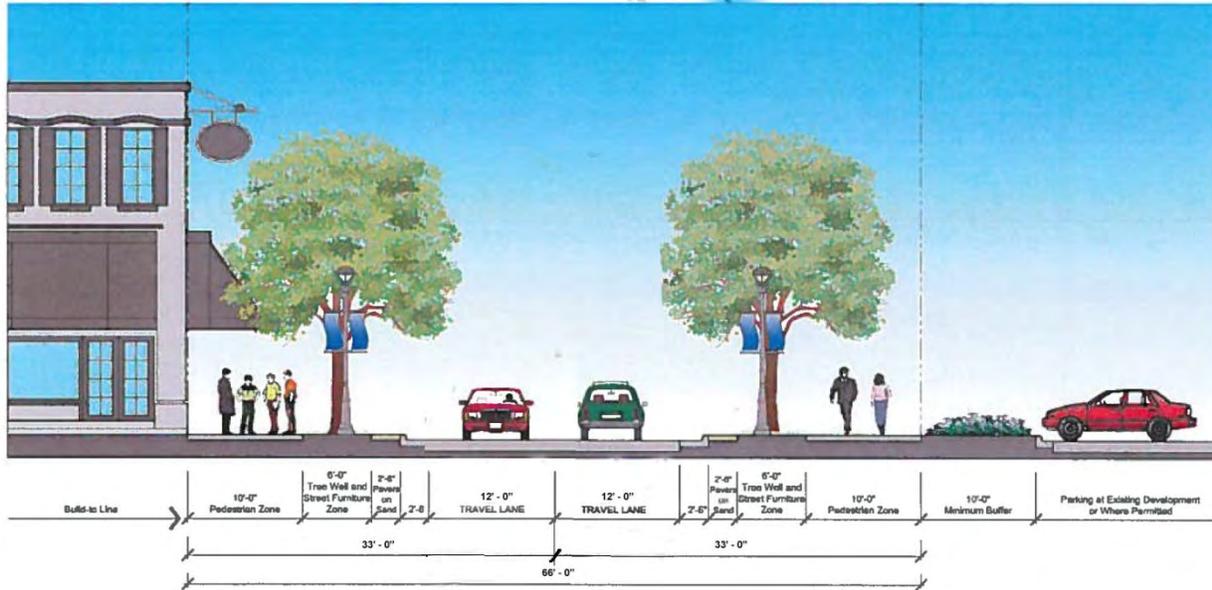


Fig. 6.7.3 Two Lane Main Street Cross-section

On-street parking would be appropriate for this typology, when adequate right-of-way is available.

Pedestrians are to be accommodated with sidewalks adjacent to the roadway as shown. In planning for individual Village Center development, additional sidewalk width should be provided by requiring an additional building setback from the right of way line. In some locations, some pedestrian zone improvements such as areas with street furnishings and pedestrian lights may need to occur outside of the right-of-way.

With a 25 mph speed limit, bicycles would be able to operate in mixed traffic, so no separate bicycle lanes are included in this typology.

6.7.4 Four Lane Boulevard

This will provide a suburban scale road that is compatible with predominantly medium to high density residential and commercial development (Fig. 6.7.4).

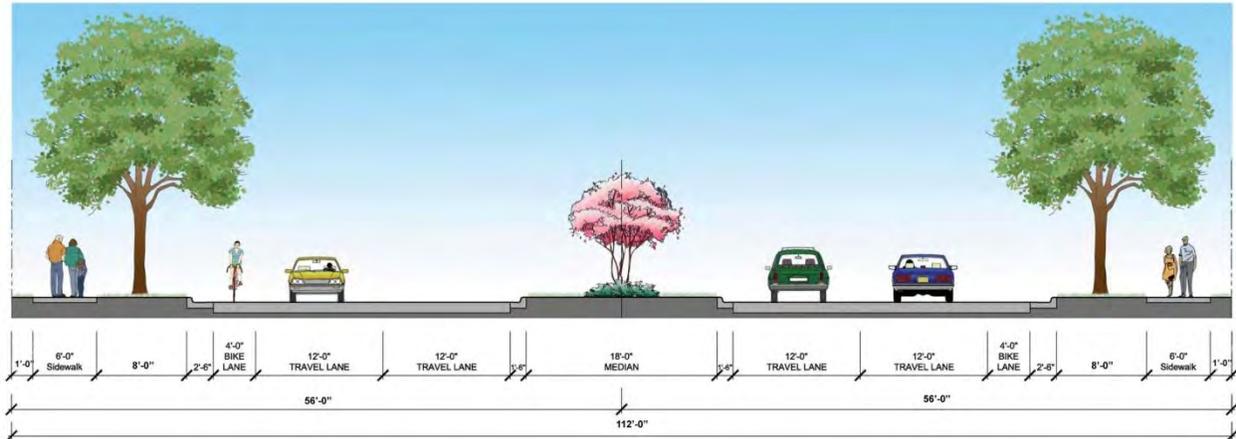


Fig. 6.7.4 Four Lane Boulevard Cross-section

This typology will be appropriate for new or existing alignment situations with existing residential or commercial development, or for new alignment sections. It is intended to be posted for 35 mph speed limits, and should accommodate up to 40,000 AADT.

Pedestrians are to be accommodated with sidewalks adjacent to the roadway as shown. Trees are to be provided between the curb line and the sidewalk for pedestrian comfort and safety.

Bicycle lanes are to be provided adjacent to the travel lane as shown. The bicycle lanes will help the road function efficiently, as they will provide additional turning room for buses and trucks.

6.7.5 Four Lane Village Center Boulevard

The intent of this typology is to provide an urban scale road that is compatible with Village Center mixed use and commercial development, with a strong pedestrian emphasis, while still providing traffic continuity with the Four Lane Boulevard (Fig. 6.7.5).

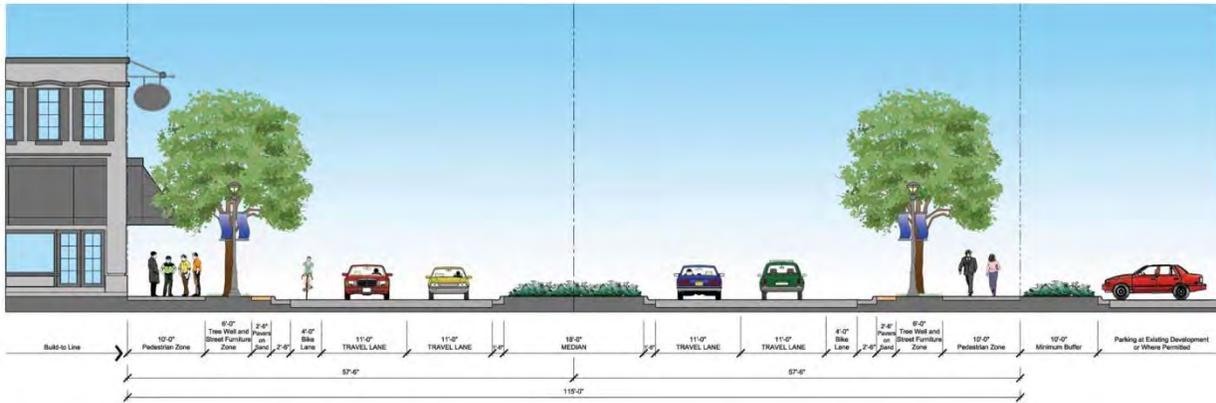


Fig. 6.7.5 Four Lane Village Center Boulevard Cross-section

The character of Village Center development where this typology is used is anticipated to resemble small town or small urban village or town centers. The Four Lane Village Center Boulevard street typology would be appropriate for the Village Center Overlay land use, although this will vary depending on the actual Village Center plan and development. It is intended to be posted for 35 mph speed limits, and should accommodate up to 40,000 AADT.

To maintain efficient traffic movement through the area at the lower speeds compatible with pedestrians, on-street parking would not be appropriate for this typology.

The right of way indicated for this typology should not be reduced. The right of way shown is considered to be a minimum, to provide a minimum width sidewalk and tree well/street furnishing zone.

Pedestrians are to be accommodated with sidewalks adjacent to the roadway as shown. In planning for individual Village Center development, additional sidewalk width should be provided by requiring an additional building setback from the right of way line. In some locations, some pedestrian zone improvements such as areas with street furnishings and pedestrian lights may need to occur outside of the right-of-way.

Bicycle lanes are to be provided adjacent to the travel lane as shown. The bicycle lanes will help the road function efficiently, as they will provide additional turning room for busses and trucks.

6.7.6 Four Lane Thoroughfare

This typology is intended only for Unionville-Indian Trail Road, where the existing right of way of 70 feet and existing development will limit the ability to construct a four lane boulevard. It is intended to be posted for a 35 mph speed limit.

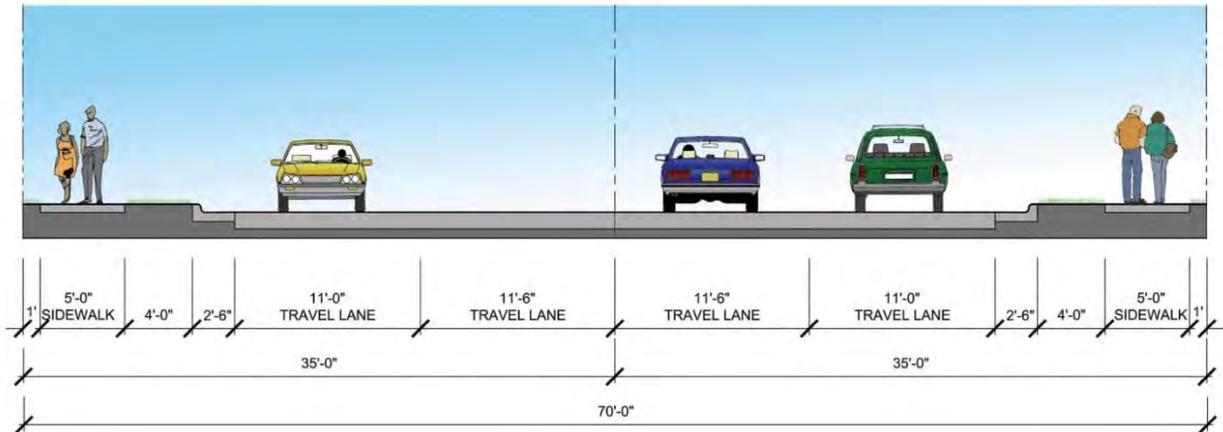


Fig. 6.7.6 Four Lane Thoroughfare Cross-section

Pedestrians are to be accommodated with sidewalks as shown (Fig. 6.7.6). No bicycle lanes will be provided because of the limited right of way. However, there will ultimately be a greenway hike and bike trail nearby.

The right of way width precludes provision of street trees within the right of way. Trees will be required on new development along the street, just outside of the right of way, to the same standard as provided on the four lane boulevard typology.

6.7.7 Six Lane Boulevard

The intent of this typology is to provide a suburban scale road that is compatible with predominantly medium to high density commercial development. Its only application anticipated in Indian Trail would be on US-74, after the Monroe Bypass has been built (Fig. 6.7.7). The existing right-of-way on US-74 is approximately 200 feet.



Fig. 6.7.7 Six Lane Boulevard Cross-section

The six lane boulevard typology is intended to be posted for 45 mph speed limits, and should accommodate up to 50,000 – 60,000 AADT.

Left turn traffic volumes in some instances could require two left turn lanes in the median, which is wide enough to accommodate the additional lane.

Pedestrians and bicycles are to be accommodated with a shared use path as shown. A double row of trees are to be provided for pedestrian comfort and safety.

NCDOT is considering the conversion of the US-74/Indian Trail Road intersection into a superstreet intersection, along with the Unionville-Indian Trail Road, Faith Church Road and Wesley Chapel-Stouts/Sardis Church Road intersections.

It is recommended that the new intersection of Chestnut Parkway with US-74 be constructed as a Michigan Left intersection in coordination with the Indian Trail Road superstreet as shown in Figure 6.7.8, and that it provide for through traffic to pass directly across US-74 through a coordinated traffic signal. This connection is important for supporting the revitalization of the district bounded by Chestnut Parkway, Stinson-Hartis Road, Younts Road and Matthews-Indian Trail Road, as shown in Figure 6.7.9.



Fig. 6.7.8 Coordinated Superstreet and Michigan Left intersections at Chestnut Parkway and Indian Trail Road

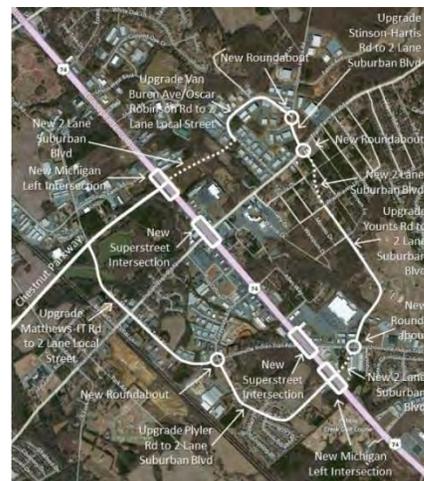


Fig. 6.7.9 Future district revitalization area bounded by Chestnut Parkway, Stinson Hartis Road, Younts Road and Matthews-Indian Trail Road

The intersection of Plyler Road and US-74 has the potential to complete the Chestnut Parkway/Stinson-Hartis Road/Younts Road/Matthews-Indian Trail Road loop, which would help to stimulate redevelopment of this district in keeping with the Town of Indian Trail’s Economic Development Plan. It is recommended that the Unionville-Indian Trail Road superstreet intersection be designed to allow for a future direct connection across US-74 from Plyler Road to a new link with Younts Road, as shown in Figure 6.7.9. Figure 6.7.10 suggests one way this might be accomplished.



Fig. 6.7.10 Coordinated Superstreet and Michigan Left intersections at Unionville-Indian Trail Road and Plyler Road

6.7.8 Four Lane Freeway

The Monroe Bypass will be the only Four Lane Freeway in Indian Trail. The roadway design will be prepared by NCDOT. The interchanges will be important gateways into Indian Trail. NCDOT and North Carolina Turnpike Authority have developed excellent aesthetic design guidelines for the Bypass, as shown in Figs. 6.7.11 and 6.7.12.

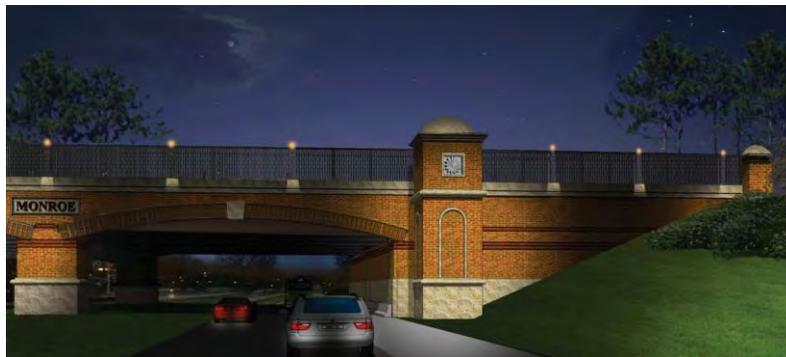


Fig. 6.7.11 Local road bridge over Monroe Bypass



Fig. 6.7.12 Monroe Bypass bridge over local road

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Chapter 7

Tax Base Analysis

INDIAN
TRAIL
north carolina



IMAGINE 

The Town of Indian Trail Comprehensive Plan

This Chapter forecasts the potential increase in real property tax value for the Indian Trail Planning Area based on the 2012 to 2032 land demand forecasts. Real property tax revenue is based on average land and building assessments by land use as demonstrated in Union County tax data. All results are presented in 2013 dollars. Because of the assumptions required for this analysis, it is intended to provide a general measure of magnitude for planning purposes only. It is not a comprehensive fiscal impact analysis.

7.1 CURRENT TAX BASE SHARES

As shown in Table 7.1.1, the Town of Indian Trail Planning Area's real property tax base totaled \$4.96 billion in fiscal year 2012-2013. It is important to note that personal property and equipment is not included in this figure.

Table 7.1.1: Current Real Property Tax Base by Type, Planning Area, 2013

Type	Assessed Value	Share of Total
Residential	\$3,315,689,154	66.8%
Commercial	\$1,645,484,770	33.2%
Total	\$4,961,173,924	100.0%

Source: Union County, Indian Trail,
Kimley-Horn and Associates

The real property tax base is currently weighted at 66.8% residential and 33.2% commercial. Residential land and structures have a total real property value of \$3.3 billion, while non-residential uses (retail, office, and industrial) totaled \$1.64 billion. The current share was derived by utilizing the 'Land Description' classification in Union County tax parcel data.

7.2 POTENTIAL NEW TAX BASE (2012-2032)

Average values in 2013 dollars were used to forecast the future build-out assessed value for both residential and non-residential uses. Average values were obtained from Union County tax data for the Planning Area.

7.2.1 Residential

The 20-year forecasted residential demand has an estimated assessed value of \$1.33 billion (Table 7.2.1). Average values per unit range from \$75,000 for a multi-family unit to \$215,000 for a single-family detached unit. It is important to note that these average values include the cost of land and structure. Single-family detached units are expected to comprise the largest share of new assessed value at \$1.13 billion, followed by \$112.5 million for multi-family, and \$87.7 million for single-family detached (townhouses).

**Table 7.2.1: Potential Residential Tax Base
by Type, Planning Area, 2012-2032**

Type	Total Units	Average Value/Unit	Total Value
Single-Family Detached	5,255	\$215,000	\$1,129,825,000
Single-Family Attached	675	\$130,000	\$87,750,000
Multi-Family	1,500	\$75,000	\$112,500,000
Total	7,430		\$1,330,075,000

Source: Union County Tax Assessor, Kimley-Horn and Associates

7.2.2 Non-Residential

Similar to housing units, average values for net new commercial demand were calculated using 2013 dollars. Derived from Union County tax data, retail and office uses are assumed to have an assessed value of \$200 per square foot, with industrial valued at \$70. Similar to residential, the average values per square foot include the cost of land and structure. Based on the forecasted 2012-2032 demand, the net new non-residential uses could have a total assessed value of \$285.9 million. Retail uses are expected to have an assessed value of \$123.5 million, followed by office at \$115.7 million, and industrial at \$46.7 million.

**Table 7.2.2: Potential Non-Residential Tax
Base by Type, Planning Area, 2012-2032**

Type	Total Square Feet	Average Value/Sq.Ft.	Total Value
Retail	617,669	\$200	\$123,533,800
Office	578,420	\$200	\$115,684,000
Industrial	666,800	\$70	\$46,676,000
Total	1,862,889		\$285,893,800

Source: Union County Tax Assessor, Kimley-Horn and Associates

7.2.3 Vacant Land

Based on an analysis of recent tax parcel data for the Planning Area, vacant land has an average assessed value of \$26,100 per acre (Table 7.2.3). The amount of vacant land required to support the forecasted residential demand is 2,207 acres. It should be noted that the tax base analysis utilizes the mid-point of the forecasted land demand presented in Chapter 4. The 2,207 acres for future development have an estimated assessed tax value of \$57.6 million.

Table 7.2.3: Potential Tax Value of Vacant Residential Land, Planning Area, 2012-2032

Type	Total Units	Total Acres	Average Value	Total Value
Single-Family Detached	5,255	1,971	\$26,100	\$51,433,313
Single-Family Attached	675	127	\$26,100	\$3,303,281
Multi-Family	1,500	109	\$26,100	\$2,854,688
Total	7,430	2,207		\$57,591,281

Source: Union County Tax Assessor, Kimley-Horn and Associates

As shown in Table 7.2.4, the forecasted non-residential land demand is approximately 170 acres. Based on the average value of \$26,100 per acre, the vacant land required to complete 1.8 million square feet of retail, office, and industrial space would have a total assessed value of \$4.4 million.

Table 7.2.4: Potential Tax Value of Vacant Non-Residential Land, Planning Area, 2012-2032

Type	Total Square Feet	Total Acres	Average Value	Total Value
Retail	617,669	52	\$26,100	\$1,357,000
Office	578,420	49	\$26,100	\$1,270,771
Industrial	666,800	69	\$26,100	\$1,797,879
Total	1,862,889	170		\$4,425,650

Source: Union County Tax Assessor, Kimley-Horn and Associates

7.3 POTENTIAL FUTURE TAX BASE SHARES

Table 7.3.1 demonstrates the forecasted assessed value in the Indian Trail Planning Area in 2032. Based on the demand forecasts, the potential additional assessed value between 2012 and 2032 could total \$1.61 billion; the 7,430 new residential units would make up over 80% of the total.

Table 7.3.1: Potential Real Property Tax Base by Type, Planning Area, 2032

Type	Assessed Value (Current)	Additional Assessed Value (2012-2032)	Less Value of Vacant Land*	Forecasted Assessed Value (2032)	Share of Total
Residential	\$3,315,689,154	\$1,330,075,000	\$57,591,281	\$4,588,172,873	70.4%
Commercial	\$1,645,484,770	\$285,893,800	\$4,425,650	\$1,926,952,920	29.6%
Total	\$4,961,173,924	\$1,615,968,800	\$62,016,931	\$6,515,125,793	100.0%

Note: This column represents the value of currently vacant land for future development.

Source: Union County, Indian Trail, Kimley-Horn and Associates

As previously noted, average values used in this analysis include the cost of structures and land. In order to avoid double-counting the value of land in this analysis, the value of vacant land was subtracted from the net new demand. This equates to a total forecasted assessed value of \$6.51 billion in 2032. Overall, the real property tax base is forecasted to be 70.4% residential and 29.6% commercial in 2032. Residential land and structures would have a total real property value of \$4.6 billion, while non-residential uses (retail, office, and industrial) could total \$1.9 billion.