

CHAPTER 5: APPLYING THE VISION

EXISTING CONDITIONS SNAPSHOT

This study examines the 219 mile Route 29 corridor from the North Carolina state line to Gainesville, VA. Known south of Gainesville as the Seminole Trail, Route 29 is also known as Lee Highway north of the study area. The journey along Route 29 is very picturesque, including vistas with rolling hills, scenic farms, dense forests, small towns and historic sites. However, as development encroaches on the corridor, the free flowing nature of travel becomes interrupted by the introduction of stoplights and the views become somewhat encumbered by roadside development.



The corridor travels through twelve counties and three cities and functions, in most areas, as a parkway flanked by scenic rural areas. With a total population of 133,513 residing within two miles of the corridor, the cities along the corridor with the largest populations include Danville, Lynchburg,

Charlottesville, Culpeper and Warrenton (U.S. Census Bureau, 2006). In areas with more concentrated populations, Route 29 functions more like a suburban arterial and requires additional capacity to serve the heightened travel demand. Because additional growth is expected throughout the corridor, towns, cities, and counties are writing comprehensive plans that speak to both transportation and land use solutions that will protect their rural character while also accommodating a certain level of expected growth. The current challenge faced by planning bodies along the corridor is to think more regionally about planning and coordinate planning efforts with other cities and counties as well as the Virginia Department of Transportation.

This should be done in the interest of protecting not only the mobility and safety functionality, but also the scenic, natural, historic and economic resources in the areas that Route 29 traverses.

TRANSPORTATION

While the Route 29 corridor is predominantly traveled by car, there are other transportation options offered throughout the corridor, such as passenger rail service running between Danville and Washington, D.C.; bus service and bicycle paths and lanes within population centers; and commuter bus and carpool services between cities. Each mode of transportation has a unique role in shaping the travel experience within cities and throughout the entire length of the corridor.

Because personally owned automobiles are the most prevalent form of transportation used in the corridor, it is an ongoing challenge for localities to provide services and enable development without compromising the character of the roadway. Access to the roadway currently exists through a series of intersections and private driveways, which contribute to slowing the flow of traffic. Grade separated interchanges,

distributed networks of roadways, and managed access to primary roads are all needed to establish better traffic flow.

Additionally, expanding service for alternate modes of transportation would help to discourage auto reliance. The existing passenger rail service only serves a limited number of commuters. What is needed is a rail option that will better serve commuters to have a measurable impact on the number of cars on the road. Another strong option is to expand commuter bus service and build commuter bus stops and shelters, in addition to incentivizing the use of carpools. These modes are currently underutilized due to limited service and the relatively inexpensive cost of parking, but the development of additional park and ride lots and incentive programs would likely help inspire increased ridership.

Similarly, the expansion of bicycle lanes and trails would improve safety conditions for cyclists and will better promote bicycle use. There are myriad opportunities for the transportation network along Route 29 to grow. What is clear is that as population in communities along the corridor grows, transportation options also need to, in order to keep up with changes in landuse.

LAND USE

The Route 29 Corridor is primarily rural south of Charlottesville (where there is a vibrant and growing urban environment) and again north of Charlottesville until northern Fauquier County (where development steadily increases its footprint into Prince William County and Gainesville). In rural areas, development is sparse, natural resources define the landscape, and services are located primarily off the roadway in small town settings. In these areas, neighborhoods have low density. Residents place a lot of value on maintaining this character and resisting development pressures. However, in areas that are gradually becoming more suburban, neighborhoods are beginning to take shape in the place of fields and in some cases, side by side neighborhoods built by different developers do not have direct access to one another. This access is becoming an ever more important need, as distributed networks of roadways take pressure off primary roadways.

In addition to interparcel access, mixed use and nodal

development (which concentrates housing near offices and businesses) is being encouraged to help condense trips and connect people with services. However, each of these land use strategies depends on a connection with transportation services to be fully successful. Subsequently, residential development continues to be built in low density patterns, which creates additional needs for access to primary roads for private cars. This development pattern is expected to continue, unless communities specifically direct higher density growth to certain areas.

Currently, development pressures are such that when an opportunity arises to build a big box store for a large retailer or create new housing, the opportunity is sometimes seized without much heed for the comprehensive plan or concern for neighboring land uses. This tendency results in patchwork land uses that do not necessarily relate well when placed next to one another. It also leads to the addition of stoplights on an already stoplight-laden roadway. These land use patterns are putting more pressure on primary roadways than they can handle and planning policies are needed to address this problem and direct where development occurs. Hence, a greater effort is being made, within the Route 29 corridor, to look at comprehensive, coordinated, long range planning.

CONTEXT AREAS

Within this study, the Route 29 corridor has been divided into fourteen geographic areas to group recommendations by physical location. Recommendations address challenges currently experienced along Route 29 pertaining to: roadway operations, access and capacity; rail and transit; bicycle and pedestrian facilities; and how land uses interface with current transportation systems. Areas analyzed include:

1. **Danville/ Pittsylvania County**, from the North Carolina border to the Campbell County line
2. **Campbell County/Lynchburg**, from the Pittsylvania County line to the James River
3. **Amherst County**, from the James River to the Tye River

4. **Nelson County**, from the Tye River to the Albemarle County line
5. **Southern Albemarle County**, from the Nelson County line to US 250
6. **Northern Albemarle County/Charlottesville**, from US 250 to the Greene County line
7. **Greene County**, from the Albemarle County line to the Madison County line
8. **Madison County**, from the Greene County line to the Culpeper County line
9. **Culpeper County/Southern Fauquier County**, from the Madison County line to Route 28
10. **Mid Fauquier County/Warrenton**, from Route 28 to US 29 Business North
11. **Northern Fauquier County/New Baltimore Area**, from US 29 Business North to the Prince William County line
12. **Prince William County**, from the Fauquier County line to I-66
13. **The Route 28 Corridor**, from Route 29 to Manassas

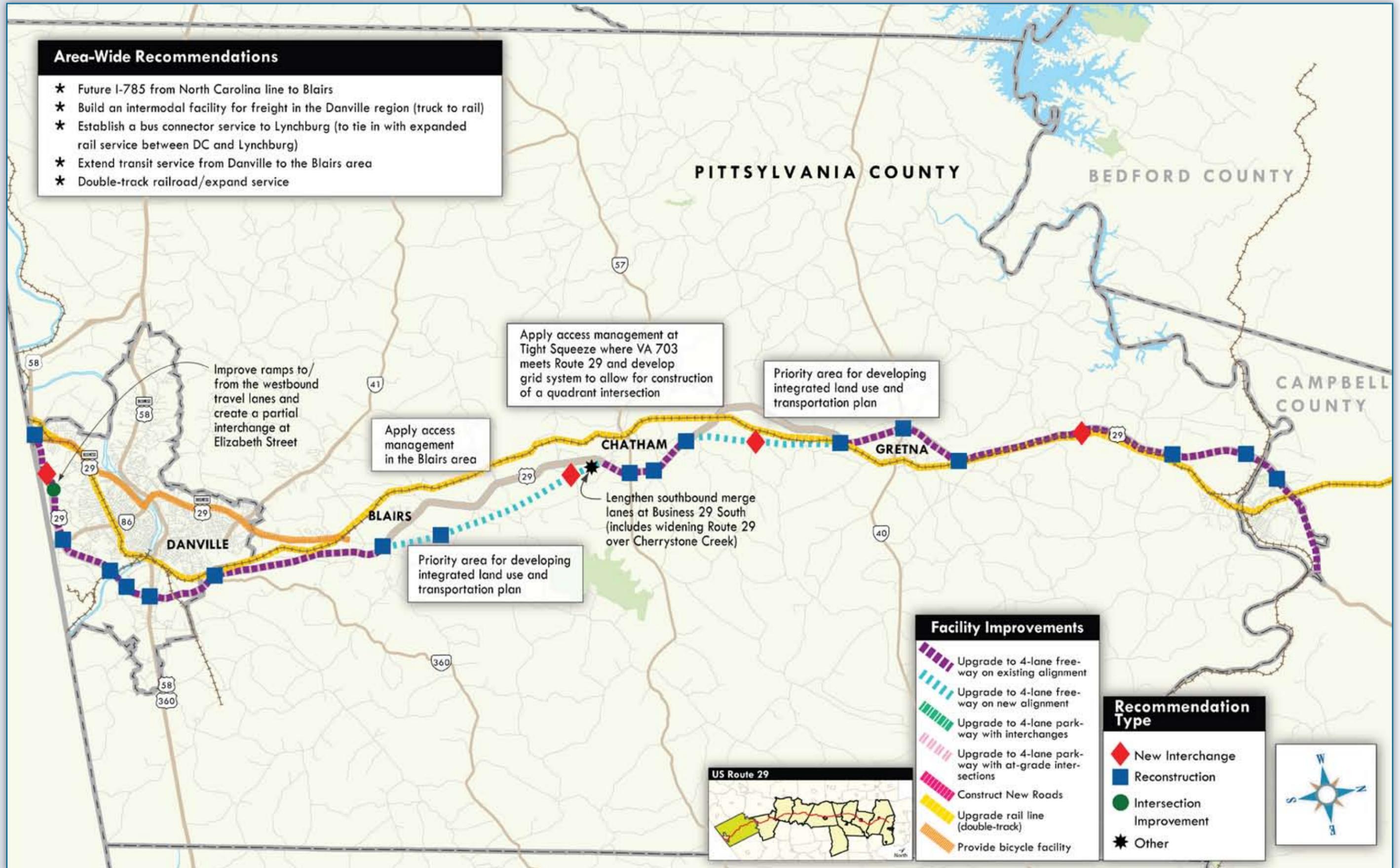
In the pages that follow, each of these areas is presented in greater detail and specific recommendations are shown that address the transportation challenges currently faced or anticipated in each area. The one recommendation that carries through each of the areas transected by Route 29 is that the existing rail corridor should be double tracked the entire length of the Route 29 corridor, to expand rail service and open the entire corridor to multiple modes of transportation.

Several recommendations apply to most or all of the study corridor. These include:

- Addition of rail capacity through the entire corridor with the goal of having dual track. While dual tracking is a long-term goal, this recommendation could be implemented over time in phases that address locations that adversely affect on-time performance of freight or passenger rail.
- Develop and apply strengthened access management throughout the corridor, with initial efforts focused on higher growth areas. With access management, it should be recognized that developing and putting plans in place within areas that are still undeveloped is generally easier and more effective than retrofitting already developed areas.
- Construct park-and-ride lots in tandem with the development of expanded transit service. A limited number of specific locations are shown within various areas; additional locations should be identified as part of follow-on efforts to this study.



DANVILLE/ PITTSYLVANIA COUNTY



DANVILLE/ PITTSYLVANIA COUNTY

Extending approximately forty-six miles north from the North Carolina border to the Campbell County line, the Danville/Pittsylvania County Area is predominantly rural, with a population of 21,444 concentrated within two miles of Route 29. Construction, retail trade and manufacturing make up the three largest industry employers for the county, employing 25.71%, 15.62%, and 15.01% of the working population, respectively.

Route 29 is the primary north/south road serving this area, while Route 58 is the main east/west road. Amtrak's Crescent Trail runs through this area and air mobility is available through the Danville Regional Airport.

The vision for Route 29 from North Carolina to Amherst County is to develop the road as a limited access highway with grade separated interchanges; this includes the full stretch of Route 29 through the Danville/Pittsylvania County area. To achieve this, numerous safety improvements are possible along Route 29, within the Danville/Pittsylvania County Area, to better accommodate multiple modes of transportation. It is envisioned that:

- The roadway itself could be improved to highway standards to enhance capacity.
- Ramps to and from the westbound travel lanes could be improved
- A partial interchange could be built at Elizabeth Street to ease the transition from Route 29 north into Danville.
- With seventy-six vehicular crashes in Pittsylvania County between 2004 and 2006, safety improvements could be made at the intersections in which the most crashes occurred to prevent future mishaps. Updating signal timing and synchronization every three years is one solution that could help prevent future crashes.
- To encourage transit use, establishing a bus connector service to Lynchburg would help Danville residents tie in with the expanded rail service between Lynchburg and Washington D.C., as well as potentially serve those who commute to and from Lynchburg for work.
- Extending transit service into the Blairs area from

Danville would promote both the utilization of transit and connectivity between cities.

- In addition to roadway improvements for the benefit of personal automobiles and transit, widening road shoulders on Route 29 would improve riding conditions for cyclists



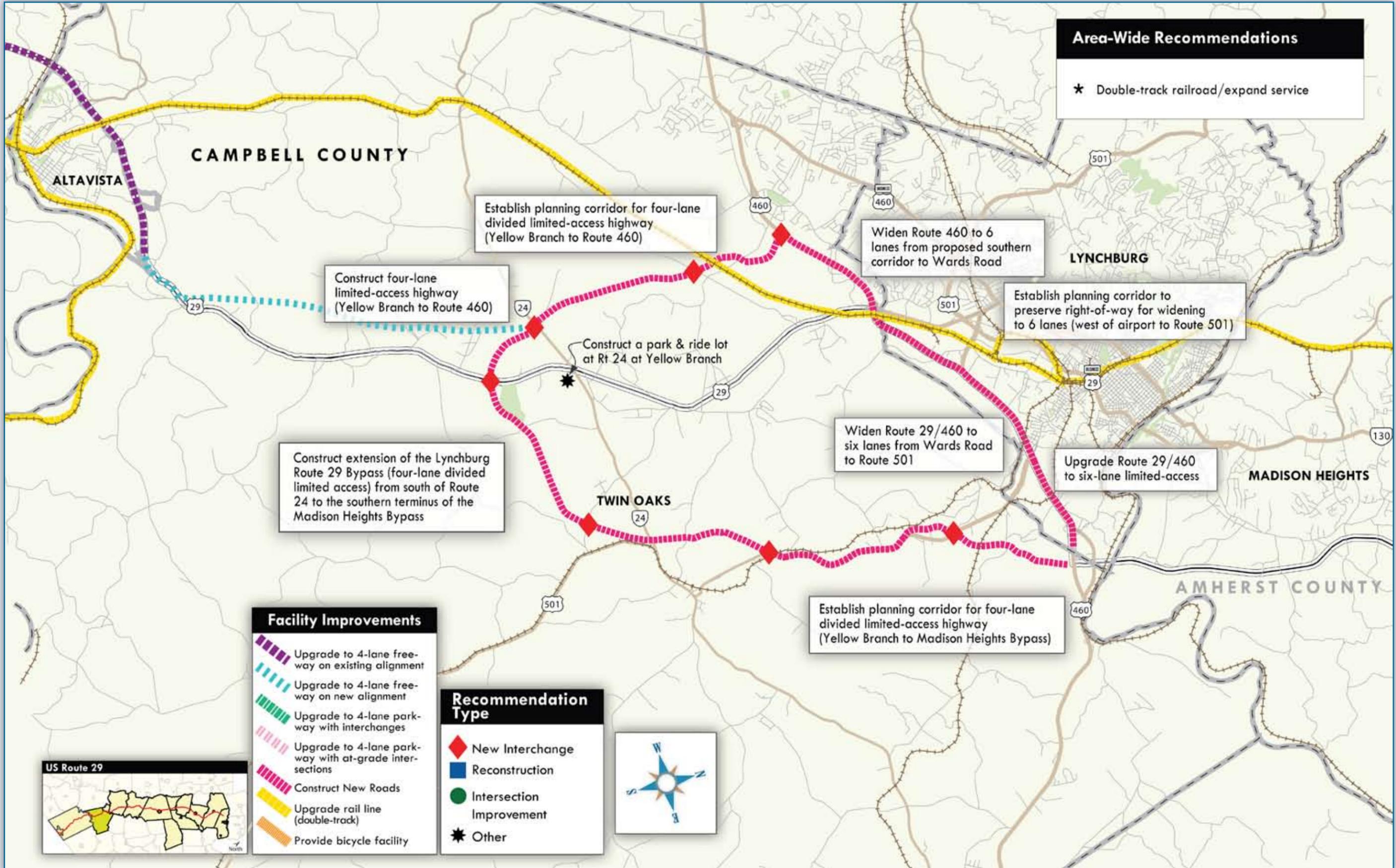
and providing facilities for bicycle travel on Business 29 would ultimately provide better access to local businesses and services. This action would be consistent with the West Piedmont Bicycle Plan, drafted by the West Piedmont Planning District Commission, to promote connectivity between activity centers in the region.

- Finally, the existing passenger rail line that stretches through Danville and Pittsylvania County could be double tracked to improve service and encourage service expansion.

Within the Danville Area, there are there are twelve planning areas where growth will be concentrated. Local comprehensive plans term these areas "prime developable land" and they include Westover, Piedmont Dr, Country Club, South Danville, Southwyck, Downtown, West Main, Airport/Industrial, North Main, Piney Forest Road, and Franklin Turnpike. As the population grows in prime developable land over time, land use and transportation connections will need to be made that support transit and provide an alternate to personal automotive use.

Through Pittsylvania County, access management is needed particularly at Tight Squeeze, where VA 703 meets Route 29. The Route 730 to Route 29 Connector Study as well as the Route 20 Access Management Study (both sponsored by the Virginia Department of Transportation) are in the process of assessing how this intersection, among others in the area, can be improved. One solution could be to develop a grid system of parallel roads to allow for the ultimate construction of a quadrant intersection. Also, lengthening the southbound merge lanes at Business 29 (which would require widening Route 29 over Cherrystone Creek) is recommended to help improve safe driving conditions for both cars merging onto the road and those already on the road heading south.

CAMPBELL COUNTY/ LYNCHBURG



CAMPBELL COUNTY/ LYNCHBURG

Along the twenty-eight miles from the Pittsylvania County line to the James River, the Campbell County/Lynchburg Area is primarily rural. Within a two-mile wide band centered on Route 29, the area has a population of 16,885. Construction, manufacturing, and retail trade are the three largest industries in Campbell County, respectively employing 24%, 19% and 14% of the total workers in the county.

In this area, it is envisioned that Route 29 could be developed as a limited access highway with grade separated interchanges. This vision could be achieved through:

- Closing and consolidating crossovers.
- Changing zoning to discourage strip development and encouraging more nodal development. Campbell County's goal to promote balanced growth and preserve agricultural and forested lands would be best achieved when transportation and land use planning is coordinated and forward thinking.
- Constructing a new four-lane divided limited access

highway from Route 29 south of Route 24 to Route 460 west of the airport to improve capacity

- Widening Route 460 to six lanes west of the airport to 501 Business (Campbell Avenue) and reconstructing Route 29 as a six lane limited access highway from Campbell Avenue to the Madison Heights Bypass.
- Establishing and preserving a highway corridor from Route 29 at Route 24 to the Madison Heights Bypass; this would be a proactive measure to anticipate and accommodate future roadway expansion. Access management in the Campbell County/Lynchburg Area should be tied to capacity improvements. In order to accommodate more cars on the road to meet growing travel demand, stoplights and driveways could be removed or consolidated and interchanges created in their stead. To this end, the Virginia Department of Transportation has conducted access management studies addressing the Route 460 and Route 29 corridors through Lynchburg. Additionally, the Campbell County Comprehensive Plan aims to improve connectivity while coordinating transportation and land use, eliminating conflicts between land use and zoning, and improving safety conditions along travel corridors. The Route 29 Corridor Management Study completed by Campbell

County in 2001 contains a detailed improvement plan for roadway facilities, based on a thorough analysis of existing roadway conditions.

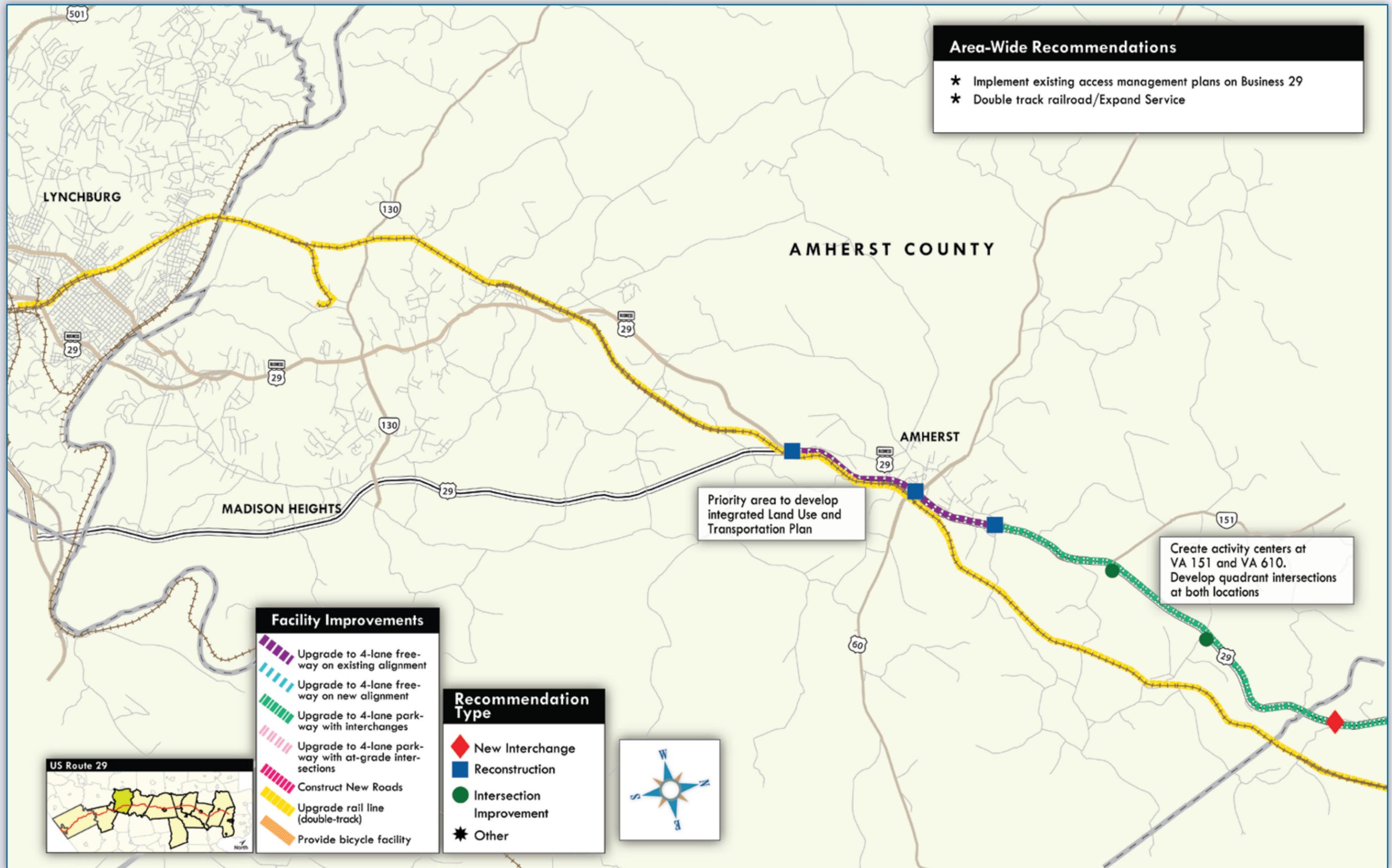
Within this area, there were one hundred twenty-five crashes between 2004 and 2006. In order to reduce the number of crashes in the future, safety, capacity, and access management should be addressed and planned for, both within the area and regionally.

Rail traffic through the county includes both freight (Norfolk Southern and CSX) and passenger (Amtrak's Crescent Route) rail service and there are two airports supporting the area (Brookneal-Campbell County Airport and Lynchburg Regional Airport). Transit service is somewhat limited, including the Greater Lynchburg Transit Company, which includes local bus service, and TransDominion Express, a proposed passenger rail service, but with the creation of a park and ride lot at Route 24 at Yellow Branch, existing transit use would likely increase. However, even with these transit options, other facilities, such as bicycle and pedestrian trails could be encouraged to connect commercial and residential areas in and around Lynchburg. The Blackwater Creek Bikeway and James River Heritage Trail (nine

miles of paved trails) pass through industrial downtown Lynchburg and connect to other area trails. Continuing this type of trail development would be beneficial not only to the city, but to the region as a whole.



AMHERST COUNTY



AMHERST COUNTY

Amherst County’s 21-miles of Route 29 can be characterized as relatively low densitt (8,355 people living within a two-mile wide band centered on Route 29). Much of Route 29 in Amherst County is already also limited access. There are development pressures north of the Town of Amherst and this area would benefit from concentrated development patterns to prevent the kinds of access management pressures experienced elsewhere in the corridor. These development goals could be reached through:

- Development of activity nodes and quadrant intersections at VA 151 and VA 610, to promote better cohesion between transportation and land use patterns and better traffic flow on and around Route 29.
- Implementation of access management strategies on Business 29 to alleviate the constant interruptions to traffic flow. This measure will support implementation of the Traffic Impact Overlay Plan for the Ambriar Area, completed by Region 2000 in 2007.

These recommendations would help not only to improve traffic flow, but would also support Amherst County’s most prevalent industries: construction, retail, and manufacturing.

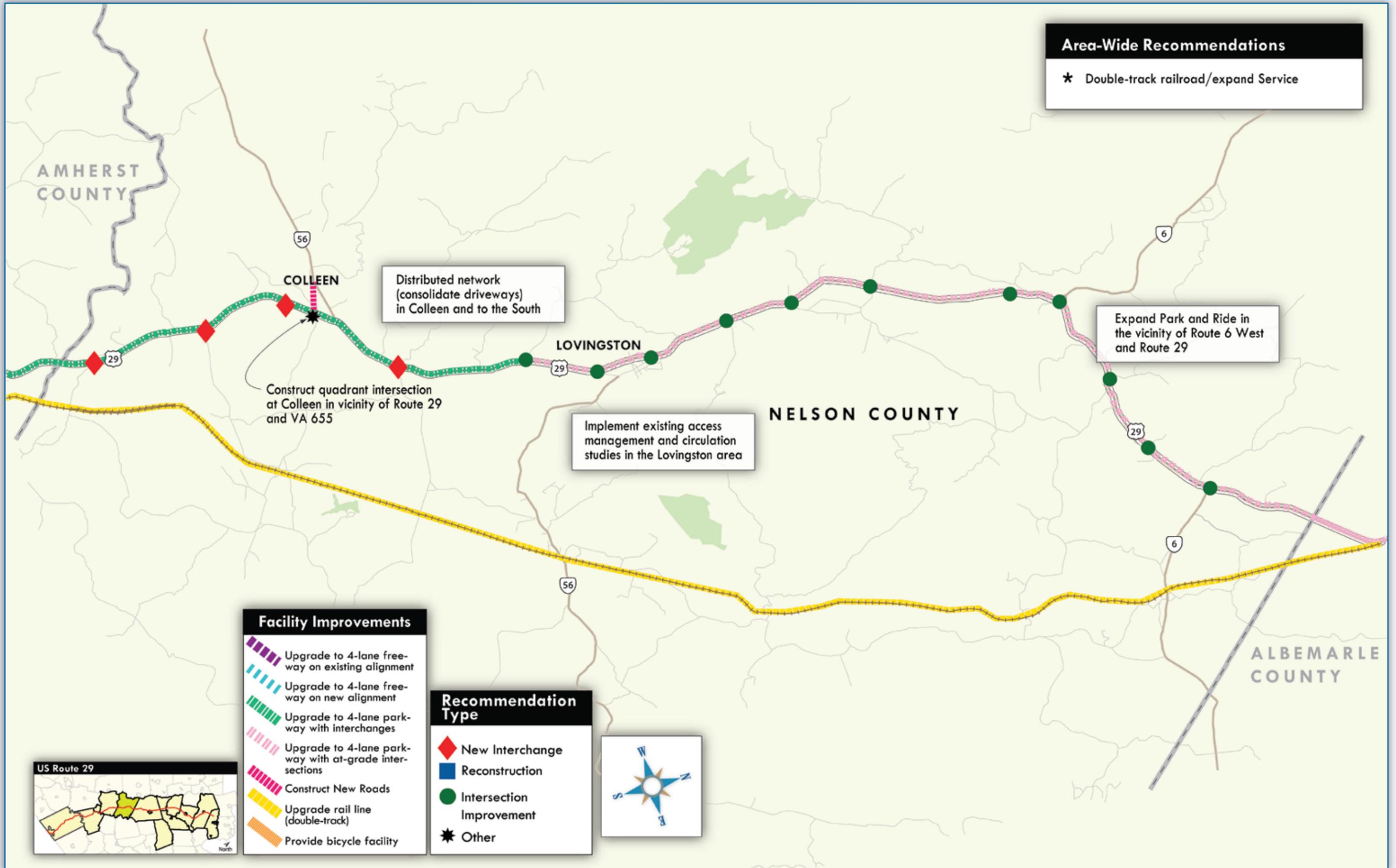
Expansion of Route 29’s capacity in Amherst County could be achieved through upgrading the bypass around the Town of Amherst and extending the limited access concept up to the Nelson County line as a four lane parkway.

While transit services in Amherst County are somewhat limited, reconstructing and reopening the passenger rail station at the Town of Amherst could encourage additional use of regional rail services. The Amherst County Comprehensive Plan aims to require all new developments along Business 29 in Madison Heights to install sidewalks, plan trails and bikeways as alternative means to roads, and continue expansion of area trails such as Percival Island Bike Trail Connector and Virginia

Blue Ridge Railway Trail. . In addition, the county plans to allow and encourage scaled residential and commercial development to locate in “village center” communities. This development pattern has been chosen to promote preservation and use of open space and encourage viable agricultural and forest land uses to maintain the county’s rural character. The county should anticipate increased development pressure at interchange locations along the Route 29 Bypass; therefore, the towns and the county will need to jointly coordinate future land use planning around each town’s borders.



NELSON COUNTY



NELSON COUNTY

From the Tye River to the Albemarle County line, Nelson County is picturesque and rural. Along this twenty-one mile segment of Route 29, most of the land in the county is mountainous or hilly, with relatively little level area. While most development has followed stream valleys and roadways, there are numerous scenic vistas in the county, most notably the Afton Overlook at the Blue Ridge Parkway, which has a 14,784 acre viewshed. In addition, over one hundred and forty prehistoric and historic sites have been identified in the county, which hold an important role in telling the story of the area. Another important part of that story is the current employment rate; 26% of jobs in the county, according to the Bureau of Labor Statistics (2008), are dedicated to accommodation and food services, 13% are in construction, and 9% are in manufacturing. It is critical that as Nelson County continues to develop, it supports the area's largest industries.

Within Nelson County, it is envisioned that the limited access parkway concept (wherein design speed is lower and interchange footprint is smaller than an "interstate" type freeway) could be extended to Lovingston. From Lovingston, Route 29 could be developed as a parkway with at-grade interchanges. While traffic volumes are relatively low in Nelson County and growth pressures are not expected to be high, the county has generally more mountainous terrain than much of the corridor. Existing and new at-grade intersections are particularly problematic in areas with such topography and goals to reduce, consolidate, and carefully place and designate access points are particularly important. The topography can also afford opportunities to provide for grade-separation and such opportunities should be developed to be as sensitive to the surrounding context as possible. These recommendations stem from the fact that Nelson County experiences circulation challenges partially because of intersections that interrupt traffic flow and driveways that front on Route 29. Within Nelson County, there are thirteen intersections with four or more approaches, approximately eighty t-intersections and/or driveways on the northbound side of Route 29, and more than 90 such intersections and/

or driveways on the southbound side. Thus, circulation improvements are needed, particularly in Lovingston, to help traffic move more fluidly. Additionally, access management, through the consolidation of driveways is needed, especially in Colleen. Access roads and distributed networks, if developed, would help to improve both circulation and safe access to primary roads. There is the potential of using historic roads within Nelson County to achieve this goal, but the development of a limited number of new connecting roads would also be needed. Moreover, constructing a quadrant intersection at Colleen in the vicinity of Route 29 and VA 655 would help



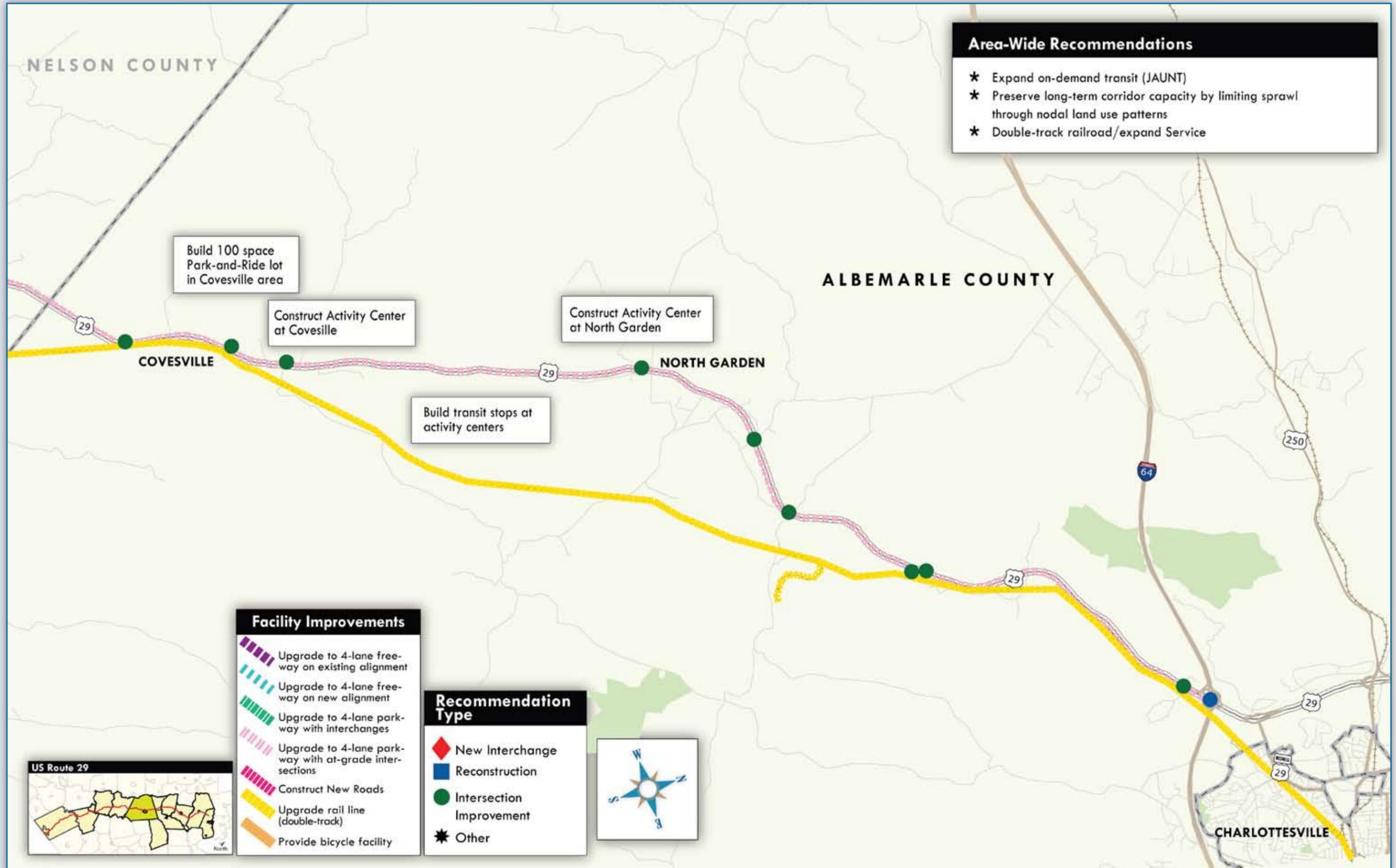
control how Route 29 is accessed in this area, as well as help create a standard for how development in the area should follow access management principles as detailed in the Lovingston Safety Study, completed in June of 2005.

While Nelson County is predominantly rural, there are a handful of high growth areas, including Rockfish Valley, Schuyler and Lovingston. As these areas continue to grow, principles from

Nelson County's comprehensive plan should be integrated into local planning efforts. These concepts include: maintaining and encouraging a diverse and vibrant local economy in designated development areas that are compatible with the county's size and rural character; having new residential development support the additional county costs associated with the development; and recognizing the importance of the county's agricultural economy.

To preserve these characteristics, transit is going to become ever more important. The current transit provider, JAUNT, serves the county along Route 29 and along Route 56 with service to Charlottesville. New passenger rail service by the TransDominion Express will serve the area with a stop proposed at the Oak Ridge Estate. Formal bicycle and pedestrian facilities in the County, if expanded from the existing sidewalks in Lovingston and Gladstone and the Appalachian Trail in the mountains, would also help to facilitate enjoyment of the area's rural character.

SOUTHERN ALBEMARLE COUNTY



SOUTHERN ALBEMARLE COUNTY

Southern Albemarle County stretches approximately twenty miles from the Nelson County line to US 250. Within Southern Albemarle County, Route 29 is envisioned to be a parkway with at grade interchanges up to I-64. In order to achieve this, alternate connections to parcels of land could be developed, as needed, over time.

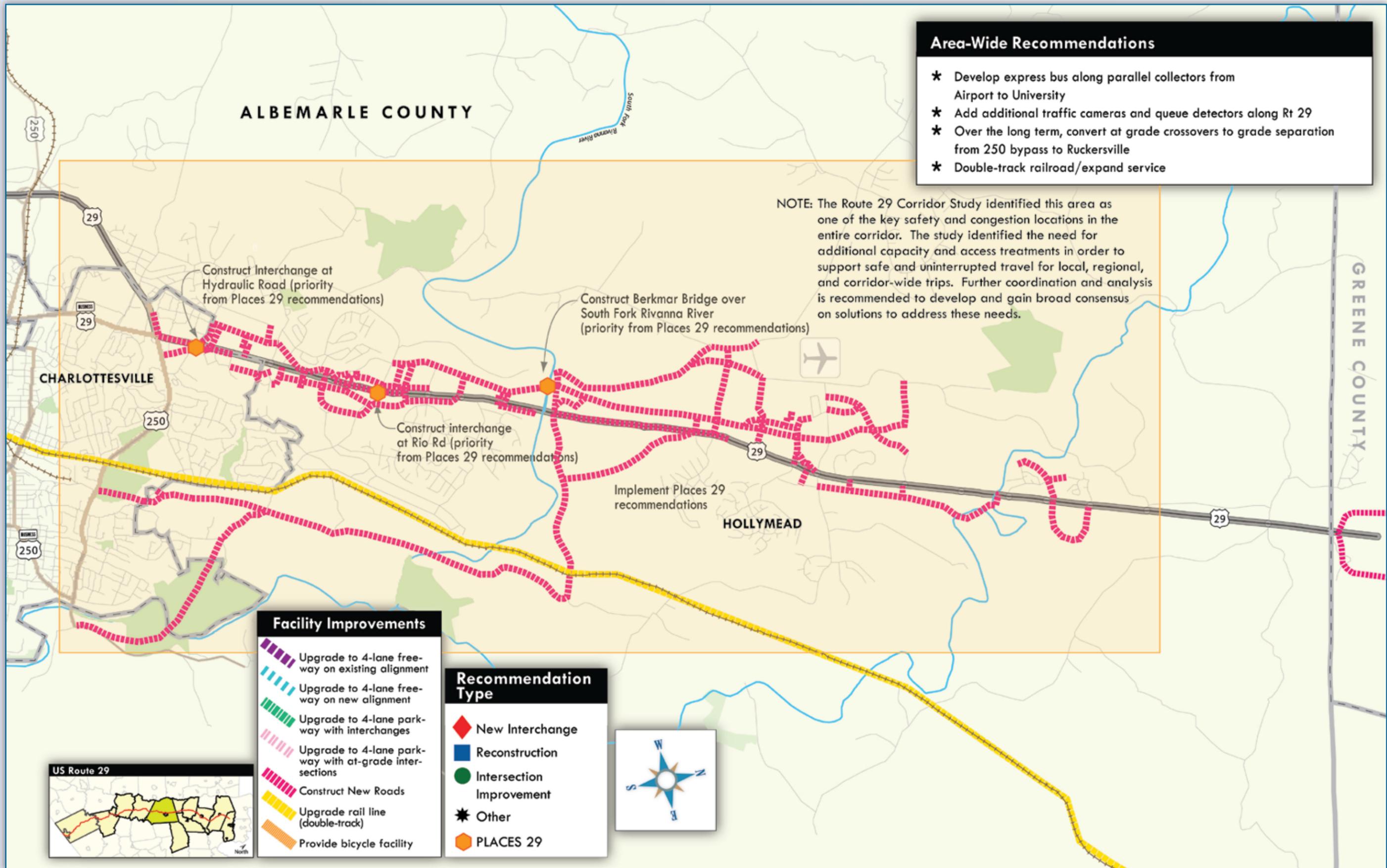
Southern Albemarle County benefits from a relatively low density of driveways. There are half as many driveways and intersections in this area than for a similar length of Route 29 in Nelson County. As with Nelson County, access points, however limited, can present safety problems. The area experienced a total of sixty-six crashes between 2004 and 2006 and there was recently a fatal crash at North garden (in October 2009). It is important, therefore, to continue to limit new access points to the extent possible and to ensure that care is taken in the design and location of any new access points.

This area is rural, much like Nelson County, with a few activity centers. The County's primary growth management goal directs development into designated areas and conserves the balance of the County for rural areas and resource protection. As such, it is recommended that activity centers be localized at Coveseville and at North Garden.

As JAUNT service runs through the area, it would also benefit the area to expand on demand transit services and build transit stops at activity centers. Transit service expansion would likely help not only the everyday commuters, but also those who are employed in and utilize the county's largest industries: retail trade, health care and social assistance, and accommodation and food services. Should transit planning be paired with land use, vibrant, transit-supportive activity centers could be created to contain and support businesses that fall into each of these industries, as together, they employ over 30% of the county's workforce.



NORTHERN ALBEMARLE COUNTY/ CHARLOTTESVILLE AREA



- ### Area-Wide Recommendations
- ★ Develop express bus along parallel collectors from Airport to University
 - ★ Add additional traffic cameras and queue detectors along Rt 29
 - ★ Over the long term, convert at grade crossovers to grade separation from 250 bypass to Ruckersville
 - ★ Double-track railroad/expand service

NOTE: The Route 29 Corridor Study identified this area as one of the key safety and congestion locations in the entire corridor. The study identified the need for additional capacity and access treatments in order to support safe and uninterrupted travel for local, regional, and corridor-wide trips. Further coordination and analysis is recommended to develop and gain broad consensus on solutions to address these needs.

- ### Facility Improvements
- Upgrade to 4-lane free-way on existing alignment
 - Upgrade to 4-lane free-way on new alignment
 - Upgrade to 4-lane park-way with interchanges
 - Upgrade to 4-lane park-way with at-grade intersections
 - Construct New Roads
 - Upgrade rail line (double-track)
 - Provide bicycle facility

- ### Recommendation Type
- New Interchange
 - Reconstruction
 - Intersection Improvement
 - Other
 - PLACES 29



NORTHERN ALBEMARLE COUNTY/ CHARLOTTESVILLE AREA

Northern Albemarle County extends approximately fifteen miles north from where I-64 runs through Charlottesville to the county's northern boundary. Its principal arterial roadway is Route 29 and its land use is characteristically rural. Traveling from the south, the landscape changes dramatically in the area around Charlottesville, where land use patterns intensify and traffic volumes increase dramatically. It is in this context that roadways, rail and transit opportunities, bicycle and pedestrian infrastructure, and transportation-land use relationships are examined for Northern Albemarle County.

High levels of traffic on both Route 29 and major side streets contributed to the 778 crashes in this area between 2004-2006. This is, by far, the highest number of occurrences measured in the Route 29 corridor.

Of particular concern is the stretch between Route 250 and Hydraulic Road, where heavy congestion occurs during many times of the day. One approach for roadway improvements would be to address access management, through the placement of limits on access points and the creation of a grid of local streets or distributed network of roads that encourages traffic to utilize alternate routes. Distributed networks have the benefit of alleviating congestion and creating transportation efficient land use patterns that coincide with managed access of a primary road. This is because the grid or network creates connectivity between local streets thereby creating multiple alternatives to the main route. Currently, the predominant access strategy along Route 29 is the addition of stoplights, which has the effect of interrupting traffic flow and adding to back-ups along the main line of Route 29. One recommendation to address congestion in this part of the corridor is to implement periodic signal re-timing and synchronization every three years, as well as add additional traffic cameras and queue detectors. In lieu of stoplights, it is possible to manage access through the creation of parallel frontage roads (in the place of direct access from driveways and businesses) and right on/right off acceleration/deceleration lanes. Further, it is possible to create service roads that provide access to multiple businesses in the stead of direct access points to individual businesses with roadway frontage.

There are approximately forty driveways in either direction and eleven four approach intersections along Route 29 in Northern Albemarle County. While these serve the individuals who use them, they do more to hinder the overall traffic flow along Route 29. Frontage roads and right on/right off lanes would help to improve these conditions, as would the creation of interchanges. Box interchanges offer a grade separated crossover while preserving options for development and diamond interchanges control traffic on major arterials through the use of ramps. Both have the advantage of maintaining traffic flow, while offering cars a stop-free method of changing direction. Additionally, constructing a quadrant intersection at Rio Road would help to alleviate the congestion that tends to build in both directions along Route 29.

Prior to this study, right-of-way had been acquired to accommodate the potential of building a bypass around Charlottesville. However, because consensus cannot be reached about the alignment of this envisioned bypass, the right-of-way must be sold if not used for transportation purposes by January 1, 2012.

Another mechanism for lessening the existing traffic load on Route 29 is to pursue rail and transit projects that, in keeping with local transit planning goals, would encompass at least 2% of the overall travel demand, reduce auto trips by 5%, and maintain and build on existing networks of bike and pedestrian paths. While additional passenger rail service is being added to the corridor from Washington DC to Lynchburg, the service will likely not attract commuter trips, due to the service times being discussed. However, future expansion of rail service and coordinated hours of service to attract commuter as well as regular passenger trips would likely have a more measurable effect on mode choice and help to alleviate some of the automotive traffic on Route 29. Additionally, creating an express bus service with signal preemption, in lieu of bus rapid transit given the limited number of lanes on Route 29, would also help to mitigate traffic congestion and promote transit use.

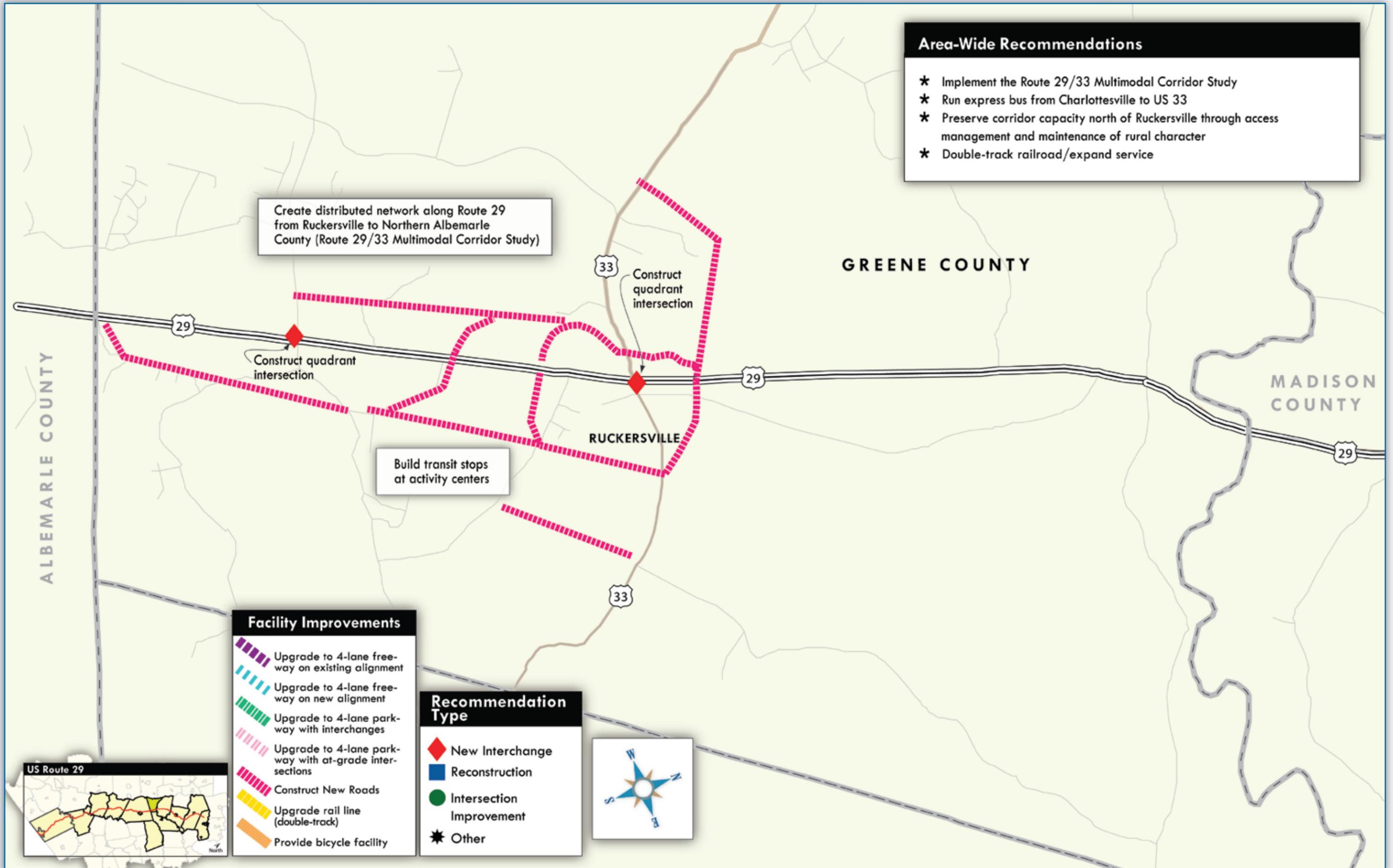
In addition to rail and transit service expansion, bicycle and pedestrian networks could also be expanded. Pedestrian and bicycling infrastructure is insufficient outside of urban areas; improvements are needed where bicyclists and pedestrians are forced to share roads with automotive traffic, which is the case on Route 29 outside of Charlottesville. While there are many

plans in place to address bicycle and pedestrian infrastructure in Charlottesville, including the University of Virginia Bicycle Master Plan; the Jefferson Area Bicycle, Pedestrian and Greenways Plan (2004); and the Charlottesville Comprehensive Plan (2000); only Albemarle County's Places29 Master Plan (2009) addresses the need, for multi-use paths in Northern Albemarle County. With the final draft completed in August 2009, Places29 helps to lay the foundation not only for bicycle and pedestrian networks, but also for future development in Northern Albemarle County. Land use goals, transportation networks, and environmental considerations are interwoven into the Places29 vision and should be implemented along with the recommendations herein.

The final element in assessing how Northern Albemarle County fits in the framework of planning for Route 29's future as a corridor is examining how land use and transportation tie together. Stated planning goals in the area include protecting agricultural and scenic resources and directing growth toward development areas to lessen the strain on rural areas. This means that the current shift between rural and urban will remain intact, but it also means emphasis must be placed on creating a transition that does not coincide with heavy traffic congestion and additional strain on Route 29. As discussed, there are a number of transportation solutions that can be implemented. There are also a number of land use strategies that can be pursued to accomplish this aim.

Of the eleven development areas targeted in Albemarle County, four are planned for Northern Albemarle County and these present significant opportunities to establish mixed-use developments, which will help to uphold the planning vision presented in Places29. In these areas, various land uses including retail, residential, and community development intermingle, thereby supporting the use of transit and promoting walkability. This land use pattern will help to reduce sprawl and consequently protect agricultural areas in the county. It will also help to condense trips and vehicle miles traveled. Interparcel access is also going to be very important as development continues in Northern Albemarle County. Because housing developments tend to have their own road networks built without concern for future adjacent developments, it can and has happened that a neighborhood, once developed, is cut off from other neighborhoods directly adjacent to it. Making interparcel access a developmental requirement will help to ensure that a grid network naturally develops over time.

GREENE COUNTY



GREENE COUNTY

In the short seven miles of rural landscape that Route 29 travels through Greene County, 4,508 people live within two miles of Route 29. This area is sustained by three industries: retail trade, construction, and accommodation and food services, which together employ over 40 % of the working population.

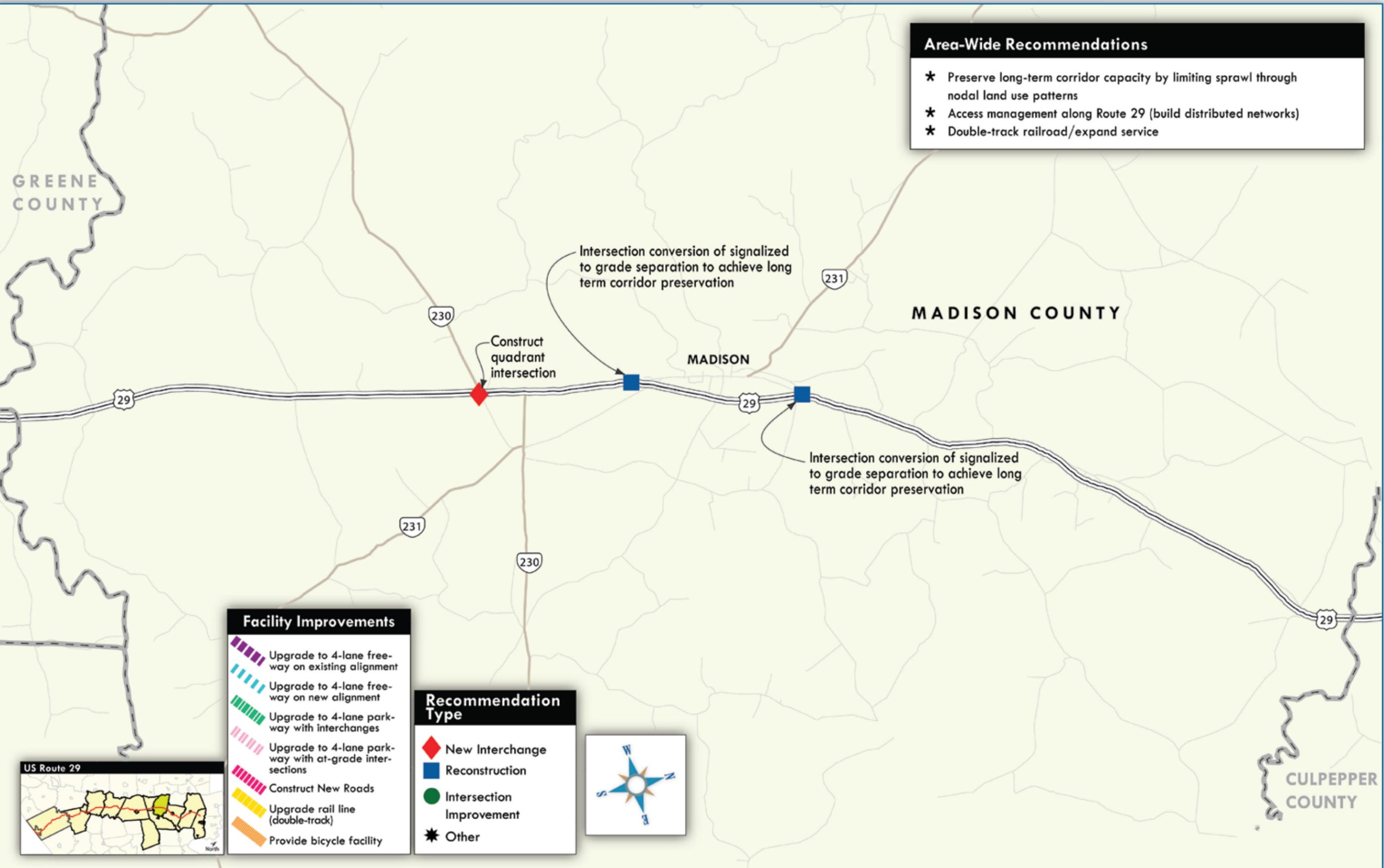
The Greene County Comprehensive Plan, completed in 1997, aims to reduce congestion, pollution, and energy use through improved roads, facilities, and services. This not only includes roads that serve personal automobiles and transit, but also bicycle and pedestrian facilities. The Ruckersville section of the comprehensive plan includes ideas for inter-modal travel along Route 29, particularly for bicycles, and seeks pedestrian and bicycle access to shopping and service areas. As such, it would benefit Green County to:

- Develop a distributed network of roadways along Route 29 that reaches from the Ruckersville area into Northern Albemarle County.
- Build quadrant intersections, to promote better traffic flow, at Route 29 junctions with Routes 607 and 33.
- Implement access management practices in the northern part of Greene County.

Currently, Greene County and the Thomas Jefferson Planning Development Council, with a VDOT Multi-modal Planning Grant, are conducting a multi-modal study to determine how best to meet transportation demands within their boundaries. This study will help to inform how transportation and land use tie together as the county continues to grow.



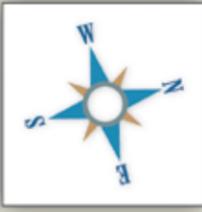
MADISON COUNTY



- Area-Wide Recommendations**
- ★ Preserve long-term corridor capacity by limiting sprawl through nodal land use patterns
 - ★ Access management along Route 29 (build distributed networks)
 - ★ Double-track railroad/expand service

- Facility Improvements**
- Upgrade to 4-lane free-way on existing alignment
 - Upgrade to 4-lane free-way on new alignment
 - Upgrade to 4-lane park-way with interchanges
 - Upgrade to 4-lane park-way with at-grade inter-sections
 - Construct New Roads
 - Upgrade rail line (double-track)
 - Provide bicycle facility

- Recommendation Type**
- New Interchange
 - Reconstruction
 - Intersection Improvement
 - Other



MADISON COUNTY

Madison County is primarily rural, with 3,575 people living within two miles of Route 29. Its primary employment industry is retail trade, representing over 30% of those employed in the county. With development pressures creeping into the southern part of this area, it is likely this industry will grow. It is also likely that the ninety-five automobile crashes experienced between 2004 and 2006 will only portend the driving conditions to come. Therefore, it is recommended that the following transportation improvements be considered within Madison County:

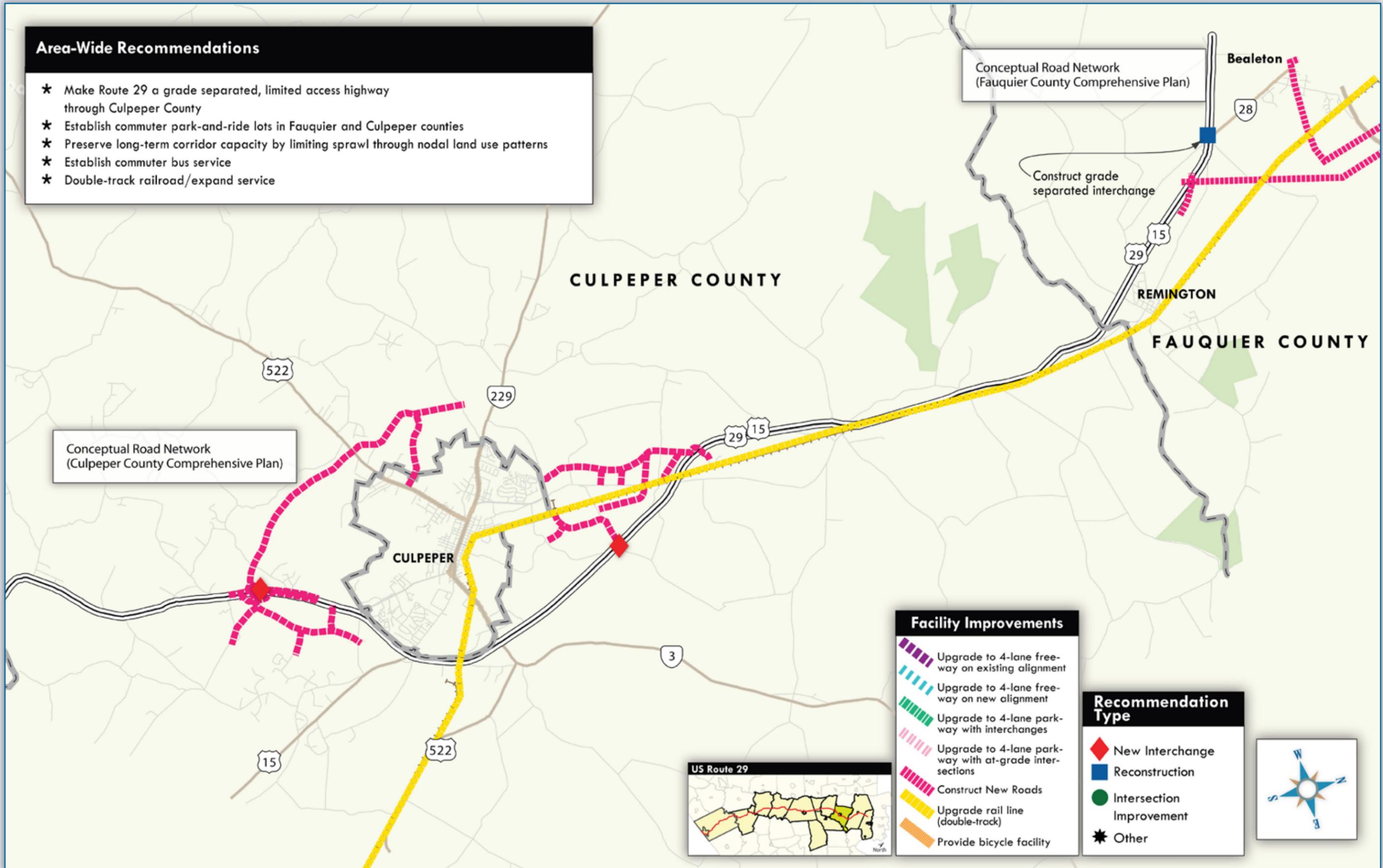
- Implement access management practices throughout Madison County along Route 29. This action is recommended in addition to the access management vision outlined in the Rappahannock-Rapidan Regional Long Range Transportation Plan.

- Create an activity center with quadrant intersection at Route 230, to help focus growth around an already busy junction.
- Develop interchanges on either side of the Town of Madison bypass to improve traffic flow.

Over the seventeen miles that Route 29 travels through this area, development goals are to: maintain agriculture and forestry as the primary land uses; designate specific areas for industrial and commercial uses; provide for moderate growth in the housing stock; and limit residential development in agricultural and conservation areas. Because Route 29 is the main economic generator in this area, development will naturally happen around it and transportation and land use considerations must tie together to prevent sprawl.



CULPEPER COUNTY/ SOUTHERN FAUQUIER COUNTY



- Area-Wide Recommendations**
- ★ Make Route 29 a grade separated, limited access highway through Culpeper County
 - ★ Establish commuter park-and-ride lots in Fauquier and Culpeper counties
 - ★ Preserve long-term corridor capacity by limiting sprawl through nodal land use patterns
 - ★ Establish commuter bus service
 - ★ Double-track railroad/expand service

Conceptual Road Network
(Fauquier County Comprehensive Plan)

Construct grade separated interchange

Bealeton

28

REMINGTON

FAUQUIER COUNTY

CULPEPER COUNTY

Conceptual Road Network
(Culpeper County Comprehensive Plan)

522

229

29

15

CULPEPER

3

15

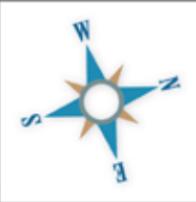
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Facility Improvements

- Upgrade to 4-lane free-way on existing alignment
- Upgrade to 4-lane free-way on new alignment
- Upgrade to 4-lane park-way with interchanges
- Upgrade to 4-lane park-way with at-grade inter- sections
- Construct New Roads
- Upgrade rail line (double-track)
- Provide bicycle facility

Recommendation Type

- New Interchange
- Reconstruction
- Intersection Improvement
- Other



CULPEPER COUNTY/ SOUTHERN FAUQUIER COUNTY

Culpeper’s and Fauquier’s development goals are very similar, according to their comprehensive plans. Both seek to maintain their rural character by directing growth around existing towns, creating new village centers, and building around transportation nodes. Both also hope to preserve agricultural land and scenic open spaces. These land use goals are in direct support of the county’s major employment generators—the retail trade and health care and social assistance industries; they also rely on insightful transportation planning to be successful. Therefore, it is recommended that Route 29 be maintained as a four lane limited access highway through Culpeper and Southern Fauquier County, to sustain ease of travel and mitigate haphazard development.

The Rappahannock-Rapidan Regional Long Range Transportation Plan encourages access management in Culpeper and Fauquier Counties. To support this goal, distributed networks could be built south of Culpeper and North of Remington and an interchange constructed at Route 28.

Transit service is another important consideration. There are 8,033 people living within two miles of Route 29 in Culpeper County and as development pressures intensify, transit options are going to become increasingly more important.

Public transportation in Culpeper is currently provided by the Virginia Rural Transit Authority and Culpeper County. This Authority maintains two buses that provide service within the Town of Culpeper. Culpeper County provides one bus to run from select locations outside of town to destinations in town. In Fauquier County, the population is served primarily by van pool services to and from Washington, D.C. and five commuter

park and ride lots. In addition, the Warrenton-Fauquier Airport is located in Midland. To grow these transit services, adding commuter park and ride lots and commuter bus services in both Culpeper and Fauquier Counties would encourage residents to get out of their cars and would help to alleviate some of the traffic currently experienced on Route 29. Additionally, improvements to bicycle infrastructure could be made. New bike routes designed



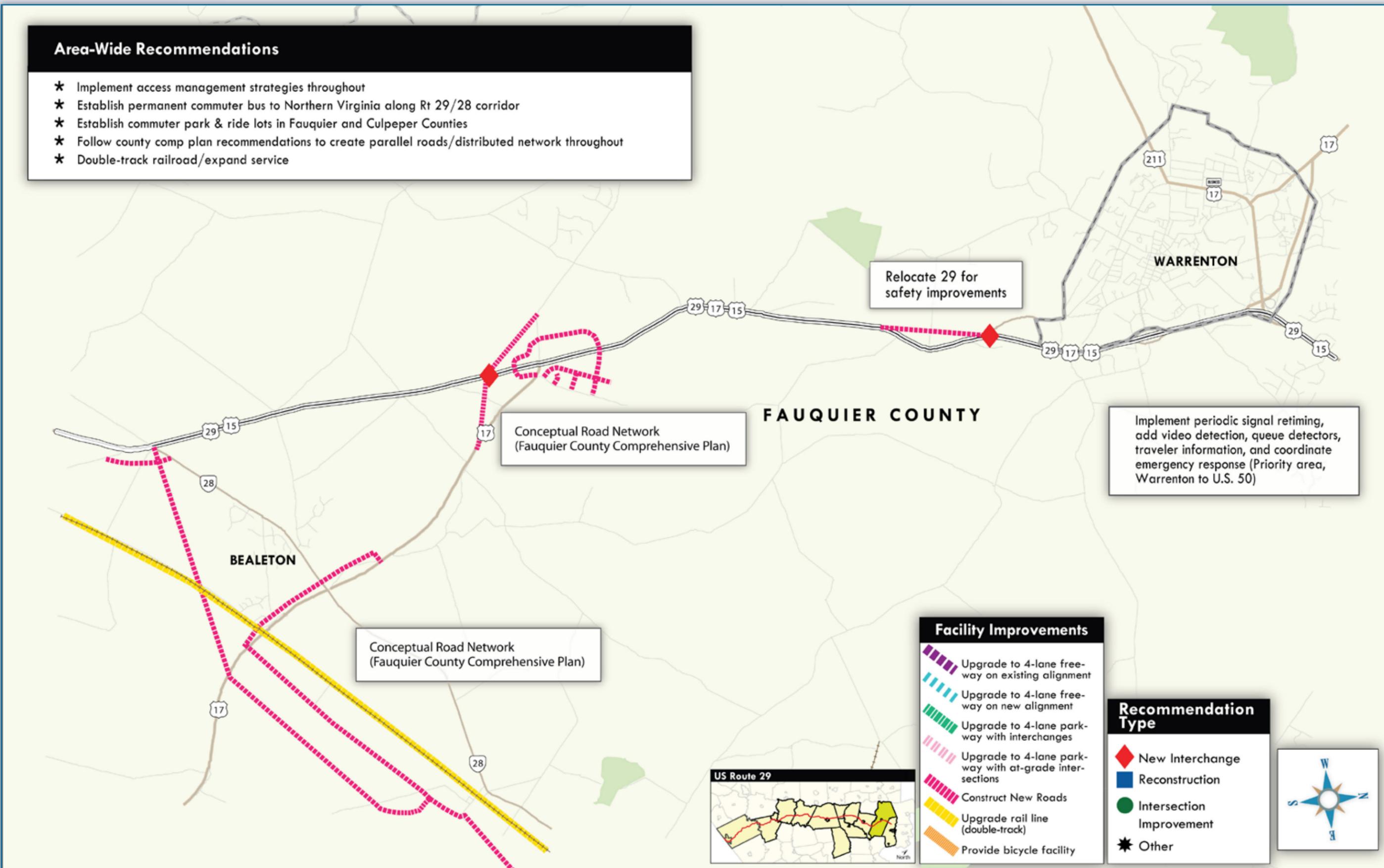
Gainesville. This corridor is full of scenic and historic resources and as such, Culpeper County emphasizes that it should: “work with VDOT to preserve, protect and enhance to the extent practical the aesthetic, environmental and cultural resources in the road corridor.” The plan continues to say that “road improvements on these roads should be designed to reflect the character of the area and lower design speeds should be used on minor collector and local streets, since these streets stress access. Trees should be preserved along the sides of roads when they do not pose a safety hazard. And special guidelines for signs should be developed.” Subsequently, there is a collection of sign ordinances associated with this county in the Journey Through Hallowed Ground Management Study.

to connect areas on the outskirts of the town of Culpeper to the major entrances to the town are described in the Culpeper County Comprehensive Plan and could be built to enhance bicycle and pedestrian friendly spaces.

Another important element in the Culpeper County Comprehensive Plan is the Journey Through Hallowed Ground Corridor, which includes Route 15 from Culpeper north through

MID FAUQUIER COUNTY/ WARRENTON

- Area-Wide Recommendations**
- ★ Implement access management strategies throughout
 - ★ Establish permanent commuter bus to Northern Virginia along Rt 29/28 corridor
 - ★ Establish commuter park & ride lots in Fauquier and Culpeper Counties
 - ★ Follow county comp plan recommendations to create parallel roads/distributed network throughout
 - ★ Double-track railroad/expand service



Relocate 29 for safety improvements

Conceptual Road Network (Fauquier County Comprehensive Plan)

Implement periodic signal retiming, add video detection, queue detectors, traveler information, and coordinate emergency response (Priority area, Warrenton to U.S. 50)

Conceptual Road Network (Fauquier County Comprehensive Plan)

Facility Improvements

- Upgrade to 4-lane freeway on existing alignment
- Upgrade to 4-lane freeway on new alignment
- Upgrade to 4-lane parkway with interchanges
- Upgrade to 4-lane parkway with at-grade intersections
- Construct New Roads
- Upgrade rail line (double-track)
- Provide bicycle facility

Recommendation Type

- ◆ New Interchange
- Reconstruction
- Intersection Improvement
- ★ Other



MID FAUQUIER COUNTY/ WARRENTON

The key feature within the nineteen miles that the Mid Fauquier County/Warrenton Area spans is the growth around Opal and the growth between Opal and Warrenton. 18,593 people currently live within two miles of Route 29 in Fauquier County and they rely on the road as the main thoroughfare to destinations north and south. In addition, construction, retail trade, and health care and social assistance span almost sixty percent of the jobs currently worked in the county. These industries rely on adequate transportation connections and ease of travel. Because of this, traffic signals could be limited or eliminated where possible, to support access management. Within Fauquier County, it is envisioned that the limited access parkway concept (wherein design speed is lower and interchange footprint is smaller than an “interstate” type freeway) could be extended through Warrenton. Subsequently,

any new development that would require a stoplight would do best to plan for its eventual removal and replacement via construction of an interchange.

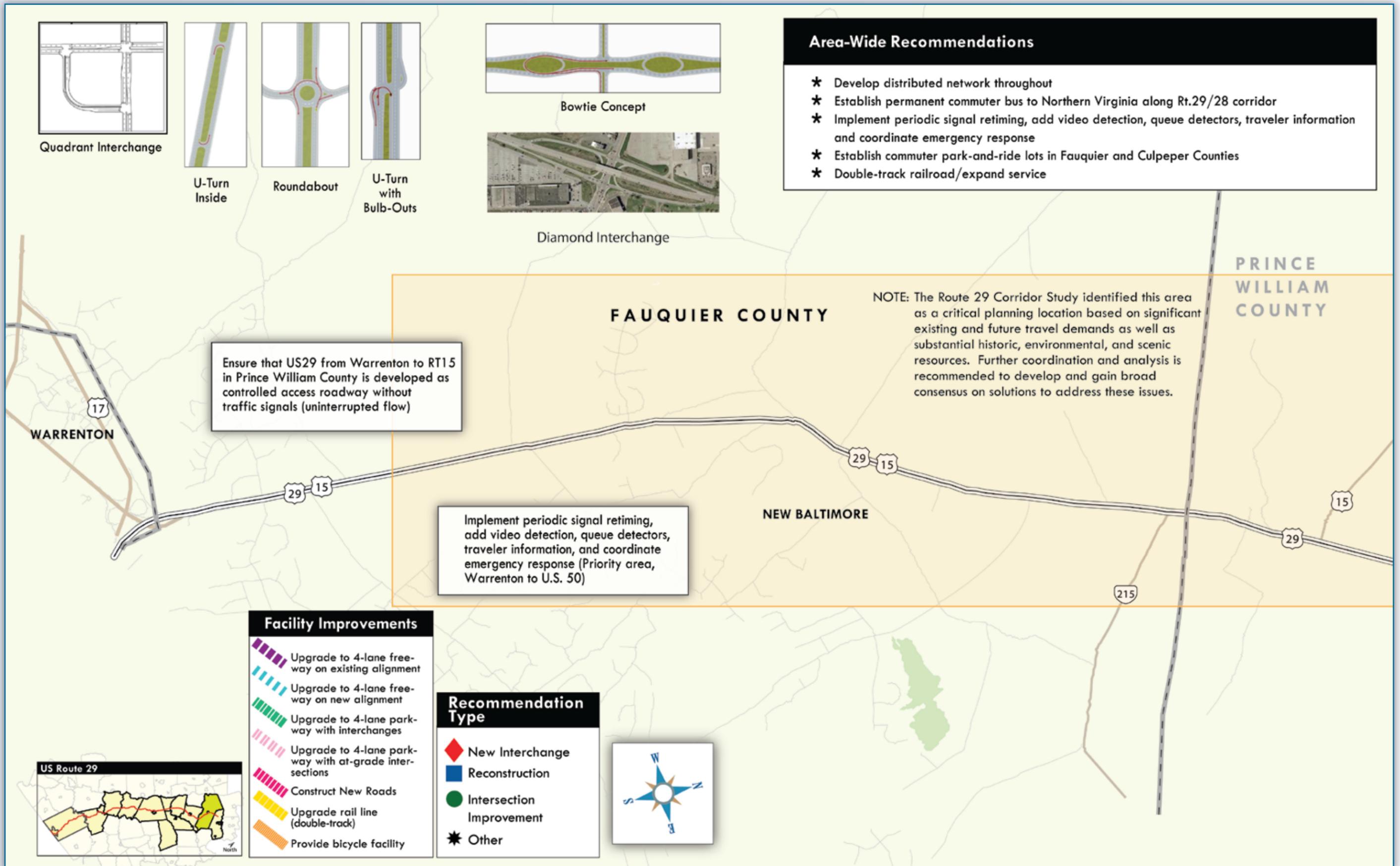
Other possible transportation and land use improvements in the area are:

- Developing a distributed network around Opal to diffuse some of the traffic currently experienced on Route 29. (This recommendation is also found in the Fauquier County Comprehensive Plan.)
- Developing bike and pedestrian trails to create connections between housing and community centers.
- Building interchanges at the southern end of the Warrenton bypass, where the road leads to the Lord Fairfax Community College; at US-17, where a grade-separated interchange is needed; and at Business 29, where the road should be extended south to connect with 29 South per a new alignment. (To avoid the vertical geometry issues immediately south of Warrenton, new alignment of a portion of Route 29 is needed.)
- Creating an activity center where Route 29 and Route 17 meet.
- Implementing periodic signal retiming, adding video detection and queue detectors, and coordinating emergency response to improve highway safety.

In order to grow transit service within the area, a permanent commuter bus service could be established north along the Route 29 corridor and commuter park and ride lots should be built in Fauquier County.



NORTHERN FAUQUIER COUNTY (NEW BALTIMORE AREA)



NORTHERN FAUQUIER COUNTY (NEW BALTIMORE AREA)

The goal in Northern Fauquier County is to establish Route 29 as a parkway with no traffic signals. In order to attain this, existing signals would have to be removed and the County would need to ensure that no new signals are added on a permanent basis. The means of achieving this goal could come through:

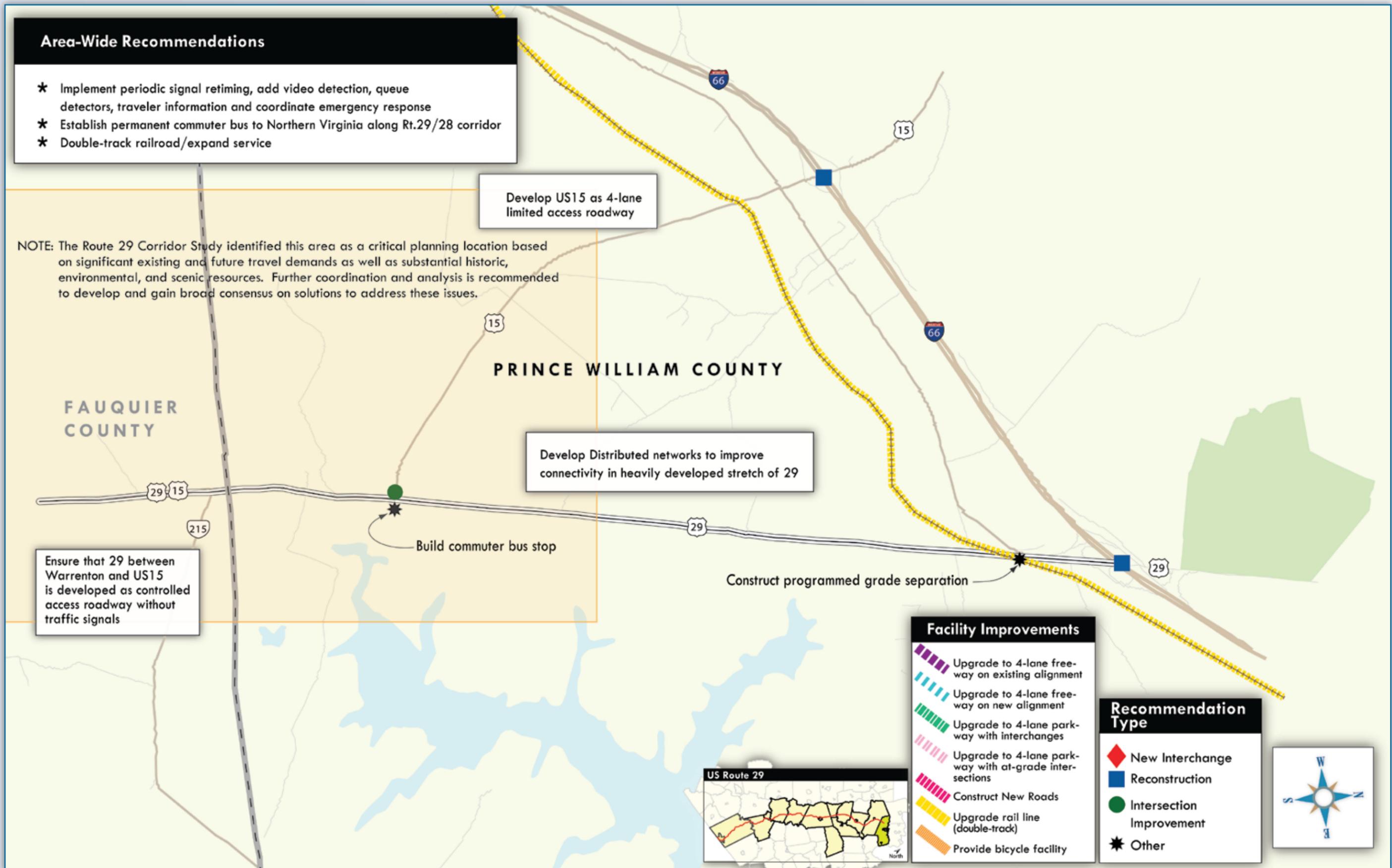
- Identify development nodes in Northern Fauquier County and develop a distributed network to serve those nodes.

- Encouraging alternatives to personal automotive travel by establishing commuter park and ride lots and a permanent commuter bus to Northern Virginia (Vienna-Fairfax). Also, based on the Fauquier Warrenton Destinations Plan (2008), creating better access to destinations and making “walking and bicycling realistic and comfortable transportation choices” would improve the existing transportation network.
- Consolidating roadway entrances and closing crossovers, where possible.

It is important to note in northern Fauquier County that the programmed construction of a new interchange at Route 55 (Linton Hall Road) and grade separation over the railroad tracks west of I-66 will result in changes to travel patterns in the area. Once this project is built, proposed improvements may need to be reassessed in response to changes in travel patterns.



PRINCE WILLIAM COUNTY



PRINCE WILLIAM COUNTY

Within Prince William County, development goals stated in the County’s comprehensive plan include: ensuring adequate land to supply growing industries; enabling economic development opportunities that will bring new jobs; and encouraging infill development in undeveloped portions of established neighborhoods in the development area. Additionally, the plan acknowledges the need for infrastructure improvements within the development area and high-density, mixed use development near existing and future commuter rail, and other regional transit centers. What exists in this area is steady growth, an influx of retail development, and roadways (primarily Route 29) that are starting to see more traffic than can be safely and efficiently accommodated.

Therefore, it is envisioned that Route 15, within Prince William County, could be developed as a four lane limited access highway to take some of the existing pressure off of Route 29. Because Route 29 is already at a shortfall in capacity to accommodate traffic demand, capacity improvements should be sought to accommodate the steadily growing area. For instance, interchanges at Routes 15 and 66 could be upgraded to accommodate additional demands.



Creating distributed networks throughout the heavily developed stretches in this area would also help the 4,050 people living within two miles of Route 29, as well as the people who travel the road daily, to better circulate within the area. With retail trade comprising 25% of the workforce and construction and accommodation and food services each comprising about 14%, it is critical to have a sufficient number of alternate routes to destinations within this area.

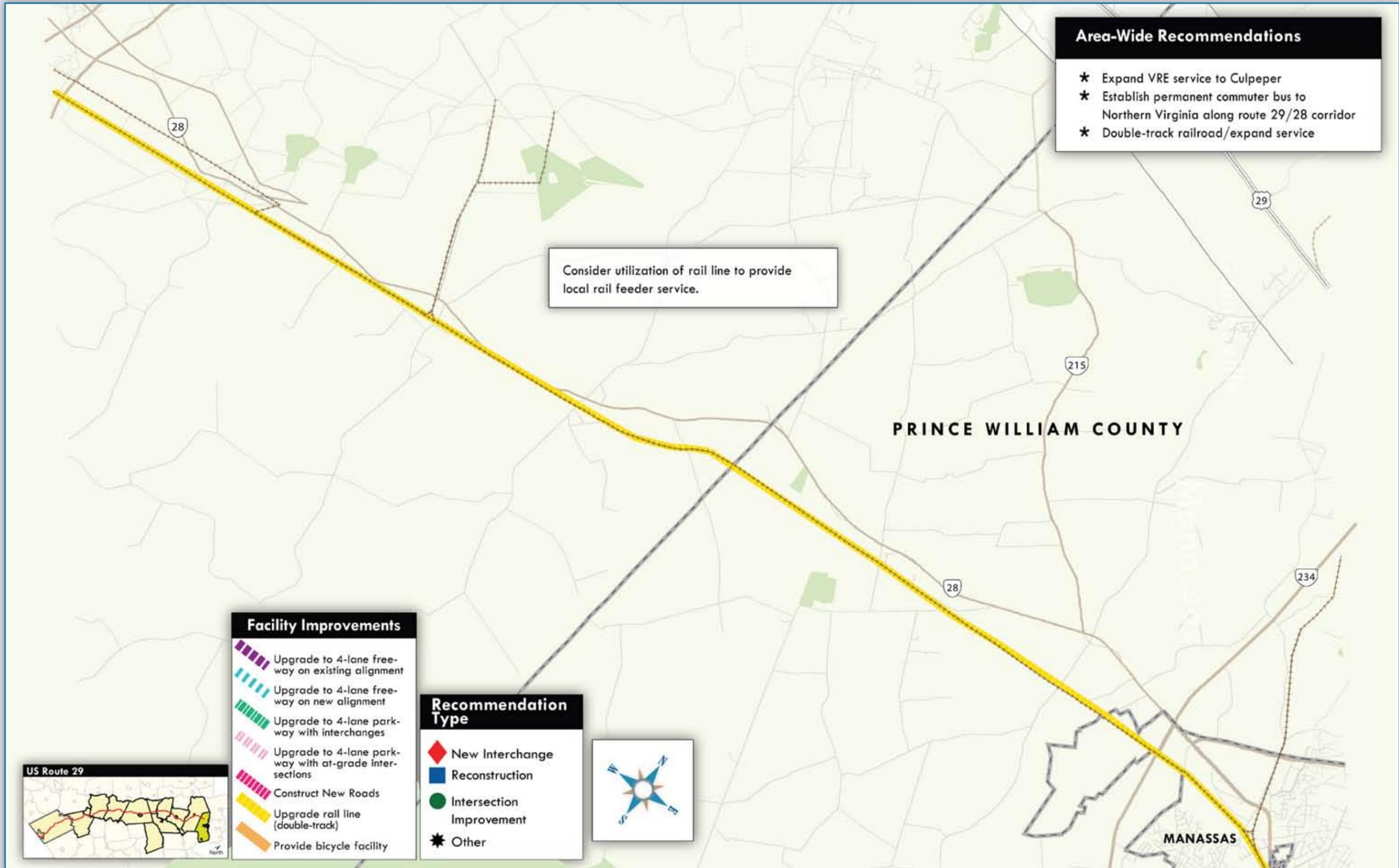
Expanding the Virginia Railway Express commuter rail service into the area would help those commuting to points north reach their destinations without being so auto reliant. Currently, the Manassas Line and Fredericksburg Line of VRE each have three



stations within the County and the Potomac and Rappahannock Transportation Commission (PRTC) provides public transportation within the County. The demand for these services is growing as the area continues to develop and it can be anticipated that as the ten mile stretch of Route 29 continues to underserve the resident population, residents will clamor for additional transportation options and improvements.

One important improvement that must be addressed soon is safety. Of all the areas described, Prince William County has the highest automobile crash record, with four hundred forty-three crashes between 2004 and 2006. This number is four times higher than most other counties, despite the fact that Prince William County has one of the smallest populations living within two miles of Route 29. Critically important to factor into future planning efforts is that Prince William County is the gateway to Route 29 and therefore serves not only local, but also regional traffic. While this traffic tends to diffuse along the roadway as it moves south, it gets congested in Prince William County due to the high number of stoplights and limited number of traffic lanes and routes available.

ROUTE 28 CORRIDOR



ROUTE 28 CORRIDOR

Route 28 offers a tremendous opportunity for the northern part of the Route 29 corridor to look to build transit opportunities. From double tracking rail, to creating commuter bus service, to providing feeder bus services to VRE stations from surrounding communities, such as Warrenton, this alternate corridor could be utilized to take some of the strain off of the northern segments of Route 29.

Existing rail service is being expanded into Prince William County due to growing demand. However, extending this service into Culpeper, along Route 28, would help promote greater ridership through mode choice. This would require double tracking existing rail lines to make more frequent train trips possible to points north and south. Also, because many of the residents in this area commute to Northern Virginia (Vienna, Fairfax, Falls Church, Arlington) and into the District of Columbia, commuter bus service to the Metrorail stations in Northern Virginia would be a very appealing alternative to the personal automobile. These transit options could be pursued to help change the existing mindset throughout the Route 29 corridor that the easiest and fastest (and sometimes, the only) way of reaching a destination is by car.