Bealeton Area Plan

for the Route 17 Corridor

Summary Report

Prepared by Renaissance Planning Group
for Fauquier County, VA

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INTRODUCTION

Background

The historic village of Bealeton grew up as a Depot of the former Orange & Alexandria Rail Road, since renamed Southern Rail Road, which was a major travel way in the Civil War era. With the decline of railroads as a primary mode of transportation, the village of Bealeton lost prominence. Today, the existing Bealeton community centers on the intersection of Routes 17 and 28, and recent regional transportation growth has once again made the community an important regional crossroad. The regional significance of Routes 17 and 28, and easy linkages to I-66, I-81 and I-95 in particular have made the Bealeton area increasingly congested from a transportation standpoint. Looking ahead, the high traffic volumes, the presence of heavy trucks, and the lack of ability to comfortably or safely cross roadways for pedestrians and bikes in the Bealeton area represent significant challenges that could intensify as development in the area increases over time. For these reasons, this plan was commissioned by Fauquier County, as part of a VDOT grant program to implement Urban Development Areas in 2010-2011, in order to provide additional policy and implementation direction within the Bealeton Service District Plan for the Routes 17 and 28 corridors in Bealeton.

Planning Context

In 2007, the Virginia General Assembly added Section 15.2-2223.1 to the Code of Virginia requiring high growth localities to designate Urban Development Areas in their comprehensive plans by June 30, 2011 (counties) and June 30 1, 2012 (cities and towns). Designated Urban Development Areas ("UDA") are to be areas of reasonably compact development that can accommodate 10 to 20 years of projected growth. In 2010, the legislation was amended to establish density and design criteria for UDAs and to improve the coordination between transportation and land use. Based on Fauquier County's population growth from 2000 to 2010, the County is required to amend their Comprehensive Plan to incorporate at least one Urban Development Area that will allow for development at a density of at least four single-family residences, six townhouses, or 12 apartments, condominium units, or cooperative units per developable acre, and a floor area ratio of at least 0.4 per acre for commercial development, or any proportional combination thereof.

In 2010, the Virginia Department of Transportation ("VDOT") created the Urban Development Area Local Government Assistance Program, to assist communities in revising their planning and policy frameworks to comply with the legislation. Fauquier County was awarded a Tier II grant within this program. As a participant in the program, the County is required to revise their comprehensive plan to

incorporate at least one urban development area and revise their zoning and subdivision ordinances to incorporate the principles of new urbanism and traditional neighborhood design. In addition, the County was required to create a small area plan for all or a portion of the UDA and analyze the specific traffic impacts of such plan. As part of the Urban Development Area legislation, the County has chosen to designate one of the Urban Development Areas within the existing Bealeton Service District.

Purpose of the Bealeton Area Plan for the Route 17 Corridor

The adopted Bealeton Service District Plan is the primary county policy document that guides development in the Bealeton Area. The purpose of this Area Plan for the Route 17 Corridor is not to create a new Service District Plan. Instead, the intent is plan is to build on the existing Bealeton Service District Plan by clarifying the preferred vision for the future of the Route 17 corridor, create a conceptual plan for its long-term physical development and provide further detail on transportation and community design along the corridor. However, the basic future land use and policy framework for the area will continue to be guided by the adopted Service District Plan.

Public Input Process

In the spring of 2011, Fauquier County and the citizens of Bealeton hosted a series of public meetings at Liberty High School to provide public input for the Bealeton Area Plan for the Route 17 Corridor. Consistent with past planning efforts, incorporating the perspectives and priorities of the people who live, work and do business along the corridor was a critical component in the development of this corridor plan for Route 17.

Staffed and facilitated by a team of professional planners and designers led by Renaissance Planning Group, the planning process included an on-line survey, a series of public workshops, and a property owner workshop, during which local residents, business owners and officials provided input to identify issues and opportunities and help develop a conceptual plan and future vision for the Route 17 Corridor.

A series of initial meetings were held on March 23, 2011. These meetings included a work session with invited property owners along the corridor, and a presentation/work session with the general public, VDOT staff, and elected officials. The overall goal of the meetings was to identify issues and opportunities for transportation and community design improvements along the Route 17 Corridor.

Following are a few key issues derived from the March work sessions - more detailed input summaries from

"Bealeton is a pedestrian community that is not pedestrian friendly."

Comment from workshop participant, March 2011

each session are included in the appendix to this report.

Key Issues & Opportunities Identified

- Slow down the traffic
- Too many trucks – how to limit?
- Bypass is needed but a long term prospect
- Needs to be walkable
- Solve problems at Station Dr. & at Schoolhouse Rd.
- Passenger & freight rail to reduce traffic
- Consider crosswalks, park n' ride, bus
- Consider roundabouts as "gateways" to town center
- Consider "Quadrant" intersection

In addition to identifying issues and opportunities, workshop participants were asked to provide input on two conceptual transportation alternatives for the corridor: Route 17 as a pedestrian-friendly "boulevard" and Route 17 as a multimodal "parkway." The overwhelming majority of participants favored the "boulevard" concept.

After the March 23 workshop, the consultant team and county staff compiled the input received and used it to develop a series of transportation and community design concepts that ultimately became the Draft Vision for the corridor. A second public workshop was held on May 5, 2011 at Liberty High School to present the Draft Vision to the public and property owners and obtain their input on the proposed Vision Concept. Partcicipants in this work session included property owners, developers, residents and business owners in Bealeton. They were asked to work in small groups and review the draft transportation and community design concepts that were presented and judge how well the proposed vision met their needs and aspirations for the Route 17 corridor. In general, there was overall positive input and affirmation of the Draft Vision. The summaries of both rounds of meetings are included in the appendix of this document. Public input played a major role in shaping the ideas and concepts that ultimately became the vision concepts embodied in the Route 17 Corridor Area Plan as summarized in this report.

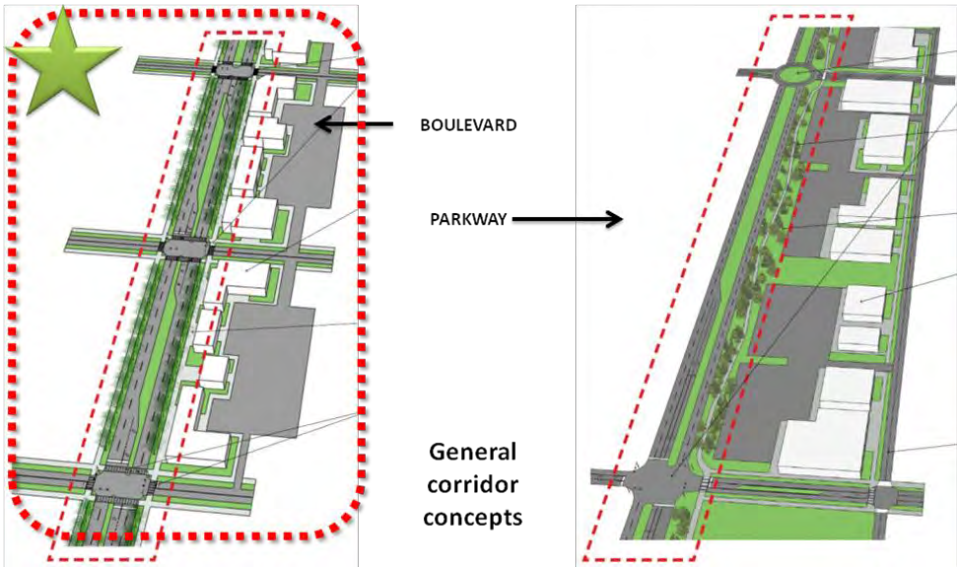


Figure 1. Boulevard and Parkway Concepts from the first public workshop

Existing Context

Prior to the workshops, the consultant team conducted a brief analysis of existing plans, regional trends and factors that could influence the future development and evolution of Bealeton and the Route 17 corridor. Some of the results of this analysis are summarized below.

Fauquier County Comprehensive Plan

A long-standing and important Fauquier County planning goal has been to concentrate and guide growth into Service Districts. Service Districts are the areas planned for relatively more intensive use and density and are intended provide adequate public facilities and infrastructure to support this type of development. The County has six Service Districts and three Village Service Districts. The Service District concept was first introduced in the original Comprehensive Plan of 1967, and while it was successful at concentrating growth in designated areas, it did not take into account the traditional pattern of development of historic villages, such as Bealeton. As a result, the pattern of growth that is seen in the Bealeton community today is a result of the suburban planning model of the time: conventional cul-de-sac subdivisions connected by high speed arterial roadways, and limited pedestrian linkage between neighborhoods, parks, open spaces, and community facilities

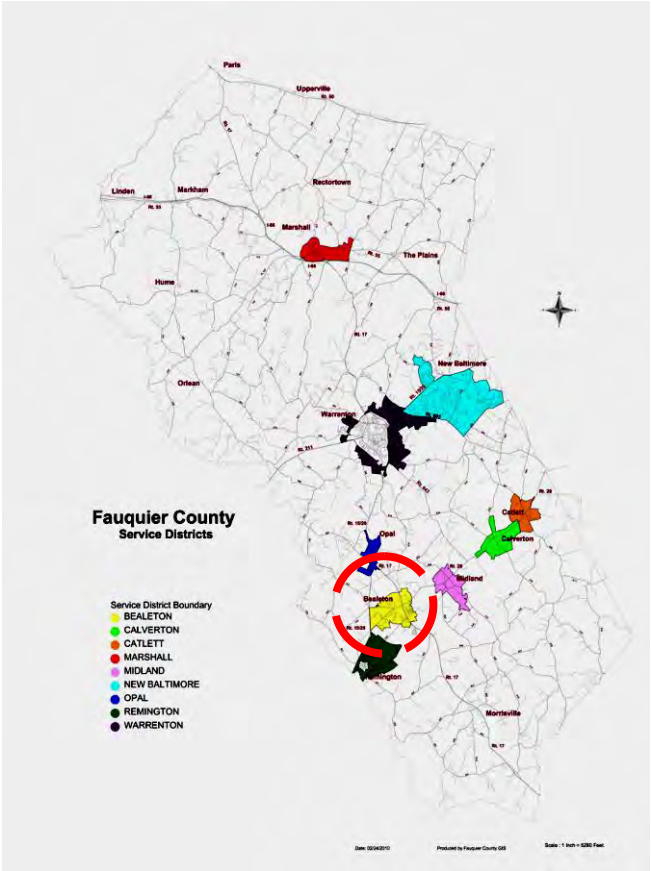


Figure 2. Location of Bealeton, Opal and Remington Service District Plan

In 2000, the citizens of Bealeton, Opal and Remington completed a Service District Plan as part of Fauquier County's overall Comprehensive Plan. The Service District Plan for Bealeton, Opal and Remington represents the third update since the original Countywide Comprehensive Plan of 1967 and was

completed through an innovative approach, involving local citizens from its inception, including citizen review of the assumptions which founded that 1967 Plan. The two-year planning process that followed included many Citizen Committee meetings and community information sessions, which resulted in some fundamental changes to the existing plan.

The principal physical change in plan direction and preference is that new development, within the specified service districts, should incorporate design characteristics of older, traditional patterns of community design. In the Bealeton, Opal, and Remington Service District Plan, the desired future for the village of Bealeton is described in a vision statement and outlined in the following planning principles:

- Pedestrian orientation;
- Rectilinear pattern of blocks;
- Interconnected streets and alleys;
- Multiple focal points (civic buildings, parks, squares);
- Mainly multi-story, mixed use buildings;
- Human scale streetscapes
- Landscaping - street trees, crosswalks, pocket parks;
- Parking behind buildings, and on-street parking.

Figure 3. Community Design Plan from the Current Service District Plan

Transportation Issues

1. *Significant and growing local and regional traffic volumes on Routes 17 and 28 make these roads very unfriendly to pedestrians and bicyclists. The community is now a "non-event" to most through travelers on Routes 17 and 28.*
2. *Current traffic conditions on the corridor and the Virginia Department of Transportation's expansion plans for Routes 17 and 28 (such as widening sections of Route 17 and 28) will further divide the community and prevent the formation and relevancy of an effective center.*
3. *The cul-de-sac design of existing subdivisions in Bealeton limits pedestrian, bike and vehicular movement between subdivisions and within the community, and creates very poor traffic conditions along Routes 17 and 28.*

Employment

The map at the right shows the existing employment density in Fauquier County according to the US Census (2008). While the vast majority of jobs are concentrated in the Town of Warrenton, Culpeper and Manassas, the Bealeton Service District contains significant employment density in the County.

Walkability

Walkable neighborhoods offer many benefits to the environment, health, finances, and communities including:

Health: Walkable neighborhoods create more freedom of choice for residents and studies have shown that they contribute to the overall physical health of residents.

Social: Traditional neighborhoods with walkable access to community facilities and amenities create more opportunity for social interaction for all age groups and can decrease the hours spent commuting to work and activities

Financial: Studies have shown that homes located in walkable neighborhoods can be more valuable than those that are not. Controlling for all other values, a study found that in a typical metropolitan area, each 1 point increase in "Walkscore" was associated with a $700 - $3,000 increase in home values. Walkscore is an online tool that was developed to help identify and measure walkable places. It computes the "walkability" of any place using distance to destinations such as restaurants, libraries, schools, etc.

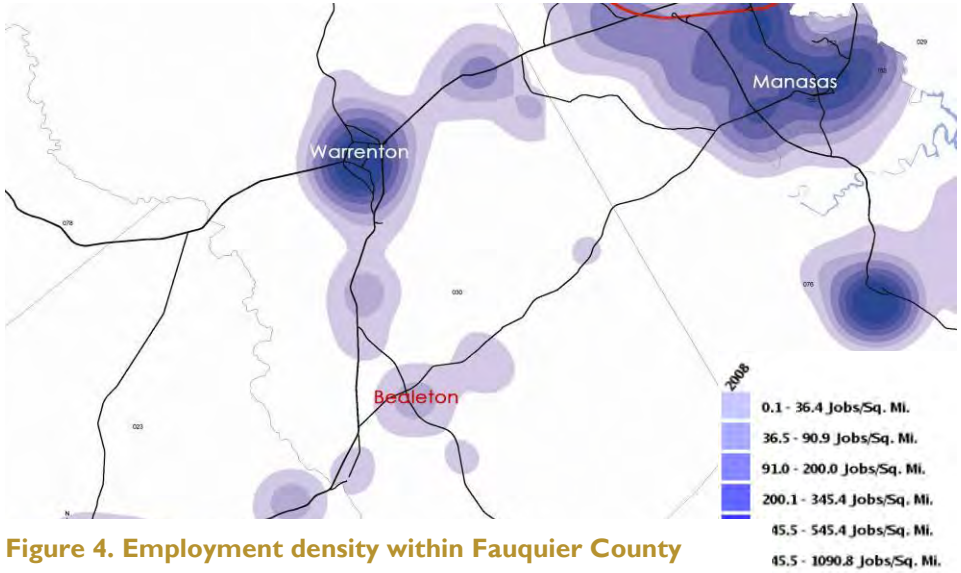


Figure 4. Employment density within Fauquier County

As shown in the following maps generated by Walkscore, Bealeton has a Walkscore of 55, ranking it as "somewhat walkable" as compared to a ranking of 88 for a community like the Town of Warrenton.

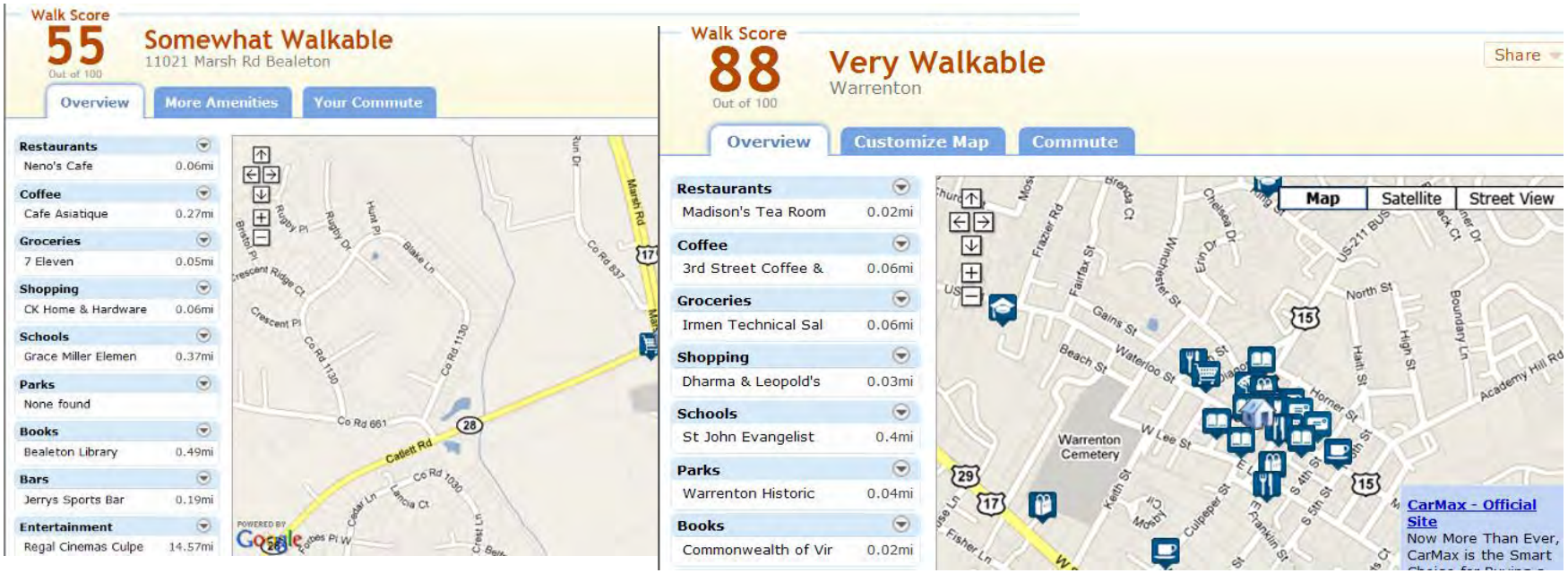


Figure 5. Walkscore values for Bealeton and Warrenton

TRANSPORTATION PLANNING

Transportation Planning

A key aspect of this planning process was addressing the transportation infrastructure needs of the Route 17 corridor in Bealeton and the larger region. The transportation planning process included identification of issues and opportunities, testing of alternatives, and evaluating the alternatives with the community through input meetings. Through this process, strategies for a phased approach to accommodating the variety of travel and mobility needs have been developed consistent with meeting the overall vision for the service district.

The Route 17 Corridor through this portion of Fauquier County has been designated by VDOT to be one of "statewide significance". This designation has been given to key corridors across the Commonwealth that are of primary importance for serving intra-state traffic and providing mobility needed for commerce and the movement of freight. The Route 17 corridor, by virtue of its location within the state, provides an increasingly popular long distance connection between I-95 and both I-66 and I-81. As a result, many long distance truckers and interstate travelers choose to use this corridor as the most direct route for regional travel. Furthermore, upcoming improvements planned for the Norfolk International (port) Terminal will significantly increase the volume of freight being shipped through the port, which will put more pressure on corridors such as Route 17 through Bealeton.

Figure 6. Regional travel patterns

The key challenges for the transportation network in the Route 17 corridor revolve around the increasing traffic volumes, presence of heavy trucks, and lack of overall multi-modal accommodation in the corridor and surrounding area.

Current Transportation Plans

Recent County transportation studies and independent analysis conducted as part of this effort indicate that the Route 17/28 intersections in the future will be highly congested unless additional turn lanes and through lanes are considered. In particular, the Route 28 intersection with Route 17 is and will remain the worst performing intersection along this portion of the corridor. This is primarily due to the high volumes of through traffic that have to be accommodated along with significant turning movements. In years past a grade separated interchange was considered for this location however it was rejected due to community impacts.

Currently, both County and VDOT plans for the area show a southerly bypass for Route 17 and 28, but as of yet this solution to the traffic congestion has proven to be cost prohibitive under the current funding environment. The bypass could provide major relief of traffic and truck volumes through the community.

Other potential new roads that have been discussed that would further alleviate traffic congestion include a Route 28 bypass to the east to connect Route 17 to the airport area and a new East/West Connector across the top of the study area providing additional east-west mobility.

For planning purposes, this study examines short, mid, and long term solutions that allow for a flexible and phased implementation process. The suggested strategies can be implemented in large part with future development, and can work with or without the proposed new bypass facilities.

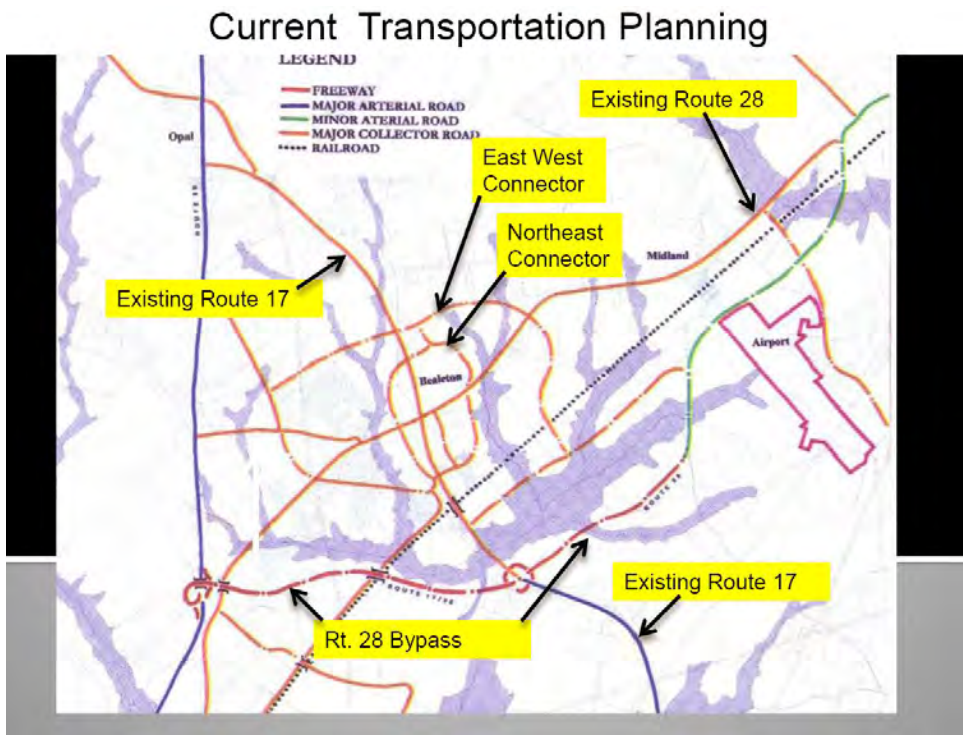


Figure 7. Transportation improvements recommended in the Service District Plan

Corridor Growth and Future Traffic

As a primary growth area and as a key arterial corridor for the region and state, the traffic volumes along Route 17 are expected to increase substantially in the coming years. Growth in traffic volumes will be the result of several factors, including new development that will occur along the corridor, growth in commuting traffic to Northern Virginia, regional growth in adjacent jurisdictions and increased truck traffic associated with Port expansion. The graphic to the right shows and overall summary of the projected traffic increases on various corridor legs in the study area.

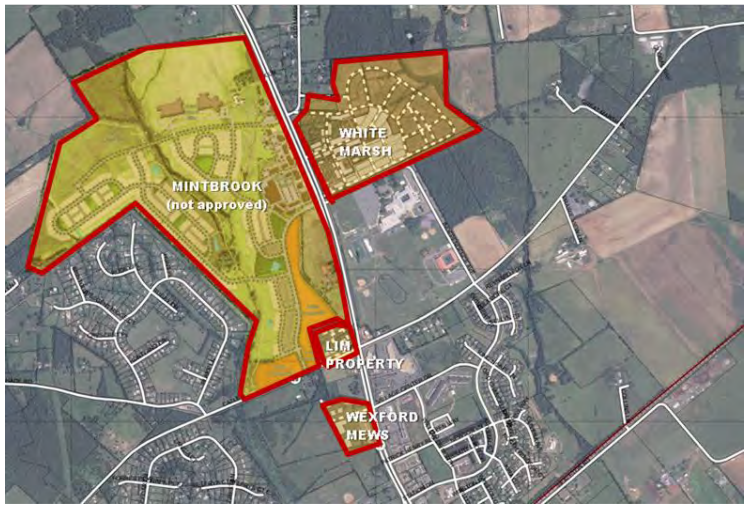


Figure 8. Proposed development in the study area

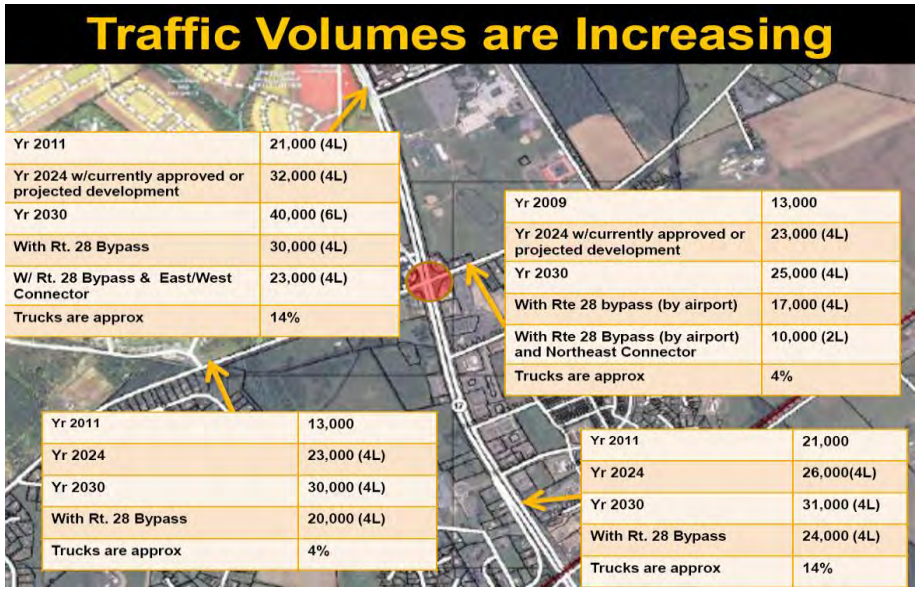


Figure 9. Projected traffic volumes in the Route 17 and 28 corridors

Intersections and Roundabouts – Issues and Opportunities

Throughout the transportation analysis process, one of the key issues arising from the input process was the desire to not increase Route 17 to a six lane (three lanes each way) roadway. The study team examined a wide range of potential intersection configurations to address the challenges of the heavy through volumes that are projected at the Route 28 / Route 17 intersection. Various intersection treatments were considered including several innovative configurations that involve restricting the intersection to two phases of signalization, i.e. only allowing for through movements so as to maximize the through movement capacity and minimize the intersection footprint.

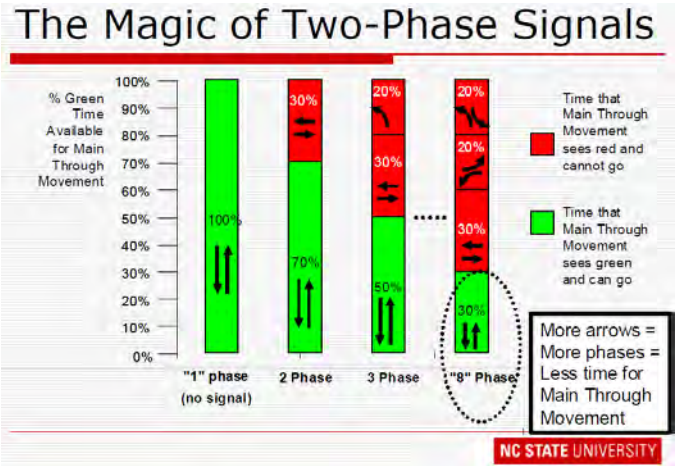


Figure 10. Signal phase analysis from NC State University

A configuration referred to as a quadrant intersection emerged as the most feasible of the innovative intersection designs. This intersection configuration was compared to the conventional intersection configuration that would require dual left turn lanes, two through lanes on each approach, and exclusive right turn lanes which would result in a very large intersection in the heart of the service district.

This quadrant intersection configuration requires the left turns to occur at adjacent intersections rather than at the primary intersection. This facilitates the through movement volumes by decreasing delay and queuing, but does require a more circuitous route for those motorists desiring to make a left turn. This concept results in a smaller intersection for Route 28 at Route 17, but an increased footprint at the two adjacent intersections over what would have otherwise been required. It should be noted that the

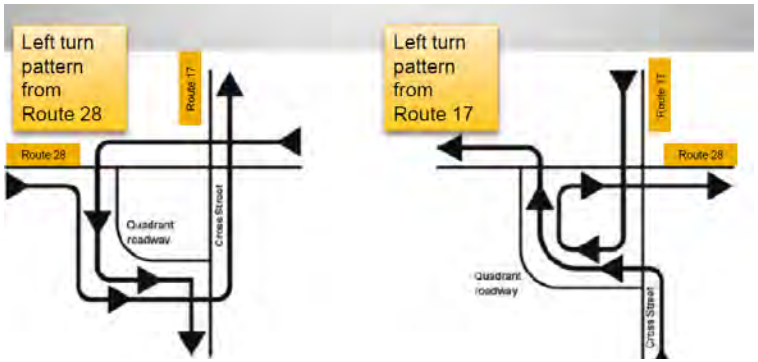


Figure 11. Pattern of left turns for potential quadrant intersection

Quadrant Interchange

Pros:

- *Smaller Intersection Footprint at Route 17/28 Interchange*
- *More efficient traffic flow on Route 17*
- *Adaptable back to standard intersection if bypass(es) are constructed in future*

Cons:

- *Some left turns have more travel time, distance, stops.*
- *Right of way for connector road*
- *Larger intersection where the quadrant ties back into Route 17 and Route 28*

quadrant intersection configuration could be converted back to a conventional intersection in the future should the proposed bypass facility(s) be constructed. Public input throughout the workshop process indicated that advancing the bypass projects to the near term was ultimately preferable to the quadrant intersection configuration. Some concerns noted were about the complexity of the left turns and the concern over having two additional signalized intersections in exchange for a reduced primary intersection at Route 17/28. Furthermore, there was some concern regarding the difficulty in accessing the parcel that would be in the infield of the quadrant roadway. However, overall public input in the workshops indicated preference for a quadrant intersection over a "big" Route17/28 intersection as shown in the analysis.

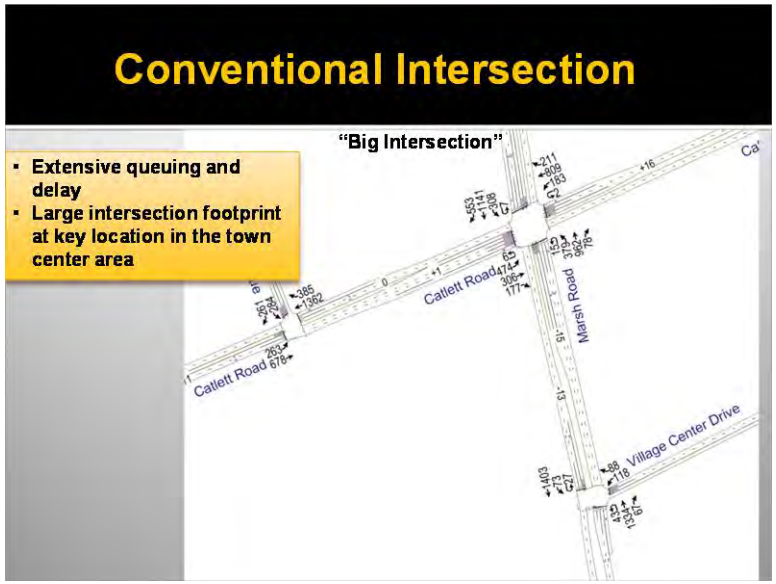


Figure 12. Analysis of conventional intersection alternative

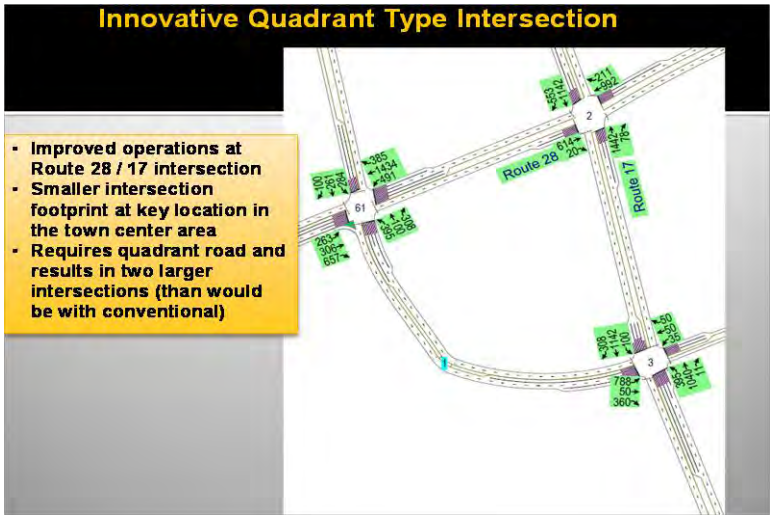


Figure 13. Analysis of quadrant intersection alternative

The quadrant concept could be implemented with construction of the new interconnected street grid in the southwest quadrant. In fact, a key element of the overall transportation concept plan is that a well interconnected grid system is constructed as new development and redevelopment occurs in each of the study area quadrants. This new grid will also create opportunities to serve the abutting development with access other than a direct connection onto Route 17 or Route 28. This will become increasingly important given the new VDOT access management requirements. Interestingly, it was noted that some of the new connector roads, as envisioned in previous planning efforts, are already in place.

Figure 14. Street connections proposed in Service District Plan (yellow) and already constructed or approved (red)

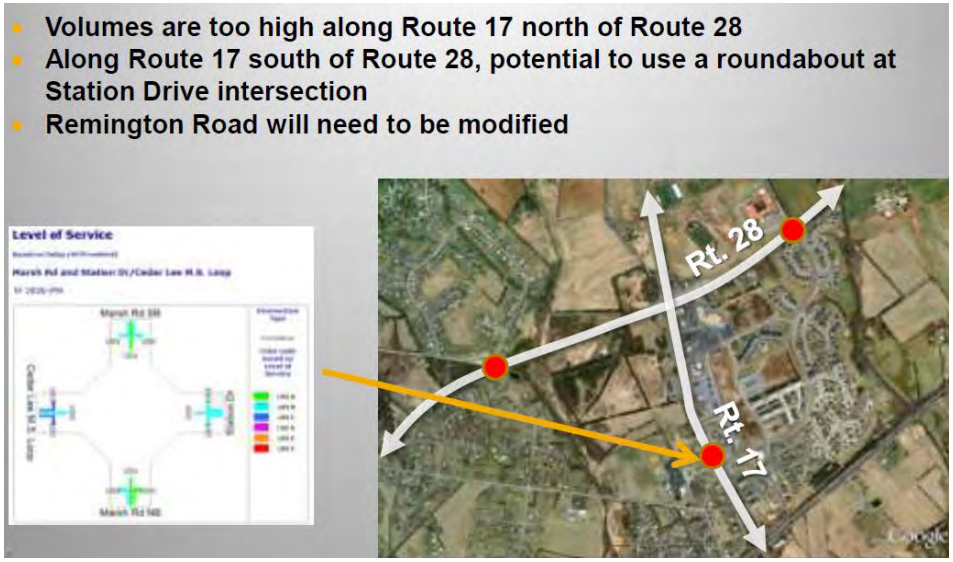
Roundabouts

Roundabouts are becoming a much more common intersection configuration in the United States. Since 1990, there have been approximately 2500 modern roundabouts constructed with much success in reducing crash severity over conventional signalized intersections, while providing a context sensitive intersection solution. As part of this study effort, the feasibility of roundabouts along both Route 17 and Route 28 was explored. Roundabouts can provide a visual cue to motorists that they are entering into a different (town center type) environment. This is often employed as a strategy to alert motorists that they are entering an area where lower speed and pedestrians are more the norm than the exception.

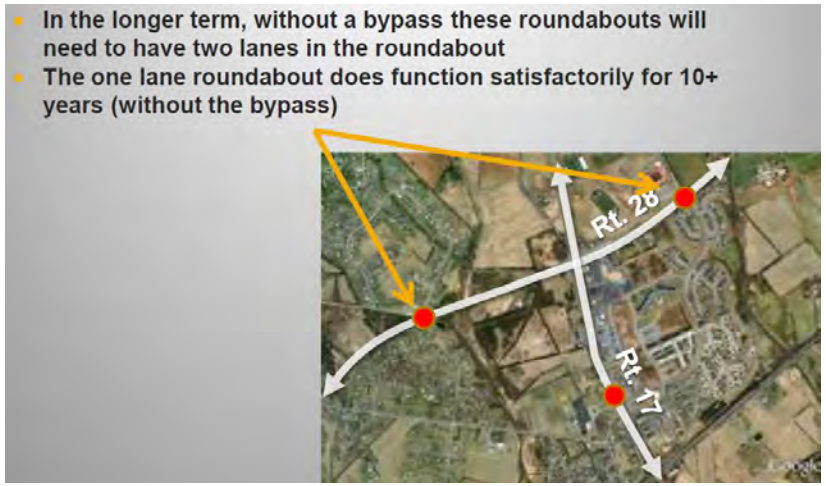
Under the scenario that the Rt. 28 bypass is not constructed in the next 30 years, the projected traffic volumes on the north end of Route 17 are projected to be at or above 40,000 vehicles per day. At this volume a roundabout would likely not provide adequate capacity at the newly proposed development entrance roads. However, at the southern end of the service district at Station Drive, the projected lower traffic volumes could potentially allow for a roundabout type intersection. This would require re-alignment of Remington Road due to its awkward intersection with the school access road.

Along Route 28, roundabouts could potentially be implemented at Oak Shade Drive on the west and also

at Station Drive on the east. Both of these intersections currently experience high side street delay and could benefit from the new roundabout configuration in the short to mid-term. In the long term, both of these roundabouts may need to have two circulating lanes, depending on whether or not the bypass facilities are constructed. Roundabouts at these two locations would provide the added benefit of signaling to drivers that they are entering a more heavily developed area with more pedestrians and local traffic than other portion of the corridor. In addition, attractive landscape treatments of the roundabouts could serve as effective "gateways" at the east and west ends of Bealeton.



Figures 15 and 16. Location of three potentially feasible roundabouts in the study area



Analysis of Proposed Strategy

In evaluating the potential future traffic operational levels of service that may occur at key intersections within the service district in the future, various data sources from prior and ongoing study efforts were considered. These included traffic projections from recent traffic studies for both White Marsh and Mintbrook. These studies were prepared within the last year and reflect current ideas and commitments for future development in the service district. Consideration was also given to a traffic impact study for the service district commissioned by the County in 2010 that includes examination of volume diversions that could result if the Rt. 28 bypass (Route 17 over to Route 19/15) were to be constructed in the future. Planning level data sets were developed from consideration of these prior studies and then analyzed using the traffic operations software Synchro for the corridor and intersections, and also Sidra for potential roundabout locations. In evaluating future traffic conditions, the existing conditions were first measured such that we could have a baseline condition for comparison of the future conditions. The analysis included consideration of mitigation strategies that involve changing intersection configurations with the goal of adding new capacity needed to accommodate the projected traffic volumes at acceptable levels of service. For the purposes of this analysis, an acceptable level of service was deemed to be a level of service D or better.

Figure 17. Typical Level of Service sample images

Level of Service is a concept used when examining traffic operations that reflects the amount of congestion and delay that motorists might expect to experience at an intersection, or more specifically at a given approach to an intersection. A letter grade is used from A to F. LOS A would be characterized as

having very little delay and no congestion, and LOS F would be characterized as having extensive congestion and queuing which would cause substantial delays at an intersection. When measuring traffic operational performance, each of the individual movements are given a level of service (LOS) rating and then these are averaged to arrive at an overall intersection LOS rating.

Existing Conditions

At present, the primary source of congestion within the study area is the Route 28 / Route 17 intersection. At peak hours of the delay the queuing and delay becomes excessive. The other intersections in the study area function reasonably well. The main reason for the congestion at Route 28 / Route 17 is that there are heavy through volumes on all four of the approaches, and these movements require a significant percent of the green time in each signal cycle in order to not queue to excessive lengths. However, since there are left turn movements that require a portion of the signal cycle, the through movements must wait for the left turn phases to be completed prior to being able to resume travel. A signal cycle is defined as one complete rotation of the allocation of the green signal indications, or phases. For existing conditions, the Route 28 / Route 17 intersection functions at an overall LOS D in the AM and LOS E in the PM peak periods of the weekday. During each of these time periods there are individual approaches that have movements with failing levels of service. In the morning peak period the queues extend back over 600 feet for the eastbound direction at time and in the evening peak period the queues are sometimes in excess of 900 feet for the westbound direction.

The Route 17 intersection with Station Drive experiences an overall LOS of C, which isn't excessive in general. However, the side streets do experience long delays that rate in the LOS E and F range. This is due largely to the split phasing of the signal, i.e. the eastbound and westbound do not move concurrently. The split phasing is largely due to the way Remington Road intersects the entrance to the school on the west side of Route 17.

Future Conditions

As previously described, over the coming 20 years it is anticipated that the volumes along both Route 17 and Route 28 will continue to increase due to general regional growth and also growth in the service district. These increased volumes will result in a substantial increase in congestion in the service district unless additional roadway capacity is constructed. This capacity could come in the form of additional turn lanes at intersections, the quadrant intersection concept, and - in the longer term - the Rt. 28 bypass road.

An analysis of future conditions was performed for a variety of strategies as described above. It was found that if the Route 28/Route 17 intersection was increased in size to include two left turn lanes on each

approach, an exclusive right turn lane, and an additional through lane for eastbound Route 28 (total of two through lanes), then given the future volume projections, the overall LOS is projected as F in the evening peak hour with the majority of movements functioning at LOS F. In the AM peak hour the overall LOS is projected to be D with a few of the movements functioning at LOS F. The queuing in the evening peak hour will exceed 700 feet on three of the four approaches at times, while in the AM, the queuing is mostly less than 300 feet except for the northbound approach which will exceed 400 feet.

With a bypass constructed and assuming the same laneage as described, the overall LOS is projected as C in the morning peak hour and all movements function at LOS D or better except for the eastbound left turn lane. In the evening peak hour the overall LOS improves to LOS D with all movements at LOS E or better except the southbound left and westbound left. In both the AM and PM peak periods the queuing would be reduced significantly to generally acceptable levels. Depending on the volume projections when a more detailed study is prepared in the future for the bypass project, the overall intersection size may be able to be reduced further. This may be especially true if the proposed network of connector roads is constructed such that the local traffic has alternative routes other than using Routes 28 and Route 17 for local trips.

Quadrant Intersection

The quadrant intersection as discussed in the previous section offers an opportunity to improve the overall Route 17/Route 28 intersection LOS, though does result in larger intersections to the west and south where the quadrant road meets Route 28 and Route 17 respectively. With the quadrant intersection, the overall LOS is projected as C, with each of the movements operating at LOS C or better except for the westbound approach in the PM which would operate at LOS D. The queuing is significantly decreased on all approaches. At Village Drive and Route 17, the new intersection would function at LOS C with all movements and at LOS D or better in the peak periods. This would require that the westbound approach be right in / right out only to minimize the signal phases needed at the intersection. At the western end of the quadrant road, the overall LOS would be C with all movements functioning at LOS D or better with the exception of the westbound and eastbound movements in the PM peak period. The queuing for the westbound direction would be in excess of 700 feet at certain periods within the PM peak hour of the day.

Roundabouts

Roundabouts were examined for key intersections throughout the study area. When examining the performance of roundabouts, delay (i.e. time waiting to enter the roundabout) and queuing are examined. It was found that the intersections of Oak Shade at

Route 28 and also Station Drive at Route 28 could function at an acceptable LOS in the peak hours of the day and queuing would not be excessive. Depending on when the roundabouts might be constructed, a one lane roundabout might be sufficient, though in the longer term the roundabouts will likely need to be two lanes. Along Route 17 a roundabout was evaluated on the north end at a potential new intersection associated with the Mintbrook and White Marsh developments. Due to the heavy volumes on Route 17, it was found that the roundabout would not function above LOS F in the mid to longer terms. However, on the south end, the potential exists for a roundabout at Station Drive and Route 17 since the Route 17 volumes are not expected to be as high as in the northern section of the service district.

Conclusions of the Analyses

The major findings from the transportation analyses efforts are as summarized below:

1. The Route 28 bypass is paramount in importance for reducing the overall through volumes on Route 17 in the future. This will allow for the potential for roundabouts on Route 17 and also a smaller overall intersection footprint at Route 17 and Route 28 than would otherwise be required.

2. Subtractions for the overall volumes on Route 17 and Route 28 were not made based on the construction of the future roadway grid and connector roads in the service district. However, it can be expected that a connected local roadway grid will provide much needed additional capacity for vehicular and multimodal mobility in the service district. As the grid network is further enhanced, additional studies can be conducted to validate their positive affect and to re-examine the overall traffic projections in the service district.

3. The potential quadrant intersection would provide a relief to the traffic on Route 17 and the through movements on Route 28. However, left turn volumes may experience an increase in overall travel time due to the required circuitous travel patterns necessary.

4. Roundabouts are feasible along Route 28 on the eastern and western ends of the service district. However, along Route 17 they are not feasible until the Rt. 28 bypass is constructed. Although the level of service was found to be satisfactory at Station Drive and Route 17, the Remington Road connection at the school entrance would have to be relocated and given the heavy truck volumes, VDOT would likely be resistant to implementing this intersection type without a bypass route completed.

5. The connected grid system should be constructed as soon as possible. This added capacity may help to extend the overall life of the existing Route 28 / Route 17 intersection. However, piecemeal modifications and lane additions will likely be necessary as traffic grows in the near future.

6. As noted in the general transportation section, if a quadrant intersection is utilized in the future, it could be possible to implement partial turn restrictions in the interim. In the long term once the bypass is constructed the quadrant system could revert back to a conventional intersection.

Figure 18. May 5, 2011 Public workshop

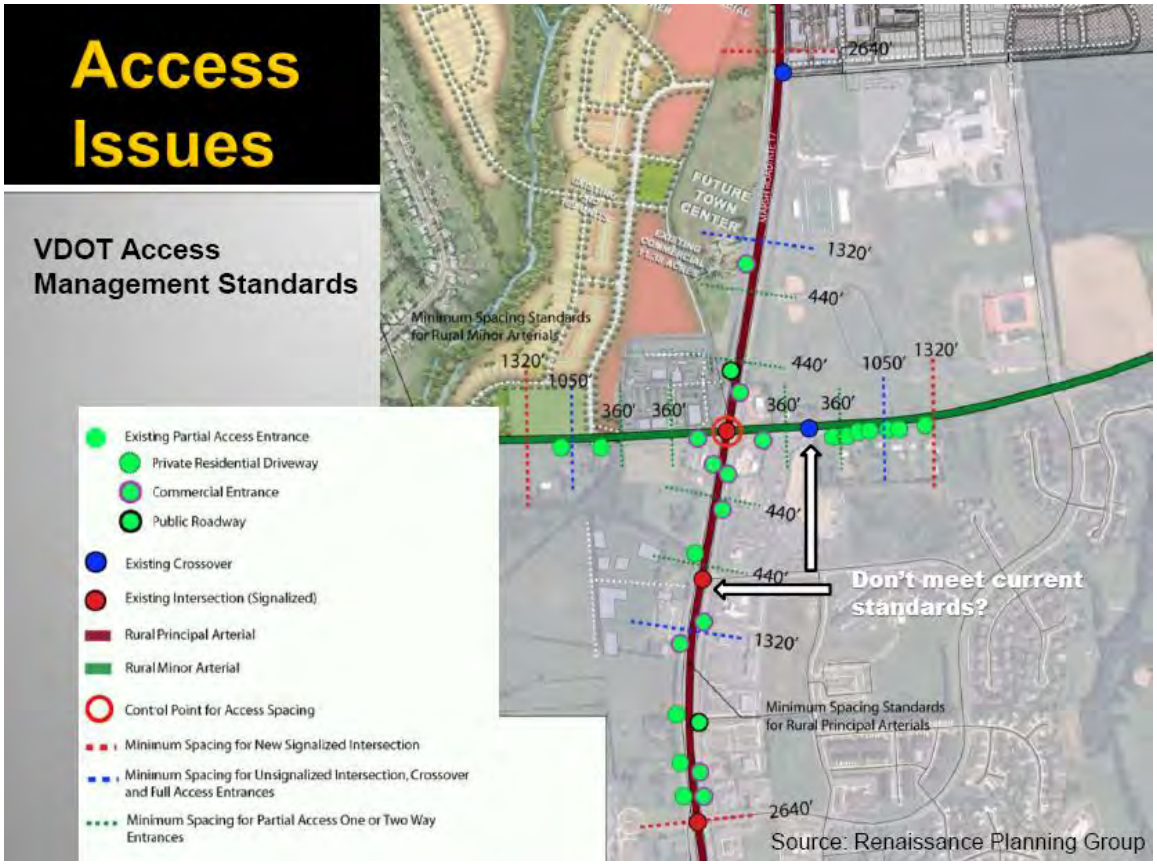


Figure 19. Access Management analysis for the Route 17/28 intersection

VISION CONCEPT

Proposed Vision Concept

The Vision Plan resulting from the work sessions was based on all of the input that was received from various agency staff, property owners and community stakeholders, both in the initial kickoff meetings in March, and in the follow up work sessions and public meeting in May. The graphic to the right shows a diagram of the overall design concept for future development in the Rt. 17 Corridor.

The overall vision for the corridor is a 4 lane, divided boulevard-type facility with supporting context-sensitive infrastructure, such as wide sidewalks, tree lawns and cross walks that create a safer, pedestrian-friendly experience along both Route 17 and Route 28. In addition, the design character of the corridor includes mixed use/commercial buildings oriented toward the roadways to further enhance the pedestrian experience. Developments off the corridor are generally connected to one another via parallel roadways and bicycle and pedestrian-friendly local roads. The intent is that a mix of uses develop through a series of planned commercial and residential developments that complement the overall vision of a vibrant walkable town center over time.

Figure 20. Illustrative Vision Plan

The visualizations to the right show how Route 17 could evolve with new development, local connector roads, and landscaping to create an attractive mixed use and multimodal boulevard throughout Bealeton in the future.

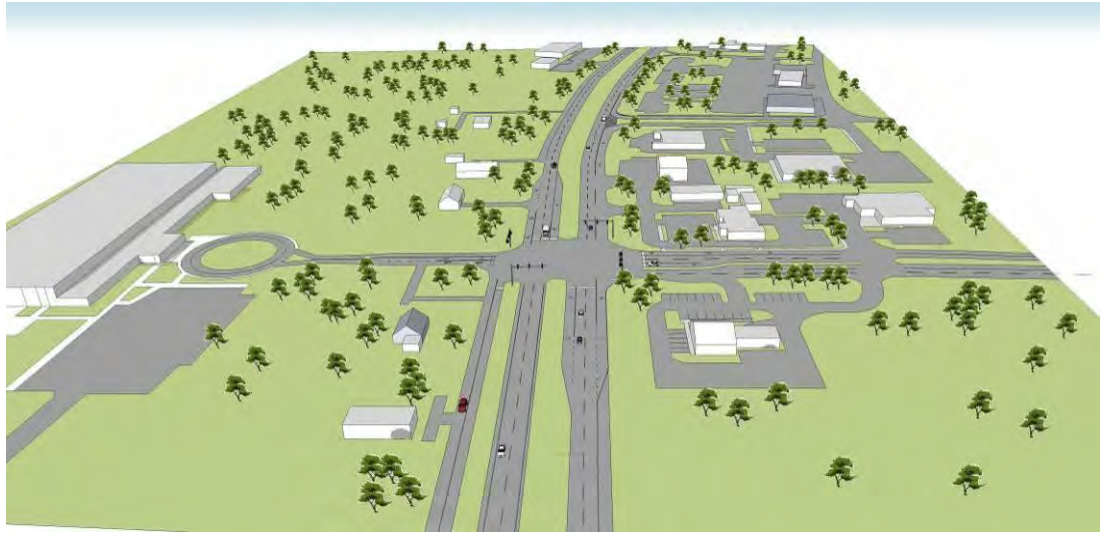


Figure 21 & 22. Existing and potential future views of the Route 17 corridor at Station Drive looking north

Local Street Grid Concept

A critical part of the overall transportation strategy is the creation of a grid of local streets and parallel roads. It is envisioned that future development will provide significant opportunities to connect adjacent neighborhoods and construct new connections throughout the service district area. Creating a parallel and interconnected network of local streets does several things for mobility and access along Route 17. First, by creating smaller block lengths on parallel roads over time through redevelopment, it reduces walking distances and brings the potential for future transit service closer to people's destinations, in an environment that is safer than trying to dodge traffic along a busy regional highway. Second, by distributing traffic better across multiple roadways, it reduces traffic volume that would otherwise be concentrating at one or two critical intersections. Traffic is more balanced and the signals can be better timed to move through traffic along Route 17. Also, multiuse paths and sidewalks can be constructed adjacent to key roads to provide improved pedestrian and bicycle opportunities.

The diagram to the right shows the basic intent of creating an integrated grid of circulation that retains the basic structure and scale consistent with a more traditional street grid in the town center.

Figure 23. Potential future street network

Livable Streets Concepts

For much of the twentieth century, major arterial streets, such as Route 17, were designed to ensure traffic flow and neglected the many social and recreational functions which are severely impaired by fast car traffic. The livable streets concept is an attempt to design for all the functions of streets: a space designed to be shared by pedestrians, bicyclists, and buses, as well as cars and trucks.

The following typical roadway cross sections provide recommendations for how the streets in Bealeton could be reconstructed in the future to create more livable streets. The typical cross sections incorporate key principles from the public input process, including the goals of providing:

- A pedestrian-friendly environment with slower traffic, street trees and lighting
- Ample capacity for truck and vehicular volumes
- Greater safety through the service district by providing visual cues to motorists that they are entering a more developed area with bicycle and pedestrian traffic

Figure 24. Views of livable streets. Clockwise from top left: Mashpee, MA; Maitland, FL; Celebration, FL: Columbia Pike, Arlington, VA

Figure 25. Conceptual Cross Sections: Regional Boulevards (Routes 17/28)

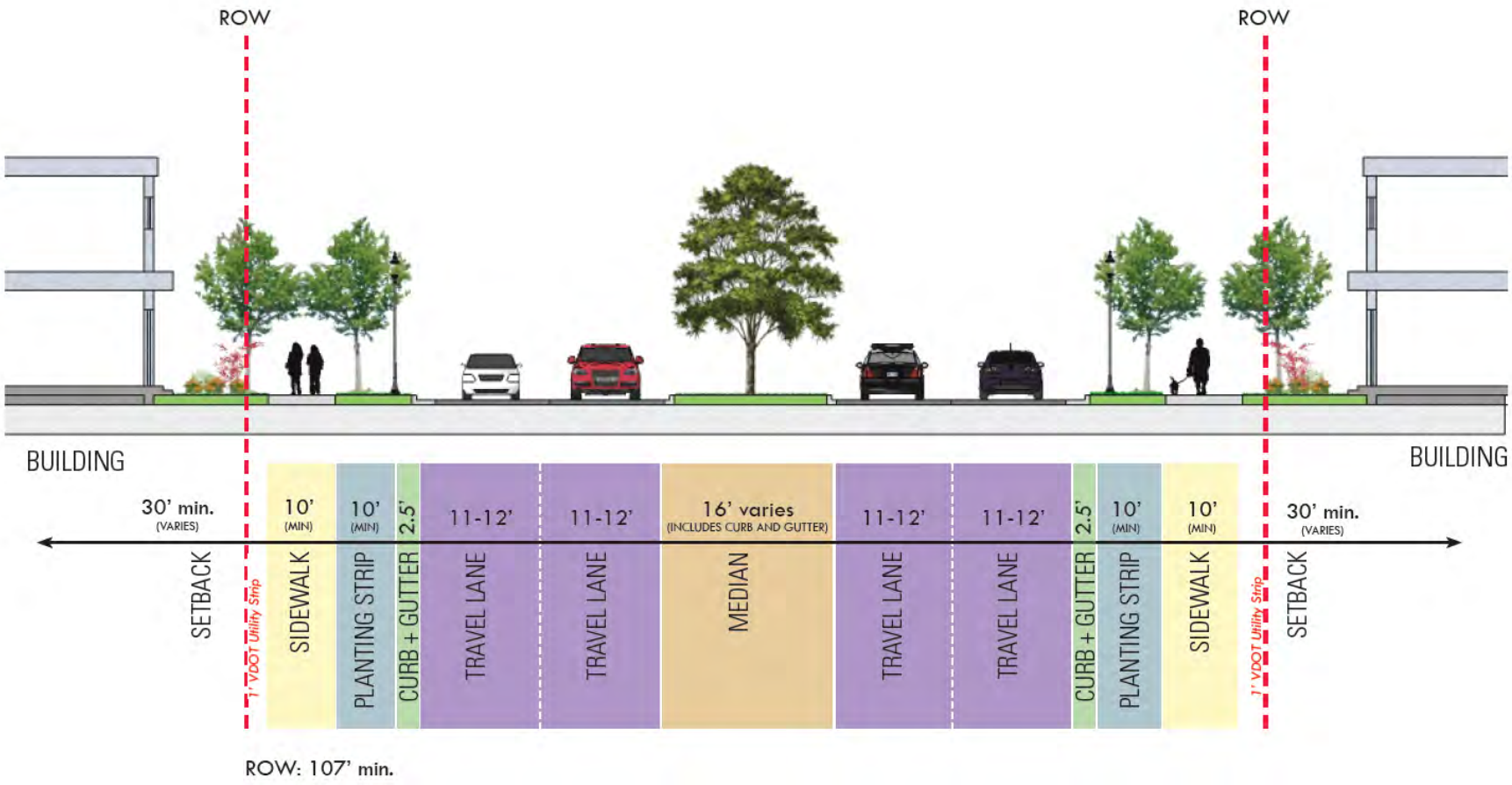


Figure 26. Conceptual Cross Section: Local Mixed Use Boulevard (e.g. Station Drive)

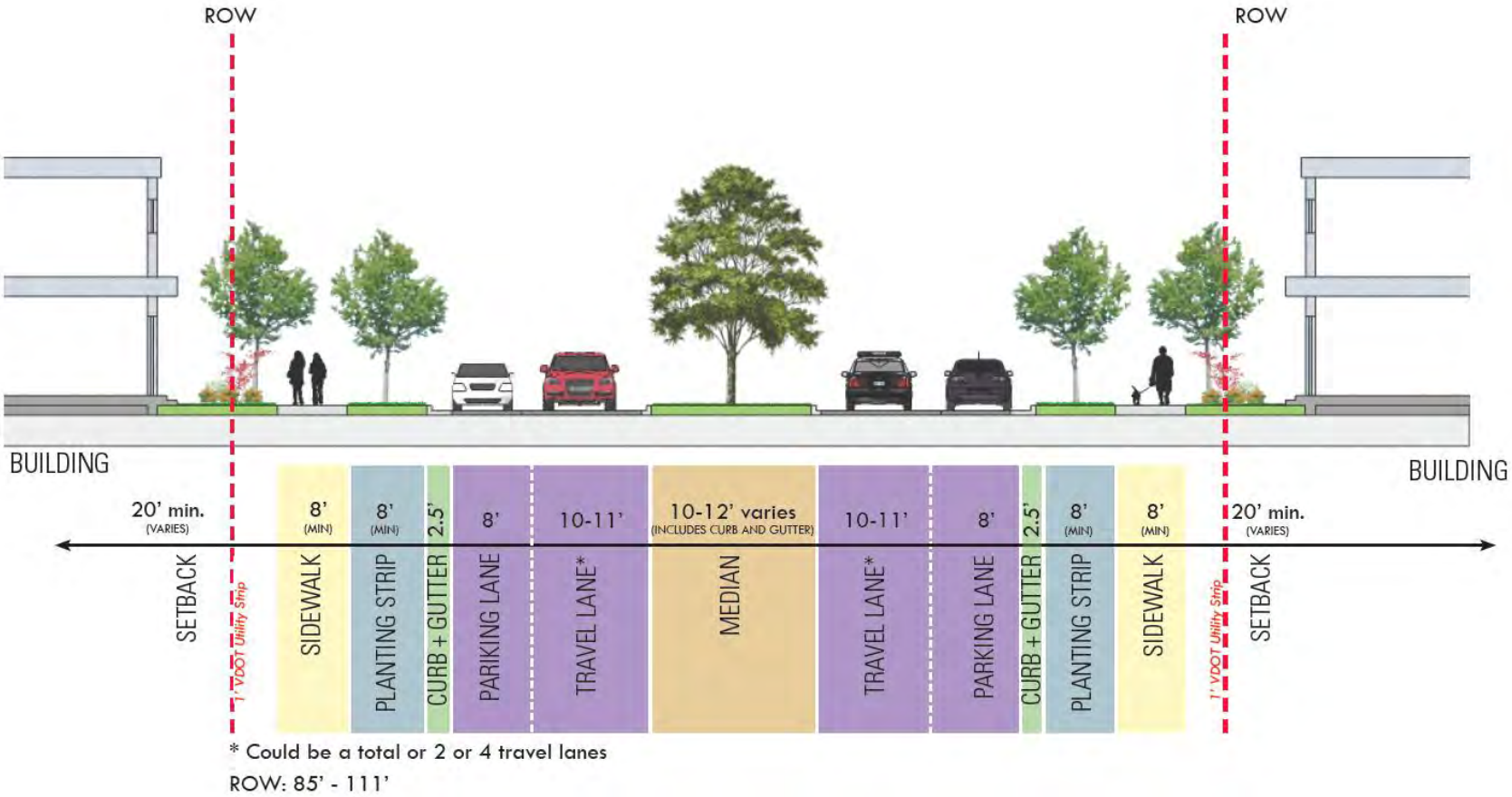
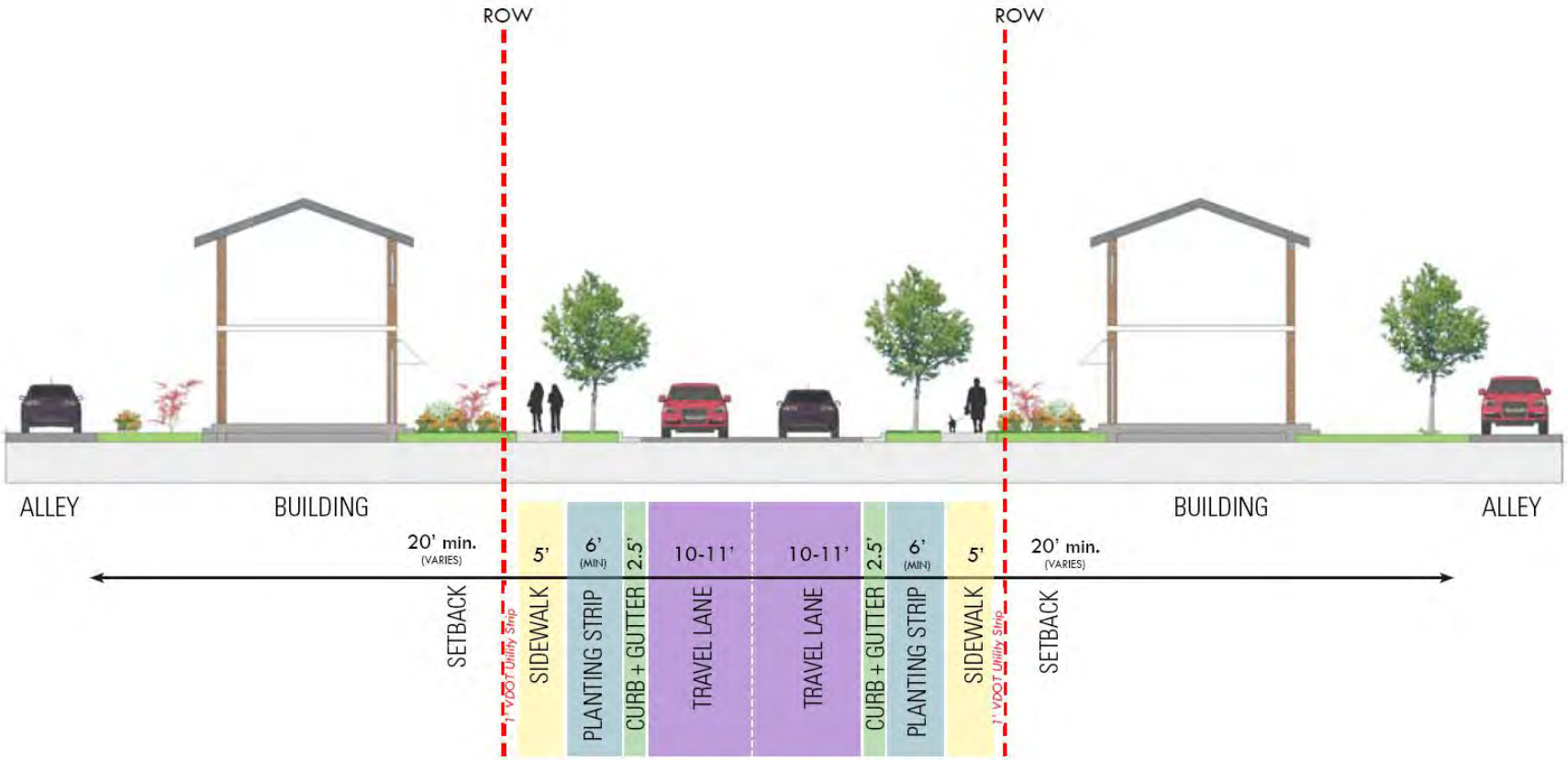
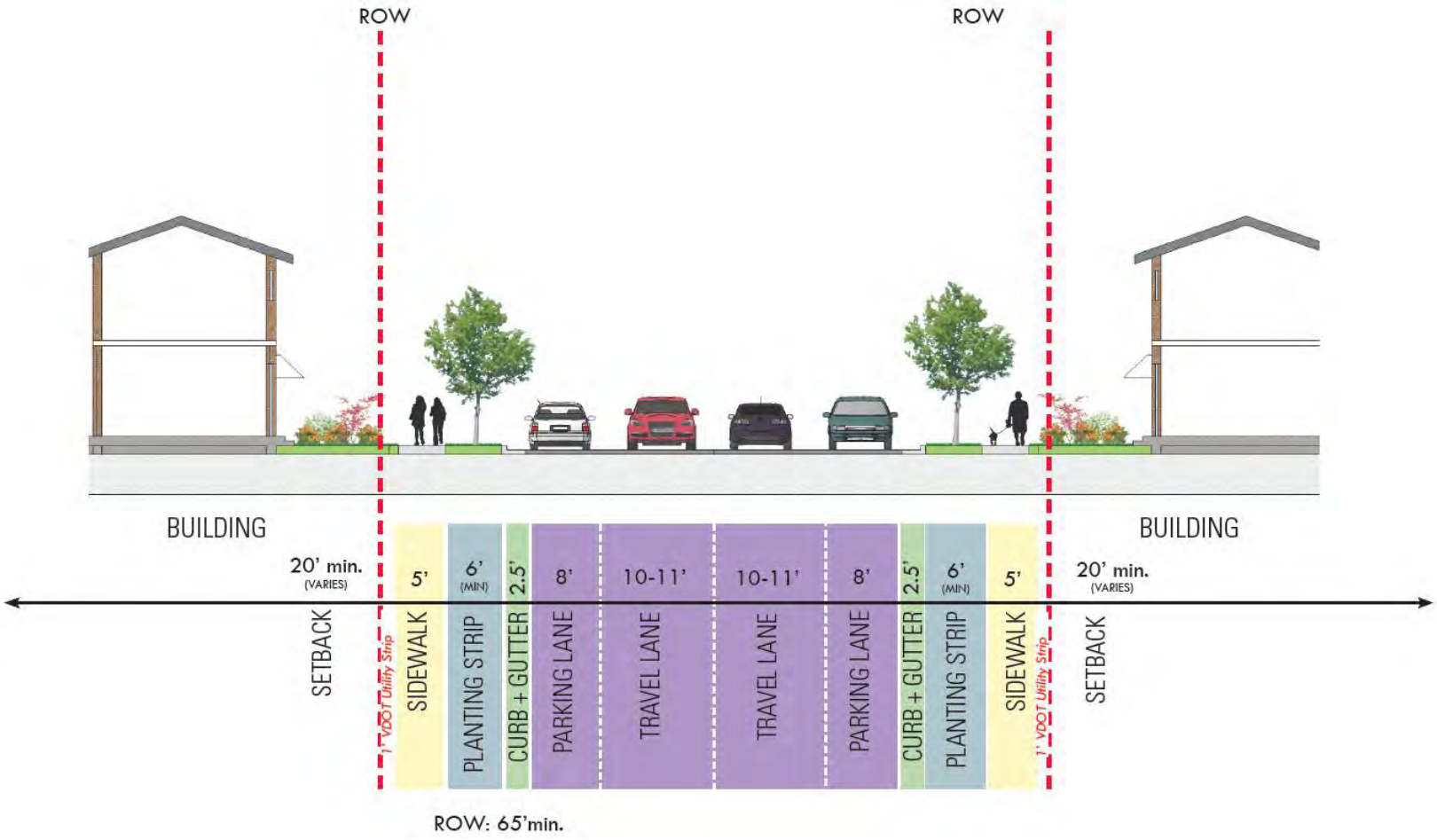


Figure 27. Conceptual Cross Sections: Residential Street without on-street parking.



NOTE: On-street parking should be provided if no alleys are present.
ROW: 49'min.

Figure 28. Conceptual Cross Sections: Residential Street with on-street parking.



Design Concepts by District:

Southern Area

The basic design concept for the southern portion of the corridor is to improve the functionality and safety of the Route 17/Station Drive/Remington Road intersection by adding a roundabout in the long term (only after the Rt. 28 bypass is constructed) and reconfiguring access to Remington Road, as shown in the detail plan to the right. In addition, the plan shows a long range potential for reconfiguring the Middle School site and entrance road to create a parallel system of local roads for future neighborhoods so that local traffic does not have to use Route 17. Finally, the Vision Plan suggests a potential alternative location for a future passenger rail station, showing it along Remington Road, adjacent to existing high density housing and across from future potential transit oriented development along redeveloped industrial land.

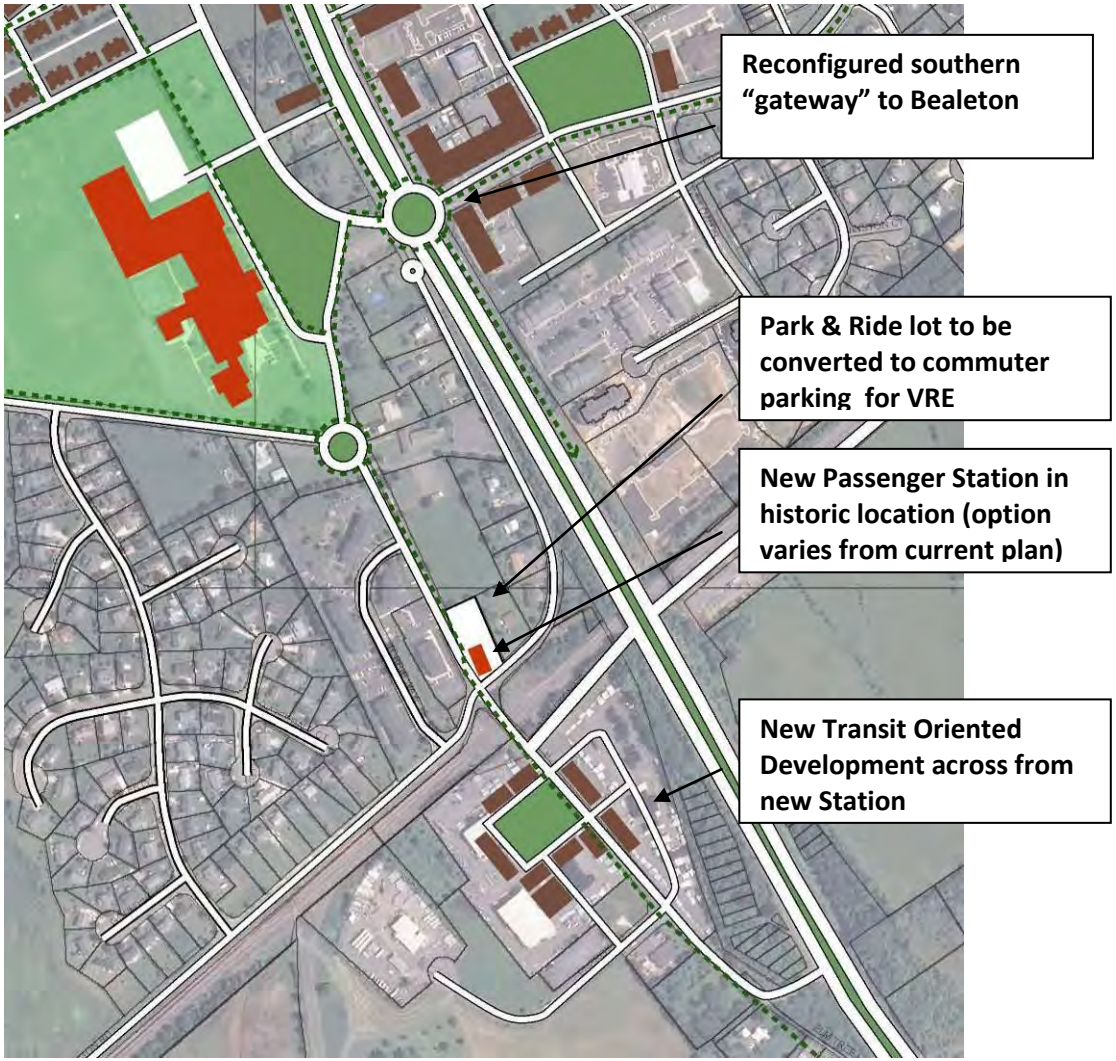


Figure 29. Southern Area detail

Central Area

The design concept envisioned for the Central Area is to preserve Route 17 as a 4 lane, divided "boulevard" type roadway, but improve safety and add pedestrian-scaled amenities, such as sidewalks, street trees and traditionally designed lighting. A key design concept in this section is the use of the quadrant intersection. As shown in the detail of the Vision Plan, the land use and urban design concept includes compatible commercial and mixed use buildings fronting on Route 17. The Vision Plan also shows the long-term future potential for reconfiguring some of the exiting uses gradually as they redevelop over time. For example, it envisions reconfiguring the existing commercial and service uses so that the building fronts the street and the service area and parking is to the rear. Further, it envisions adding street connections over the long term to reinforce roadway connectivity and a traditional block pattern.

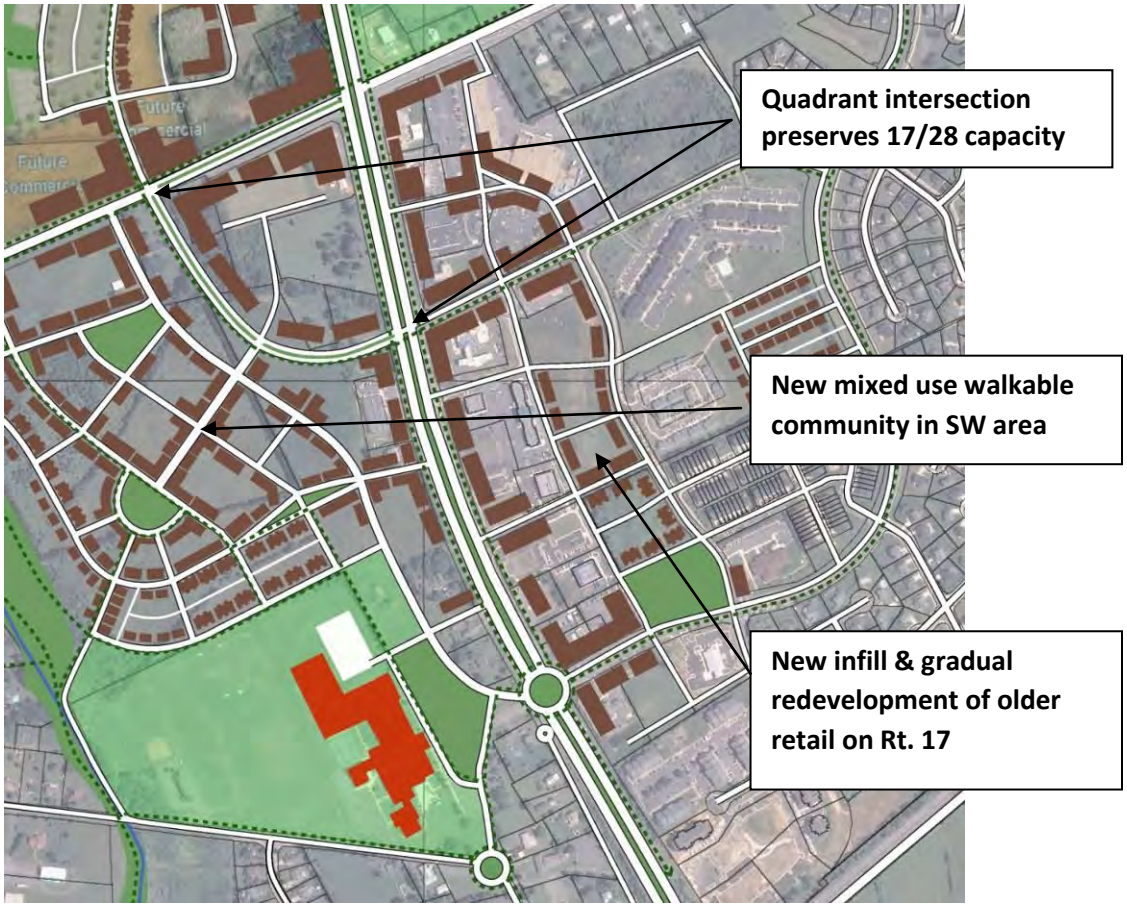
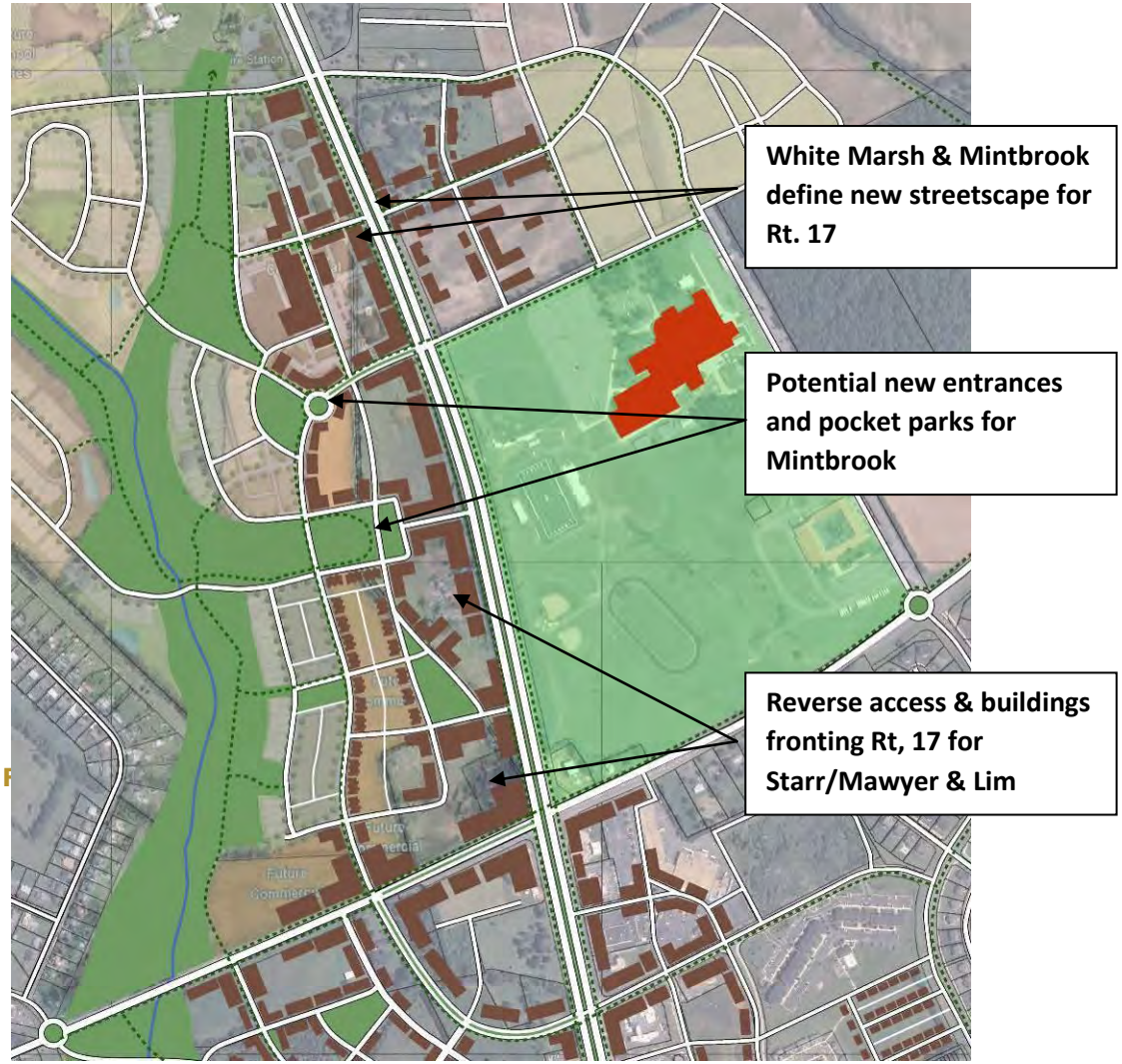


Figure 30. Central Area detail

North Area

The North Area design concept reinforces a traditional street grid and block system within the White Marsh and Mintbrook developments. It also shows a recommendation for buildings fronting streets with parking behind them, consistent with the general preference for the "Boulevard" concept from the public meetings. The Vision Plan shows a potential alternative arrangement of uses and design for the Mintbrook project as well as an integrated plan that incorporates the Starr Mawyer and Lim properties with the Mintbrook project into a cohesive community. It is recommended that the County work with the existing property owners/developers for these projects to explore options for reconfiguring the properties according to the Vision Plan, without decreasing the anticipated density and yield for the property.

The open space concept shows a greenway that parallels the creek bed, and includes small pocket parks throughout the Mintbrook development that can act as focal points for individual neighborhoods within the community.



Design Guidelines and Details

One of the ways that the County will be able to preserve livability, safety and future corridor capacity is by carefully managing the quality of future growth so that development supports and expands transportation choices for residents and businesses. To make all modes of travel truly safe, convenient, and desirable, attention must be paid not only to providing the appropriate mix of land uses and supporting transportation infrastructure, but also to the quality of the built environment. Desirable community elements include: the presence of mixed-use activity centers, connectivity of streets and land uses, transit- friendly design features, and accessibility to alternative modes of transportation. For destinations to be truly pedestrian and transit friendly, attention also must be paid to design features such as parking arrangement, building setbacks, streetscaping, and the provision of open/civic space.

The following illustrative design guidelines are intended to provide design standards to be considered in guiding public and private improvements along the Route 17 corridor in the future. They are not prescriptive rules, regulations or law, but rather intended to provide guidance for the form, character, and quality of future development. Public and private sector initiative over time will be needed to make these ideas a reality.

Figure 32. Existing corridor view

Mixed Use Development

Creating a compact, walkable environment typically includes providing a careful balance of land uses, jobs, housing, restaurants and shopping within a compact area. To be successful, mixed use development must utilize both vertical (multiple floors) and horizontal (adjacent buildings) mixed use; include an interconnected street network that enhances mobility for pedestrians and cyclists, and allows users to park once and walk between several uses; and provide a balance between activities that occur between the daytime, evening, and weekend hours, fostering a busier, safer, and more exciting environment 24 hours a day.

Regulations can be developed that require mixed use development for individual parcels or promote single land uses that provide land use diversity within a ¼-mile range of a community or town center, and prohibit developments, such as drive-through businesses, that discourage pedestrian activity. In all cases, a specific definition of mixed use is needed that establishes a threshold by which the mix of uses is measured.

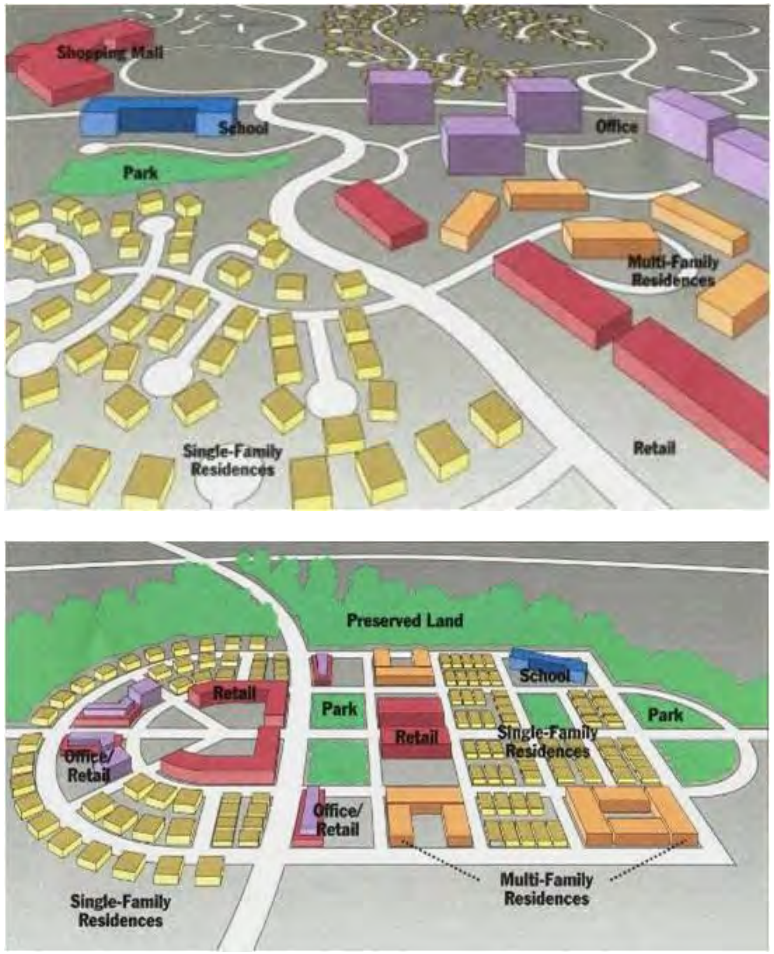
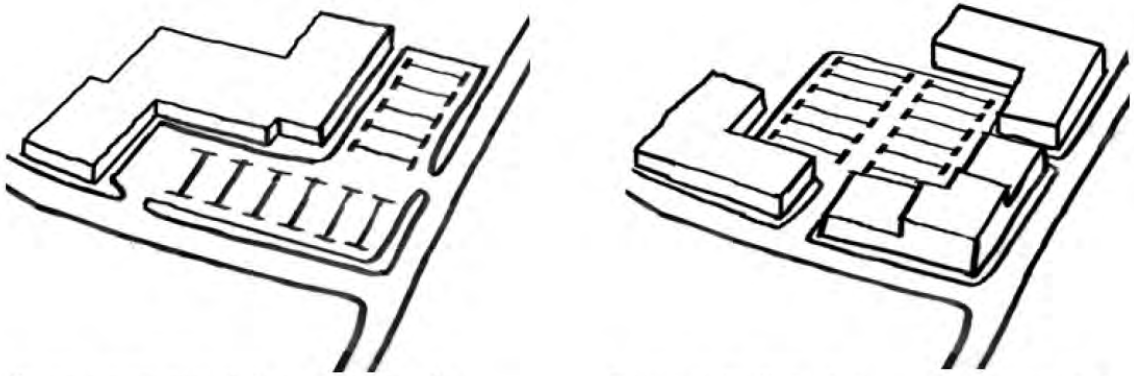


Figure 33. Comparison of single use and mixed use development patterns

Building Setback

Successful site design balances automobile and pedestrian accessibility and creates a presence that is welcoming to all users. A key factor is the organization of buildings and parking relative to adjacent streets. Frequently, buildings are set too far back from the road, leaving a large, open expanse of parking visible to visitors from the roadway , and a wide, often uninviting, expanse of asphalt to be crossed by pedestrians. A more desirable alternative reverses this placement, drawing the building to the street edge and moving parking to the rear, in turn providing a more intimate pedestrian-friendly frontage along the roadway. In this way, buildings frame the street - enhancing and enlivening - the pedestrian environment with storefronts and entrances along the sidewalk. It is also important to note that standard parking requirements can lead to an oversupply of parking spaces and open expanses of asphalt.



Discouraged: Site design that separates buildings from pedestrians

Encouraged: Site Design that encourages pedestrian activity by placing street walls and entries along the sidewalk.

Figure 34. Comparison of building setbacks

Building Orientation

Successful site design depends on proper building orientation to create a presence that is welcoming to pedestrians. By simply reconfiguring a site, building placement can reduce walking distances for customers and make streets more useful for pedestrians, transit users, and bicyclists. Building entries should border main streets and public thoroughfares to foster a vibrant, walkable environment. The primary building entrance should be oriented toward the principal pedestrian accessway, typically the public sidewalk or an interior sidewalk where the majority of pedestrian traffic is expected to be coming from within the site. Additional entrances may be encouraged that are oriented towards on-site parking.

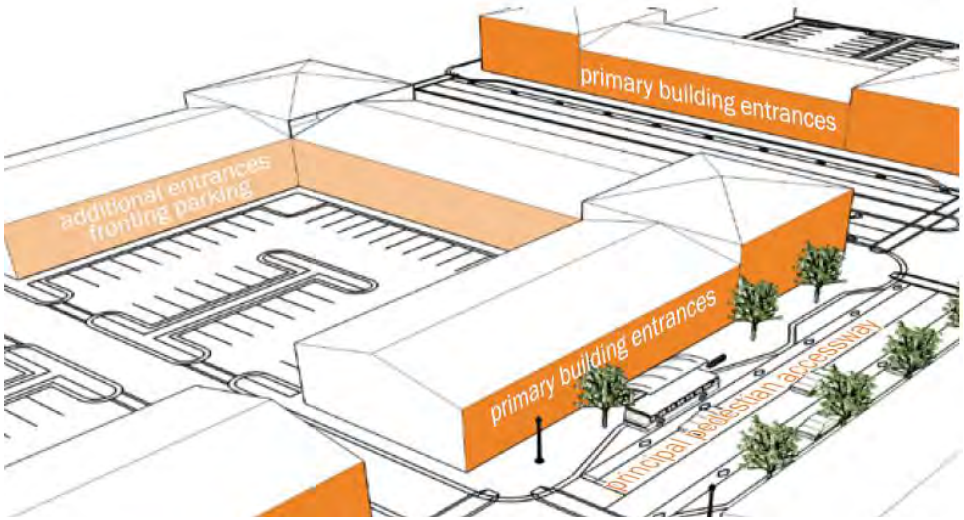


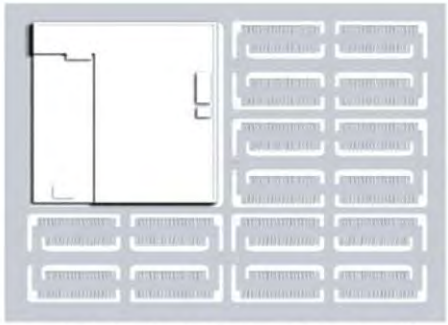
Figure 35. Diagram of preferred building orientation

Parking

Parking policy and design can be a major factor in the walkability of a place. Providing an overabundance of free parking encourages driving, while onsite parking can serve as a barrier to pedestrian access to destinations. On-site parking reductions should be encouraged through reduction of parking minimums, use of parking maximums, shared-parking agreements, in-lieu agreements to shift parking to community parking facilities, or similar strategies.

On-site parking located between the sidewalk and buildings creates an inconvenient and potentially unsafe barrier to pedestrian activity. Parking should be located to the rear of the building wherever possible. Any offstreet parking adjacent to the public right-of-way should be screened with landscaping or fencing in such a way that it does not create a barrier to adjacent sites or blocks. Long aisles of parking bays should be broken up with landscaped islands. Pedestrian access should be designed around the perimeter of on-site parking and between parking aisles.

On-street parking is an important part of the urban fabric. It provides convenient front door parking opportunities along urban roadways, contributes to the street environment, and creates a protective buffer between pedestrian and vehicular traffic. Further, on-street parking acts as a visual cue that tells motorists they are in a more urbanized, lower speed area. On-street parking should be considered along all roadways in urban areas and along pedestrian-friendly local streets within major developments, as it can reduce on-site parking needs by providing parking spaces within the thoroughfare right-of-way. On street parking is not recommended along arterials in rural and suburban contexts. NOTE: The recommendations on this page relate to the adjacent and connecting secondary roadways in the vicinity of the corridor, rather than to Rt. 17 specifically.



Discouraged: auto-oriented, parking dominated development

Encouraged: shared or public parking in mixed use, walkable development pattern - interior, rear or on-street parking.

Figure 36. Comparison of surface and structured parking

Pedestrian Facilities

Sidewalks and walkways are an important element in pedestrian-oriented design. In commercial and industrial areas, and along arterials, sidewalks should be required on both sides of all streets, with a minimum width of 5 feet. In low-density areas, sidewalks should be installed whenever the roadway changes from open swales to curb and gutter. Wider sidewalks of 10 foot width or greater should be required in commercial areas to encourage pedestrian activity, provide comfortable space for high pedestrian volumes, and provide space for outdoor dining or other pedestrian-supportive uses. The presence of buffers, comprised of landscaping in suburban areas, and street furniture, street trees and street lights in urban areas, is important to the comfort and perceived safety of pedestrians. The widest buffers - at 6' to over 8' or more - are recommended on arterials with high speeds.

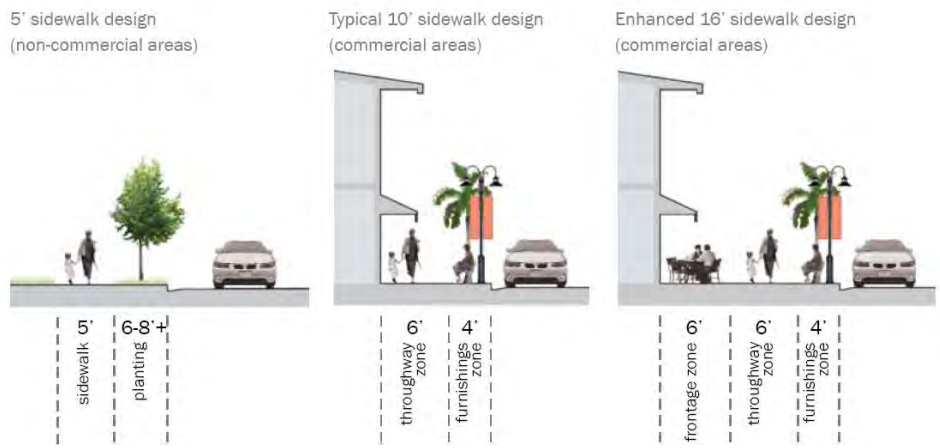


Figure 37. Preferred sidewalk widths

Streetscape

The effective design of the space between the edge of the curb and the front of a building is essential for encouraging pedestrian activity and promoting safety and security. In addition to providing a spatial buffer between vehicles and pedestrians, the streetscape should consist of trees for shade and softening the urban environment, pedestrian-scaled lighting for security and aesthetics, and benches, drinking fountains, newspaper boxes, or other pedestrian-oriented amenities. For high-pedestrian use sidewalks, six feet of sidewalk width should always be maintained as an obstacle-free throughway zone with the trees, lighting, and other amenities located either in the furnishings zone between the street and sidewalk or in the frontage zone next to the buildings. Additionals landscape amenities such as window boxes and planters within the public realm might be encouraged within appropriate areas to increase the level of visual interest.

Figure 38. Comparison of pedestrian and auto-oriented streetscapes

Connectivity

Well-connected neighborhoods promote pedestrian and bicycle activity by making connections between destinations accessible and convenient. An interconnected street network also provides the framework for mixed-use development with smaller block sizes and a greater diversity of building types within close proximity. Increased street connectivity also disperses traffic flows, subsequently helping to transform the street into a comfortable space for pedestrians. Interconnected transportation networks can provide advantages such as enhanced vehicular and pedestrian access, reduced traffic congestion, as well as enabling emergency vehicles to respond in a timelier manner. Well-connected areas also promote pedestrian activity and encourage walking in place of driving for local trips.

Figure 39. Comparison of well connected and poorly connected development

IMPLEMENTATION

Transportation

The transportation system concept and community vision for the corridor can evolve over time as private development occurs and opportunities arise. The opportunities could come from new development projects that would construct critical pieces of the network, or redevelopment of parcels that allow for reconfiguring of the site according to the suggested urban design principles, as well as redevelopment plans that could include pieces of the road network while providing new connections. In addition, publicly funded improvements can be implemented as grants or other transportation project funds become available in the future, and can be guided by the Vision Plan. Relative to new development and redevelopment, it will be important for the proposed plans to consider the vision for the service district and the necessary transportation elements including roadway and sidewalk connections. These are the key to achieving the vision for the service district.

Each piece of the new transportation system could be tied to near, medium, and long term implementation strategies as follows:

Near Term (0-10 years)

Given the current transportation funding environment, NEAR TERM (10 years) opportunities will most likely occur concurrent with new development application plans and associated initial infrastructure construction.

These near term opportunities could include a variety of developer constructed improvements and also publicly funded intersection safety improvements. The developer-sponsored improvements could include creating pedestrian connections via road frontage improvements associated with White Marsh, Mintbrook, and the Bealeton Gateway projects (for example). As elements of these projects begin to come online trails, sidewalks, and intersection crossing treatments could be constructed.

Other improvements might include construction of new road connections such as the spine road in the northwest quadrant of the service district (Mintbrook property) and construction of new connections in the northeast quadrant of the service district in the area of the White Marsh development

Intersections such as Oak Shade/Route 28 and Station Drive/Route 28 could be improved to add roundabout configurations through the use of VDOT funding as available. These intersections will continue to degrade in terms of side street delay as the through volumes on Route 28 increase. Constructing roundabouts at these locations could help to alleviate the delay while providing attractive gateway treatments at each end of the service district along Route 28. Further study would need to be initiated as

the funding opportunities arise to discern the required laneage and roundabout sizing.

The retiming and implementation of a coordinated signal system along Route 17 could also help to alleviate some of the existing congestion. Signal system communication equipment and signal timing optimization could occur when funding is available from VDOT, or as part of developer proffers.

Intersection safety improvements using VDOT funding could be accomplished over time, while the county continues to encourage the long term vision of constructing the bypass facility. Additional study and right-of-way acquisition could occur throughout the short and midterm time frames to help ensure that the bypass is eventually constructed once funds are available.

Medium Term (10-20 years)

In the MEDIUM TERM (10 to 20 years), with the initial new roadway connections, minor intersection capacity, and pedestrian improvements completed as near term improvements, the Route 17 and Route 28 corridors could begin to be transitioned to the Boulevard Concept as shown in the Vision Plan. This may be possible using proffered development funds or other publicly garnered funds from VDOT. At this point, many of the frontage improvements should be in place which will begin to change the overall character of the corridor. Additional median and edge treatment could be utilized to further evolve the context of the corridor such that the speed limit along Routes 28 and 17 could be lowered from the existing 45 mph to a more context sensitive speed of perhaps 35 mph.

During this time frame, with new connections and network in the southwest quadrant of the servicedistrict coming online, consideration could be given to utilizing the quadrant intersection concept in full or in part to provide the additional travel capacity at the critically important Route 28 and 17 intersection. A partial implementation of this concept could be to restrict left turns on just one of the major roads and use the quadrant road for those left turns. This in itself would help to relieve the increased congestion at this critically important intersection. As the road network in the southwest quadrant continues to develop, there may be opportunities to provide alternative access to Remington Road versus the awkward intersection at its terminus at the school entrance. This would allow for the signal phasing at Route 17/Station Drive to be changed to a more efficient pattern that utilizes concurrent left turns instead of the split phasing that is currently utilized at that intersection.

Also during the medium term, the plan could be further advanced as the commercial development that is existing today begins to redevelop into more modern structures and “improved” site plans. As the re-development plans are produced, driveway consolidation and improved cross parcel accesses could begin to emerge. In addition, new building

locations could be shifted to create an environment that is more inviting to pedestrians. The urban form would continue to shift from the more auto-oriented development pattern to one that is more balanced and walkable. Furthermore, through this time period there should be continued coordination with VDOT to garner funds for corridor improvements such as additional streetscaping and sidewalks. The funding campaign for the bypass would continue with the goal of having substantial funding accrued for this critically important element of the transportation plan by the long term.

Long Term (20+ Years)

With success in implementing improvements as described as the medium term, the Long Term (20 years plus) goals could begin to be accomplished. The key goal by this point in time will be to finalize funding for the Rt. 28 bypass over to Route 15/29. While this is occurring, it may likely be necessary to utilize the quadrant roadway system to implement the full left turn diversion treatment, though once the bypass is constructed and opened, the 17/28 intersection could revert back to the conventional configuration and operation. Once the bypass is constructed, Route 17 could be downgraded from a major arterial facility to a low speed main street type facility. The volumes should drop substantially on both Route 17 and along Route 28 west of Route 17. At this point the, roundabouts could be introduced, if desired, in place of signalized intersections throughout the service district. With completion of the connected grid in the four quadrants, the Rt. 28 bypass, and decreased speed limits – the transportation vision will be largely achieved.

APPENDIX

APPENDIX MATERIALS:

1. March 24, 2011 Meeting Announcement
2. March 24, 2011 Meeting Summary
3. Boulevard Concept
4. Parkway Concept
5. Access Management Study for the Route 28/17 Intersection
6. May 5, 2011 Meeting Summary
7. 3-D Visualization of Corridor – Existing Condition
8. 3-D Visualization of Corridor – Proposed Condition
9. Base Map of existing and approved development
10. Proposed Vision Concept
11. Survey Result summary

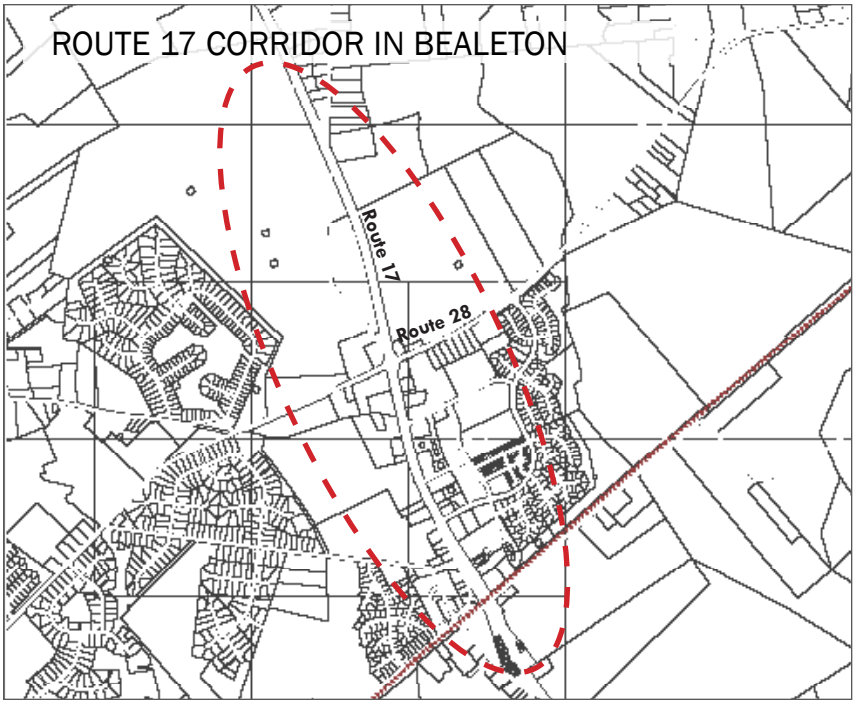
Bealeton Area Plan

for the Route 17 Corridor

Appendix

Bealeton Area Plan

for the Route 17 Corridor



LOCATION: LIBERTY HIGH SCHOOL, EAGLE ROOM
6300 Independence Avenue, Bealeton

THURSDAY, MARCH 24, 6:30 PM to 9:15 PM

6:30 PM:	PUBLIC OPEN HOUSE
7:00 PM:	Welcome and Introductions
7:10 PM:	PRESENTATION
7:45 PM:	PUBLIC VISIONING EXERCISE - Your Ideas for the future of the Route 17 corridor in Bealeton
9:15 PM	Adjourn

for more information

Contact Susan Eddy, Fauquier County Planning
540.422.8210 or email susan.eddy@fauquiercounty.gov

You can also share your thoughts via a short nine-question survey:
http://www.surveymonkey.com/s/JTFY5SS

WHAT'S GOING ON?

Fauquier County is interested in YOUR ideas for Bealeton's Route 17 Corridor.

The County has started a planning process to look at the future of the area along Route 17 (see map at left) and is asking the question – "What should this area be like in 20 years?"

Your input is very important to this community-based planning effort, and will be used to help refine the vision for the future of the service district. A professional team of planners, designers and engineers funded by a grant obtained by the County will lead a PUBLIC WORKSHOP to help develop ideas, concepts and visions for the Route 17 corridor in Bealeton. This workshop is the first step in the planning process.

The results of this workshop will be used by the county as a guide for future actions and decisions regarding the Route 17 corridor in Bealeton – YOUR IDEAS CAN HELP SHAPE THE FUTURE!

WHEN?

The workshop will be held in the Eagle Room at Liberty High School on March 24 from 6:30PM to 9:15 PM. This workshop is an informal input session for the public, property owners and other stakeholders to contribute ideas and comments on the future of the Route 17 Corridor in Bealeton. There will also be a presentation about future policy options to consider and potential land use and transportation recommendations for the Route 17 Corridor in Bealeton.

WHO SHOULD ATTEND?

Everyone with an interest in the future of Bealeton is welcome. If you are a RESIDENT, PROPERTY OWNER, BUSINESS OWNER, or just someone who cares about how the area should shape its future, please plan to attend the workshop and share your ideas for the future!

BEALETON AREA PLAN FOR THE ROUTE 17 CORRIDOR
LIBERTY HIGH SCHOOL, EAGLE ROOM
6300 Independence Avenue, Bealeton
Thursday, March 24, 2011

Meeting Summary

Purpose:

- ***To identify issues and opportunities for the future of the Route 17 Corridor in Bealeton***
- ***To get input on what the area should be like in the coming 20 years***

STAKEHOLDER OPEN HOUSE COMMENTS:

- Lots of regional/thru traffic. Nothing in the corridor to make people stop.
- Worry that by-pass would hurt businesses in Bealeton.
- Business owner in favor of larger signs.
- Need for park/local recreation for community
- Prefer parkway concept. More of an open feel.
- Need safe and convenient walking paths.
- Need better signal timing at Station Drive to serve school buses going to Cedar Lee Middle School
- Safe Routes to School Programs at Ceder Lee and Liberty. Could have sidewalk on north end of Schoolhouse Rd. to get students to Cedar Lee.
- Lower speed limit on Route 17.
- How does Boulevard concept work without the bypass?
- In favor of Boulevard and walkable.
- Not much for kids to do in Bealeton – shopping center is the hangout.
- Need something for the kids to do.
- Want to keep small town feel.
- Willow Drive North is not well-kept – often lots of trash, not maintained
- Reduce speed on Route 17 to 25 mph from overpass to 837
- Supports roundabout on Route 17 at 837
- Rt. 17/28 intersection needs improvement
- Speeding along Station Drive to bypass Rt. 17/28 intersection – no enforcement
- Need to clean-up town – shopping center, roadways, etc. – pick up trash
- Need to preserve potential for VRE station in Bealeton – zone land appropriately around station

PLENARY QUESTIONS/COMMENTS

- Are quadrant interchanges and roundabouts mutually exclusive?
- Bypass: initially intended to also serve industrial development at the airport
- Is there a boundary defining Bealeton corridor?
- If put in roundabout, would have to also have the bypass – increased truck traffic would pose problems for roundabout
- Having commuter rail would help growth in Bealeton
- Gen Y – biggest homebuying group – need for them to have access to employment centers
- Are roundabouts a substitute for stop signs or signals?

- What are synergy possibilities b/w roundabout and quadrant interchanges? Seems like a roundabout would facilitate left turn movements better than a quadrant interchange.
- What about an overpass over Route 17 – E/W for Route 28
- Would a roundabout make the access points more dangerous?
- Seems like there are two options: limit traffic or prepare to accommodate future traffic w/i existing roads
- What about hindrances to prevent traffic on Route 17 (i.e. tolls) or do we want traffic to continue?
- Need to encourage businesses to use rail to facilitate goods movement
- What are traffic counts that make roundabouts dysfunctional?
- Bypass + roundabouts nicely balances needs of local/regional traffic

SMALL GROUP REPORT OUTS

Group 1:

- Remove truck traffic from Route 71
- Still want to support businesses who benefit from truck traffic
- Is bypass the only way to get trucks off of Route 17? What are the viable options?
- Frontage road concept doesn't provide desired accessibility
- Vision: people can go to school, shop, get to transit, without getting in the car
- There is no place for people to get food after/during football games
- Support for boulevard if no trucks
- Less traffic on Route 17 or can we get a "low traffic" zone
- 35 mph ok if pedestrians crossing Route 17
- Also like crosswalks/refuges
- Some difficulty accessing business
- What about bus alternative to VRE in short term?
- Would like to see park n' ride
- Need to fix intersection in front of Middle School
- Improve transition coming over the rail overpass – all of a sudden go from rural high speed to developed. Comes up suddenly.
- Need to solve Schoolhouse Road

Group 2:

- No parking in Popeyes
- "Boulevard" to allow pedestrian crossing of Route 28/17
- Like the quadrant intersection but not if it drives traffic into neighborhoods
- No fly-over on 28
- Bealeton is a pedestrian community that's not pedestrian friendly (now)
- Trucks are the main problem
- Slow down the trucks
- Need the southern bypass – similar justification as Route 460 improvements by governor
- Town character within Village – Bypass would be rural character
- Lower speed limit (but increases congestion)
- Pedestrian bridges over 17
- Toll to control traffic
- Freight rail
- Calm traffic with more signals/traffic lights
- Manage congestion

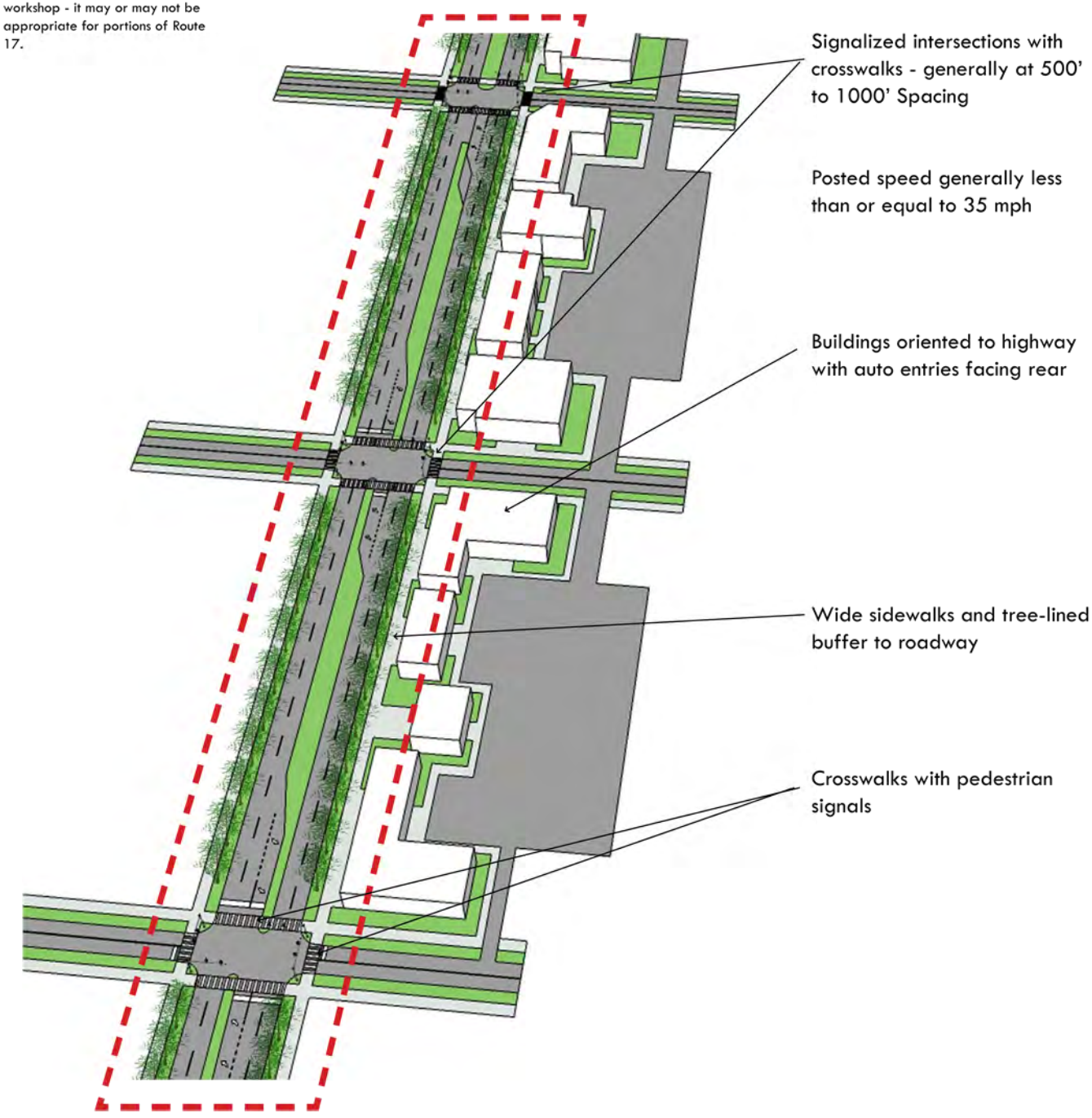
- Look at roundabouts

Group 3

- Need to have walkability throughout but especially to schools
- Slow traffic to 35 mph (or 25 mph) for all Bealeton
- Prefer Boulevard concept – buildings fronting corridor
- Don't want frontage roads
- Need passenger rail station
- Tie in with Safe Routes to School Program and Trail system
- Preserve parks and fields for children
- Need By-pass
- Consider roundabouts at 4 gateways.

Boulevard Concept

NOTE: This is a broad conceptual alternative for discussion at the workshop - it may or may not be appropriate for portions of Route 17.



Landscaping and wide sidewalks buffer pedestrians from traffic.

Mixed use buildings oriented toward a busy arterial highway. Multi-use trail for pedestrians and bikes. Parking is located behind the building along parallel collector roadways.

Countdown pedestrian signals facilitate pedestrian movement on busy highways with speeds of 35 mph or less.

Parkway Concept

NOTE: This is a broad conceptual alternative for discussion at the workshop - it may or may not be appropriate for portions of Route 17.

Wide intersection spacing (typically 1,000'-2,000') to allow mobility. Intersections signalized or potentially roundabouts or grade-separated interchanges.

Shared use path for pedestrians and bicycles

Posted Speed generally 45 mph or above

Landscaped Greenway to Screen Parking Areas

Buildings Oriented Toward Pedestrian-Scaled Parallel Roadways

Local Streets with generally 25 mph speeds.

No Crosswalks on Rte. 17

Generous landscaping screens parking areas from the highway.

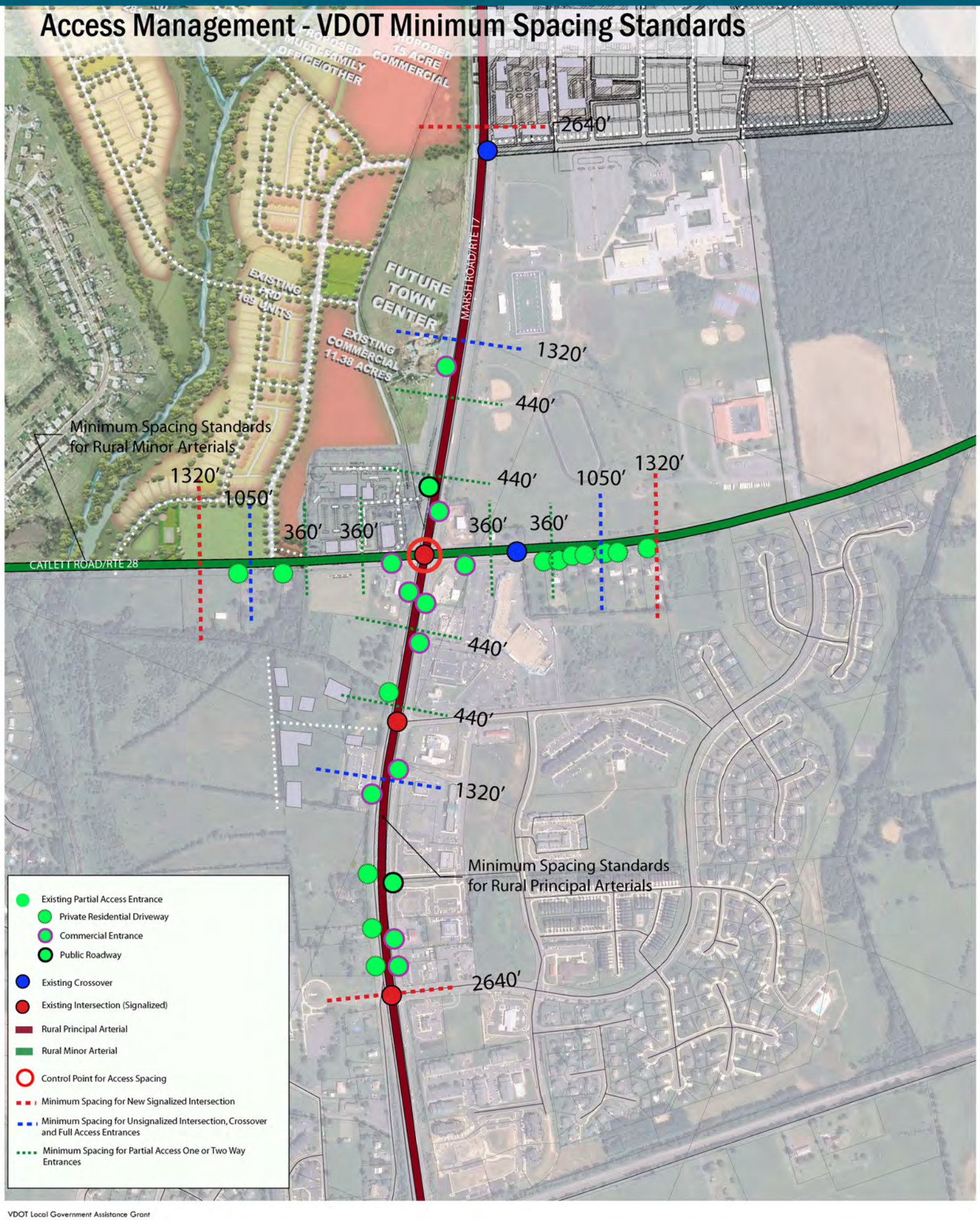
Shared use paths lie outside the roadway and are shared by many non-motorist modes.

Multi-lane high speed arterial with managed access and development screened from the highway.

Bealton Area Plan - for the Route 17 Corridor

Renaissance Planning Group
Workshop Materials February 22, 2010

Access Management - VDOT Minimum Spacing Standards



VDOT Local Government Assistance Grant
Prepared by Renaissance Planning Group

BEALETON AREA PLAN FOR THE ROUTE 17 CORRIDOR
LIBERTY HIGH SCHOOL, EAGLE ROOM
6300 Independence Avenue, Bealeton
Thursday, May 5, 2011
7:00 – 9:15 PM
Meeting Summary

GROUP 1 (MILT)
Best Stuff:

- Not widening 17
- Spend money on bypass
- Connectivity through the 4 quadrants/communities
- Roundabouts (not unanimous)
- Grid street network
- Solving Remington Road
- Buildings close to the road on 17 North will calm traffic
- New idea of Rt. 28 bypass

Dislikes:

- Need bypass sooner
- Access/lack of to land uses inside the quadrant – make it more of a connection into the grid (what percentage of trucks are turning off of 17?)
- Need slow speeds coming downhill over the rail overpass
- Need to synchronize signals
- Need to reduce speeds/speed limit
- Roundabouts wouldn't likely work on 17 – lots of new people use this road = confusion

#3:

- Route 28 Bypass on East Side
- Quadrant refinement (as noted previously)
- Improve access across 28 from high school – pedestrian overpass/crosswalk
- Maintain high school site as school long term
- Traffic calming – trees in median, 11' lanes, etc.
- Advance signal light in front of hill to warn a signal is ahead
- Priorities

- Slow truck traffic
- Maybe shift some money from Opal improvements to Bealeton
- Synchronize signals

GROUP 2 (JESSICA)
Features we like best:

- Grid system – essential
    - Grid especially on SW quadrant allows movement without getting on main road
- Boulevard concept (2)
    - Calm traffic with buildings close to road

- No left turns (iron cross possible?) – no stopping all right turns, would require 4 roundabouts/U-Turns
- Good that expert traffic ppl looked at intersection – quadrant intersection
- Commending planning process
- Like roundabouts as a first step – serve visual cues to traffic

Opportunities/Issues:

- Need to connect existing cul-de-sacs especially behind Mintbrook
- County needs zoning to implement plan
- Need to coordinate port expansion + road planning
- Coordination between VDOT studies and County regulations
- Anything to reduce truck traffic
- Reduce crashes
- Roundabout on Rt. 17 needs bypass
- Slowing traffic requires an alternate route – especially since Rt. 17 is a corridor of statewide significance
- Bypass is an integral part to making boulevard concept work
- VDOT designation of Corridor of Statewide Signifcance somewhat conflicts with boulevard concept without a reliever road
- Connected grids encourage cut through traffic – problem when houses are along the road and high speed

Problems:

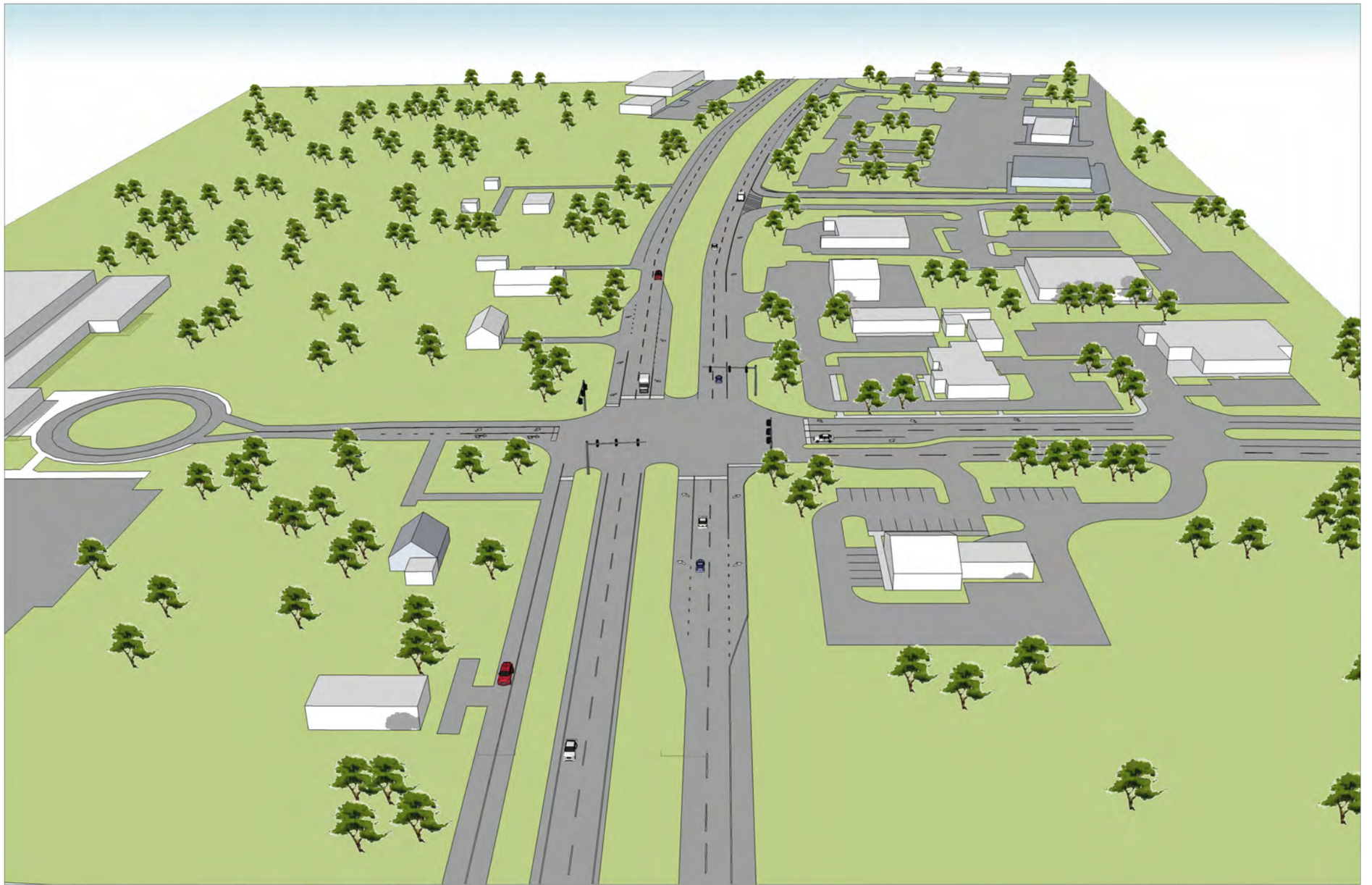
- We can't get rid of traffic lights
- Noise from truck stops and starts
- Conflict between VDOT desires (high speed thru traffic trucks) and local vision (slow traffic boulevard concepts)
- Primary Goals:
- Whatever can be done to minimize pavement
- Whatever can be done to allow more flexibilityy from VDOT

GROUP 3 (VLAD)

- Concern with VRE station in neighborhood
    - Needs to be away from village + shuttle bus to village
- Favor the boulevard because it gets visibility, but buildings not too close
- Can we do a truck lane?
- Shouldn't be a truck service area
- Concern that quadrant would cut access to Shell/Liberty
- Should allocate funds to bypass long term rather than doing Rt. 17 improvements
- In favor of the local street grid – separate local from through traffic
- Support the idea of lining big box with smaller retail
- Need to solve Remington Road intersection

- Consider roundabout at Remington and Schoolhouse road
- Would still favor roundabout at 17 North if it could work

Existing Conditions - Route 17 Looking North at Station Drive



Fauquier County, VA

Future redevelopment of corridor

Reconfigured intersection and school entry

Potential Roundabout

Parking behind buildings

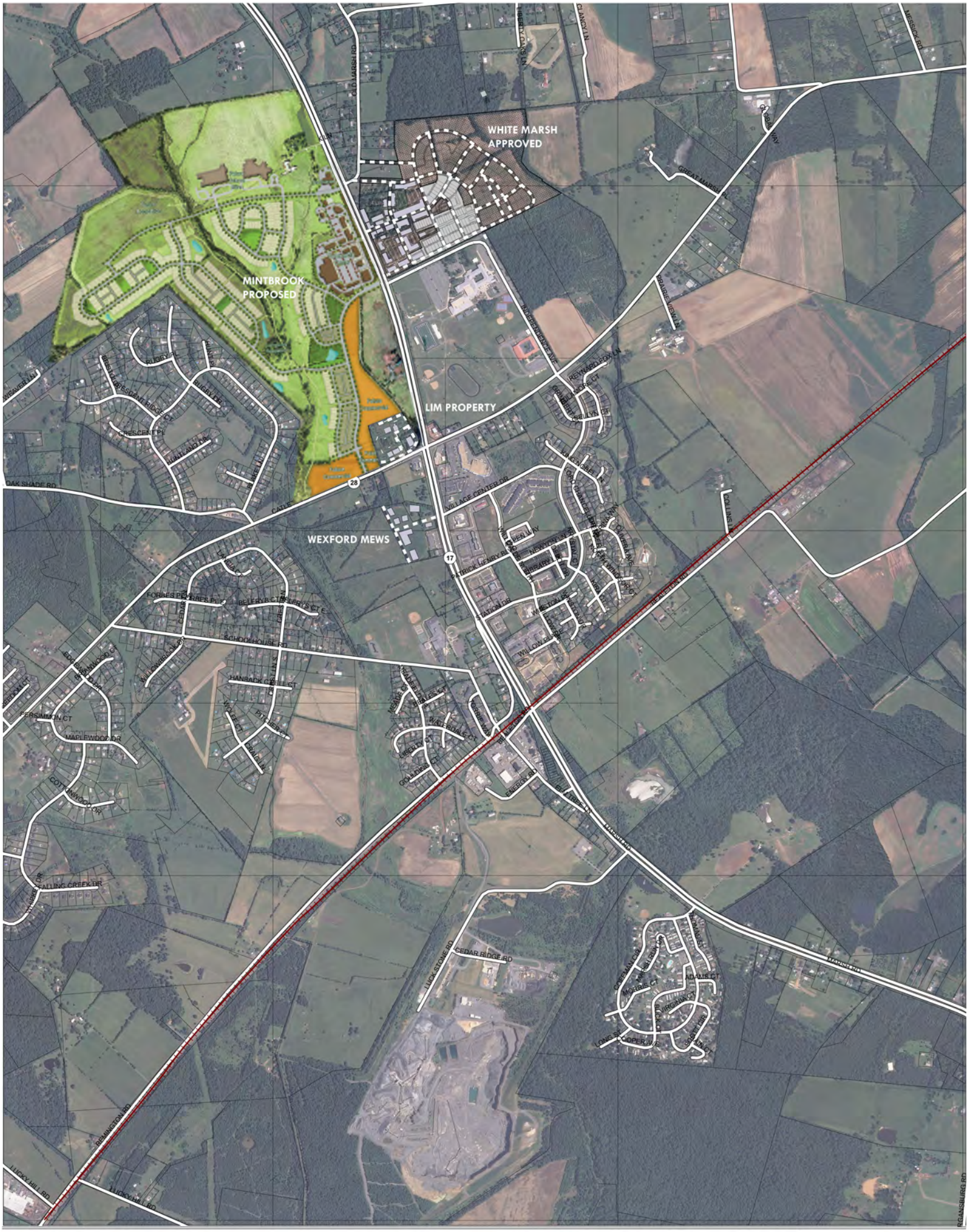
Buildings front the road

Pedestrian/Bike Trail

Landscaped buffer along road

Note: This visualization shows one potential way that the Route 17 corridor could develop over the very long term. It is a conceptual vision and subject to change.

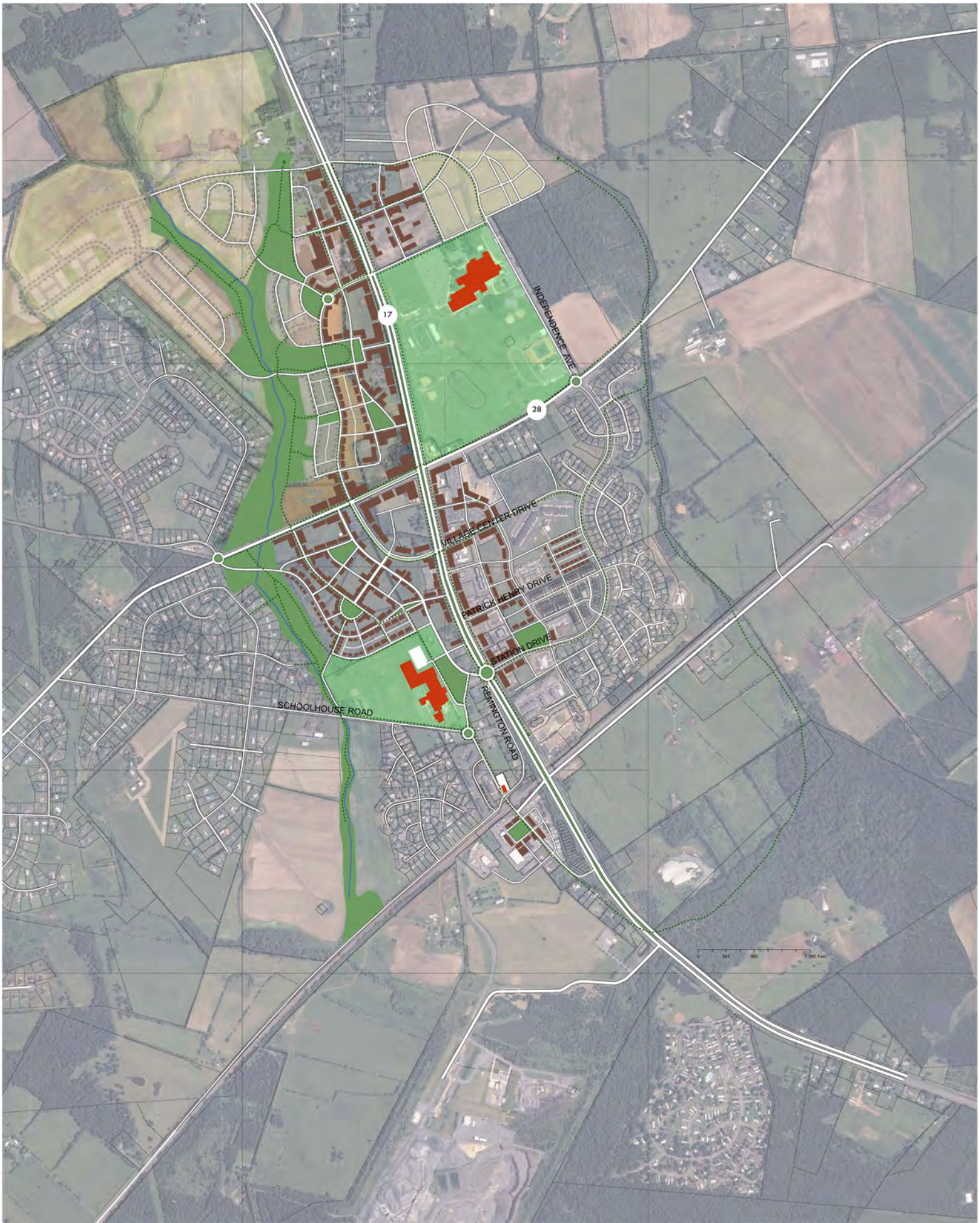
Potential Future Vision for the Corridor presented at the May 5, 2011 Public Workshop



1"=500'

500 250 0 500 1,000 1,500 2,000 Feet

PROPOSED VISION CONCEPT



Bealeton Area Plan for the Route 17 Corridor

1. Where do you live?

	Response Percent	Response Count
Along the Rt 17 corridor	12.5%	6
In Bealeton	29.2%	14
Both 1 and 2	16.7%	8
Outside Bealeton but in Fauquier County	**35.4%**	**17**
Outside Fauquier County	6.3%	3
Other	0.0%	0
	Other (please specify)	0
	answered question	**48**
	skipped question	**0**

See page 8 for summary

2. If you are employed, where do you work?

	Response Percent	Response Count
Along the Rt 17 corridor	11.4%	5
Within Bealeton	13.6%	6
Both 1 and 2	13.6%	6
Outside Bealeton, but in Fauquier County	25.0%	11
Outside Fauquier County	**31.8%**	**14**
Other	4.5%	2
	Other (please specify)	2
	answered question	**44**
	skipped question	**4**

3. Do you own a business along Route 17?

	Response Percent	Response Count
Yes	6.3%	3
No	**93.8%**	**45**
	answered question	**48**
	skipped question	**0**

4. Please choose each travel option that you regularly use to travel to and/or along Route 17.

	Response Percent	Response Count
Automobile	**100.0%**	**48**
Walking	2.1%	1
Bicycling	2.1%	1
Bus	0.0%	0
	answered question	**48**
	skipped question	**0**

5. What destination or attraction on Route 17 are you most likely to visit?

	Response Count
	38
answered question	**38**
skipped question	**10**

See page 9 for summary

6. What do you believe are the biggest problems with the Route 17 corridor? (Please only select up to 3 responses)

	Response Percent	Response Count
Hard to navigate (narrow lanes, variation)	2.1%	1
Congestion, travel time	20.8%	10
Excess Speed	39.6%	19
Unsafe pedestrian crossings	**47.9%**	**23**
Lack of sidewalks	**47.9%**	**23**
Lack of bicycle accommodation	18.8%	9
Character of pedestrian setting	12.5%	6
Appearance of buildings	18.8%	9
Lack of parking	0.0%	0
Lack of shopping, business	41.7%	20
Don't think there are major problems	10.4%	5
Other	8.3%	4
	Other (please specify)	6
	answered question	**48**
	skipped question	**0**

See page 10 for summary

7. Which of the following do YOU believe would be most effective to improving traffic on Route 17?

	Response Percent	Response Count
Make travel lanes wider, more consistent	11.1%	5
Add more lanes	4.4%	2
Remove lanes	0.0%	0
Add more traffic lights	6.7%	3
Remove traffic lights	2.2%	1
Provide for bike accomodations	11.1%	5
Better signage	6.7%	3
Roundabouts	6.7%	3
Time the lights better	11.1%	5
Improve other traffic routes	11.1%	5
Provide more public transit service	8.9%	4
Other	**20.0%**	**9**
	Other (please specify)	12
	answered question	**45**
	skipped question	**3**

See page 11 for summary

8. From the list below, which do you believe should be the highest priority for Route 17?

	Response Percent	Response Count
Attracting businesses and patrons	19.6%	9
Safer pedestrian movement	**30.4%**	**14**
Moving vehicles more efficiently	17.4%	8
Moving vehicles more safely	8.7%	4
Dressing up the image of the area	15.2%	7
Offering a broader range of housing	0.0%	0
Reducing conflicts between homes and businesses	2.2%	1
Other	6.5%	3
	Other (please specify)	6
	answered question	**46**
	skipped question	**2**

See page 11 for summary

9. Please rate each of the following issues from most needed to least needed to improve Route 17.

	Very Necessary	Somewhat Necessary	Neutral	Somewhat Unnecessary	Unnecessary	Response Count
a. Add landscaped medians, parkway trees, and other visual enhancements.	15.2% (7)	**45.7% (21)**	21.7% (10)	6.5% (3)	10.9% (5)	46
b. Improve traffic controls to reduce congestion.	**44.7% (21)**	36.2% (17)	12.8% (6)	0.0% (0)	6.4% (3)	47
c. Improve traffic controls to increase pedestrian access.	**50.0% (24)**	20.8% (10)	14.6% (7)	4.2% (2)	10.4% (5)	48
d. Improve public transportation.	20.8% (10)	**29.2% (14)**	25.0% (12)	16.7% (8)	8.3% (4)	48
e. Add attractive signs to indicate locations of major attractions.	19.1% (9)	**34.0% (16)**	23.4% (11)	12.8% (6)	10.6% (5)	47
f. Improve crosswalks, sidewalks and bicycle routes.	**54.2% (26)**	18.8% (9)	16.7% (8)	6.3% (3)	4.2% (2)	48
g. Provide public gathering spaces among commercial and civic buildings to act as town squares.	27.7% (13)	**34.0% (16)**	23.4% (11)	6.4% (3)	8.5% (4)	47
h. Add more outdoor restaurant seating and place commercial buildings near streets to bring more life to the street corridor.	17.0% (8)	**34.0% (16)**	27.7% (13)	14.9% (7)	6.4% (3)	47
i. Improve architectural standards.	21.3% (10)	**42.6% (20)**	19.1% (9)	6.4% (3)	10.6% (5)	47
j. Add more green space.	21.3% (10)	**36.2% (17)**	27.7% (13)	10.6% (5)	4.3% (2)	47
k. Provide corridor and community identity signs at major entry points along the street.	8.7% (4)	**50.0% (23)**	21.7% (10)	10.9% (5)	8.7% (4)	46
l. Create a trail system.	29.8% (14)	21.3% (10)	**31.9% (15)**	6.4% (3)	10.6% (5)	47
m. Organize corridor-wide events and advertising to raise awareness of Route 17.	12.8% (6)	**31.9% (15)**	23.4% (11)	17.0% (8)	14.9% (7)	47
					answered question	**48**
					skipped question	**0**

Q2. If you are employed, where do you work?		
1	retired	Mar 3, 2011 8:27 AM
2	from home (in Bealeton)	Feb 17, 2011 2:32 PM

Q5. What destination or attraction on Route 17 are you most likely to visit?		
1	Shopping Center	May 5, 2011 10:46 AM
2	movie theater, walking/biking paths	May 5, 2011 10:13 AM
3	restaurants, grocery stores, retial merchants, etc.	Apr 29, 2011 8:23 AM
4	If they existed: Movie Theater, parks, child friendly areas. Of ones that exist: Bloom (grocery) and dining.	Apr 26, 2011 11:26 AM
5	Liberty High School	Apr 17, 2011 6:15 PM
6	not sure	Apr 15, 2011 9:54 AM
7	Liberty HS	Apr 15, 2011 9:41 AM
8	Village Square Shopping Center	Apr 12, 2011 1:38 PM
9	shopping centers and gas stations	Apr 12, 2011 12:15 PM
10	Bloom	Apr 12, 2011 12:06 PM
11	Liberty High School or Bealeton Village shopping center	Apr 12, 2011 7:26 AM
12	Cedar Lee Middle School	Apr 11, 2011 10:51 AM
13	Shopping center/ Bloom	Mar 24, 2011 12:04 PM
14	Bloom, Dollar Store, Mc Ds, dry cleaner, gasoline station, True Value Hardware, Generations Flowers, auto supplies, etc.	Mar 24, 2011 7:09 AM
15	Bloom, BB&T, Rite Aid, Church & Friends	Mar 22, 2011 4:53 AM
16	Fauquier County Public Library	Mar 15, 2011 5:48 AM
17	grocery store	Mar 4, 2011 9:00 PM
18	Auction Place, Morrisville United Methodist Church, Bloom, McDonald's, Post Office,Compassion Animal Clinic, Monore Park	Mar 4, 2011 10:04 AM
19	Shoping, dining, banks	Mar 3, 2011 3:17 PM
20	Liberty High School	Mar 3, 2011 2:03 PM
21	TO FROM WARRENTON, VA	Mar 3, 2011 1:57 PM
22	Grocery store, gas station, Subway, M & P's pizza	Mar 3, 2011 12:56 PM
23	church, post office, grocery store, library, restaurant,	Mar 3, 2011 11:41 AM
24	shopping center at 28 and 17	Mar 3, 2011 8:27 AM
25	Bealeton Depot, The Fauquier Bank, Grioli's	Feb 22, 2011 10:25 AM
26	Stores	Feb 18, 2011 6:50 AM
27	Gas station	Feb 18, 2011 6:46 AM

Q5. What destination or attraction on Route 17 are you most likely to visit?		
28	Bloom shopping center	Feb 17, 2011 2:32 PM
29	LHS & Restuarants	Feb 17, 2011 12:06 PM
30	grocery store	Feb 17, 2011 11:27 AM
31	Bealeton shopping center	Feb 17, 2011 11:22 AM
32	Fredericksburg and beyond	Feb 17, 2011 11:15 AM
33	library	Feb 17, 2011 10:35 AM
34	Various locations in Bealeton	Feb 17, 2011 10:13 AM
35	Village Center	Feb 17, 2011 10:03 AM
36	we utalize many of the bussiness on 17 at the Bealeton intersection	Feb 14, 2011 11:06 AM
37	Schools	Feb 3, 2011 3:58 PM
38	Fauquier County Public Library	Feb 3, 2011 7:42 AM

Q6. What do you believe are the biggest problems with the Route 17 corridor? (Please only select up to 3 responses)		
1	overwhelming presence of 18 wheeler vehicles, also antiquated access to parking lots, etc.	Apr 29, 2011 8:23 AM
2	Big Trucks, Winebagos	Apr 12, 2011 1:38 PM
3	17 is like driving 66 with the commerical traffic making it dangerous to drive, walk and enter in and out of shopping centers. Having three schools located near or on 17. Many children cross or walk 17 to get to the stores or fast food chains. You have the 25mile speed limit for Liberty during certain times. But, many times I have had to speed up because a truck is coming full speed through the 25 mile zone. 28 used to have the highest death rate in VA. But, soon it will be 28 and 17 if the trucks are not stopped.	Apr 12, 2011 12:15 PM
4	unsafe school zones	Mar 3, 2011 11:41 AM
5	Pedestrian Unfriendly - crossings and paths	Feb 3, 2011 3:58 PM
6	Trucks and associated problems: noise and speed	Feb 3, 2011 7:42 AM

Q7. Which of the following do YOU believe would be most effective to improving traffic on Route 17?		
1	Restrict 18 wheeler access or create a bypass for them to access 15/29	Apr 29, 2011 8:23 AM
2	definitely need light at trailer park	Apr 15, 2011 9:41 AM
3	Reroute trucks	Apr 12, 2011 1:38 PM
4	Do a by pass with roundabouts and add more stop lights	Apr 12, 2011 12:15 PM
5	Slow the BIG RIGS Down!	Mar 22, 2011 4:53 AM
6	there is no traffic problems on 17	Mar 4, 2011 9:00 PM
7	re-route trucking and insert train depot/public transit	Mar 3, 2011 11:41 AM
8	Doesn't presently need attention	Feb 22, 2011 10:25 AM
9	Pedestrian Acess	Feb 17, 2011 12:06 PM
10	Add controls and infrastructure to enhance pedestrian access	Feb 3, 2011 3:58 PM
11	Provide alternate route for truck traffic and provide safe routes for pedestrians	Feb 3, 2011 7:42 AM
12	Remove traffic light in front of BB&T bank	Feb 2, 2011 12:32 PM

Q8. From the list below, which do you believe should be the highest priority for Route 17?		
1	Making it more family-friendly by providing play areas, sidewalks, walking paths	May 5, 2011 10:13 AM
2	By pass	Apr 12, 2011 12:15 PM
3	a bike path from Liberty high school to Old Marsh Rd.	Mar 15, 2011 5:48 AM
4	eliminate trucking traffic and dress up area	Mar 3, 2011 11:41 AM
5	Removing trucks and works towards Bealeton being a pedestrian-friendly community	Feb 3, 2011 7:42 AM
6	Remove traffic light in front of BB&T bank	Feb 2, 2011 12:32 PM