

## **CHAPTER 5**

### **PUBLIC FACILITIES PLAN**

#### **Introduction**

This chapter presents on-going, planned, anticipated, or potential changes to public facilities in Charlotte County during the next five to ten years. Figure 26 shows planned or anticipated changes to non-transportation facilities. Planned or anticipated changes to transportation resources are identified in Figure 27.

#### **Schools**

In 2005 the Charlotte County Public Schools Division Facilities Committee with the assistance of Dominion Seven Architects, evaluated the condition of the county's public school facilities. A report was produced outlining issues related to location, exteriors, interior layout and spaces, building code concerns, and utilities at each school. While some of these issues were addressed, no major changes occurred. Then, in 2011, the School Board decided to consolidate J. Murray Jeffress Elementary School and Phenix Elementary in response to decreasing enrollment countywide. This resulted in the closure of JMJ in the fall of 2011 and the expansion of the Phenix campus. (Five mobile units were installed at Phenix Elementary to provide needed classroom space and associated facilities.)

The School Board then hired engineering consulting firm Dewberry to assess the county's three remaining elementary schools. Dewberry's facility assessment was completed at the end of 2014. This assessment included a physical assessment of the three schools; development of options for renovation, additions, consolidation & closure; and the identification of sites for new construction. Based on the findings of this study, the School Board recommended building a new consolidated elementary school in the Town of Charlotte Courthouse near the existing high school and middle school campuses. However, due to the estimated cost of the project (\$24,251,306), the Board of Supervisors requested that the School Board identify another, less costly, solution. While that solution has not been determined, it is clear that whether the elementary schools are consolidated into a new facility or the existing community schools are repaired, the cost of addressing students' and teachers' needs in the future will be a significant challenge for county citizens.

### **Law Enforcement**

There are currently no plans to expand the existing jail. However, the potential exists to eventually expand the jail on its current site to house an additional 30 inmates.

### **Fire Protection**

Changes to fire department facilities, equipment, personnel, and operations are within the scope of the individual fire departments and the Charlotte County Fire and Rescue Association. Three of the seven fire departments have relatively new facilities. In addition, Charlotte Court House Volunteer Fire Department is beginning construction on a new facility that will be located on David Bruce Avenue in the Town of Charlotte Court House.

### **Emergency Medical Service**

Changes to the rescue squad facilities, equipment, personnel and operations are within the scope of The Charlotte Rescue Squad. The Charlotte County Rescue Squad currently operates three offices in the county; their main office in Keysville, a satellite office in the southern portion of the county in Wylliesburg, and another satellite office located in the Phenix Volunteer Fire Department in the western portion part of the county. No additional changes or expansions are planned at this time.

### **Emergency Services Communication Towers**

The County's emergency services communication system consists of a system of repeaters located on privately owned telecommunication towers and other structures. There is a need to expand this system to provide better coverage in some of the more rural areas of the county. The County is currently exploring the possibility of working with other localities to establish a network of towers that will enhance emergency services' communications across the region.

### **Library**

No major changes to the existing library buildings are planned.

## **Other County Facilities**

### *A. Courthouse*

In 2016 the County began construction on a new 29,000 square foot court facility that will house two courtrooms as well as the General District Clerk's Office, the Juvenile and Domestic Relations Court Clerk's Office and Court Services. This new facility will address concerns regarding court security, space needs & poor acoustics in the historic courthouse and will meet the Commonwealth's guidelines for court facilities. The new courthouse will be located on the courthouse square with a connection to the existing Circuit Court Clerk's Office. The project is expected to be completed by the end of 2017.

### *B. David Bruce Building*

In 2009, the local Health Department relocated to a newly renovated county owned building on David Bruce Avenue. Their former location was renovated by the county and renamed the "David Bruce Building." The Charlotte County Chamber of Commerce had since occupied the building. In 2016 the Virtual Virginia, a program operated by the Virginia Department of Education which offers on-line courses to public school students, also opened an office in the facility.

### *C. Museums*

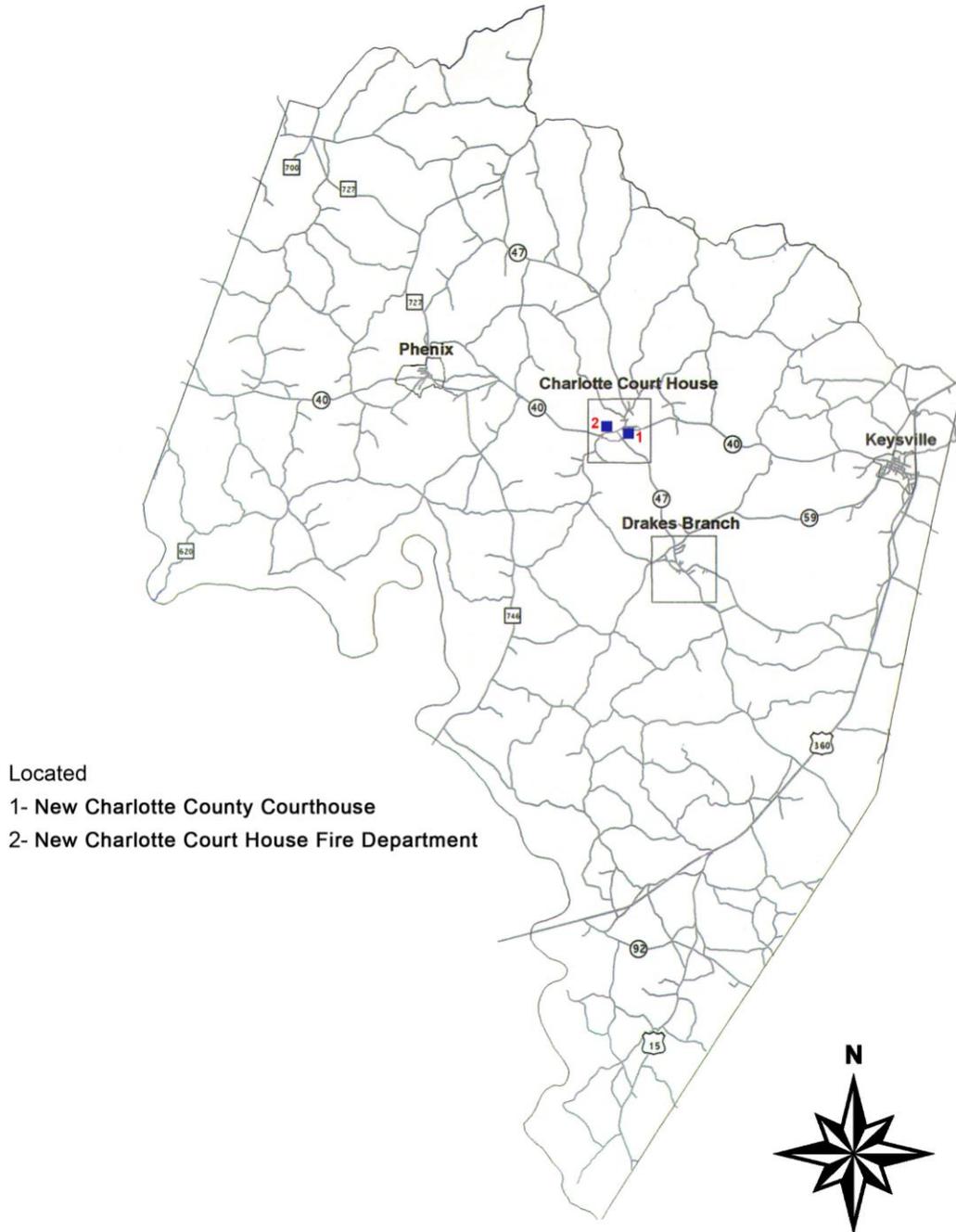
Both the Central High Museum and the Charlotte County Museum are located in county owned facilities that have been repurposed after being vacant for some time. The Central High Museum moved from the former Central High School building to the former agriculture/shop building on the old Central High School campus in 2016, allowing a tenant to lease the former Central High main building for the county's Headstart program. The Charlotte County Museum is housed in the former county jail on the historic courthouse square.

## **Commerce/Industrial Parks**

The need to make changes to the Charlotte County Industrial Park or the Heartland Business Park may emerge at any time, as a result of the unpredictable nature of economic development activities. Plans to improve road access are outlined in the transportation section on the following page.

## Figure 26

# Charlotte County Public Facilities Planning



## Transportation

Transportation planning for Charlotte County is almost exclusively focused on the state road system administered by the Virginia Department of Transportation (VDOT). Overall planning is contained in the VDOT Six Year Plan for Charlotte County, which lists approved maintenance and construction projects. Primary funding for transportation projects comes from VDOT's Smart Scale project funding process and VDOT Rural Rustic Road funding. The Rural Rustic Road Program was established in 2003 to expedite paving of unpaved roads already within the state secondary system that carry at least 50 but no more than 1,500 vehicles per day. The goal of the program is to pave these low traffic volume roads using the footprint of the unpaved road with little impact on the surrounding trees, vegetation, and side slopes.

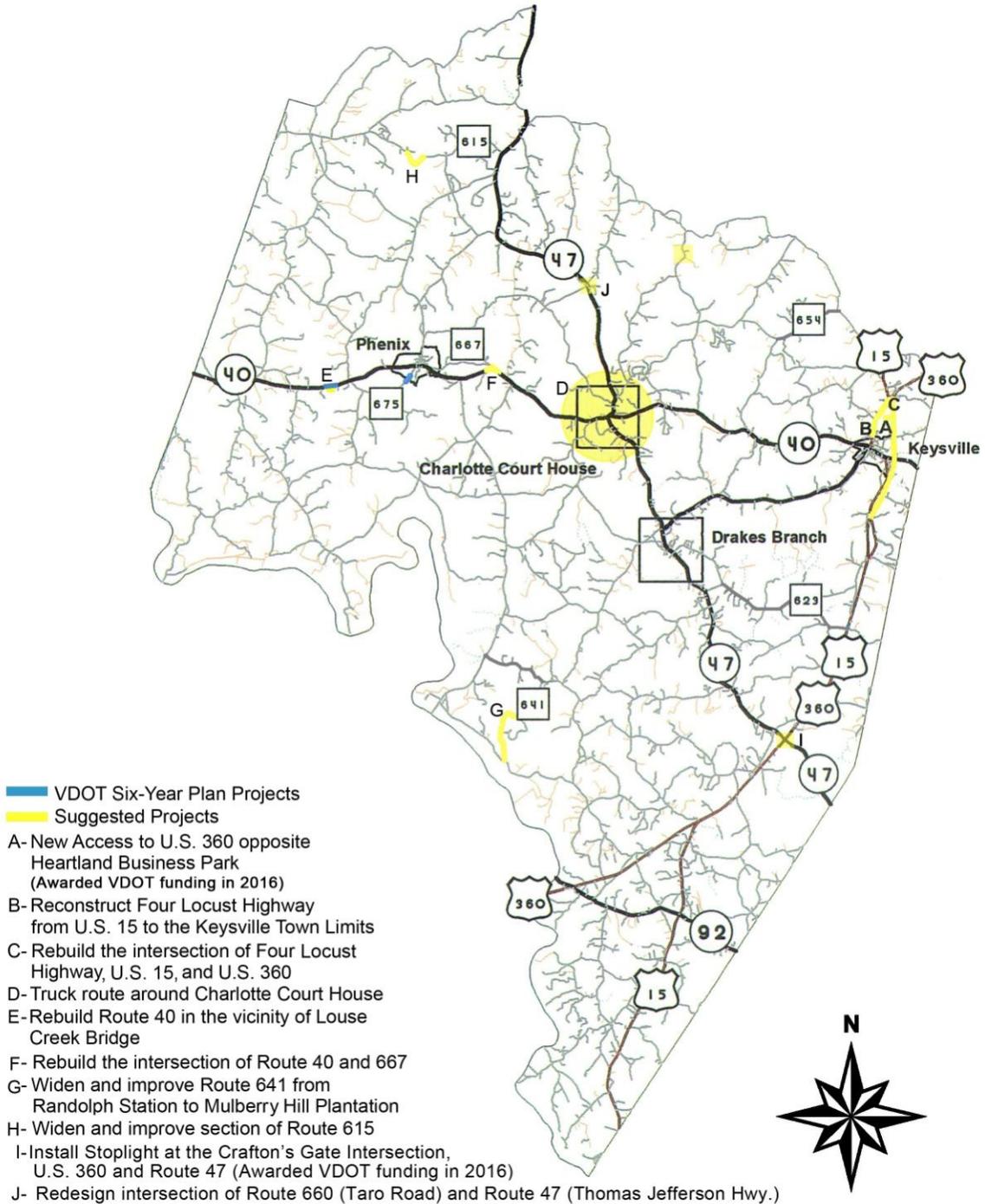
The county has compiled the following list of road projects for which either implementation or commencement of formal planning is desired within the next five years:

1. Construct a new access to Route 360 (opposite existing access) for Virginia's Heartland Business Park. (Awarded VDOT HB2 funding in 2016)
2. Reconstruct Four Locust Highway from its intersection with Route 15 to the Keysville town limits using traffic calming and water runoff control techniques (to protect Keysville Town Lake watershed).
3. Rebuild the intersections of Four Locust Highway and Route 15, and Routes 15 and 360 to enhance traffic flow and safety.
4. Construct a truck route/bypass around the Town of Charlotte Court House.
5. Rebuild Route 40 in the vicinity of the Louse Creek Bridge to improve safety.
6. Rebuild the intersection of Routes 40 and 667 to improve safety.
7. Widen and improve Route 641 from Randolph Station to Mulberry Hill Plantation
8. Widen, straighten, and improve Route 615 from its intersection with Route 664 to the area past the sharp curve west of Cub Creek (Jesse Randolph's property) to improve safety.
9. Install a stoplight at the intersection at Route 47 and Highway 360 at Crafton's Gate to improve safety and reduce driver confusion. (Awarded VDOT HB2 funding in 2016)
10. Redesign intersection of Route 47 (Thomas Jefferson Highway) and Route 660 (Taro Road) at Cullen

Figure 27 is the Transportation Planning Map, which shows the areas and extent of the above-listed road projects. Figure 28 is the preliminary cost estimates currently available for the above projects from the Virginia Department of Transportation.

**Figure 27**

**Charlotte County Transportation Planning**



## **Figure 28**

### **Transportation Project Estimates**

The information below was provided by the Virginia Department of Transportation's Lynchburg District Office as part of the 2015 HB2 and 2016 Smart Scale funding application process and the Crafton's Gate Road Safety Assessment. Cost estimates are only provided by VDOT when feasible and are not be available for all projects recommended as part of the transportation plan.

1. Construct an additional direct access to U.S. 360 opposite the existing Virginia Heartland Business Park entrance (Item A on the Transportation Planning Map, Awarded VDOT Funding in 2016) - Project Budget is \$789,187
2. Rebuild the intersection of Four Locust Highway, U.S. 15 and U.S. 360 to improve visibility and safety (Item C on the Transportation Planning Map, Submitted Application for VDOT Funding in September, 2016) - VDOT's proposed solution for this intersection is a roundabout - Estimated Budget is \$7,514,634
3. Install a stoplight at the Crafton's Gate intersection, U.S. 360 and U.S. 47, to reduce potential for driver error and improve safety (Item I on the Transportation Planning Map, Awarded VDOT Funding in 2016) - Estimated Budget is \$100,000 to \$150,000

## **Water Supply**

A regional water supply study evaluating existing facilities, water sources, current usage, and projected future usage in the county and the four incorporated towns and a drought response and contingency plan was adopted by the County in November of 2011. In accordance with DEQ requirements, the regional water supply plan is currently being reviewed and updated.

Source water protection assessments and plans are not mandated for individual localities in the state of Virginia. However, Charlotte County, with the assistance of the Virginia Rural Water Authority, prepared and adopted a source water protection plan in 2011. This plan identifies all public water sources, potential contaminants of these sources and an implementation plan to minimize the likelihood of contamination.

Table 31 below is based on figures from the 2008 Water Supply Plan and provides an estimate of future water demand according to estimated population growth. The future water demand figures in Table 31 are based on average use for domestic, institutional, commercial, and industrial establishments and do not include estimates for agricultural use. The Charlotte County Water Supply Plan estimates that agricultural water use was approximately 2.1 million gallons per day in 2002 (based on livestock and crop figures from the 2002 Census of Agriculture.) Future agricultural water use will depend upon numerous factors including the types of crops being grown, the number and kinds of livestock being raised, the amount of farmland in use, and general farming practices.

The lower population estimate for each decade in Table 31 is based on a .4% annual population increase while the upper estimate is based on annual growth rates ranging from .5% to 2.5%. However, between 2000 and 2010 Charlotte County's annual growth rate was only .9% (U.S. Census Bureau).

**Table 31**  
**Estimated Future Total Water Demand\***

<b>Year</b>	<b>Estimated Population*</b>	<b>Water Demand (gal/day)</b>
2000	12,472 (census)	1,247,200
2010	12,980 - 13,392	1,687,400 - 1,740,960
2020	13,509 - 16,332	1,756,170 - 2,123,160
2030	14,059 - 18,413	1,827,670 - 2,393,690
2040	14,631 - 20,893	1,902,030 - 2,716,090
2050	15,227 - 23,946	1,979,510 - 3,112,980
2060	15,847 - 27,615	2,060,110 - 3,589,950

*Source: Draper Aden Associates, Charlotte County Water Supply Plan, July 2008*

NOTES: \*Population based on estimated population growth rates and economic development potential

\*\*Water demand based on average usage of 130 gallons per person per day

The following factors, which cannot be specifically predicted, could increase Charlotte County's water requirements dramatically in a short period of time:

1. Construction of a commercial or industrial facility whose daily operations require high water consumption
2. Reopening or expansion of an existing commercial or industrial facility whose daily operations require high water consumption

Therefore, water supply planning must take into account not only projected increases due to gradual population and business increases, but also much larger increases due to the factors listed above and changes in the business of agriculture.

Table 32 below presents possible sources for future water supply identified in the *Charlotte County Water Supply Plan, July 2008*.

**Table 32**  
**Possible Sources for Future Water Supply**

Wells – Public and Private
Keysville Reservoir
Drakes Branch Reservoir
Other Existing Impoundments
New Large Impoundment
Roanoke River

*Source: Draper Aden Associates,  
Charlotte County Water Supply Plan, July 2008*

Upgrades to the town water systems are the responsibility of the individual towns. To increase their water supplies and storage capacities and to improve the efficiency of existing system components, all of the towns have completed water improvement projects in recent years. Due to the substantial cost involved with system upgrades, many of the towns have sought grant funding from various federal and state agencies to help with the cost of these upgrades and improvements. In addition, several towns approved rate increases.

The Town of Drakes Branch completed a water improvement project in 2014 that included replacing water lines and the installation of a new 300,000 gallon water tank. The Town of Phenix completed the installation of a third well located on the east side of town in 2010. Keysville has plans to construct a new waterline loop to strengthen service to the Heartland Business Park and the County Industrial Park. In addition, Keysville will be replacing the majority of their retail meters and will be upgrading their wastewater treatment equipment to reduce the amount of potable water used at the facility.

## **Sewage Disposal**

Since the existing two sewage collection and disposal systems are operated by the towns of Keysville and Drakes Branch, planning for changes to these facilities is within the purview of the towns. However, the following developments and/or changes could involve the county in planning for this service:

1. The force main sewer line that connects Charlotte Court House to the Drakes Branch water treatment plant currently serves the Sheriff's Department, jail, additional government offices, Randolph-Henry High School and Central Middle School. If the system was expanded, an expansion of the Drakes Branch sewage treatment facility might be required.
2. Specific development and general growth in the greater Keysville area may require extension and expansion of sewer service outside the town limits, particularly in the following corridors: Business Route 15 N/360E, Route 360, and Business Route 15 S/360 W. Additional expansions of the town's sewage treatment facility may be required to serve new areas. Close cooperation between the County and the Town of Keysville will be required for planning, funding, and implementation.

As stated in Chapter 2, the capacity of privately-owned systems serving individual structures outside the town service areas depends on the drainage rate ("percolation") of the soil on each site, which varies widely throughout the county. Therefore, allowable building density will also vary throughout the county, since areas with low drainage rates (poor percolation) will require larger areas for each drainfield, and thus larger lot sizes.

## **Solid Waste Disposal**

The county operates seven trash collection and recycling centers throughout the county. The newest facility, located in the Saxe/Bacon District area, was opened in 2008. At this time there are no plans to construct any additional facilities.

Charlotte County is a member of the Southside Regional Public Service Authority which operates a regional landfill in Mecklenburg County. Charlotte County trucks all of its solid waste to the regional landfill with the exception of recyclable materials that are transported to various commercial collection sites. Meanwhile, the existing (closed) Charlotte County landfill near Charlotte Court House will continue to be monitored in the foreseeable future in accordance with Virginia Department of Environment Quality requirements.

## **Recreation**

The Department of Conservation and Recreation's (DCR's) 2013 Outdoor Plan provides an overview of outdoor recreation across the state as well as recommendations for expanding recreational opportunities in each region. Recommendations for Charlotte County and the Planning District #14 region include the following:

- Additional restorations and upgrades at Staunton River Battlefield Park and Mulberry Hill (These upgrades are included in DCR's master plan for the Staunton River Battlefield Park. However, a timeframe for the work is not included in the master plan.)
- The enhancement of existing driving trails and cross marketing the Wilson-Kautz Raid Civil War Trail & the Civil Rights in Education Heritage Trail ®
- Working with the Department of Historic Resources to perform archaeological surveys and assess archaeological resources and
- Creating additional access to local waterways including the Staunton River.

The table below, which was taken from DCR's Outdoor Plan, shows how spending on parks and recreations varies widely in the region. To expand recreational opportunities in the region, DCR recommends localities look at the following options:

- Establishing a Parks and Recreation Department if they do not already have one
- Committing additional resources to parks and recreation
- Looking into converting old school sites and other unused public land into parks
- Exploring the reclamation of abandoned landfills for parks.

**Table 33**  
**Per Capita Spending on Parks & Recreation**

<b>Area</b>	<b>Amount Spent Per Person</b>
Amelia	\$19.00
Buckingham	\$10.51
Charlotte	\$1.61
Cumberland	\$8.80
Lunenburg	\$0.00
Nottoway	\$0.73
Prince Edward	\$4.20
Virginia	\$62.81
<i>Source: 2013 Department of Conservation &amp; Recreation Outdoor Plan - Virginia Auditor of Public Accounts, "Comparative Report on Local Government Revenues and Expenditures" 2011</i>	