

STAFFORD COUNTY

MASTER REDEVELOPMENT PLAN



VOLUME III: COURTHOUSE AREA

OCTOBER 2009 | ADOPTED MAY 17, 2011



CMSSARCHITECTS

BOARD OF SUPERVISORS
COUNTY OF STAFFORD
STAFFORD, VIRGINIA

RESOLUTION

At a regular meeting of the Stafford County Board of Supervisors (the Board) held in the Board Chambers, Stafford County Administration Center, Stafford, Virginia, on the 17th day of May, 2011:

MEMBERS:	VOTE:
Mark Dudenhefer, Chairman	Yes
Paul V. Milde III, Vice Chairman	No
Harry E. Crisp II	Yes
Gary F. Snellings	No
Cord A. Sterling	Yes
Susan B. Stimpson	Yes
Robert "Bob" Woodson	Yes

On motion of Mr. Sterling, seconded by Mr. Crisp, which carried by a vote of 5 to 2, the following was adopted:

A RESOLUTION TO AMEND THE STAFFORD COUNTY COMPREHENSIVE PLAN IN ACCORDANCE WITH SECTION 15.2-2229 AND SECTION 15.2-2230 OF THE CODE OF VIRGINIA (1950), AS AMENDED, BY ADOPTING THE PROPOSED AMENDMENT, AS ADVERTISED, INCLUDING A NEW ECONOMIC DEVELOPMENT ELEMENT, ENTITLED "STAFFORD COUNTY MASTER REDEVELOPMENT PLAN," DATED OCTOBER, 2009, AS REVISED BY THE PLANNING COMMISSION AT ITS MEETING ON MARCH 15, 2011

WHEREAS, under Section 15.2-2229 of the Code of Virginia (1950), as amended, the Board may amend its Comprehensive Plan; and

WHEREAS, under Section 15.2-2229 of the Code of Virginia (1950), as amended, the Planning Commission (the Commission) has been directed by the Board to prepare and consider Comprehensive Plan amendments; and

WHEREAS, under Section 15.2-2230 of the Code of Virginia (1950), as amended, the Commission can review the Stafford County Comprehensive Plan to determine whether it is advisable to amend the Comprehensive Plan; and

WHEREAS, the proposed amendment to the Comprehensive Plan would amend the Comprehensive Plan by adopting a new economic development element entitled "Stafford County Master Redevelopment Plan," dated October, 2009, with recommendations for changes to existing County ordinances, policies, and procedures to serve as a framework to guide the coordinated and harmonious development of the County's four Redevelopment Areas: Boswell's Corner, the Courthouse area, Falmouth Village, and the Southern Gateway, as revised by the Commission at its meeting on March 15, 2011; and

WHEREAS, the Commission duly advertised and held a public hearing on April 20, 2011, on the proposed Comprehensive Plan Amendment, received a recommendation of County staff supporting approval of the proposed Amendment, received public testimony, decided on a 4-3 vote to recommend approval of Volume II and decided on a 5-2 vote to recommend approval of Volumes I, III, IV, V, VI, VII, VIII, IX, and X, and has forwarded its recommendation of approval of the proposed Comprehensive Plan amendment to the Board; and

WHEREAS, the Board duly advertised and held a public hearing on the proposed Comprehensive Plan Amendment on May 17, 2011, at which time public testimony was received and the above-referenced Comprehensive Plan Amendment was considered by the Board; and

WHEREAS, the Board has carefully considered the recommendations of the Commission, the recommendations of County staff, and the public testimony at the public hearing; and

WHEREAS, the Board concludes that the adoption of the proposed Comprehensive Plan Amendment, as advertised, will guide a coordinated and harmonious development of the County's four Redevelopment Areas: Boswell's Corner, the Courthouse area, Falmouth Village, and the Southern Gateway which will, in accordance with the present and probable future needs and resources of Stafford County, best promote the health, safety, morals, order, convenience, prosperity and general welfare of the citizens of Stafford County, Virginia, including the elderly and persons with disabilities; and

WHEREAS, the Board concludes that the adoption of the proposed Comprehensive Plan Amendment, as advertised, is consistent with good planning practices.

NOW, THEREFORE, BE IT RESOLVED by the Stafford County Board of Supervisors on this the 17th day of May 2011, hereby adopts the proposed Comprehensive Plan Amendment, as advertised, by approving a new economic development element, entitled "Stafford County Master Redevelopment Plan," dated October, 2009, as revised by the Commission at its meeting on March 15, 2011.

BE IT FURTHER RESOLVED that the maximum allowed dwelling units in the Boswell's Corner Redevelopment Area is modified to a maximum of 744 units.

A Copy, teste:


Anthony J. Romanello, ICMA-CM
County Administrator

AJB:WJ/f

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STAFFORD COUNTY MASTER REDEVELOPMENT PLAN

The efforts of the *Phase I: Research & Program Development* and *Phase II: Concept Master Development Plan* have been combined into five separate volumes. In addition, three additional volumes contain the detailed Cultural Resources Report on each of the four redevelopment areas, as well as examples of Cultural Resources Legislation. Each volume, on each of the four redevelopment areas, stand alone along with the overall Stafford County General Research & Planning section. Each of the four redevelopment area's respective volume integrates the specific Phase I research and Phase II planning efforts. The volumes do not refer separately to Phase I or II efforts, since they are now combined into a book specific to the corresponding redevelopment area.

The volumes have been separated as follows:

VOLUME I

Stafford County: General Background Research & Planning Concepts

VOLUME II

Boswell's Corner

VOLUME III

Courthouse Area

VOLUME IV

Falmouth Village

VOLUME V

Southern Gateway

VOLUME VI

- A. Cultural Resources Report for Falmouth Village
- B. VDHR Forms for Falmouth Village

VOLUME VII

- A. Cultural Resources Report for Boswell's Corner, Courthouse Area, & Southern Gateway
- B. VDHR Forms for Boswell's Corner, Courthouse Area, & Southern Gateway

VOLUME VIII

Examples of Cultural Resources Legislation

VOLUME IX

Stafford County Traffic Data

VOLUME X

Stafford County Infrastructure Analysis

Following groundwork from the 2006 Stafford County Economic Development Strategic Plan, and using the Cunningham + Quill Architects Vision plans as a springboard, the Planning Team proposed redevelopment plans for the four areas that include: a comprehensive redevelopment plan with urban street grids, open space and parks, pedestrian friendly environments and streetscape improvements, preparing the strategic areas for increased quality commercial investment.

This Master Redevelopment Plan has been designed from the beginning as a possible addition to the Stafford County Comprehensive Plan. As such, the study and analysis needed to address a large cross section of issues including: land use patterns, regional economical support, transportation, architecture, archaeology and historic resources, civil infrastructure and flood hazards. Since each of these subjects is also included in the Comprehensive Plan, this study included assessments of all 18 elements of the Comprehensive Plan. Of these elements, two were found to be of particular significance to redevelopment: the Land Use Plan and the Transportation Plan.

The land uses presented herein are not meant to supercede land uses identified in the Stafford County Land Use Plan. The land uses and layouts depicted herein are notational and are offered as one possible layout for Comprehensive Plan uses. Residential densities are offered as potential targets for the creation of more urban environments conducive to pedestrian friendly, community based and appropriately scaled, commercial development. In no way do the residential densities referenced constitute endorsement of those densities, or endorsement at the exact locations depicted, by the governing body.

INTERIM IMPLEMENTATION STRATEGY AND REVIEW STANDARDS

Stafford County's historic development pattern has been of a low-rise suburban scale. In the recent past, individual development projects have approached mid-rise scale and form. Therefore, an interim strategy for review and approval of development projects within the Redevelopment Areas is outlined below to facilitate implementation of the recommendations contained within the Redevelopment Plans, but within a context of historical development patterns and current market dynamics. Until such time as adequate public infrastructure is in place to establish the core framework needed to realize the redevelopment visions, all rezoning or conditional use permit development proposals will be reviewed to determine if they meet the following standards for development during the interim phase:

- the development proposal either constructs or makes accommodation for planned infrastructure identified in the Redevelopment Plans.
- the development proposal includes parcels that are subdivided in a manner to accommodate the creation of blocks and the potential consolidation of properties as recommended by the Plans.
- architectural design themes contained in the development proposal will not conflict with those suggested in the Redevelopment Plans. Franchise architecture should be modified to meet Redevelopment Plans' visions.
- the development proposal is cognizant of the need for public and private open spaces that benefit private properties as well as the public.
- the development proposal uses street furniture and other pedestrian features as recommended by the Redevelopment Plans.
- the location, placement, and design of signs included in the development proposal are done in such a manner as to not detract from building architecture.

Additionally, as development codes are reviewed and modified to ensure there are limited regulatory impediments to implementing the Redevelopment Plans, incentives for by-right developments to incorporate architectural and design recommendations of the redevelopment plans will be considered.

COURTHOUSE AREA: RESEARCH & PROGRAM DEVELOPMENT



COURTHOUSE REDEVELOPMENT AREA

The heart of the Courthouse Area is generally defined as the crossroads of Jefferson Davis Highway (US-1) and Courthouse Road (VA-630). This redevelopment area generally consists of roughly 840 parcels that contain approximately 1,743 acres of land area. The total land area, including streets and roads, is about 1,900 acres, representing $\pm 1.1\%$ of Stafford County's area. (Refer to *Figure 1: Courthouse Area Aerial* and *Map 1: Courthouse Area Redevelopment Boundaries*.)

Because of its position at the heart of Stafford County and location that serves as the County Government Center, the Courthouse Area is poised to play a key role as a Town Center for Stafford County. The conceptual drawings created for Stafford County by Cunningham + Quill Architects illustrated a traditional town center-style development in this redevelopment area. At the crossroads of Jefferson Davis Highway (US-1) and Courthouse Road (VA-630), the area is also accessible via an exit of Interstate 95 (I-95), making it accessible to both the northern and southern portions of Stafford County.

Currently the Courthouse Area is developed with a few businesses intermixed with residential communities. Most notably, the area houses Stafford County government and judicial offices proximate to the Jefferson Davis Highway (US-1) and Courthouse Road (VA-630) intersection, along with a number of public schools east of the intersection, as well as the Courts, School Board and Hospital Center.

Stafford County's 2006 Economic Development Plan determined that "The Courthouse Area stands as an opportunity site 'because of its location, current and future anchors. The area has three development resources planned that could transform the district: a (now complete) hospital, a new Interstate 95 (I-95) interchange, and a new potential Circuit & General District Court-J&DR Court complex. The area has long been talked about as a future location for a tourist visitor center, open-air market, and town square. Businesses, such as restaurants and supporting convenience retail, will be desired by employees and visitors, and the area could add to the diversity of Stafford County with health services, recreational activities and an active, pedestrian town center. The Plan recommended "to develop additional streets around the Courthouse Area to create a grid street pattern, establish the intersection of Courthouse Road (VA-630) and Jefferson Davis Highway (US-1) as the center of Stafford County and, ensure the Courthouse Area and other mixed-use developments are pedestrian-friendly."

Map 1: Courthouse Area Redevelopment Boundaries

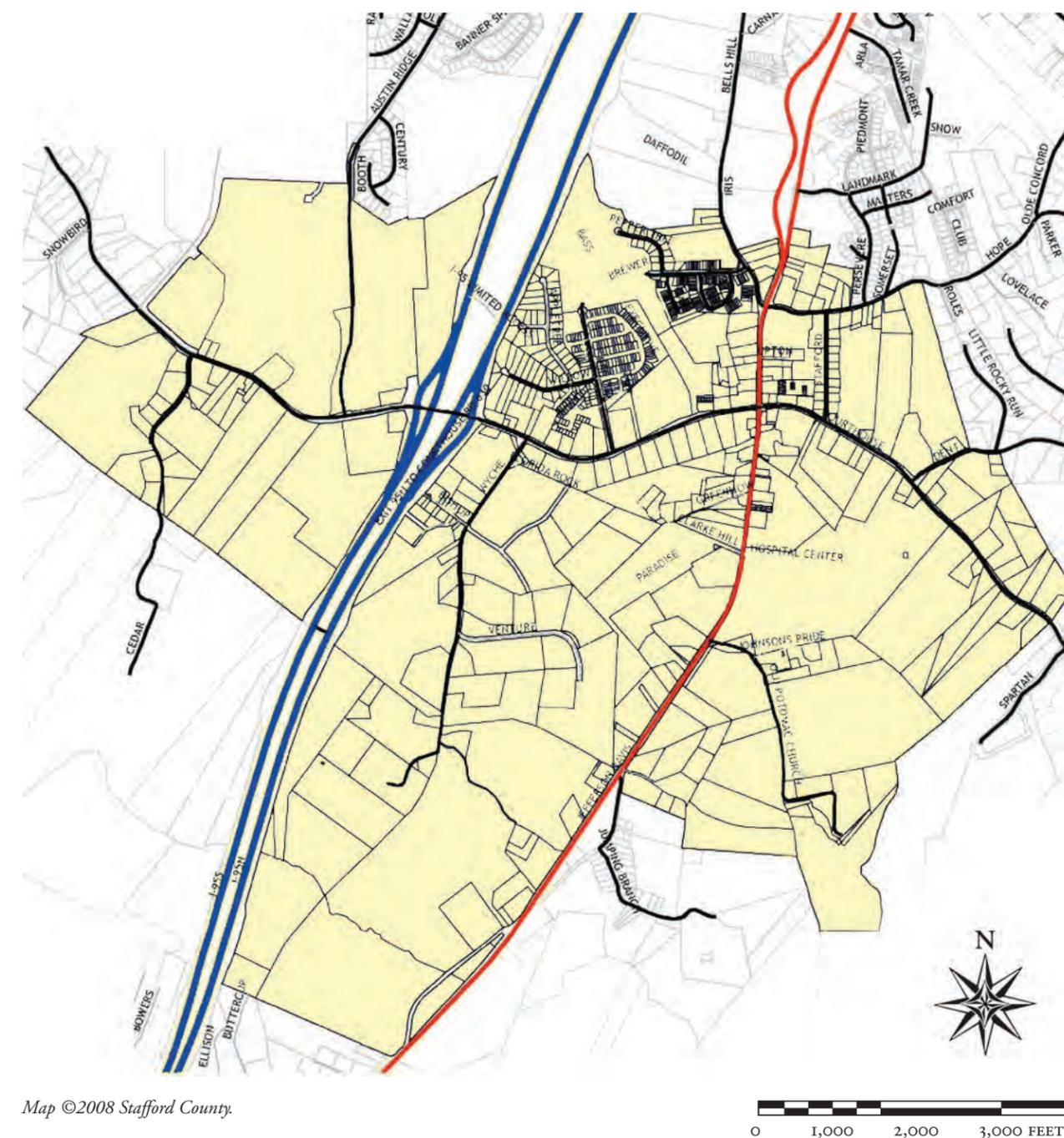


Figure 1: Courthouse Area, Aerial



Aerial Photo ©2007 Flying H Aerial Pictures

ECONOMIC & MARKET ANALYSIS OVERVIEW

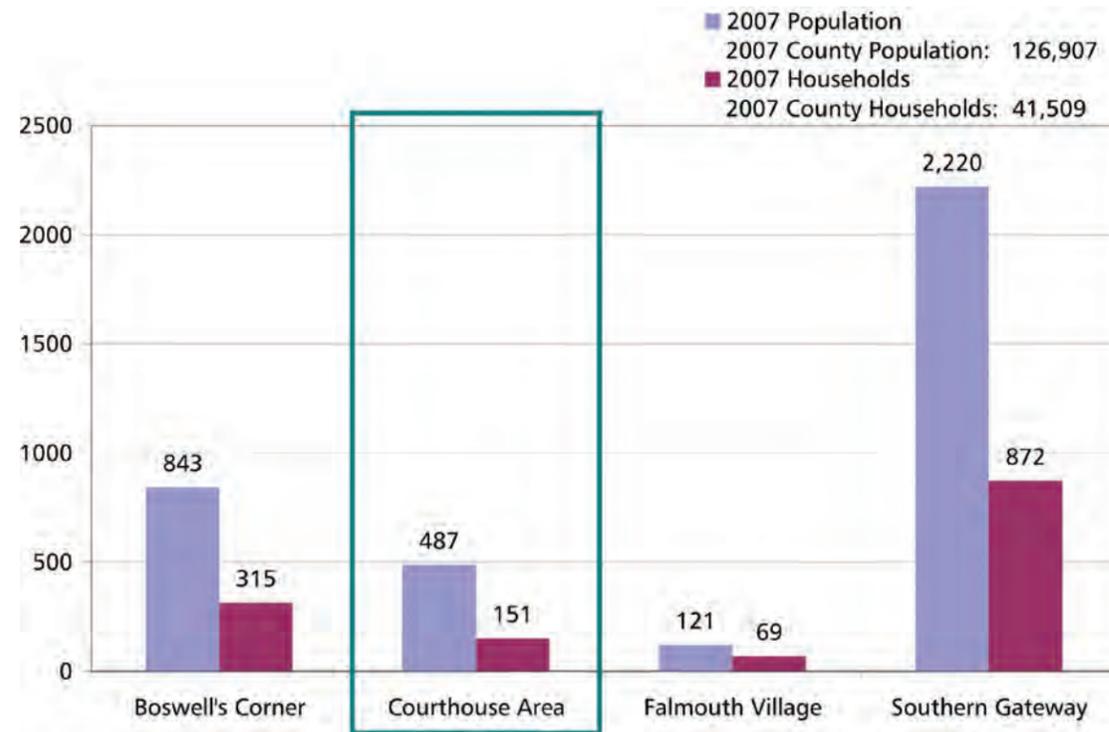
The Planning Team has used population estimates by ESRI in addition to Stafford County TAZ data to determine the population and demographic characteristics of each redevelopment area (See the description of the variances in these data in the Methodology section).

Table 1: Courthouse Area Demographics, 2006–2028

	2006	2028
Population	2,624	9,620
Households	987	3,683

Source: 2006 and 2028 data from Stafford County TAZ; Table by Economics Research Associates, 2008.

Figure 2: Courthouse Area Population & Households, 2007

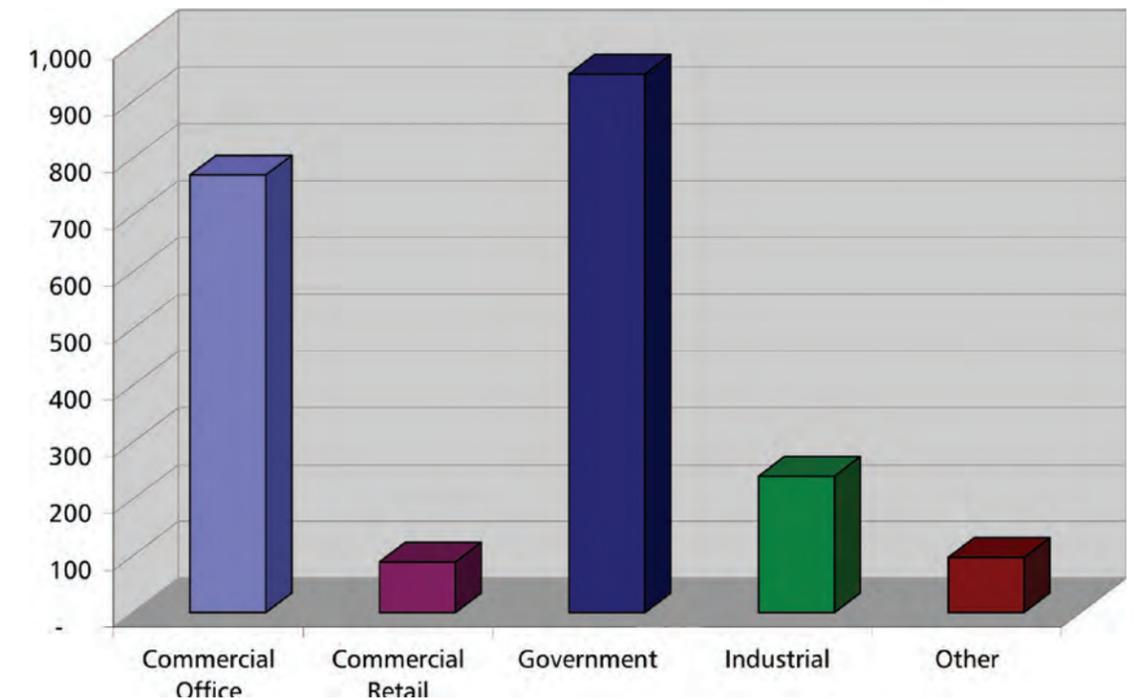


Source: 2006 Stafford County TAZ; Economics Research Associates, 2008.

- In the Courthouse Area, ESRI reports a population of 487 in 151 households in 2007. ESRI expects the area to grow by about 13% over these numbers by 2012. (Refer to Table 1: Courthouse Area Demographics, 2006–2028 and Figure 2: Courthouse Area Population & Households, 2000–2028.)
- The TAZ data reports 2,624 residents in 987 households in the Courthouse Area TAZ zones, which is a 577% increase in population and 696% increase in households over the 2000 Census.
- ESRI's data shows over half of the population (55%) between the ages of 25 and 64 – the traditional “working-age” population. 11% are age 65 or over, and 22% are under the age 15.
- ESRI's reported median household income of these households was \$67,500. 43% of all households earn over \$75,000 annually.

The TAZ employment data for 2006 provided by Stafford County shows the influence of the government center at Courthouse Area, with over 900 government employees (refer to Figure 3: Courthouse Area TAZ-based Employment Data, 2006). There are also over 700 employees in professional office jobs. According to this data, there are 2,100 employees in the redevelopment area as of 2006. This represents 3% of total County employment, which according to the TAZ data was 74,880 in 2006. The area does, however, have 25% of Stafford County's total government employment.

Figure 3: Courthouse Area TAZ-based Employment Data, 2006



Source: 2006 Stafford County TAZ; Economics Research Associates, 2008.

REAL ESTATE MARKET & DEMAND

The primary demand for land uses around Courthouse Area will be to support the functions already there, as well as to more solidly establish it as a business/government center. These include office, retail, and residential uses.

OFFICE DEMAND

The Courthouse Area has 124,000 square feet (7.7%) of Stafford County’s office space. According to data-provider Woods and Poole’s projections, Stafford County is expected to add just under 11,000 jobs by 2020 (Including BRAC).

The addition of the hospital in Courthouse Area will change the dynamics of office demand there. Because of this, the Planning Team has conducted a separate analysis of healthcare employment in Stafford County, and will address this demand in the report prior to looking at other professional office space. The employment-based demand for healthcare office space will be netted out of the total demand.

Medical Office Demand

The Planning Team uses Woods and Poole for employment projections in many cases because it offers projections for longer time periods, and because of differences in projections by various state agencies. This service provides employment estimates and projections for major industry categories, not for sectors and subsectors. To estimate the amount of supportable medical office space in Stafford County requires analysis of the increase in healthcare employment – and more specifically, ambulatory healthcare employment, which includes doctors’ offices and medical clinics. The Planning Team has examined Stafford’s distribution of healthcare employment using VEC data and applied to Woods and Poole’s longer range projections.

The Virginia Employment Commission issued projections at the Workforce Investment Area (WIA) level. Stafford County is part of the Bay Area Consortium WIA, which is an area comprised of 15 counties and Fredericksburg City. These projections are offered at a detailed – 6-digit NAICS – level, enabling the Planning Team to assess the increase in Ambulatory Healthcare Employment.

To assess how Stafford’s ambulatory healthcare employment would be impacted required several steps:

- Assessing how healthcare has grown within the WIA.
- Assessing healthcare’s share of total services employment and how that has changed over time.
- Assessing Stafford’s current share of the WIA’s healthcare employment and how the share has changed over time.
- Projecting Stafford’s future employment in healthcare – by taking the median of straight line projections through 2020 made by taking its share of VEC’s 2014 projections and the share of Woods and Poole’s projections of Service employment for 2015 and 2020.

In 2004, the VEC estimated employment in Health Care and Social Assistance at 13,258 in the Bay Area Consortium WIA. The VEC projects that this sector will grow by an average of 3.8% annually, bringing the 2014 employment to 19,273. In 2004, the share of Service employees working in Health Care was 27%. (Refer to Table 2: Projected Change in Healthcare Employment Bay Area Consortium WIA, 2004–2014.) This share is expected to increase to 29% by 2014.

Ambulatory Health Care Services, which includes employees of doctors’ offices and clinics, is expected to grow at a slightly faster pace (4.4% annually). Its share is expected to increase from 10% of all Service jobs to 11% of all Service jobs.

Table 2: Projected Change in Healthcare Employment, and Share of Services Employment Bay Area Consortium WIA, 2004-2014

	2004		2007 est.		2014		Avg Annual Growth '04-'14	Est. Net New Emp '07-'14
	#	%	#	%	#	%	%	#
Services	48,851	100%	53,335	100%	65,464	100%	3.0%	12,129
Education and Health Services	28,433	58%	30,856	58%	37,344	57%	2.8%	6,488
Health Care and Social Assistance	13,258	27%	14,833	28%	19,273	29%	3.8%	4,440
Ambulatory Health Care Services	4,754	10%	5,414	10%	7,331	11%	4.4%	1,917
Offices of Physicians	2,283	5%	2,509	5%	3,128	5%	3.2%	619
Offices of Dentists	791	2%	902	2%	1,225	2%	4.5%	323
Offices of Other Health Practitioners	498	1%	634	1%	1,113	2%	8.4%	479

Note: Outpatient Care Centers, Medical and Diagnostic Laboratories, Home Health Care Services, and Other Ambulatory Health Care Services contain undisclosable data and are not included above.

Source: Virginia Employment Commission, Labor Market Information; Economics Research Associates, 2008.

These statistics are for the Bay Area Consortium WIA. The State does not project employment for individual counties. Therefore, the Planning Team applied the shares of employment in healthcare from the VEC projections to Woods and Poole’s projections of Service employment for Stafford County. (Refer to Table 3: Stafford County Project Healthcare Employment, Woods and Poole, 2007–2020.) Using the share of Service employment in the various healthcare sectors and applying it to the total Service employment projected for Stafford County (with a 2% augmentation because of the location of the hospital in Stafford County), there is an estimated to be total employment in Ambulatory Health Services of 1,818 in 2020.

Table 3: Stafford County Projected Healthcare Employment – Woods and Poole, 2007–2020

	Share of Service Sector Employment /1				Projected			
	2007 (est)	2012 (est)	2015 (est)	2020 (est)	2007	2012	2015	2020
Services Employment /2					9,643	11,041	11,967	13,674
<i>Estimated</i>								
Health Care and Social Assistance	27%	29%	32%	32%	2,635	3,238	3,771	4,355
Ambulatory Health Care Services	10%	12%	13%	13%	943	1,300	1,581	1,818
Offices of Physicians	5%	7%	7%	7%	451	737	811	927
Offices of Dentists	2%	4%	4%	4%	156	400	463	530
Practitioners	1%	3%	4%	4%	99	334	443	507

Note: Outpatient Care Centers, Medical and Diagnostic Laboratories, Home Health Care Services, and Other Ambulatory Health Care contain undisclosed data and are not included above.
 1/ Based on Historic Share from VEC data plus an additional 2% to account for new hospital
 2/ Data from Woods and Poole

Source: Virginia Employment Commission, Labor Market Information; Woods and Poole; Economics Research Associates, 2008.

The Planning Team took the net new employment from the above analysis of Woods and Poole’s Services employment and translated this into supportable square footage (refer to Table 4: *Estimated Stafford County Ambulatory Healthcare Employment and Office Space, 2007–2020*). Assuming 350 square feet per employee, 70% of Ambulatory Health Services employees working in offices, 7.5% frictional vacancy allotment, and 5% cumulative replacement demand for old or outmoded space, there is a total demand in Stafford County for up to 300,000 square feet of medical office space between 2007 and 2020. (Refer to Table 4: *Estimated Stafford County Ambulatory Healthcare Employment and Office Space, 2007–2020*.)

Table 4: Estimated Stafford County Ambulatory Healthcare Employment and Office Space, 2007–2020

	2007-2012	2012-2015	2015-2020
New Ambulatory Health Services Employees	357	281	237
Estimated Space at 350 sf per employee	125,114	98,493	82,901
Less 7.5% Vacancy Allowance	-9,384	-7,387	-6,218
Plus 5% Cumulative Replacement	6,256	4,925	4,145
Net New Square Feet	122,000	96,000	81,000
Average Annual SF	24,400	32,000	16,200

Source: Virginia Employment Commission, Labor Market Information; Woods and Poole; Economics Research Associates, 2008.

These demand numbers are for gross space, including any proposed space throughout the entire County. The hospital is building 66,000 square foot of medical office building as a component of its development. Netting this space from the total and assuming that because of its having the hospital that Courthouse Area could capture 40% of new space, there is total additional demand for the redevelopment area of 84,000 square feet between 2007 and 2020. (Refer to Table 5: *Supportable Employment-Based Courthouse Area Medical Office Space, Net of Hospital Building, 2007–2020*.)

Table 5: Supportable Employment-Based Courthouse Area Medical Office Space, Net of Hospital Building, 2007–2020

	2007-2012	2012-2015	2015-2020
Projected Employment-Based Supportable Space	122,000	96,000	81,000
Proposed Medical Office Space at Hospital	(88,000)		
Remaining County-wide Demand	34,000	96,000	81,000
Capture Rate	40%	40%	40%
Additional Medical Office Demand	13,600	38,400	32,400

Source: Virginia Employment Commission, Labor Market Information; Woods and Poole; Economics Research Associates, 2008.

Hospital Building, 2007–2020

In addition to medical office space, there will be demand for professional office space to support the activities at the Courthouse and resident-serving businesses. The Planning Team removed the projected Woods and Poole ambulatory healthcare services employment shown above prior to calculating overall demand. Taking out this employment yields a total County-wide demand of 909,000 square feet between 2007 and 2012, 583,000 square feet between 2013 and 2015, and 1.15 million square feet between 2015 and 2020. If Courthouse Area were to maintain its share of office space (at 7.4%) (Refer to Table 6: *Courthouse Area Projected Professional Office Demand, 2007–2020*), it could expect on average an additional 10,500 square feet of demand annually. However, because Stafford County desires a “Town Center” at Courthouse Area, and with the additional investments happening in the area, the area could become more desirable for certain office users and some additional demand could be expected. The Planning Team has assumed a 0.25% increase in share annually between 2007 and 2012 (1.3% total) and a 0.5% increase annually between 2013 and 2020. With this additional capture of County share, the area could absorb approximately an average of 18,200 annually – 78,700 between 2007 and 2012, 49,000 between 2013 and 2015, and 109,000 between 2016 and 2020.

Attracting new space and maintaining the area’s share of office will require a unique product (such as a traditional town center format) as well as a concerted effort by public officials to position Courthouse Area for new development. Though the area does not have Interstate 95 (I-95) visibility (a desirable location requirement for certain kinds of office users), the proximity to Stafford County’s courthouse and government center is an asset, particularly for service offices such as attorneys.

Table 6: Courthouse Area Projected Professional Office Demand, 2007–2020

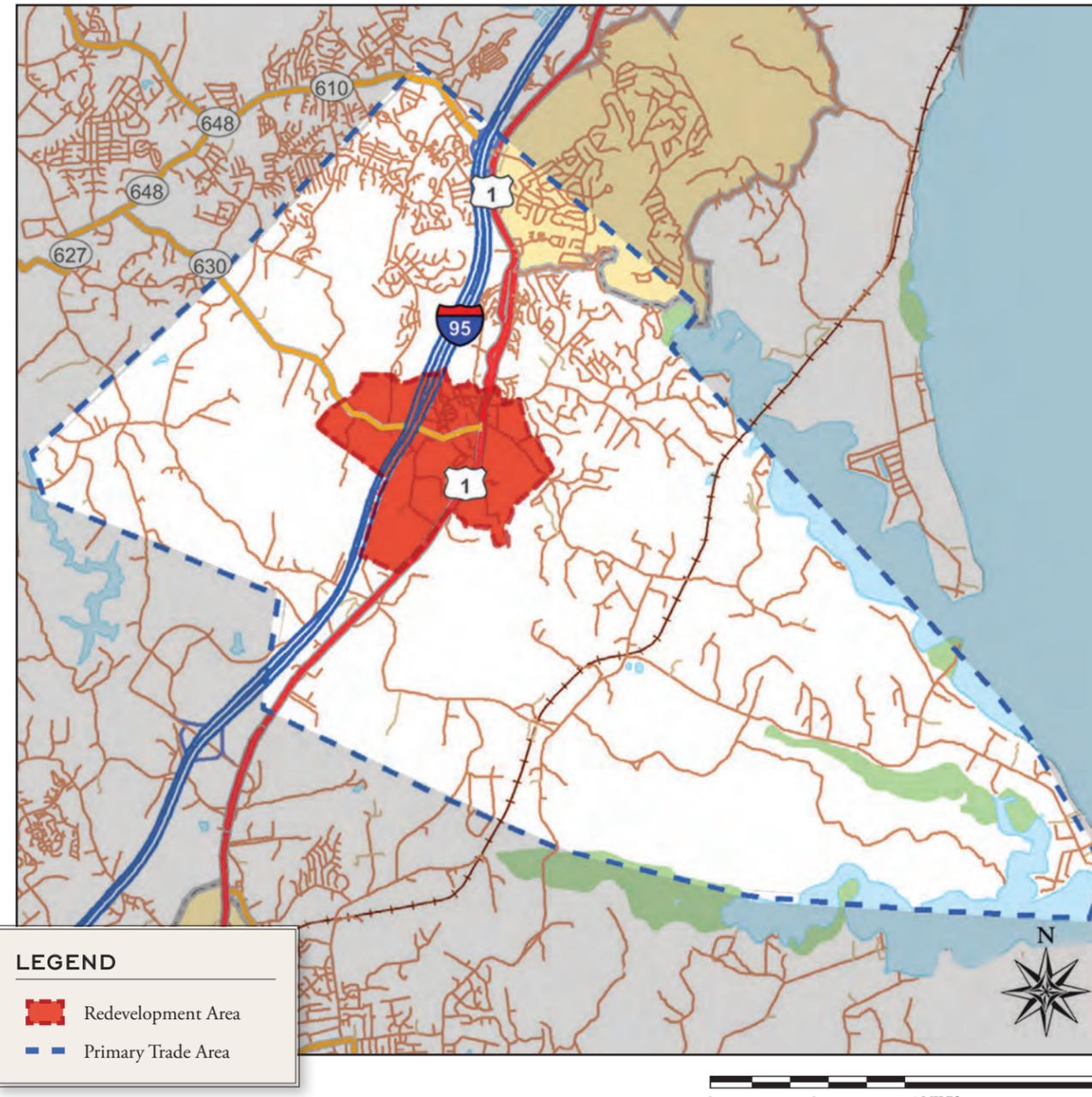
	Stafford County Courthouse				
Total Inventory (SF)	1,674,518	124,044			
Share of Stafford County	100%	7.4%			
Employment-Based Demand	Avg Ann'l	2007-2012	2012-2015	2015-2020	
Stafford County	227,277	1,034,381	679,376	1,240,844	
Less Medical	(23,240)	(125,114)	(96,000)	(81,000)	
Professional Office	204,038	909,268	583,376	1,159,844	
Estimated Redevelopment Area Share of New Prof. Office Space	10.0%	10.0%	10.0%	10.0%	
	20,404	90,927	58,338	115,984	

Source: Woods and Poole; CoStar Property Research; Economics Research Associates, 2008.

RETAIL DEMAND

As it is now, Courthouse Area is not a primary retail location within Stafford County, and most likely will not be a regional retail center due to land availability, visibility, and access constraints. However, there is opportunity for neighborhood-serving and service-based retail to cater to the area employees and residents, particularly when new and strategic developments as a result of County infrastructure and streetscape plans are implemented. Any opportunity would be heightened by additional residential and/or office development in the area.

Map 2: Courthouse Area's Retail Trade Area



Source: ESRI; Economics Research Associates, 2008.

The area's primary residential retail trade area is a polygon that extends to include the nearby peninsula. Additional sales will come from employees and inflow expenditures from other County households, pass-through traffic, and visitors. A summary of the primary resident and employee markets is below:

Primary Trade Area (Drawn area – refer to Map 2: Courthouse Area's Retail Trade Area)

- Population/Households 2007 – 29,174/ 9,092
- Population/Households 2012 – 34,303/10,668
- Average Household Retail Expenditures, 2007 – \$25,068

Employees

- Number, 2006 (388 County and School Board Employees + Est. 200 additional private employment) – 588
- Estimated Growth Rate – 7% (1/3 household growth rate), plus 350 employees at the hospital – 1,175
- Estimated Annual Average Per Employee Expenditure close to work – \$3,546 (Based on ICSC Office Worker Retail Spending Patterns and adjusted by 3% annually for inflation).

Table 7: Courthouse Area Captured Retail Expenditures by Market

Primary					
	Total Spending Potential	Less Resident Employees' Captured Spending	Net Spending Potential	Capture Rate	Captured Spending
Food & beverage stores	\$ 69,792,404	\$ (10,375)	\$ 69,782,029	30.0%	\$ 20,934,609
Health & personal care stores	\$ 11,351,508	\$ (6,916)	\$ 11,344,591	30.0%	\$ 3,403,377
Shoppers Goods	\$ 137,752,624	\$ (7,706)	\$ 37,744,918	2.0%	\$ 2,754,898
Eating and Drinking	\$ 48,529,073	\$ (68,417)	\$ 48,460,655	15.0%	\$ 7,269,098
Employees					
	Total Spending Potential		Net Spending Potential	Capture Rate	Captured Spending
Food & beverage stores	\$ 592,835		\$ 592,835	25.0%	\$ 148,209
Health & personal care stores	\$ 395,223		\$ 395,223	25.0%	\$ 98,806
Shoppers Goods	\$ 1,223,161		\$ 1,223,161	9.0%	\$ 110,084
Eating and Drinking	\$ 1,954,778		\$ 1,954,778	50.0%	\$ 977,389
Total					
			Net Spending Potential	Capture Rate	Captured Spending
Food & beverage stores			\$ 317,190,572	6.6%	\$ 21,082,817
Health & personal care stores			\$ 52,021,098	6.7%	\$ 3,502,183
Shoppers Goods			\$ 624,186,588	0.5%	\$ 2,864,983
Eating and Drinking			\$ 220,750,824	3.7%	\$ 8,246,487

Source: ESRI Business Analyst, 2007; Economics Research Associates, 2008.

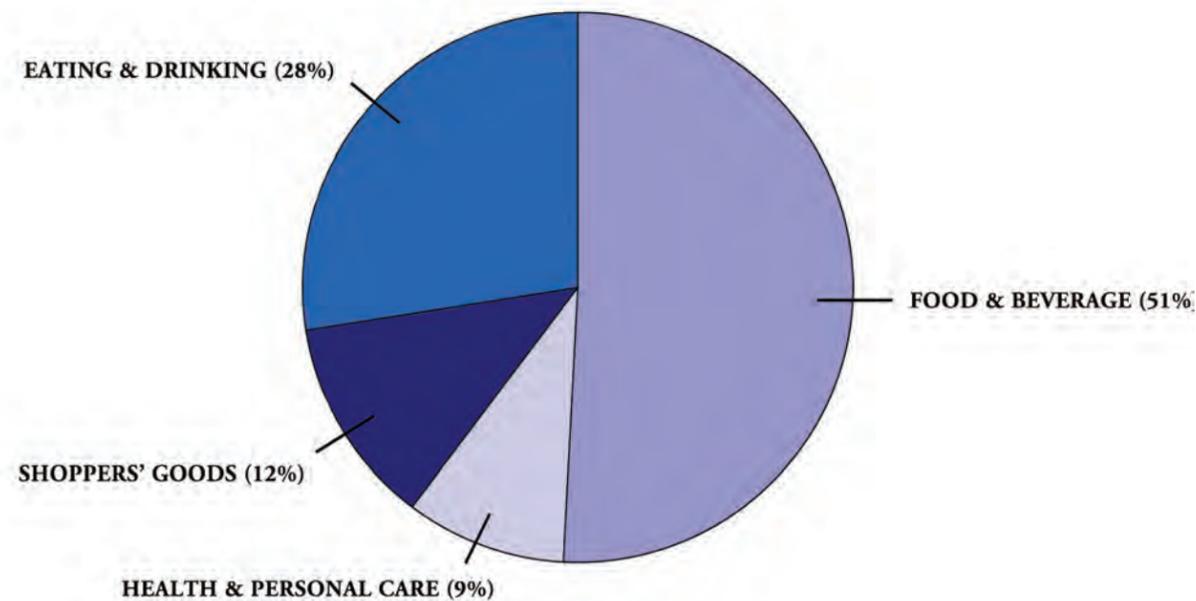
To the captured retail in the above markets, the Planning Team added an inflow factor of 5% (refer to Table 8: Courthouse Area Projected Retail Sales, 2012), for pass-through traffic and customers from outside of the defined market. Including the inflow, in all, there is the opportunity for Courthouse Area to support a total of between 100,000 and 120,000 square feet. This is enough for a grocery-anchored community shopping center. The majority of this demand is for a supermarket (refer to Figure 4: Courthouse Area Share of Potential Supportable Square Footage by Type, 2012).

Table 8: Courthouse Area Projected Retail Sales, 2012

2012	Captured Spending from All Markets	Inflow Factor	Total Potential Captured Spending
Convenience			
Food & beverage stores	\$21,082,817	5%	\$22,136,958
Health & personal care stores	\$3,502,183	5%	\$3,677,292
	\$24,585,001		\$25,814,251
Shoppers Goods			
Eating and Drinking	\$2,864,983	5%	\$3,008,232
	\$8,246,487	5%	\$8,658,811
Total	\$35,696,471	5%	\$37,481,294

Source: ESRI Business Analyst, 2007; Economics Research Associates, 2008.

Figure 4: Courthouse Area Share of Potential Supportable Square Footage by Type, 2012



Source: Economics Research Associates, 2008.

Having unique retail offerings (such as high quality, unique restaurants not available in nearby shopping centers) coupled with a new town center design would enable the area to attract customers from further distance.

Table 9: Courthouse Area Projected Retail Demand, 2012

2012	Total Potential Sales	Productivity		Square Feet	
		Low	High	Low	High
Convenience					
Food & beverage stores	\$22,136,958	\$375	\$425	52,000	59,000
Health & personal care stores	\$3,677,292	\$350	\$450	8,000	11,000
	\$25,814,251	\$369	\$430	60,000	70,000
Shoppers Goods					
Eating and Drinking	\$3,008,232	\$215	\$301	10,000	14,000
	\$8,658,811	\$271	\$333	26,000	32,000
	\$37,481,294	\$312	\$375	100,000	120,000

Source: ESRI Business Analyst, 2007; ULI Dollars and Cents of Shopping Centers, 2007; Economics Research Associates, 2008.

RESIDENTIAL DEMAND¹

Based on the Planning Team’s housing demand methodology explained in the methodology section, the Planning Team projects that demand for rental product in the redevelopment area will remain steady at the same time that demand for for-sale product decreases. Year 2012 illustrates stabilized year demand, which is the source of the data for 2012-2020 and 2020-2030, and assumes conditions will remain the same. Stabilized year annual housing demand for new housing is for 58 for-sale units (most of which are for mid-range single family homes) and 30 for-rent units. (Refer to Table 10: Courthouse Area Residential Demand, 2008–2030.)

Table 10: Courthouse Area Residential Demand, 2008–2030

	2008	2009	2010	2011	2012	2008-2012	2012-2020	2020-2030
Total For-Sale	74	66	61	58	58	318	470	580
Total Rental	30	30	30	30	30	149	240	300
Total Units	104	96	91	88	88	467	700	880

Source: Economics Research Associates, 2008.

¹ For a description of residential methodology, see the Demand Projection Methodology on page 39.

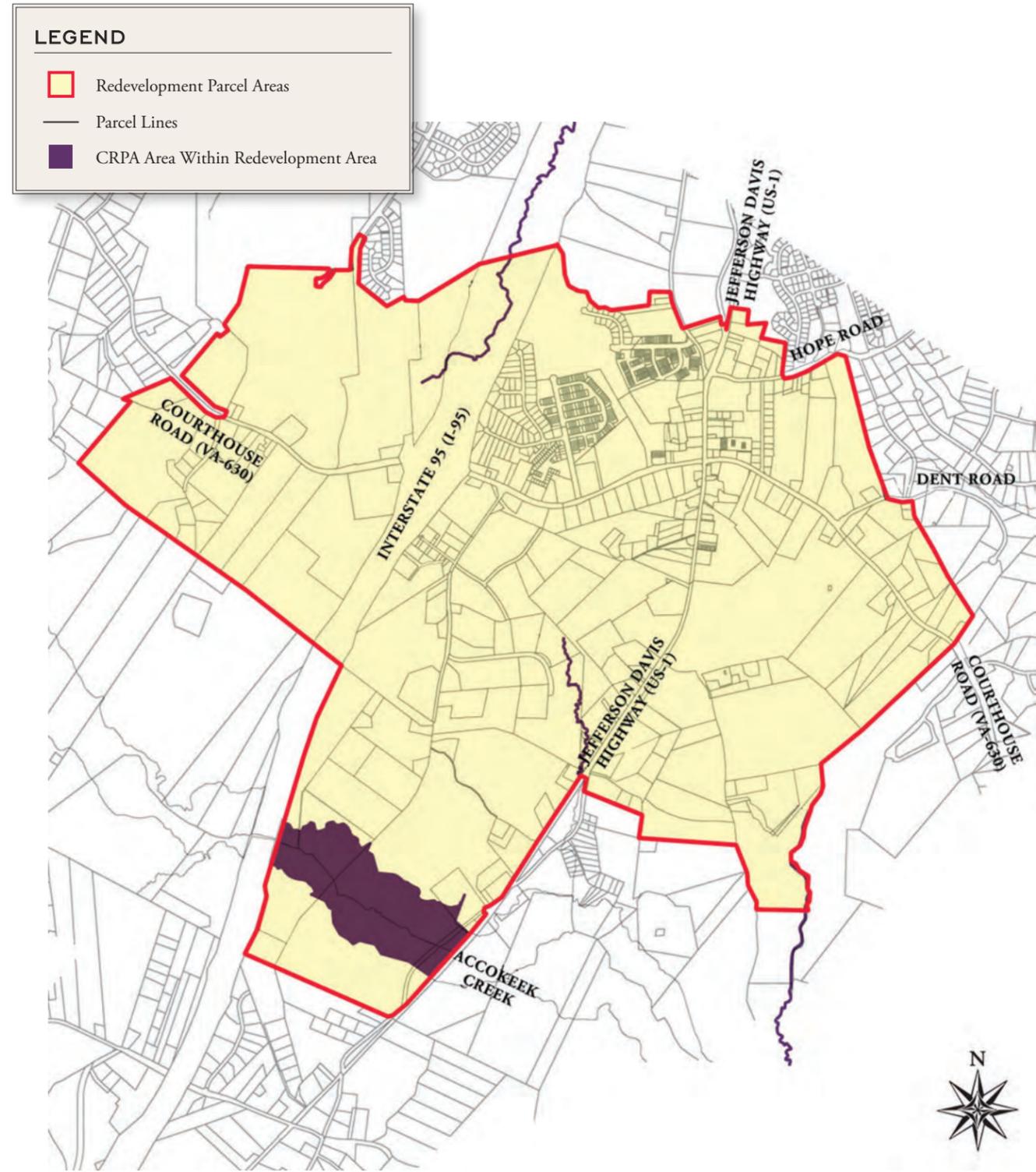
INFRASTRUCTURE & STORM WATER MANAGEMENT (SWM) ANALYSIS

STORM WATER MANAGEMENT (SWM) ANALYSIS

The Courthouse Area has only one area of floodplain along Accokeek Creek in the southern reaches of the redevelopment area. The floodplain area affects around 10 parcels or less. Any proposed widening of Jefferson Davis Highway (US-1) in this area will need to analyze this floodplain.

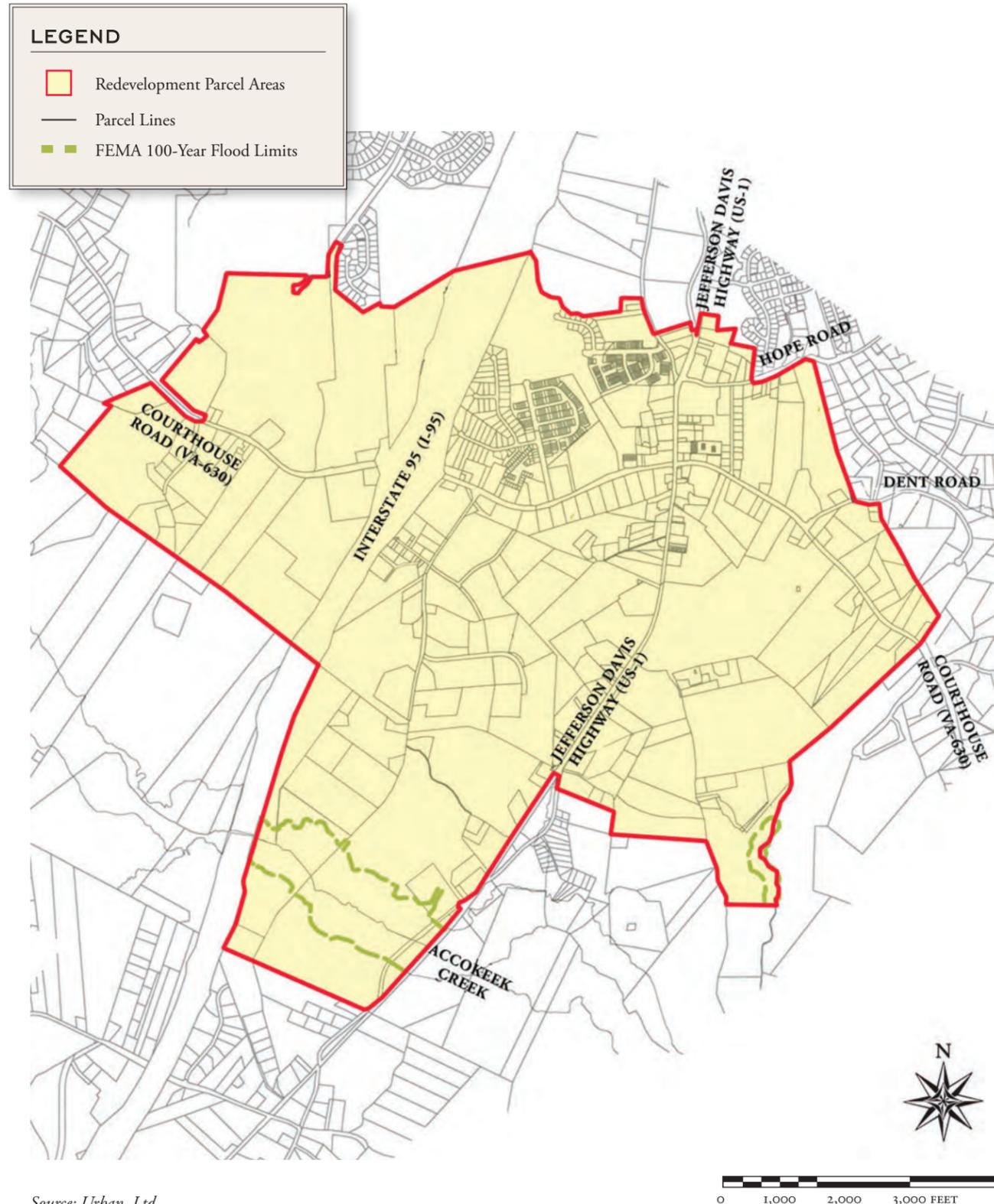
The Courthouse Area is slightly affected by the presence of three small Critical Resource Protection Areas locations within its boundary. The first is along Interstate 95 (I-95) in the northern section. The second crosses Jefferson Davis Highway (US-1) along the southern section. The third is along the southeast corner boundary. Redevelopment in the region will need to account for these areas, but they should not significantly disrupt the larger redevelopment context. (Refer to Map 3: Courthouse Area Critical Resource Protection Areas (CRPAs) and Map 4: Courthouse Area FEMA 100-Year Floodplain Limit.)

Map 3: Courthouse Area Critical Resource Protection Areas (CRPAs)



Source: Urban, Ltd.

Map 4: Courthouse Area FEMA 100-Year Floodplain Limit



Source: Urban, Ltd.

Existing Impervious Analysis

As shown in Table 11 (*Courthouse Area Existing Impervious Analysis*), the Courthouse Area consists of parcels zoned primarily as commercial (25%), agricultural (20%), office (16%), and suburban residential (9%). Impervious roads make up about 8% of the area.

Table 11: Courthouse Area Existing Impervious Analysis

EXISTING USE	ACRES	% IMPERVIOUS	IMPERVIOUS AREA
Agricultural	318.1	15	47.72
Convenience Commercial	9.2	90	8.28
Office	265.9	90	239.31
Planned Development	94.2	75	70.65
Manufactured Homes	36.5	35	12.78
Suburban Residential	140.7	35	49.25
Urban Commercial	387.3	90	348.57
Urban Residential	115.3	35	40.36
Rural Residential	57.5	35	20.13
Subtotal	1424.7		
Road Right-of-Way	203.4	95	193.23
Total	1628.1		1030.28

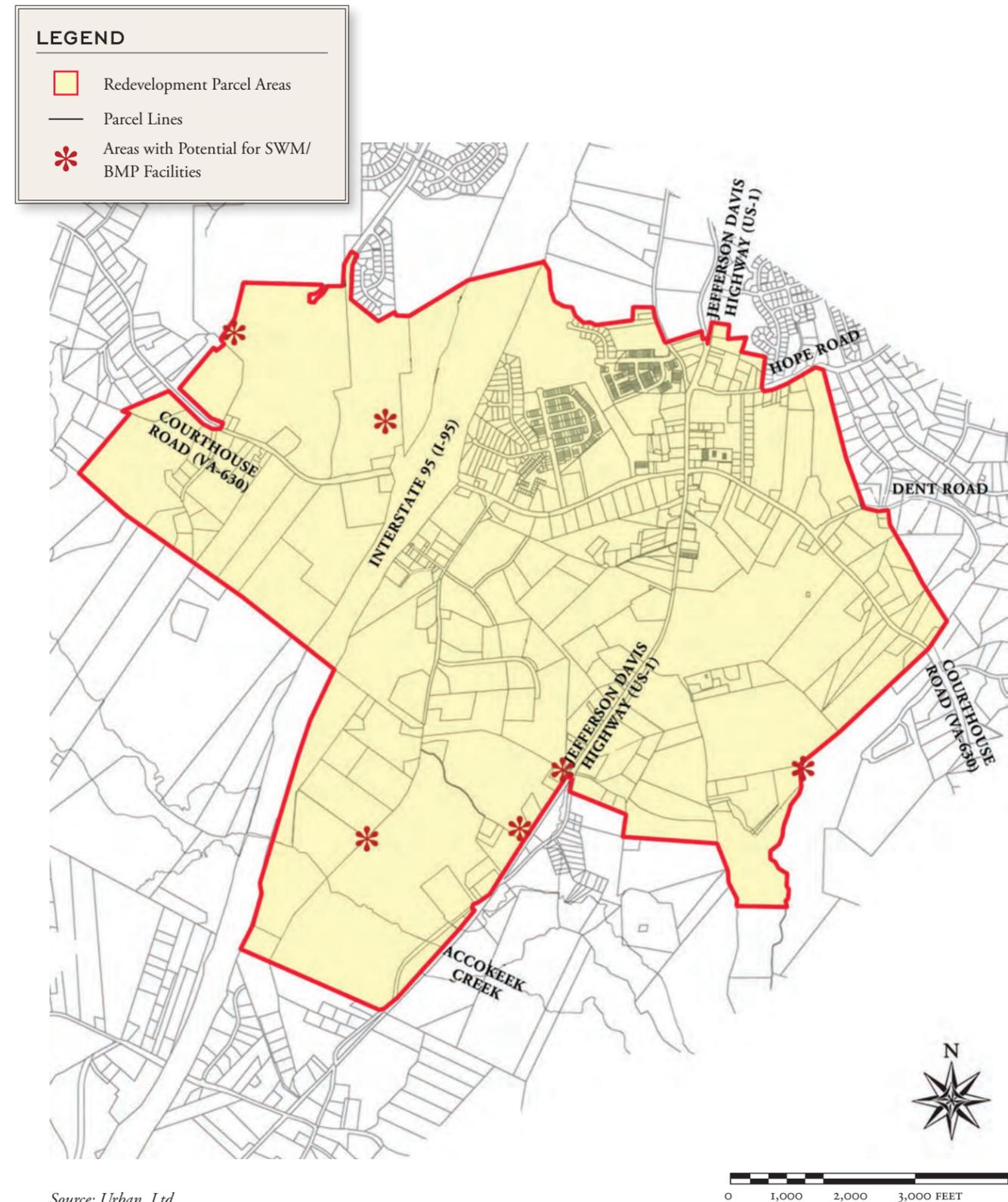
Based on the land uses above, the maximum existing impervious area within the redevelopment assuming full development and utilization of the land area is about 63%. A visual review of the parcels within the development indicates that a large number of parcels are either not developed or not fully developed to the maximum limits of their existing zoning or land use. Therefore, the existing impervious area calculated above represents a higher than actual quantity. Taking this into consideration, the Planning Team believes a more appropriate figure for the amount of existing impervious area within the redevelopment area is approximately 50%.

Regional SWM Opportunities

There may be some regional SWM opportunities within this area worth considering. These areas are shown on the regional SWM map. On the west side of Interstate 95 (I-95), there is ample area with larger parcel sizes for considering a centralized facility to manage flows from development in this area. A map is provided which shows these potential sites.

As previously mentioned in Boswell’s Corner, Stafford County would need to institute a policy, such as pro-rata share fees or increased development incentives, as development comes on-line within the Courthouse Area. The land owners or developers would pay a fee to Stafford County for increases in impervious area on their land with the proceeds being used towards regional SWM facilities or outfall improvements within each tributary or watershed area. (Refer to Map 5: Courthouse Area Potential SWM/BMP Facilities.)

Map 5: Courthouse Area Potential SWM/BMP Facilities



Source: Urban, Ltd.

WATER/SEWER ANALYSIS

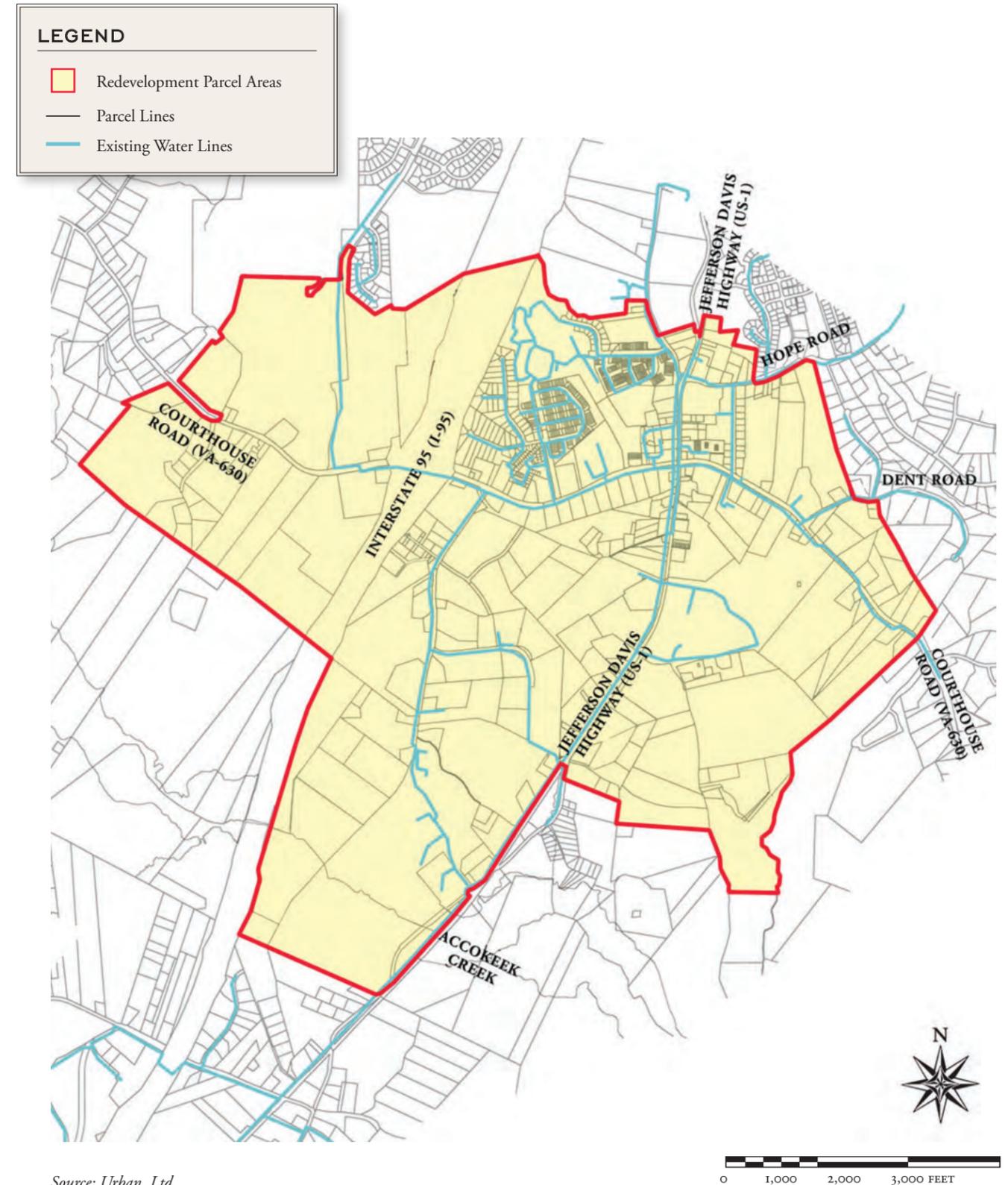
Existing Water Service

According to the Stafford County water model, the Courthouse Area is served with public water that follows the major roads. The mains vary from 18" to the west of Interstate 95 (I-95), 12" through much of Jefferson Davis Highway (US-1), and at least 8" in most other areas. The redevelopment area lines mainly within the 370N pressure zone. The 310 and 433 pressure zones touch the outer boundaries of the redevelopment area. The different pressures zones have been setup to serve areas of different elevations. Uses in higher topographic regions require greater pressure as compared to lower situated parcels to adequately "push" the water up to these higher elevations. A water map has been provided for reference. (Refer to Map 6: Courthouse Area Existing Water Facilities.)

Existing Sewer Service

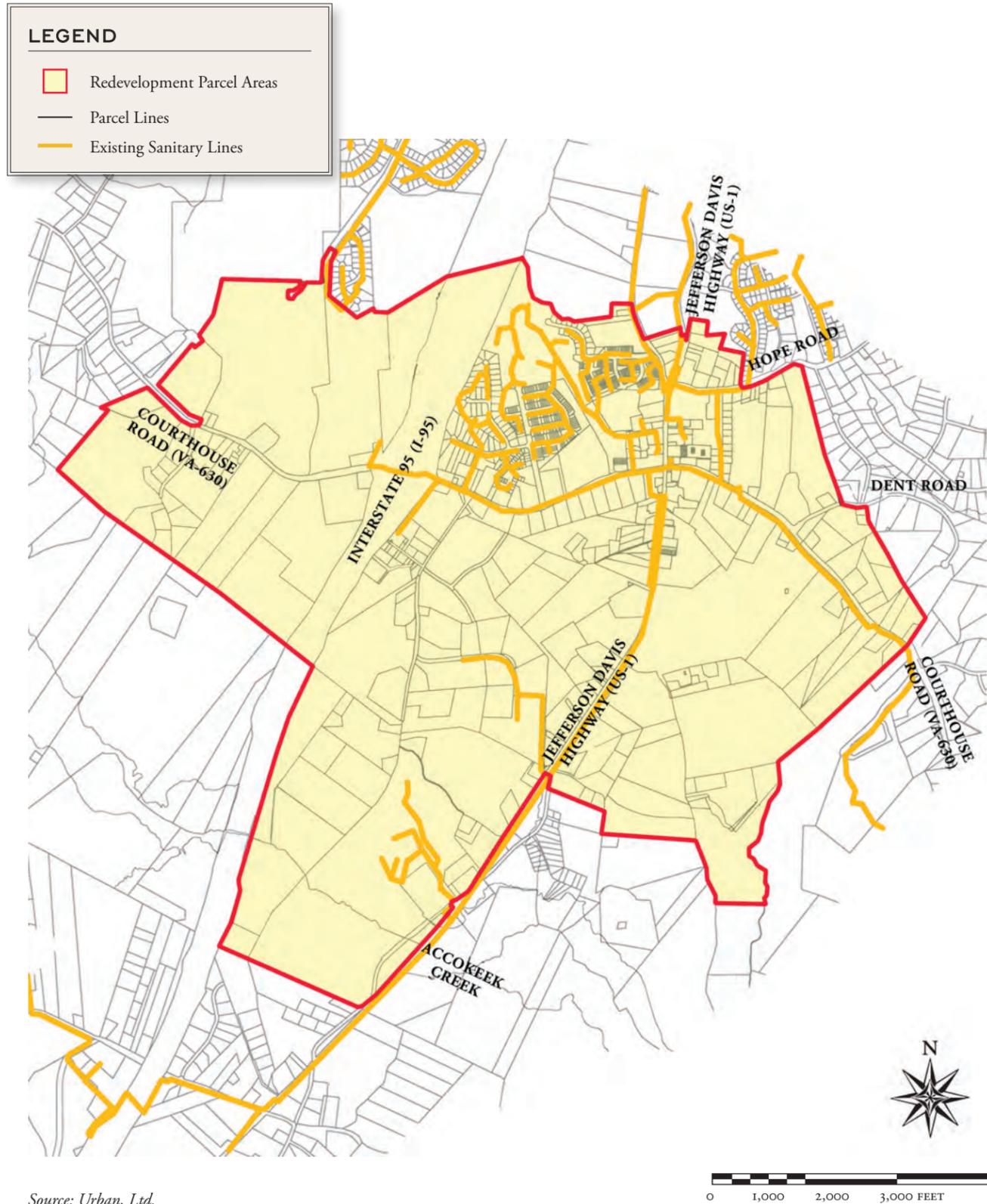
The Courthouse Area is partially served with existing public sanitary sewer. The main trunk lines run along Accokeek Creek and Rocky Run. Both convey waste to the Aquia Waste Water Treatment Facility. The Rocky Run interceptor uses the Austin Run pumping station. There is practically no existing sewer service on the west side of Interstate 95 (I-95) within the redevelopment area. A sewer map has been provided for reference.

There are approximately nine sewer pipes within the redevelopment area which are presently operating at or over capacity. Five of these occur in the 8" line that runs from Courthouse Road (VA-630) in a southerly direction along the western edge of Jefferson Davis Highway (US-1). Two others occur where the 8" lines on the north side of Courthouse Road (VA-630) join at the Government Center and leave Courthouse Road (VA-630) running towards the north. Another pipe is located on Courthouse Road (VA-630) just east of the intersection with Jefferson Davis Highway (US-1). Lastly, the outfall pipe to the Courthouse Area pumping station is also included in this list. While it is not desirable to have sewer pipes at or over capacity, hydraulically the system still works with minimal surcharge in the manholes. This is a condition that will need to be monitored during Phase II of this project. (Refer to Map 7: Courthouse Area Existing Sewer Facilities.)

Map 6: Courthouse Area Existing Water Facilities

Source: Urban, Ltd.

Map 7: Courthouse Area Existing Sewer Facilities



Source: Urban, Ltd.

COMPREHENSIVE PLAN ELEMENTS

Chesapeake Bay Preservation Area (CBPA) Plan

The CBPA Plan has minor impact on the Courthouse Area. There are no measurable shorelines or waterfront issues within the Courthouse Area. In addition, the protection of a potable water supply is of no stronger concern in Courthouse Area than in any other area due to the expected redevelopment use of County supplied sewer and water. Contamination of soils is a concern within the Courthouse Area, but in the rest of Stafford County as well.

The physical constraints to development provide the greatest concern to redevelopment. The mapped CBPA, which roughly coincides with the 100-year floodplain, limits development between Interstate 95 (I-95) and Jefferson Davis Highway (US-1) along the Accokeek Creek. Soils within the redevelopment region are classified as poor for development. Certain soils are erosive, while other areas involve steep slopes. Proper Erosion & Sediment Control (E&SC) design, installation, and maintenance are all steps which will ensure adequate protection of downstream properties and natural resources during construction activities for future development.

Capital Improvement Program (CIP)

Within its borders, Courthouse Area contains a proposed SWM-museum-visitor center-courts plan on Courthouse Road (VA-630) east of Interstate 95 (I-95). No other regional SWM measures are spelled out for this planning area. Stafford County obtained a grant for streetscape improvements within this area which will focus mainly on Courthouse Road (VA-630) and Jefferson Davis Highway (US-1). For information regarding how the CIP affects water and sewer: see the Water and Sewer section of this report.

Stafford County’s CIP calls for several new water service components within the Courthouse Area. Water main upgrades include: an 18” main from Ramoth Church Road to Courthouse Road (VA-630) (beyond 2025), a 12” main along Courthouse Road (VA-630) from west of Interstate 95 (I-95) east-erly to Jefferson Davis Highway (US-1) (2021), and a 16” main along Courthouse Road (VA-630) from west of Interstate 95 (I-95) westerly to the 433 pressure zone (2021).

Within the 310 Zone that is located along the northeast periphery of Courthouse Area, three pressure-reducing valves are proposed. These “emergency” valves are proposed to provide the 310 pressure zone with a secondary source of water from the 370N pressure zone in case the sole source of water for the 310 pressure zone, Smith Lake Water Treatment Plant (WTP), is out of service.

One new water tank is proposed within the area. There is a 1.0 MG elevated tank along Jefferson Davis Highway (US-1) near Clarke Hill Road (2022) and a 0.5 MG elevated tank in Embrey Mill, north of Courthouse Road (VA-630). The Embrey Mill pumping station was proposed as a critical improvement for the year 2008.

Outside the 310 and 370N pressure zones, a key improvement within the 433 pressure zone is the construction of a 2.8 mgd pumping station along Courthouse Road (VA-630) near Snowbird Lane. While this improvement falls within Courthouse Area near the western border, its primary impact is outside of the study area.

While there is adequate capacity in the near term within this redevelopment area, Phase II of the project should identify whether the CIP improvements need to come on-line earlier than programmed. For instance, while the major roads and many existing residential subdivisions have adequate public water service, there is a large land area to the south of Courthouse Road (VA-630) which will need to extend and loop water service between Courthouse Road (VA-630), Jefferson Davis Highway (US-1) and Wyche Road.

Stafford County's CIP calls for a significant number of sewer projects within the redevelopment area. Proposed gravity main upgrades include: 18" from Courthouse Road (VA-630) to the Rocky Run Interceptor (planned for 2008 but not started yet), a 12" line along Accokeek Creek (planned for 2022) and a 12" main from Venture Road to the Wyche Road pumping station (planned for 2022). From the Wyche Road pumping station, a new 12" main is planned along an unnamed tributary to Accokeek Creek to the Accokeek Creek interceptor (2022). Also, a 10" gravity main is planned from the Rowser pumping station to the Accokeek Creek interceptor (2022). An expansion of this pumping station is presently underway to accommodate approximately 20 mgd. The ultimate plan is to provide capacity for 30 mgd beyond the year 2025.

Several sanitary force mains are also proposed. There is a planned 16" force main along Cedar Lane from the Upper Accokeek pumping station to the Rocky Run interceptor (2010); a 12" force main along Jefferson Davis Highway (US-1) from the Lower Accokeek pumping station (after year 2015); and a 4" force main along Courthouse Road (VA-630) from the Courthouse Road pumping station to Cedar Lane once the Rocky Run interceptor is in place, which is assumed to be after year 2010.

The CIP calls for pump station expansions at the Oaks of Stafford (2014) and the Courthouse Road (2019) pumping stations to increase capacity. Lastly, an expansion of the Courthouse Road pumping station is planned for 2014.

Falmouth Plan

The Falmouth Plan component of the Comprehensive Plan is not pertinent to Courthouse Area.

Groundwater

The Courthouse Area falls within the Coastal Plain Aquifer system, but is relatively close to the Fall Line and the edge of the Coastal Plain Aquifer recharge zone. Throughout Stafford County, there is significantly more groundwater supply than demand. Although well usage continues to increase annually throughout Stafford County, this increase will not, as a whole, affect groundwater supplies. Due to unique geographical characteristics, certain small areas may experience a lack of groundwater during periods of heavy drought. Despite this fact, the level of groundwater supply should not directly affect the redevelopment area.

Shoreline

The Courthouse Area has no significant shoreline and is not subject to additional shoreline recommendations.

Stormwater

The Courthouse Area falls partially within the Austin Run regional detention basin map within the Stormwater component of the Comprehensive Plan. In general, the area of the north of Courthouse Road (VA-630) slopes and drains northward to Austin Run. The P-5 facility is within the redevelopment area and it is included as one of the possible regional facility locations on the SWM map. The P-6 stormwater facility is located just outside the redevelopment area. To the south, the parcels slope generally to the south and into Accokeek Creek. Here, regional stormwater facility opportunities are available on the southern and southeastern project edges. Reference the SWM map for locations.

Water Supply Plan

The Water Supply Plan focuses primarily on the characteristics of the existing water sources throughout Stafford County and the costs and concerns associated with delivering it for human consumption. In the case of Courthouse Area, water supply is projected to be supplied via water mains from the Stafford reservoirs. While the Water Supply Plan is integral for reservoir planning, construction, and expansion, it is not directly significant to Courthouse Area, which assumes that the water is readily available, based on the approved reservoir recommendations. Certain aspects of the plan, however, should be considered. If the water supply characteristics of the source reservoirs change, then it could affect water availability to Courthouse Area.

TRANSPORTATION & TRAFFIC ANALYSIS

EXISTING ROADWAY NETWORK

The following are descriptions of each of the existing major roadways (collector streets or higher classification) located in Courthouse Area. Map 8 (*Courthouse Area Existing Roadway Network*) depicts the existing roadway network within this redevelopment area. Photographs of typical sections within the area are included herein as Volume IX (*Stafford County Traffic Data*).²

Jefferson Davis Highway (US-1)

Within Courthouse Area, Jefferson Davis Highway (US-1) is constructed as a four-lane, undivided, principal arterial with a posted speed limit of 35 mph proximate to its intersection with Courthouse Road (VA-630) and 45 mph further south. The roadway runs in the north-south direction and intersects Courthouse Road (VA-630) under signal control.

Courthouse Road (VA-630)

Courthouse Road (VA-630) functions as a minor arterial within Courthouse Area. Courthouse Road (VA-630) is constructed as a two-lane, undivided, roadway west of Jefferson Davis Highway (US-1) and a four-lane, undivided, roadway east of Jefferson Davis Highway (US-1) generally running in an east-west direction. The roadway carries a posted speed limit of 35 mph proximate to its intersection with Jefferson Davis Highway (US-1) and 40 mph further to the east and west. Several signals are provided along Courthouse Road (VA-630) within the redevelopment area at the intersections with Austin Ridge Drive (VA-1486), Interstate-95 (I-95) ramps, Red Oak Drive, and Jefferson Davis Highway (US-1).

Hope Road (VA-687)

Hope Road (VA-687) is a two-lane, undivided, collector street that extends east from Jefferson Davis Highway (US-1). Hope Road (VA-687) carries a posted speed limit of 30 mph and intersects with Jefferson Davis Highway (US-1) under signal control.

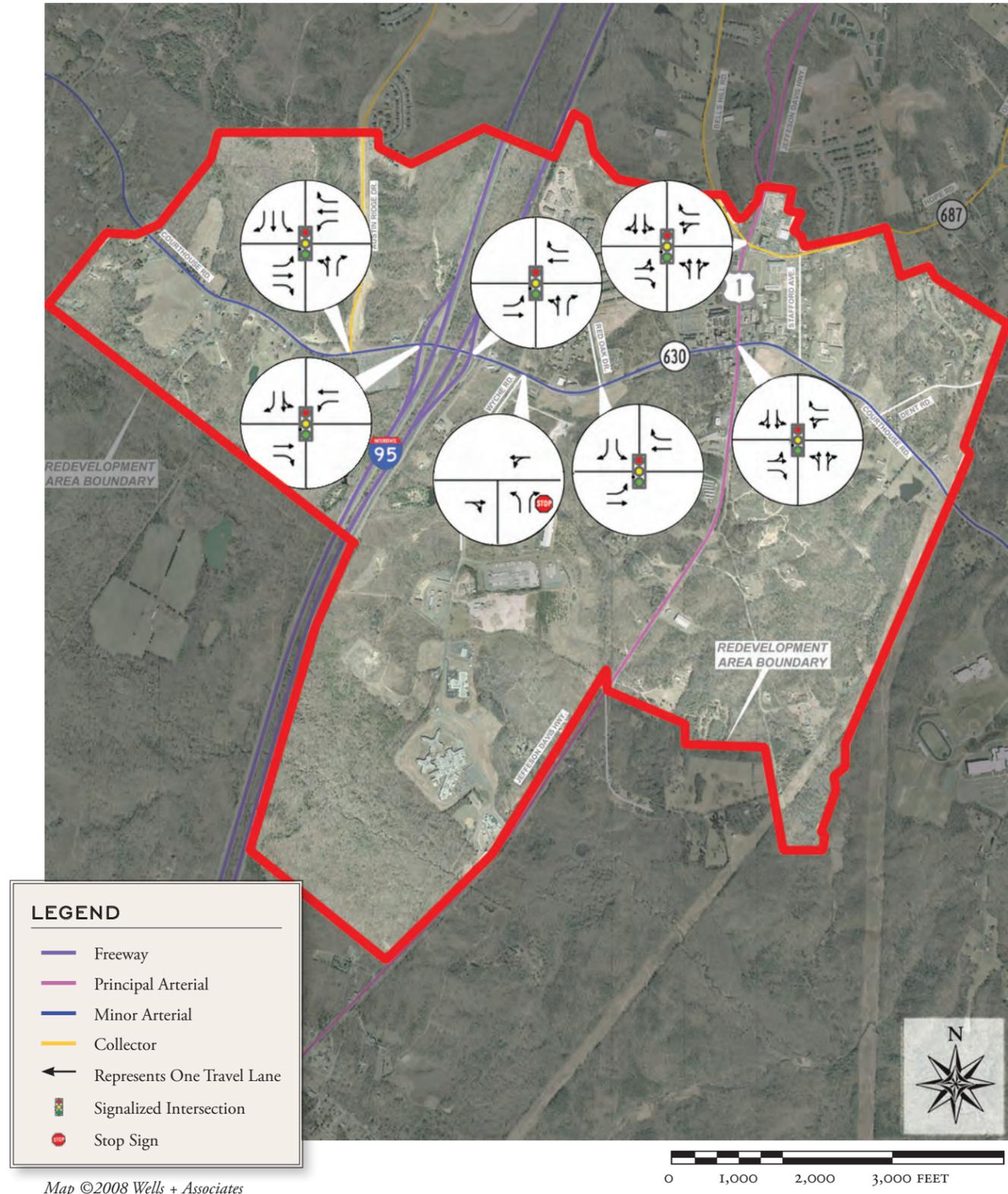
Austin Ridge Drive (VA-1486)

Austin Ridge Drive (VA-1486) functions as a collector street and is constructed as a four-lane roadway with a two-way center lane within Courthouse Area. The roadway carries a posted speed limit of 35 mph and runs north from Courthouse Road (VA-630) west of Interstate 95 (I-95).

EXISTING TRANSIT SERVICES

Fredericksburg Regional Transit (FRED) provides bus service for the Courthouse Area. The D5 “Stafford County” bus route circulates from FRED Central (City of Fredericksburg) to the Stafford County Courthouse.

Map 8: Courthouse Area Existing Road Network



² Note: Hospital Center Boulevard was not included in this analysis as it was performed in 2008 prior to its construction.

CURRENT PLANNED NETWORK

The current Stafford County Transportation Plan (June 7, 2005) makes certain recommendations for the roadways within Courthouse Area. A copy of the Transportation Plan is provided in Volume IX (*Stafford County Traffic Data*). These recommendations are summarized as follows:

- Upgrade Jefferson Davis Highway (US-1) to a six-lane, divided, facility
- Upgrade Bells Hill Road (VA-631) to a standard two-lane facility.
- Upgrade Hope Road (VA-687) to a standard two-lane facility
- Upgrade Courthouse Road (VA-630) to a four-lane, divided, facility west of Austin Ridge Drive (VA-1486).
- Construct a new four-lane, divided, roadway from Courthouse Road (VA-630) at Austin Ridge Drive (VA-1486) southeast to Jefferson Davis Highway (US-1).
- Construct a new four-lane, undivided, roadway from Courthouse Road (VA-630) at Red Oak Drive south to the new four-lane, divided, roadway.
- Upgrade Courthouse Road (VA-630) to a four-lane, undivided, facility between Red Oak Drive and Spartan Lane.

FAMPO Constrained Long Range Plan (CLRP)

FAMPO's 2030 CLRP includes the following recommendations for improvements in the Courthouse Area:

- Construction of a grade-separated interchange at Interstate 95 (I-95) & Courthouse Road (VA-630).
- Relocation of the existing commuter lot that will be displaced by the interchange construction.
- Upgrade Jefferson Davis Highway (US-1) to a six-lane, divided, facility from Garrisonville Road to Courthouse Road (VA-630).
- Upgrade Courthouse Road (VA-630) to a four-lane facility west of Interstate 95 (I-95).
- Construct a left-turn lane on Courthouse Road (VA-630) at Red Oak Drive.
- Extend Mine Road, as a four-lane, divided roadway from Courthouse Road (VA-630) to Ramoth Church Road.

VDOT State Highway Plan

VDOT's 2025 State Highway Plan provides the following recommendation for the Courthouse Area:

- Upgrade Jefferson Davis Highway (US-1) to a six-lane, divided, facility.

Courthouse Streetscaping Project³

Additionally, Stafford County is currently planning to implement the Courthouse Streetscaping project which will be applied to Courthouse Road (VA-630) and Jefferson Davis Highway (US-1).

EXISTING TRAFFIC VOLUMES

Baseline traffic volumes for select roadways within Courthouse Area were collected and are summarized on Map 9 (*Courthouse Area Existing Average Daily Traffic Volumes*) and Map 10 (*Courthouse Area Peak Hour Traffic Turning Volumes*). Daily volumes are provided based on both Stafford County 2006 baseline volumes and VDOT 2006 traffic counts. Average daily traffic volumes within the area range up to 7,779 vpd on local streets, from 2,949 to 9,042 vpd on collector streets, up to 16,325 vpd on minor arterials and up to 22,144 vpd on principal arterials. It should be noted that in certain cases Stafford County and VDOT volumes differ. These discrepancies are likely a result of counts being conducted independently on different dates and/or VDOT applying factors for older volume data on certain roadway links.⁴

The peak hour traffic turning volumes are summarized on Map 10 (*Courthouse Area Peak Hour Traffic Turning Volumes*). Copies of the counts are included in Volume IX (*Stafford County Traffic Data*).

³ Refer to Appendix III: Courthouse Area Streetscape Charrette Recommendations.

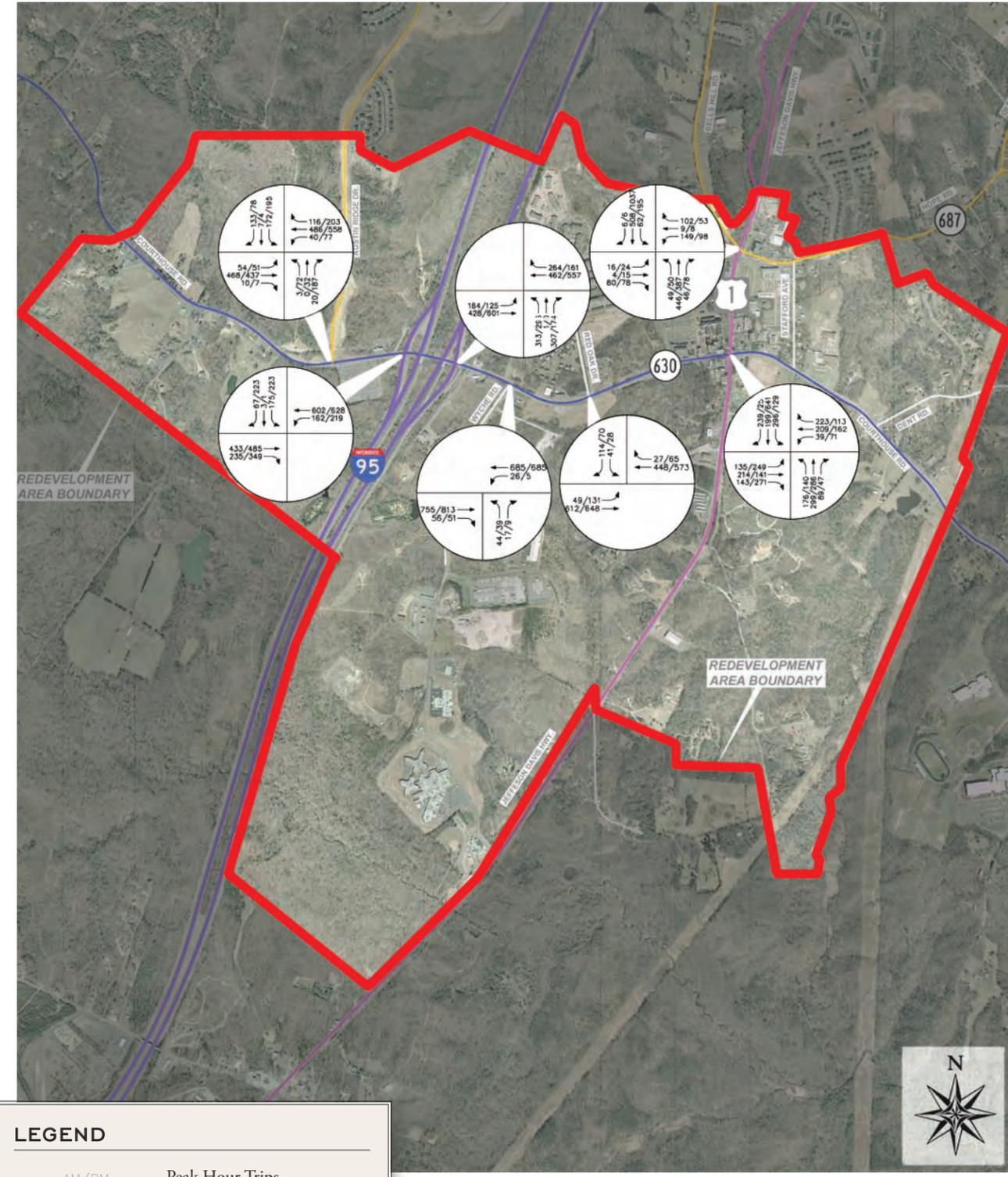
⁴ Peak hour turning movement counts at key intersections within the study area were obtained from counts conducted by Wells + Associates, Inc. on Tuesday, September 23, 2008; counts conducted by MCV Associates, Inc. on February 5, 2008.

Map 9: Courthouse Area Existing Average Daily Traffic Volumes



Map ©2008 Wells + Associates

Map 10: Courthouse Area Peak Hour Traffic Turning Volumes



Map ©2008 Wells + Associates

CAPACITY OF ROADWAY NETWORK

The capacity of a street is typically measured by how many vehicles per hour can be accommodated in a segment without significant delays. Capacity is a function of the number and width of lanes as well as geometric standards and/or criteria.

Levels of Service

Level of service (LOS) is a rating of how comfortable and convenient it is to drive along a road or through an intersection. High quality of traffic service occurs when motorists are able to drive at their desired safe speed. For urban streets, a typical desire level of service is “D” which assumes a few traffic stoppages but no major delays.⁵

Threshold levels of service for signalized and unsignalized intersections were evaluated based on Stafford County 2006 baseline traffic volumes. These results are summarized in Table 12 (*Courthouse Area Typical Link Level of Service Threshold Values*).

In order to determine the levels of service at key intersections, the Highway Capacity Manual 2000 methodologies as reported by Synchro 7 were used. Synchro is a macroscopic model used to evaluate the effects of changing intersection geometrics, traffic demands, traffic control, and/or traffic signal settings and to optimize traffic signal timings. The levels of service reported for the signalized intersections were taken from the Highway Capacity Manual 2000 (HCM) reports generated by Synchro and summarized in Table 13 (*Courthouse Area Existing Capacity Analysis Summary*).

As shown in Table 13 (*Courthouse Area Existing Capacity Analysis Summary*), the results of the capacity analysis indicate that the intersection of Jefferson Davis Highway (US-1) and Courthouse Road (VA-630) operates at or near theoretical capacity during both weekday peak periods. The Synchro analysis reports overall LOS “E” during the AM peak hour and LOS “F” during the PM peak hour.

The other signalized intersections in Courthouse Area currently operate at overall adequate levels of service (LOS “D” or better).

Volume to Capacity (V/C) Ratios

The Volume to Capacity (V/C) ratio gives an indication of traffic congestion, with V being the traffic volume and C the street capacity. When the V/C ratio approaches a value of 1.0, the facility is said to be operating at theoretical capacity (or level of service “E”).

For roadway links, the V/C ratio is related to levels of service (LOS) at certain daily threshold volumes. Table 12 (*Courthouse Area Typical Link Level of Service Threshold Values*) summarizes the threshold daily traffic volumes and V/C ratio associated with each level of service grade.

As shown in Table 12 (*Courthouse Area Typical Link Level of Service Threshold Values*), the maximum V/C ratio in Courthouse Area is 0.43 and occurs on Courthouse Road (VA-630) between Interstate 95 (I-95) and Jefferson Davis Highway (US-1). All study roadway links operate at LOS “B” or better.

In order to determine the levels of service at key intersections within the Courthouse Area, the *Highway Capacity Manual 2000* methodologies as reported by Synchro 7 were used. The results of the analysis are summarized in Table 13 (*Courthouse Area Existing Capacity Analysis Summary*).

The V/C ratios for the key signalized intersections are shown in Table 13 (*Courthouse Area Existing Capacity Analysis Summary*). The highest V/C ratios in Courthouse Area are found at the Jefferson Davis Highway (US-1) and Courthouse Road (VA-630) intersection where the overall V/C ratios are 0.89 during the AM peak hour and 0.96 during the PM peak hour. The V/C ratios at the other signalized intersections range from 0.51 to 0.79 during weekday peak hours.

Table 12: Courthouse Area Typical Link Level of Service Threshold Values⁶

	LOS “A”	LOS “B”	LOS “C”	LOS “D”	LOS “E”
V/C	0.3	0.66	0.5	0.79	1.0
2 LANE	11,400	19,000	25,080	30,020	38,000
4 LANE	22,800	38,000	50,160	60,040	76,000
6 LANE	34,200	57,000	75,240	90,060	114,000
	Limits	ADT	Lanes	V/C	LOS
Jefferson Davis Highway (US-1)	North of Hope Road (VA-687)	18,032	4	0.24	A
Jefferson Davis Highway (US-1)	North of Courthouse Road (VA-630), South of Hope Road (VA-687)	22,144	4	0.29	A
Jefferson Davis Highway (US-1)	South of Courthouse Road (VA-630)	17,938	4	0.24	A
Courthouse Road (VA-630)	West of Austin Ridge Drive (VA-1486)	12,316	2	0.32	B
Courthouse Road (VA-630)	East of Interstate 95 (I-95), West of Jefferson Davis Highway (US-1)	16,325	2	0.43	B
Courthouse Road (VA-630)	East of Jefferson Davis Highway (US-1)	9,599	4	0.13	A
Bells Hill Road (VA-631)	West of Jefferson Davis Highway (US-1)	2,949	2	0.08	A
Hope Road (VA-687)	East of Jefferson Davis Highway (US-1)	9,042	2	0.24	A
Austin Ridge Drive (VA-1486)	North of Courthouse Road (VA-630)	No Data Available	4	N/A	N/A

Source: *Highway Capacity Manual 2000*

⁵ Threshold levels of service for signalized and unsignalized intersections are summarized on Table 36 (Level of Service Criteria for Signalized Intersections) and Table 37 (Level of Service Criteria for Unsignalized Intersections).

⁶ “Link” refers to Roadway Lanes, not intersections nor interchanges. Refer to *Table 13: Courthouse Area Existing Capacity Analysis Summary* for Levels of Service at intersections & interchanges.

Table 13: Courthouse Area Existing Capacity Analysis Summary^{7 8 9}

Intersection	Traffic Control	Lane Group	Existing Levels of Service		Existing V/C Ratios	
			Weekday		Weekday	
			AM	PM	AM	PM
1. Route 1 (Jefferson Davis Highway)/ Hope Road/Bells Hill Road	Signal	EBLT	D (40.5)	D (54.0)	0.19	0.34
		EBR	D (39.5)	D (51.5)	0.05	0.05
		WBLT	D (37.8)	E (58.5)	0.59	0.64
		WBR	C (31.7)	D (47.9)	0.07	0.04
		NBLTR	C (32.8)	D (48.9)	0.68	0.77
		SBLTR	C (31.7)	D (42.0)	0.68	0.92
		Overall	C (33.3)	D (45.4)	0.62	0.79
2. Route 1 (Jefferson Davis Highway)/ Courthouse Road	Signal	EBLT	F (101.4)	F (200.7)	0.95	1.21
		EBR	E (57.3)	E (73.3)	0.22	0.51
		WBLT	F (93.3)	F (110.6)	0.86	0.89
		WBR	E (64.4)	E (72.5)	0.24	0.10
		NBLTR	F (82.0)	F (92.1)	0.88	0.86
		SBLTR	E (69.5)	E (71.4)	0.85	0.91
		Overall	E (78.9)	F (99.4)	0.89	0.96
3. Red Oak Drive/ Courthouse Road	Signal	EBL	A (4.1)	A (5.3)	0.11	0.31
		EBT	A (5.1)	A (4.4)	0.55	0.54
		WBT	B (10.2)	B (11.8)	0.55	0.65
		WBR	A (7.0)	A (7.0)	0.02	0.05
		SBL	C (22.0)	C (26.5)	0.24	0.20
		SBR	C (21.2)	C (25.7)	0.08	0.05
		Overall	A (8.8)	A (8.8)	0.51	0.62
4. Wyche Road/ Courthouse Road	Stop	WBLT	A [1.1]	A [0.2]	0.04	0.01
		NBLR	D [34.2]	C [24.1]	0.33	0.20
5. I-95 Northbound Ramps/ Courthouse Road	Signal	EBL	B (11.7)	B (19.3)	0.53	0.65
		EBT	A (9.2)	B (15.7)	0.45	0.60
		WBTR	C (24.7)	B (13.5)	0.76	0.80
		WBR	B (17.2)	B (12.0)	0.42	0.24
		NBLT	C (29.5)	D (39.9)	0.74	0.70
		NBR	C (20.2)	C (30.0)	0.22	0.12
		Overall	B (19.2)	B (19.2)	0.74	0.76
6. I-95 Southbound Ramps/ Courthouse Road	Signal	EBT	C (20.6)	D (47.3)	0.71	0.59
		EBR	B (14.3)	B (13.1)	0.29	0.37
		WBL	A (8.0)	C (31.9)	0.39	0.49
		WBT	A (8.6)	B (18.0)	0.60	0.56
		SBLT	C (23.4)	D (38.1)	0.54	0.70
		SBR	B (19.7)	C (25.6)	0.05	0.16
		Overall	B (14.5)	C (26.2)	0.69	0.59
7. Courthouse Road/Austin Ridge Drive	Signal	EBL	B (14.2)	C (20.4)	0.17	0.24
		EBT	C (25.2)	C (28.8)	0.70	0.66
		EBR	B (16.2)	B (19.8)	0.01	0.01
		WBL	B (11.7)	B (17.9)	0.11	0.25
		WBT	D (21.9)	D (35.3)	0.66	0.82
		WBR	D (38.5)	C (20.7)	0.31	0.18
		NBLT	D (41.9)	D (46.1)	0.05	0.51
		NBR	D (41.6)	D (44.7)	0.01	0.37
		SBL	D (35.9)	D (45.2)	0.58	0.65
		SBT	C (30.0)	D (36.0)	0.02	0.01
		SBR	C (30.5)	D (36.3)	0.09	0.05
		Overall	C (26.3)	C (33.7)	0.59	0.64

7 Analysis performed using Synchro software, Version 7.
 8 Values in parentheses, (), represent signalized delay in seconds.
 9 Values in brackets, [], represent unsignalized delay in seconds.

TRAFFIC CONTROL SYSTEMS

Although located in close proximity to one another, the Jefferson Davis Highway (US-1) and Bells Hill Road (VA-631)/ Hope Road (VA-687) and Jefferson Davis Highway (US-1) and Courthouse Road (VA-630) signalized intersections currently do not operate in coordination. The lack of mainline turn lanes on Jefferson Davis Highway (US-1) at these locations significantly impede capacity which results in higher delays and poorer levels of service as stated previously. All approaches at these two intersections operate with split signal phasing (i.e., only one approach receives a green indication at a time) which further increases delay, inhibits mainline progression, and is generally an inefficient means to process intersection traffic.

In contrast, the other signalized intersections along Courthouse Road (VA-630) operate at adequate levels of service.

Turn lanes are provided which provides for more efficient use of intersection lane capacity. The only signalized intersections programmed in a coordinated pattern are the two Interstate-95 (I-95)/Courthouse Road (VA-630) access points which operate in sync during the PM peak period.

No intersections within the study area are currently equipped with pedestrian signal heads or push buttons. Painted crosswalks are provided at the Jefferson Davis Highway (US-1) and Courthouse Road (VA-630) intersection only.

ACCIDENTS & SAFETY

Accident data were obtained from the Virginia Department of Transportation (VDOT) for the period between January 1, 2003 and December 31, 2007. The data is shown on Table 14 (Courthouse Area Historic Accident Analysis: Expected Values). A copy of the accident summaries as provided by VDOT is included as Volume IX (Stafford County Traffic Data).

The total number of accidents per type at each of the study intersections for the five-year study period is provided. A determination of “expected values” for each accident type and each location was then calculated and compared to VDOT statewide expected values. Those locations exceeding VDOT’s “90th percentile and 95th percentile high” values would be considered abnormally high and may require further study by VDOT and/or Stafford County.

As shown in Table 14 (Courthouse Area Historic Accident Analysis: Expected Values), several intersections experienced higher-than-average accidents for certain types of crashes. The Jefferson Davis Highway (US-1)/Bells Hill Road (VA-631) intersection experienced average yearly accidents higher than VDOT expected values for the most number of collision types, including rear end, sideswipe, pedestrian, and fixed object. However, none of these collision rates exceeded the 90th percentile and thus should not be considered “abnormally high.” Further safety analyses may be warranted at this intersection including the review of detailed crash reports.

The crash rate for fixed object collisions exceeded the VDOT expected value at the Jefferson Davis Highway (US-1) and Courthouse Road (VA-630) intersection. Additionally, the rate for rear end collisions exceeded the expected value for the Courthouse Road (VA-630) and Red Oak Drive intersection.

Based on the crash history provided by VDOT, it should be noted that none of the expected values for the collision severity categories (i.e. property damage, injury, fatality) were exceeded at any of the study intersections.

Table 14: Courthouse Area Historic Accident Analysis: Expected Values^{10 11}

January 1, 2003 – December 31, 2007

Intersection	Legs	ADT	Control	Years Studied
Jefferson Davis Highway (US-1) at Hope Road (VA-687)/Bells Hill Road (VA-631)	4	10,000 to 20,000	Signalized	5
Jefferson Davis Highway (US-1) at Courthouse Road (VA-630)	4	> 20,000	Signalized	5
Red Oak Drive at Courthouse Road (VA-630)	4	10,000 to 20,000	Signalized	5
Interstate 95 (I-95) Northbound Ramp at Courthouse Road (VA-630)	4	10,000 to 20,000	Signalized	5
Interstate 95 (I-95) Southbound Ramp at Courthouse Road (VA-630)	4	10,000 to 20,000	Signalized	5
Austin Ridge Drive (VA-1486) at Courthouse Road (VA-630)	4	10,000 to 20,000	Signalized	5

Jefferson Davis Highway (US-1) at Hope Road (VA-687)/Bells Hill Road (VA-631)¹²

	<i>Collision Type</i>						
	Rear End	Angle	Head On	Sideswipe Same Direction	Sideswipe Opposite Direction	Pedestrian	Fixed Object
At intersection	12	4	0	2	1	1	4
Acc/Year	2.40	0.80	0.00	0.40	0.20	0.20	0.80
Expected Val	2.30	3.70	0.12	0.63	0.12	0.10	0.59
90%ile high	5.14	8.94	0.49	1.96	0.52	0.50	1.88
95%ile high	5.70	9.98	0.57	2.22	0.60	0.58	2.13

	<i>Collision Severity</i>		
	Property Damage Only	Injury	Fatal
At intersection	12	13	0
Acc/Year	2.4	2.4	0
Expected Val	4.7	4.7	0.08
90%ile high	10.16	10.16	.42
95%ile high	11.24	11.24	0.48

Jefferson Davis Highway (US-1) at Courthouse Road (VA-630)¹³

	<i>Collision Type</i>						
	Rear End	Angle	Head On	Sideswipe Same Direction	Sideswipe Opposite Direction	Pedestrian	Fixed Object
At intersection	17	12	0	6	0	0	4
Acc/Year	3.40	2.40	0.00	1.20	0.00	0.00	0.80
Expected Val	5.79	6.67	0.09	1.57	0.13	0.12	0.63
90%ile high	13.01	15.56	0.42	4.00	0.51	0.50	1.42
95%ile high	14.44	17.33	0.48	4.48	0.58	0.57	1.57

	<i>Collision Severity</i>		
	Property Damage Only	Injury	Fatal
At intersection	32	9	0
Acc/Year	6.4	1.8	0
Expected Val	9.92	5.29	0.08
90%ile high	21.53	9.96	0.42
95%ile high	23.83	10.88	0.48

¹⁰ Traffic accident data obtained from the Virginia Department of Transportation (VDOT) – Traffic Engineering Division, May 1991.

¹¹ Expected value data obtained from “Expected Values for Accident Analysis at Intersections” report prepared by VDOT Traffic Engineering Division, May 1991.

¹² Intersection contains accidents that are not included in the list of types.

¹³ Intersection contains accidents that are not included in the list of types.

Red Oak Drive at Courthouse Road (VA-630)

	Collision Type						
	Rear End	Angle	Head On	Sideswipe Same Direction	Sideswipe Opposite Direction	Pedestrian	Fixed Object
At intersection	15	1	0	0	0	0	1
Acc/Year	3.00	0.20	0.00	0.00	0.00	0.00	0.20
Expected Val	1.81	2.85	0.13	0.53	0.07	0.03	0.57
90%ile high	4.72	6.93	0.65	1.34	0.30	0.18	1.42
95%ile high	5.32	7.78	0.76	1.51	0.35	0.22	1.57

	Collision Severity		
	Property Damage Only	Injury	Fatal
At intersection	12	5	0
Acc/Year	2.4	1	0
Expected Val	3.83	2.44	0.07
90%ile high	7.84	5.09	0.3
95%ile high	8.67	5.64	0.35

Interstate 95 (I-95) Northbound Ramp at Courthouse Road (VA-630)

	Collision Type						
	Rear End	Angle	Head On	Sideswipe Same Direction	Sideswipe Opposite Direction	Pedestrian	Fixed Object
At intersection	3	5	0	2	0	0	0
Acc/Year	0.60	1.00	0.00	0.40	0.00	0.00	0.00
Expected Val	2.30	3.70	0.12	0.63	0.12	0.10	0.59
90%ile high	5.14	8.94	0.49	1.96	0.52	0.50	1.88
95%ile high	5.70	9.98	0.57	2.22	0.60	0.58	2.13

	Collision Severity		
	Property Damage Only	Injury	Fatal
At intersection	9	1	0
Acc/Year	1.8	0.2	0
Expected Val	4.7	3.07	0.08
90%ile high	10.16	6.73	0.42
95%ile high	11.24	7.46	0.48

Interstate 95 (I-95) Southbound Ramp at Courthouse Road (VA-630) ¹⁴

	Collision Type						
	Rear End	Angle	Head On	Sideswipe Same Direction	Sideswipe Opposite Direction	Pedestrian	Fixed Object
At intersection	6	13	0	2	0	0	1
Acc/Year	1.20	2.60	0.00	0.40	0.00	0.00	0.20
Expected Val	2.30	3.70	0.12	0.63	0.12	0.10	0.59
90%ile high	5.14	8.94	0.49	1.96	0.52	0.50	1.88
95%ile high	5.70	9.98	0.57	2.22	0.60	0.58	2.13

	Collision Severity		
	Property Damage Only	Injury	Fatal
At intersection	13	10	0
Acc/Year	2.6	2	0
Expected Val	4.7	3.07	0.08
90%ile high	10.16	6.73	0.42
95%ile high	11.24	7.46	0.48

Austin Ridge Drive (VA-1486) at Courthouse Road (VA-630)

	Collision Type						
	Rear End	Angle	Head On	Sideswipe Same Direction	Sideswipe Opposite Direction	Pedestrian	Fixed Object
At intersection	1	0	0	0	1	0	1
Acc/Year	0.20	0.00	0.00	0.00	0.20	0.00	0.20
Expected Val	2.30	3.70	0.12	0.63	0.12	0.10	0.59
90%ile high	5.14	8.94	0.49	1.96	0.52	0.50	1.88
95%ile high	5.70	9.98	0.57	2.22	0.60	0.58	2.13

	Collision Severity		
	Property Damage Only	Injury	Fatal
At intersection	3	0	0
Acc/Year	0.6	0	0
Expected Val	4.7	3.07	0.08
90%ile high	10.16	6.73	0.42
95%ile high	11.24	7.46	0.48

¹⁴ Intersection contains accidents that are not included in the list of types.

CULTURAL & HISTORIC RESOURCES ANALYSIS¹⁵

In June of 2008, the Planning Team conducted a Phase IA archaeological assessment and Phase I Reconnaissance Level Architectural Survey of 1785.8 acres in the Courthouse Area. The Planning Team designed the survey to identify all architectural resources that may be present in the project area and to obtain sufficient information to make recommendations about the further research potential of each resource based on their potential eligibility to the National Register of Historic Places (NRHP). To accomplish this, both documentary research and architectural survey were conducted in compliance with the National Historic Preservation Act of 1966 (NHPA-PL89-665), as amended, the Archaeological and Historic Preservation Act of 1974, Executive Order 11593, and relevant sections of 36CFR660-666 and 36CFR800.

HISTORY OF THE COURTHOUSE REDEVELOPMENT AREA

In 1608, when Captain John Smith ventured up the Potomac River, he mapped the locations of numerous Native American villages, including several within the present-day bounds of Stafford County. Three village sites were mapped by John Smith in the project area vicinity. As Smith explored Aquia Creek, less than two miles north and east of the project area, he encountered a Native American pigment mine.

The first courthouse in the county was constructed on the south side of Potomac Creek in 1665. By 1690, that building was gone and court met at a private home. A new courthouse built in the town of Marlborough burned soon after its completion, around 1718. The new court house was ordered to be built closer to the center of population, again on the south side of Potomac Creek, just upstream from Belle Plain. This building burned between 1730-31 and was rebuilt in the same place; it must have burnt again, as in 1752 two men were paid for work on a new courthouse.

By the early eighteenth century, there were numerous industries in the county, including quarries, iron works, grist mills, fisheries, and small mines. The Accokeek Furnace, in operation from 1726-1756, was located approximately two miles west of the project area, constructed on land belonging to Captain Augustine Washington, the father of George Washington. There was likely a small community surrounding the furnace, as often other industries and shops grew up around ironworks.

Although the County saw very little action during the Revolution, soldiers under the command of General Washington and French Lieutenant General Rochambeau passed through the project area in 1781 and 1782 on their way to and from the site of the Siege of Yorktown. Their route roughly follows present-day Jefferson Davis Highway (US-1) through the County.

When Stafford County boundaries were redrawn in 1779, the magistrates moved from the old courthouse on Potomac Creek to the home of William Garrard, just north of the current court house. A commission was ordered to find the center of the county on which to build the new court house, but that proved to be a deep valley with no access to water or level ground. The land, two acres, was acquired in 1780, and the court house, jail, and clerk's office were built in 1783. At some point the courthouse was covered with stucco and painted white. The clerk's office was on the north side of the courthouse; both buildings had sandstone foundations and were trimmed in sandstone. The jail was built in the middle of what is now Jefferson Davis Highway (US-1), just in front of the courthouse and next to an old well at the corner of Jefferson Davis Highway (US-1) and Courthouse Road (VA-630).

During the Antebellum period, the County underwent a radical transformation from a tobacco-based plantation economy to a diversified grain-based economy. By the late eighteenth century, most areas were experiencing the effects of severe soil depletion, and as it became clear that the land was worn out, there was an exodus from the region. Overland transportation routes improved, and with the increase in the number of roads and accessibility to those roads, numerous farms sprang up along these new routes.

While the county was greatly impacted by economic hardships after the Civil War, favorable settlement and agricultural conditions had not changed completely in the region and the project area remained a viable place for domestic and agricultural pursuits.

The construction of Jefferson Davis Highway (US-1) in the 1920s had a large impact on development and growth in the project area vicinity. A new courthouse was constructed on the site of the former courthouse in 1923. While the earlier courthouses on the site faced south, towards what is now Courthouse Road (VA-630), the new courthouse was built to face Jefferson Davis Highway (US-1) and acknowledge its importance in area travel. Subsequently, a number of buildings were constructed along the new Jefferson Davis Highway (US-1) corridor in the 1920s to accommodate courthouse and Jefferson Davis Highway (US-1) travelers.

The construction of Interstate 95 (I-95) as part of the Federal Interstate Highway System in the 1950s allowed easier access to new employment opportunities and with these improvements to the local road systems, this portion of Stafford County has witnessed the construction of many small communities and commercial developments, as can be seen in the northern portion of the project area.

ARCHITECTURE

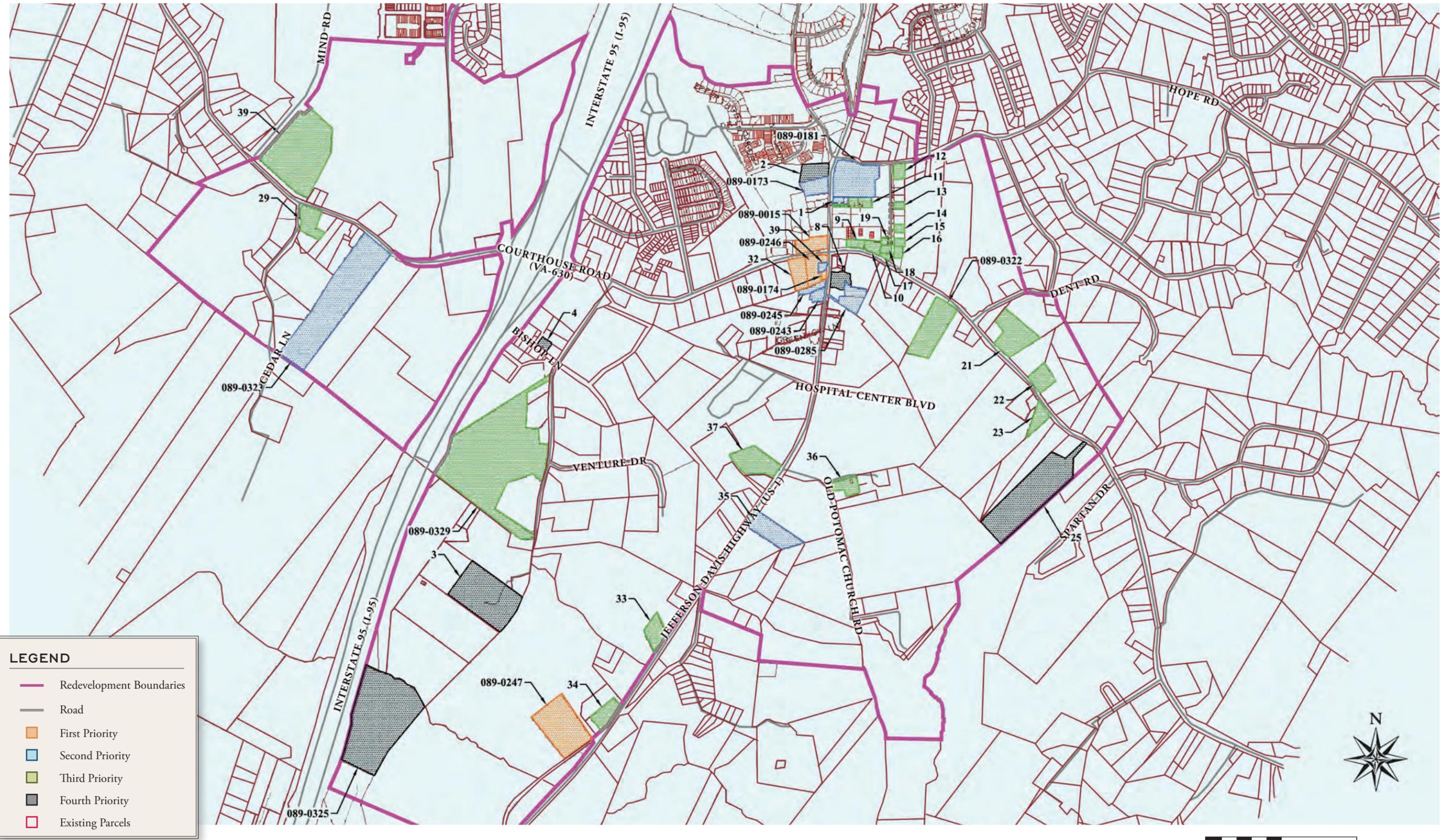
A total of 15 previously identified and 35 newly identified architectural resources were surveyed during this project, of which five (089-0015, 089-0247, 089-0174, 089-5169, 089-5166) were recommended potentially eligible for listing on the NRHP. However, the architecture of the area as a whole includes a mix of rural domestic and commercial architectural styles from the late 19th to mid-20th centuries.

ARCHAEOLOGY

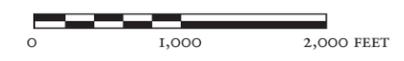
A total of 14 archaeological resources have been identified within the project area. A total of 630.7 acres of the project area have been determined to have a high probability for cultural resources, and approximately 282.3 acres of the project area have previously been subjected to cultural resources surveys.

¹⁵ Refer to Volume VII (Cultural Resources Report for Boswell's Corner, Courthouse Area, & Southern Gateway) for thorough detailed and graphically illustrated Architectural and Archaeological Information and Research on the history of the Courthouse Area.

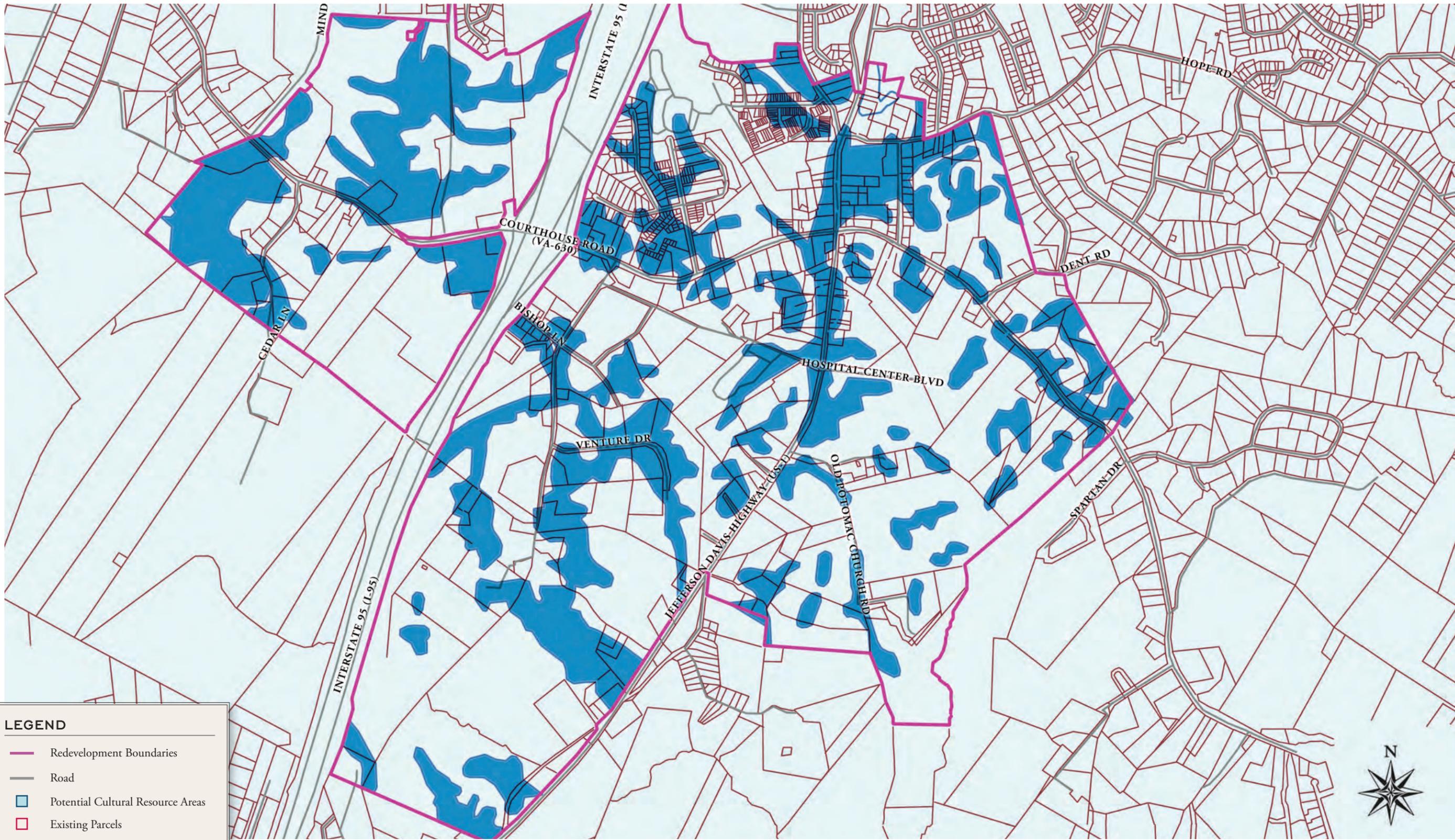
Map 11: Architectural Resources Within the Courthouse Area – Priorities



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Map 12: Areas with Potential Cultural Resources Within the Courthouse Area



LEGEND

- Redevelopment Boundaries
- Road
- Potential Cultural Resource Areas
- Existing Parcels

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COURTHOUSE REDEVELOPMENT AREA: SUMMARY & CONCLUSIONS

ECONOMIC & MARKET ANALYSIS

The Courthouse Redevelopment Area is at the heart of the Stafford County community, and this should be emphasized in coming years. Already, the development of the hospital is bringing additional attention to the area, in addition to the area's being home to the County government. The Planning Team's results show that there is additional office and retail demand for the area in the next four to five years, including medical office. The expected increase in foot traffic from the Courthouse Complex, workers, and visitors will need new restaurants and convenience retail as added amenities, as well as parks, museums, outdoor markets, and congregation and recreation spaces that would make this the active, pedestrian-oriented Town Center the County seeks to achieve. The Master Redevelopment Plan will propose to enhance the urban fabric with a grid of streets that fosters walking and connectivity, unique retailers, and a good shopping environment, which will be critical to capturing the expected demand.

INFRASTRUCTURE & STORM WATER MANAGEMENT (SWM) ANALYSIS

The Courthouse Redevelopment Area contains a few minor instances of floodplains and/or Critical Resource Protection Areas that do not have a large overall effect to the planning sector. Redevelopment would most likely occur along the current major road segments and, more importantly, along any proposed bypass roads or system of grid streets.

This area's main concern regarding its Civil Infrastructure lies with several water/sewer projects that may quickly become more important as redevelopment begins to take place than what was anticipated and programmed in the CIP. Currently, there is adequate water/sewer capacity in the near term for redevelopment within the Courthouse Area as several CIP projects have either been completed or are underway. As development progresses, the County's water/sewer models should be updated to reflect demand/flow increases. This is especially important for several sewer pipes that are presently running at capacity. Transportation and streetscape components will be very important within the sector in an effort to setup a grid of streets or bypass routes, while focusing attention to uses along the major roads for future development.

Physical constraints provide the greatest concern to redevelopment. The mapped CBPA, which roughly coincides with the 100-year floodplain, limits development between Interstate 95 (I-95) and Jefferson Davis Highway (US-1) along the Accokeek Creek. Soils within the redevelopment area are classified as poor for development. Certain soils are erosive, while other areas involve steep slopes. Proper Erosion & Sediment Control design, installation, and maintenance are essential to ensuring adequate protection of downstream properties and natural resources during construction activities for future development.

Phase II of the redevelopment plan process will begin to plug in increases in demands/flows within this area so that timely decisions can be made regarding any further improvements that may be needed to support an expected increase in commercial density/uses in this area.

TRANSPORTATION & TRAFFIC ANALYSIS

Transportation and Traffic analysis for the Courthouse Area rendered several conclusions. The Jefferson Davis Highway (US-1) and Courthouse Road (VA-630) intersection currently operates at capacity during peak hours (LOS "E" and "F"). All other key intersections and roadway segments operate at overall adequate levels of service (LOS "D" or better). While sidewalks are provided along many roadways in the network, the signalized intersections lack pedestrian signal heads and/or push buttons. There is currently no comprehensive bicycle network. Local transit service is limited to a single low capacity bus route. The current Stafford County Transportation Plan (June 7, 2005) makes certain recommendations for the roadways within the Courthouse redevelopment area. A copy of the Transportation Plan is provided in Volume IX (*Stafford County Traffic Data*).

On September 8, 2008, the Master Redevelopment Team facilitated a Design Charrette in conjunction with County Officials to review the issues and potential designs for the Courthouse Area, and also to assist the County with plans to encompass the full utilization of the VDOT Streetscape Enhancement grant for the overall vision of this area. While this represents the County's vision for the Courthouse Area, the project only included the implementation of streetscape improvements (i.e. sidewalk improvements, bicycle improvements, utility relocations, landscaping, lighting, and signage) within right of way and not actual road building. Several options were reviewed and discussed; refer to Appendix III (*Courthouse Area Streetscape Charrette Recommendations*) for further detail from the Design Charrette.

CULTURAL & HISTORIC RESOURCES ANALYSIS

Regarding Cultural Resources, a total of 15 previously identified and 35 newly identified architectural resources were surveyed during this project, five of which are potentially eligible for listing on the NRHP. However, the architecture of the area as a whole includes a mix of rural domestic and commercial architectural styles from the late 19th to mid-20th centuries.

A total of 14 archaeological resources have been identified within the project area. A total of 630.7 acres of the project area have been determined to have a high probability for cultural resources, and approximately 282.3 acres of the project area have previously been subjected to cultural resources surveys.

MOVING FORWARD

The Planning Team has undertaken thorough research, review and understanding of the four redevelopment areas' existing conditions; their rich cultural resources, land use potential and regulations, current trends and the market. With the information gathered throughout this phase and with the public workshops input the Vision starts to take shape.

As a result of the Planning Team's analysis and findings, the actual mix and intensity recommended will vary from one redevelopment area to the other as they vary in size and character. The Courthouse Area presents an opportunity to lay the foundation for development within a grid of streets that fosters activity, walking and connectivity. The increasing foot traffic from the Courthouse Complex, business' employees and visitors will benefit from added amenities, parks, museum, outdoors market, congregation and recreation spaces and make the government seat an active, pedestrian-oriented Town Center.

As mentioned throughout this report, the Planning Team's proposal for the Courthouse Area includes an urban street grid; green spaces, parks, pedestrian friendly environments and proposed streetscape improvements for Stafford's main arteries, especially Jefferson Davis Highway (US-1), Courthouse Road (VA-630) and Warrenton Road (US-17). Planning design efforts were made to propose a grid system that fosters more density and interaction among users. Additional recommendations include the creation of wayfinding signage systems; physical improvements such as landscaping, screening and berms, and billboard management; and small business support programs and financial assistance.

The Concept Master Redevelopment Plan will take the previous conceptual visions and goals a step further, with land uses and implementation strategies for each redevelopment plan. The Planning Team's design recommendations will be made in context with the Comprehensive Plan, the Land Use Plan and in direct response to development trends and public input. It will provide a framework to address each community's vision and potential for the future of their neighborhoods and the County.

The Planning Team has determined that future development should reflect the evolution of architectural styles that is currently present through the development of design principles for new construction within the areas. In general, elements of the surrounding architecture should be included in order to promote a sense of continuity within the area, without creating a false sense of history with inaccurate representations of historic buildings. Regulation and enforcement of these guidelines will require an act of legislation.

COURTHOUSE AREA: CONCEPT MASTER REDEVELOPMENT PLAN & RECOMMENDATIONS



PUBLIC PROCESS & COMMUNITY INPUT¹

PUBLIC WORKSHOP #1 CONCLUSIONS

Public Input: Existing Conditions

The public has stated that despite the Courthouse Area's role as the center of the county government, it lacks connectivity, specifically in terms of pedestrian movement, along the Jefferson Davis Highway (US-1) and Courthouse Road (VA-630) corridors. This shortcoming was mentioned repeatedly as a major concern. According to citizens, the district's lack of street crossings and sidewalks has made the area an accident-prone spot. Though the Courthouse area is seen as the "heart or center of town," citizens repeated noted its deficiencies in terms of open space, green space, and park facilities, with several neighbors specifically lamenting the loss of the former Wayside Park.

Parking is an issue for the area and the public expressed a need for structured parking, preferring this style to other parking options such as on-street parking or expansive lots. It has been mentioned several times that the Interstate 95 (I-95) interchange needs to be "fixed" to relieve traffic, yet the public stressed that future of the interchange at Interstate 95 (I-95) and Courthouse Road (VA-630) is such an unknown that no one has an idea what type of development will eventually be feasible in the area. With the County seen as "captive to VDOT," the opinion is that the agency needs to be more flexible about the design of the interchange modifications and/or relocation. Equally, traffic issues stemming for Jefferson Davis Highway (US-1) and Courthouse Road (VA-630) intersection and concern regarding the circulation around this intersection and Stafford Avenue, and the intersection at Wyche Road were expressed. There was a general consensus that left turn lanes are needed and that steps should be taken to mitigate noise from traffic.

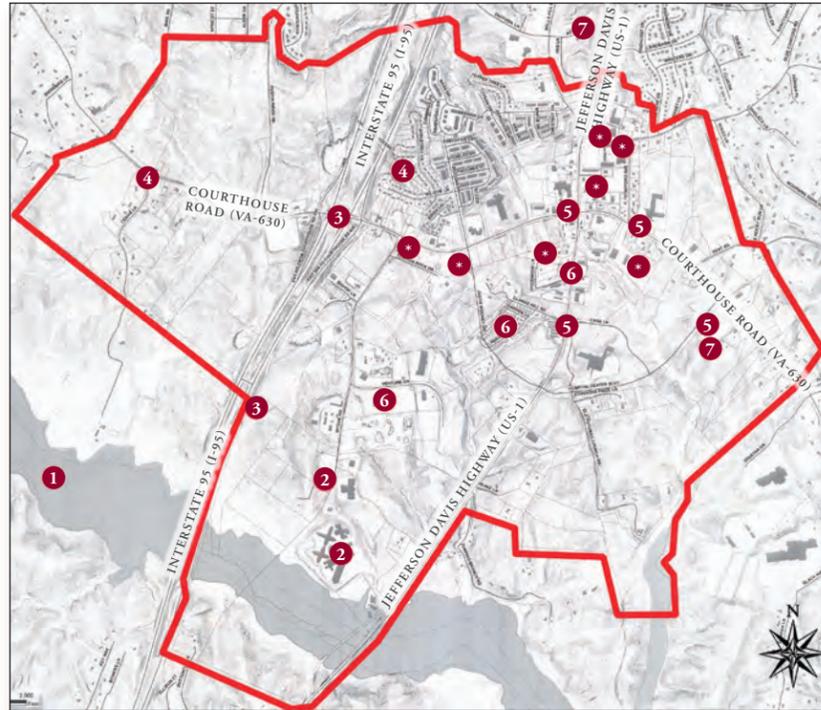
While there is excitement about the prospect of future development in the Courthouse Area, coordinating that development with existing homes is perceived as a potential challenge. Comments ranged from removing the trailer park, to safety issues in the Red Oak residential area, to low income area adjacent to more affluent homes, and maintaining direct access to the interstate from these residential areas.

- The former Wayside Park located north of the Courthouse Area was mentioned as a dormant asset. Neighbors would like to bring it back and include a dog run. They see the need for small pocket parks connected to bike and walking paths and linked to cultural venues.
- The new Hospital, government center, Courthouse, and School Board are all seen as economic drivers and, therefore, assets to the area.
- Citizens identified an opportunity to connect Hospital Center Boulevard with Hope Road via church property as an alternate road/by-pass to avoid Jefferson Davis Highway (US-1)/Courthouse Road (VA-630) intersection. This was seen as especially attractive for local trips, and including Jason Mooney Drive (Oak Road extension).
- Neighbors would like to expand mass transit and access to VRE connection/Shuttle, centrally locating that expansion for use by people that will work at the hospital and for those with jobs in Washington DC.
- While the public questioned the value of using tax dollars as an incentive for bringing in business, they have also stressed the need for partnerships (Stormwater Management (SWM), roads, sewer, etc) to help the redevelopment happen and the area to grow.
- Many neighbors believe that "the whole development can be a multi-use/mixed-use complex and bring many jobs to Stafford."
- Overall, the public was accepting of the idea of parking structures and garages.



¹ For further detail of the public's preferences, refer to the Appendices, which contain the compiled results in more detail, taken from the public workshops from both Phases of the Redevelopment Plan.

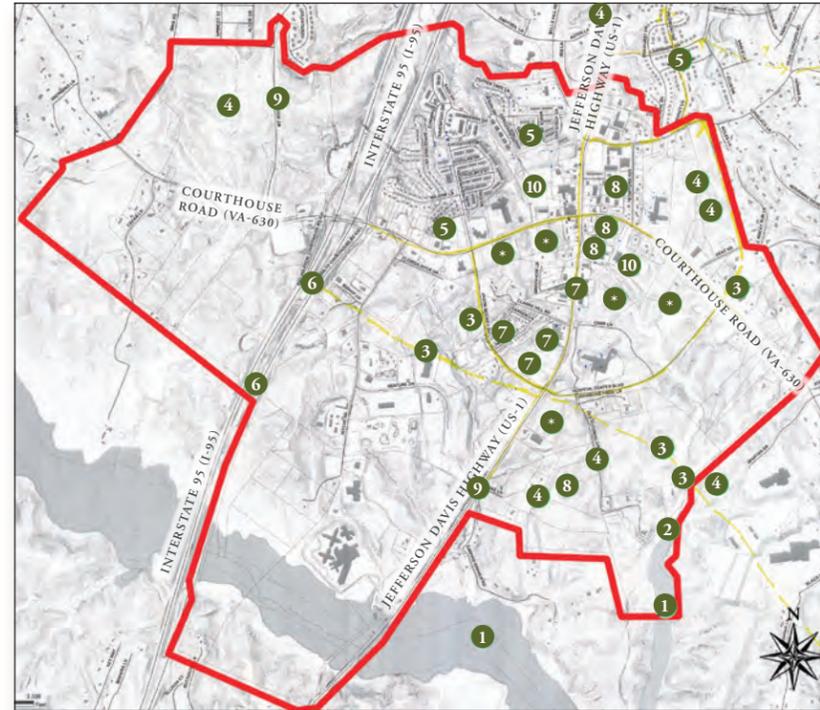
Public Input: Dot Maps



Map 13: Courthouse Area Existing Conditions – Challenges

1. No river crossings
2. Improve regional jail property
3. Improve existing and future interchange
4. Protect existing residential neighborhoods
5. Traffic, transportation, access and speed limits
6. Existing properties for redevelopment
7. Vacant land for parks

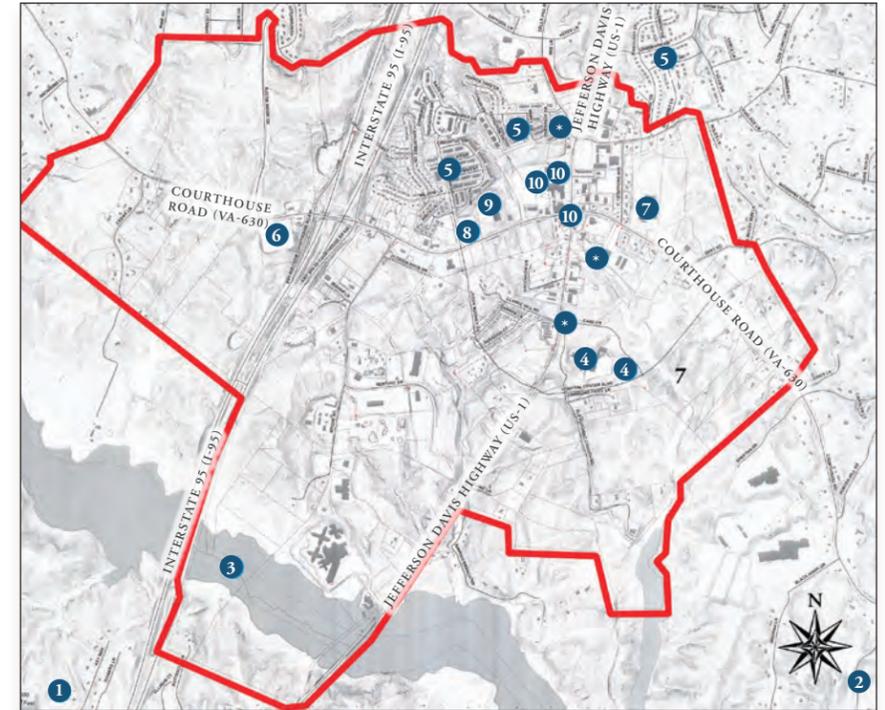
* **Generally:** Lack of green space and parks; Need for walkability and housing diversity; Address traffic problems with turn lanes and traffic calming measures; Structured parking is preferred; Developing on steep sloped properties; Grid pattern with existing topography; Developable properties for mixed-use; Properties in need of redevelopment



Map 14: Courthouse Area Existing Conditions – Strengths

1. Waterway, river crossings
2. Linear park
3. Connection to VRE and redirect traffic
4. Potential parks, Former Wayside Park at northern portion of area
5. Existing neighborhoods
6. Improvements to existing interchange and potential for new development
7. Alternative routes for traffic around hospital, alternatives to Courthouse Road (VA-630)
8. Economic development, following vision
9. Hotel/Retail zone development potentials
10. Pocket parks connected to bike and walking trails with cultural events and dinner theater

* **Generally:** Architectural styles consistent throughout the area would be preferred; Complete development of the area will bring more jobs; Models to be taken into consideration: Caroline Street in Fredericksburg, Cumberland, MD, Main St. Charlottesville, Pentagon City (mixed-use)



Map 15: Courthouse Area Existing Conditions – Opportunities

1. Proximity to Airport
2. Proximity to VRE
3. Natural waterway
4. New medical office facility
5. Existing residential neighborhoods
6. Park and Ride Lot / Commuter Parking Lot
7. Proximity to School
8. Existing church
9. Public Safety
10. "Downtown"

* **Generally:** Opportunity for multiuse-office, retail, and residential with future mixed-use development; Develop as a Town Center (Change the name to distinguish the downtown, define it as a unique place), with area to serve as the "heart" of the area; Potential for traffic improvements, such as redirecting traffic off of Jefferson Davis Highway (US-1) and make Jefferson Davis Highway (US-1) pedestrian friendly; Potential for parking decks

Visual Preference Survey

Of six choices for residential types, including a typical suburban single-family style, town-houses, and multi-family mid- and high-rises, the vast majority of attendees favored a more urban, midrise (3–4 stories), multi-family residential product. Most people were also favored some type of urban, street-level commercial development, with outdoor cafes, etc. Most people were opposed to the typical, isolated strip retail that currently characterizes the Courthouse Area.

Most attendees favored landscaped, walkable mix of retail with “above the shop” office and /or residential. The largest number of attendees was in favor of plazas, fountains, green space, and park type open spaces. Likewise, most preferred on-street parking with landscaped sidewalks, benches, etc. A significant number of others preferred parking in the back of the mixed-use buildings as long they are integrated to the street fabric in their look and function. The vast majority of the attendees were in favor of tree-lined streets with inviting outdoor cafes, landscaped sidewalks, attractive public gathering places, and numerous pocket parks. The concrete, tree-less, suburban landscape was strongly rejected.

VISION & GOALS

The vision and goals for the Courthouse Area embodies these sentiments:

- Strong growth potential for medical office space with retail on Jefferson Davis Highway (US-1) between hospital and Courthouse Road (VA-630)
- Streetscape improvements, areas for cultural events and generous amount of open space – courtyard areas, and parking to serve the increased density within walking/biking distance. Plenty of pedestrian friendly outdoor areas
- A place for newcomers and young professionals – young doctors, nurses, attorneys, and medical office users – that prefer to live near their places of work and take advantage of the Town Center.

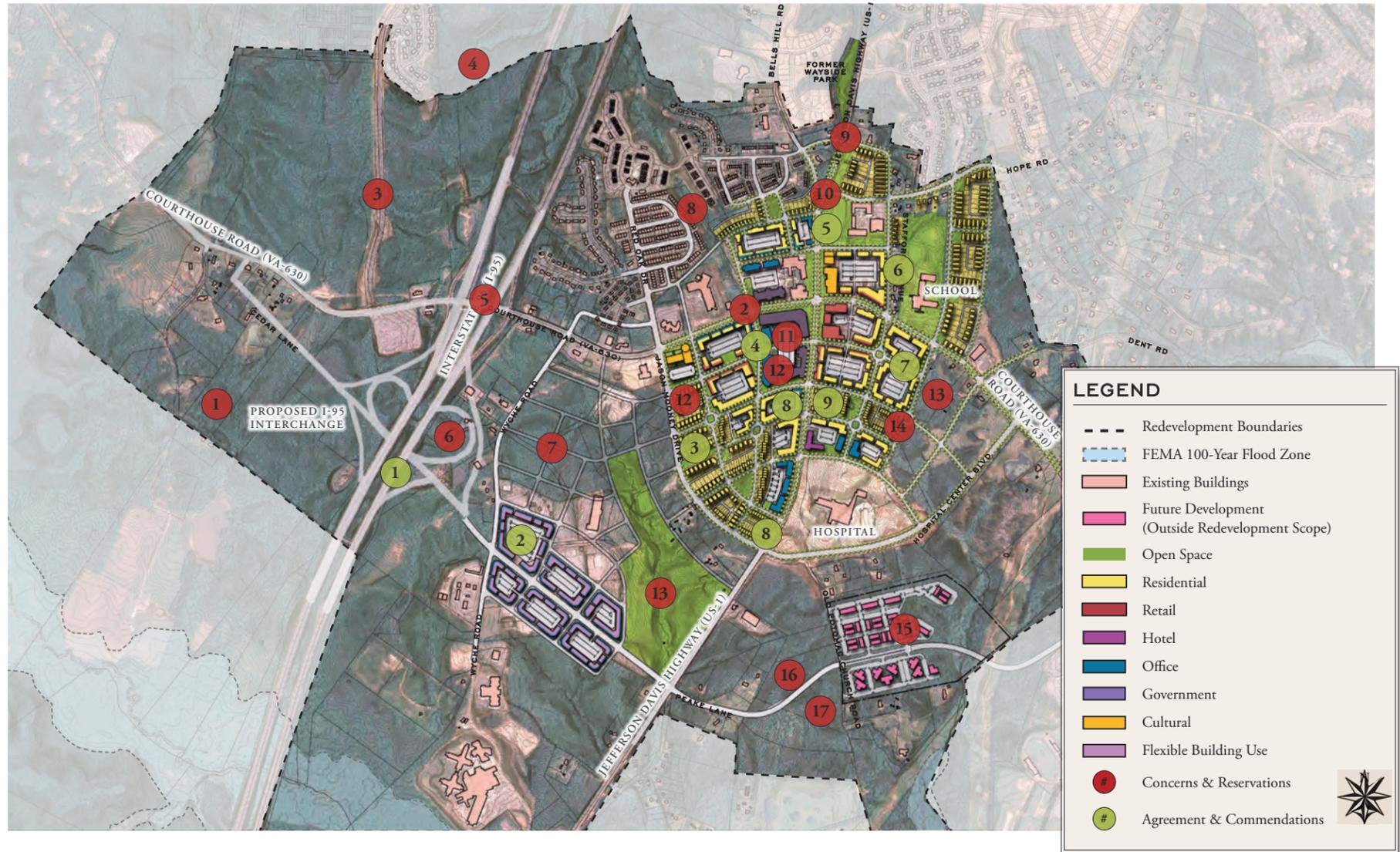
The public believes that for this to be a balanced approach, Stafford County should determine if there is enough residential to help support small businesses, as well as day and night uses. The public has also stressed that they do not want more residential in the agriculture areas but rather along Jefferson Davis Highway (US-1), where infrastructure will be available. The public wants the area to be made more pleasing to the eye and not the eye sore it currently is. The plan should house as much of the workforce in the area as possible, and have a commuter plan which helps get people that do not live within the area to the redevelopment area, offering shuttle services from existing commuter lots to reduce the need for parking garages, and with enough residential to support even at rush hour a bus to VRE.

Vision Statement

“Cultural, civic, work, shop, living & recreational areas must be woven together with parks & streets to create a walkable and memorable Town of Stafford, the seat of the County Government.”



Map 16: Courthouse Area Preliminary Master Plan – Public Input



PUBLIC WORKSHOP #2 CONCLUSIONS

Concerns & Reservations (Red Dots)

1. Some citizens would like to identify future uses here.
2. Option 1 of the Preliminary Master Plan does not have a courtyard at Judicial Center, show one.
3. Some believe that the plan should include a road from Austin Ridge Drive (VA-1486) to Warrenton Road (US-17).
4. Some would like to expand the plan to include vacant area outside the redevelopment boundaries.

5. Several schools exist along and near Courthouse Road (VA-630); some showed concerned about improving and alleviating school drop off locations in the morning.
6. Some would like to maintain the same Interstate 95 (I-95) access in the future.
7. A few noted that future use for this area still needs to be identified.
8. Some people would like to use green corridors to protect creek and add landscaping details.
9. Several people would like to see another route provided for local commuter traffic in order to avoid Interstate 95 (I-95).

10. Some noted the traffic bottleneck that occurs at Jefferson Davis Highway (US-1) and Hope Road.
11. Some individuals were concerned that a residential home currently exists in a future intersection spot on the master plan.
12. Some were not happy with the high-density residential shown in this area; they believe that townhouses/apartments should be kept.
13. Neighbors would like to see more connection to open & green space.
14. Some would like to maintain the stream corridor.
15. The need for sustainable jobs in this area was mentioned.
16. Several would like to see mixed-use retail/residential in this area.
17. Some would like Germanna Community College added to the plan.

Agreement & Commendations (Green Dots)

1. Some individuals noted that this is a good location for the Interstate 95 (I-95) interchange.
3. Neighbors agree that there is a need for residential in order for the master plan to work.
4. People noted the courts are centrally located, with a necessary parking facility.
5. Neighbors liked the green and open space but would like provisions for sports facilities.
6. On the master plan, one of attendees has applied for rezoning change to open an office in a currently residential area.
7. For the master plan to work for hospital employees, people agree with the need for nearby residences.
8. Neighbors liked the overall street network/pattern.
9. Neighbors liked the small-town urban feeling.

General Notes

- ◆ Cohesive architecture design (village/small town look) wanted
- ◆ Concern of amount of impervious surface and Best Managed Practice (BMP) use more green pavers, etc.
- ◆ Alternative routes away from Interstate 95 (I-95) (or another way for that traffic away from Stafford)
- ◆ Traffic movement around the area
- ◆ Provide a wider area (parkway, etc.)

PROPOSED MASTER PLAN

COURTHOUSE AREA PROPOSED MASTER PLAN

After all of the public workshops were complete, the Planning Team focused on the Master Redevelopment Concept Plan. This step brought the findings of the Planning Team together with the public’s input – their “wish list” – to set realistic goals and seek redevelopment that is a response to market potential, land and infrastructure capacity and mostly, to the community’s desires and vision of itself.

The Courthouse Area presents an opportunity to lay the foundation for development within a grid of streets that fosters activity, walking and connectivity. The increased foot traffic from the Courthouse Complex, new Hospital center, business’ employees and visitors will benefit from added amenities, parks, museum, outdoor market, congregation and recreational spaces and make the government seat a true pedestrian-oriented Town Center.

The potential long-term density for the Courthouse Area is generally larger than that in the Comprehensive Plan. According to the Stafford Comprehensive Plan, the redevelopment areas should be designed to incorporate principles of traditional neighborhood design and in order to comply with state guidelines, these areas must be able to accommodate and develop at higher commercial and mixed-use densities. This is a necessary step to achieve critical mass and a sense of place; these efforts will help to create a thriving center that integrates a mix of uses, provides balance, and crafts its own character over time, and becomes a positive impact in the area’s economic factors.

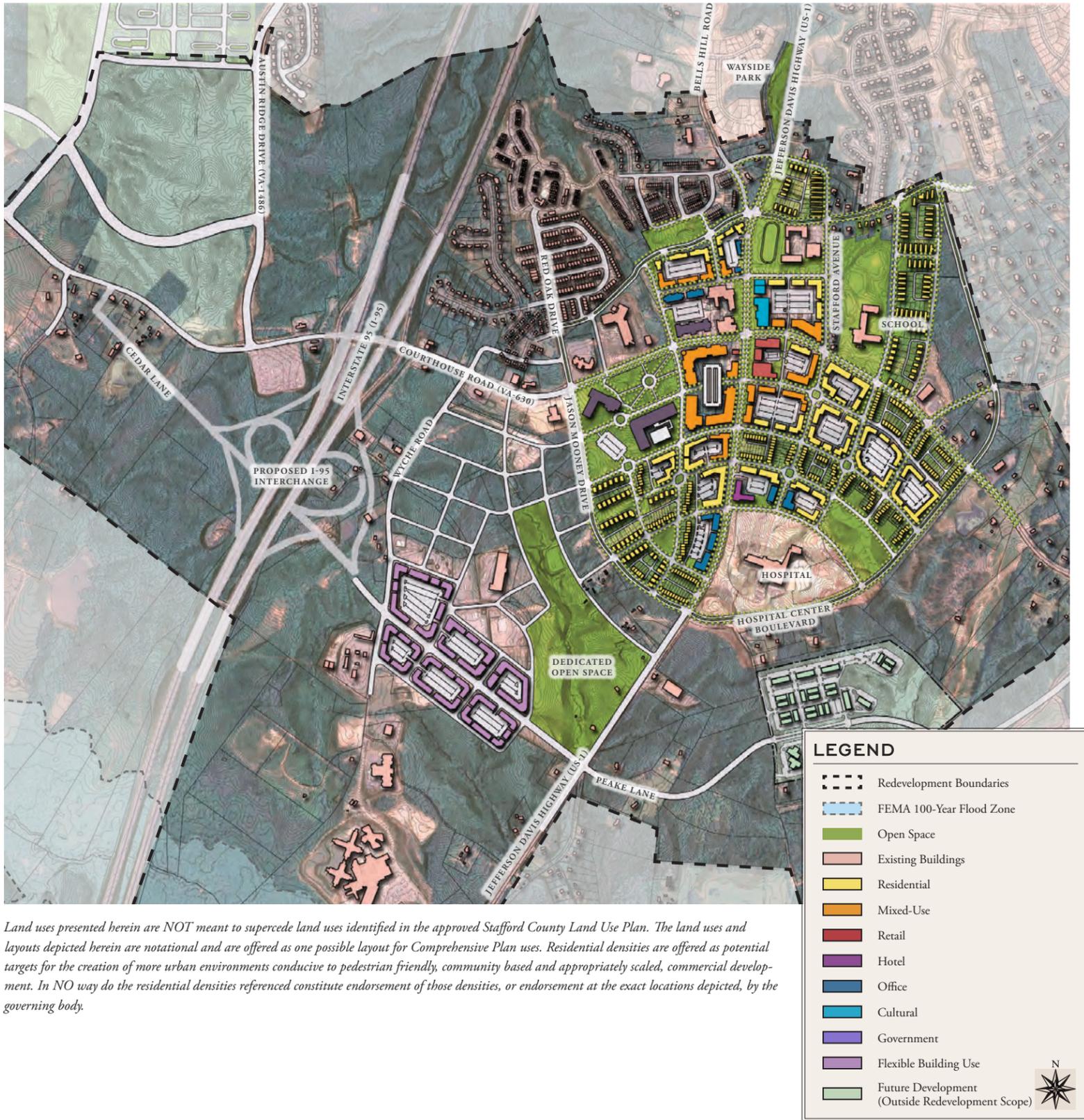
The Master Redevelopment Plan takes the previous conceptual visions and goals much further, with specific land uses and implementation strategies for each redevelopment plan. The Planning Team’s design recommendations are intended to be in tune with Stafford County’s Comprehensive Plan, and in direct response to development trends and public input. It provides a framework to address each community’s vision and potential for the future of their neighborhoods and of the County.

The network of proposed streets will reduce the local traffic on Courthouse Road (VA-630) and Jefferson Davis Highway (US-1). The grid of streets will alleviate traffic at this choke point intersection. Based on the traffic analysis, Jefferson Davis Highway(US-1) can remain a 4-lane road through the Courthouse Area.

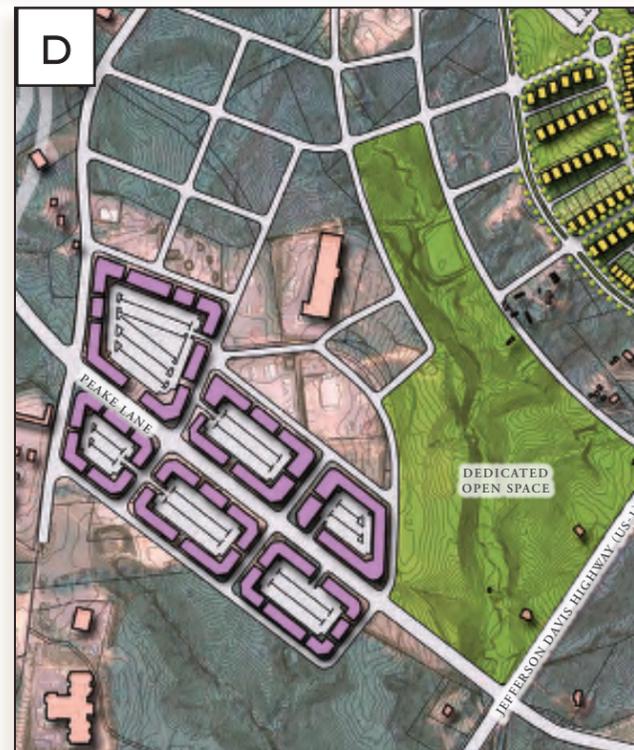
Table 15: Courthouse Area Estimated Demand

	TOTAL SF	TOTAL UNITS
Civic, Sports, Church	420,118	
Office	512,261	
Retail/Commercial	350,381	
Residential	1,113,968	1,446
Hotel	44,550	67
TOTAL	2,441,278	1,513

Map 17: Courthouse Area Master Redevelopment Plan

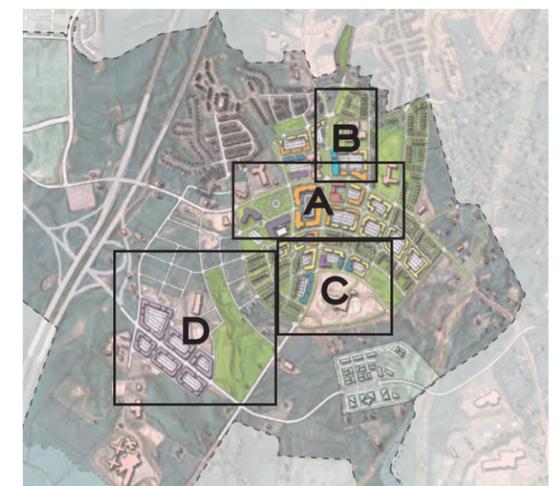


Land uses presented herein are NOT meant to supercede land uses identified in the approved Stafford County Land Use Plan. The land uses and layouts depicted herein are notational and are offered as one possible layout for Comprehensive Plan uses. Residential densities are offered as potential targets for the creation of more urban environments conducive to pedestrian friendly, community based and appropriately scaled, commercial development. In NO way do the residential densities referenced constitute endorsement of those densities, or endorsement at the exact locations depicted, by the governing body.



PROPOSED MASTER PLAN HIGHLIGHTS

- A. The proposed Town Center area of Stafford Courthouse Area is composed of mixed-use blocks, featuring enclosed parking, residential and office use above ground floor retail. Government Buildings and a park define the Courthouse Area south of Courthouse Road (VA-630).
- B. The northern part of the Courthouse Area features buildings for Cultural Use along with park areas and residential lots.
- C. A hospital site accessible from Jefferson Davis Highway (US-1) and Jason Mooney Drive/ Hospital Center Boulevard also leaves opportunity for future medical office building development.
- D. The southwest part of the Courthouse Area features a large open space area as well as office buildings that have flexible first-floor use. This group of buildings connects traffic from Jefferson Davis Highway (US-1) along Peake Lane to a proposed VDOT interchange onto Interstate 95 (I-95) to the west.

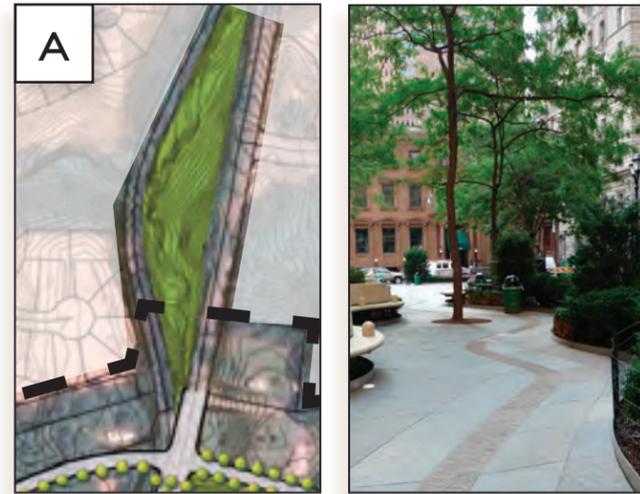


OPEN SPACE & CIRCULATION PLAN

Open spaces, parks, pedestrian friendly environments and streetscape improvements were sought for Stafford's main arteries, especially Jefferson Davis Highway (US-1), Courthouse Road (VA-630) and Warrenton Road (US-17). In the Courthouse Area, planning design efforts have been made to foster a grid system, density and interaction among users.

In order to provide and promote recreational opportunities throughout the county the Open Space & Circulation Plan for the Courthouse Area recommends the provision of passive and active parks and plazas;

- Implementation of squares and plazas throughout the area to foster passive recreation exchanges with others, places to have lunch or just relax.
- It is recommended that redevelopment include (A) Wayside Park in the northern edge of the Courthouse Area. This park will provide needed bike and walking paths, as well as a dog run area.
- Taking advantage of flood and topography features, a medium size park is showcased immediately north-east of the Hospital and would serve as a green buffer between the surroundings neighborhoods, the hospital and proposed new commercial uses.
- A large open-green space (B) is suggested southwest of the Courthouse Road (VA-630) / Jefferson Davis Highway (US-1) intersection.



Map 18: Courthouse Area Open Space & Circulation Plan

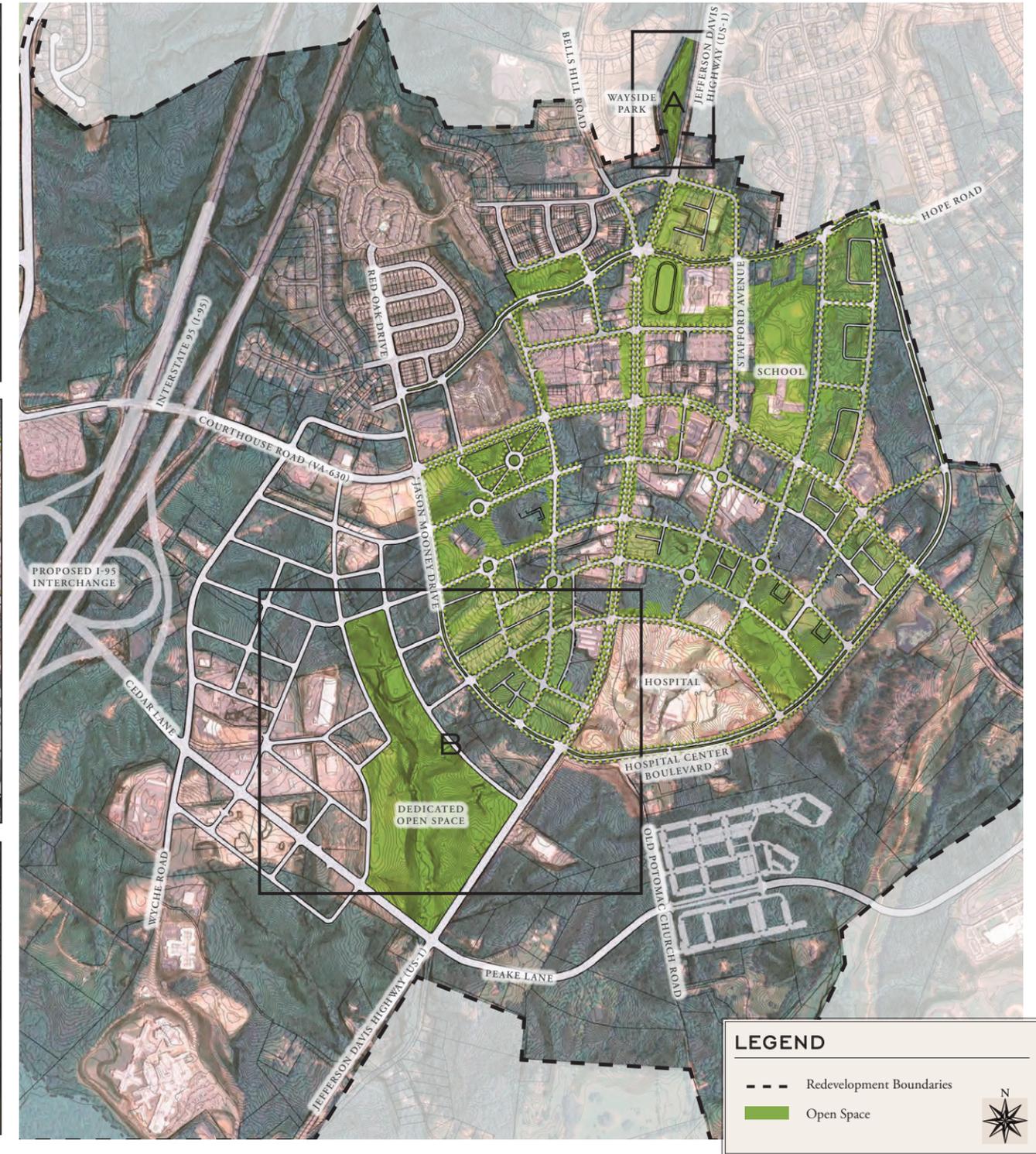
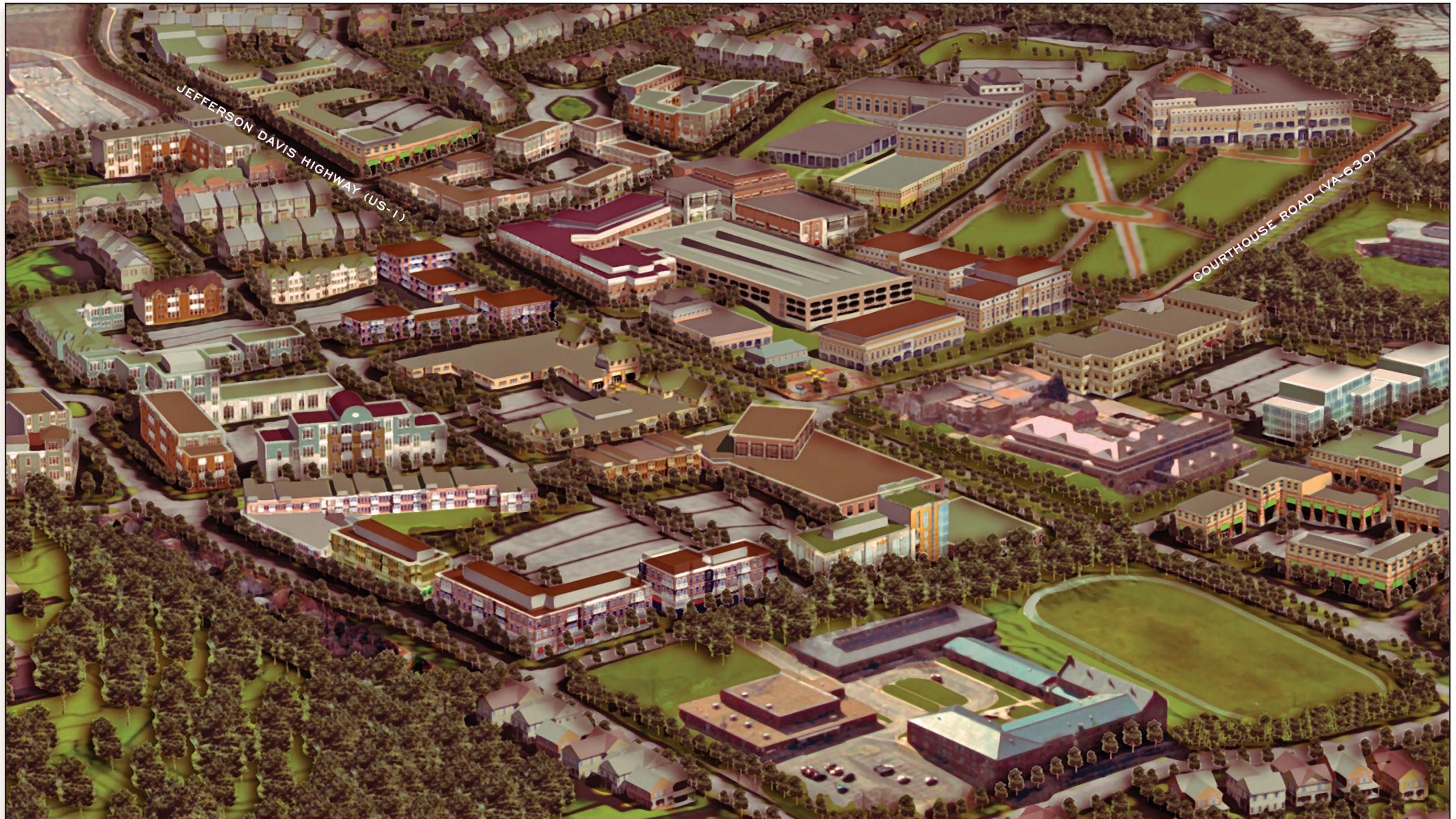


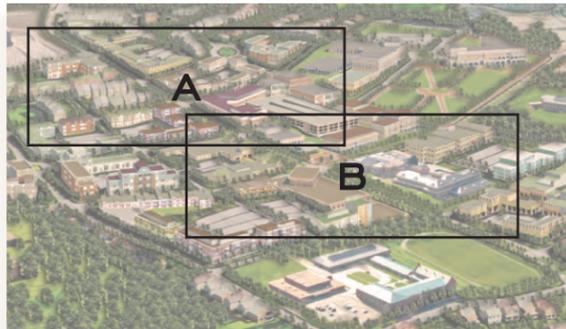
Figure 5: Courthouse Area Proposed Master Plan Aerial



Aerial rendering of the proposed Town Center of Stafford County within the Courthouse Area; this area features parks with mixed-use buildings surrounding the County's government center.

PROPOSED MASTER PLAN
AERIAL HIGHLIGHTS

- A. Several blocks of multi-family residential buildings, and townhomes provide lodging for people off of the principal arterial road of Jefferson Davis Highway (US-1)
- B. Retail and Office buildings, along line Jefferson Davis Highway (US-1) at the central part of the Courthouse Area, help to define this area as the "Town Center" of Stafford County.





PROPOSED MASTER PLAN STREET VIEWS

Figure 6: Courthouse Area Proposed Master Plan Street View A

Looking northward down Jefferson Davis Highway (US-1), outdoor dining and open spaces provide gathering places for people working or visiting the County's governmental center.

Figure 7: Courthouse Area Proposed Master Plan Street View B

At the heart of the Courthouse Area, the proposed pedestrian-friendly intersection of Jefferson Davis Highway (US-1) and Courthouse Road (VA-630) attracts local residents, employees, and visitors to linger and enjoy the area's offerings and attractions.



PROPOSED MASTER PLAN STREET SECTIONS

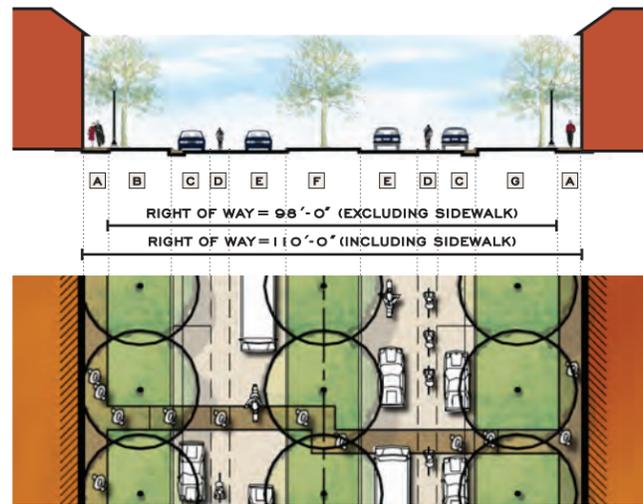


Figure 8: Courthouse Area Street Section & Plan – Courthouse Road (VA-630) Initial Phase: Areas With On-Street Parking

A. Sidewalk	6' – 0"
B. Landscape Area	16' – 6"
C. On-Street Parking	8' – 0"
D. Bike Lane	4' – 0"
E. Thru Lane	12' – 0"
F. Raised Median	16' – 0"
G. Landscape Area	17' – 6"
H. Offset Crosswalk	



Figure 9: Courthouse Street View – Courthouse Road (VA-630) looking west: Before



Figure 10: Courthouse Street View – Courthouse Road (VA-630) looking west: After (Initial Phase – Areas with On-Street Parking)

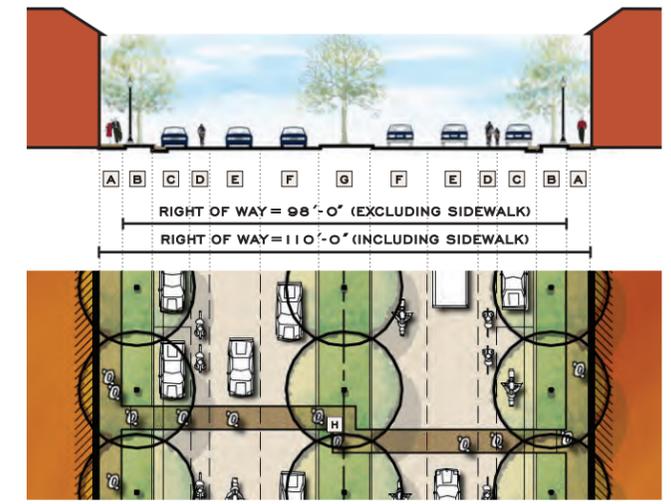


Figure 11: Courthouse Area Street Section & Plan – Courthouse Road (VA-630): Additional Lanes, If Needed

A. Sidewalk	6' – 0"
B. Landscape Area	6' – 0"
C. On-Street Parking	8' – 0"
D. Bike Lane	4' – 0"
E. Thru Lane	11' – 0"
F. Thru Lane	12' – 0"
G. Raised Median	16' – 0"
H. Offset Crosswalk	

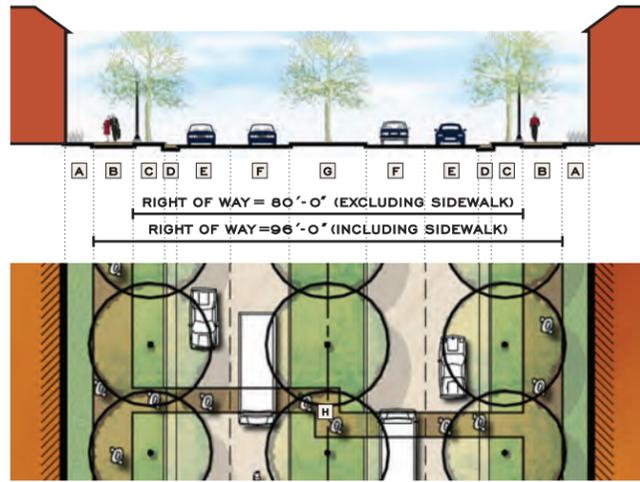


Figure 12: Courthouse Area Street Section & Plan – Jefferson Davis Highway (US-1): Without Turn Lanes

- A. Browse/Planting/Seating Area 5' – 6"
- B. Sidewalk 8' – 0"
- C. Landscape Area 6' – 6"
- D. Curb & Gutter 2' – 6"
- E. Thru Lane 11' – 0"
- F. Thru Lane 12' – 0"
- G. Raised Median 16' – 0"
- H. Offset Crosswalk



Figure 13: Courthouse Street View looking north – Jefferson Davis Highway (US-1) : Before



Figure 14: Courthouse Street View looking north – Jefferson Davis Highway (US-1): After (Without Turn Lanes)

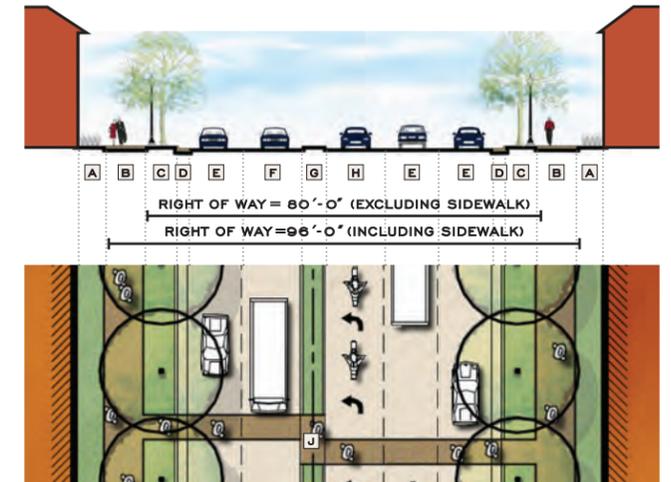


Figure 15: Courthouse Area Street Section & Plan – Jefferson Davis Highway (US-1): With Turn Lanes

- A. Browse/Planting/Seating Area 5' – 6"
- B. Sidewalk 8' – 0"
- C. Landscape Area 6' – 6"
- D. Curb & Gutter 2' – 6"
- E. Thru Lane 11' – 0"
- F. Thru Lane 12' – 0"
- G. Raised Median 5' – 0"
- H. Left Turn Lane 11' – 0"
- J. Offset Crosswalk

RECOMMENDATIONS TO ELEMENTS OF THE COMPREHENSIVE PLAN: INFRASTRUCTURE

CAPITAL IMPROVEMENTS PROGRAM (CIP)

As any upgrades are added under the SWM Protection Plan and Water/Sewer Plan the CIP should be updated with the timing and cost of these improvements.

GROUNDWATER MANAGEMENT PLAN

Within the Courthouse Area, there are no specific recommendations. Existing groundwater supply is adequate and increase in impervious area will be at least partially offset by eliminating many private wells by providing the public water supply to these areas.

STORMWATER MANAGEMENT (SWM) PROTECTION PLAN

The Courthouse Area lies partially within the Austin Run watershed. In general, the northern portions of the redevelopment area drain towards Austin Run. Existing regional SWM facilities P-5 and P-6 are proximate to the redevelopment area and present an opportunity to provide SWM measures for a portion of the redevelopment area.

WATER AND SEWER PLAN

Water System

The Planning Team's analysis identified no specific water system degradations due to the Core Development Areas. Only minor changes to pipe velocities, headloss, and junction pressures were noted – none of which resulted in the addition of any deficient pipes in the system. In general, an overall 2-3 psi pressure drop was observed in the nodes around this area due to the redevelopment demand. No further improvements are recommended.

Sewer Pump Stations

- ***Courthouse Pump Station***
A-217 expands the Courthouse Pump Station from 1.30 MGD (1084 gpm) to 1.52 MGD (1268 gpm).
A-217 is planned for design and construction in 2014.
 - ◆ Ex. flow = 1272 gpm > 1268
 - ◆ Core Development Area flow = 1494 gpm > 1268 gpm
- Based on the latest model supplied to the Planning Team by Stafford County; additional upgrades to the Courthouse Pump Station, beyond those already planned, are required. The model shows the Pump Station currently failing. The Core Development Area flows make the situation worse. CIP improvement A-217 does reference “rerouting flows from the Courthouse Road (VA-630) Pump Station to the Rocky Run interceptor will provide additional capacity at the Courthouse Pump Station.” The CIP improvement associated with the rerouting is Rocky Run interceptor is A-3, originally planned for 2008, but shown in the latest model as future.
- ***Conclusion:*** Either A-3 is needed immediately or the Courthouse Pump Station needs larger improvements than those planned with A-217.
- ***Austin Run Creek Pump Station***
A-210 expands the Austin Run Creek Pump Station from 5.8 MGD (4,027 gpm) to 20 MGD (13,889 gpm) by 2006-2007 and ultimately to 30 MGD (20,833 gpm) by 2025. (*Note:* The latest model provided to the Planning Team by Stafford County reflects the Pump Station capacity as 2,010 gpm; significantly less than all of the values above. Values referenced in the CIP for the purpose of this analysis have been used.)
 - ◆ Ex. Flow = 9,225 gpm > 4,027 gpm
 - ◆ Core Development Area flow = 9,401 gpm > 4,027 gpm
 - ◆ Core Development Area flow with upgraded Pump Station = 9,401 < 13,889 gpm
- ***Conclusion:*** The 5.8 MGD Existing pump station is not adequate to handle Core Development Area flows. The 20 MGD upgraded pump station planned for 2006-2007 is adequate to handle Core Development Area flows. The existence of the planned 20 MGD Pump Station planned for in CIP A-210 needs to be verified as existing or constructed prior to development.

Gravity Sewer

- No velocity issues

- Three pipe runs fail for Capacity with the Core Development Area flows added. Two of the three failed in the existing scenario.
- Fixing these pipes would require a minimum upgrade of 39' of 12" sewer to 15" gravity sewer, 58' of 18" gravity sewer to 21" gravity sewer and 172' of 24" gravity sewer to 30" gravity sewer.
 - ◆ ***Note:*** only fixing these pipes would result in places where a larger diameter pipe flows downstream to a smaller diameter pipe. Based on slope, the smaller diameter pipe still will have adequate capacity. However, Stafford County may elect to upgrade additional lines to maintain a consistency in size among downstream sewer mains.

WATER SUPPLY PLAN

There are no specific recommendations for the Courthouse Area. The proposed redevelopment is expected to extend the public water supply system within these areas. The public water source reservoirs and storage facilities should continue to be monitored to ensure the highest quality public water possible. The redevelopment should have a net positive effect on the quality of water supply available to private well sites due to the implementation of additional BMP facilities as well as the replacement of some uses which adversely affect water quality (mainly industrial and some agricultural uses).

RECOMMENDATIONS TO ELEMENTS OF THE COMPREHENSIVE PLAN: TRANSPORTATION

TRANSPORTATION PLAN

The proposed redevelopment plan for the Courthouse Area has been designed to meet the objectives of the Plan. Implementation strategies should be developed in furtherance of the Plan's policies. A discussion of each of the County's transportation objectives, as proposed, relative to Courthouse is provided below:

Maintain a safe road system.

The roadway network in the Courthouse Area should be designed and developed to provide a hierarchical system of interconnected streets and to recognize the dual purpose and functionality of Jefferson Davis Highway (US-1).

Jefferson Davis Highway (US-1) is the primary arterial through the redevelopment area. Jefferson Davis Highway (US-1) is a principal arterial roadway that extends south from the Capital Beltway (I-495) in Fairfax County, through Prince William County to Stafford County and points south. Jefferson Davis Highway (US-1) through the Courthouse Area is constructed as a four-lane, undivided roadway with a posted speed limit of 35 mph.

In order to manage increased congestion in the future, the County should work with VDOT in developing a comprehensive access management plan for this critical corridor. Full movement intersections should be located in general accordance with VDOT's access management standards.

Provide & maintain a multi-modal public transit system.

As outlined in the Planning Team's Research and Program Development report, Fredericksburg Regional Transit (FRED) provides bus service for the Courthouse area. The D5 "Stafford County" bus route currently circulates from FRED Central to the Stafford County Courthouse. As the area develops, bus service should be expanded in order to reduce single occupant vehicle trips to/from the area. The County should request future developers to commit to transportation demand management programs with the goal of further reducing single occupant vehicle trips through incentivizing car/van pools, bus usage, flexible work schedules, etc.

Land use controls can be used to create environments that are peaceful between pedestrians and automobiles. Certain automobile oriented uses, such as service stations, drive-in banks etc, are more appropriately located

outside the "core" area, which is generally considered to be the intersection of Jefferson Davis Highway (US-1) and Courthouse Road (VA-620).

The County should consider expanding the Highway Corridor (HC) overlay district along both Jefferson Davis Highway (US-1) and Courthouse Road (VA-630) in this area in order to regulate access to/from such uses. Driveways to such uses should also be located outside major pedestrian corridors.

Create a system of sidewalks, bike paths, and trails to provide non-motorized transportation alternatives.

Sidewalks and trails should be provided along both sides of all streets in order to foster and encourage walking and biking. Additionally, pedestrian and bike connections should be provided through properties.

Create better patterns of traffic flow and circulation.

The proposed redevelopment plan for Courthouse reflects, in concept, an interconnected grid of streets. The plan provides for an extension of Red Oak Drive south of Courthouse Road (VA-630)/Jason Mooney Drive to intersect Jefferson Davis Highway (US-1) opposite Hospital Center Boulevard, which would relieve congestion at the heart of the Courthouse Area.

Stafford County should plan ahead by stipulating maximum block lengths and perimeters in their codes and designating vital public street connections that must be made as the land develops. The development of secondary or parallel streets along highways can also help in meeting community-wide transportation needs. Where public street connections are not practical, local codes should require the development of bicycle and pedestrian connections and internal private streets that mimic public streets and meet the block standard.

The current Stafford County Transportation Plan (June 7, 2005) makes certain recommendations for the roadways within the Courthouse Area:

- Upgrade Jefferson Davis Highway (US-1) to a six-lane, divided facility
- Upgrade Bells Hill Road (VA-631) to a standard two-lane facility
- Upgrade Hope Road to a standard two-lane facility
- Upgrade Courthouse Road (VA-630) to a four-lane, divided facility west of Austin Ridge Drive (VA-1486)
- Construct a new four-lane, divided roadway from Courthouse Road (VA-630) at Austin Ridge Drive (VA-1486) southeast to Jefferson Davis Highway (US-1)
- Construct a new four-lane, undivided roadway from Courthouse Road (VA-630) at Red Oak Drive south to the new four-lane, divided roadway

- Upgrade Courthouse Road (VA-630) to a four-lane, undivided facility between Red Oak Drive and Spartan Lane

Given the sensitivity of the Courthouse Area, staff did request a preliminary assessment of future operational conditions within the Courthouse Area. As described below, and based on the roadway network illustrated in the redevelopment plan, Jefferson Davis Highway (US-1) may remain four-lanes and Courthouse Road (VA-630) may remain two-lanes within the Courthouse Area core.

Redevelopment Plan Roadway Network.

The analysis performed for the Courthouse Area build-out conditions assumed the completion of the roadway network illustrated in the redevelopment plan along with the following regional network improvements:

- Completion of a "southwest connector road" connecting Courthouse Road (VA-630) west of Interstate 95 (I-95) and Jefferson Davis Highway (US-1) south of the hospital site
- Completion of a new grade-separated interchange at Interstate 95 (I-95) and the new "southwest connector road." The existing interchange at Courthouse Road (VA-630) would be closed

Based on the anticipated schedule of completion of this new connector roadway and the proposed new interchange by VDOT and/or others, additional analyses will need to be performed to determine the level of traffic on existing and/or proposed streets within the redevelopment area and to determine the extent of redevelopment possible prior to the completion of these regional improvements. It is recommended that redevelopment of the Courthouse Area occur in phases determined by future traffic studies intended to correlate capacity of the available street network with land use.

Additionally, for purposes of this preliminary assessment, Jefferson Davis Highway (US-1) was assumed to remain a four-lane section and Courthouse Road (VA-630), west of Jefferson Davis Highway (US-1) and east of Red Oak Drive, was assumed to remain a two-lane section. However, turn lanes were added as appropriate.

It is important to note that a four-lane Jefferson Davis Highway (US-1) is the critical infrastructure item for the Courthouse Area. The proposed parallel local streets will be needed in order to maintain Jefferson Davis Highway (US-1) as a four-lane primary arterial. It is a reasonable assumption that future developers would contribute (proffer) to this network to some degree as redevelopment in the area occurs, because as the team's trip generation analysis shows, additional redevelopment will have an impact to the street network.

CORE DEVELOPMENT AREA

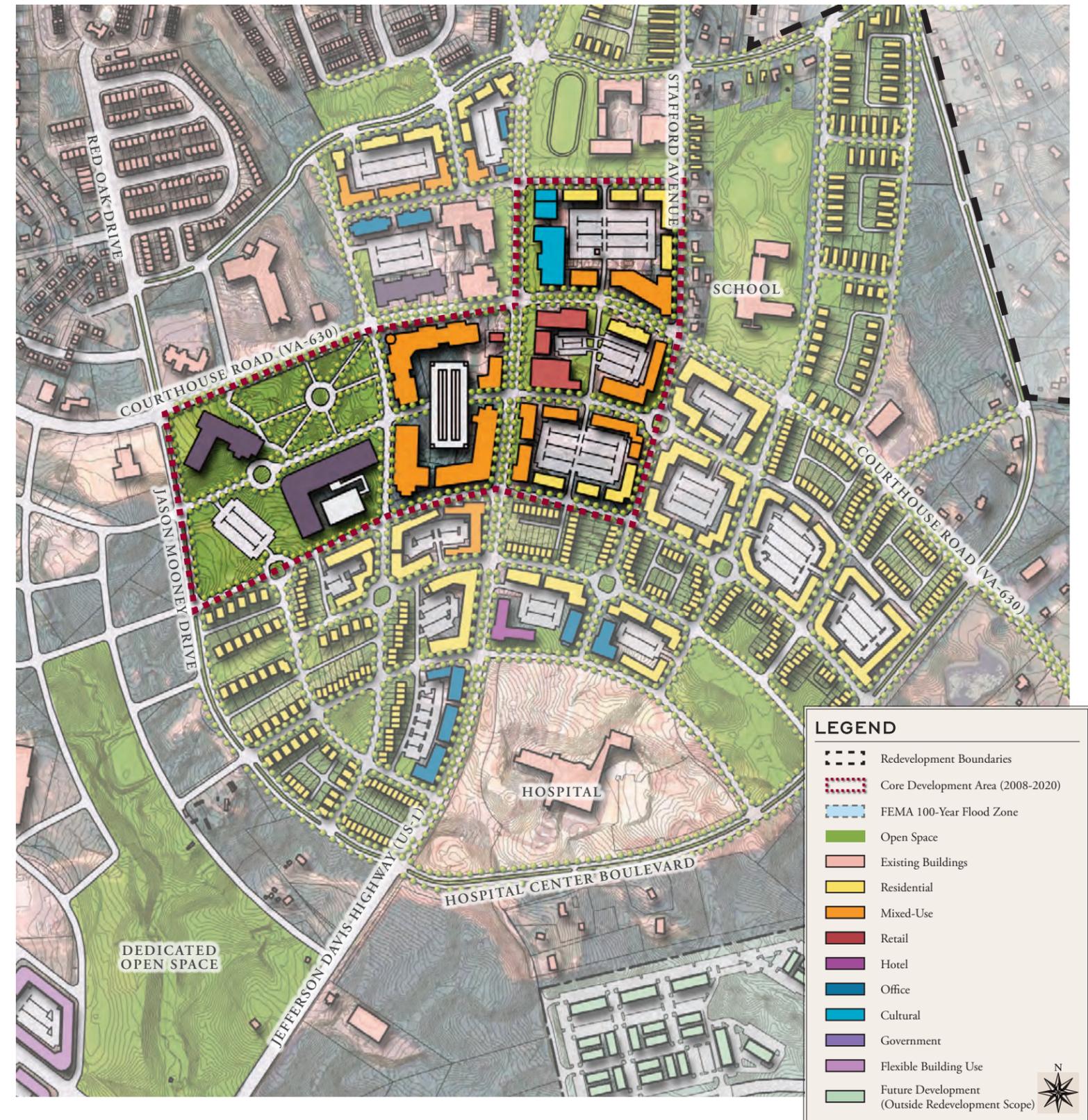
RATIONALE FOR DEFINING THIS AREA AS THE CORE DEVELOPMENT AREA

This initial phase of redevelopment plan for Courthouse Area reflects, in concept, an interconnected grid of streets creating a sense of place at this initially defined area. The intersection of Courthouse Road (VA-630) and Jefferson Davis Highway (US-1) is highly visible and is perceived as the center of the Courthouse Area. Its location will have the maximum positive impact on this area and should provide the highest return to the County for its initial investments. The Master Plan for the Courthouse Area reflects a mix of new residential, mixed-use retail, office and hotel uses along the Jefferson Davis Highway (US-1) corridor. Existing governmental and certain residential uses are retained. Additionally, the recent construction of a new hospital provides a catalyst for additional supporting development. The proposed redevelopment plan has been designed to meet the objectives of the Comprehensive Plan. Implementation strategies should be developed according to the Plan's policies.

Other anticipated developments, including the new Courthouse Complex and proposed public facilities planned for the area will have significant impact. The primary consequence of additional government structures to the west of the intersection will require a substantial parking structure to accommodate the new Courthouse demand. If that parking structure is increased in size and located close to the intersection, it will be able to support parking for the anticipated adjacent retail mixed-uses and cultural functions. This improvement would really kick-start this phase. Anticipated "proposed" projects around will add to the momentum to redevelop the entire area.

Mixed-use developments will significantly reduce external trips and a significant amount of traffic would be diverted via the reconstructed Interstate 95 (I-95) interchange and the new connector Road to Jefferson Davis Highway (US-1). As the County is currently in the process of updating their Land Use Plan and subsequent Comprehensive Plan, this proposed master plan for the Courthouse Area provides guidelines on how the County may update their density and land use standards. These standards will require revision in order to implement a plan that is favored by the general public. Currently the proposed plan has varying densities for the various portions of the plan.

Map 19: Courthouse Area Core Development Area





ACTION PLAN

In order for development to occur in this initial target area, the following initiatives *must* be implemented:

1. Create a Form Based Code for the Courthouse Area to establish the criteria for redevelopment and achieve the goals and vision for this area. The Form Based Code should address the entire Courthouse Area, not just the initial phase.

During the development of the form based code, the County planning staff can develop an interim overlay district for this area. This will allow development to not only proceed, but proceed in accordance with the vision & goals established herein.

2. Initiate the infrastructure and transportation improvements noted earlier in more detail in this report. In summary, they are:
 - a. Some of the Sewer Pump Stations in the Courthouse Area will require larger improvements than those already planned. The Existing Austin Run pump system station is not adequate to handle the Core Development Area flows. Upgraded pump station will be required. The County will need to upgrade additional gravity lines to maintain a consistency in size among downstream sewer mains.
 - b. The extension of Red Oak Drive south of Courthouse Road (Jason Mooney Drive) to intersect Jefferson Davis Highway (US-1) and Courthouse Road (VA-630) opposite Hospital Center Boulevard, which will relieve congestion at the heart of the Courthouse area, should be implemented shortly. A significant amount of traffic that would be diverted via the reconstructed Interstate 95 (I-95) interchange and the new connector Road essentially “bypassing” the currently congested core intersection of Jefferson Davis Highway (US-1) and Courthouse Road (VA-630).

3. Plan for the streetscape improvements to Jefferson Davis Highway (US-1) and Courthouse Road (VA-630) to allow for new eventual right-of-ways. Within, the Core Development Area, these improvements should be implemented as development proceeds. The VDOT Federal Enhancement grant for streetscape improvements awarded to the County in 2008 resulted in a Streetscape Project currently underway and partially funded. It is anticipated that based on a recent RFP for design services, “shovel-ready”

construction documents for its implementation will be ready to coincide with the initial core development activity.

4. Plan and develop a new parking structure that supports the new courthouse and supports future retail, commercial, and cultural development.

OTHER KEY ELEMENTS & RECOMMENDATIONS

- Implement streetscape improvements to Jefferson Davis Highway (US-1), 4 lanes-divided with median and landscaping from Hope Road to Hospital Center Drive. Please refer to Courthouse Area Master Plan’s Street Sections for specific recommendations.
- The planning and design of the proposed J&DR (Juvenile & Domestic), Circuit and General courthouse facilities should reinforce and follow the urban principles for this area.
- Implement the Wayside Park plan, including bike paths, walking paths and dog run
- Develop the program for the cultural component in Core Development Area to bring more visitors and local residents to the area
- Additional upgrades to the Courthouse pump system beyond those already planned are required for the Core Development Area.
- The redevelopment should have a net positive effect on the quality of water supply available to private well sites due to the implementation of additional BMP facilities as well as the replacement of some uses which adversely affect water quality (mainly industrial and some agricultural uses).
- Identify potential locations for pedestrian crossings; begin feasible pedestrian improvements in conjunction with early roadway or development initiatives.

CORE DEVELOPMENT AREA: FINANCIAL FEASIBILITY

The Core Area redevelopment program for the Courthouse Redevelopment Area included 1.023 million square feet of gross building area on 421 acres, including 235,082 square feet of office space, 350,381 square feet of retail, and 437,758 square feet of multifamily residential space (443 units). ERA used the efficiency rates to arrive at a net rentable square footage for each of these uses. Not included in the financial analysis are 58,044 square feet of cultural space and 39,500 square feet of civic space.

Table 16: Courthouse Area Core Development Area Program Assumptions

Redevelopment Area		Courthouse Redevelopment Area					
Site Area (acres)–		42.00					
Does not include Cultural or Civic Uses							
PROGRAM AND PSF COSTS							
		Rooms/ Units	Avg Unit Size	GBA	NRA	Avg Ann'l Abs	Total Parking
Office		n/a	n/a	235,082	199,820	40,000	426
Retail	% of retail						
General Retail	85%	n/a	n/a	297,824	268,041	50,000	951
Restaurant	15%	n/a	n/a	52,557	47,301	20,000	168
Residential	% of mf						
Rental Apartments	70%	310	939	306,431	291,109	100	788
Condominiums	30%	133	939	131,327	124,761	100	338
Total				1,023,221	931,033		2,671
LAND & INFRASTRUCTURE COSTS							
Horizontal							
Site Improvements		\$250,000 Per Acre					
Demolition		\$350,000					

Source: CMSS; Economics Research Associates, 2009.

Using this program and the other assumptions discussed earlier, at infrastructure costs of \$250,000 per acre, plus an allocation for demolition, the total development cost would be approximately \$144.9 million, or \$142 per square foot of gross building area. The project IRR would be 14.1%. At a discount rate of 12%, the residual land value of the total development would be approximately \$368,000 per acre.

Table 17: Courthouse Area Core Development Area Residual Land Value Overview

NET PRESENT VALUE ANALYSIS	
NPV of Net Cash Flow	\$144,799,645
NPV of Development Costs	(\$129,361,669)
RESIDUAL LAND VALUE	\$15,437,976
\$PSF of Built Scenario	\$15.09
\$PSF of Developable Land Area	\$8.44
\$Per Acre of Developable Land Area	\$367,571

Notes: Net Present Value @ 12.0%

Source: Economics Research Associates, 2009.

Table 18: Summary of Core Development Area Annual and Construction Period Fiscal Benefits

ANNUAL				
Redevelopment Area	Property Tax ¹	On-Site Sales & Use Taxes ²	Off-Site Sales & Use Taxes ²	Total
Boswell's Corner	\$1,027,926	\$1,488,293	\$131,525	\$2,647,745
Courthouse Area	\$1,217,035	\$1,549,669	\$252,716	\$3,019,419
Falmouth Village	\$146,663	\$291,546	\$18,597	\$456,807
Southern Gateway	\$800,238	\$883,460	\$108,387	\$1,792,086
Total	\$3,191,862	\$4,212,969	\$511,225	\$7,916,057
CONSTRUCTION PERIOD				
Redevelopment Area	Construction Materials Sales Tax	Sales & Use Taxes on Construction Worker Spending ²	Total	
Boswell's Corner	\$477,251	\$92,269	\$569,520	
Courthouse Area	\$565,052	\$109,243	\$674,295	
Falmouth Village	\$72,725	\$14,060	\$86,785	
Southern Gateway	\$383,483	\$74,140	\$457,623	
Total	\$1,498,512	\$289,712	\$1,788,224	

¹Construction Cost (not including land) is used as a proxy for full market value. Using 2009 Rates, per County website @ \$0.84 per \$100.00 value. It is assumed that all construction construction purchases are made in Stafford as often, jurisdictions charge taxes on materials even if they are purchased elsewhere.

²Includes local retail sales tax of 1%, meals tax of 4%, and hotel tax of 5%, as appropriate.

Source: Stafford County Commissioner of the Revenue; ERA, 2009.

Table 19: Summary of Property Tax Benefits by Redevelopment Area

Use	Value ¹	County Tax ²
Boswell's Corner	\$1,22,372,178	\$1,027,926
Courthouse Area	\$144,885,069	\$1,217,035
Falmouth Village	\$17,459,910	\$146,663
Southern Gateway	\$95,266,451	\$800,238

¹ Construction Cost (not including land) is used as a proxy for full market value

² Using 2009 rates, per County website @ \$0.84 per \$100.00 value.

Source: Stafford County Commissioner of the Revenue; ERA, 2009.

COURTHOUSE AREA: APPENDICES



APPENDIX I

CULTURAL & HISTORIC RESOURCES: HISTORY, GROWTH, & HISTORIC PRESERVATION OF THE COURTHOUSE REDEVELOPMENT AREA

The independent investigation of the Courthouse Area and the other redevelopment areas has derived a collection of architectural and archeological significant properties. Some properties are part of the National Registry of Historic Places while others have the potential of being so designated. Three separate volumes, compiled by Cultural Resources, Inc., document each of the four redevelopment areas as well as additional references of Cultural Resources Legislation. The following is a list of each volume and what they contain.

- Volume VI: Cultural Resources Report for Falmouth Village
 - A. The history and growth of the redevelopment area.*
 - B. VDHR Forms and Documentation of properties within Falmouth Village.*

- Volume VII: Cultural Resources Report for Boswells Corner, the Courthouse Area, and Southern Gateway
 - A. The history and growth of Boswell's Corner, Courthouse Area, and the Southern Gateway redevelopment areas.*
 - B. VDHR Forms and Documentation of properties within Boswell's Corner, the Courthouse Area, and the Southern Gateway Redevelopment Areas..*

- Volume VIII: Examples of Cultural Resources Legislation
 - Best practices for historic preservation.*

APPENDIX II

FREQUENTLY USED ACRONYMS

ADA	Americans with Disabilities Act	FRED	Fredericksburg Regional Transit	TIF	Tax Increment Financing
ADR	Average Daily Rate	FY	Fiscal Year	TND	Traditional Neighborhood Development
BRAC	Base closure And Realignment Commission	GDP	Generalized Development Plan	UDA	Urban Development Area
BMP	Best Managed Practice	GIS	Geographical Information System	USA	Urban Service Area
CBPA	Chesapeake Bay Protection Area	HABS	Historic American Building Survey	USD	Urban Service District
CIP	Capital Improvement Program	LOMR	Letter of Map Revision	VATC	Virginia Tourism Corporation
CLRP	Constrained Long Range Plan	LOS	Level of Service	v/c	Volume to Capacity
CRPA	Critical Resource Protection Area	LRMA	Land Resource Management Area	VDCR	Virginia Department of Conservation & Recreation
EIS	Environmental Impact Statement	MRIS	Metropolitan Regional Information Systems	VDHR	Virginia Department of Historic Resources
EMS	Emergency Medical Service	NRHP	National Register of Historic Places	VDOT	Virginia Department of Transportation
E&S	Erosion & Sediment	PRV	Pressure Reducing Valve	VSMP	Virginia Stormwater Management Permit
FAMPO	Fredericksburg Area Metropolitan Planning Organization	PUD	Planned Urban Development	VEC	Virginia Employment Commission
FAR	Floor Area Ratio	SWM	Storm Water Management	VRE	Virginia Railway Express
FEMA	Federal Emergency Management Agency	SWOT	Strengths, Weaknesses, Oppotunities, & Threats	WHPP	Wildlife Habitat Protection Plan
FIRE	Finance, Insurance, & Real Estate	TAZ	Traffic Analysis Zone	WIA	Workforce Investment Area

APPENDIX III

COURTHOUSE AREA STREETSCAPE CHARRETTE, SEPTEMBER 8, 2008

On September 8, 2008, the Stafford County Master Redevelopment Team, in conjunction with County Officials, facilitated a Design Charrette. The purpose of the Charrette was to review the issues and potential designs for the Courthouse redevelopment area, as well as assist the County with plans to encompass the full utilization of VDOT's Streetscape Enhancement Grant for the overall vision of this area.

While these designs represent the County's vision for the Courthouse redevelopment area, the grant is limited to the implementation of streetscape improvements (i.e. sidewalk improvements, bicycle improvements, utility relocations, landscaping, lighting, and signage) within the right of way (ROW) and does not serve as a construction document. The Master Redevelopment Plan is the umbrella; the Streetscape Grant is one of the mechanisms to achieve it.

The limits of the Courthouse Area Grant are bound by Courthouse Road (VA-630) from Interstate 95 (I-95) to Stafford Avenue and Jefferson Davis Highway (US-1) from Hope Road (VA-687) to the Stafford Hospital site.

CHARRETTE PARTICIPANTS

FROM STAFFORD COUNTY:

LeAnn Ennis	<i>Stafford County, VA</i>
Kathleen Kent-Fox	<i>Stafford County, VA</i>
Kathy Baker	<i>Stafford County, VA</i>
Scott Horan	<i>Stafford County School Board, Stafford County, VA</i>
Sara Woolfenden	<i>Stafford County, VA</i>
Anthony Romanello	<i>Stafford County, VA</i>
Timothy Baroody	<i>Stafford County, VA</i>
Brad Johnson	<i>Stafford County, VA</i>
Mike Neuhard	<i>Stafford County, VA</i>

FROM THE CMSS MASTER REDEVELOPMENT TEAM:

Robin Antonucci	<i>Wells & Associates</i>
William Johnson	<i>Wells & Associates</i>
Eric Siegel	<i>Urban Engineering & Associates</i>
Bob Brown	<i>Urban Engineering & Associates</i>
John Crouse	<i>CMSS Architects</i>
Lennie Araujo	<i>CMSS Architects</i>

Several design options were reviewed and discussed in which the following recommendations have been proposed:

The Vision for the Streetscape Improvements on Courthouse Road (VA-630)

The ultimate design of Courthouse Road (VA-630) will include on-street parking with a sufficient number of through lanes to meet the Level of Service (LOS), incorporating trees and landscaping to line both sides of the road. Wide sidewalks and bicycle lanes will facilitate alternative travel modes. A landscaped median will have street trees appropriate for the area. When capacity requires, the on-street parking can be converted to travel lanes which will allow for adequate traffic flow.

Especially important in the Courthouse Square Area will be the implementation of linkages between the Courthouse and other government buildings. Crossings will be given the appropriate treatment to make them safe and inviting, which includes utilizing different types of pavers and landscaping. With visibility as a critical issue, tree canopy size will be an important consideration in streetscape design, particularly at the Courthouse Road (VA-630) intersection with Jefferson Davis Highway (US-1). Bus shelters are an element that will be provided in the improvements. If commuter bus or shuttle service is implemented in this area, a transfer center will be provided off Courthouse Road (VA-630).

Improved street lighting will provide for increased pedestrian safety. The lighting will fit with the historic nature of the area and be both pleasing in style and improve the sense of place in the area, while being compatible with Dominion Virginia Power's accepted types of light fixtures.

The Vision for the Streetscape Improvements for Jefferson Davis Highway (US-1)

The final design for a 4-lane boulevard through the Courthouse Area will not exceed 120'-0" ROW. On-street parking and bike lanes through this area would be discouraged. Mid-block pedestrian crossings would be encouraged near Courthouse Road (VA-630). These crossings will be offset crosswalks to enable pedestrians to be more visible and to better see oncoming traffic.

The improved street lighting for this area will provide increased pedestrian safety and will be compatible with Dominion Virginia Power; however, in order to enhance the sense of place for the Courthouse Area, light fixtures shall be compliant with the historic nature of the area.

EXHIBITS

The following exhibits are graphic representations of the Charrette results, including suggested typical street sections and color illustrations of how the Redevelopment Team visualizes the implementation of the proposed improvements. ***These are not final designs and will evolve as discussions continue.*** Feedback will be incorporated into the proposed plans to develop the final design.

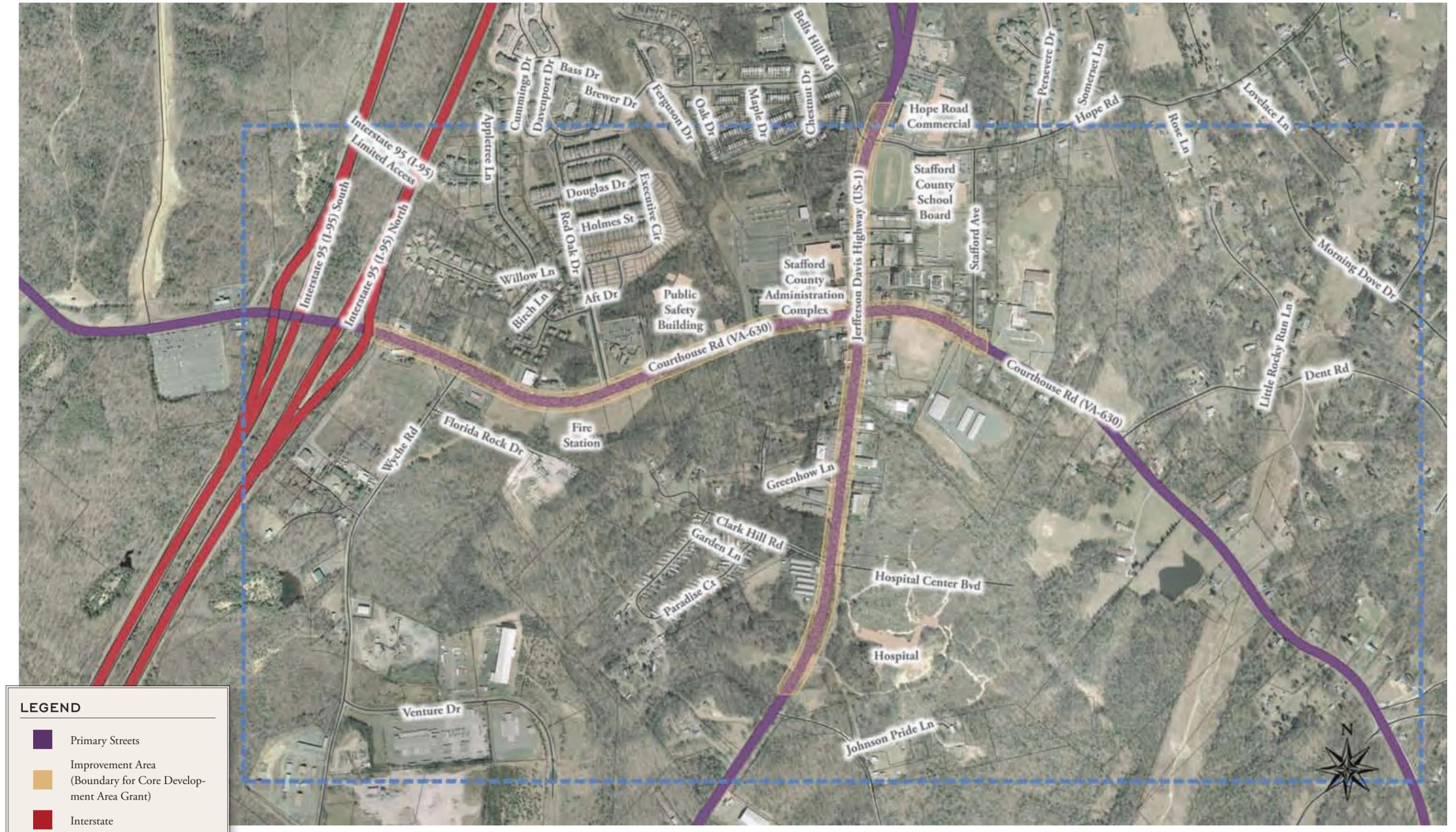
Since sidewalks do not currently connect these areas, the focus of this project is based on sidewalk and streetscape improvements and is anticipated to become a phased construction program which will incorporate sidewalks and landscaping.

Examples of "street furniture," lighting, planters and way-finding signage elements for this project are presented at the end of this document. ***These elements are for illustration purposes only;*** final specifications will require approval from the County once the design is finalized.

PREREQUISITES

- Design specifications for elements of this project will be compatible with VDOT and Dominion Virginia Power guidelines.
- Stafford County has engaged an outside consultant to perform a survey for the study area. This survey is underway. Design of the streetscape and street-cross section provided herewith, assume an adequate right-of-way will be provided to accommodate the Streetscape improvements.
- The Streetscape Improvement Grant project will be subdivided into at least two phases; the County has received the initial funding of the Core Development Area. The recommendations in this document are an overall guide and are the result of an effort to assist the County with plans to encompass the full utilization of the VDOT Streetscape Enhancement grant for Courthouse Road (VA-630) and to guide the County in coordinating this work with the Master Redevelopment Plan work accordingly.
- Proposed conceptual renderings in this package are design graphic representations for illustrative purposes only.

Courthouse Area Streetscape Charrette Recommendations — Aerial



Courthouse Area Streetscape Charrette Recommendations — Plan



COURTHOUSE AREA: AERIAL RENDERING



Illustration of the proposed streetscape improvements at the intersection of Jefferson Davis Highway (US-1) and Courthouse Road (VA-630) at the heart of the Courthouse Area.

COURTHOUSE ROAD (VA-630) LOOKING EAST

Current Conditions

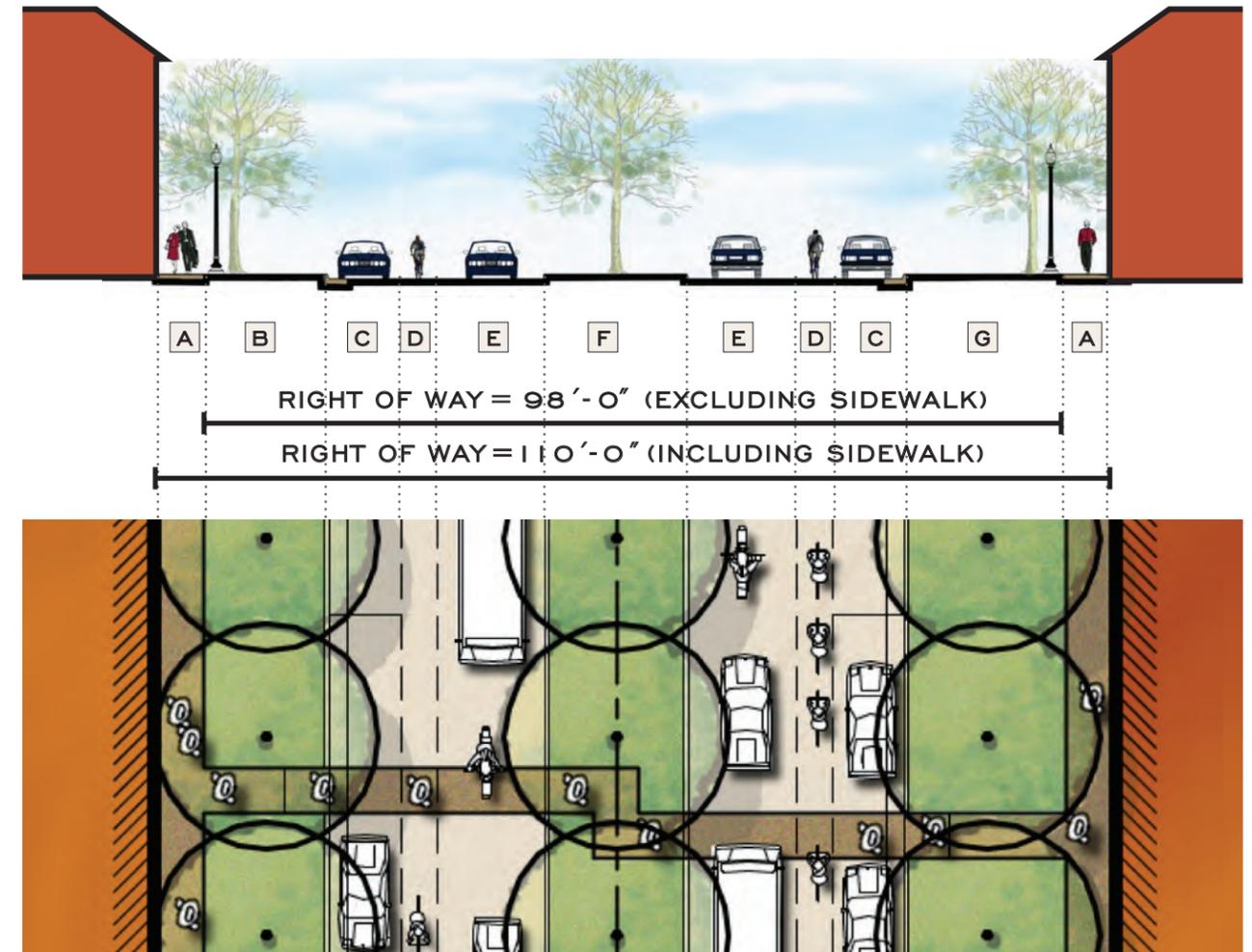


Proposed Streetscape¹



SUGGESTED TYPICAL STREET SECTIONS

For Courthouse Road (VA-630) – Initial Phase (Areas With On-Street Parking)



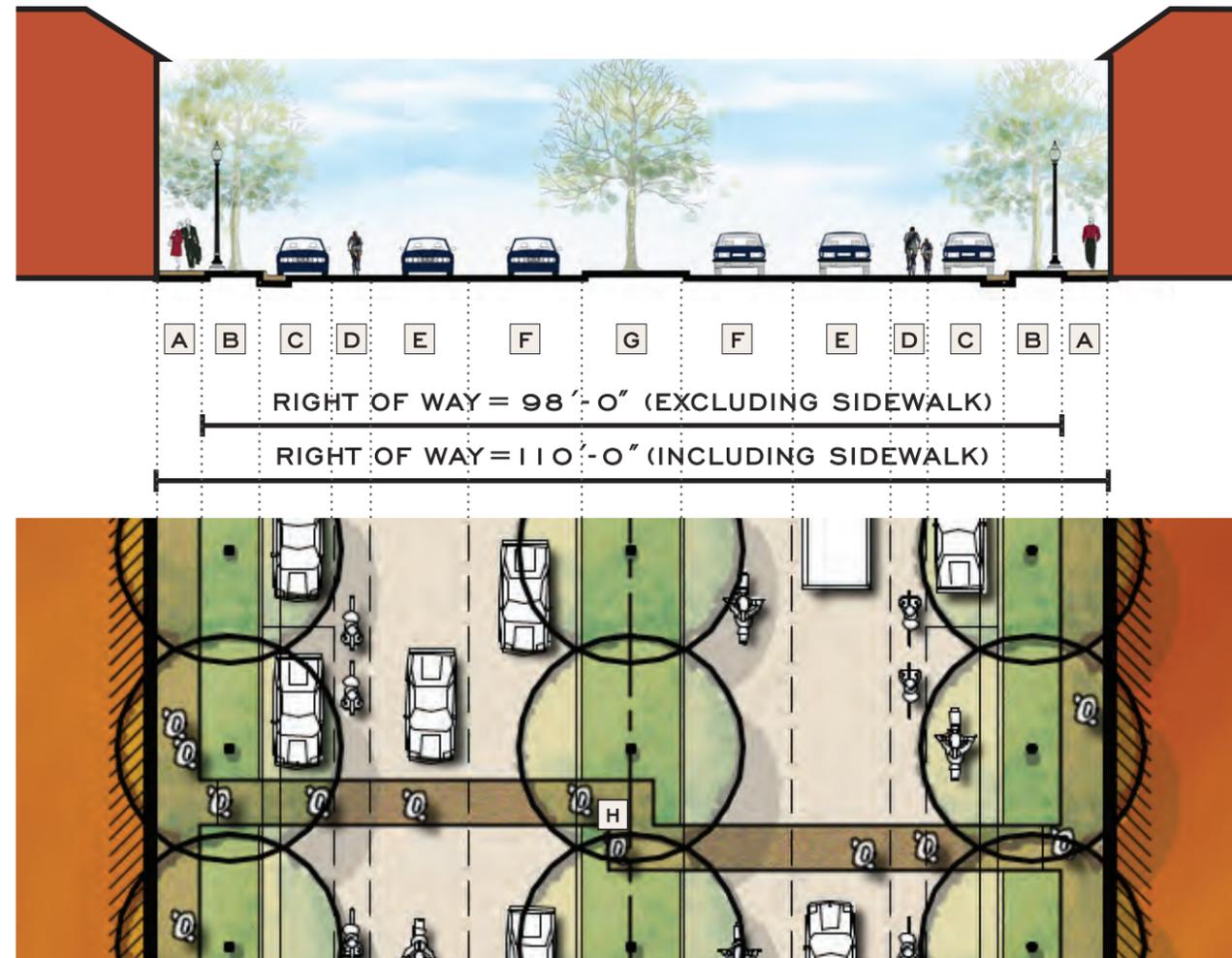
LEGEND

A. Sidewalk	6'-0"
B. Landscape Area	16'-6"
C. On-Street Parking	8'-0"
D. Bike Lane	4'-0"
E. Thru Lane	12'-0"
F. Raised Median	16'-0"
G. Landscape Area	17'-6"
H. Offset Crosswalk	

¹ This rendering is for illustrative purposes only.

SUGGESTED TYPICAL STREET SECTIONS

For Courthouse Road (VA-630) – If Additional Lanes Needed

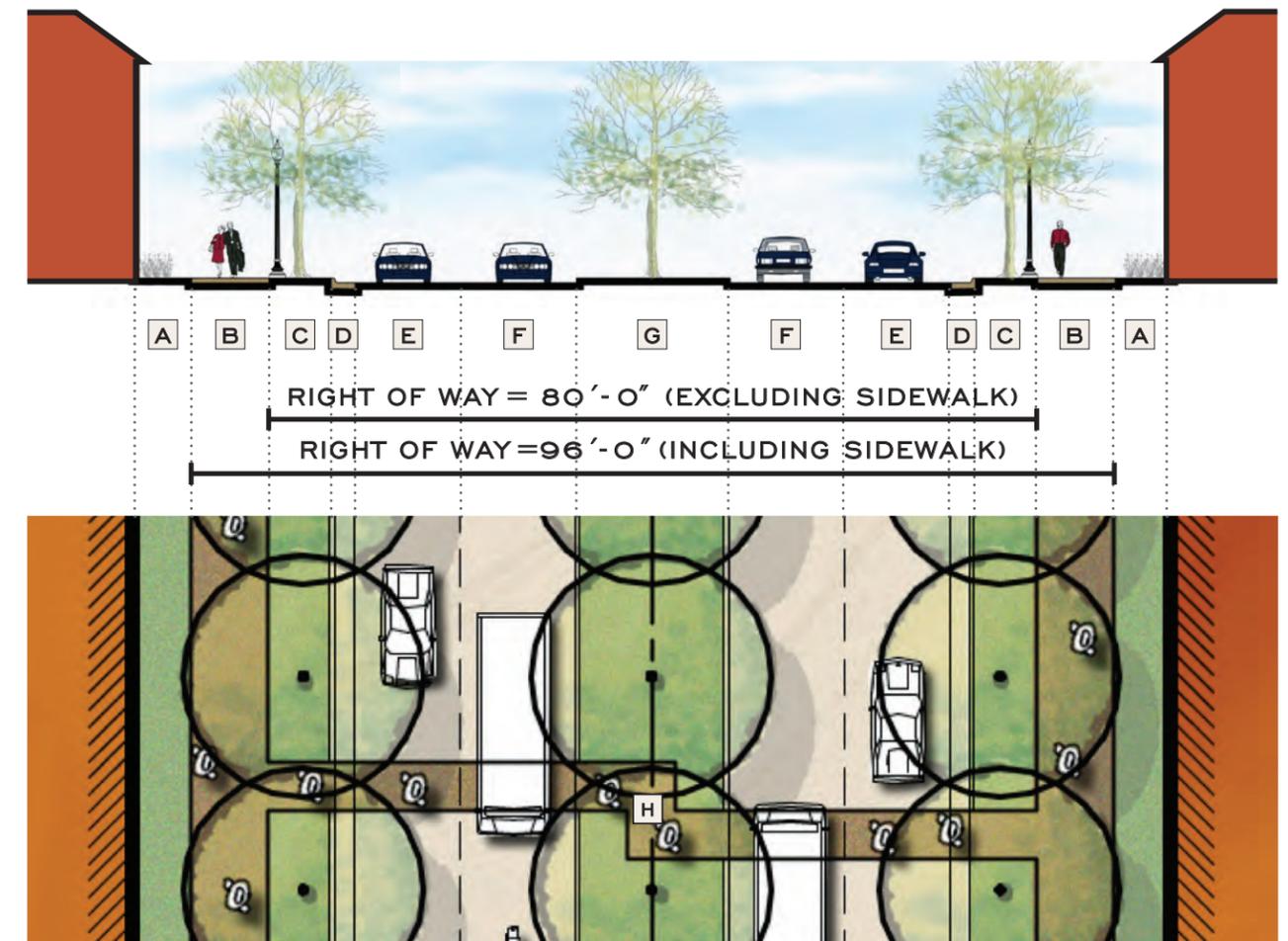


LEGEND

- A. Sidewalk 6'-0"
- B. Landscape Area 6'-0"
- C. On-Street Parking 8'-0"
- D. Bike Lane 4'-0"
- E. Thru Lane 11'-0"
- F. Thru Lane 12'-0"
- G. Raised Median 16'-0"
- H. Offset Crosswalk

SUGGESTED TYPICAL STREET SECTIONS

For Jefferson Davis Highway (US-1) – Section Without Turn Lanes

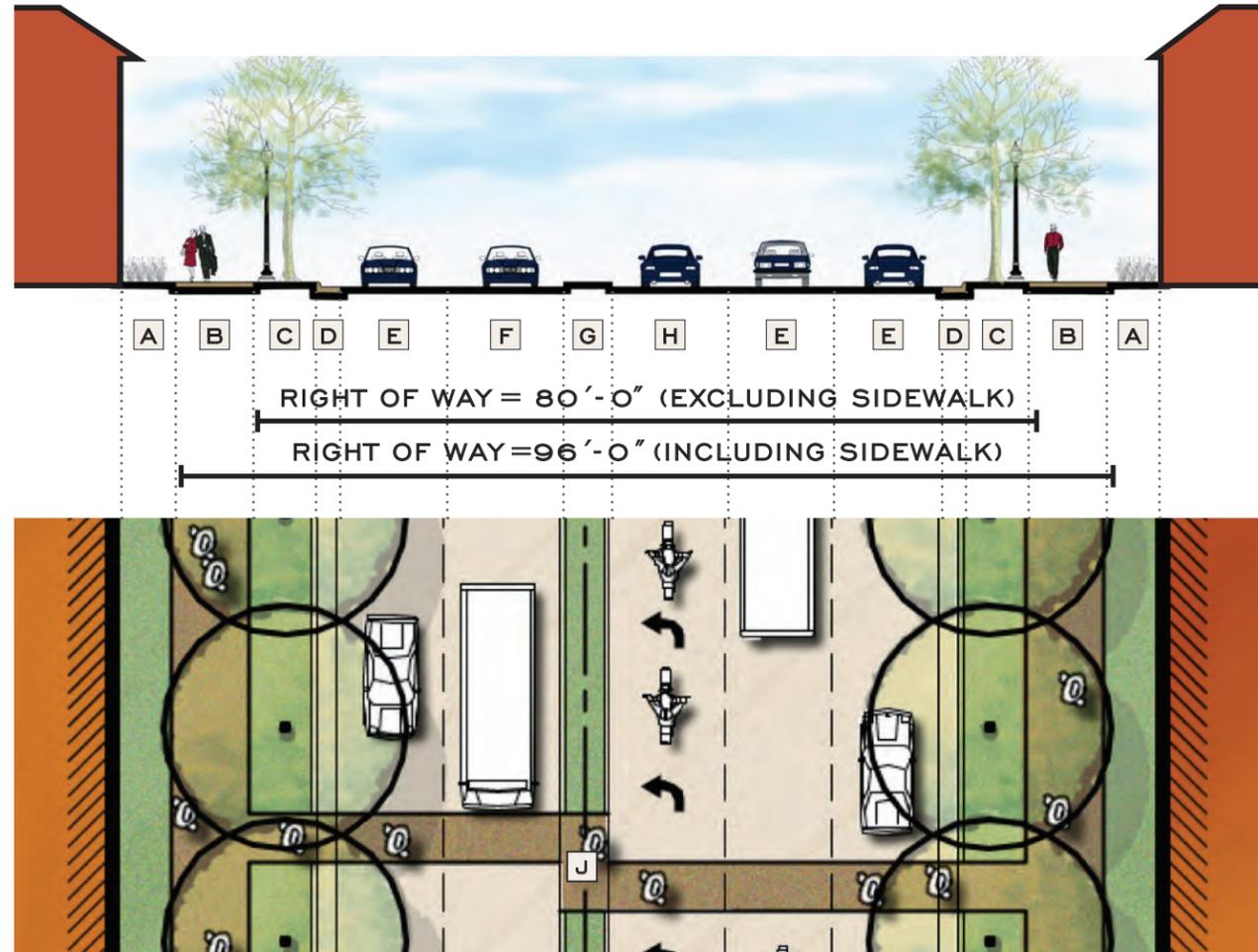


LEGEND

- A. Browse/Planting/Seating Area 5'-6"
- B. Sidewalk 8'-0"
- C. Landscape Area 6'-6"
- D. Curb & Gutter 2'-6"
- E. Thru Lane 11'-0"
- F. Thru Lane 12'-0"
- G. Raised Median 16'-0"
- H. Offset Crosswalk

SUGGESTED TYPICAL STREET SECTIONS

For Jefferson Davis Highway (US-1) – Section With Turn Lanes

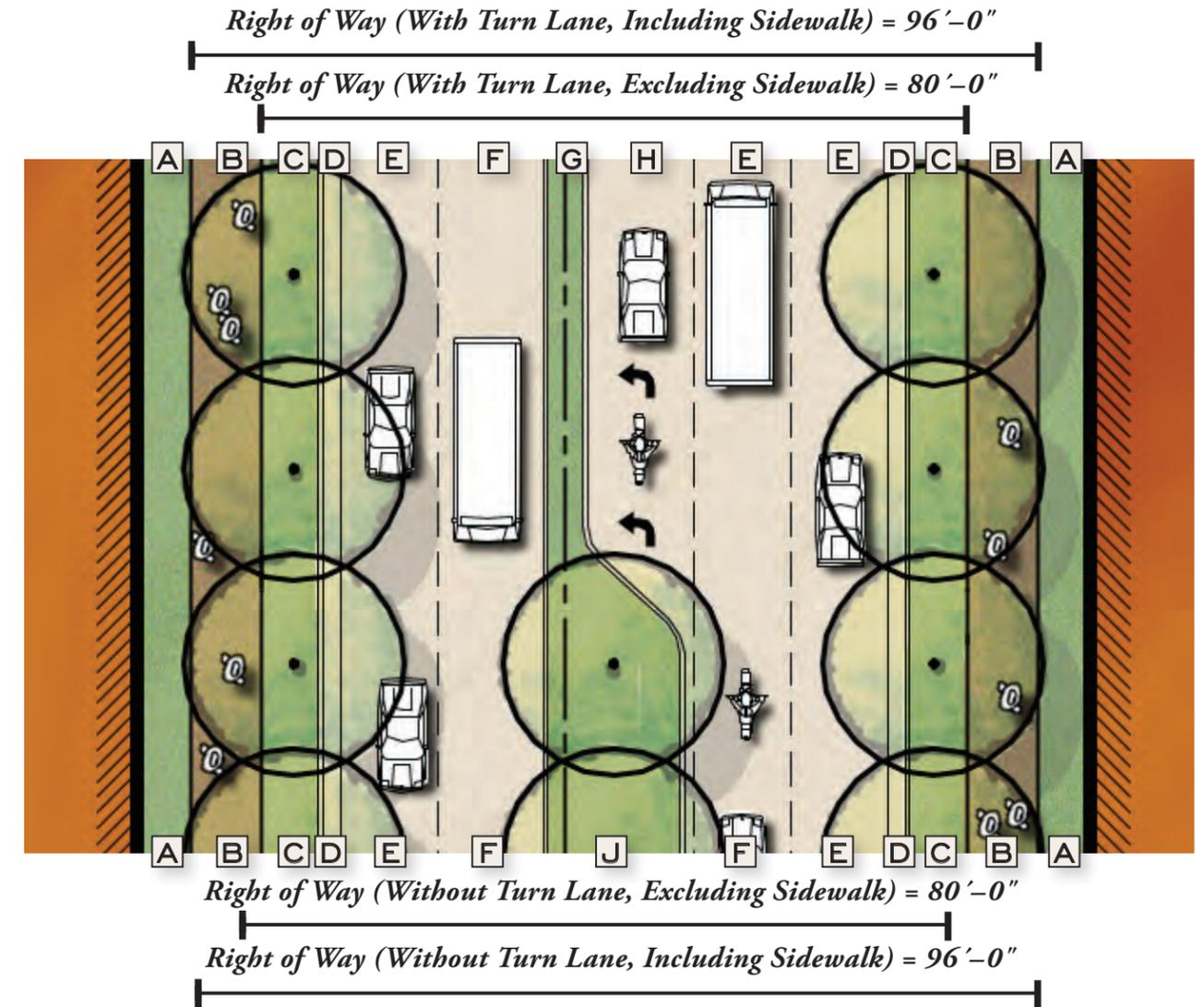


LEGEND

- A. Browse/Planting/Seating Area 5'-6"
- B. Sidewalk 8'-0"
- C. Landscape Area 6'-6"
- D. Curb & Gutter 2'-6"
- E. Thru Lane 11'-0"
- F. Thru Lane 12'-0"
- G. Raised Median 5'-0"
- H. Left Turn Lane 12'-0"
- J. Offset Crosswalk

JEFFERSON DAVIS HIGHWAY (US-1) PLAN DETAIL

With & Without Turn Lanes



LEGEND

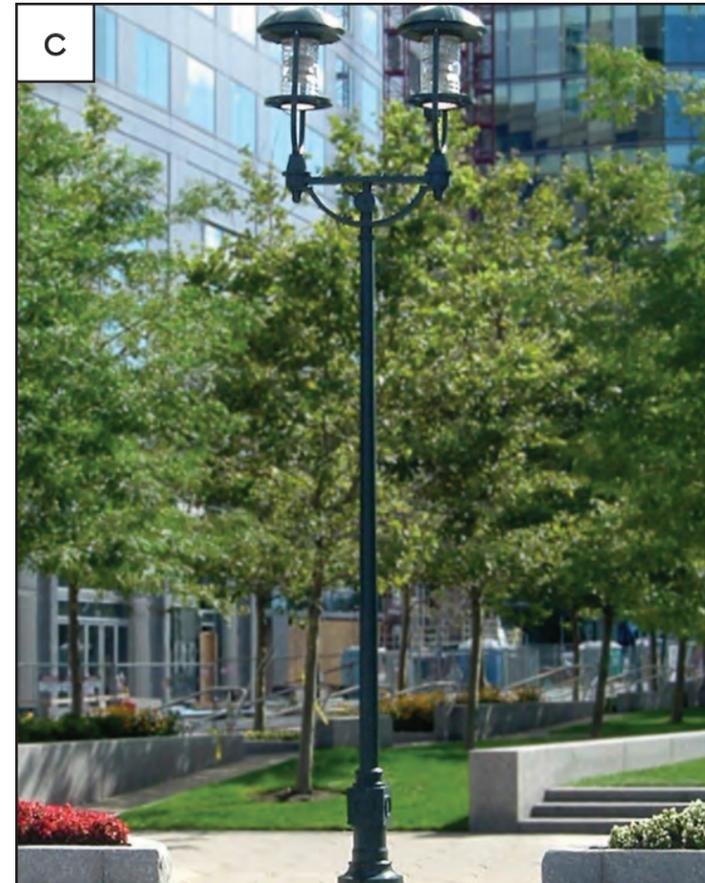
- A. Browse/Planting/Seating Area 5'-6"
- B. Sidewalk 8'-0"
- C. Landscape Area 6'-6"
- D. Curb & Gutter 2'-6"
- E. Thru Lane 11'-0"
- F. Thru Lane 12'-0"
- G. Raised Median 5'-0"
- H. Left Turn Lane 12'-0"
- J. Raised Median (Note: 4' to 16') 16'-0"

STREETSCAPE DETAILS

Lighting & Signage

LEGEND

- A. *Lighting extends the use of a district beyond the daylight hours and into the evening and provide safety for pedestrians.*
- B. *Use street lighting as an additional expression of the area's unique environment.*
- C. *Lighting should illuminate changes in elevations such as steps, ramps, and steep embankments.*
- D. *Provide street pole and fixture designs that complement each other.*
- E. *Wayfinding signage guides pedestrians along travel routes and identifies key destination points.*
- F. *Area directories with simple maps or graphics provide information and orient the pedestrian.*

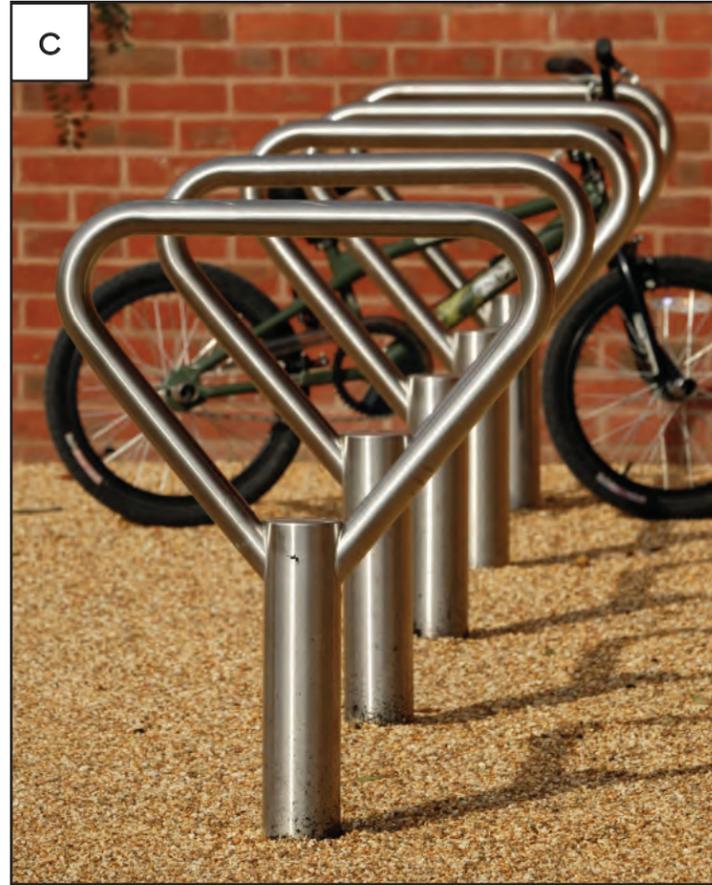


STREETSCAPE DETAILS

Street Furniture

LEGEND

- A. Shelters for bus and shuttle stops should provide seating and offer protection from the elements.
- B. Public seating should provide intermediate armrests.
- C. Securely anchored steel bicycle racks should be provided near the entrances of major buildings and public plazas for workers and visitors alike.
- D. Stylized metal bollards are used to protect a principal entrance along a boulevard.
- E. Trash receptacles should be anchored and should be provided with replaceable liners.
- F. Trash receptacles should coordinate with other street furniture.



STREETSCAPE DETAILS

Landscape Details

LEGEND

- A. Planters bring an aesthetically pleasing element to the public realm.
- B. Outdoor plazas are pedestrian-oriented spaces typically adorned with decorative paving, lighting, street furniture, sculptures, and fountains.
- C. Trees and plants serve as a buffer between the sidewalk and the street and create a pleasing environment for pedestrian use.
- D. Outdoor plazas may be located to highlight the entrance to a major building.



APPENDIX IV

RESEARCH & PROGRAM DEVELOPMENT BIBLIOGRAPHY

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Element of the Comprehensive Plan
Rhodeside Harewell & Economic Research
Associates
Alexandria, Virginia & Washington, DC.

Master Water and Sewer Plan (1992)

Element of the Comprehensive Plan
Stafford County, Virginia.

Public Safety Plan (1993)

Element of the Comprehensive Plan
Stafford County, Virginia.

Shaping a Master Plan (2007)

Cunningham & Quill Archit
Washington, DC.

Shoreline Area Management Plan (1990)

Element of the Comprehensive Plan
Stafford County, Virginia.

Stafford County Master Redevelopment Plan (2008)

CMSS Architects, PC
Virginia Beach, Virginia

Economic Research Associates
Washington, DC

Urban Ltd.
Chantilly, Virginia

Wells + Associates
Manassas, Virginia.

Stormwater Management Plan (1993)

Element of the Comprehensive Plan
Stafford County, Virginia.

Subdivision Regulations (2007)

Municipal Code Corporation
Tallahassee, Florida.

Telecommunication Plan (2002)

Element of the Comprehensive Plan
Stafford County, Virginia.

The Falmouth Plan (2002)

Element of the Comprehensive Plan
Stafford County, Virginia.

Three Area RMA (2008)

Cultural Resources Inc.
Fredericksburg, Virginia.

Transportation Plan (1995)

Element of the Comprehensive Plan
Stafford County, Virginia.

Widewater Area Plan (1994)

Element of the Comprehensive Plan
Stafford County, Virginia.

Wildlife Habitat Protection Plan (2000)

Element of the Comprehensive Plan
Virginia Department of Forestry
Charlottesville, Virginia.

Zoning Ordinance (2007)

Municipal Code Corporation
Tallahassee, Florida.

APPENDIX V

COURTHOUSE AREA PUBLIC WORKSHOP #1

On February 9, 2009, the County of Stafford and its Planning Team, led by CMSS Architects, conducted a public workshop for the Courthouse Area portion of the Stafford County Master Redevelopment Plan. This workshop was a formal presentation, planning process, and activities that sought to obtain public input on the future of the area. The following report documents the workshop process and the results from the public input surveys.

The workshop was held at the Rowser building at 1739 Jefferson Davis Highway in the Courthouse Area on Monday, February 9, 2009, from 6:30 pm till 8:30 pm.

PUBLIC WORKSHOP #1 AGENDA

1. Introduction by Brad Johnson, Redevelopment Director
2. CMSS team presentation (PowerPoint)
 - a. Introduction of the Planning Team.
 - b. Brief description of the Courthouse Area Redevelopment Areas.
 - c. Recap on the “Vision” plan from 2006 (C&Q)
 - d. Explanation of Planning Process; Consultant’s Findings (Cultural, Market-Economic, Infrastructure & Transportation issues).
 - e. Planning Process and Public Input;
 - i. Master Redevelopment Plan: building upon the “Vision” Plans
 - ii. Project phases
 - f. Public Participation / Emphasis on the importance of Public Input
 - i. Recap on Public Forums: public input/citizens concerns
 - ii. Public participation vital to the success of the master plan
3. Hands-On activities, encouraging discussion/input
 - a. After discussion and review of the above-mentioned surveys each table’s representative will present conclusions and comments for review.
 - i. The attendees were asked to place red, blue, and green dots on maps.
 - b. The attendees were given a short questionnaire to fill in.
 - c. The attendees were given a Visual Preference survey to fill in.
4. End of Courthouse Area Public Workshop.

PUBLIC WORKSHOP #1 ACTIVITIES

A total of thirty-nine (39) people attended the Courthouse Area Public Workshop, not including the Planning Team, County staff and members of the Board of Supervisors. After the introductory presentation, the public was free to move among the tables, boards, maps and participate in the activities conducted at them. Many people stayed around the table moderators to inform the planning team of the various issues they would like to see addressed. Others placed dots on the maps to bring attention to specific sites, identifying strengths, opportunities and weaknesses in the area. Public comments are found at the bottom of each map, in reference to numbers as indicated on the map.

Dot Maps

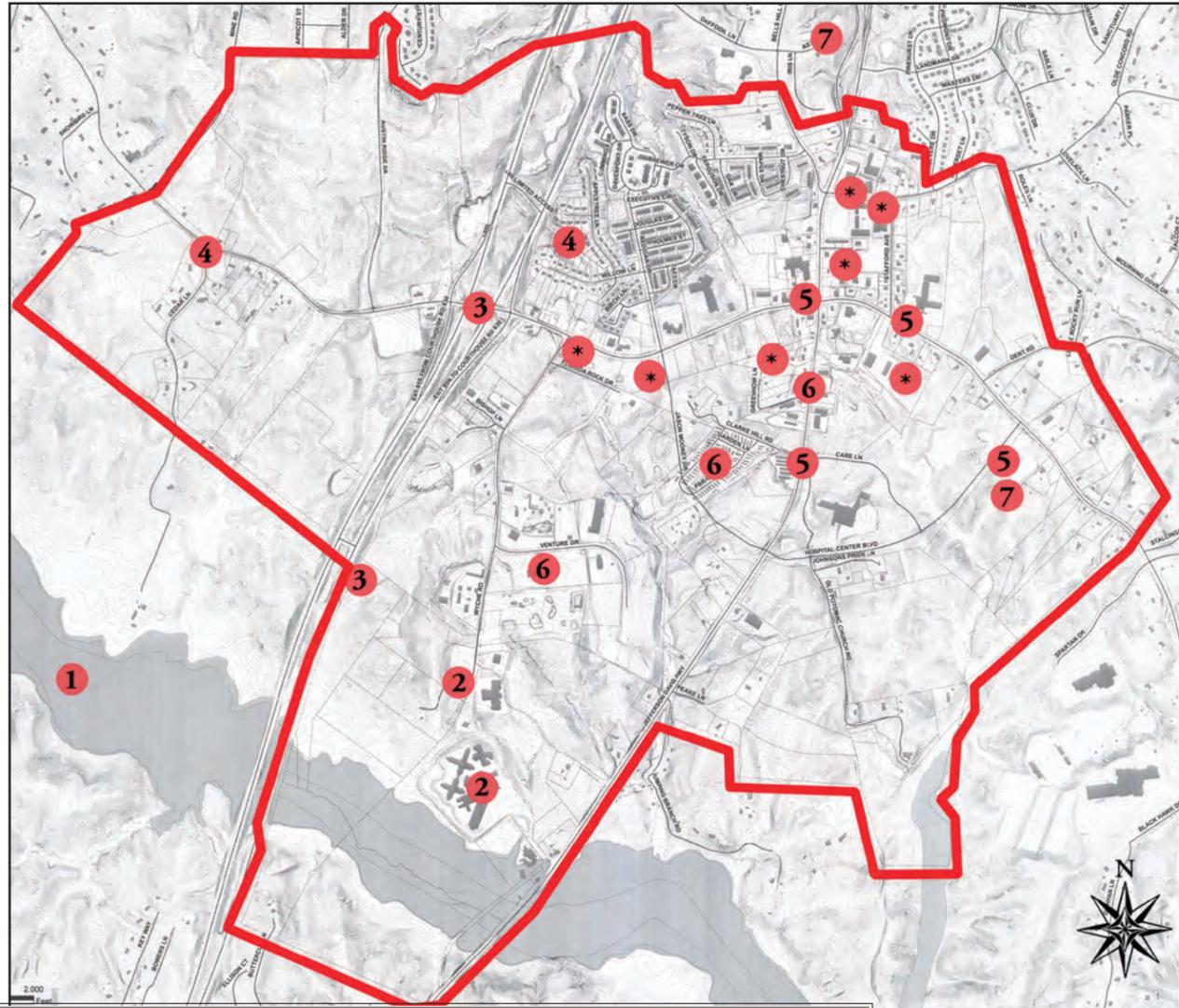
Three maps were mounted on a wall so residents and stakeholders would identify and highlight three specific criteria. A moderator was close by to encourage people to place color dots on the three maps.

- Red dots — Challenges
- Blue dots — Strengths
- Green dots — Opportunities

Note on maps and comments

- ◆ Each table utilized independent numbering system, and marked up on maps separately
- ◆ Numbering system was consolidated and simplified for consistency purpose
- ◆ Mark-ups and notes were also combined to ensure uniformity and coalescent repetition

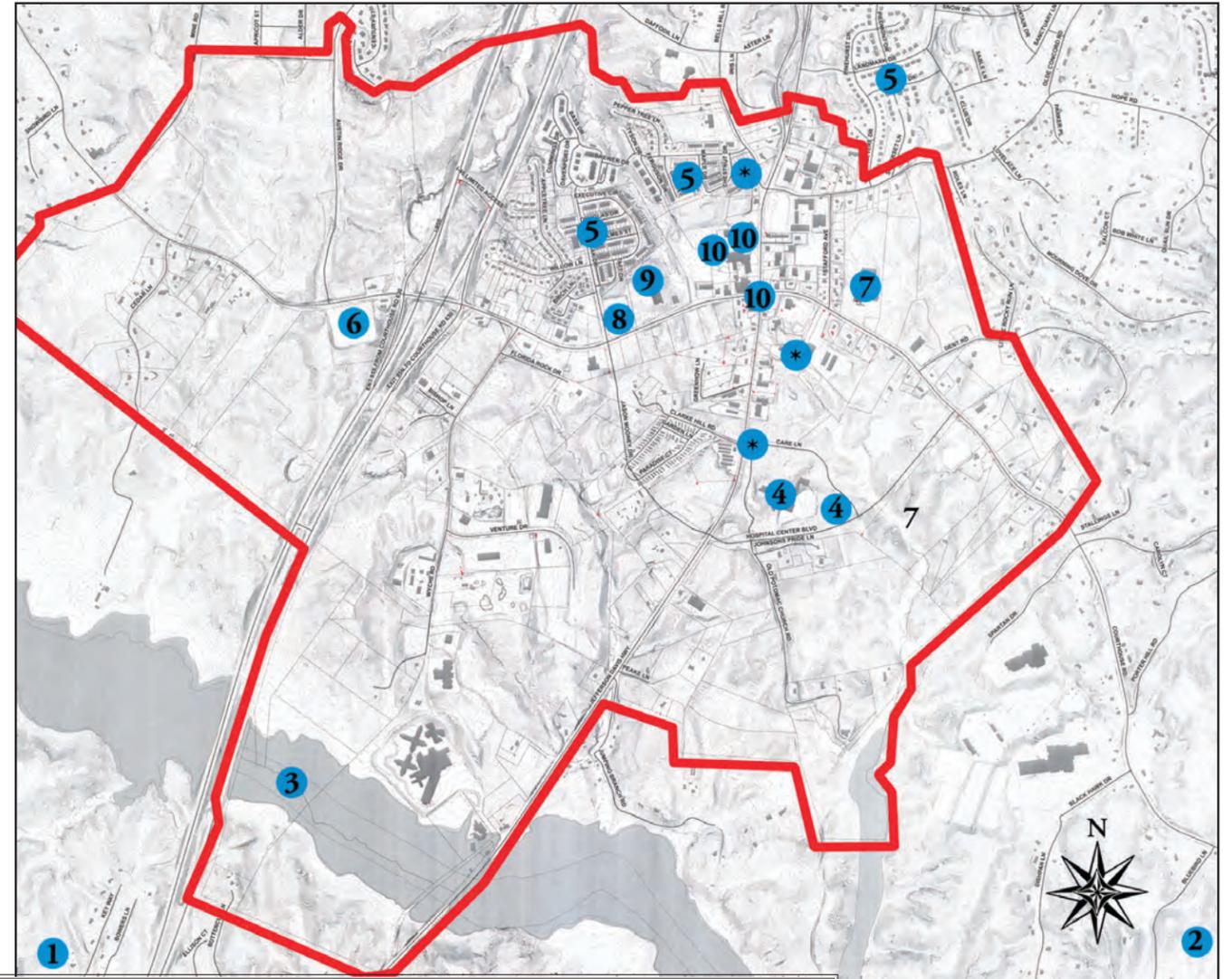
COURTHOUSE AREA — CHALLENGES



LEGEND	GENERAL COMMENTS
1 No river crossings	• Lack of green space and parks
2 Improve regional jail property	• Need for walkability and housing diversity
3 Improve existing and future interchange	• Address traffic problems with turn lanes and traffic calming measures
4 Protect existing residential neighborhoods	• Structured parking is preferred
5 Traffic, transportation, access and speed limits	• Developing on steep sloped properties
6 Existing properties for redevelopment	• Grid pattern with existing topography
7 Vacant land for parks	• Developable properties for mixed-use



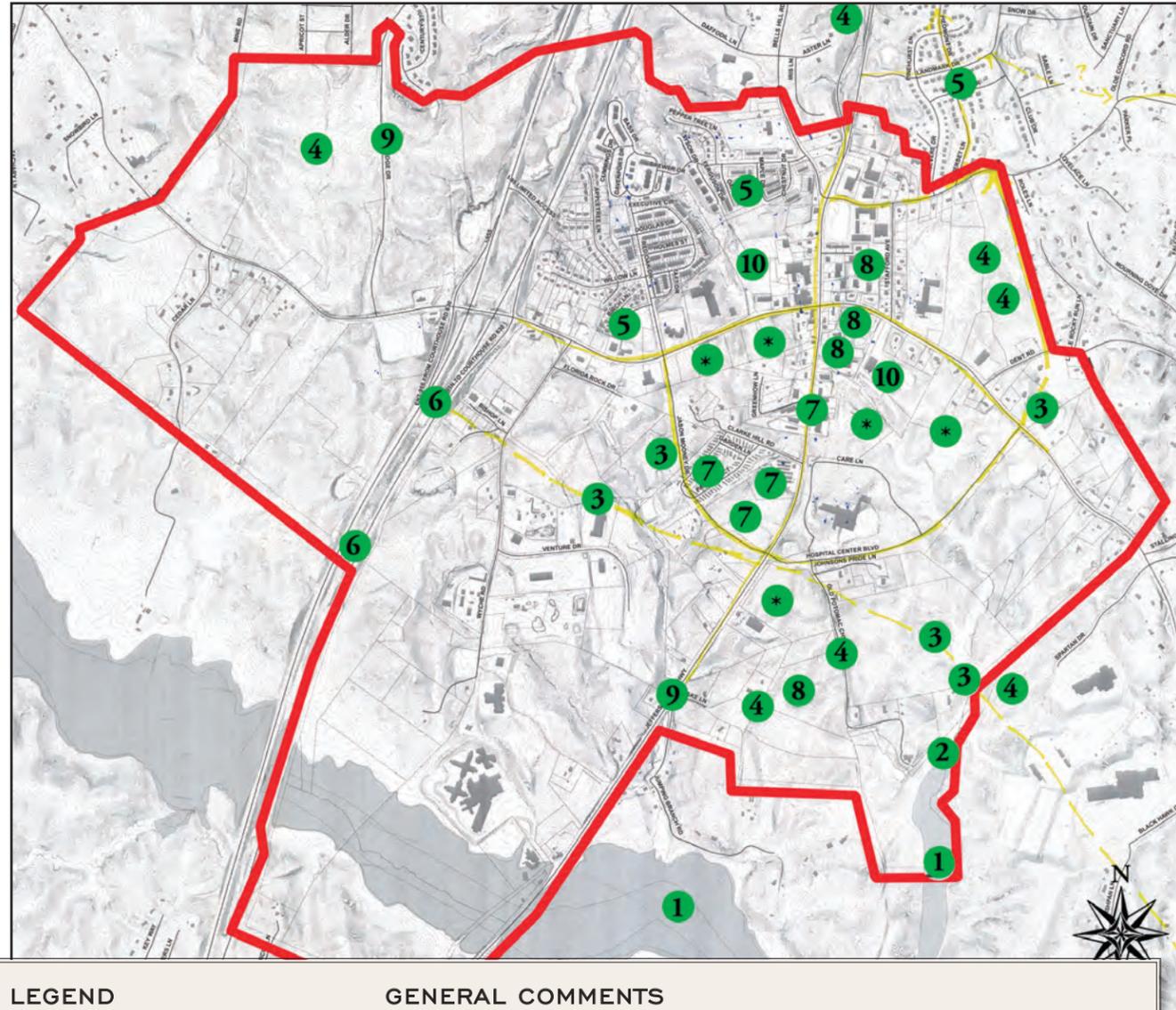
COURTHOUSE AREA — STRENGTHS



LEGEND	GENERAL COMMENTS
1 Proximity to Airport	• Opportunity for multiuse-office, retail, and residential
2 Proximity to VRE	• Develop as a Town Center
3 Natural waterway	• Location to serve as the “heart” of the area
4 New medical office facility	• Redirect traffic off of Jefferson Davis Highway (US-1) and make Jefferson Davis Highway (US-1) pedestrian friendly
5 Existing residential neighborhoods	
6 Park and Ride Lot / Commuter Parking Lot	
7 Proximity to School	
8 Existing church	
9 Public Safety	
10 “Downtown”	



COURTHOUSE AREA — OPPORTUNITIES



LEGEND	GENERAL COMMENTS
1 Waterway, river crossings	• Old Wayside Park at northern portion of area
2 Linear park	• Alternative routes for traffic around hospital, alternatives to Courthouse Road (VA-630)
3 Connection to VRE and redirect traffic	• Economic development, following vision
4 Potential parks	• Hotel/Retail zone development potentials
5 Existing neighborhoods	• Pocket parks connected to bike and walking trails with cultural events and dinner theater
6 Improvements to existing interchange and potential for new development	• Change the name to distinguish the downtown, define it as a unique place
7 Properties in need of redevelopment	• Architectural styles consistent throughout the area would be preferred
8 Future mixed-use development	• Complete development of the area will bring more jobs
9 Potential for traffic improvements	• Models to be taken into consideration: Caroline Street in Fredericksburg, Cumberland, MD, Main St. Charlottesville, Pentagon City (mixed-use)
10 Potential for parking decks	



PUBLIC INPUT SURVEY QUESTIONNAIRES

Each person was also asked to fill out two survey questionnaires. The first survey contained general questions that encouraged public to write anything and everything, while the second used a numeric value as answers to specific topics. Both surveys were consolidated into a table and graph respectively.

Notes on Survey Questionnaires

- ◆ 32 submitted questionnaire surveys
- ◆ Many questionnaire surveys submissions were repetitive
- ◆ The following is all the individual findings (repeated answers have been consolidated)

PUBLIC INPUT SURVEY QUESTIONNAIRE 1: QUALITATIVE ANALYSIS

Q: Do you live in the Courthouse Area? If so, which neighborhood?

- A: Yes (1)
- A: No (5)
- A: Old Potomac
- A: Jumping Branch Road

Q: Do you work in the Courthouse Area?

- A: Yes (1)
- A: No (6)

Q: Do you own property in the Courthouse Area?

- A: Yes (4)
- A: No (5)

Q: What do you like most about Courthouse Area?

- A: Lived here my entire life
- A: Planned Growth
- A: Government Center and open space
- A: Town Center
- A: Convenience
- A: Business

Q: What do you dislike the most about Courthouse Area?

- A: Crossing the highway on foot
- A: Jefferson Davis Highway (US-1) and traffic
- A: Jefferson Davis Highway (US-1)
- A: Traffic

Q: What do you feel is (are) the greatest asset(s) in the area?

A: Government Center and Hospital

A: Hospital

A: Historic Sites

A: Church

Q: What do you feel is the biggest challenge(s) in the area?

A: Accommodating foot traffic

A: Alternate routes for Courthouse Road (VA-630) and Interstate 95 (I-95)

A: Traffic

A: Jefferson Davis Highway (US-1)

A: Growth of Retail

A: Maintaining green space

Q: What do you see happening to this area in the future?

A: Township

A: Planned Growth

A: Grid lock

Q: What land use do you want to see occur in the area?

A: Mixed use with density zoning

A: Professional Center

A: Retail

A: More Parks

A: Alternate routes for traffic

A: Pubs

Q: What land use do you not want to see occur in the area?

A: Industrial

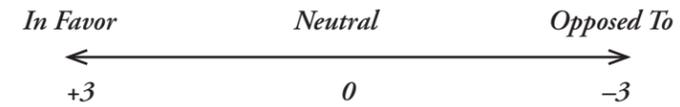
A: Large parking lots

A: Strip Malls

A: High density housing

PUBLIC INPUT SURVEY QUESTIONNAIRE 2: QUANTITATIVE ANALYSIS

The second series of survey questions was a quantitative approach to analyzing public's perceptions of the area. Various topics were established to gauge the people's interest in redevelopment efforts. People were asked whether they agree or disagree with each topic, and how much so.

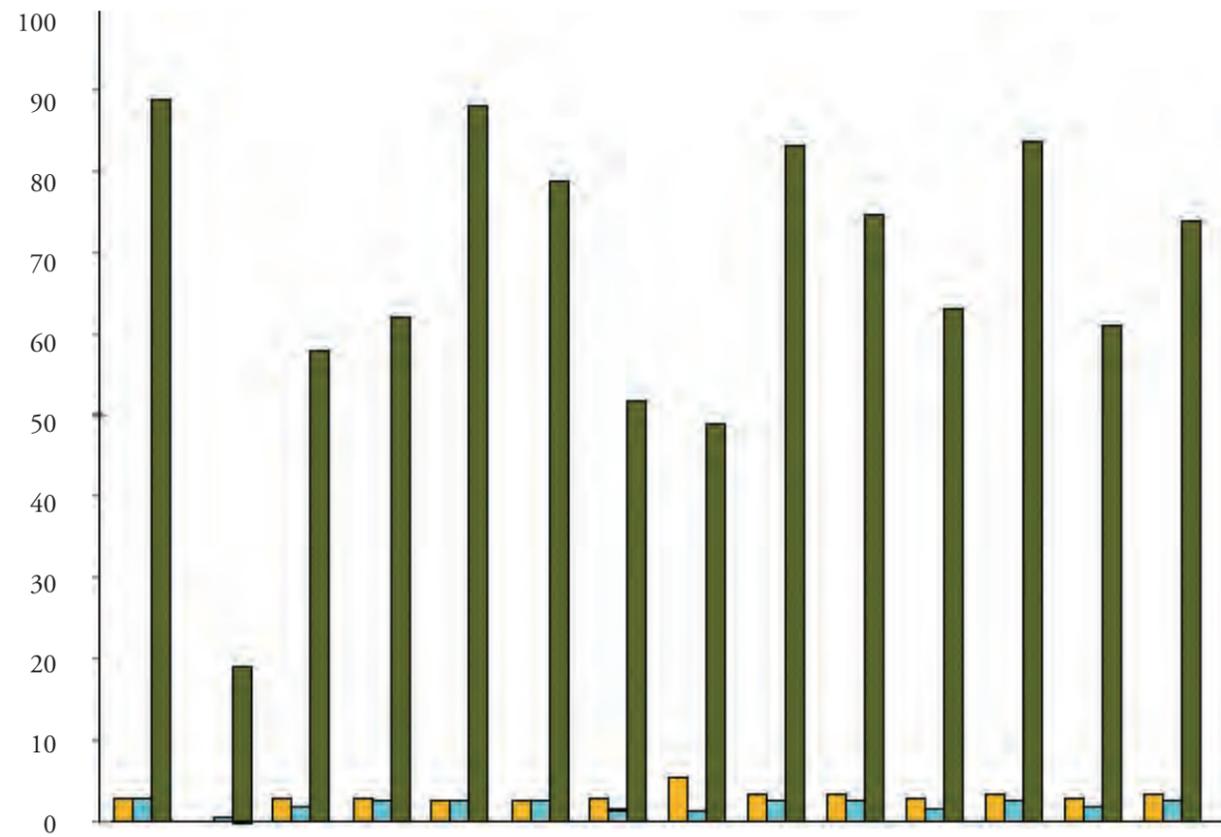
**Notes on Surveys**

- ◆ 32 submitted questionnaire surveys

Three calculations were made, in order to eliminate any bias.

- ◆ **Mode:** Number given the most often by the public, max mode 3
- ◆ **Average:** Sum divided by total number surveys returned, max average of 3
- ◆ **Sum:** Total number of results given by the public, 18 surveys returned yielding max sum of 54

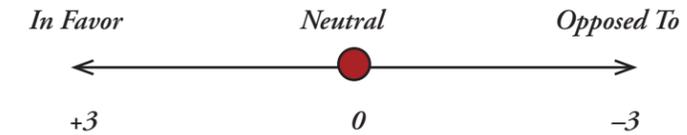
#	Topic	Mode	Average	Sum
1	Streets and roads need to be more pedestrian friendly	3	2.78	89
2	Buildings should be closer to streets to create a better defined community	0	0.59	19
3	Buildings need to relate to one another in material and height	3	1.81	58
4	There needs to be provisions for bicycles	3	1.94	62
5	Green areas and parks need to be integrated into the plan	3	2.75	88
6	There needs to be better street lighting	3	2.47	79
7	Sidewalks need to be wider to allow for outdoor dining	3	1.63	52
8	I need the ability to walk from home to work, shop and entertainment	3	1.53	49
9	There is need for adequate parking	3	2.59	83
10	Landscaping and trees should be integrated into streetscape	3	2.34	75
11	Open space is important for the area	3	1.97	63
12	Traffic calming measures must be improved	3	2.63	84
13	I feel safe in our neighborhood	3	1.91	61
14	I am interested in new ideas to improve safety and walkability of the area	3	2.31	74



Mode	3	0	3	3	3	3	3	3	3	3	3	3	3	3
Average	2.78	0.59	1.81	1.94	2.75	2.47	1.63	1.53	2.59	2.34	1.97	2.63	1.91	2.31
Sum	89	19	58	62	88	79	52	49	83	75	63	84	61	74

PUBLIC INPUT VISUAL PREFERENCE SURVEY

The final survey was purely graphic and measured the public perception on various visual topics for future development. People were asked whether they were in favor of or opposed to certain photographic images of numerous topics. Their input was made quantitative so statistical analysis could be conducted similar to the qualitative analysis as demonstrated with survey questionnaire #2.



Notes on Courthouse Area Surveys

- ◆ 39 submitted visual preference surveys

Three calculations were made, in order to eliminate any bias.

- ◆ **Mode:** Number given the most often by the public, max mode 3
- ◆ **Average:** Sum divided by total number surveys returned, max average of 3
- ◆ **Sum:** Total number of results given by the public, 39 surveys returned yielding max sum of 117

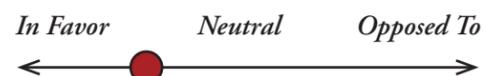
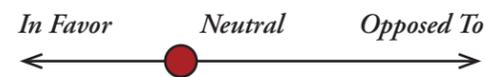
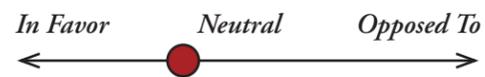
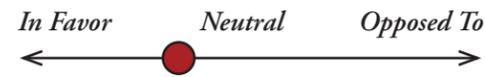
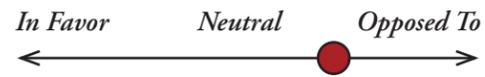
Other methods of eliminating bias

- ◆ Non-contextual pictures were included to allow for negative response
- ◆ Similar buildings were included to allow for refined responses

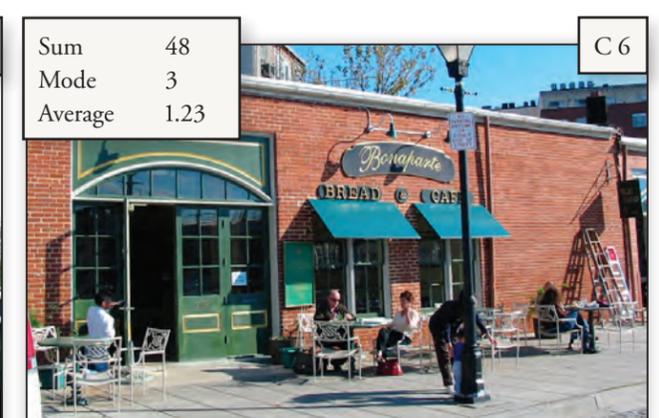
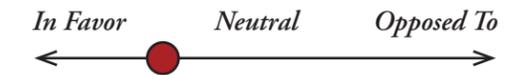
Visual preference topics included:

- ◆ Residential
- ◆ Commercial
- ◆ Mixed-Use
- ◆ Open Space, Parks, & Landscape
- ◆ Parking
- ◆ Streetscape

RESIDENTIAL ARCHITECTURE IMAGE SAMPLES



COMMERCIAL ARCHITECTURE IMAGE SAMPLES



MIXED-USE ARCHITECTURE IMAGE SAMPLES

OPEN SPACE, PARKS, & LANDSCAPE IMAGE SAMPLES

Sum	-15
Mode	0
Average	-0.38

M 1

In Favor Neutral Opposed To

Sum	-30
Mode	-3
Average	-0.77

M 4

In Favor Neutral Opposed To

Sum	54
Mode	3
Average	1.38

M 2

In Favor Neutral Opposed To

Sum	48
Mode	3
Average	1.23

M 5

In Favor Neutral Opposed To

Sum	36
Mode	3
Average	0.92

M 3

In Favor Neutral Opposed To

Sum	39
Mode	3
Average	1.00

M 6

In Favor Neutral Opposed To

Sum	105
Mode	3
Average	2.69

0 1

In Favor Neutral Opposed To

Sum	78
Mode	3
Average	2.00

0 4

In Favor Neutral Opposed To

Sum	12
Mode	3
Average	0.31

0 2

In Favor Neutral Opposed To

Sum	36
Mode	3
Average	0.92

0 5

In Favor Neutral Opposed To

Sum	81
Mode	3
Average	2.08

0 3

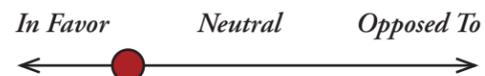
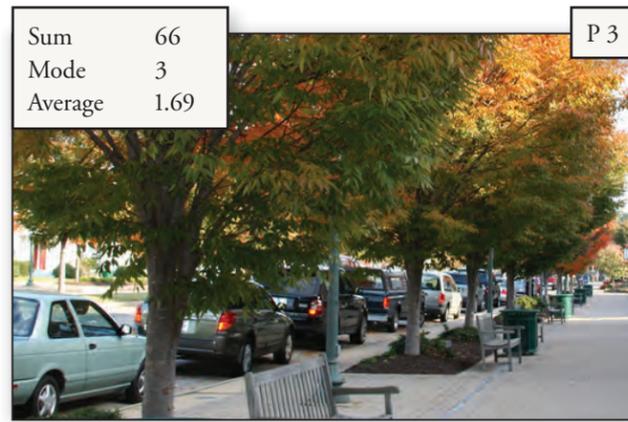
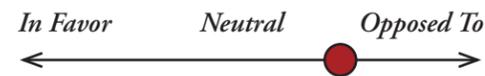
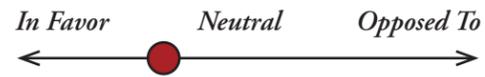
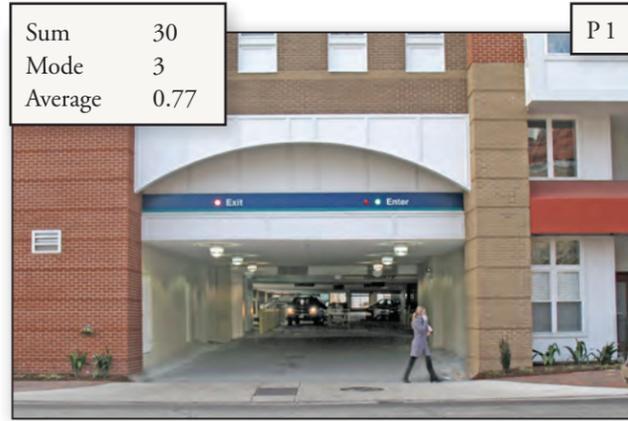
In Favor Neutral Opposed To

Sum	57
Mode	0
Average	1.46

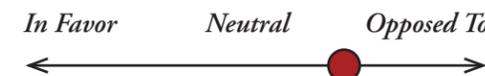
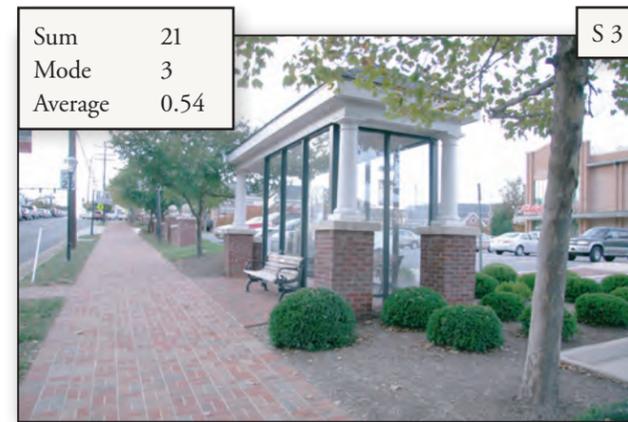
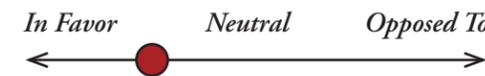
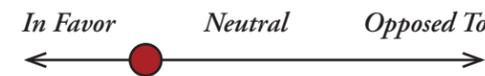
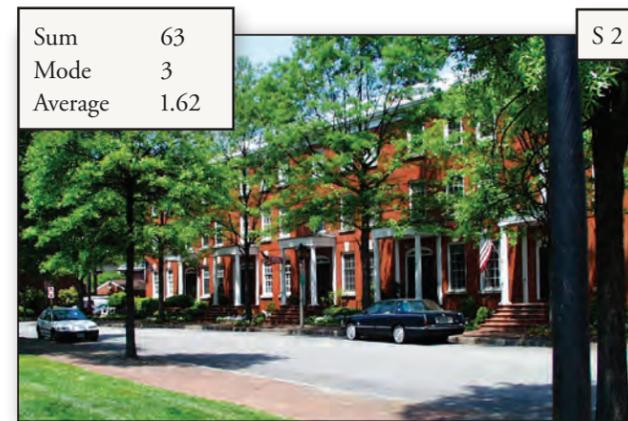
0 6

In Favor Neutral Opposed To

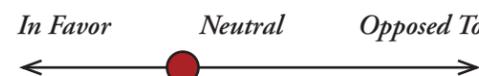
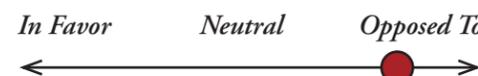
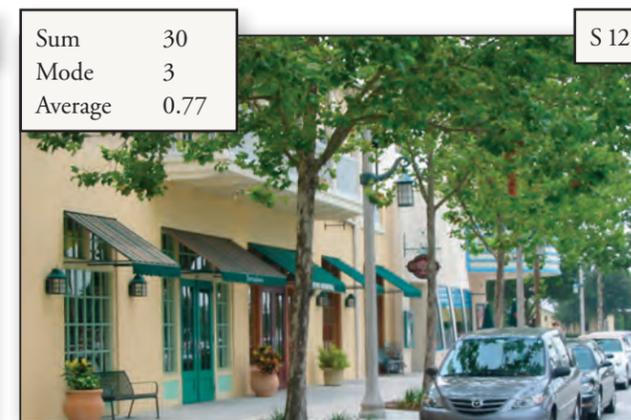
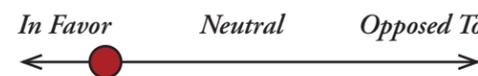
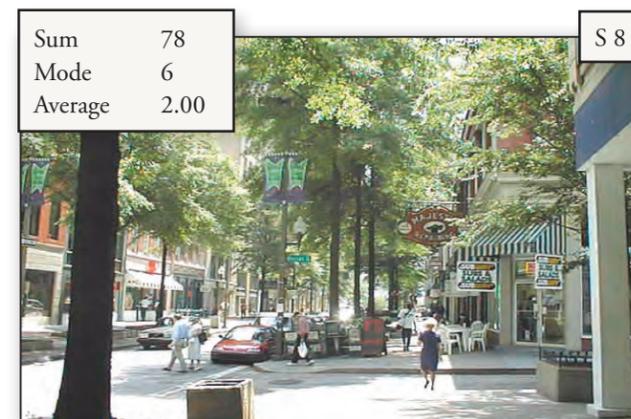
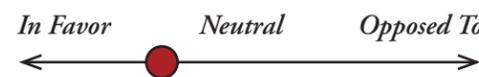
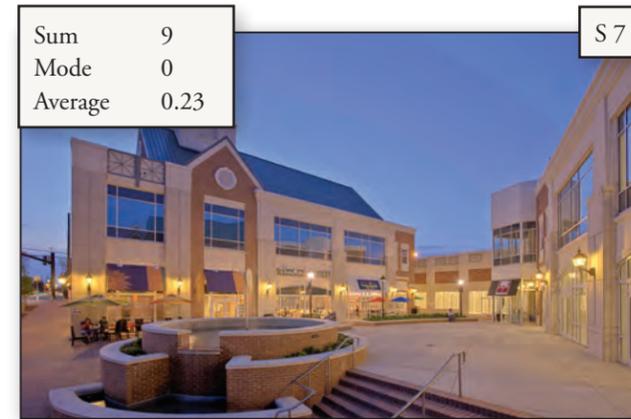
PARKING IMAGE SAMPLES



STREETSCAPE IMAGE SAMPLES



STREETSCAPE IMAGE SAMPLES



COURTHOUSE AREA PUBLIC WORKSHOP #1: CONCLUSIONS

The final, tangible product of this process is the following comprehensive program. Based on a broad consensus view of the various development challenges, community assets, and potential opportunities as identified by the community and stakeholders, this program establishes community goals, a future role for the area, and, ultimately, a vision of how the area could integrate into the whole of Stafford County that will form the basis for a Master Redevelopment Plan.

As a strategy to re-engineer a growing, congested, yet largely disconnected area of the county, the community vision will guide the development of the master plan. For that the planning team needed to hear from the public their opinion on strengths and weaknesses and external conditions –opportunities and/or threats.

The community workshop provided a wealth of input from residents and land and business owners on the future of the Courthouse Area. The following section summarizes those thought and opinions and will provide a valuable framework during the next phase of planning.

Courthouse Redevelopment Area

The public has stated that despite the Courthouse Area’s role as the center of the county government, it lacks connectivity, specifically in terms of pedestrian movement, along the Jefferson Davis Highway (US-1) and Courthouse Road (VA-630) corridors. This shortcoming was mentioned repeatedly as a major concern. According to citizens, the district’s lack of street crossings and sidewalks has made the area an accident-prone spot. Though the Courthouse area is seen as the “heart or center of town,” citizens repeated noted its deficiencies in terms of open space, green space, and park facilities, with several neighbors specifically lamenting the loss of the “old Wayside Park.”

Parking is an issue for the area and the public expressed a need for structured, preferring this style to other parking options such as on-street parking or expansive lots.

It has been mentioned several times that the Interstate 95 (I-95) interchange needs to be “fixed” to relieve traffic.

Yet, the public stressed that future of the interchange at Interstate 95 (I-95) and Courthouse Road (VA-630) is such an unknown that no one has an idea what type of development will eventually be feasible in the area. With the County seen as “captive to VDOT,” the opinion is that the agency needs to be more flexible about the design of the interchange modifications and/or relocation.

Equally, traffic issues stemming for Jefferson Davis Highway (US-1) and Courthouse Road (VA-630) intersection and concern regarding the circulation around this intersection and Stafford Avenue, and the intersection at Wyche Road were expressed. There was a general consensus that left turn lanes are needed and that steps should be taken to mitigate noise from traffic.

While there is excitement about the prospect of future development in the Courthouse Area, coordinating that development with existing homes is perceived as a potential challenge. Comments ranged from removing the trailer park, to safety issues in the Red Oak residential area, to low income area adjacent to more affluent homes, and maintaining direct access to the interstate from these residential areas.

- ◆ The former Wayside Park located north of the Courthouse Area was mentioned as a dormant asset. Neighbors would like to bring it back as a park with a dog run. They see the need for small pocket parks connected to bike and walking paths and linked to cultural venues.
- ◆ The new Hospital, government center, Courthouse, and School Board are all seen as economic drivers and, therefore, assets to the area.
- ◆ A few would like to see the industrial areas remain industrial, partially industrial, or be a mix of industrial and office.
- ◆ The existing storage facility should be redeveloped.
- ◆ Citizens identified an opportunity to connect Hospital Center Boulevard with Hope Road via church property as an alternate road/by-pass to avoid Jefferson Davis Highway (US-1)/Courthouse Road (VA-630) intersection. This was seen as especially attractive for local trips. Jason Mooney Drive (Oak Road extension) was also mentioned.
- ◆ Neighbors would like to expand mass transit and access to VRE connection/Shuttle, centrally locating that expansion for use by people that will work at the hospital and for those headed to Government buildings in Washington DC.
- ◆ While the public questioned the value of using tax dollars as an incentive for bringing in business, they have also stressed the need for partnerships (Stormwater Management (SWM), roads, sewer, etc) to help the redevelopment happen and the area to grow.
- ◆ Many neighbors believe that “the whole development can be a multi-use/mixed-use complex and bring many jobs to Stafford.”
- ◆ Overall, the public was accepting of the idea of parking structures and garages.

VISUAL SURVEY RESULTS

Residential Architecture Preference

Of six choices for residential types, including a typical suburban single-family style, town-houses, and multi-family mid- and high-rises, the vast majority of attendees were in favor of a more urban, mid-rise (3-4 stories), multi-family residential product.

Commercial Preference

The majority of the public was in favor of some sort of urban, street-level type of commercial development, with outdoor cafes, etc. Most said they were opposed to the typical, isolated strip retail that currently characterizes the Courthouse area.

Mixed-Use Preference

Most of the attendees were in favor of a landscaped, walkable mix of retail with “above the shop” office and /or residential.

Open Space, Parks & Landscape Preference

The largest number of attendees was in favor of plazas, fountains, green space, and park type open spaces.

Parking Preference

Most attendees preferred on-street parking with landscaped sidewalks, benches, etc. A significant number of others preferred parking in the back of the mixed-use buildings as long they are integrated to the street fabric in their look and function.

Streetscape Preference

The vast majority of the public was in favor of tree-lined streets with inviting outdoor cafes, landscaped sidewalks, attractive public gathering places, and numerous pocket parks. The concrete, tree-less, suburban landscape was strongly rejected.

VISION STATEMENT

The vision for the Courthouse Area embodies:

“...a true government center with the hospital, courts, County and School Board facilities. With great potential for mixed uses along Courthouse Road, including residential and office or retail, and “above-the shop” living, and with newcomers such as young doctors, nurses, attorneys, and medical offices who prefer to live near their places of work.”

A Town Center is seen as the ideal development model for the district, complete with conveniently located retail, services, mobility and transit alternatives. Indeed, the Courthouse area could benefit from retail to support office-government and medical workers in the area and have pedestrian friendly outdoor court areas. The area also has strong growth potential for medical office space with retail on Jefferson Davis Highway (US-1) between hospital and Courthouse Road (VA-630). There is great interest and a strong feeling of need for an urban grid to guide development and organize the area. The community would like to see the architectural style of the courthouse building and of the bank building extended throughout the area. Finally, citizens believe parking and streetscape improvements, parks and cultural events and generous amounts of open space are needed to serve the increased density within walking/biking distance and the VRE station transit-access expansion area.

APPENDIX VI

COURTHOUSE AREA PUBLIC WORKSHOP #2

On April 28, 2009, Stafford County and the CMSS Planning Team hosted a second public workshop for the Courthouse Redevelopment Area, focusing on the proposed planning efforts for each of the area. The workshop included a digital presentation of the project background, an analysis of findings and a summary of the previous workshop's preferences as expressed by the residents in each the redevelopment area. It also included activities that sought to obtain public input on the area's draft master plan. The following report documents the workshop process and the results from the public input questionnaires.

The workshop was held in the gymnasium of the Rowser building at 1739 Jefferson Davis Highway on Tuesday, April 28, 2009, from 7:00 p.m. til 9:00 p.m.

PUBLIC WORKSHOP #2 AGENDA

1. Introduction by Brad Johnson, Stafford County Redevelopment Director
2. CMSS Planning Team Digital Presentation
 - a. Review of Resources & Input
 - i. Comprehensive Plan: Land Use Plan
 - ii. Economic Development Report
 - iii. Cunningham + Quill's "Vision" plan from 2006
 - iv. Public Comments & Preferences from the first round of Public Workshops
 1. Community Goals
 2. Vision Statement
 - b. Present Draft Master Plan
 - c. Next Steps
3. Hands-on Activities, encouraging Discussion & Input
 - a. Review Draft Master Plans and Comments
 - b. Respond to Short Questionnaire
4. Conclusion & Summary

PUBLIC WORKSHOP #2 ACTIVITIES

In order to gather public input on the Proposed Master Plan for the redevelopment area, following the initial presentation at the Courthouse Area Workshop, the public was free to participate in the activities conducted at each table. Many people gathered with the table moderators to share with the Planning Team their concerns and the various issues they would like to see addressed. Each table discussed the Proposed Master Plan for each redevelopment area.

Participants placed green dots on the plan to highlight positive comments and red dots to highlight concerns. The public's comments follow, referencing the numbers as indicated on the corresponding maps.

Table Discussion for the Courthouse Area Public Workshop included:

- 30"× 36" Black & White existing condition map for the Courthouse Area
- A quarter mile radius pedestrian walking circle template
- 30"× 36" Colored Proposed Master Plan depicting landscape, traffic improvements, building and land use proposals for the Courthouse Area
- Written questionnaire on general and specific issues of the Proposed Master Plan for the Courthouse Area
- Red and Green dots;
 - ◆ Red dots to note important concerns, reservations, and disagreements
 - ◆ Green dots to note agreements, commendations, and positive feedback
- Written comments (provided in *General Notes* section) for the Courthouse Area

PUBLIC INPUT & TABLE DISCUSSIONS

Please refer to the *Courthouse Area: Preliminary Master Plan (Buildings Colored by Use)*.

General Notes

- Cohesive architecture design (village/small town look) wanted
- Concern of amount of impervious surface and Best Managed Practice (BMP) use more green pavers etc
- Alternative routes away from Interstate 95 (I-95) (or another way for that traffic away from Stafford)
- Traffic movement around the area
- Provide a wider area (parkway, etc.)

MASTER PLAN PUBLIC INPUT

Concerns & Reservations (Red Dots)

1. Some people would like to identify future uses here.
2. Option 1 of the Preliminary Master Plan does not have a courtyard at Judicial Center.
3. Some people believe that the plan should include a road from Austin Road to Warrenton Road (US-17).
4. Some individuals would like to expand the plan to include extra vacant area outside the redevelopment boundaries.
5. People would like to maintain the same Interstate 95 (I-95) access in the future.
6. Several schools exist along and near Courthouse Road (VA-630); Several people were concerned about improving and alleviating school drop off locations in the morning.
7. People noted that the future use in this area still needs to be identified.
8. Some people would like to use green corridors to protect creek and add landscaping detail.
9. Several people would like to see another route provided for local commuter traffic in order to avoid Interstate 95 (I-95).
10. Some people noted the traffic bottleneck that occurs at Jefferson Davis Highway (US-1) and Hope Road.
11. Some individuals were concerned that a residential home currently exists in a future intersection spot on the master plan.
12. Some people were not happy with the high-density residential shown in this area; they believe that town-houses/apartments should be kept.
13. The people would like to see more connection to open and green space.
14. Some people would like to maintain the stream corridor.
15. Some individuals pointed out the need for sustainable jobs in this area.
16. Some people would like to see mixed-use retail/residential in this area.
17. Some people would like add Germanna Community College to the master plan.

Agreement & Commendations (Green Dots)

1. Some individuals noted that this is a good location for the Interstate 95 (I-95) interchange.
2. Some people like area with the flexible building use infrastructure
3. People agree that there is a need for residential in order for the master plan to work.
4. People noted the courts are in a central area with a needed parking facility.
5. Some individuals liked the green and open space but would like provisions for sports facilities.
6. On the master plan, one of attendees has applied for rezoning change to open an office in a currently residential area.
7. For the master plan to work for hospital employees, people agree with the need for nearby residences.
8. Several people liked the overall street network/pattern.
9. Several people liked the small-town urban feeling

Courthouse Area: Preliminary Master Plan (Buildings Colored by Use)



PUBLIC INPUT SURVEY QUESTIONNAIRE: PART 1

Notes about the Courthouse Area Questionnaire:

- ◆ 33 attended
- ◆ 12 surveys returned
- ◆ Repeated comments consolidated

What do you think about the following proposed solutions?**1. The design improvements and widening of Courthouse Road (VA-630) and Jefferson Davis Highway (US-1)?**

- ◆ “I think that a 98’–108’ Courthouse Road (VA-630) is too wide and will be a barrier dividing the town center.”
- ◆ “Fine. I see you are planning for ways to get people around”
- ◆ “Probably okay”
- ◆ “Good idea!”
- ◆ “I Like it”
- ◆ “Needs more thought before your final ‘vision’”
- ◆ “All for it”
- ◆ “Before implementation of this concept, a lot of consideration of how to cope with north-south traffic through the Courthouse area needs to be investigated thoroughly, especially if Interstate 95 (I-95) becomes blocked because of any incident.”
- ◆ “Widening is okay. Traffic flow is most important”

2. The plan for the four corners of the intersection of Courthouse Road (VA-630) and Jefferson Davis Highway (US-1)?

- ◆ “Maintain historical buildings”
- ◆ “Make sure there is not going to be congested”
- ◆ “Glad to see something new”
- ◆ “Great idea”
- ◆ “Seems okay”
- ◆ “Okay”
- ◆ “How to keep minimum amount of traffic from coming though this area?”
- ◆ “Should distribute parking structures in 3-4 quadrants instead of placing primary structure in one quadrant.”

3. The planning and orientation of buildings along the new interchange?

- ◆ “Okay”
- ◆ “Wonderful!”
- ◆ “Good. Make sure sidewalks are big enough”
- ◆ “Don’t overbuild!”
- ◆ “Undecided”
- ◆ “I like the parking in the back!”
- ◆ “Building floor plates are too small if rigidly applied. Need a mix of retail, office and residential that is flexible.”

4. The retail options and residential diversity are closely related, are you comfortable with the amount of retail and residential shown?

- ◆ “Yes” (3 times)
- ◆ “Yes, mixed-use great!”
- ◆ “I like “small town” feel but watch out for too much development!”
- ◆ “Too much single family”

5. Would you prefer to have more retail and correspondingly more residential? Or would you prefer less residential and less retail options?

- ◆ “Flexibility is key, need form-based parameters to attract investors they need to be able to respond to the market.”
- ◆ “Keep together”
- ◆ “Less residential”
- ◆ “More retail”
- ◆ “Yes, prefer to have more retail and correspondent residential”
- ◆ “More development but overtime”
- ◆ “Lots of green space and town squares with some retail, apartments and condos”

6. Streetscape patterns and street grids?

- ◆ “Are good but the blocks maybe too small”
- ◆ “Like the street grids”
- ◆ “Okay”
- ◆ “Seems okay”
- ◆ “Great! Make it a town!”
- ◆ “Very much needed to keep up with changing times”

7. The height and density of the plan?

- ◆ “3-4 stories are a good scale but consider higher buildings further from the core (on scale with hospital).”
- ◆ “Approve of both”
- ◆ “Okay”
- ◆ “Fine with me”
- ◆ “Good on height”
- ◆ “3-4 story is good”
- ◆ “Good, not over 5-stories”

8. Regional Park and open space?

- ◆ “Show more linkages to developed areas”
- ◆ “Looking forward to it”
- ◆ “Okay”
- ◆ “Yes, yes!”
- ◆ “Yes, by all means!”
- ◆ “We need this!”
- ◆ “Good. Look at Courthouse Road (VA-630) west as well!”

9. The architectural design examples?

- ◆ “Okay”
- ◆ “Love them!”
- ◆ “Okay, great job!”
- ◆ “Seemed nice”
- ◆ “Okay, but hospital is also a good example”
- ◆ “Too sketchy to comment”

PUBLIC INPUT SURVEY QUESTIONNAIRE: PART 2

1. Do you feel the plan has a balanced mix of uses?

- ◆ “Yes” (5 times)
- ◆ “Yes, but expand thru entire area, west of Interstate 95 (I-95) especially”
- ◆ “Yes, for people to live and work there, business needs to move in also! Need companies that bring higher-paying jobs, either high-tech or medical.”
- ◆ “Seems to but watch the density! Make sure infrastructure can support it and that interstate traffic is steered away.”
- ◆ “More retail, less residential”
- ◆ “Show more office space and less residential.”

2. Do you think that the plan has adequate open plazas and parks?

- ◆ “Yes, but need to show more linkages”
- ◆ “More than what would happen without a plan...”
- ◆ “No” (2 times)
- ◆ “Yes” (2 times)
- ◆ “Could use more athletic fields, bike paths that are tied together. Possible trail along existing streams similar to Rock Creek Park.”
- ◆ “Can always use more; contiguous open space areas are good. Town squares are a great asset!”
- ◆ “The green spaces are not converted; please add more green space in order to do that”

3. Do you have any comments and suggestions to improve the plan?

- ◆ “Form-based method of implementation”
- ◆ “More road than Jefferson Davis Highway (US-1) and Interstate 95 (I-95) north and south”
- ◆ “Trust your expertise. I live on Jefferson Davis Highway (US-1) in front (across) of the hospital; wondered about the changes for Clarke Hill Road?”
- ◆ “Allow land owners to rezone with blob plans and not with specific plans, especially in outer areas.”
- ◆ “Bypass area for Interstate 95 (I-95)—bailout traffic—otherwise the mass of traffic will spoil the plan”
- ◆ “Be sure architectural standards are in place. Keep this quaint, small town, lovely.”
- ◆ “Please add more green space”
- ◆ “Current traffic...”
- ◆ “Are roads set? What happens to existing framework?”
- ◆ “Sidewalks are necessary. County implemented and charged the land owners for fixing the few existing sidewalks—or lack of—what happened?”
- ◆ “New Interstate 95 (I-95) intersection will never happen without federal funds! Are businesses lining up to come here? How about a bypass around Courthouse?”

COURTHOUSE AREA PUBLIC WORKSHOP#2: CONCLUSIONS

While the first workshop provided a great deal of information for planning of the redevelopment areas, this second workshop measured how the plans addressed the public’s concerns. Overall, the majority of the public approved of the plans, clearly giving a positive response to most of the questions asked about the plans. Additional information was provided in these workshops, which will allow the planning team to make specific improvements and enhancement to the draft master plans that favor both residents and businesses of Stafford County.vv

APPENDIX VII

FINANCIAL FEASIBILITY: ASSUMPTIONS & METHODOLOGY

Note: The findings herewith are the result of the Planning Team’s assumptions and their recommendations based thereon are typical for a master redevelopment study of this magnitude. It is also understood that the market will drive the master plan implementation. Stafford County does not have plans for consolidating land to directly implement the plan.

Economic Research Associates (ERA) constructed a financial pro forma development model to analyze the potential gross residual land value from the proposed Core Development Area development program for each of the redevelopment areas.

The results of the analysis indicate the maximum amount per acre a developer could pay for the land.

Aside from the assumptions by category below, all redevelopment area analyses assume, per discussions with County representatives that:

- The entire Core Development Area program (as summarized by master plan drawings and accompanying tables) is developed in one phase, in year 0 of the development pro forma. (Although in reality this may be multi-phased, the end results will be similar.)
- The Financial feasibility analysis for the master plan is for a ten year period from 2010-2020, with assumed reversion in year 10

Additional assumptions are outlined below in the attached tables and explained below as appropriate.

Efficiency ratios, which represent the percentage of built space which is usable (versus space that is dedicated to circulation or building core that is not rentable), are based on industry experience of buildings that are newer and more efficient. They vary slightly by type – from 85–95%.

Vertical Development Costs are a cost per square foot figure for building the building (not internal streets or other site infrastructure). These were garnered from R.S. Means, an industry standard for cost estimation with adjustments based on the experience in the market of the Master Planning Team Members. They include both hard and soft costs.

Tenant Fit Out costs are costs to finish interior spaces specifically for tenants’ needs. These are based on local rental surveys as well as discussions with the Master Planning Team Members and are adjusted upward for inflation.

Parking annual maintenance costs are based on industry averages. Based on discussions with the Master Planning Team Members, it is assumed that all developer-provided parking is on surface lots.

A percentage of the total cost is often added to development costs as Contingency costs for unforeseen overruns and expenses.

The *Developer fee* in this analysis is represented as a percentage, and is a stand in for the minimal amount of profit for the developer. The general contractor fees and other fees are included in the vertical development costs.

Operating assumptions provide the backbone of the revenues and expenses which create the value of the development. These include rents, other revenues, and operating expenses such as utilities. The sources for these are noted on the associated table.

Other assumptions include the stabilized occupancy rate (which is the occupancy rate at which most buildings are considered “full” to allow for tenant turnover and other factors), an assumed percentage of units or space that will be presold/preleased, and loss on unsold units. These variables are based on industry experience.

The program used for each redevelopment area is based on information provided by the Master Planning Team. ERA used numbers of square feet, units, and parking spaces by type (designated as either multifamily residential, office, retail). Average unit sizes are calculated by dividing total square feet by the total number of units. ERA further distributed the residential between rental apartments or condominiums, and the retail between general retail and restaurants (because restaurants have a higher construction cost and greater tax implications). This distribution, and the annual absorption, is professional judgment based on ERA’s experience with similar projects, the findings of the market study, and consideration for the likeliest market position for the redevelopment area. Because of the conceptual nature of the plan, these represent best guess estimates.

Each area’s analysis begins with an estimation of construction and development costs. The vertical construction costs are the result of the per square foot costs multiplied by the gross building area (GBA). By contrast, the tenant improvements use the net rentable area (NRA). Parking was calculated on a per-space basis (\$2,500 per space for surface lots). Additional horizontal costs (infrastructure and site work) are added on a per acre basis. The Master Planning Team members provided ERA with the horizontal cost data, at \$250,000 per acre, which is assumed to provide the necessary on-site parking. Additional infrastructure costs were added to the Boswell’s Corner Redevelopment Area for a linear park. A 5% contingency and 4% developer fee were added to the total vertical and horizontal costs.

ERA then prepared a pro forma operating statement analysis by land use type (office, retail, restaurant, hotel, rental apartment, and for sale condominiums, as applicable for the redevelopment area). These found the net operating income of each use by taking the total revenue minus the total expenses. The resulting net operating income (NOI) was capitalized at prevailing capitalization rates to find an approximation of sale value, less a 5% cost of sale (for marketing of the property).

This is unleveraged, meaning it does not represent the cost of money to the developer (financing). In a subsequent step, ERA performs a cash flow analysis to find the net costs and revenues to the developer. The net present value of the revenue at a discount rate of 12% minus the net present value of the construction costs at the same rate represents the residual land value for each area’s development. Again, it is important to note that this analysis only represents development of the program for the Core Development Areas. The full step-by-step analyses for each redevelopment area can be found in the Appendix tables.

FISCAL OVERVIEW

This fiscal overview is intended to give an estimate of the tax revenues generated by the proposed Core Development Area in the four redevelopment areas. This is not intended to be a net fiscal analysis, which would consider sources and uses of funds and the costs associated with the development. The fiscal overview examines the property values of the new investment (using construction costs as a proxy for assessed value) and any county infrastructure investments, and determines the corresponding revenues for Stafford County in the following tax categories, using the most recently available rates from the County (as of the FY 2010 budget):

- **Real Property Tax:** \$0.84 per every \$100 of assessed value. Construction costs are used as a proxy for assessed value in this analysis.
- **Retail Sales Tax:** The state collects 1% for local jurisdictions. The analysis includes retail sales taxes collected for on-site spending, for resident retail sales that happen off-site, and for construction materials bought in the County.
- **Meals Tax:** The County collects 4% dedicated to the School Board, in addition to the 1% local sales tax and 4% state sales tax. Again, this is estimated for both on-site spending, and for resident spending off-site in the County.
- **Transient Occupancy Tax:** The County currently collects (in addition to the retail sales tax) 5% transient occupancy tax – 2% for the general fund and 3% for tourism development. This is estimated for the redevelopment areas, where a hotel is planned in the Core Development program.

Stafford County also collects personal property, business property, machinery and equipment, and BPOL taxes (starting in 2010).¹ Because these vary by value of equipment and by revenue levels, they would require too many unknown assumptions to compute with a reliable accuracy.

As a summary, the total impacts of all four redevelopment areas during the construction period would be \$1.8 million, including \$1.5 million in sales taxes on construction materials, and \$290,000 in sales and use taxes from construction worker spending. Annually, the Core Development program for all four redevelopment areas would benefit the County with \$3.2 million in property taxes, \$4.2 million in on-site sales and use taxes, and \$511,000 in off-site sales and use taxes for a total of \$7.9 million annually. These summary figures are shown in Table 20 (*Summary of Core Development Area Annual and Construction Period Fiscal Benefits*), and the methodology and results for each of the impacts are in the following section. As a typical assumption for a financial/fiscal analysis on a master redevelopment plan, it does not include adjacent property value increases due to redevelopment.

Table 20: Summary of Core Development Area Annual and Construction Period Fiscal Benefits

ANNUAL				
Redevelopment Area	Property Tax ¹	On-Site Sales & Use Taxes ²	Off-Site Sales & Use Taxes ²	Total
Boswell's Corner	\$1,027,926	\$1,488,293	\$131,525	\$2,647,745
Courthouse Area	\$1,217,035	\$1,549,669	\$252,716	\$3,019,419
Falmouth Village	\$146,663	\$291,546	\$18,597	\$456,807
Southern Gateway	\$800,238	\$883,460	\$108,387	\$1,792,086
Total	\$3,191,862	\$4,212,969	\$511,225	\$7,916,057

CONSTRUCTION PERIOD			
Redevelopment Area	Construction Materials Sales Tax	Sales & Use Taxes on Construction Worker Spending ²	Total
Boswell's Corner	\$477,251	\$92,269	\$569,520
Courthouse Area	\$565,052	\$109,243	\$874,295
Falmouth Village	\$72,725	\$14,060	\$86,785
Southern Gateway	\$383,483	\$74,140	\$457,623
Total	\$1,498,512	\$289,712	\$1,788,224

¹Construction Cost (not including land) is used as a proxy for full market value. Using 2009 Rates, per County website @ \$0.84 per \$100.00 value. It is assumed that all construction construction purchases are made in Stafford as often, jurisdictions charge taxes on materials even if they are purchased elsewhere.

²Includes local retail sales tax of 1%, meals tax of 4%, and hotel tax of 5%, as appropriate.

Source: Stafford County Commissioner of the Revenue; ERA, 2009.

REAL PROPERTY

As described above, real estate is taxed at a rate of \$0.84 for every \$100 of assessed value. For this study, the construction cost of the new development is used as the assessed value. The same values as were used for the feasibility study are used for the fiscal analysis. The per square foot costs were estimated using published rates by building type from RS Means adjusted using the industry experience of the Master Planning Team and ERA.

A summary of the results by redevelopment area follow. It is important to note that this does not represent a net impact (existing uses and their impact are not removed, and the costs of County services to these new uses are not represented).

Table 21: Summary of Property Tax Benefits by Redevelopment Area

Use	Value ¹	County Tax ²
Boswell's Corner	\$1,22,372,178	\$1,027,926
Courthouse Area	\$144,885,069	\$1,217,035
Falmouth Village	\$17,459,910	\$146,663
Southern Gateway	\$95,266,451	\$800,238

¹Construction Cost (not including land) is used as a proxy for full market value

²Using 2009 rates, per County website @ \$0.84 per \$100.00 value.

Source: Stafford County Commissioner of the Revenue; ERA, 2009.

¹ BPOL is on business revenues, not retail sales, and it is not computed on gross sales, but is dependent on the number of businesses and how much each earn.

SALES AND USE

ERA calculated sales and use taxes both for the annual sales of on-site retail, restaurants, and hotels; for the estimated expenditures of residents (annual, at buildout of the Core Development Area), office workers, and construction workers (for the construction period) throughout the County (exclusive of on-site sales to these groups); and for the sales tax on construction materials.

On Site

Retail sales tax of 1% is imposed upon all retail sales. Sales tax rates to the Commonwealth of Virginia differ by type of sale (some food products food and non-prescription drugs are taxed at lower rates than other retail goods).

Retail sales for the various developments were estimated by taking the total rents used in the financial feasibility pro forma and dividing by 10%. 10% is the industry benchmark for the percentage of revenues spent on rent.

Meals in the County are taxed at 5% – 4% Meals and 1% sales tax. Restaurant sales were calculated using the same benchmark as retail – assuming rents represented 10% of sales.

Hotel stays in the county are taxed for transient occupancy tax at 5% and 1% for sales tax. ERA used room revenue – as assessed in the financial pro forma analysis – as a basis for sales. Other sales in the hotel are assumed to be mostly food sales, and are taxed as meals (5% total).

The results of all on-site sales and use are found in Table 22 (*On-Site Sales and Use Tax Revenue*).

Table 22: On-Site Sales and Use Tax Revenue

Boswell's Corner			
Use	Est. Sales /1	County Tax Rate /2	County Tax
Retail			
General Retail	\$37,886,778	1%	\$378,868
Restaurant	\$16,435,827	5%	\$821,791
Hotel			
Hotel--Rooms	\$4,793,905	6%	\$287,634
Hotel--Other	\$2,518,298	5%	\$125,915
Total	\$59,116,510		\$1,488,293
Courthouse			
Use	Est. Sales /1	County Tax Rate /2	County Tax
Retail			
General Retail	\$81,856,566	1%	\$818,566
Restaurant	\$14,622,062	5%	\$731,103
Total	\$96,478,628		\$1,549,669
Southern Gateway			
Use	Est. Sales /1	County Tax Rate /2	County Tax
Retail			
General Retail	\$46,665,884	1%	\$466,659
Restaurant	\$8,336,033	5%	\$416,802
Total	\$55,001,917		\$883,460
Falmouth			
Use	Est. Sales /1	County Tax Rate /2	County Tax
Retail			
General Retail	\$4,810,024	1%	\$48,100
Restaurant	\$4,868,923	5%	\$243,446
Total	\$9,678,947		\$291,546

1/ Sales are estimated assuming rents represent 10% of sales (benchmark for retail operations)

2/ Sales Tax rate is 1% for localities in Virginia; to this is added 5% rooms tax for hotel rooms and 4% meals tax for restaurants and hotel's "other" revenue.

Source: Stafford County Commissioner of the Revenue; Virginia Department of Taxation; ERA, 2009.

Resident and Office Worker Annual Retail Sales and Meals

New households, hotels, and office space will bring new daytime populations to Stafford County. To quantify the impact of these populations on sales taxes, ERA used the following methodologies:

Residents: ERA took the number of projected households (based on the new units in the Core Development Area) and estimated retail sales by category based on 2009 ESRI spending per household for the County. It was assumed that between 50% and 80% of total sales would be spent within the County (not counting sales on-site which are counted separately in the analysis).

Office workers: to estimate employees in proposed office space, ERA assumed an average of 250 square feet per employee. To estimate retail sales, ERA used information published by the International Council of Shopping Centers on office worker spending patterns. This is the same data used in ERA's market analysis work for the redevelopment areas. It was assumed 70% of all employees' workday spending would be captured in the County (excluding on-site purchases).

Hotel visitors: Boswell's Corner is the only redevelopment area to have a proposed hotel in the Core Development Area. To estimate visitor spending, ERA multiplied the number of rooms (110) by the estimated occupancy rate (70%) and multiplied the result by 365 to find the yearly room nights. Using spending data by the Virginia Travel Corporation (VTC), ERA calculated approximate total visitor group spending and estimated that of this, 40% would be captured within the County off-site.

The results of this analysis are shown in Table 23 (*Resident, Office Worker, & Hotel Guest Sales Tax Revenue from Off-Site Spending*).

Table 23: Resident, Office Worker, & Hotel Guest Sales Tax Revenue from Off-Site Spending

Boswell's Corner		
	County Sales	County Tax
Households	\$3,577,048	\$65,974
Hotel Visitors	\$533,510	\$14,983
Office Workers	\$2,352,000	\$50,568
Courthouse		
	County Sales	County Tax
Households	\$8,479,637	\$156,396
Office Workers	\$4,480,000	\$96,320
Southern Gateway		
	County Sales	County Tax
Households	\$4,701,604	\$86,715
Office Workers	\$1,008,000	\$21,672
Falmouth		
	County Sales	County Tax
Households	\$681,912	\$12,577
Office Workers	\$280,000	\$6,020

Source: Stafford County Commissioner of the Revenue; Virginia Department of Taxation; ERA, 2009.

Construction Period Sales and Use Taxes

For the construction period sales and use taxes, ERA assessed two components: construction of the Core Development Area program and additional infrastructure improvements by the County for the Core Development. There were assumed to be additional infrastructure needs in the Falmouth and Southern Gateway areas, based on information provided to ERA by the civil infrastructure members of the Master Planning Team. Both these infrastructure costs and construction costs of the development program were broken down into hard and soft costs. As a benchmark, costs break down to approximately 65% hard costs and 35% soft costs. Hard costs include the cost of construction—including materials and the labor to construct the building; soft costs include costs such as financing and architecture. Hard costs can subsequently be divided into labor and materials costs. The cost of labor represents approximately 40% of total hard costs, with materials making up the balance.

For sales county-wide from these construction workers, ERA took the total costs of labor, and using standard retail benchmarks based on the U.S. Bureau of Labor Statistics Consumer Expenditure Survey, assumed that these workers will spend 28% of income on general retail purchases and 6% on meals in restaurants. Of these, ERA estimated that half of all spending would be in Stafford.

Additionally, developers would pay sales tax on building materials purchased for construction. It is assumed sales tax for Stafford would be levied on 100% of the materials. The total construction-period impacts are shown by redevelopment area in Table 25 (*Sales and Use Tax Revenues from Construction Period*).

Table 24: Core Development Area Construction Costs for Materials and Labor

Boswell's Corner			
Use		Development Program	Other Infrastructure Expenditures
Total		\$122,372,178	n/a
Estimated Hard Costs	65%	\$79,541,916	n/a
Estimated Soft Costs	35%	\$42,830,262	n/a
Estimated Hard Costs		\$79,541,916	n/a
Estimated Materials Costs	60%	\$47,725,149	n/a
Estimated Labor Costs	40%	\$31,816,766	n/a
Courthouse			
Use		Development Program	Other Infrastructure Expenditures
Total		\$144,885,069	n/a
Estimated Hard Costs	65%	\$94,175,295	n/a
Estimated Soft Costs	35%	\$50,709,774	n/a
Estimated Hard Costs		\$94,175,295	n/a
Estimated Materials Costs	60%	\$56,505,177	n/a
Estimated Labor Costs	40%	\$37,670,118	n/a
Southern Gateway			
Use		Development Program	Other Infrastructure Expenditures
Total Construction Costs		\$95,266,451	\$3,062,585
Estimated Hard Costs	65%	\$61,923,193	\$1,990,680
Estimated Soft Costs	35%	\$33,343,258	\$1,071,905
Estimated Hard Costs		\$61,923,193	\$1,990,680
Estimated Materials Costs	60%	\$37,153,916	\$1,194,408
Estimated Labor Costs	40%	\$24,769,277	\$796,272
Falmouth			
Use		Development Program	Other Infrastructure Expenditures
Total		\$17,459,910	\$1,187,585
Estimated Hard Costs	65%	\$11,348,942	\$771,930
Estimated Soft Costs	35%	\$6,110,969	\$415,655
Estimated Hard Costs		\$11,348,942	\$771,930
Estimated Materials Costs	60%	\$6,809,365	\$463,158
Estimated Labor Costs	40%	\$4,539,577	\$308,772

Source: Urban, Ltd.; ERA, 2009.

Table 25: Sales and Use Tax Revenues from Construction Period

Boswell's Corner		
	Development Program	Other Infrastructure Expenditures
Sales Taxes from Materials	\$477,251	n/a
<u>Construction Worker Spending</u>		
General Sales Taxes	\$44,543	n/a
Restaurant	\$47,725	n/a
Courthouse		
	Development Program	Other Infrastructure Expenditures
Sales Taxes from Materials	\$565,052	n/a
<u>Construction Worker Spending</u>		
General Sales Taxes	\$52,738	n/a
Restaurant	\$56,505	n/a
Southern Gateway		
	Development Program	Other Infrastructure Expenditures
Sales Taxes from Materials	\$371,539	\$11,944
<u>Construction Worker Spending</u>		
General Sales Taxes	\$34,677	\$1,115
Restaurant	\$37,154	\$1,194
Falmouth		
	Development Program	Other Infrastructure Expenditures
Sales Taxes from Materials	\$68,094	\$4,632
<u>Construction Worker Spending</u>		
General Sales Taxes	\$6,355	\$432
Restaurant	\$6,809	\$463

Source: Urban, Ltd.; Stafford County Commissioner of the Revenue; ERA, 2009.

FINANCIAL IMPLEMENTATION CONSIDERATIONS & TOOLS

Implementation of the development programs will be highly depended on:

- Availability of infrastructure appropriate to the land uses and scale;
- Availability of financing for the specific development or land uses proposed (including the timing of economic recovery of capital markets);
- Ability of each specific market (retail, residential, office, etc.) to absorb space as it is developed (greatly linked to the availability of qualified tenants).

To address the issue of infrastructure implementation, development plans should start in the locations within each redevelopment area that already has adequate infrastructure for the proposed uses, while planning for eventual growth over a period of 10 to 30 years (30 years being a common period for infrastructure bonds). Issues of financing availability are linked to the individual developer, whether there is a public financing mechanism that can be used to cover infrastructure or other costs (thus lowering the amount of financing required) such as tax-increment financing (TIF) or enterprise funds that might be available. Market absorption was addressed in the market analysis of the redevelopment areas.

At the time of the development of this plan, the residential, retail and office market opportunities are limited, with the possible exception of medical-related office and supporting retail in the Courthouse Area. As Marine Corps Base Quantico expands, additional market support will improve for office and supportive retail and residential development in Boswell's Corner.

While grant funds and programs for commercial redevelopment are limited, the tools listed below are an example of organizations, funds and programs that may be available for use in the various redevelopment areas.

ECONOMIC DEVELOPMENT SUPPORT – STAFFORD COUNTY

Economic Development Authority

The Stafford Economic Development Authority (EDA) is a Board-appointed commission of the county that assists the Board of Supervisors in attracting and financing industry and commerce. The Stafford EDA and the State of Virginia provide incentives to businesses based on the return on investment that they will bring to the community. Incentives include industrial revenue bonds, a loan guaranty program, capital access program and work force training. The EDA would seem to be a logical key actor in the implementation of the redevelopment program, along with local economic development organizations.

The Economic Development Authority (EDA), in cooperation with the Virginia Electronic Commerce Technology Center (VECTEC), offers 50/50 E-commerce Grant Funds for small businesses expansion.

TECHNOLOGY ZONES

Virginia cities, counties and towns have the ability to establish, by ordinance, one or more technology zones to attract growth in targeted industries. Each jurisdiction designs and administers its own program. According to the enabling legislation (Virginia Code 58.1-3850), this enables jurisdictions to grant tax incentives and provide certain regulatory flexibility.

Tax incentives may be provided for up to ten years and may include:

- Reduction of permit fees
- Reduction of user fees
- Reduction of any type of gross receipts tax.

In addition to tax incentives, the jurisdiction can also provide regulatory flexibility such as special zoning, a special permitting process, exception from certain ordinances, or other incentives. These are also binding for a period of ten years. Having a technology zone does not preclude the County from also taking advantage of an enterprise zone program.

ECONOMIC AND BUSINESS DEVELOPMENT TOOLS – COMMONWEALTH OF VIRGINIA

Tax-Increment Financing (TIF)

Tax Increment Financing (TIF) is an economic development tool available for use in Virginia designed to stimulate economic activity within specific geographic boundaries. A TIF district is effective for redeveloping areas, encouraging private investment in areas with limited prospects for growth, and improving areas where a much higher quality of development is desired. A key element of the TIF is a “but for” statement – that the economic benefits of the new private development would not otherwise occur (“but for”) without the public investment within the TIF district. TIF is most often used to support bonds used for infrastructure improvements. The calculation of funds available is based on the difference between a baseline assessed value and a projected future assessed value after improvements. Use of a TIF district should be carefully planned so as to not over estimate the potential increment and to accurately anticipate development absorption and market values.

Virginia Small Business Financing Authority

The Virginia Small Business Financing Authority (VSBFA) provides debt financing assistance to established, existing, Virginia-based businesses, entrepreneurs, and to qualifying businesses wishing to expand into Virginia. The VSBFA's financing programs include:

1. ***Economic Development Loan Fund (EDLF):*** The Economic Development Loan Fund (EDLF), funded by the federal Economic Development Administration (EDA), offers gap financing between private debt financing and private equity. Funds are available to economic development authorities and qualifying new and expanding businesses that are creating new jobs or saving “at risk” jobs in qualified underserved and distressed areas of Virginia as defined by the EDA. Funds are also available to Virginia businesses which derive 15% or more of their revenues from defense-dependent activities and can demonstrate economic hardship related to defense downsizing. Funds can be used for the acquisition of land and buildings, construction or improvements to facilities and the purchase of machinery and equipment. Funds can also be used to assist defense-dependent businesses transition to private sector markets. The maximum loan available from the EDLF for each project is limited to \$1,000,000 or 40% of the total project cost, whichever is less.
2. ***Loan Guaranty Program:*** Through the Loan Guaranty Program, the Virginia Small Business Financing Authority will guarantee a portion of a loan or line of credit extended by a commercial bank to a qualified Virginia business. With a guaranty from VSBFA, the bank benefits by reducing its risk in lending to the Virginia business, and the business benefits by accessing financing it would not otherwise have been able to obtain. The maximum guaranty under the program is 75% of the loan or line of credit up to a maximum

guaranty of \$500,000. The program can be used to provide a guaranty for a short-term line of credit or a term loan of up to three years in duration. Applications for the Loan Guaranty Program are made by the bank requesting the guaranty.

3. Virginia Capital Access Program (VCAP):

The Virginia Small Business Financing Authority's (VSBFA) Virginia Capital Access Program (VCAP) provides access to capital for Virginia businesses by encouraging banks in Virginia to make loans that they would otherwise not make due to a borrower's riskier profile. Unlike government guaranty programs which provide a guaranty of a specific loan, VCAP utilizes an insurance concept on a portfolio of loans. The Program establishes a loan loss reserve at each participating bank which is funded by enrollment premiums paid by the Borrower/Bank and VSBFA. Because the participating bank determines what loans to enroll without VSBFA's involvement, the Program is a flexible, non-bureaucratic tool to assist banks in meeting the financing needs of Virginia businesses. If the participating bank determines that the proposed financing request does not meet the bank's normal underwriting guidelines, the bank will then determine whether the proposed loan transaction would be acceptable if the loan were enrolled in VCAP.

4. Industrial Development Bond Program: Companies seeking to finance new manufacturing plants or improvements to existing manufacturing plants can obtain long-term financing at favorable interest rates through the use of industrial development bonds (IDBs). An IDB is a form of tax-exempt municipal bond issued by a state or local government entity to finance the acquisition, construction or equipping of a facility. IDB tax-exempt financing for manufacturing projects has been restored under the federal Revenue Reconciliation Act of 1993 on a permanent basis. Today IDBs continue to provide companies with an important alternative to conventional financing of manufacturing projects. Some of the benefits of IDBs are:

- a. Sub-prime pricing. Since interest earned on IDBs is exempt from federal income taxes, IDBs provide lower interest rates than conventional financing.
- b. 100% project financing. IDBs enable companies to finance virtually all the costs of a project, including site preparation, capitalized interest during construction and most issuance costs, up to \$20 million.
- c. Long-term financing. IDBs can have an average maturity of up to 120% of the economic life of the assets financed.

5. Virginia Department of Housing and Community Development - The Community Economic Development (CED) fund:

The CED fund is designed to support economic development activities, particularly those creating employment opportunities for low- and moderate- income persons in Virginia Community Development Block Grant Eligible Localities. Assistance is limited to projects involving employment creation by private, for-profit basic industries. Projects involving commercial development or other types of job creation may be eligible for competitive grant funding. Activities eligible for CED funding include:

- a. Off-site improvements related to industrial location or expansion, including water and sewer system improvements, streets, and drainage.
- b. On-site improvements are also eligible, pending underwriting, but the funding required for these improvements will be provided to localities in loan form.
- c. This is a relatively broad strategy; therefore certain communities with higher median income are not always eligible, and funds are implemented in a case-by-case basis.

6. Governor's Opportunity Fund (GOF):

The GOF supports economic development projects that create new jobs and capital investment according to state guidelines:

- a. Project investment & job creation are achieved
- b. Locality participates with matching financial commitment
- c. Project is not an intrastate relocation
- d. Performance agreement is effected between the locality and the business to ensure fulfillment of promised job creation and investment GOF is coordinated by the Virginia Economic Development Partnership (VEDP)

7. Virginia Department of Taxation Major Business Facility Tax Credit:

Qualified businesses locating or expanding in Virginia receive a \$1,000 corporate income tax credit for each new full time job created over 100 jobs. (not available to businesses utilizing Enterprise Zone job grants.)

8. Community Development Authority (CDA):

A Community Development Authority is an entity authorized by the Board of County Supervisors (upon petition by a majority of property owners, or those owning a majority of the assessed value, within the proposed CDA boundaries) for the purpose of providing public infrastructure. The CDA is empowered to issue tax-exempt bonds for thirty different kinds of infrastructure improvements including, in part, roads, parks, recreation facilities, educational facilities, water and sewer, and fire prevention and control systems.

Any bonds issued by the CDA are repaid through assessments (other than county tax assessments) levied upon the property owners within the boundaries of the CDA district. Assessments can be levied in two ways.

1. Ad Valorem Assessments limited to 25 cents per \$100 unless all property owners agree to a higher rate;
2. Special Assessment based on use and benefit from the improvements. Assessments cannot exceed the cost of the improvements.

Potential Benefits of a CDA:

There are several reasons to consider using a CDA as a funding mechanism for infrastructure improvements. Some reasons would include:

- a. Providing a development incentive for potential developers and property owners by reducing the costs of development of infrastructure;
- b. As a means of accelerating the project timing by financing all of the improvements over the 30-year bond period but implementing the infrastructure improvements in the initial phases of the redevelopment;
- c. Owners/developers might be able to increase development value of their investments by having such infrastructure and funding available;
- d. The CDA can require levels of development quality, thus improving the overall redevelopment area;
- e. It is a lawful and ready redevelopment tool that is already being used in other areas of the Commonwealth;
- f. The CDA could assume expenses that otherwise could be County expenses.

Caveats Using CDA Bonds:

Using CDA bonds is not without risk. As with any issuance of debt, the primary concern is default on bonds as a result of insufficient ad valorem tax revenues (if that is the method chosen) or the inability

of property owners to pay special assessments due to slow absorption or poor financial performance of developments within the CDA district. Other concerns might include:

- a. Property value decline could reduce the bond repayment revenue stream. Recent economic experience nationwide with property value declines raises the question of whether values can be kept constant or increasing over the life of the bonds;
- b. There is default potential in the development start-up phase when most land in the CDA owned by developers or property owners and is not yet improved. This time gap can be problematic if extended as bond repayments may have to begin before sufficient revenues are available for repayment;
- c. Insufficient sales/rents to feed bond repayment revenue stream could be a problem if the land uses within the CDA do not perform well;
- d. Cyclical economic downturn could hurt property values, sales prices and/or sales of goods and services that ultimately support the values and/or assessments;
- e. Cost overruns on infrastructure improvements could lead to a liquidity problem
- f. If the CDA fails to perform financially, the County could be at risk to cover the repayments;
- g. The higher tax burden on property located within a CDA might make owners within the boundaries less likely to support the creation of the CDA and risk of higher burden should the CDA fail could reduce citizen support for general County bond referenda;
- h. A potential policy issue exists with the permissibility of using CDA bond proceeds to satisfy proffer obligations. As most CDA-type improvements would likely be eligible for funding under the use of proffers, using CDA funding in this manner results in a depletion of total available County CDA debt capacity. There is also the policy issue of shifting responsibility for paying for proffered improvements directly to the property owner as opposed to specific developers.

ERA was not tasked to complete a CDA sensitivity analysis or to conduct an analysis that reliance upon which debt or securities should be issued. To understand the full implication of the risks and potential of the establishment of a CDA, a full detailed analysis would be needed.

Note: Master plan implementation may require that there will have to be some public funds invested for infrastructure improvements if the CDA vehicle isn't used. These could be paid through:

- a. General obligation bonds as they might any infrastructure or
- b. As a pay-as-you-go using the general fund, the utility fund or a combination of the two.
- c. For any large single developer within the redevelopment areas, a proffer structure may also be used to pay for needed improvements to support the development (however, but, unless such developers are "ready to develop right away, some incentive such as a CDA to reduce the cost of development may be needed).

FEDERAL ECONOMIC DEVELOPMENT TOOLS

Economic Development Administration (EDA)

1. **Public Works and Economic Development Program:** Public Works and Economic Development investments help support the construction or rehabilitation of essential public infrastructure and facilities necessary to generate or retain private sector jobs and investments, attract private sector capital, and promote regional competitiveness, including investments that expand and upgrade infrastructure to attract new industry, support technology-led development, redevelop brownfield sites and provide eco-industrial development. Eligibility is based on economic distress levels, which is determined at the time of application. The EDA

defines economic distress as having one or more of the following criteria: an unemployment rate 1% above the national average for 24 months; per capita income that is 80% or less of the national average per capita income; or a "Special Need," as determined by EDA. The EDA may approve projects that are in sub-areas of regions that do not meet this criteria if the project has "substantial direct benefit" to a geographic area that meets the criteria by providing significant employment to unemployed or low-income residents.

Department of Housing and Urban Development

1. **Community Development Block Grants (CDBG):** CDBG funds are available to eligible localities for off-site activities such as water and sewer extensions or treatment facilities and road & rail access. Funds may be available for on-site assistance that supports economic development, subject to underwriting.

Community Development Finance Institutions Fund (CDFI)

1. **The Community Development Financial Institutions (CDFI) Program** uses federal resources to invest in and build the capacity of CDFIs to serve low-income people and communities lacking adequate access to affordable financial products and services. The Fund provides monetary awards for Financial Assistance (FA) through the CDFI Program. CDFIs use FA awards to further goals such as economic development (job creation, business development, and commercial real estate development) and affordable housing (housing development and home ownership).
2. **Financial Assistance (FA) Awards:** Through FA awards, the Fund invests in certified CDFIs that demonstrate they have the financial and managerial capacity to:
 1. Provide affordable and appropriate financial products and services that positively impact their communities;
 2. Be viable financial institutions;
 3. Use and leverage CDFI Fund dollars effectively.
3. **New Market Tax Credits:** The New Markets Tax Credit (NMTC) Program permits taxpayers to receive a credit against Federal income taxes for making qualified equity investments in designated Community Development Entities (CDEs). Substantially all of the qualified equity investment must in turn be used by the CDE to provide investments in low-income communities. An organization wishing to receive awards under the NMTC Program must be certified as a CDE by the CDFI Fund. To qualify as a CDE, an organization must:
 - i. Be a domestic corporation or partnership at the time of the certification application;
 - ii. Demonstrate a primary a mission of serving, or providing investment capital for, low-income communities or low-income persons;
 - iii. Maintain accountability to residents of low-income communities through representation on a governing board of or advisory board to the entity.
4. **Office of Economic Adjustment:** Stafford already receives BRAC-related funds to establish a baseline for further planning in the Boswell's Corner area, and to establish Jefferson Davis Highway (US-1) in Boswell's Corner as a regional improvement priority.

Within the planned redevelopment areas, all of the census tracts are reported by the CDFI Fund as eligible to receive NMTC funds. NMTC may also be used in conjunction with federal and state historic rehabilitation tax credits (HTC) in eligible areas for historic properties. There may be opportunities for such reinvestment activity in the Falmouth Village redevelopment area.

APPENDIX VIII

CONCEPT MASTER REDEVELOPMENT PLAN ACKNOWLEDGMENTS

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