FLUVANNA COUNTY BOARD OF SUPERVISORS

REGULAR MEETING AGENDA

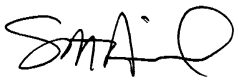
Circuit Courtroom, Fluvanna Courts Building

February 19, 2014, 7:00 pm

TAB	AGENDA ITEMS
1 - CALL TO ORDER, PLEDGE OF ALLEGIANCE, MOMENT OF SILENCE	
2 - COUNTY ADMINISTRATOR'S REPORT	
3 - PUBLIC COMMENTS #1 (5 minutes each)	
4 - PUBLIC HEARING	
	None
5 - ACTION MATTERS	
W	Grant Application for FY15 School Resource Officers – Gena Keller, School Superintendent
X	Appointment/JABA Board of Directors – Mary Weaver, Clerk to the Board
6 - PRESENTATIONS (normally not to exceed 10 minutes each)	
	PVCC Annual Report – Dr. Frank Friedman, PVCC President
	Sheriff's Office 2013 Annual Report – Sheriff Ryant Washington
YZ	Senior Services – Jason Smith, Parks and Recreation Director
7 - UNFINISHED BUSINESS	
A	ZMP 12:02 & SUP 13:02 – Hotel Street Capital, LLC – Jason Stewart, Planning and Zoning Administrator
8 - CONSENT AGENDA	
B	Minutes of February 05, 2014 – Mary Weaver, Clerk to the Board
C	Open Space Contract/Matthew L. Dickey – Mel Sheridan, Commissioner of the Revenue
D	Open Space Contract/Janet M. Grubbs – Mel Sheridan, Commissioner of the Revenue
E	FY14 Voluntary Contributions 1st Half – Eric Dahl, Management Analyst
F	FY14 Fluvanna County Public Schools Budget Supplement – Donations – Eric Dahl, Management Analyst
G	FY14 Fluvanna County Public Schools Budget Supplement – Insurance Claim – Eric Dahl, Management Analyst
H	Capital Reserve Maintenance Fund Request for School Signage – Chuck Winkler, School Assistant Superintendent.
9 - ACCOUNTS PAYABLE / BUDGET REPORT	
	None
10 - UNFINISHED BUSINESS (cont.)	
	TBD

For the Hearing-Impaired – Listening device available in the Board of Supervisors Room upon request. TTY access number is 711 to make arrangements. For Persons with Disabilities – If you have special needs, please contact the County Administrator's Office at 591-1910.

11 - NEW BUSINESS
TBD
12 - PUBLIC COMMENTS #2 (5 minutes each)
13 - CLOSED MEETING
TBD
14 – Work Session
Capital Budget and CIP
15 – ADJOURN



Steven M. Nichols
2014.02.12
15:27:26 -05'00'

County Administrator Review

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PLEDGE OF ALLEGIANCE

I pledge allegiance to the flag
of the United States of America
and to the Republic for which it stands,
one nation, under God, indivisible,
with liberty and justice for all.

****

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ORDER

1. It shall be the duty of the Chairman to maintain order and decorum at meetings. The Chairman shall speak to points of order in preference to all other members.

2. In maintaining decorum and propriety of conduct, the Chairman shall not be challenged and no debate shall be allowed until after the Chairman declares that order has been restored. In the event the Board wishes to debate the matter of the disorder or the bringing of order; the regular business may be suspended by vote of the Board to discuss the matter.

3. No member or citizen shall be allowed to use abusive language, excessive noise, or in any way incite persons to use such tactics. The Chairman and/or the County Administrator shall be the judge of such breaches, however, the Board may vote to overrule both.

4. When a person engages in such breaches, the Chairman shall order the person's removal from the building, or may order the person to stand silent, or may, if necessary, order the person removed from the County property.

PUBLIC HEARING RULES OF PROCEDURE

1. PURPOSE
   - The purpose of a public hearing is to receive testimony from the public on certain resolutions, ordinances or amendments prior to taking action.
   - A hearing is not a dialogue or debate. Its express purpose is to receive additional facts, comments and opinion on subject items.
2. SPEAKERS
   - Speakers should approach the lectern so they may be visible and audible to the Board.
   - Each speaker should clearly state his/her name and address.
   - All comments should be directed to the Board.
   - All questions should be directed to the Chairman. Members of the Board are not expected to respond to questions, and response to questions shall be made at the Chairman's discretion.
   - Speakers are encouraged to contact staff regarding unresolved concerns or to receive additional information.
   - Speakers with questions are encouraged to call County staff prior to the public hearing.
   - Speakers should be brief and avoid repetition of previously presented comments.
3. ACTION
   - At the conclusion of the public hearing on each item, the Chairman will close the public hearing.
   - The Board will proceed with its deliberation and will act on or formally postpone action on such item prior to proceeding to other agenda items.
   - Further public comment after the public hearing has been closed generally will not be permitted.

For the Hearing-Impaired – Listening device available in the Board of Supervisors Room upon request. TTY access number is 711 to make arrangements. For Persons with Disabilities – If you have special needs, please contact the County Administrator's Office at 591-1910.

BOARD OF SUPERVISORS AGENDA ITEM

Meeting Date: February 05, 2014

SUBJECT:	DEPARTMENT OF CRIMINAL JUSTICE GRANT OPPORTUNITY FOR FCPS
MOTION(s):	**I move to approve that the Board of Supervisors authorize matching funding in the amount of $_____ associated with the DCJS grant in order to secure _____ School Resource Officer(s) in our school(s), effective July 1, 2014.**
STAFF CONTACT:	Mr. Frank Leech, Director of Student Services
RECOMMENDATION:	Approval
TIMING:	January 15, 2014
DISCUSSION:	School safety efforts are integral to providing a safe and secure environment for our children in Fluvanna County Public Schools. The Department of Criminal Justice Services is offering a grant opportunity to secure School Resource Officers at our elementary schools and at our middle school. Currently, FCPS has one School Resource Officer at Fluvanna County High School.
FISCAL IMPLICATIONS:	The grant outlines the following funding formula for local government matching funds: Year 1: Total grant = $150,000.00 Local funding requirement: $59,832.00 Year 2: Additional 10% of the baseline $59,832.00 Year 3: Additional 15% of the baseline $59,832.00 Year 4: Additional 25% of the baseline $59,832.00 All subsequent years: 100% (Approximately $150,000)
POLICY IMPLICATIONS:	
LEGISLATIVE HISTORY:	
ENCLOSURES:	Grant application packet

Department of Criminal Justice Grant Opportunity for School Resource Officers

January 15, 2014

School Resource Officer (SRO) Grant Funding

Estimated Annual Local Costs			
	One SRO	**Three SROs**	**Funding Source**
Year 1	$19,945	$61,326	Partial grant funding
Year 2	$23,481	$70,442	Partial grant funding
Year 3	$25,000	$74,999	Partial grant funding
Year 4	$28,038	$84,115	Partial grant funding
Year 5+	$50,827	**$152,481**	No grant funding

Notes:

(1) Funding estimate is only for salary and associated benefits.

(2) Salaries are "frozen" across grant.

Also note absence of supplies, equipment, and vehicles in the grant request

Questions?

2014-15 School Resource Officer and School Security Officer Incentive Grant Program

Guidelines
and
Application Procedures

For New Programs and Continuation Programs

Department of Criminal Justice Services
1100 Bank Street
Richmond, VA 23219

Issued November, 2013

School Resource Officer and School Security Officer
Incentive Grants Program
2014-15 Guidelines

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I. Introduction

The Department of Criminal Justice Services (DCJS) is offering state funds through the School Resource Officer Incentive Grant Program to establish new and continue both School Resource Officer (SRO) positions in local law enforcement agencies, and new School Security Officer (SSO) positions in local school divisions.

These funds will be used to promote school safety and security by supporting School Resource Officer (SRO) and School Security Officer (SSO) positions assigned to public elementary, middle, and high schools in the Commonwealth of Virginia. A primary goal of this grant program is to establish, enhance, and continue the partnerships between local law enforcement agencies and local school divisions. This grant program is focused on funding SRO/SSO positions where none currently exist as part of an overall school safety strategy, and to continue successful new programs funded in 2014-2015.

These guidelines contain the rules and requirements governing the School Resource Officer/School Security Officer Incentive Grant Program, the required grant application forms, and instructions for completing and submitting your application.

Localities are encouraged to consider School Security Officer positions when the situation deems an additional security presence is merited yet the full functions of a School Resource Officer may not be suitable. **For purposes of definition, a School Security Officer means an individual who is employed by the local school board for the singular purpose of maintaining order and discipline, preventing crime, investigating violations of school board policies, and detaining students violating the law or school board policies on school property or at school-sponsored events and who is responsible solely for ensuring the safety, security, and welfare of all students, faculty, staff, and visitors in the assigned school.**

In a change from last year's solicitation, $200,000 in FY14 grant funds will be set-aside for SSO positions. Any funds remaining from this set-aside will be used to fund eligible SRO positions.

II. Eligibility

Units of local government are eligible to apply for and receive these funds. A police department, Sheriffs' office or school division may manage the SRO/SSO program but the grant application must be submitted by and the funds awarded to a unit of local government. **Priority will be given to localities requesting SRO/SSO positions in schools where no such personnel are currently in place. Localities with an SRO position are eligible to apply for an SSO position if the need is sufficiently documented and funding is available.**

Forty-eight (48) months is the maximum length of time that grant funds will be awarded to support an SRO/SSO position in a specific elementary, middle, or high school. These grant funds are to be used to establish new SRO/SSO positions in public school buildings where one does not currently exist. These funds may not be used to supplant other funding sources used to fund current SRO/SSO positions.

III. Grant Deadline

Applications, whether mailed or hand-delivered, must be **received** by DCJS **no later than 4:00 p.m. on Wednesday, January 15, 2013.** Faxed or E-mailed applications will **not** be accepted.

IV. Amount Available

For SRO/SSO program applications:
Grant funds are to be used to pay only salary and benefits for SRO/SSO positions. The total amount requested in an application for a **new or continuation** SRO program may not exceed **$50,000** per SRO position, including the required local cash matching funds. The total amount requested in an application for a **new** SSO program may not exceed **$22,000** per SSO position, including the required local cash matching funds.

Localities may apply for both SRO and SSO positions in the same application. However, the needs assessment portion of the application must address how each SRO/SSO position will help meet the localities' overall goal of improving school safety. The only allowable expenses for this grant are salary and benefits for a full-time SRO or SSO position in an elementary, middle, or high school.

V. Grant Period

Grants will be awarded on a competitive basis for one (1) twelve-month period beginning July 1, 2014 and ending June 30, 2015.

VI. Match Requirement

The grant match requirement is the localities "Composite Index of Local Ability to Pay". Applicants should consult the Virginia Department of Education's **"2012-2014 Composite Index of Local Ability-to-Pay"** to identify their locality's 2012-2014 Composite Index.

http://www.doe.virginia.gov/school_finance/budget/compositeindex_local_abilitypay/2012-2014/composite_index.pdf

Use your locality's 2012-2014 Composite Index to calculate your required local matching cash funds for this year's SRO/SSO Incentive Grants Fund application.

Grant recipients must provide the local matching cash funds from non-federal sources. In-kind contributions may not be used to meet the required local cash match.

The ***hypothetical DCJS Itemized Budget Form (below)*** shows how matching cash funds for each line item are calculated.

Hypothetical:
The town of Virginiaville's annual salary rate for a full-time SRO is $30,000 with fringe benefits equaling $5,000. Virginiaville's 2012-2014 Composite Index of Local Ability-to-Pay is .3032. To calculate the amount of local matching cash funds required, Virginiaville would multiply the total salary ($30,000) by its composite index (.3032) and repeat this process for each line item.

Total per line item x Composite Index = Local cash match per line item
($30,000) x .3032 = $9,096

ITEMIZED BUDGET								
1. Personnel/Employees				DCJS FUNDS		APPLICANT MATCH		TOTAL
a. Names of Employees	Position Titles	Annual Salary Rate	Hours Devoted	FEDERAL	STATE	CASH	IN-KIND	
Dep. J. Smith	SRO	$30,000	2080		$20,904	$9,096		$30,000
TOTAL:					$20,904	$9,096		$30,000
b. Fringe Benefits			$5,000					
FICA % =10%					$348	$152		$500
Retirement = 20%					$697	$303		$1,000
Other (itemize) = 70%					$2439	$1,061		$3,500
TOTAL:					$3,484	$1,516		$5,000
TOTAL PERSONNEL (a + b):					$24,388	$10,612		$35,000

Cost Assumption Calculations for Continuation Programs:

Please note the following information has changed to better assist localities with SRO/SSO program implementation and transition to local funding.

Positions approved for continuation funding will be based on the following scale:

Year 2: 10% of 1st year award including match
Year 3: 15% of 1st year award including match
Year 4: 25% of 1st year award including match

For example, in year 2 of the grant, the cost assumption calculation is done as followed:

- The total award in year one was $30,000.
- $30,000 x 10% = $3,000 local cost assumption.
- $30,000 - $3,000 = $27,000.
- $27,000 is the total amount allowable for year 2.
- As outlined above, to calculate the composite index match: $27,000 x .3032(example only) = $8.186.
- So your total grant request would be: $18,814 in state funds; $8,186 in Local Match for a total of $27,000.

VII. Restrictions

• Grant funds shall not be used to supplant state or local funds that would otherwise be available for the same purposes.

• The maximum length of time that grant funds can be used to support an SRO or SSO grant funded position is 48 months.

• Grant funds may be used **only** for salary and fringe benefits for a full-time SRO or SSO. No equipment, supplies, firearms, vehicles, training, etc. will be funded by this grant.

VIII. Availability of Continuation Funding

Approval of one grant does not imply or guarantee funding awards in subsequent years. In addition to a project's implementation, performance, and the availability of funds, compliance with grant reporting requirements and timely submission of any special condition documentation attached to the current award are key factors in determining eligibility for continuation funding.

1. **No current recipient of funding through this grant program will be considered for continuation funding if, as of the continuation application due date, any of the required financial and progress reports for the current grant are more than thirty (30) days overdue**. For good cause, submitted in writing by the grant recipient, DCJS may waive this provision.

2. **All special conditions for the current award must be completed and approved by DCJS by the time of review in order for the continuation grant to be considered.**

IX. Application Requirements

A. ***SRO; School Resource Officer positions*** must be based on the Virginia School Resource Officer Program Guide and incorporate the following components:

1) SROs who are certified, sworn law enforcement officers employed by a lawfully established police department or sheriff's office;
2) SROs who have at least one (1) year of certified law enforcement experience and the demonstrated ability, interest, and skills necessary to work with youth, school personnel, and the public to solve problems;
3) SROs must have attended a DCJS approved SRO Basic School or will attend one within the first four months of the grant cycle;
4) SROs will be assigned to **one** secondary or elementary school. There must be a Memorandum of Understanding (MOU) between the School Divisions and the Law Enforcement agency. If a current MOU is not in place at the time of application submission, the applicant must submit letters signed by the Chief of Police or Sheriff and the School Superintendent indicating intent to have an MOU in place within 30 days of grant award. The executed MOU must be received by DCJS within 30 days of the date of the grant award, and before any grant funds will be disbursed.

B. ***SSO; School Security Officer positions*** are to be compliant with requirements set out in the Virginia Administrative Code, Title 6, Agency 20, Chapter 6: Regulations for School Security Officers.

X. Application Forms and Instructions

Each application for new **SRO or SSO** funding must contain the following items and be submitted in the order listed below. For the Budget and Project Narrative sections of your application use the titles and headings specified in these guidelines.

- **Grant Application Form:** The first page of your application is the **Grant Application,** a one-page form. Please do not alter this form. It is extremely important that you provide fax numbers, e-mail addresses as well as telephone numbers for each

person listed. Use the table below to assist you in completing the Grant Application Form.

Information Block	**Content**
Grant Program	Put "School Resource Officer/School Security Officer Grant Program "
Congressional District	Indicate the Congressional District(s) in which the project will operate.
Applicant	Provide the name of the locality applying.
Faith Based organization?	N/A
Applicant FIN	Provide applicant's Federal Identification Number.
Best Practice?	N/A
Jurisdiction(s) Served and Zip Codes	List all jurisdictions and Zip Codes in which the project will operate.
Program Title	School Resource Officer or School Security Officer
Grant Period	July 1, 2013 to June 30, 2014
DUNS Number	Provide your locality or organization's Data Universal Numbering System (DUNS) number. The DUNS number is a unique nine-character identification number provided by Dun and Bradstreet. If you do not have a DUNS number, go to http://fedgov.dnb.com/webform.
Type of Application	New
Rural, Urban, Suburban	Check the box that best describes the applicant locality.
Project Director	Provide name and all requested contact information for person who will have day-to-day responsibility for managing the project and who will be the contact if DCJS needs project-related information.
Project Administrator	The person who has authority to formally commit the locality to comply with the terms of the grant application including provision of the required cash match. This must be the local unit of governments chief elected official or the County Administrator, City Manager, Town Manager or Mayor, not the Sheriff or Chief of Police.
Finance Officer	The individual responsible in the locality for fiscal management of the funds associated with this grant.
Signature of Project Administrator	Signature of the County Administrator, City Manager, Town Manager or Mayor.
Brief Project Description	In **100 words or less**, provide a description of the proposed project. Include the name of the school in which the SRO/SSO will be working.
Project Budget Summary	This grant only provides salary and fringe benefits. Figures should be in the Personnel category only. Figures on this form must match those on the "Itemized Budget" form. Please round figures to the nearest dollar.

A. Itemized Budget Form: You must submit DCJS' **DCJS Itemized Budget**, a two-page form, to detail all proposed project expenditures, including matching funds. Alternative forms will not be accepted. This grant only provides salary and benefits. On the Itemized Budget Form, provide line item breakdowns of salary and benefit figures, listing the figures in the "State" column under "DCJS Funds" and in the "Cash" column under "Applicant Match." The proposed grant budget must reflect match on a line-by-line basis. Please round figures to the nearest dollar. The

Itemized Budget form is an Excel spreadsheet which will calculate the totals by line and column automatically.

On the Itemized Budget Form:

#1. Personnel/Employees

a.) Salaries*:* list the position(s) by title and provide the name of the SRO(s) or SSO(s) designee(s), if known. Show the local annual salary rate for a full-time SRO/SSO and the number of hours for a full-time SRO/SSO position. SRO and SSO job descriptions and qualifications should be on file at the implementing agency.

b) Fringe Benefits: Indicate each type of fringe benefit that the grant-funded SRO/SSO will receive, calculating the state funds and local cash match line-by-line.

#7. Cash Funds - (supporting this project from sources other than the grant program.) ***This item is optional*** and is included so that applicants wishing to do so may describe any additional support provided to the proposed project, beyond the state and matching funds presented in the grant application.

B. Budget Narrative:– In addition to completing the Itemized Budget Form, provide a separate Word document titled **"Budget Narrative**" with two subheadings: 1) Personnel/Employees and 2) Fringe Benefits; which explains and justifies each budget item and states the basis for the amounts requested.

D. **Project Narrative:** Each grant application must include a project narrative to include two sections with the following headings: 1) Needs Assessment and 2) Project Goals and Objectives. The Project Narrative must present a concise, clear and compelling case for the need for an SRO/SSO position at the specified school. If applying for both SRO and SSO positions, at different schools, please describe how the use of both types of positions will be coordinated to enhance local school safety. The Project Narrative must describe the capabilities of your organization to implement, carry out and manage the project. **A**pplications must include a section titled "Needs Assessment" ***no more than 5 pages in length***, which includes **two sub-headings: *Need Justification* and *Project Description*.** Applicants are also required to complete the Project Goals and Objectives form using as many pages as necessary.

1) **Accomplishments and Needs Assessment: (No more than 5 pages in length)**

Under the **<u>Accomplishments and Need Justification</u>** heading, the applicant must identify and describe in specific terms the nature and extent of the school safety, security, juvenile crime/delinquency and crime prevention problems and issues that exist in the school or schools for which grant funded positions are being requested, **<u>as well as a detailed description of the progress made toward accomplishing each objective of the current grant year.</u>** In addition, other factors such as local response time due to the remote location of school buildings and factors in the community

surrounding a school building may be used to address the need for grant funded positions. Statistics and other quantifiable information may be used to support the need for positions. Sources for statistics may include: school discipline records; school detention, suspension and expulsion data; juvenile crime statistics; calls for service to local law enforcement agencies; annual school safety audit information; student and/or staff safety surveys; parent and/or community input; school and community population and economic demographics, etc. Describe existing resources and services that are available to address the identified school safety and security problems, and state why those resources and services are inadequate to address local school safety issues.

Describe how the locality/agency intends to sustain funding for the requested position(s) as grant funding declines beginning in year 2 of the grant.

Under the **Project Description** of the **Needs Assessment**, provide a detailed complete description of the project design and planned implementation activities, fully describing how the project will reach the stated goals. The project description should tie implementation activities to the project's goals and objectives. Identify the school(s) where the activities will be and any key community partners responsible related to the proposed project.

2) **Project Goals and Objectives Form:**

Applicants must complete and submit a **Project Goals and Objectives Form**, using as many objectives and pages as necessary to thoroughly describe the proposed SRO/SSO project in the specified school(s) for the 2014-15 grant period. Failure to provide specific, measurable objectives and performance measures may result in the elimination of your application from consideration. (The form's text boxes will expand to accommodate verbiage). To assist you in filling out the form, please refer to the chart below.

1. Purpose Area	Not applicable for this program
2. Goal	Complete the "Goal" section of the Project Goals and Objectives Form and include the full name of the school(s) where the SRO project will occur. **Hypothetical Goal Statement** "Virginiaville's police department and public school system will continue their partnership to promote school safety and reduce juvenile violence through the continuation of the school resource officer program at XYZ High School."
3. Objective	Objectives identify the project's focus and targeted outcomes; specify who will benefit from or be changed by the proposed project; state the anticipated behavior change or result; state the projected degree of change from current conditions; and state what the project's beneficiaries will learn or be able to do as a result of the project. Objectives should address the continuing safety, security, juvenile crime/delinquency and crime prevention problems and issues

	identified in the Project Narrative section of the application. Number each objective. Objectives must be stated in terms that are **specific/numeric, measurable, achievable, and related to the stated goal and time-bound (SMART**).
4. Grant Start/End Dates	July 1, 2014 to June 30, 2015
5. Activities **6. Implementation Steps**	Provide a thorough, specific list of activities and tasks that will be undertaken each quarter to accomplish each objective and to complete the project successfully. The Implementation Plan section should include details such as when and where an activity will occur, who and how many will participate in the activity and what resources and materials will be used in the activity. Important dates and milestones should be identified. The applicant should provide specific information about project-related training that the SRO(s)/SSO(s) will receive. Provide a thorough, specific list of activities and tasks that will be undertaken each quarter to accomplish each objective and to complete the project successfully.

F. SRO Memorandum of Understanding for 2014-15: Applicants requesting an SRO position must submit an up-to-date Memorandum of Understanding (MOU) between the local law enforcement agency and the school division per the SRO guidelines. This requirement must be met within 30 days of approval of the grant and before grant funds are distributed.

The MOU should include at minimum the following:

- a description of the chain of command for the SRO(s);
- definitions of the roles and responsibilities of school officials and of law-enforcement officers;
- communication between the SRO(s) and the school, the SRO(s) and the parent law enforcement agency, and the school and the law enforcement agency;
- dates for reviewing and renewing the MOU;
- signatures of authorized officials representing all parties to the agreement;
- date the MOU is effective.

G. SRO Departmental General Order: Applicants must submit a departmental general order that outlines the operation of their SRO program.

H. Certification Form indicating dates attended DCJS-approved SRO Basic School or dates the officer(s) will attend training within the first four months of the grant cycle. SSOs must include the Certification Form indicating dates attended DCJS certified SSO training or when the SSO(s) will attend training. Grants may be special conditioned to ensure training and certification requirements are met.

I. Sustainment Plan to support the grant funded position after grant funding ends.

J. Name of school(s) where the position(s) will be placed must be included in the application.

XI. Reporting Requirements

Grant recipients must submit quarterly financial and progress reports online to DCJS. Failure to comply in a timely manner may result in DCJS withholding disbursement of grant funds and/or termination of the grant. DCJS will provide grant reporting requirements at the time of grant award.

DCJS intends to conduct an evaluation to examine the impact of SROs/SSOs funded by these grants. Grantees (schools and law enforcement agencies) selected to participate in the evaluation may be required to provide additional information on factors such as incidents of discipline, crime and violence, suspensions and truancies, and measures of school climate. It is anticipated that most of these measures will be available through existing reporting systems such as the Department of Education's Discipline, Crime and Violence (DCV) reports and law enforcement crime and arrest incident reports. **DCJS will notify the SRO, SSO or school administrator of the specific data required to meet grant reporting requirements at the time of the grant award.**

XII. How and Where to Submit Application

Please **submit an original and three (3) copies** of the complete grant application to:

Department of Criminal Justice Services
Grants Administration Section
1100 Bank Street
Richmond, VA 23219

Faxed or E-mailed applications will **not** be accepted. Consider mailing your application via FedEx, UPS or certified mail, return receipt requested. Applications, whether mailed or hand-delivered, must be **received by DCJS no later than 4:00 p.m. on Wednesday, January 15, 2014.**

XIII. Technical Assistance

Please contact one of the following DCJS staff for questions regarding your SRO grant application.

Shellie MacKenzie – by email at Shellie.mackenzie@dcjs.virginia.gov or by phone 804-225-1863

Donna Michaelis – by email at donna.michaelis@dcjs.virginia.gov or by phone 804-371-6506

Heather Smolka – by email at heather.smolka@dcjs.virginia.gov or by phone at 804.371.0635

Shelia Anderson – by email at shelia.anderson@dcjs.virginia.gov or by phone at 804.786.9469

XIV. Grant Application Checklist

- ❑ Has the first page of the Grant Application been completed, including Project Administrator's signature? [Administrator: city/town manager, county executive, mayor or chairman of the board of supervisors]
- ❑ Have all applicable parts of the Grant Application Itemized Budget been completed
- ❑ Does each entry on the Itemized Budget form show the state fund amount and cash match amount as well as the total
- ❑ Has a Project Budget Narrative been provided, explaining each item shown in the Itemized Budget
- ❑ Is the Project Narrative no more than 5 pages in length
- ❑ Does the Project Narrative contain the following:
    - o Need Justification
    - o Project Description
    - o Name of the School where the position will be placed
- ❑ Completed DCJS Goals and Objectives Forms
- ❑ SRO Memorandum of Understanding for 2014-2015
- ❑ SRO Departmental General Order
- ❑ Training Certification Form
- ❑ Sustainment Plan
- ❑ Does the material being submitted include one (1) original and three (3) copies (4 total) of the completed Grant Application
- ❑ Applications for funding must be received by the Department of Criminal Justice Services, 1100 Bank Street, Richmond, Virginia 23219, **no later than 4:00 p.m. on Wednesday, January 15, 2014.** Applications received after that deadline will not be considered. Faxed copies will not be accepted.

FLUVANNA COUNTY BOARD OF SUPERVISORS AGENDA ITEM

Meeting Date: February 19, 2014

AGENDA TITLE:	Appointment to the Jefferson Area board for Aging (JABA) Board of Directors, At Large Position				
MOTION(s):	**I move to appoint/reappoint_____ to the Jefferson Area board for Aging (JABA) Board of Directors, At Large Position, with a term to begin March 1, 2014 and to terminate February 28, 2016.**				
CATEGORY	Public Hearing	Action Matter	Presentation	Consent Agenda	Other
		X			
STAFF CONTACT(S):	Mary Weaver				
PRESENTER(S):					
RECOMMENDATION:	Approval				
TIMING:	Normal				
DISCUSSION:	Applicants who have shown an interest in this position are: Mozell Booker, current member who would like to be reappointed David Feisner, currently on the JAUNT Board				
FISCAL IMPACT:	None				
POLICY IMPACT:	None				
LEGISLATIVE HISTORY:	None				
ENCLOSURES:	Boards and Commissions Applications				
REVIEWS	Legal	Finance	Purchasing	HR	Other

Interest in Jefferson Area Board for Aging Board of Direc | Fork Union

Last Name	Booker	***First Name***	Mozell H.	***DateRecieved***	1/27/2010		
Mailing Address	P.O. Box 284	***City***	Fork Union	***State***	VA	***Postal Code***	23055-
Home Phone	(434) 842-3311	***Work Phone***	4345894342	***Cell Phone/Other***	(434) 987-0038		
Fax	(434) 842-1303	***Email Address***	mbooker@fluvannacounty.org				
Physical Address	258 Bass Lane	***City***	Palmyra	***State***	VA	***Postal Code***	22963

Education and Experience:

Master Degree post-grad Virginia Union University, UVA, Michigan State, Educator for 35 years(retired 2001)

Civic Activities and Committee Memberships:

Youth Advisory Council, 4-H Extension Council, Fluvanna League of Woman Voters, Chamber of Commerce, NAACP, Thessalonia Baptist Church-Budget Chair, Secretary VUU Alumni Chapter

Interest in Committee:

I have enjoyed the time spent on this board, JABA Advisory Board, and would love to continue.

Comments: Indicated she has enough on her plate w/these two boards. Elected for Second Term - 2007/11 and 2012/15

Interest in Jefferson Area Board for Aging Board of Direc | Fork Union

Last Name	Feisner	***First Name***	David C.	***DateRecieved***	5/18/2009		
Mailing Address	P.O. Box 66	***City***	Palmyra	***State***	VA	***Postal Code***	22963-
Home Phone	(434) 591-0126	***Work Phone***		***Cell Phone/Other***			
Fax		***Email Address***	anfeis@firstva.com				
Physical Address	282 Little Pond Lane	***City***	Palmyra	***State***	VA	***Postal Code***	22963

Education and Experience:

NJIT 1961 BSME, MGT; 50+ years in paper industry

Civic Activities and Committee Memberships:

Jaunt Friends; Former Rotary, Scout Leader Trainer; Jaunt Friends President; Leadership Course 2008

Interest in Committee:

Enjoy this type of work and wish to continue with Jaunt

Comments:

FLUVANNA COUNTY BOARD OF SUPERVISORS AGENDA ITEM

Meeting Date: Wednesday, February 19

AGENDA TITLE:	Fluvanna County Senior Services Update				
MOTION(s):	N/A				
CATEGORY	Public Hearing	Action Matter	Presentation	Consent Agenda	Other
			Parks & Rec		
STAFF CONTACT(S):	Jason Smith				
PRESENTER(S):	Jason Smith				
RECOMMENDATION:	N/A				
TIMING:	5 Minutes				
DISCUSSION:	Presentation on county wide senior services regarding community meetings in November and the senior service Focus Group that has met the last few months. I will provide an update on what information has been gathered relating to these meetings along with what responses we've collected from our online survey.				
FISCAL IMPACT:	N/A				
POLICY IMPACT:	N/A				
LEGISLATIVE HISTORY:	N/A				
ENCLOSURES:	Presentation				
REVIEWS	Legal	Finance	Purchasing	HR	Other

BOARD OF SUPERVISORS AGENDA ITEM

Meeting Date: February 19, 2014

SUBJECT:	**ZMP 12:02 & SUP 13:02** – Hotel Street Capital, LLC, Rezoning request from R-3 (conditional) to PUD (conditional); and a special use permit request to allow for major utilities in conjunction with a Planned Unit Development
MOTION(s):	I move that the Board of Supervisors **approve/deny/defer** ZMP 12:02, a request to amend the Fluvanna County Zoning Map with respect to approximately 222.03 acres of Tax Map 30, Section A, Parcel 110 and 10 acres of Tax Map 19, Section A, Parcel 39C, for an aggregate of 232.03 acres, to conditionally rezone the same from R-3, Residential, Planned Community (conditional) to Planned Unit Development (PUD); and I move that the Board of Supervisors **approve/deny/defer** SUP 13:02, a request for a special use permit to allow for major utilities in conjunction with a Planned Unit Development (PUD) with respect to approximately 222.03 acres of Tax Map 30, Section A, Parcel 110 and 10 acres of Tax Map 19, Section A, Parcel 39C [if approved] subject to the conditions listed in the staff report.
STAFF CONTACT:	Steven Tugwell, Senior Planner
RECOMMENDATION(s):	At its meeting on June 26, 2013, the Planning Commission **recommended denial** of ZMP 12:02 with a vote of (5-0); Ms. Eager moved to recommend denial; Mr. Zimmer seconded; Ayes: Babbitt, Bibb, Eager, Gaines, and Zimmer; At its meeting on June 26, 2013, the Planning Commission **recommended denial** of SUP 13:02 with a vote of (5-0); Ms. Eager moved to recommend denial; Mr. Gaines seconded; Ayes: Babbitt, Bibb, Eager, Gaines and Zimmer; At its meeting on January 22, 2014, the Planning Commission reaffirmed their recommendation of denial of ZMP 12:03 & SUP 13:02 with a vote of (4-0); Ms. Eager moved to recommend denial; Mr. Gaines seconded; Ayes: Bibb, Eager, Gaines, and Zimmer.
TIMING:	Action requested at current meeting.
DISCUSSION:	Request for rezoning from R-3, Planned Community (conditional) to PUD, Planned Unit Development (conditional); and request for a special use permit for major utilities in conjunction with a Planned Unit Development (PUD) with respect to 222.03 acres of Tax Map 30, Section A, Parcel 110 and 10 acres of Tax Map 19, Section A, Parcel 39C.
FISCAL IMPLICATIONS:	-

POLICY IMPLICATIONS:	***Regarding ZMP 12:02***, The Board of Supervisors may: • Approve this request, allowing the rezoning from R-3 (conditional) to PUD (conditional); OR • Deny this request, preventing the rezoning from R-3 (conditional) to PUD (conditional); OR • Defer this request and make a final decision at a later date; and ***Regarding SUP 13:02***, The Board of Supervisors may: • Approve this request, allowing the major utilities in conjunction with a Planned Unit Development (PUD); OR • Deny this request, preventing the major utilities in conjunction with a Planned Unit Development (PUD); OR • Defer this request and make a final decision at a later date
LEGISLATIVE HISTORY:	Review of a proposed rezoning request in accordance with Chapter 22, Article 17 of the Fluvanna County Code (Zoning Ordinance: Conditional rezoning) Application was received on July 2, 2012 Planning Commission reviewed the request on June 26, 2013; ***and*** Review of proposed major utilities in accordance with Chapter 22, Article 4 of the Fluvanna County Code (Zoning Ordinance: Uses permitted by special use permit only). Application was received on March 7, 2013 Planning Commission reviewed the request on June 26, 2013 Board of Supervisors reviewed the request on October 16, 2013 Planning Commission reconsidered the request on January 22, 2014
ENCLOSURES:	Staff Report (with accompanying attachments)

COUNTY OF FLUVANNA

" Responsive & Responsible Government"

P.O. Box 540 Palmyra, VA 22963 (434) 591-1910 FAX (434) 591-1911 www.co.fluvanna.va.us

STAFF REPORT

To: Fluvanna County Board of Supervisors
Case Number: ZMP 12:02 and SUP 13:02
Tax Map: Tax Map 30, Section A, Parcel 110 & Tax Map 19, Section A, Parcel 39C

From: Planning Staff
District: Palmyra
Date: February 19, 2014

General Information: This item is scheduled for the Wednesday, February 19, 2014 Board of Supervisors meeting at 7:00 pm in the Circuit Courtroom in the Courts Building.

Owner/Applicant: Hotel Street Capital, LLC

Representative: Justin M. Shimp, P.E., Shimp Engineering, P.C.

Requested Action: To amend the Fluvanna County Zoning Map with respect to approximately 222.03 acres of Tax Map 30, Section A, Parcel 110, and 10 acres of Tax Map 19, Section A, Parcel 39C, for an aggregate of 232.03 acres, to rezone the same from R-3, Residential, Planned Community (conditional) to Planned Unit Development (PUD) (conditional). (Attachment A)

Location: The affected property is located in the Palmyra Election District on the western side of State Route 15 (James Madison Highway) and Route 644 (Friendship Road) approximately 0.25 miles north of Route 661 (Rescue Lane). (Attachment B)

Existing Zoning: R-3, Residential, Planned Community (conditional)

Proposed Zoning: Planned Unit Development (PUD) (conditional)

Existing Land Use: The Laurel Ridge Golf Course and Clubhouse previously existed on the property. The Golf Course has closed and the Clubhouse is vacant.

Adjacent Land Use: Adjacent properties are zoned A-1, Agricultural, General. Camp Friendship is adjacent to the property to the north.

Comprehensive Plan: This parcel is located within the Palmyra Community Planning Area.

Zoning History: A special use permit (SUP 95:13) was approved for this site on January 17, 1996 to allow for the golf course. A special exception permit (SEP 91:05) was approved on October 16, 1991 to allow for a hotel/conference center on Tax Map 19, Section A, Parcels 39 & 39A and the final site plan (SDP 06:11) for the resort and conference center was approved on July 25, 2008. SUB 06:96 was approved on April 14, 2008 which subdivided the 10 acre parcel (19-A-39C) off of Tax Map 19, Section A, Parcel 39. ZMP 08:05 was denied on February 18, 2009. ZMP 09:02 was approved on May 20, 2009. (Attachment C)

Timeline of events:

- Pre-application meetings were held with Planning Dept. staff on March 28, 2012 and June 1, 2012.
- Applicants introduced possible rezoning application at the June 13, 2012 Planning Commission work session.
- Application for rezoning to PUD was submitted to the county on July 2, 2012.
- 1st Neighborhood meeting was held on July 11, 2012.
- 1st Planning Commission work session was held on July 11, 2012.
- 1st TRC meeting was held on July 12, 2012.
- 2nd Planning Commission work session was held on August 8, 2012.
- VDOT scoping meeting was held on August 15, 2012.
- There were concerns from some of the neighbors and from some of the adjoining property owners about the applicant's not being present for the 1st Neighborhood meeting, so a 2nd Neighborhood meeting was held on September 12, 2012.
- 2nd TRC meeting was held on September 13, 2012
- Applicants presentation to the Planning Commission was held on September 26, 2012.
- Applicant requested deferral on October 3, 2012 until the November Planning Commission meeting.
- Applicant submitted revised plan on January 2, 2013 based on prior staff comments, requests from the owner/applicant, and a revision to the State Route 644 entrance as a Phase I development.
- Staff determined that a revised plan resets the process and thus a 3rd Neighborhood meeting was held on January 9, 2013.
- 3rd TRC meeting was held on January 10, 2013.
- Applicant's made a 3rd presentation to the Planning Commission at their February 27, 2013 meeting based on their revised plan.
- Through consultation with the County Attorney, staff determined that a Special Use Permit for major utilities in conjunction with the

PUD is required. And, pursuant to Sec. 22-27-4 C. of the Zoning Ordinance, the public hearings for the PUD rezoning and Special Use Permit may be held jointly.
- Applicant submitted SUP application for major utilities on March 7, 2013.
- Neighborhood meeting was held on March 13, 2013.
- TRC meeting was held on March 14, 2013.
- Planning Commission public hearing rescheduled from the March 27, 2013 Planning Commission meeting to the April 10, 2013 meeting due to a typographical error in the legal ad
- Planning Commission public hearing rescheduled until the April 24, 2013 meeting due to two (2) meetings already scheduled for the same date.
- Application amended due to proffers submitted by the applicant on April 19, 2013
-Applicant deferred April 24, 2013 public hearing.
-Applicant submitted signed and notarized proffer statement dated May 20, 2013 which includes revised architectural guidelines
- Applicant's made a presentation to the Planning Commission at their May 22, 2013 meeting based on their amended plan.
-Planning Commission public hearing was held for this item on June 26, 2013.
-Board of Supervisors public hearing is scheduled for this item on July 17, 2013.
-This item was deferred from the July 17, 2013 Board of Supervisors meeting to the October 16, 2013 Board of Supervisors meeting
-The Board of Supervisors held a public hearing for this item at their October 16, 2013 meeting. At that time, the Board did not feel as though the Planning Commission had received the information they asked for, and remanded it back to the Planning Commission.
-The Planning Commission reconsidered this item at their January 22, 2014 meeting, and voted 4-0 to confirm their previous recommendation of denial.
-This item is scheduled for the February 19, 2014 Board of Supervisors meeting.

Statement of Intent: The Statement of Intent indicates the purpose of the zoning district and describes the characteristics of uses generally found within the district.

The Statement of Intent for the Planned Unit Development (PUD) Zoning District is as follows:

"Planned unit developments (PUD's) are intended to promote the efficient use of land by allowing flexibility in design standards and varieties in densities and land uses to preserve the rural areas of the county. Development of such districts shall be in accordance with an

approved PUD Application Package which should provide a variety and range of uses and densities in designated areas of the site.

Planned unit developments should be located within the designated growth areas of the county as set forth on the comprehensive plan, and should implement the goals of each Community Planning Area. Planned unit developments should provide unified development that incorporates new urbanism and traditional neighborhood development principles, which includes a mix of residential and commercial uses, an interconnected system of internal roads, pedestrian sidewalks and walkways and well planned access points along existing roadways. In addition to a mix of residential and commercial uses, planned developments should also provide a mix and variety of housing types." (Attachment D)

Analysis:

The applicant is requesting to rezone two (2) parcels totaling 232.02 acres, Tax Map 30-A-110 (222.03 acres), and Tax Map 19-A-39C (10 acres) from R-3, Residential, Planned Community to Planned Unit Development (PUD) (conditional), The applicant has submitted an application plan layout and supporting land use documentation for all land uses within the proposed PUD district. (Attachment C). According to the submitted application plan, the applicant is proposing to develop the PUD in three (3) phases. According to the submitted plan, this development would be served by private roads. Phase I would contain 86 acres, and not exceed 306 residential units and 37,000 square feet of commercial space. Phase I is proposed to be broken down into eight (8) blocks (A-1, D-1, D-2, D-3, D-4, D-5, E-1, and E-2) containing a mix of residential and commercial, consisting of single-family detached, townhouses, and commercial retail as described in the PUD plan. State Route 644 (Friendship Road) is proposed to be relocated, and will serve as the entrance to the Phase I development. The plan is proposing the completion of Phase I prior to the construction of the development's primary entrance (round-a-bout) off of Route 15. Two (2) additional phases would be developed at a later date, which include 144 acres, 646 residential units, and approximately 100,000 square feet of commercial space. This represents a total of 952 residential units (4.1 dwelling units per acre), and not more than 180,000 square feet of commercial space.

The revised plan, received by planning staff on September 24, 2013, represents a reduction of residential units by 228, or approximately 19.3%. The prior plan reviewed by the Planning Commission on June 26, 2013, was submitted to planning staff on May 21, 2013, and contained a total of 1,180 residential units. The maximum commercial square footage of 180,000 has not changed.

It appears that a reduction of residential units from 1,180 to 952 residential units may reflect staff's concerns with regard to the phasing aspect of this development. In this plan, sheet 7 of the plan clearly delineates Phase I, its block locations, and number of units proposed to be developed within each phase. The type of housing unit (i.e. townhome, single-family attached, single-family detached) are also identified in a land-use legend chart. The break-down of housing types and their variations from the prior plan are as follows:

Total # of townhomes:

May 21, 2013 plan: 318; September 24, 2013 plan: 273

Total # of Single-family attached:

May 21, 2013 plan: 97; September 24, 2013 plan: 98

Total # of Single-family detached:

May 21, 2013 plan: 205; September 24, 2013 plan: 281

Total # of multi-family:

May 21, 2013 plan: 560; September 24, 2013 plan: 300

According to the submitted PUD application plan, the total development of the site includes 47.3% open space, or 109.65 acres. The open space includes walking trails, ponds, a picnic pavilion, and an existing lake. Other facilities include a river-loop trail, a playground, swimming and fitness club, and an athletic field. These recreational facilities appear to meet or exceed the open space, recreation, parks and civic area requirements of the PUD zoning district as described in Sec. 22-14-7 of the zoning ordinance. (Attachment E)

Results from two separate methodologies project that the PUD's 952 residential units would add between 416 and 772 new students into the local school system. Based on Fluvanna County's typical expenditure per student ($9,053 – 85% of the state average), this could cost the county between $3.7 million and $6.9 million. The possible need for a new school to accommodate this growth could double or even triple these costs. A table elaborating on these projections is included in the packet as an attachment. (Attachment F)

The PUD application plan states that, "sanitary sewer shall be treated via on-site private central system(s) using mass drainfields, shallow drip systems, or other similar systems approved by the Virginia Department of Health". Phase I will provide for "a private on-site water system, consisting of wells, storage tank(s), and a water treatment facility, or other similar systems approved by the Virginia Department of Health be provided." The applicants have further stated that "on-site groundwater wells shall not be permitted for water supply for Phases II and III". The applicants have also stated that "The developer shall be responsible for obtaining all VDH/DEQ or other state and federal permits required for on-site water and sewer systems." The Virginia Department of Health has preliminarily stated that "plans will have to be submitted to VDH along with supporting documentation for Department review and approval from the Office of Drinking Water and the VDH Division of Engineers". This site is within proximity of the Palmyra Regional Service Facility, however they are not required to connect because pursuant to County Code Sec. 21-4-14, the proposed site is greater than four-hundred feet in distance from the facility. Utilization of on-site water and sewer facilities require a Special Use Permit for major utilities in conjunction with the Planned Unit Development rezoning request. Pursuant to Sec. 22-14-5, "one or more of the uses permitted by Special Use Permit in the residential and business zoning districts may be permitted in the PUD district, as enumerated in the final PUD application package, upon issuance of a Special Use Permit by the Board of Supervisors." If the

rezoning and Special Use Permit requests are approved, this development will then be subject to County site plan and subdivision review processes. As part of those processes, independent and incremental evaluations of on-site water and sewer capabilities must be reviewed and approved prior to development. Additionally, a hydrological study may be required in order to adequately determine the feasibility of such on-site water and sewer facilities to serve the proposed number of units. If the Special Use Permit for major utilities is approved, staff is recommending the following conditions:

1. Construction, operation, and maintenance of the central water and sewer system shall comply with all local, State, and Federal requirements.
2. The water system shall be adequate to provide fire suppression.
3. The project shall comply with all Virginia erosion and sediment control regulations as specified in the 1992 Virginia Erosion and Sediment Control Handbook as amended.
4. For construction of the water and sewer system occurring adjacent to existing development, adequate dust and siltation control measures shall be taken to prevent adverse effects on the adjacent property. It is intended that the present and future results of the proposed extension not create adverse effects on the public health, safety, comfort, or convenience, or value of the surrounding property and uses thereon.
5. Vehicular access to all residences along the affected right-of-ways shall be maintained at all times.
6. All construction activity for the central utility system shall occur between 7:00 a.m. and 5:00 p.m. Monday through Friday.
7. The applicant shall avoid removing trees and bushes along the water and sewer corridor, except as shown on the approved site plan. Trees and bushes damaged during construction shall be replaced with a tree or bush of equal type as approved by the Planning Director.
8. The Homeowner's Association shall be responsible for all maintenance of the on-site central water and sewer systems in perpetuity, and the responsibility for maintenance shall not be borne by the County of Fluvanna or any other public agency.
9. Start of construction, as defined in the Fluvanna County Zoning Ordinance, shall have commenced within twenty-four months of this special use permit approval, or the permit shall be void. This special use permit is not severable. Invalidation of any word, phrase, clause, sentence, or paragraph shall invalidate the remainder.

Commercial pad sites with mixed-uses including the taller structures are proposed to be setback 400 feet from the road right-of-way, and parking is proposed to be relegated towards the rear of the development. The buildings are intended to be located as shown on the PUD application Plan.

According to applicant's narrative, "landscaping shall consist of large shade trees lining the proposed streets and commercial frontages as well as within designated parking areas", and "where needed, new evergreens will be incorporated into existing trees to assist with screening of parking areas from Route 15 as well as neighboring residences."

The traffic impact study concludes that:

- LOS D (level of service) is acceptable at various movements in the future conditions, however LOS D is not considered acceptable for this rural location and the design engineers should strive to meet criteria that minimizes delay under post-build conditions.

- Courthouse Road WB under 2037 no-build AM and PM falls to LOS C, while under 2037 build with mitigation AM and PM it falls to LOS F. Please provide mitigation at this intersection.

- The proposed sub entrance is being presented with Lefts out operating at LOS D, please consider other mitigation measures that would accommodate better performance of the lefts out of the proposed development.

- Friendship Road EB under 2037 no-build PM falls to LOS C, while under 2037 build with mitigation PM it falls to LOS E. Please provide further mitigation at this intersection.

- The synchro files show a center dual left turn lane also referred to as a "suicide lane" just north of Route 616 on U.S. Route 15 and again between the sub-entrance and the main entrance on U.S. Route 15, which is assumed to be the "receiving lane" mentioned in the report to allow motorists to make a two-staged left out of the side streets. This is not an acceptable mitigation to left turn conflicts, considered alternate intersection control at all necessary locations, where left turn conflicts are present.

- There are several public streets within close proximity to the Palmyra Lane and Church Street intersection cluster and the Route 53 intersection, such as Route 1007 and Route 632 along with various others, which are not included in the Synchro network. Due to the close proximity of these Routes, there is high probability that the traffic entering and exiting the mainline at these locations will affect the performance of the corridor and intersections, therefore they should be included as part of the Impact analysis for this project.

- The traffic volumes for many movements used in the analysis was "0". Please use a minimum of 5 vehicles for any movement less than 5, to ensure these movements are accounted for when analyzing the future performance of the intersections.

- Synchro- Travel speeds and simulation speeds of vehicles was set at 30 MPH for all segments of the network, however the posted speed limit through the effected Route 15 corridor varies from 45 to 35 and back to 55. The model should incorporate the correct travel speed for each segment of the Route 15 corridor as this will have an effect on left and right turn gap acceptance at the intersection streets, and will have an effect on the reported delays, LOS, and queuing.

VDOT Comments based on a revised Traffic Impact Analysis dated April 23, 2013. (Attachment G)

Neighborhood Meeting:

At the January 9, 2013 Neighborhood Meeting, there were approximately 15 citizens present, and had the following comments and questions:

- What will be the average square footage of the housing units, and how will water and sewer be handled.
- Will on-site water wells be drilled.
- Significant concern about the proposed on-site water well drilling, and possibly draining the Rivanna River and existing nearby wells and water supplies.
- Concern how there can be this many units without being supported by public water and sewer.
- What would prevent all of the units from becoming rental units.
- Why do you expect new business to survive at this development when there are empty buildings and businesses already in Fluvanna.
- Why would the County want more residential development before we have new businesses.
- What kind of parking or number of parking spaces will be required for this development.
- Concern that this PUD application is being designed under regulations that don't necessarily protect the County citizenry.
- There was concern on what type of impact this development will have on Camp Friendship.
- Will there be proffers or restrictions that govern the number of units.

(Attachment H)

Technical Review Committee:

At the January 10, 2013 Technical Review Committee (TRC) meeting, the following comments were received:

1. Mr. Rice with the Health Dept. stated that the revised plan shows that the developer now intends to develop/install both drinking water supply and on-site sewage disposal system, and that plans will have to be submitted to the Virginia Department of Health along with supporting documentation for Department review and approval from the Office of Drinking Water and the Virginia Division of Engineers;
2. A representative of the Fire Department stated that a fire suppression system will be needed; this system must have access to an adequate water supply. Most multi-family units will need to be equipped with an appropriate sprinkler system;
3. A representative of CVEC stated the company controls electric lines that run through the property to Camp Friendship. CVEC will need the applicant to submit the proposed master plan in AutoCAD or a similar electronic format, so that the company can appropriately design the electric system needed to serve the development. CVEC will also need to know the proposed phasing plan, so they can appropriately design their system;
4. The Fire Dept. stated that a fire suppression system will be needed, and this system must have an adequate water supply. Most multi-family units will need to be equipped with an appropriate sprinkler system
5. VDOT and Planning Dept. comments are attached.

   (Attachment I)

Comprehensive Plan:

The following sections of the comprehensive plan should be considered when reviewing this project:

Vision section

Fluvanna County through self-reliance, self-sufficiency, and self-government is the ideal place to raise families, foster entrepreneurship, and do business in the Commonwealth.
— Fluvanna County Board of Supervisors (2012)

Fluvanna County's vision is based on the following key principles, which are used as guides for future development, governance, and land use policies for the county:

That good government is no substitute for self- government,

That our government should reflect the values and principles of the people,

That solidarity and prosperity are the proper means of fostering communities,

That people forge economies and communities,

That our rural character and natural resources are part of Fluvanna's unique heritage, and should be preserved where practical,

That the individual citizens and taxpayers of Fluvanna consist of our community, and that their individual interests and rights subordinate the collective desires of our government,

That a comprehensive, accessible, and quality system of education enabling a modern, highly skilled 21st century workforce is to be fostered,

That future development be fiscally prudent while respecting individual property rights,

That our infrastructure requirements are maintained and first-class,

That our public safety personnel are properly equipped and compensated in a manner and means that respects their sacrifice,

That Fluvanna's rich community heritage and our history be the cornerstones of our shared identity moving forward into the 21st century,

That our rights as enumerated in the Virginia Declaration of Rights and the Virginia Constitution are to be maintained both in letter and in spirit.

> As a continuing effort for Fluvanna County's vision of becoming "*the most livable and sustainable community in the United States*", measuring smart-growth and implementing our key goals are essential elements to this process. According to the Vision 2029 section of the Comprehensive Plan, "*Land use is recognized as directly related to quality of life.*" Towards this end, land use and land use implications are taken into consideration when an application for rezoning is evaluated. An example of such coordinated planning is the types of development within the community planning areas. It may not be adequate simply for a rezoning applicant to apply for an upzoning because a property is within a community planning area. Each application is independently considered by the county to see if the proposed development is well planned, consistent with the Comprehensive Plan, and shares compatibility with the surrounding community. As part of a successful rezoning process, the applicant is encouraged to meet with neighbors, the community, and county officials well in advance of application

submittal. This process is beneficial not only to the applicant, but to the greater community.

Land Use chapter, Community Planning Area section

Palmyra

This historic village area is the county seat, and has a regional park, the new county high school campus, a library, a public safety center, and other municipal services. The area should remain a village, and surrounding growth should be a mixture of uses and residential dwelling types that support a variety of incomes.

Commercial and neighborhood streets, along with rural roads, make up the transportation network, along with sidewalks, trails, and bicycle lanes. Open space includes Pleasant Grove, neighborhood parks, and greenways, along with the town square.

A mixture of medium and small commercial businesses combines with office, civic and residential uses to form a village-like neo-traditional development or series of interconnected developments. Commercial and office structures do not exceed three stories, and residential density is up to four dwelling units per acre (4 du/ac). Density may be increased with incentives such as open space, affordable housing, or transfer of development rights, depending on the zoning district standards.

Community Design chapter, Community Plans section

Palmyra Community Plan Overview

Existing assets within the community should be properly integrated with new development in order to promote a cohesive, well-planned community. New housing should be allowed that complements existing historic resources and provides an expanded population base for local businesses. Economic development is appropriate in this area, and opportunities for tourism, including commercial uses that complement the historic aspects of Palmyra and its government center, should be promoted.

Neighborhood Mixed-Use

The neighborhood mixed-use community element incorporates multiples uses into a walkable, pedestrian-friendly environment with compact block sizes. Ideally, neighborhood mixed-use areas will include a mix of retail and office uses at the center, with connected residential uses at the edge. A centralized public water space is encouraged to establish the identity of the center as focal point and important civic space in the community.

Neighborhood Residential

Neighborhood residential areas should provide a range of residential housing types and lot sizes. Generally, this includes a balance of single-family residences and some multifamily housing. A central neighborhood park is an excellent asset for a neighborhood center, and is strongly encouraged. Connections should be

made to surrounding neighborhoods and commercial centers wherever possible. Where roadway connections are not feasible, greenway connections are recommended. Neighborhood residential centers typically border higher-density neighborhood mixed-use areas. In some cases, some small commercial and institutional uses may be incorporated into the neighborhood residential community element.

Village
Villages are characterized by a small, mixed-use core surrounded by residential uses. An essential component of villages is their strong connection to surrounding natural features and open spaces. Despite their small scale and limited density, villages typically have a generous amount of mixed use, often in the form of a major civic use. Outside of a small mixed-use center, villages are generally characterized by single-family residential uses. By focusing development around the center, a green buffer may be created at the perimeter of the village, closely integrating open spaces with the developed area.

This proposed development is located on the northern fringe of the Palmyra Community Planning Area and not within the Palmyra village core where many of the historic resources are located. Conventionally, community planning areas are typically designed for higher density projects within the county. The impacts to local businesses may be positive with the addition of more residents in the core of the county, however considerations should also be given to the impacts to local schools and water supply.

(Attachment J)

Planning Commission Meeting Summary: June 26, 2013

The Planning Commission considered this request at their June 26, 2013 meeting. The Planning Commission questioned staff on the comments VDOT provided in regards to Walker's Ridge. Dr. Babbitt specifically asked about the meaning of Level of Service (LOS) D, the level of service VDOT anticipates if Walker's Ridge were to be built. Ms. Finchum explained LOS D indicates significant impacts to drivers including delays. Mr. Gaines inquired if the applicant were to proffer something to mitigate the level of service, would that mean the applicant would have to restart the application process. Mr. Payne, County Attorney, clarified the applicant has the right to amend proffers without having to restart the application process.

Dr. Babbitt discussed the issue of voting on ZMP 12:02 and SUP 13:02 as separate items. Mr. Payne stated the Planning Commission is entitled to consider the appropriateness of utilities not only for the special use permit, but in conjunction with the Walker's Ridge plan.

Chairman Bibb asked if the applicant had replied back to electric company who, at the previous TRC meeting, had requested a plan in regards to electricity. Mr. Tugwell stated he had spoken with Mr. Olsen who had informed him he had not received anything as of yet.

Mr. Justin Shimp, representative of the applicant, addressed the Planning Commission with regard to the Walker's Ridge Planned Unit Development application.
Dr. Babbitt asked if the development were to take place, would the applicant have to mitigate the area from attaining LOS D. Mr. Shimp replied the road would be widened in accordance with VDOT. Ms. Eager asked what roads were public or private. Mr. Shimp stated that aside from the roads in relation to Camp Friendship, which are public, the remainder would be private.

Chairman Bibb discussed the abandonment of the road at Camp Friendship. Mr. Shimp stated that, as part of VDOT's review, the road would remain the same except for the intersection would be perpendicular instead of angled.

Chairman Bibb discussed the issue of the applicant not providing a stormwater plan and stated it was part of the ordinance. Mr. Shimp stated there was a Best Management Practices (BMP) Plan included in the Master Plan. Chairman Bibb asked if there was a comprehensive sign plan provided because that, too, was included in ordinance. Chairman Bibb noted the complexity of the ordinance with multiple requirements and stated it was designed that way so that everything would be solved by the time it was reviewed by the Planning Commission.

Chairman Bibb asked how much water was required for this development. Mr. Shimp stated it would be 184,000 gallons per day. Mr. Bibb stated his concerns of groundwater availability. Dr. Babbitt asked if Mr. Shimp believed 184,000 gallons per day would be reasonable considering that would mean using approximately 67 million gallons a year. Dr. Babbitt asked if Mr. Shimp knew of any other systems that use wells that could generate that amount of water. Mr. Shimp stated there were developments in Louisa, one of which has 850 units on wells that work fine. He also stated as technology improves, water usage would go down by 30 or 40% with things such as grey water systems or other ways where water can be recycled. Chairman Bibb asked if the applicant believed the development would have an effect on adjacent properties' water supply. Mr. Shimp said he believed there would be essentially no effect because water was reused onsite. Mr. Zimmer stated there had to be some sort of loss and asked what kind of storage capacity would be needed. Mr. Shimp stated there would different storage capacities that would be determined at the site plan phase depending on the building type.

Chairman Bibb stated the development is considered Neighborhood Residential and, according to the Comprehensive Plan, this area should be predominately single-family. Chairman Bibb also made inquiry with regard to page 17 of the Comprehensive Plan where it addresses Groundwater. There was discussion between the Planning Commission, Mr. Shimp, and Mr. Payne on what constitutes single-family. Mr. Payne clarified the ordinance defines only single-family detached as single-family and that townhomes and single-family attached are considered multi-family. Chairman Bibb expressed his concern that this development did not provide enough single-family.

Mr. Zimmer discussed the architectural guidelines and how some elements were required but others were suggested.

Dr. Babbitt stated that, although he originally wanted this development to work because Fluvanna County wants PUDs, two major issues concerned him: 1) water and 2) the Comprehensive Plan stating Palmyra should be developed as part of a village. He stated the scope of the proposed project is so large it would be detrimental to the village.

Mr. Zimmer stated his main concern was the proposed development's fiscal impact. He stated it was not reasonable to approve a project that would make the commercial/residential ratio in Fluvanna County worse.

Comments from the Planning Commission public hearing:

- Concern that applicant had already left two developments incomplete.
- Concern this plan did not meet the standards of the Comprehensive Plan and it would have a negative impact on the Rivanna River.
- Concern on the impact this development would have on Camp Friendship.
- Concern that development brought in too much residential and would not provide economic development.
- Strong concern on insufficient drinking water supply for proposed development
- Ambiguity with sewer system plan; lack of details.
- Citizens commended Planning Commission and staff for their hard work.
- Concern about fiscal impact to County.
- Concern that development would only help the developer, not the taxpayer.
- Concern that the project does not belong in historic Palmyra.

Planning Commission Meeting Summary: January 22, 2014

The Planning Commission reconsidered this request at their January 22, 2014 meeting. The Planning Commission asked a series of questions with regard to groundwater, the proposed on-site sewage disposal system, and mass drainfields network. Questions also focused on soil feasibility, and the proposed streets and access points. The applicants, and Dr. Nick Evans and Charles Smith, P.E., were present to answer questions.

The Planning Commission felt they received insufficient information from the applicant, and therefore confirmed their previous recommendation of denial by a vote of 4-0.

Conclusion:

When reviewing this rezoning application, the Board of Supervisors should take into consideration the potential adverse impacts that the development may have on the Palmyra area. This project appears to meet many of the PUD design aspects and criteria as stated in Section 22-

14-1 of the Zoning Ordinance by allowing flexibility in design standards, and a variety in densities and land uses.
Traffic should be carefully considered when reviewing this application. A 952 unit residential development would generate a substantial amount of traffic which will impact the roadways in the area. Consideration should also be given to the availability of water, and water sustainability. Final consideration of this development should carefully consider VDOT's review of the traffic impact study and the recommendations they provide.

Suggested Motions:

I move that the Board of Supervisors **approve/deny/defer** ZMP 12:02, a request to amend the Fluvanna County Zoning Map with respect to approximately 222.03 acres of Tax Map 30, Section A, Parcel 110 and 10 acres of Tax Map 19, Section A, Parcel 39C, for an aggregate of 232.03 acres, to conditionally rezone the same from R-3, Residential, Planned Community (conditional) to Planned Unit Development (PUD); and

I move that the Board of Supervisors **approve/deny/defer** SUP 13:02, a request for a special use permit to allow for major utilities in conjunction with a Planned Unit Development (PUD) with respect to approximately 222.03 acres of Tax Map 30, Section A, Parcel 110 and 10 acres of Tax Map 19, Section A, Parcel 39C, [if approved] subject to the condition listed in the staff report.

(Attachment K)

Attachments:
A – Application, applicant's narrative, and APO letter
B – Aerial Vicinity Map
C – Existing zoning approval letter with proffers
D – PUD process and ordinance section
E – Submitted plan and applicant's narrative
F – Potential impact to local schools data
G – VDOT's traffic impact analysis comment letter and email
H – Neighborhood meeting notes and letters from Mr. Moss and Mr. Brown
I - TRC comments and emails
J – Comprehensive Plan excerpts
K – Proposed ordinance and submitted revised proffers dated September 23, 2013 with staff matrix
L – Architectural Guidelines
M – Color renderings
N – Additional information provided to the Planning Commission on November 22, 2013

Copy:
Owner/Applicant: Hotel Street Capital, LLC, 31 Garrett Street, Warrenton, VA 20186
Representative: Mr. Justin M. Shimp/Shimp Engineering, P.C., 201 E. Main Street, Charlottesville, VA 22902
File

COMMONWEALTH OF VIRGINIA
COUNTY OF FLUVANNA
Application for Rezoning

Received
JUL 0 2 2012
Fluvanna County

Owner of Record: Hotel Street Capital, LLC
E911 Address: 31 Garrett Street Warrenton, VA 20186
Phone: Fax:
Email:

Applicant of Record: Same as Owner
E911 Address:
Phone: Fax:
Email:

Representative: Justin Shimp / Shimp Engineering, P.C.
E911 Address: 201 E. Main St. Suite M Charlottesville, VA 22902
Phone: 434-207-8086 Fax: 804-302-7997
Email: justin@shimp-engineering.com

Note: If applicant is anyone other than the owner of record, written authorization by the owner designating the applicant as the authorized agent for all matters concerning the request shall be filed with this application.

Is property in Agricultural Forestal District? ◉ No ○ Yes
If Yes, what district:

Tax Map and Parcel(s): 30(A)-110 and 19(A)-39C
Deed Book Reference: 952 KBS 9/23/13 (CAS) 1180 KBS 8/7/13
Acreage: 232.00 **Zoning:** R3 - Residential
Deed Restrictions? KBS ◉ No ○ Yes (Attach copy) No MAX COM. SQFT KBS 11/4/13
Location of Parcel: West side of SR 664 (Friendship Road) at intersection with US 15 (James Madison Highway)
Requested Zoning: PUD
Proposed use of Property: ~~1514~~ (maximum) dwellings and approx. ~~110,000~~ SF of commercial space ~~1140 KBS 11/2/13~~ ~~160,000 SQFT~~ 130,000 sq. ft. CBS 3/14/13

Affidavit to Accompany Petition for Rezoning

By signing this application, the undersigned owner/applicant authorizes entry onto the property by County Employees, the Planning Commission, and the Board of Supervisors during the normal discharge of their duties in regard to this request.
I/We, being duly sworn, depose and say that we are Owner/Contract Owner of the property involved in this application and that we have familiarized ourselves with the rules and regulations of the Zoning Ordinance with respect to preparing and filing this application, and that the foregoing statements and answers herein contained and the information on the attached map to the best of our ability present the argument on behalf of the application herewith requested and that the statements and information above referred to are in all respects true and correct to the best of our knowledge.

Date: 7/2/12 Signature of Owner/Applicant: Grayson Kong, asst manager

Subscribed and sworn to before me this 2nd day of July 20 12 Register # 7511805

My commission expires: October 31, 2012 Notary Public: Kelly Shipman

All plats must be folded prior to submission to the Planning Department for review. Rolled plats will not be accepted.

OFFICE USE ONLY			
Date Received: 7/2/12	Pre-Application Meeting:	PH Sign Deposit Received: $180 CK#1741	Application #: ZMP 12:02
$1,000 plus $50 for per acre plus mailing costs fee paid:	**Mailing Costs:** $20.00 Adjacent Property Owner(APO) after 1st 15, Certified		
Proffer or Master Plan Amendment: $750.00 plus mailing costs		CK#	$12,840
Election District: Palmyra		Planning Area: Palmyra CPA	

Public Hearings	
Planning Commission	**Board of Supervisors**
Advertisement Dates: 9/13 + 9/20	Advertisement Dates: 10/4 + 10/11
APO Notification: 9/12/12	APO Notification: 10/3/12
Date of Hearing: 9/26/12	Date of Hearing 10/17/12
Decision:	Decision:

Steven Tugwell

Subject: FW: <no subject>

---------- Forwarded message ----------
From: **Tom Ross** <tjross@hmrwlaw.com>
Date: Mon, Jul 16, 2012 at 10:28 AM
Subject: <no subject>
To: Keith Smith <keithsmith011163@gmail.com>

Keith, here is the letter to forward to the County

Dear Ms. Finchum,

Please consider this email to be my official request to authorize two specific representatives on behalf of Hotel Street Capital, LLC, the owner and applicant of the Walker's Ridge PUD application. Please send all correspondence via email to:

Justin Shimp, P.E. Justin@shimp-engineering.com, The principal engineer for the project.

Keith Smith keithsmith011163@gmail.com , Our authorized agent and local representative.

In addition, please continue to copy us via U.S. Mail at our address listed on the application.

Sincerely,

Hotel Street Capital

By

Thomas James Ross II, Manager
31 Garrett Street
Warrenton, VA 20186
540-347-1000-Office

Attachment A

Received
JUL 0 2 2012
Fluvanna County

COMMONWEALTH OF VIRGINIA
COUNTY OF FLUVANNA
Public Hearing Sign Deposit

Name: Hotel Street Capital, LLC

Address: 31 Garrett Street

City: Warrenton

State: VA Zip Code: 20186

I hereby certify that the sign issued to me is my responsibility while in my possession. Incidents which cause damage, theft, or destruction of these signs will cause a partial or full forfeiture of this deposit.

Hotel Street Capital LLC
By Cayson Corporate

Applicant Signature

7/2/12
Date

*Number of signs depends on number of roadways property adjoins.

OFFICE USE ONLY	
Application #: BZA ____:____ CPA ____:____ SUP ____:____ ZMP 12:02 ZTA ____:____	
$90 deposit paid per sign*: CK# 1741 $180 2 signs	Approximate date to be returned: November 2012

COMMONWEALTH OF VIRGINIA
COUNTY OF FLUVANNA
Application for Special Use Permit (SUP)

RECEIVED
MAR 7 2013
FLUVANNA COUNTY
PLANNING DEPARTMENT

Owner of Record: Hotel Street Capital, LLC

E911 Address: **31 Garrett St. Warrenton, VA 20186**

Phone: Fax:

Email:

Applicant of Record: Justin Shimp, P.E.

E911 Address: **201 E. Main St, Suite M, Charlottesville VA 22902**

Phone: **434-207-8086** Fax: **434-302-7997**

Email: **justin@shimp-engingeering.com**

Representative: Justin Shimp, P.E.

E911 Address: **201 E. Main St, Suite M. Charlottesville VA 22902**

Phone: **434-207-8086** Fax: **434-302-7997**

Email: **justin@shimp-engineering.com**

Note: If applicant is anyone other than the owner of record, written authorization by the owner designating the applicant as the authorized agent for all matters concerning the request shall be filed with this application.

Is property in Agricultural Forestal District? ◉ No ○ Yes

If Yes, what district:

Tax Map and Parcel(s): TM 30-A-110 & 19-A-39C

Deed Book Reference: DB 773 PG 725, 765 PG 229

Acreage: 232.03 **Zoning:** R-3 (proposed PUD)

Deed Restrictions? ◉ No ○ Yes (Attach copy)

Request for a SUP in order to: Private Central Water/ Sewer

Proposed use of Property: PUD development

*Two copies of a plan must be submitted, showing size and location of the lot, dimensions and location of the proposed building, structure or proposed use, and the dimensions and location of the existing structures on the lot.

By signing this application, the undersigned owner/applicant authorizes entry onto the property by County Employees, the Planning Commission, and the board of Supervisors during the normal discharge of their duties in regard to this request and acknowledges that county employees will make regular inspections of the site.

Date: 3/7/2013 Signature of Owner/Applicant:

Subscribed and sworn to before me this 7th day of March ,2013 Register # 750

WHITNEY DYAN HULL NOTARY PUBLIC REG. #7504230 MY COMMISSION EXPIRES 01/31/15 COMMONWEALTH OF VIRGINIA

My commission expires: 01/31/2015 Notary Public: Whitney Dyan Hull

Certification: Date: Zoning Administrator:

All plats must be folded prior to submission to the Planning Department for review. Rolled plats will not be accepted.

OFFICE USE ONLY		
Date Received: 3/7/13 Pre-Application Meeting:	PH Sign Deposit Received:	Application #: SUP 13:02
$800.00 fee plus mailing costs paid:	Mailing Costs: $20.00 Adjacent Property Owner(APO) after 1st 15, Certified Mail	
Amendment of Condition: $400.00 fee plus mailing costs paid:		
Telecommunications Tower $1,500.00 fee plus mailing costs paid:	$5,500 w/Consultant Review paid:	
Election District: Palmyra	Planning Area: Palmyra	

Public Hearings	
Planning Commission	**Board of Supervisors**
Advertisement Dates: 12 + 19 April 2013	Advertisement Dates:
APO Notification: 11 April 2013	APO Notification:
Date of Hearing: 24 April 2013	Date of Hearing
Decision:	Decision:

Describe briefly the **improvements** proposed. State whether new buildings are to be constructed, existing buildings are to be used, or additions made to existing buildings.

A new private on-site central water and sewer system to be utilized for the PUD development.

NECESSITY OF USE: Describe the reason for the requested change.

The PUD ordinance, created to encourage more efficient planned growth within the County, requires the use of a central water and sewer system. Central sewer is not within 400' of the subject property, therefore we are not required to connect. It should be noted that the development has paid for 30,000 GPD of capacity at the Palmyra Regional WWTP. That capacity is no longer available and upgrading the facility will require the county to deal with TMDL issues amount other complications. The proposed SUP would release the County of the obligation to provide sewer to the project. Central water will be provided via groundwater and required storage and treatment per VDH requirements.

PROTECTION OF ADJOINING PROPERTY: Describe the effects of the proposed use on adjacent property and the surrounding neighborhood. What protection will be offered adjoining property owners?

There are no anticipated adverse impacts from the proposed central water and sewer system. The system will utilize groundwater as a source for drinking water and recharge the soil via on-site drip or mass drain field disposal systems.

ENHANCEMENT OF COUNTY: Why does the applicant believe that this requested change would be advantageous to the County of Fluvanna? (Please substantiate with facts.)

Fluvanna County has created a comprehensive plan and PUD to ordinance to promote the orderly development of the County. The proposed mixed use development with central water and sewer will be provide the following:
- Concentration of people and businesses conveniently together near County services such as schools, EMS and county administration. This design principal increases capture of revenues from local residents who will spend money in their neighborhoods rather than in neighboring counties.
-The central water and sewer system shall be maintained by the homeowners association of the development and will allow for responsible development of the growth area's without adding an obligation to the County to provide water and sewer services.

PLAN: Furnish plot plan showing boundaries and dimensions of property, width of abutting right-of-ways, location and size of buildings on the site, roadways, walks, off-street parking and loading space, landscaping, etc. Architect's sketches showing elevations of proposed buildings and complete plans are desirable and may be required with the application. Remarks:

The current PUD application plan shows the proposed development and special use permit application requirements.

Memorandum

DATE: October 2, 2013

RE: APO'S for **ZMP 12:02 & SUP 13:02** Public Hearing

TO: Allyson Finchum

FROM: Heather Poole

Please be advised the attached letter went out to the attached list of Adjacent Property Owners for the **October 16, 2013** Board of Supervisors meeting.

COUNTY OF FLUVANNA

"Responsive & Responsible Government"

P.O. Box 540 Palmyra, VA 22963 (434) 591-1910 FAX (434) 591-1911 www.fluvannacounty.org

NOTICE OF PUBLIC HEARING

October 2, 2013

«Title» «First_Name» «Last_Name»
«Company_Name»
«Address_Line_1»
«City», «State» «ZIP_Code»
TMP# «TMP_»

Re: Public Hearing on ZMP 12:02 & SUP 13:02

Dear «Title» «Last_Name»«Company_Name»:

This letter is to notify you that the Fluvanna County Board of Supervisors will hold a public hearing on the above referenced items on **Wednesday, October 16, 2013** at **7:00 PM** in the Circuit Court Room at the Fluvanna County Courts Building in Palmyra, VA. The requests are described as follows:

ZMP 12:02 - Hotel Street Capital, LLC - *An ordinance to amend the Fluvanna County Zoning Map with respect to 222.03 acres of Tax Map 30, Section A, Parcel 110, and 10 acres of Tax Map 19, Section A, Parcel 39C (former Rivanna Resort) to rezone the subject properties from R-3 (Residential, Planned Community) with proffers to PUD (Planned Unit Development). The subject property is located within the Palmyra Election District on the western side of U.S. Route 15 (James Madison Highway) at its intersection with State Route 644 (Friendship Road), approximately 0.25 miles north of State Route 661 (Rescue Lane). The proposed amendment would allow a maximum of 952 residential units (a mixture of single-family detached units, townhouses, and multi-family units) and 180,000 square feet of commercial space. According to the 2009 Comprehensive Plan, the property is located within the Palmyra Community Planning Area.*

SUP 13:02 - Hotel Street Capital, LLC - *A request for a special use permit to allow for major utilities in conjunction with a Planned Unit Development (PUD) with respect to 222.03 acres of Tax Map 30, Section A, Parcel 110, and 10 acres of Tax Map 19, Section A, Parcel 39C. The property is currently zoned R-3 (Residential, Planned Community) with proffers and is located on the western side of State Route 15 (James Madison Highway) at its intersection with State Route 644 (Friendship Road), approximately 0.25 miles north of State Route 661 (Rescue Lane). The property is located within the Palmyra Election District. According to the 2009 Comprehensive Plan, the property is within the Palmyra Community Planning Area.*

The applicant or applicant's representative must be present at the Planning Commission meeting. The tentative agenda and staff report will also be available for review by the public in the Fluvanna County Planning and Community Development Department during working hours (8:00 a.m. – 5:00 p.m., Monday through Friday). If you have any questions, please feel free to contact me at 434–591–1910.

Sincerely,

Steve Tugwell
Senior Planner

ZMP 12-02 & SUP 13-02 Adjacent Property Owners

TMP#	Owner	Address	City, State	Zip Code
19 A 31, 31B, 31C, 31D, 38	ACKENBOM, C RAYMOND	P.O. BOX 145	PALMYRA, VA	22963
19 17 1, 2	CAVANAUGH, D BURDELL	11889 JAMES MADISON HWY	PALMYRA, VA	22963
19 A 30	CAVANAUGH, THOMAS N EST C/O THOMAS CAVANAUGH, JR.	1030 EAST ANDREWS AVE	HENDERSON, NC	27536
19 A 40B	COMCAST OF CALIFORNIA ETC	ONE COMCAST CENTER 1701 JOHN F. KENNEDY BLVD, 32ND FL	PHILADELPHIA, PA	19103
30 A 119A	CSX TRANSPORTATION	500 WATER ST	JACKSONVILLE, FL	32202
19 A 37	DOGPOINT FARM PALMYRA VA LLC	P.O. BOX 132	SOMERSET, MA	02726
19 A 39B	FLUVANNA COUNTY	P.O. BOX 299	PALMYRA, VA	22963
19 A 39	FRIENDSHIP CAMP, INC	P.O. BOX 145	PALMYRA, VA	22963
30 A 110, 19 A 39C	HOTEL STREET CAPITAL LLC	31 GARRETT ST	WARRENTON, VA	20186
19 17 3	RIVERA, VICTOR & ALICE	11416 COVENTRY GROVE CIRCLE	LITHIA, FL	33547
30 A 112, 112A	TALLEY, WILLIAM ALFRED, JR.	P.O. BOX 10	PALMYRA, VA	22963
19 6 1A	VAUGHN, JANET E., EST. C/O FRANCIS D. CHAMBERLAYNE	1817 FAIRMONT AVE	RICHMOND, VA	23223
19 6 1	FLUVANNA HABITAT FOR HUMANITY	3661B LAKE MONTICELLO RD	PALMYRA, VA	22963
REPRESENTATIVE	SHIMP, JUSTIN/SHIMP ENGINEERING	201 E. MAIN ST, SUITE M	CHARLOTTESVILLE, VA	22902

ZMP 12-02 & SUP 13-02 Property Owners Adjacent to Adjacent Property Owners

TMP#	Owner	Address	City, State	Zip Code
19 A 32	ACKENBOM, CHARLES R., JR.	P.O. BOX 145	PALMYRA, VA	22963
19 A 22, 40	ALEXANDER, EMMA PURCELL, LAND & LUMBER CORP.	P.O. BOX 666	LOUISA, VA	23093
19 A 31A	ANDERSON, RUTH ELDER	15404 JAMES MADISON HWY	PALMYRA, VA	22963
19 A 29	CARTER, PEARLIE P. C/O NELLIE LEWIS	461 E. RIVER ROAD	FORK UNION, VA	23055
19 17 4	CAVANAUGH, D. BURDELL	11880 JAMES MADISON HWY	PALMYRA, VA	22963
19 5 4	CAVANAUGH, GLADYS & HELEN	15258 JAMES MADISON HWY	PALMYRA, VA	22963
19 5 3	CAVANAUGH, INA MAE	15234 JAMES MADISON HWY	PALMYRA, VA	22963
19 A 24, 25; 19 5 1	CAVANAUGH, ROBERTA C.	642 FRIENDSHIP ROAD	PALMYRA, VA	22963
19 5 2	CAVANAUGH, THOMAS N. ESTATE C/O THOMAS CAVANAUGH, JR.	1030 EAST ANDREWS AVE	HENDERSON, NC	27536
19 A 33	CROAL, MEGHAN	P.O. BOX 145	PALMYRA, VA	22963
30 2 1	FLUVANNA COUNTY SCHOOL BOARD	14455 JAMES MADISON HIGHWAY	PALMYRA, VA	22963
30 A 119B	FLUVANNA HERITAGE TRAIL INC.	P.O. BOX 501	PALMYRA, VA	22963
19 A 28	FLUVANNA HOUSING FOUNDATION	P.O. BOX 413	PALMYRA, VA	22963
19 A 47	GARNER, LISA A. ET AL C/O LAURE MCGRUDER	15446 JAMES MADISON HWY	PALMYRA, VA	22963
19 A 49	GROOMS, LUCY A.	750 GREENWAY PLACE	DAYTONA BEACH, FL	32114
19 A 23	HUBERT, GLORIA J.	771 FRIENDSHIP ROAD	PALMYRA, VA	22963
19 A 26	KEY, JOHN R. & JOAN B	1352 CLOVERDALE RD	BREMO BLUFF, VA	23022
19 A 44	MAIR, LINDA E MORGAN	111 SKYVIEW LANE	NEW ROCHELLE, NY	10804
19 A 36	MCGRUDER, L.P. & BRAXTON L.	15446 JAMES MADISON HWY	PALMYRA, VA	22963
19 A 33A	MEADORS, DOROTHY P.	1204 AGNESE ST.	CHARLOTTESVILLE, VA	22901
19 A 27	RICHARDSON, DAVID T.	3080 PARK AVE. APT. 6H	BRONX, NY	10451
19 5 5	SPENCER, DAVID C	15316 JAMES MADISON HWY	PALMYRA, VA	22963
30 A 113; 30 4 1, 2, 3; 30 3 2, 4A	TALLEY, ELEANOR W.	P.O. BOX 10	PALMYRA, VA	22963
19 14 2, 4, 4A	TILMAN, DAVID W. & MARY W.	P.O. BOX 238	PALMYRA, VA	22963
30 17 7	WOOD PROPERTY INVESTMENTS LLC	216 HIGHVIEW LANE	CHARLOTTESVILLE, VA	22901

SHIMP ENGINEERING P.C.

PROJECT MANAGEMENT
CIVIL ENGINEERING
LAND PLANNING

July 2nd, 2012

Received
JUL 0 2 2012
Fluvanna County

Ms. Allyson Finchum
Planning Director
Fluvanna County
Palmyra, Virginia

(Delivered by Hand)

Regarding: **Fluvanna County Tax Map 19 Parcel A-39C and Tax Map 30 Parcel A-110**
Former Rivanna River Resort Golf Club
Proposal for a Zoning Map Amendment for a PUD development

Dear Ms. Finchum,

Shimp Engineering is pleased to present the attached application package for your review of our proposed PUD development for the above mentioned parcels. We have prepared what we believe to be a complete application for review. There are a few items in the PUD checklist that I felt warranted some explanation, which I have included below. Based upon our meetings and the preliminary PC work session we understand and anticipate many questions about the density and design of the development as the PUD is a new zoning district in the County and to this day no developer has proposed or built such a district or even submitted a plan for review. With that in mind, there are a few items that I addressed slightly differently than outlined by the checklist with the understanding that we may not be at a final design ready for approval at this time. I will note, on the matter of *density*, as we review the ordinance and specifics of the comprehensive plan and contemplate the design of this development, and how this development fits into the County's long term development goals I begin to wonder if our density is *high enough*. We understand that working out those sort of items are part of the PUD process, and we will welcome input from the County, the Commission, Board Members, neighbors and residents of the Community as we all have a vested interest in the success of the project. Some specific comments on our submittal:

1) The traffic study. We prepared a threshold analysis to determine if our development with a proposed roundabout would create any traffic queuing concerns on U.S. Route 15. Our study was performed based upon an earlier development proposal that included 1361 multi-family units and 150,000 SF of commercial space. The plan as submitted shows slightly more residential units and less commercial square footage. The overall traffic count is expected to be very similar. The study notes that without any improvements, that is, no roundabout or signal, service for the outgoing trips would drop to F. However the study notes that "A single lane roundabout could be constructed which would effectively and safely accommodate turning movements" that is our proposal for the intersection. Page 5 of the study illustrates the proposed roundabout and indicates level of service A on route 15 (minimal or no delay) and level of service B for trips to and from the proposed development.
2) The development narrative. Rather than prepare a separate document, the development narrative is built into the zoning application plan itself. One document includes all of the items required for future

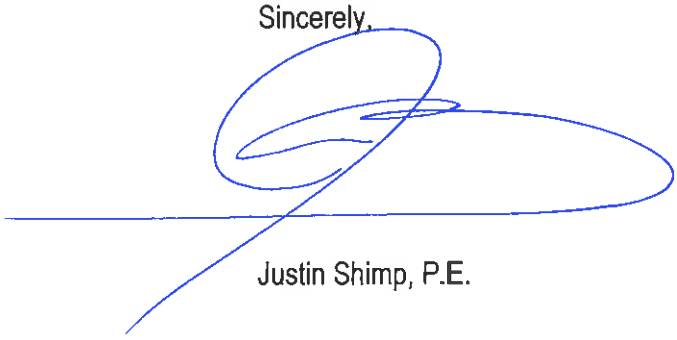
enforcement of the PUD. The only exception to that are the architectural standards, which we anticipate adding to the proffers as they are finalized and submitted for approval. Items such as setbacks, phasing, block sizes and more can be found on sheets C4 thru C6 of the PUD master plan.

3) Public Streets. Little information is provided on this as we envision the roads within the community will be private and maintained by the users of the roads, rather than the state or local government.
4) Phasing/Sequence of construction. As we anticipate some discussion about the overall layout and density of the development we have not gone into detail on the proposed phasing of improvements at this time. We realize that is an important item for the County to consider and we will provide that information in full detail once the bigger picture items of layout and density have been discussed in more detail.

We are very excited about working with you and the other members of the community and staff who will no doubt spend many hours looking over this plan and be a part of the discussions that yield a successful development project. We believe the plan we have prepared is a good plan of development for this parcel and addresses items like open space and amenities in a way that no development within the County has. Our goal is to establish a precedent for development that will establish a pattern of efficient development of land and providing for quality development for businesses and residents of the County.

If you have any questions please feel free to contact me via email at justin@shimp-engineering.com or by telephone at 434-953-6116.

Sincerely,



Justin Shimp, P.E.

Attachment B
Walker's Ridge



Legend

- James Madison Hwy
- Walker's Parcels
- Water
- Roads
- Rivanna River

0 625 1,250 2,500 Feet

COUNTY OF FLUVANNA

"Responsive & Responsible Government"

P.O. Box 540 Palmyra, VA 22963 (434) 591-1910 FAX (434) 591-1911 www.co.fluvanna.va.us

May 21, 2009

Phil Carrow
Rivanna Woods Golf Club, LP
3504 Wedgewood Court
Keswick, Va 22947

REF: ZMP 09:02 (Tax Map Parcels 30-A-110 and 19-A-39C)

Dear Mr. Carrow:

Please accept this letter as notification of the action taken on May 20, 2009 by the Board of Supervisors with regard to the request referenced above. Your request to amend the Fluvanna County Zoning Map with respect to approximately 220.56 acres of Tax Map 30, Section A, Parcels 110 and 10 acres of Tax Map 19, Section A, Parcel 39C, for an aggregate of 230.56 acres, to conditionally rezone the same from A-1, Agricultural, General to R-3, Residential, Planned Community was **approved (5-0)** by the Board of Supervisors with the following eleven (11) proffers:

1. The units in **"The Point at The Rivanna Resort"** will be sold subject to the attached "Residential density yield plan dated 02/27/09."

2. Rivanna Woods Golf Club L.P. proffers the attached Preliminary Master Plan for land use purposes. All vegetative buffers, building and parking locations adjoining existing Public Road Rights-of Ways shall be as per the attached Preliminary Master Plan. Necessary site developments shall be determined during the site plan approval process.

3. The golf course at **"The Point at The Rivanna Resort "** shall not become a private club but shall remain open to the public. The golf course property (composed of the 18 holes, club house and support facilities) shall not be used for any land use other than uses associated with the operation and support of the golf course.

4. Rivanna Woods Golf Club L.P. makes a cash proffer of $5,000.00 per residential unit constructed at the proposed **"The Point at The Rivanna Resort"** project which funds shall be used for the construction of the new Fluvanna County High School to offset any possible additional expenses that this rezoning might cost the Fluvanna County Public Schools. In the event the proffered funds cannot be used for this purpose, they should be used for the development costs for the Pleasant Grove Community Center. The cash proffer shall be due and payable at closing of the sale of each unit(s) or prior to the issuance of a certificate of occupancy for such unit(s), whichever occurs first.

5. Rivanna Woods Golf Club L.P. shall pay $1,000.00 to the Fluvanna / Louisa Housing Foundation per residential unit constructed at the proposed **"The Point at The Rivanna Resort"**. This money shall be earmarked for emergency repairs for Fluvanna County residents earning less than 80% of the area medium income. This proffer shall be due and payable at closing of the sale of each unit(s) or prior to the issuance of a certificate of occupancy for such unit(s), whichever occurs first.

6. Rivanna Woods Golf Club L.P. will improve Rt. 644 / Rt. 15 as provided in the traffic impact study and VDOT's requirements associated with the site plan approval.

7. The applicant shall proffer up to $50,000 to the construction of a future traffic light, if required by VDOT as result of future additional development in the area, at the intersection of Route 15 and Route 644. If the construction of the improvements is not started within 5 years of the successful final site plan approval of ZMP 09:02, this proffer shall expire.

8. Rivanna Woods Golf Club L.P. will provide a water and sewer tap connection location for the Palmyra Fire Station, located on Route 15, adjacent to the property. This is to facilitate the expansion of sewer services in the greater Palmyra area as the service area has been designed. Palmyra Fire Department and or /others will be responsible for application for service, application fee, required permitting by any prevailing authority, connection and construction expenses and or other fees and any required engineering.

9. Rivanna Woods Golf Club L.P. will provide one water and sewer tap connection location on Rt. 15 to facilitate the expansion of sewer services in the greater Palmyra area as the service area has been designed. The expanding entity and or /others will be responsible for application for service, application fee, required permitting by any prevailing authority, connection and construction expenses and or other fees and any required engineering.

10. Rivanna Woods Golf Club L.P. shall proffer the exterior commercial architectural guidelines in "Block #1 Commercial Center" at "The Point at The Rivanna Resort" to be consistent with the architectural design and materials use for the new Palmyra Fire Station located on Rt. 15, as determined by the convening County authority for site plan approval.

11. Rivanna Woods Golf Club L.P. shall proffer the following residential exterior architectural guidelines at “the Point at The Rivanna Resort”.

    1. Siding;
       No vinyl, aluminum and or metal siding shall be allowed. Only architectural grade natural siding products shall be allowed; such as cement fiber board siding, wood or equal.
    2. Roofing;
       Only architectural grade roofing and metal roofing or any combination there of shall be allowed. No three tab shingles shall be allowed.
    3. Foundation covering;
       All concrete and or masonry foundations above grade shall be embossed with either a brick and or stone pattern.

If I can be of any further assistance, please feel free to contact me.

Sincerely,

Darren K. Coffey
Planning Director

cc: Keith Smith, 6342 Thomas Jefferson Parkway, Palmyra, VA 22963
ZMP 09:02 File

FLUVANNA COUNTY, VIRGINIA

GENERAL PLANNING INFORMATION

PROCEDURE FOR REZONING TO PLANNED UNIT DEVELOPMENT (PUD)

Section 22-14-2 of the Fluvanna County Zoning Ordinance establishes the procedure for rezoning a property to Planned Unit Development (PUD).

Pre-Application Meeting

Prior to submitting an official rezoning application, the applicant must hold a pre-application meeting with the Planning Director. At the meeting, the applicant must provide a preliminary sketch plan that shows the general boundary and location of the subject property; the land area to be contained within the PUD; a graphic showing the arrangement of the interior sub-areas; planned mix of uses and densities; and the general approach to addressing transportation facilities and other infrastructure.

Application Submission

After the pre-application with staff, the applicant may submit an application for rezoning to the Fluvanna County Planning Department. The PUD Application Package must include the following primary sections, as described in Section 22-14-2 of the Zoning Ordinance: a narrative, an existing conditions map, a PUD Application Plan, a transportation plan, street design guidelines, lot development criteria, community design guidelines, and a traffic impact analysis.

Planning Commission Review

After the Planning Director has deemed the rezoning application complete, the Planning Commission will review the proposal.

1. A public presentation must be made to the Planning Commission at a regularly scheduled meeting, prior to advertising for a public hearing.
2. At its discretion, the Planning Commission may schedule one or more work sessions to discuss the proposal, prior to holding a public hearing.
3. The proposal will be reviewed by the Planning Commission at a public hearing, after which it will make a recommendation to the Board of Supervisors.

Board of Supervisors Review

After the Planning Commission has reviewed the rezoning application, it will be reviewed by the Board of Supervisors.

1. At its discretion, the Board of Supervisors may schedule one or more work sessions to discuss the proposal, prior to holding a public hearing.
2. The proposal will be reviewed by the Board of Supervisors at a public hearing, after which it will either approve, deny, or defer the rezoning application.

The following changes are made in Chapter 22, Zoning:

Article 14, Planned Unit Development District (PUD) is replaced as follows:

Sec. 22-14-1. Statement of intent.

Planned unit developments (PUDs) are intended to promote the efficient use of land by allowing flexibility in design standards and variety in densities and land uses to preserve the rural areas of the county. Development of such districts shall be in accordance with an approved PUD Application Package which should provide a variety and range of uses and densities in designated areas of the site.

Planned unit developments should be located within the designated growth areas of the county as set forth in the comprehensive plan, and should implement the goals of each Community Planning Area. Planned unit developments should provide unified development that incorporates new urbanism and traditional neighborhood development principles, which includes a mix of residential and commercial uses, an interconnected system of internal roads, pedestrian sidewalks and walkways and well planned access points along existing roadways. In addition to a mix of residential and commercial uses, planned developments should also provide a mix and variety of housing types.

The PUD District is intended to be applied to privately initiated zoning map amendments for land located within the County's Community Planning Areas (CPAs) and the designated Zion Crossroads Urban Development Area (UDA). The Zion Crossroad UDA is located internal to the Zion Crossroads Community Planning Area, as depicted on the Future Land Use Map, as amended. The County's designated CPAs and UDA include:

a. Zion Crossroads Community Planning Area
b. Zion Crossroads Urban Development Area
c. Rivanna Community Planning Area
d. Palmyra Community Planning Area
e. Fork Union Community Planning Area
f. Columbia Community Planning Area
g. Scottsville Community Planning Area

(Ord. 8-5-09; Ord. 11-16-11)

Sec. 22-14-2. Procedure for rezoning.

(1) Prior to submitting an official rezoning application for a PUD, the applicant shall schedule a pre-application meeting with the Planning Director for an introductory work session to discuss the key elements and impacts of the proposed project. The Planning Director and other County agency representatives may provide specific guidance on (a) application requirements, (b) timeframe for processing of the zoning map amendment application, (c) Comprehensive Plan compliance considerations, (d) identification issues

related to public infrastructure and facilities, and (e) other matters as may be uniquely related to the applicant's property. At this meeting, the applicant shall present a preliminary sketch plan and other exhibits that depict the following: (a) general boundary and location of property subject to the PUD rezoning application, (b) land area to be contained within the PUD District, (c) graphic representation of the arrangement of interior sub-areas, (d) planned mix of land uses and densities, and (e) general approach to addressing transportation, infrastructure and community facilities.

(2) After the pre-application meeting with staff, the applicant shall submit an application for rezoning with the Fluvanna County Planning Department. The PUD Application Package shall consist of the following primary sections: a narrative, an existing conditions map, a PUD Application Plan, a transportation plan, street design guidelines, lot development criteria, community design guidelines, and a traffic impact analysis.

(i) PUD Application Package Narrative

a. A general statement of objectives to be achieved by the PUD district including a description of the character of the proposed development and the market for which the development is oriented;

b. A list of all adjacent property owners;

c. Site and lot development standards, including but not limited to mix of land uses, density for individual residential land uses, floor area ratios for non-residential uses, building setbacks and yard regulations, maximum heights, maximum project density, and lot coverage;

d. Proposed utilities and implementation plan, including documentation of adequate public facilities;

e. Phased implementation plan;

f. Comprehensive signage plan;

g. Descriptions of any architectural and community design guidelines including but not limited to a code of development, building designs, orientations, styles, lighting, etc.;

h. Specific proffers and conditions (if proposed).

(ii) Existing Conditions Map

a. Topography, including the identification of steep slopes (>20%), to be prepared with minimum 2' contour elevations and 100' horizontal scale, and current boundary survey of the property subject to the PUD district;

b. Water features, including existing stream buffers and stormwater or erosion control measures;

c. Roadways;

d. Structures;

e. Tree lines;

f. Major utilities;

g. Significant environmental features, including unsuitable soils for land development purposes, wetlands, and FEMA designated 100-year floodplains;

h. Existing and proposed ownership of the site along with all adjacent property owners;

i. Zoning of the site and adjacent properties;

j. Locations of public improvements and facilities, including rights of way and easements, as may be recognized by the Comprehensive Plan, the Future Land Use Map, the Official Transportation Map, or State transportation plans, as may be applicable.

(iii) PUD Application Package

The PUD Application Package shall include a PUD Application Plan (master plan) to be prepared to a horizontal scale of 1"=100' or as otherwise may be approved by the Planning Director to be of sufficient clarity and scale to accurately identify the location, nature, and character of the proposed planned unit development (PUD) district. At a minimum, the PUD Application Plan shall include the following:

a. Proposed PUD master plan layout and supporting land use documentation (tables, charts, etc.) for all proposed land uses within the PUD district, including the general location of uses, types of uses, mix of uses, lot types, density range of uses, and floor area ratio ranges;

b. Methods of access from existing state maintained roads to proposed areas of development;

c. General street alignments and parking areas, including proposed street sections and standards;

d. General alignments of sidewalks, bicycle and pedestrian facilities;

e. Schematic utility plans, indicating the infrastructure and facilities to serve the development, including but not limited to: water, sewer and storm drainage improvements, pump stations, treatment facilities, offsite improvements as needed, electrical substations, etc.;

f. A general plan showing the location and acreage of the active and passive recreation spaces, parks, civic areas, and other public open areas;

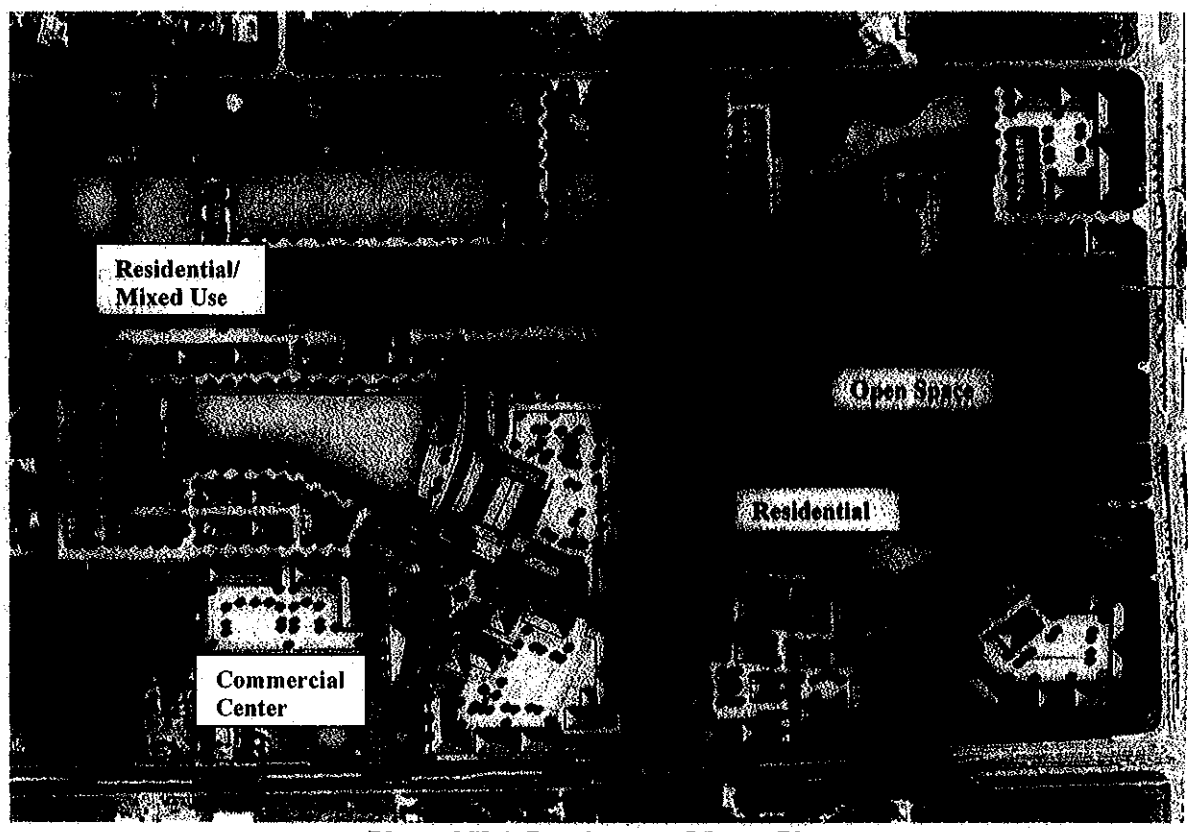
g. A general overall landscaping layout that includes methods of screening and buffering from adjacent properties and existing public right-of-ways, as well as stream buffers;

h. A general stormwater management and best management practices master plan that includes how negative impacts to nearby streams, wetlands, surface water, and groundwater resources as a result of development would be avoided and mitigated;

i. Phased development areas. Subsequent subdivision plats and site plans should be closely correlated with master plan phases;

j. A schematic grading plan for the area of the PUD property proposed for development, with finished grades to be prepared at a 5' contour interval;

k. Documentation and plan demonstrating general compliance with VDOT State Secondary Street Acceptance requirements and other requirements for public streets and intersections.



Planned Unit Development Master Plan

Traffic Impact Analysis

a. The Planning Director shall determine whether or not the subject PUD District project shall require a traffic impact statement to be prepared consistent with VDOT 527 regulations.

b. If a 527 traffic impact analysis is required, the Applicant shall prepare and submit a Pre-Scope of Work Meeting Form to the County on or before the date of formal submission of the zoning district amendment application. The Pre-Scope form shall be processed, reviewed by and between the County, VDOT and the Applicant in accord with adopted regulations and procedures.

c. If a 527 Traffic Impact Analysis is not required, the Applicant shall meet with

the Planning Director to determine the required scope for a traffic analysis for the PUD project. The Planning Director shall approve the elements to be addressed in the study scope. The traffic analysis shall be submitted with the zoning amendment application. Minimum requirements may include the following:

(1) Existing traffic counts (AM and PM peak hour) at intersections to be identified by the County;

(2) Trip generation estimates for the planned land uses within the proposed development, employing Institute of Transportation Engineers (ITE) methodologies;

(3) Trip distribution and assignments to the existing road network of traffic projected for the development at full-buildout;

(4) Estimates of background traffic growth on impacted streets and highways;

(5) Analysis of future conditions, to include Highway Capacity Manual (HCM) level-of-service calculations for impacted intersections;

(6) Signal warrants analysis;

(7) Statement of recommended transportation improvements to provide adequate levels of service for the traffic generated by the proposed project.

(3) The PUD application package shall not be scheduled for consideration by the Planning Commission until the Planning Director has determined that the package is complete. Except as the Planning Director may determine otherwise in a particular case, for reasons beyond the control of the applicant, any application package which is not complete within 30 days after its submission shall be deemed to have been withdrawn and shall not be further processed. Once the Planning Director has determined the application package to be complete, the following process shall commence:

(i) The Planning Commission shall receive a public presentation on the proposed development at a regularly scheduled meeting, prior to advertising for a public hearing;

(ii) The Planning Commission may schedule one or more work sessions to discuss the proposed development;

(iii) Once a public hearing has been conducted by the Planning Commission, a recommendation shall be forwarded to the Board of Supervisors for their consideration;

(iv) The Board of Supervisors may schedule one or more work sessions to discuss the proposed development and the Planning Commission recommendation, prior to conducting their public hearing;

(v) The plan approved by the Board of Supervisors shall constitute the final master plan for the PUD district.

(4) All conditions and elements of the plan as submitted, including amendments and revisions thereto, shall be deemed to be proffers once the Board of Supervisors has approved the final master plan. All such conditions and elements shall be enforceable by the County pursuant to Section 22-17-9 of this Code.

(5) The approved final master plan shall serve as the sketch plans for the subdivision and site plan process.

(6) Prior to development of the site, a final site development plan pursuant to Article 23[1] of the zoning ordinance, shall be submitted for administrative review and approval for any business, limited industrial, or multi-family development.

(7) Additionally, if any land within the district is to be subdivided, preliminary and final subdivision plats pursuant to the subdivision regulations of Chapter 19 of the Fluvanna County Code shall be submitted for administrative review and approval prior to development of the site. Staff will determine if the submitted preliminary plats are in accordance with the approved final master plan.

(8) If staff determines that the preliminary or final subdivision plats or final site plan are not in accord with the approved final master plan, such plans will be sent to the Planning Commission for review. If the Planning Commission determines that such plans are not in accord with approved final master plan, the applicant shall then submit sketch plans for review and approval by the Planning Commission. The sketch plans shall either be in accord with the approved final master plan, or a master plan amendment shall be applied for, in which case the amendment procedure set out in the zoning ordinance shall be followed. (Ord. 8-5-09; Ord. 11-16-11)

Sec. 22-14-3. Character of development.

The goal of the PUD district is to allow for and encourage development that incorporates new urbanism principles which includes:

(1) Pedestrian orientation;

(2) Neighborhood friendly streets and paths;

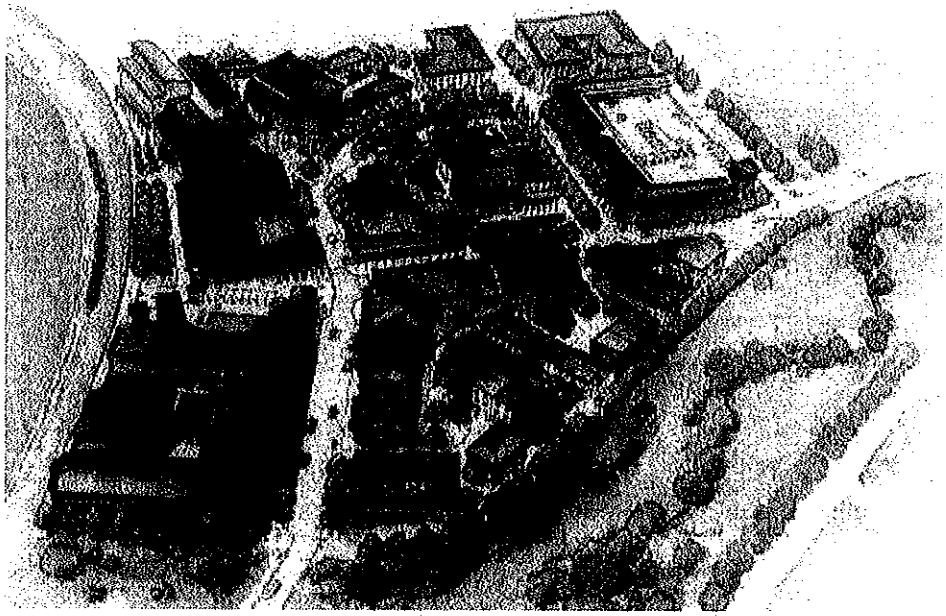
(3) Interconnected streets and transportation networks;

(4) Parks, recreation improvements, and open space as amenities;

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[1] Editor's Note – conformed to numbering convention of this code by the Editor. Appears as "Article 22-23" in the original.

(5) Neighborhood centers and civic space;



Planned Unit Development

(6) Buildings and spaces of appropriate scale;

(7) Relegated parking;

(8) Mixture of uses and use types;

(9) Mixture of housing types and affordability;

(10) Clear boundaries with any surrounding rural areas;

(11) Environmentally sensitive design (i.e., sustainability and energy efficiency);

(12) Adequate public facilities and infrastructure to serve the community.

An application is not necessarily required to possess every characteristic of the PUD district as delineated above in order to be approved. The size of the proposed district, its integration with surrounding districts, or other similar factors may prevent the application from possessing every characteristic. (Ord. 8-5-09; Ord. 11-16-11)

Sec. 22-14-4. Uses permitted by-right.

In the PUD district, all uses permitted by-right in the residential (R-1, R-2, R-3 and R-4), business (B-1 and B-C) and limited industrial (I-1) zoning districts may be permitted as enumerated in the final PUD application package. Uses not specified within the PUD application package shall not be permitted. (See Planning Staff for matrix for use by applicant to designate proposed by-right land uses to be included in the PUD district. The applicant's completed table shall be established as a condition of approval of the PUD Application Package.) (Ord. 8-5-09; Ord. 11-16-11)

Sec. 22-14-5. Uses permitted by special use permit.

One or more of the uses permitted by special use permit in the residential and business zoning districts may be permitted in the PUD district, as enumerated in the final PUD application package, upon issuance of a special use permit by the Board of Supervisors. Uses not specified within the PUD application package shall not be permitted. (See Planning Staff for a matrix for use by applicant to designate proposed special use permit uses to be included in the PUD district. The applicant's completed table, including special conditions imposed during the zoning application process, shall become an element of the PUD application package.) (Ord. 8-5-09; Ord. 11-16-11)

Sec. 22-14-6. Minimum area required for a planned unit development.

(1) PUD districts shall be located on a single parcel of land or separate but contiguous parcels which are, or proposed to be, under common ownership, subject to approval of the rezoning application. The minimum area required for a PUD district shall be as follows:

(i) Zion Crossroads Community Planning Area: 20 acres
(ii) Zion Crossroads Urban Development Area (applicable to a PUD district application on designated UDA land located within the Zion Crossroads CPA): no minimum area required.
(iii) Rivanna Community Planning Area: 10 acres
(iv) Palmyra Community Planning Area: 5 acres
(v) Fork Union Community Planning Area: 5 acres
(vi) Columbia Community Planning Area: 5 acres
(vii) Scottsville Community Planning Area: 5 acres

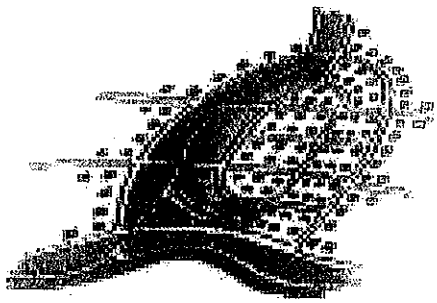
(2) Additional land area may be added to an established PUD district if it is adjacent to and forms a logical addition to the approved development. The procedure for an addition shall be the same as if an original PUD zoning amendment application was filed, and the requirements of this article shall apply, except the minimum acreage requirement. (Ord. 8-5-09; Ord. 11-16-11)

Sec. 22-14-7. Open space, recreation, parks and civic areas.

(1) In the Community Planning Areas, not less than 30% of the gross area of a PUD district shall be preserved as open space, provided that supplemental regulations for application to the Zion Crossroads UDA apply as indicated herein below. The required 30% open space may include private common and public open areas; perimeter open space; buffers between various uses, densities and adjacent properties; recreational space, neighborhood parks, civic areas; easements; water bodies and any undisturbed land not occupied by building lots, structures, streets, and parking lots. By way of this section, yards of individual residences shall not be considered open space.

(2) Land designated for future facilities (i.e. schools, fire and rescue stations, places of worship, daycare centers, etc.) shall not be included toward the open space.

(3) Not less than 15% of the total open space shall be provided for active and/or passive recreational activities.



Open Space

(4) Private common open areas shall be owned, maintained and operated by a property owner's association. A property owner's association document shall be prepared declaring and specifying the care and maintenance of the common areas. This document shall be reviewed and approved by the Fluvanna County Attorney prior to final approval.

(5) Upon request of the Applicant, the Planning Commission, at its sole discretion, (a) may decrease or eliminate certain requirements for open space and recreation land and improvements in a PUD District project, provided that the revised regulations shall be established and conditioned by the PUD Application Package.

(6) For PUD projects in the Zion Crossroads UDA that are less than fifteen (15) acres in gross area, the Applicant may contribute to a pro-rata share fund lieu of provision for all or a portion of the required open space. The County shall reserve and employ these funds for the purpose of community open space, park, recreation, or civic space development within the Zion Crossroads Community Planning Area.

(7) For PUD projects in the Zion Crossroads UDA with a gross area of fifteen (15 acres) or greater, the quantity, location, mix, type, quality and phasing of open space, civic space, parks, recreation areas, buffer areas, and protected natural areas shall be consistent with the policies of the Comprehensive Plan or other criteria for traditional neighborhood development as may be established by the County. These areas shall be delineated on the PUD Application Plan and may include greens, squares, plazas, community centers, club houses, swimming facilities, outdoor recreational fields, trails, pocket parks, or community gardens. (Ord. 8-5-09; Ord. 11-16-11)

Sec. 22-14-8. Density.

(1) The maximum residential base density permitted for individual land uses to be located in the PUD districts shall be as follows in Table 1 below.

(2) The allowable density for individual uses within the PUD District shall be calculated based on the Net Acreage of the land subject to the PUD zoning amendment application. The calculation of minimum and maximum yield for individual uses shall be based on the application of the minimum and maximum density for each use (see Table 1) to an adjusted Net Acreage. The Net Acreage reduces the gross area of the PUD land by the total of the non-qualifying land components within property. The Net Acreage = Gross Acreage - Non-Qualifying Area (acreage of the sum of the Non-Qualifying land components.) The components that comprise the Non-Qualifying areas include:

- area of existing dedicated public rights of way and easements
- areas depicted on an adopted Official Transportation Map for future public improvements,
- area of existing land uses and structures, including platted lots, that are intended to remain as a part of the PUD project,
- areas deemed unbuildable due to geological, soils, or other environmental deficiencies,
- areas of wetlands and floodplains (as defined by FEMA 100-year floodplain or engineering study),
- area of existing ponds, stormwater management facilities, and water features that are not defined as wetlands or floodplains, and
- area of terrain with slopes in excess of thirty percent (30%).

PUD District Density Regulations								
Community Planning Area	**Minimum & Maximum Density** Dwelling Units par acre for Residential – Floor Area Ration for Commercial							
	Single Family		**Townhouses**		**Multifamily**		**Commercial**	
	min.	max.	min.	max.	min.	max.	min.	max.
Zion Crossroads Community Planning Area		6		9		16		
Zion Crossroads Urban Development Area	4	6	6	9	12	16	0.4	
Rivanna Community Planning Area		4		6		12		
Palmyra Community Planning Area		4		6		12		
Fork Union Community Planning Area		4		6		12		
Columbia Community Planning Area		4		6		12		
Scottsville Community Planning Area		4		6		12		

Table 1: PUD Density Regulations

(3) An increase in the maximum residential density for a PUD district may be permitted in the following instances:

Open Space:

If 50% or more of the gross area of a PUD is preserved as open space, then a 20% increase in density may be permitted. If 75% or more of the gross area of a PUD is preserved as open space, then a 30% increase in density may be permitted.

Affordable Housing (as defined in the Comprehensive Plan):

If between 10% and 15% of the total number of dwelling units within a PUD are reserved for affordable housing, then a 20% increase in density may be permitted. If more than 15% of the total number of dwelling units within a PUD are reserved for affordable housing, then a 30% increase in density may be permitted.

Open Space and Affordable Housing:

Density bonuses may also be permitted with a combination of both open space and affordable housing. The increase in density that may be permitted shall be based on the following combinations of open space and affordable housing:

Open Space Provided	Affordable Housing Provided	Density Bonus Permitted
50%	10-15%	35%
50%	+15%	45%
75%	10-15%	40%
75%	+15%	50%

Transfer/Purchase of Development Rights:

(Reserved for future Transfer of Development Rights/Purchase of Development Rights density bonuses)

(Ord. 8-5-09; Ord. 11-16-11)

Sec. 22-14-9. Setbacks.

(1) Minimum setbacks and yard regulations for each planned land use within the PUD district shall be specifically enumerated in a table to be included in the PUD Application Package.

(2) Lots at the perimeter of the PUD district shall conform to the setback requirements of the adjoining district, or to the setback requirements of the planned district, whichever is greater.

(3) Refer to the Comprehensive Plan for illustrative examples of residential lot types for traditional neighborhood development projects. (Ord. 8-5-09; Ord. 11-16-11)

Sec. 22-14-10. Streets.

(1) Streets within the PUD district may be either public or private, but shall conform to VDOT road design standards. Private subdivision streets shall be permitted in accordance with the provisions of Sec. 19-18-1(c) of this Code.

(2) Alleys may be allowed within the PUD district provided they conform to either VDOT design standards or as otherwise prescribed in the master plan.

(3) Sidewalks shall generally be provided on both sides of any streets, public or private, within the PUD district. Sidewalks shall conform to VDOT standards.

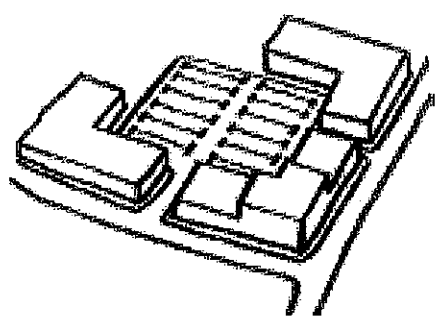
(4) Traffic access and circulation within the PUD district shall be designed to provide safe accommodation of all users of the transportation network including pedestrians and bicyclists. Sidewalks, bicycle lanes and multi-use trails shall be provided where appropriate. Mixed-use areas of the development shall be designed to give priority to pedestrian and bicycling traffic.

(5) Internal streets within the PUD district shall be permitted to intersect with existing public streets to the extent necessary. Such intersections shall provide reasonable access and service to uses contained within the development and shall be developed using VDOT principles of access management.

(6) Refer to the Comprehensive Plan for illustrative examples of residential streets for traditional neighborhood development projects. (Ord. 8-5-09; Ord. 11-16-11)

Sec. 22-14-11. Parking.

(1) Off-street parking facilities in mixed-use, business, industrial, and multi-family residential areas shall generally be relegated behind the front building line.



Relegated Parking

(2) On-street parking shall be permitted, where appropriate.

(3) In addition to the regulations included herein, all off-street parking shall be provided in accordance with the off-street parking and loading requirements of Article 26[2] of the zoning ordinance.

(4) The provisions of Article 26[3] for the application of individual parking standards for projects located within the Zion Crossroads UDA may be modified at the discretion of

[2] Editor's note – conformed to numbering convention of this Code by the Editor. Appears as "Article 22-26" in the original.

the Planning Commission, provided that the Applicant submits a parking impact study that fully justifies the modification to the standards based on the mix of uses, the phasing of development, and other factors, including relationship of parking location to individual land uses within the project. (Ord. 8-5-09; Ord. 11-16-11)

Sec. 22-14-12. Height of buildings.

The height regulations for the PUD district shall be as follows:

PUD Maximum Heights						
Building Types	**Community Planning Areas**					
	Zion Crossroads	**Rivanna**	**Palmyra**	**Fork Union**	**Columbia**	**Scottsville**
Single-Family	45 Feet	45 Feet	45 Feet	45 Feet	45 Feet	45 Feet
Multi-Family	55 Feet	45 Feet	45 Feet	45 Feet	45 Feet	35 Feet
Business, Industrial and Non-Residential	75 Feet	55 Feet	45 Feet	45 Feet	55 Feet	35 Feet

(1) For purposes of this section, height shall be the vertical distance of a structure measured from the highest finished grade to the highest point of the structure.

(2) Spires, belfries, cupolas, monuments, water towers, chimneys, flues, flagpoles, television antennae and radio aerials: 60 feet from grade, unless otherwise enumerated in the master plan.

(3) Roof-mounted mechanical equipment (i.e. air conditioners, condensers, ductwork, etc.) shall not be visible at any point from ground-level. Parapet walls shall not extend more than four (4) feet above the maximum height permitted for buildings within the PUD district.

(4) Buildings with a mixture of business and residential uses are subject to the height regulations of business, industrial and non-residential buildings. (Ord. 8-5-09; Ord. 11-16-11)

[3] Editor's note – conformed to numbering convention of this Code by the Editor. Appears as "Article 22-26" in the original.

Sec. 22-14-13. Utilities.

(1) All uses and structures within a PUD district shall be served by both central water and sewerage systems, whether publicly or privately provided.

(2) No overhead utility lines shall be permitted within a PUD district. All utility lines, including but not limited to, electric, telephone, cable television lines, etc. shall be placed underground.

(3) Telecommunications facilities are encouraged on the roofs of buildings within a PUD district to provide coverage to the district and surrounding area. (Ord. 8-5-09; Ord. 11-16-11)

Sec. 22-14-14. Building design and architecture.

(1) Within the multi-family residential, business, industrial, and mixed-use areas of a PUD district, building design styles shall be compatible with each other and shall exhibit consistency in terms of their exterior materials, architectural style, size, shape, scale, and massing.

(2) With the exception of detached single family dwellings, building facades shall maintain a consistent street edge. The street elevation of principal structures shall have at least one street-oriented entrance and contain the principal windows of the structure, with the exception of structures in a courtyard style.

(3) Site plans shall include drawings, renderings, or perspectives of a professional quality which illustrate the scale, massing, roof shape, window size, shape and spacing, and exterior materials of the structure. (Ord. 8-5-09; Ord. 11-16-11)

Sec. 22-14-15. Amendment.

(1) The Planning Director may approve a minor change to an approved PUD Application Package and Application Plan at the written request of the owner of the development. For purposes of this section, a "minor change" refers to changes of location and design of buildings, structures, streets, parking, recreational facilities, open space, landscaping, utilities, or similar details which do not significantly change the character of the approved PUD application package and PUD master plan.

(2) If the Planning Director determines that the requested change constitutes a significant change, or something more than a minor change to the approved zoning application package, then the owner may seek an amendment to the PUD Application Package and Application Plan from the Board of Supervisors. The application procedure for such an amendment shall be the same as the application procedure for the original approval. (Ord. 8-5-09; Ord. 11-16-11)

SHIMP ENGINEERING P.C.
PROJECT MANAGEMENT
CIVIL ENGINEERING
LAND PLANNING

Received
JAN 0 2 2013
Fluvanna County

January 2, 2013

Mr. Steve Tugwell
Senior Planner
Fluvanna County
Department of Planning & Community Development
P.O. Box 540
Palmyra, VA 22963

Regarding: **ZMP 12:02, Hotel Street Capital PUD Rezoning Request for Walker's Ridge**
Resubmittal of Application for Review

Dear Mr. Tugwell,

We are happy to resubmit the Walker's Ridge PUD application for your review. Based on your comments from September 2012, along with requests from the Owner/Applicant, we have provided the following changes to the Application Plan:

1) The plat has been revised to include a recent purchase of a portion of the CSX property on the north side of State Route 644.
2) The primary entrance from US 15 has been relocated to allow a more efficient alignment of State Route 644 and a relocated easement to reach TMP 19-A-38.
3) The maximum allowable residential density has been reduced from 1514 residential units (6.5 DUA) to 1190 units (or 5.1 DUA) and the mixture of housing has been modified to increase the ratio of single-family attached, single-family detached, and townhouse units. In addition, a proposed layout has been provided for duplex units in blocks C-1 and D-1. It should be noted here that the General Development Plan is guideline for development and does not mandate that each block cannot be revised in accordance with the block plan summaries, regulations, land use tables, and code of development for the overall site.
4) The primary mixed-use Blocks (A-2 and A-3) have been rotated to align with a new intersection of S.R. 644 as a transition into the residential blocks. A mixed-use commercial option (up to 10,000 SF commercial) has been added to Block C-3, available with a special use permit.
5) Notes have been added to reflect the proposal for a private central water system and a private central sewer system for the development.
6) The proposed commercial development for the site (shown on the General Development Plan) has been increased from 151,000 square feet to 160,000 square feet. There is no maximum allowable commercial square footage proposed in the Application Plan however, the roads/buildings/parking layout shall be in general accord to the Application Plan and the amount of commercial square footage will be dependent upon available parking.
7) We have added a sheet showing an overall phasing plan and a sheet showing a detail to revise the S.R. 644 entrance as a Phase I improvement. It should be noted here that the phasing of the project and the timeline of development are market driven and the Owner/Applicant requests the ability to modify the phasing plan accordingly.

The new plan will improve the road layout and intersection locations for the community by removing the existing Route 644 entrance and combining the main entrance into a single roundabout. As a result of meetings, we have tentatively reached an agreement with one neighbor that will permit us to amend our plan to both address their concerns for access and improve the overall transportation flow of the plan. We are looking forward to meeting with the TRC and hearing further comments.

Best Regards,

Justin Shimp, P.E.
Shimp Engineering, P.C.

REZONING APPLICATION PLAN FOR
WALKER'S RIDGE
TAX MAP 30, SECTION A, PARCEL 110 and
TAX MAP 19, SECTION A, PARCEL 39C
PALMYRA DISTRICT, FLUVANNA COUNTY, VIRGINIA

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VICINITY MAP SCALE: 1"=2,000'



IMAGE PROVIDED BY GOOGLE MAPS

SHEET INDEX

C1 - COVER SHEET
C2 - REGIONAL CONTEXT MAP & PARCEL OVERVIEW
C3 - EXISTING CONDITIONS
C4 - GENERAL DEVELOPMENT OVERVIEW
C5 - LANDSCAPING OVERVIEW
C6 - PARKS/GREENSPACE/AMENITIES PLAN
C7 - GENERAL DEVELOPMENT PLAN - PHASE 1
C8 - BLOCK PLAN
C9 - CODE OF DEVELOPMENT
C10 - GENERAL DEVELOPMENT PLAN
C11 - GENERAL DEVELOPMENT PLAN
C12 - GENERAL DEVELOPMENT PLAN
C13 - SITE DETAILS
C14 - PHASING PLAN OVERVIEW
C15 - PHASE 1 ENTRANCE DETAIL

ABOUT "WALKER'S RIDGE"

THE PROJECT NAME IS BASED NOT ON OUR USE OF EXTENSIVE WALKING/RUNNING TRAILS, BUT RATHER A FOUNDER OF PALMYRA, THE REVEREND WALKER TIMBERLAKE. TIMERBERLAKE TOOK PART IN CONSTRUCTION OF THE ORIGINAL VILLAGE OF PALMYRA AND OWNED ALL BUT THE LAND GIVEN TO THE COUNTY FOR PUBLIC BUILDINGS. BUSINESSES IN THE VILLAGE INCLUDED A HOTEL, BLACKSMITH, DOCTORS, ATTORNEYS, A TAVERN AND MORE.

WALKER'S RIDGE IS ABOUT THE RENEWAL OF THAT SPIRIT WITHIN THE PALMYRA COMMUNITY PLANNING AREA.

PROPERTY INFORMATION

OWNER/DEVELOPER:
HOTEL STREET CAPITAL, LLC.
31 GARRETT ST.
WARRENTON, VA 20186

LEGAL REFERENCE:
TAX MAP 30 SECTION A PARCEL 110 (222.03 ACRES) DB 773 PG 725
TAX MAP 19 SECTION A PARCEL 39C (10.00 ACRES) DB 765 PG 229

MAGISTERIAL DISTRICT:
PALMYRA

BASE INFORMATION

SOURCE OF BOUNDARY SURVEY:
PLAT BY DOMINION DEVELOPMENT RESOURCES. DB 773 PG 725 & DB 765 PG 229

SOURCE OF TOPOGRAPHY:
TWO (2) FOOT CONTOUR INTERVAL TOPOGRAPHY FROM AERIAL SURVEY BY LOUISA AERIAL SURVEYS, INC.

WATER SOURCE:
REFER TO SHEET 4 - GENERAL DEVELOPMENT PLAN OVERVIEW

SEWER SERVICE:
PRIVATE ONSITE DISPOSAL SYSTEMS

THIS PROPERTY IS CURRENTLY ZONED: R3 - RESIDENTIAL

APPLICATION PLAN NOTES:

1. THIS APPLICATION PLAN PROPOSES A CHANGE IN LAND USE FROM R-3 (RESIDENTIAL) TO PUD (PLANNED UNIT DEVELOPMENT) TO ALLOW MIXED USE DEVELOPMENT OF THE SITE.

2. THIS SITE LIES WITHIN THE PALMYRA COMMUNITY PLANNING AREA.

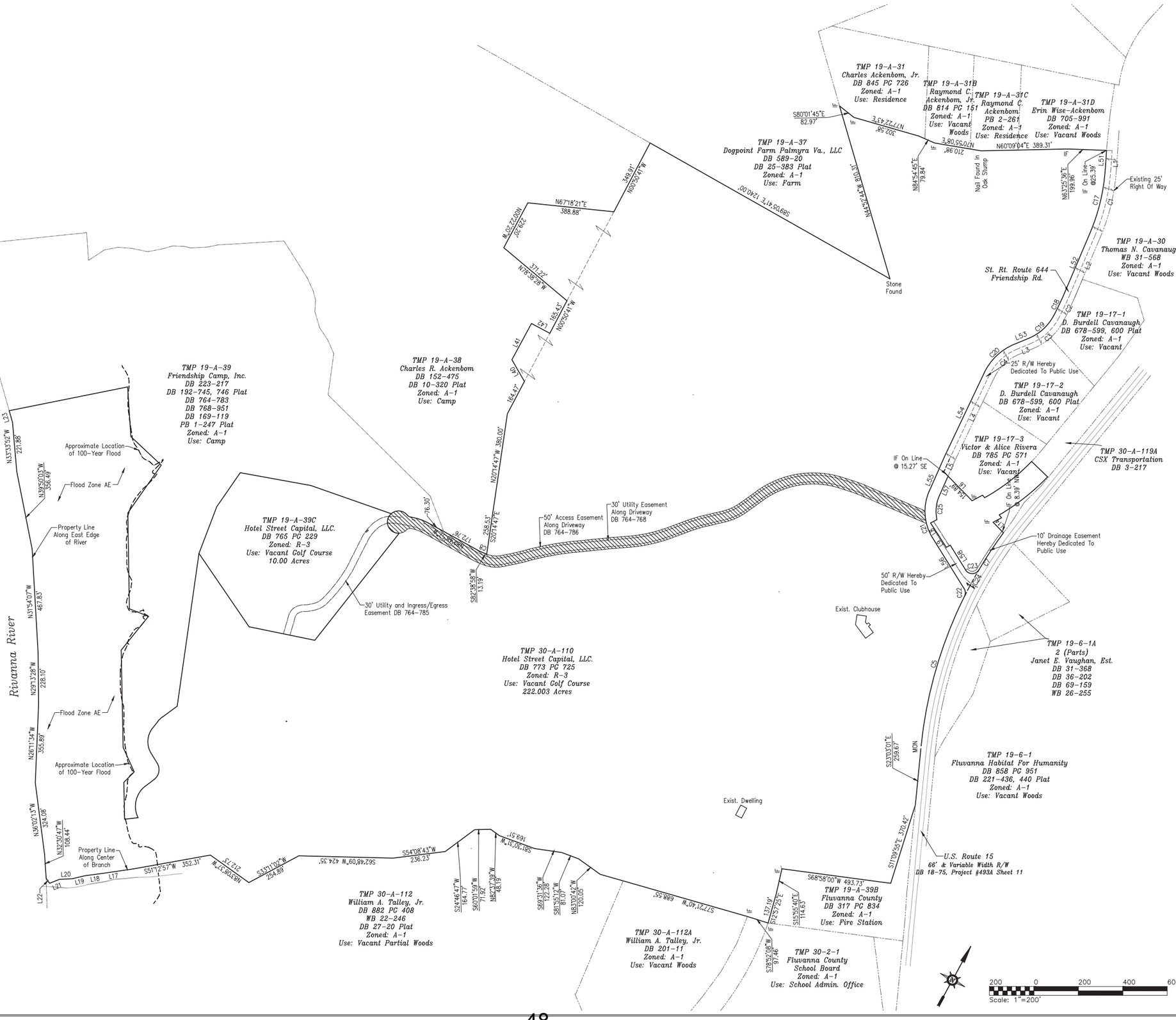
3. REFER TO CODE OF DEVELOPMENT ON SHEET 6 FOR PROJECT DESCRIPTION.

COVER SHEET

Rev #	Date	Description
1.	09/04/2012	Revisions to Site Density
2.	12/31/2012	Revisions Density and Engineering
3.	02/01/2013	Revisions For Access Road & Drainfields
4.	05/20/2013	Plan Clarifications
5.	09/17/2013	Revisions Per Staff Request

REZONING APPLICATION PLAN FOR:
WALKER'S RIDGE
FLUVANNA COUNTY, VIRGINIA

Date 07/01/2012
Scale N/A
Sheet No. 1 OF 15
File No. 11.022



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PARCEL OVERVIEW

Rev #	Date	Description
1.	09/04/2012	Revisions To Site Density
2.	12/31/2012	Revisions Density and Engineering
3.	02/07/2013	Revisions For Access Road & Drainfields
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REZONING APPLICATION PLAN FOR:

WALKER'S RIDGE

FLUVANNA COUNTY, VIRGINIA

Date 07/01/2012
Scale 1"=200'
Sheet No. 2 OF 15
File No. 11.022

PREDOMINANT EXISTING SOIL TYPES

Cf – Chewacla silt loam
Ch – Congaree fine sandy loam
Ck – Congaree silt loam
Me – Manteo silt loam, hilly phase
Mf – Manteo silt loam, rolling phase
Mg – Manteo silt loam, steep phase
Nf – Nason silt loam, rolling phase
Ng – Nason silt loam, undulating phase
Sb – Seneca silt loam
Tb – Tatum silt loam, rolling phase
Tc – Tatum silt loam, undulating phase
Td – Tatum silty clay loam, eroded rolling phase
Te – Tatum silty clay loam, eroded undulating phase
Wa – Wehadkee silt loam
Wf – Worsham silt loam

TMP 19-A-31
Charles Ackenbom, Jr.
DB 845 PG 726
Zoned: A-1
Use: Residence

TMP 19-A-31B
Raymond C. Ackenbom, Jr.
DB 814 PG 151
Zoned: A-1
Use: Vacant Woods

TMP 19-A-31C
Raymond C. Ackenbom
PB 2-261
Zoned: A-1
Use: Residence

TMP 19-A-31D
Erin Wise-Ackenbom
DB 705-991
Zoned: A-1
Use: Vacant Woods

TMP 19-A-37
Dogpoint Farm Palmyra Va., LLC
DB 589-20
DB 25-383 Plat
Zoned: A-1
Use: Farm

TMP 19-A-30
Thomas N. Cavanaugh
WB 31-568
Zoned: A-1
Use: Vacant Woods

St. Rt. Route 644
Friendship Rd.

TMP 19-17-1
D. Burdell Cavanaugh
DB 678-599, 600 Plat
Zoned: A-1
Use: Vacant

TMP 19-17-2
D. Burdell Cavanaugh
DB 678-599, 600 Plat
Zoned: A-1
Use: Vacant

TMP 19-17-3
Victor & Alice Rivera
DB 785 PG 571
Zoned: A-1
Use: Vacant

TMP 30-A-119A
CSX Transportation
DB 3-217

TMP 19-A-38
Charles R. Ackenbom
DB 152-475
DB 10-320 Plat
Zoned: A-1
Use: Camp

TMP 19-A-39
Friendship Camp, Inc.
DB 223-217
DB 192-745, 746 Plat
DB 764-783
DB 768-951
DB 169-119
PB 1-247 Plat
Zoned: A-1
Use: Camp

Approximate Location of 100-Year Flood

Flood Zone AE

TMP 19-A-39C
Hotel Street Capital, LLC
DB 765 PG 229
Zoned: R-3
Use: Vacant Golf Course
10.00 Acres

Rivanna River

TMP 30-A-110
Hotel Street Capital, LLC
DB 778 PG 765
Zoned: R-3
Use: Vacant Golf Course
222.003 Acres

Exist. Clubhouse

TMP 19-6-1A
2 (Parts)
Janet E. Vaughan, Est.
DB 31-368
DB 36-202
DB 69-159
WB 26-255

TMP 19-6-1
Fluvanna Habitat For Humanity
DB 858 PG 951
DB 221-436, 440 Plat
Zoned: A-1
Use: Vacant Woods

U.S. Route 15
66' & Variable Width R/W
DB SR-75, Project #493A Sheet 11

TMP 30-A-112
William A. Talley, Jr.
DB 882 PG 408
WB 26-246
DB 27-30 Plat
Zoned: A-1
Use: Vacant Partial Woods

TMP 30-A-112A
William A. Talley, Jr.
DB 201-11
Zoned: A-1
Use: Vacant Woods

TMP 19-A-39B
Fluvanna County
DB 317 PG 534
Zoned: A-1
Use: Fire Station

TMP 30-2-1
Fluvanna County
School Board
Zoned: A-1
Use: School Admin. Office

200 0 200 400 600
Scale: 1"=200'

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EXISTING CONDITIONS

Rev. #	Date	Description
1.	09/04/2012	Revisions to Site Density
2.	12/31/2012	Revisions Density and Engineering
3.	02/01/2013	Revisions For Access Road & Drainfields
4.	05/20/2013	Plan Clarifications
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REZONING APPLICATION PLAN FOR:

WALKER'S RIDGE

FLUVANNA COUNTY, VIRGINIA

Date: 07/01/2012
Scale: 1"=200'
Sheet No.: 3 OF15
File No.: 11.022



WATER & SEWER NOTES:

1. Sanitary sewer shall be treated via on-site private central system(s) using mass drainfields, shallow drip systems, or other similar systems approved by the Virginia Department of Health.
2. For Phase 1, a private on-site water system, consisting of wells, storage tank(s) and a water treatment facility, or other similar systems approved by the Virginia Department of Health shall be permitted.
3. Onsite groundwater wells shall not be permitted for water supply for Phases 2 and 3.
4. The Developer shall be responsible for obtaining all VDH/DEQ or other state and federal permits required for on-site water and sewer systems.

GRAPHIC LEGEND:

- Wooded Areas
- Existing Ponds/Lakes
- Proposed Ponds
- Streams
- (1) Commercial Use
- (2) Mixed-Use
- (3) Multi-Family Residential
- (4) Townhome
- (5) Single-Family Detached
- (6) Single-Family Attached
- (7) Community Fitness and Recreation

LAND USE LEGEND

BLOCK	USE	KEY
A1	COMMERCIAL RETAIL & OFFICE	(1)
A2	FIRST AND SECOND FLOOR COMMERCIAL RETAIL & OFFICE	(2)
	80 MULTI-FAMILY UNITS ABOVE COMMERCIAL SPACE	(3)
A3	COMMERCIAL RETAIL & OFFICE	(1)
	70 MULTI-FAMILY UNITS	(3)
A4	COMMERCIAL RETAIL & OFFICE	(1)
	70 TOWNHOME LOTS	(4)
B1	37 SINGLE FAMILY DETACHED LOTS	(5)
B2	42 SINGLE FAMILY DETACHED LOTS	(5)
B3	55 TOWNHOME LOTS	(4)
C1	64 SINGLE FAMILY ATTACHED LOTS	(6)
C2	49 TOWNHOME LOTS	(4)
	29 SINGLE FAMILY DETACHED LOTS	(5)
C3	150 MULTI-FAMILY UNITS	(3)
	MIXED-USE	(2)
D1	34 SINGLE FAMILY ATTACHED LOTS	(6)
	SWIMMING AND FITNESS CLUB	(7)
D2	32 SINGLE FAMILY DETACHED LOTS	(5)
D3	40 TOWNHOME LOTS	(4)
	11 SINGLE FAMILY DETACHED LOTS	(5)
D4	38 TOWNHOME LOTS	(4)
	24 SINGLE FAMILY DETACHED LOTS	(5)
D5	7 TOWNHOME LOTS	(4)
	36 SINGLE FAMILY DETACHED LOTS	(5)
E1	51 SINGLE FAMILY DETACHED LOTS	(5)
E2	14 TOWNHOME LOTS	(4)
	19 SINGLE FAMILY DETACHED LOTS	(5)
	TOTAL MULTI-FAMILY UNITS	300
	TOTAL TOWNHOME LOTS	273
	TOTAL SINGLE-FAMILY LOTS	379
	TOTAL RESIDENTIAL UNITS	952

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GENERAL DEVELOPMENT PLAN

Rev #	Date	Description
1.	09/04/2012	Revisions to Site Density
2.	12/31/2012	Revisions Density and Engineering
3.	02/01/2013	Revisions For Access Road & Drainfields
4.	05/20/2013	Plan Clarifications
5.	09/17/2013	Revisions Per Staff Request

REZONING APPLICATION PLAN FOR:

WALKER'S RIDGE

FLUVANNA COUNTY, VIRGINIA

Date 07/01/2012
Scale 1"=200'
Sheet No. 4 OF 15
File No. 11.022



LANDSCAPE & BUFFER NOTES:

1. Every effort should be made to adhere to these guidelines, however, some additional disturbance may be necessary for grading and installation of utilities. This shall be determined at the time of submittal of a site plan or subdivision plat; and where appropriate, mitigation shall be provided to preserve buffers as delineated herein.
2. All trees, landscaping, and signage should maintain a uniform character and appearance throughout the development.
3. All signage shall be in accordance with Article 15 of the Fluvanna county Zoning Ordinance.
4. The Developer shall be responsible for obtaining all permits for construction and the Developer shall be responsible for following specifications adopted by the Virginia Nurserymen's Association.

GRAPHIC LEGEND:

- Wooded Areas
- Existing Ponds/Lakes
- Green Buffer
- Proposed Ponds
- Streams
- Street Tree

LANDSCAPE LEGEND

BLOCK	FEATURE	KEY
A1	ENTRANCE LANDSCAPING AND MONUMENT SIGN LOCATION	1
A3	VIEW OF LANDSCAPED OPEN SPACE FROM JAMES MADISON HIGHWAY	2
A1	30' GREEN BUFFER BETWEEN JAMES MADISON HIGHWAY AND COMMERCIAL BLOCKS A1, A2, & A3	3
A2		3
A3		3
A4	30' BUFFER AT SOUTHERN BOUNDARY OF SITE	4
B1	OPEN SPACE BUFFERS ALONG EXISTING STREAMS AND LAKES	5
	50' BUFFER AT SOUTHERN BOUNDARY OF SITE	6
B2	OPEN SPACE BUFFERS ALONG EXISTING STREAMS AND LAKES	5
B3		5
B2	SHADE TREES AND SIDEWALKS ALONG SINGLE-FAMILY LOTS	7
B3		7
B3	MAINTAIN EXISTING TREE CANOPY ALONG ROAD AS GRADING PERMITS	8
C1		8
C3		8
D1		8
D2		8
C2	OPEN SPACE BUFFERS ALONG EXISTING STREAMS AND LAKES	5
	SHADE TREES AND SIDEWALKS ALONG SINGLE-FAMILY LOTS	7
	MAINTAIN EXISTING RIPARIAN BUFFER ALONG RIVANNA RIVER	9
D3	OPEN SPACE BUFFERS ALONG EXISTING STREAMS AND LAKES. SHADE TREES AND SIDEWALKS ALONG SINGLE-FAMILY LOTS.	5 7
D4		5 7
D5		5 7
D4	50' BUFFER ALONG WESTERN BOUNDARY OF SITE	6
D5		6
E1	50' BUFFER ALONG WESTERN BOUNDARY OF SITE	6
E1	SHADE TREES AND SIDEWALKS ALONG SINGLE-FAMILY LOTS	7
E2		7

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LANDSCAPE, BUFFER & SIGNAGE GUIDELINES

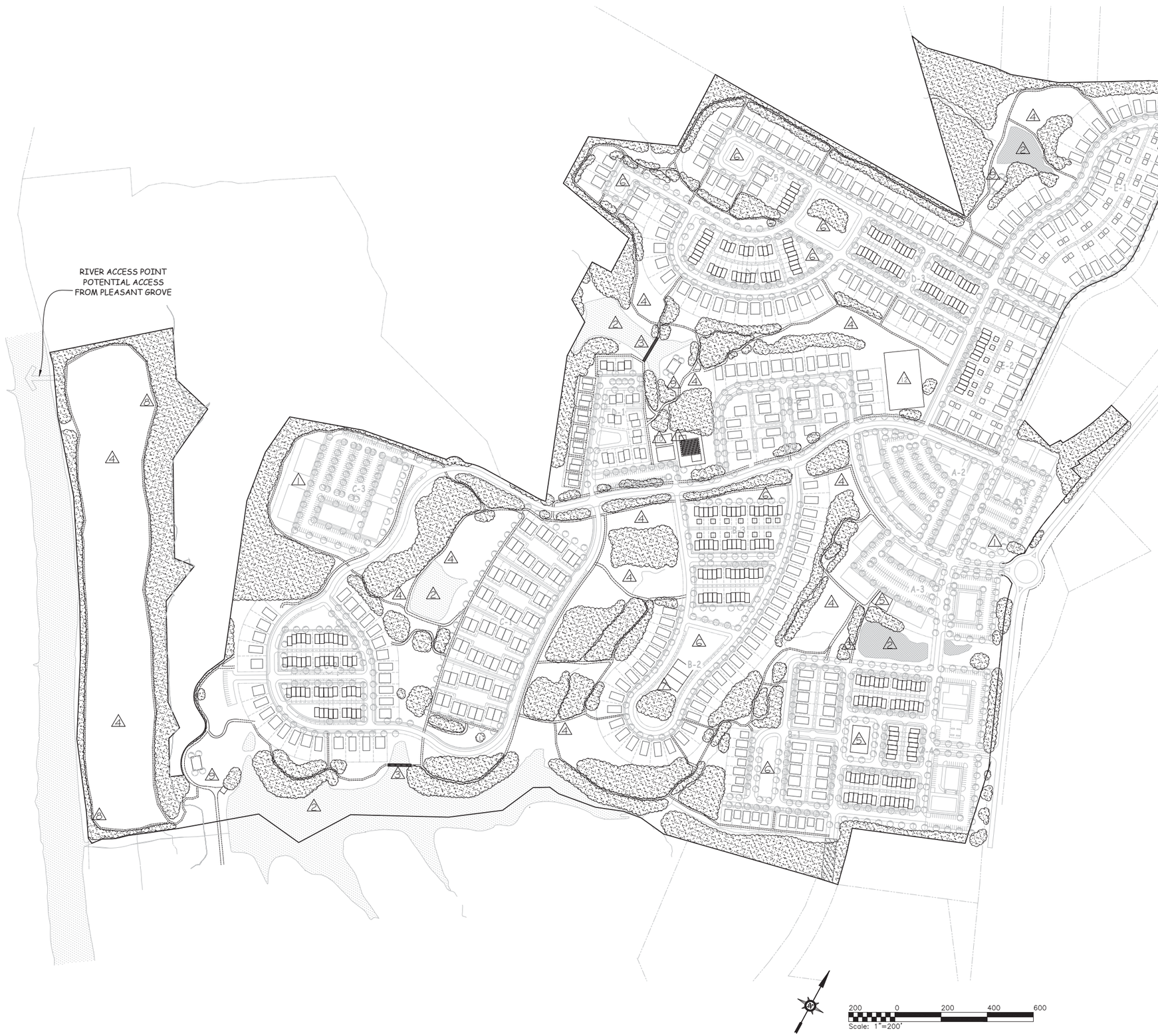
Rev #	Date	Description
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REZONING APPLICATION PLAN FOR:

WALKER'S RIDGE

FLUVANNA COUNTY, VIRGINIA

Date 07/01/2012
Scale 1"=200'
Sheet No. 5 OF 15
File No. 11.022



PARK & AMENITY NOTES:

1. This sheet provides a general guideline for size, location, and quantity of development amenities. It is understood herein that some substitutions and relocations of facilities are expected. When this occurs, the Developer shall submit a general development plan showing any revisions to the Park and Amenities layout.
2. See development proffers for phasing of amenities.
3. The Developer shall be responsible for obtaining all necessary permits for construction of amenities.

GRAPHIC LEGEND:

- Wooded Areas
- Existing Ponds/Lakes
- Proposed Ponds
- Streams

AMENITIES LEGEND

BLOCK	AMENITIES	KEY
A1	CIVIC PLAZA	1
A2		
A3	POND AND FOOTBRIDGE/TRAIL	2 3
	PASSIVE RECREATION AREA	4
	PLAYGROUND	5
A4	POND AND FOOTBRIDGE	2 3
	OPEN SPACE / PASSIVE RECREATION	4
	PLAYGROUND	5
B1	COMMUNITY GREEN	6
B2	GARDENS AND GREENHOUSES	7
	COMMUNITY GREEN	6
	PASSIVE RECREATION AREA	4
B3	COMMUNITY GREEN	6
	PASSIVE RECREATION AREA	4
C1	PASSIVE RECREATION AREA	4
	POND	2
C2	RIVER LOOP TRAIL	8
	PICNIC PAVILION	9
	LAKE & FOOTBRIDGE	2 3
C3	PASSIVE RECREATION AREA	4
	POND	2
	CIVIC PLAZA	1
D1	LAKE & FOOTBRIDGE	2 3
	CLUB HOUSE	1
	SWIMMING & FITNESS	1
D2	PICNIC PAVILION	9
	ATHLETIC FIELD	10
D3	PASSIVE RECREATION AREA	4
D4	LAKE & FOOTBRIDGE	2 3
	COMMUNITY GREEN	6
	PASSIVE RECREATION AREA	4
D5	COMMUNITY GREEN	6
E1	PICNIC PAVILION	9
	POND	2
	PASSIVE RECREATION AREA	4
E2		

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PARKS AND AMENITIES GUIDELINES

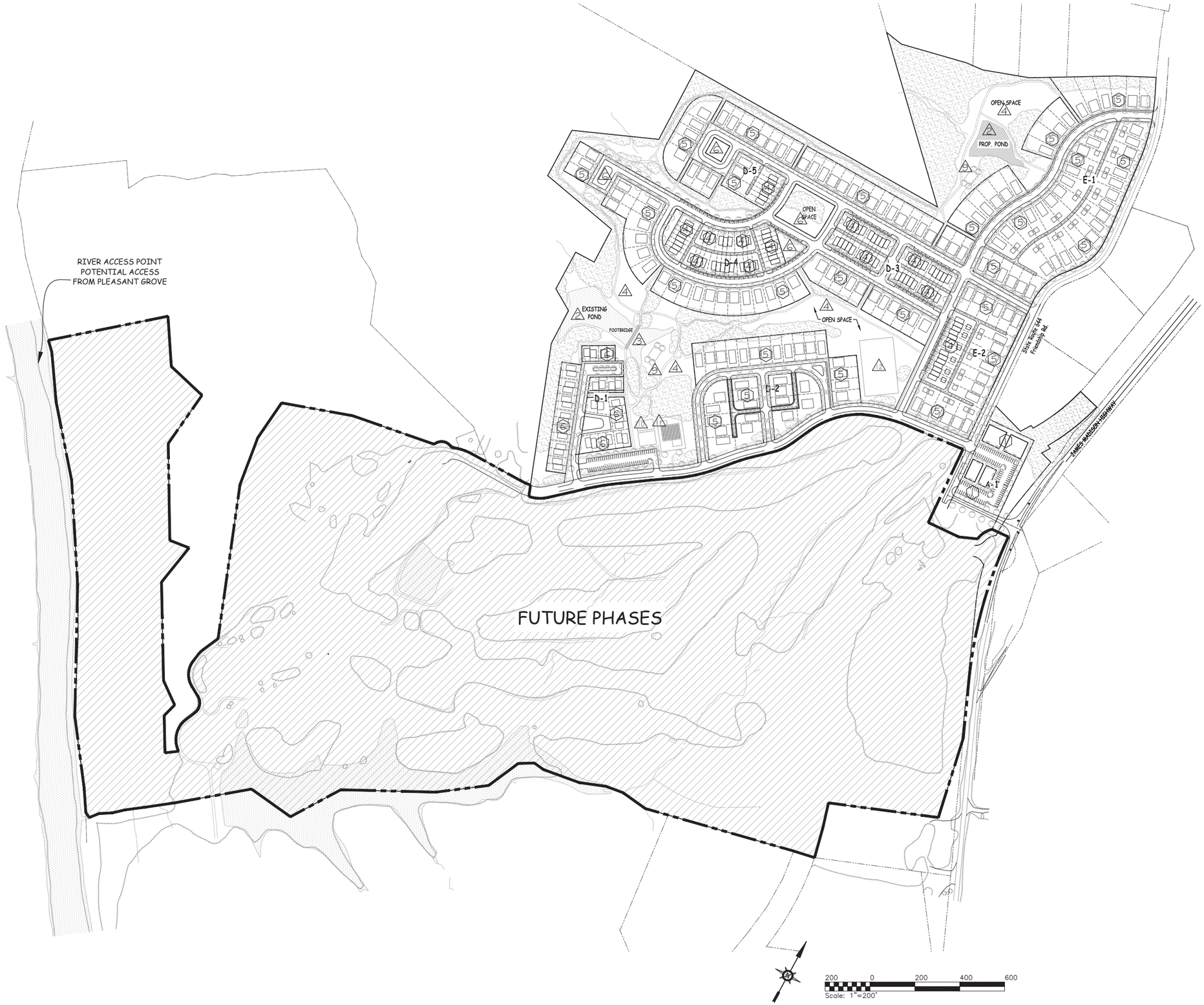
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REZONING APPLICATION PLAN FOR:

WALKER'S RIDGE

FLUVANNA COUNTY, VIRGINIA

Date 07/01/2012
Scale 1"=200'
Sheet No. 6 OF 15
File No. 11.022



LAND USE LEGEND

BLOCK	USE	KEY
A1	COMMERCIAL RETAIL	1
D1	34 SINGLE FAMILY ATTACHED LOTS	6
D2	32 SINGLE FAMILY DETACHED	5
D3	40 TOWNHOME LOTS	4
	11 SINGLE FAMILY DETACHED LOTS	5
D4	38 TOWNHOME LOTS	4
	24 SINGLE FAMILY DETACHED LOTS	5
D5	7 TOWNHOME LOTS	4
	36 SINGLE FAMILY DETACHED LOTS	5
E1	51 SINGLE FAMILY DETACHED LOTS	5
E2	14 TOWNHOME LOTS	4
	19 SINGLE FAMILY DETACHED LOTS	6
	TOTAL RESIDENTIAL UNITS	306

(99 TOWNHOME, 34 S-F ATTACHED, AND 173 S-F DETACHED LOTS)

AMENITIES LEGEND

BLOCK	AMENITIES	KEY
D1	LAKE & FOOTBRIDGE	2 3
	CLUB HOUSE	10
	SWIMMING & FITNESS	7
D2	PICNIC PAVILION	9
	ATHLETIC FIELD	10
D3	PASSIVE RECREATION AREA	4
D4	LAKE & FOOTBRIDGE	2 3
	COMMUNITY GREEN	6
	PASSIVE RECREATION AREA	4
D5	COMMUNITY GREEN	6
E1	PICNIC PAVILION	9
	POND	2
	PASSIVE RECREATION AREA	4

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GENERAL DEVELOPMENT PLAN
PHASE I

Rev #	Date	Description
1.	09/04/2012	Revisions to Site Density
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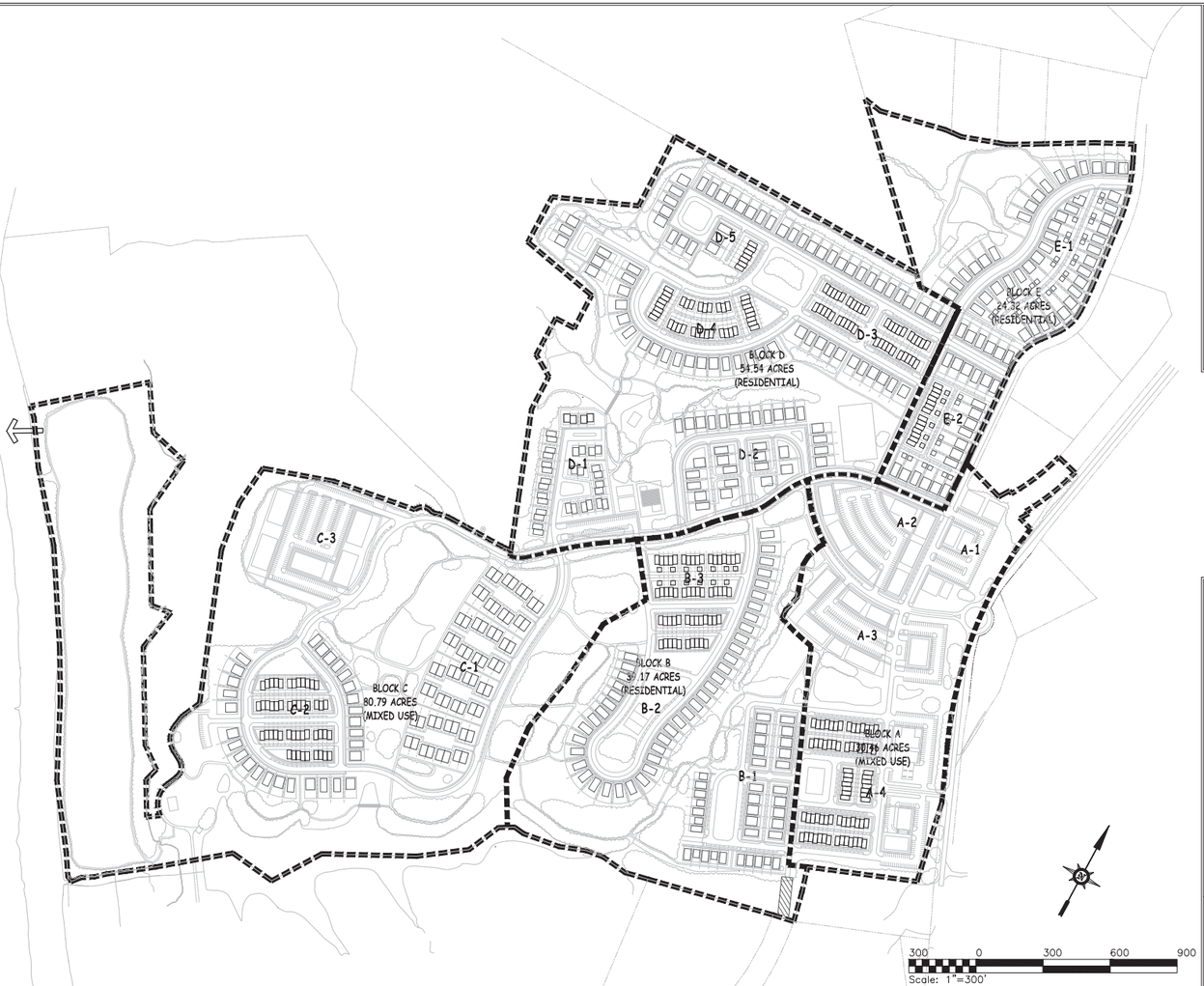
Date 07/01/2012
Scale 1"=200'
Sheet No. 7 OF 15
File No. 11.022

DEVELOPABLE AREA SUMMARY

BLOCK	ACREAGE	EXIST. R.O.W. & EASEMENTS	STREAM & WETLANDS BUFFERS	FLOODPLAIN	CRITICAL SLOPES	NET DEVELOPABLE AREA
BLOCK A	30.83	1.10	0.00	0.00	0.98	28.75
BLOCK B	39.64	0.44	3.75	0.00	3.99	31.46
BLOCK C	81.76	1.35	6.12	21.85	8.61	43.83
BLOCK D	55.19	1.30	2.51	0.00	3.65	47.73
BLOCK E	24.61	0.00	1.05	0.00	0.69	22.87
TOTAL	232.03	4.19	13.43	21.85	17.92	174.64

PROPOSED BLOCK DEVELOPMENT SUMMARY

BLOCK	SUB BLOCK	ACREAGE (NET)	USE	PROPOSED RESIDENTIAL DENSITY				MAXIMUM COMMERCIAL DENSITY (SF)
				MULTI-FAMILY	TOWNHOMES	SINGLE-FAMILY ATTACHED	SINGLE-FAMILY DETACHED	
BLOCK A		28.38	MIXED-USE	150	70			170,000
	A1			0				40,000
	A2			80				50,000
	A3			70				50,000
	A4				70			30,000
BLOCK B		30.99	RESIDENTIAL		55		79	
	B1						37	
	B2						42	
	B3				55			
BLOCK C		42.86	MIXED-USE	150	49	64	29	10000
	C1					64		
	C2				49		29	
	C3			150				10,000
BLOCK D		47.08	RESIDENTIAL		85	34	103	
	D1					34		
	D2						32	
	D3				40		11	
	D4				38		24	
	D5				7		36	
BLOCK E		22.58	RESIDENTIAL		14		70	
	E1						51	
	E2				14		19	
TOTAL		171.89		300	273	98	281	180000



LAND USE SUMMARY

USE	ACREAGE	PERCENTAGE OF TOTAL SITE
COMMERCIAL	12.81	5.5%
RESIDENTIAL	80.90	34.9%
OPEN SPACE	109.65	47.3%
ROAD DEDICATIONS	28.67	12.3%
TOTAL	232.03	100.0%

GENERAL NOTES:

1. REFER TO CODE OF DEVELOPMENT ON SHEET 6 FOR DETAILS OF PERMITTED USES.
2. MAXIMUM PERMITTED RESIDENTIAL DENSITY IS 952 UNITS. THE GENERAL DEVELOPMENT PLAN SHOWS A SCENARIO FOR THE MAXIMUM PROPOSED DENSITY.
3. THERE IS NO PROPOSED MAXIMUM COMMERCIAL SQUARE FOOTAGE. THE GENERAL DEVELOPMENT PLAN SHOWS A DEVELOPMENT SCENARIO OF 180,000 SQUARE FEET (GROSS). COMMERCIAL CAPACITY FOR EACH BLOCK SHALL BE DETERMINED BY THE PARKING/LOADING/STACKING REQUIREMENTS AS STATED IN ARTICLE 26 OF THE FLUVANNA ZONING ORDINANCE.

LOT FRONTAGE:

1. THE MINIMUM LOT FRONTAGE FOR COMMERCIAL USES SHALL BE 25 FT.
2. THE MINIMUM LOT FRONTAGE FOR RESIDENTIAL USES SHALL BE 16 FT. ALL SINGLE FAMILY ATTACHED AND DETACHED UNITS SHALL HAVE FRONTAGE ON VEHICULAR STREETS OR EMERGENCY ACCESS WAYS.

YARD REGULATIONS:

1. THE MINIMUM SIDE SETBACK ADJACENT TO ANY RESIDENTIAL OR AGRICULTURAL USE OUTSIDE OF THE PUD SHALL BE 50 FEET.
2. THE MINIMUM REAR SETBACK ADJACENT TO ANY RESIDENTIAL OR AGRICULTURAL USE OUTSIDE OF THE PUD SHALL BE 75 FEET.
3. THE MINIMUM SIDE OR REAR YARD FOR RESIDENTIAL STRUCTURES THAT DO NOT SHARE A COMMON WALL WITHIN THE PUD SHALL BE 4 FEET.

BUILDING HEIGHTS:

1. THE MAXIMUM HEIGHT FOR COMMERCIAL BUILDINGS SHALL BE 45 FEET.
2. THE MAXIMUM HEIGHT FOR ALL RESIDENTIAL BUILDINGS SHALL BE 45 FEET.

PARKING:

1. OFF-STREET PARKING SHALL BE PROVIDED IN ACCORDANCE WITH THE OFF STREET LOADING AND PARKING REQUIREMENTS OF ARTICLE 26 OF THE ZONING ORDINANCE.
2. INTERNAL ROAD ON-STREET PARKING SPACES SHALL BE SHARED BY NEARBY COMMERCIAL AND RESIDENTIAL USES AND EACH SPACE MAY BE COUNTED ONCE FOR REQUIRED OFF-STREET COMMERCIAL PARKING AND ONCE FOR REQUIRED OFF-STREET RESIDENTIAL PARKING.

SIGNAGE AND ARCHITECTURE:

1. SEE CODE OF DEVELOPMENT ON SHEET 6 FOR SIGNAGE AND ARCHITECTURAL GUIDELINES. ADDITIONAL ARCHITECTURAL GUIDELINES CAN BE FOUND ON THE LATEST WALKER'S RIDGE PUD ARCHITECTURAL GUIDELINES (SUBMITTED AS A SEPARATE DOCUMENT).

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BLOCK PLAN

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REZONING APPLICATION PLAN FOR:
WALKER'S RIDGE
FLUVANNA COUNTY, VIRGINIA

Date 07/01/2012
Scale 1"=300'
Sheet No. 8 OF 15
File No. 11.022

WALKER'S RIDGE
CODE OF DEVELOPMENT

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Grading, Utilities, and Landscaping Layout	Sheet	10,11,12
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Development Narrative:

The Walkers Ridge property is 232 acres, located in the Palmyra Community Planning Area between James Madison Highway (U.S. 15) and the Rivanna River. More specifically, the Planned Development is adjacent to the Palmyra Fire Station and across the river from the Pleasant Grove property. An existing home site and an abandoned golf course currently occupy the site. There is an existing entrance on State Route 644 (Friendship Road) and a proposed entrance on James Madison Highway. Approximately 75% (170 acres) of the property lies outside of the following: existing easements and rights-of-way, floodplain, critical slopes, wetlands, and stream buffers.

The existing R-3 (Residential-Planned Development) zoning allows: an 18-hole golf course, A resort facility with restaurant / meeting area, residential condominiums, single-family attached residential housing, and a commercial plaza. The Land Use Section (Chapter 2) of the 2009 Fluvanna County Comprehensive Plan proposes a residential density of 4-10 dwelling units per acre (DUA) (reference Figure LU-28 and Figure LU-21) for the Palmyra Planning Area ; and the PUD ordinance allows for 4-12 dwelling units per acre in the Palmyra Planning Area with bonus densities for affordable housing and open space provisions.

The Walkers Ridge application plan proposes a maximum of 952 residential units (or 4.15 DUA) along with 180,000 SF of Commercial Space. The Application Plan also provides 47% Open Space. The Commercial and Mixed-Use centers are primarily in Block A, which includes approximately 13% of the site acreage. The Commercial center is buffered by 30 feet of existing vegetation along James Madison Highway, and an Open Space buffer with a pond and access road that bisects the Commercial Centers and creates an entrance from the Highway.

A limited amount of commercial uses in Block A are intended to accentuate the existing businesses in the Village of Palmyra and to attract business from the Route 15 Corridor. The predominant Commercial development proposed is neighborhood services and it is the intent of the Applicant to provide a holistic community where residents can live, work, shop, eat, exercise, and play without a necessitated vehicle trip.

The focal point of the design for Walkers Ridge is the conversion of existing fairways and cart paths into a substantial neighborhood park, which is integrated with the new residential blocks. The majority of the residential units will have frontage on the park, providing a rural character to the development; while at the same time providing a generous access to approximately five miles of walking, running, and biking trails with interspersed amenities such as fitness, swimming, tennis, gardens, and picnic pavilions. There is also a potential connection from this development to the Fluvanna Heritage Trail, which would provide convenient walking and biking access to the Village of Palmyra and the Pleasant Grove facilities.

It is the Applicant's opinion that a golf resort is not a reasonable use of the property and the current R-3 Master Plan and associated golf course is not viable in the Palmyra market. The proposed PUD Master Plan will replace the golf resort with a community park and provides a residential density that will sustain the park, amenities, and neighborhood services that will accompany the plan.

Landscaping shall consist of large shade trees lining the proposed streets and commercial frontages as well as within designated parking areas. Where needed, new evergreens will be incorporated into existing trees to assist with screening of parking areas from Route 15 as well as neighboring residences. Lastly, an overall feature of the proposed development shall be achieved through preservation of existing trees, fairways, and paths in the open space.

Block Characteristics:

Block A

Block A shall consist of commercial pad sites along James Madison Highway with a mixed-use block of taller buildings set back approximately 350 feet from the highway. Except as shown on the General Development Plan, parking shall be relegated to the rear of the buildings. The abandoned railroad crossing will be in-filled to provide for the buildings shown on the north side of Block A and a new pond will be integrated into the entrance landscaping to provide a natural appearance from Route 15. Block A-1/Phase 1 (see Sheet 7) shall be constructed prior to commencement of any development of phases 2 or 3 (see proffers). Blocks A-2 and A-3 shall have buildings designed to provide a streetscape along the entrance road with street level entrances and patios and office and/or residential space above.

Block B

Block B is 39 acres and shall consist of single family and townhome residential units. Block B-1 shall be 3-4 blocks of single family detached and townhome units and shall include a potential future connection to the Rivanna Heritage Trail. Block B-2 shall include a passive recreation area with community gardens and a location for a greenhouse, enclosed by single-family housing, along the ridge on the south side of the entrance road. Block B-3 shall consist of urban style townhomes in the form of two urban blocks with sidewalks and street trees in front of the homes with alleyway access to the rear of the lots.

Block C

Block C is 81 acres and shall consist of 3 pods of varying housing types. Block C-1 shall include single-family attached housing units ; block C-2 shall have single-family detached lots surrounding two blocks of towhome lots; and block C-3 shall have a central parking area with 2-3 story multi-family buildings surrounding the parking area. Some limited commercial uses, such as a restaurant, may be provided in block C-3. Block C also shall include a trail and footbridge through the open space along the existing lake, a loop trail through the flood plain along the Rivanna River, and a picnic pavilion overlooking the River.

Block D

Block D is 55 acres and shall consist of 5 pods of housing. Block D-1 shall compliment block C-1 with additional attached and detached single-family housing; Block D-2 shall contain single-family detached lots, and a fitness center, community pool, lake and picnic pavilion shall be located centrally to blocks D-1, D-2, and D-4. A large rectangular playing field shall be located between blocks D-2, D-3, and E-2. Block D-3, D-4, and D-5 shall have a mixture of single-family housing and townhomes in an urban setting with sidewalks and street trees.

Block E

Block E is 24 acres of lower density single-family residences with single -family detached housing in Pod E-1 and primarily single-family detached housing in Block E-2. All housing that fronts on Ridge Road and Park Road shall have sidewalks, street trees, and landscaped entrances. Only single-family detached housing shall be permitted along the frontage of S.R. 644 (Friendship Road).

Open Space and Amenities:

The Open Space on the Application Plan represents 47% (108 acres) of the site and incorporates the existing flood plain, stream buffers, fairways, and cart paths.

To the greatest extent possible, the Open Space shall be incorporated into a Neighborhood Park with trail connections to all residential and commercial development.

Amenities shall include: swimming pool, fitness center, community / meeting room, playing fields, picnic pavilions, gardens, and biking / hiking / walking trails. The amenities shall be interspersed throughout the development with access from the neighborhood park and the swimming / fitness / community facilities shall be centrally located.

Existing Features to be Preserved:

The existing clubhouse and single family residence will not be preserved. Portions of the golf course fairways and cart paths shall be preserved, to the greatest extent possible and incorporated into the neighborhood park plan. Trees along the 30' buffer on Route 15 shall be preserved and, where needed, additional plantings shall be provided, to create a 30 foot screening buffer of commercial parking areas. Existing trees shall be preserved, to the greatest extent possible, as shown on the Application Plan.

Landscape Standards:

Landscape Treatment:

Street Trees (minimum 2" diameter) shall be provided along the urban frontage (where curb, gutter, landscape strips, sidewalks, and buildings are shown) of all streets. Minimum spacing for street trees shall be 50 feet. Large shade trees shall be provided for each each parking lot. A minimum of one large shade tree shall be provided for every 10 spaces and additional screening shall be provided to limit visibility of parking lots from adjoining streets. As a design element of the Open Space for Blocks B, C, and D of the PUD, a minimum of four benches and eight large shade trees shall be provided in each of these blocks. Additional ornamental landscaping and shade trees shall be provided for: picnic pavilions, fitness center, community building, playgrounds, and pool.

Table of Uses by Block

Residential Uses	Block A	B	C	D	E
Dwellings, accessory		P	P		P
Dwellings, multi-family	P		P		
Dwellings, single-family attached			P	P	
Dwellings, single-family detached		P	P	P	P
Dwellings, townhouse	P	P	P	P	P
Dwellings, two-family		P	P	P	P
Group homes	P	P	P	P	P
Residential Accessory Uses	P	P	P	P	P
Accessory Apartment		P	P		P
Accessory Buildings and Uses including Storage	P	P	P	P	P

Civic Uses	Block A	B	C	D	E
Amusements, public	P		P		
Cultural services	P		P		
Public recreation assembly	P	P	P	P	P
Public uses	P	P	P	P	P
Religious assembly	P	SP	P	SP	SP
Sheltered care facilities	P		P		
Educational facilities	SP	SP	SP	SP	SP
Public assembly	SP	SP	SP	SP	SP

Commercial Uses	Block A	B	C	D	E
Assisted living facilities	P		P		
Auction houses	P		P		
Automobile repair service establishments	SP				
Automobile sales	P				
Bakeries	P		P		
Bed and breakfasts	P		P		
Boarding houses	P		P		
Butcher shops	P				
Car washes	P				
Communications service	P				
Corporate offices	P		P		
Daycare centers	P	SP	P	SP	SP
Financial institutions	P				
Flea markets	SP		SP		
Funeral homes	SP		SP		
Garden center	P				
Gas stations	P				
Greenhouses, commercial	SP				
Grocery stores	P				
Guidance services	P		P		
Hospitals	P				
Hotels	P		P		
Indoor entertainment	P		P		
Indoor recreation facilities	P	P	P	P	P
Laundries	P				
Medical clinics	P		SP		
Nursing homes	P		SP		
Offices	P		P		
Parking facilities	SP	SP	SP	SP	SP
Personal improvement services	P	SP	P	SP	SP
Personal service establishments	P	SP	P	SP	SP
Pharmacies	P				
Professional schools	P		P		
Recreational vehicle sales	P				
Restaurants, fast food	P				
Restaurants, general	P		P		
Restaurants, small	P		P		
Retail stores, general	P				
Retail stores, large-scale	P				
Retail stores, neighborhood convenience	P		P		
Retail stores, specialty	P		P		
Self-storage facilities	SP	SP	SP	SP	SP
Studios, fine arts	P		P		
Vending carts	P				
Veterinary offices	P				
Amusements, commercial	SP		SP		
Kennels, commercial	SP		SP		
Landscaping materials supply	SP		SP		
Laundromats	P				
Lodges	P		P		
Manufactured home sales	SP		SP		
Outdoor entertainment	P		P		
Outdoor recreation facilities	P	P	P	P	P
Transportation terminals	P		P		

Miscellaneous Uses	Block A	B	C	D	E
Accessory uses	P	P	P	P	P
Utilities, minor	P	P	P	P	P
Utilities, major	P	P	P	P	P
Outdoor gatherings	SP		SP		
Telecommunication facilities	SP		SP		
Greenhouse, noncommercial	P	P	P	P	P

Industrial Uses	Block A	B	C	D	E
Research laboratories	SP		SP		

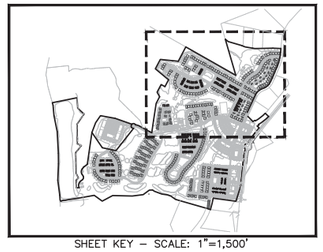
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Date 07/01/2012
Scale N/A
Sheet No. 9 OF 15
File No. 11.022



SHEET KEY – SCALE: 1"=1,500'

OPEN SPACE
MASS DRAINFIELD (TYP.)
PROP. POND
SINGLE FAMILY DETACHED LOTS
NEW WALKING TRAIL (TYP.)
NEW WATER TREATMENT FACILITY
NEW WATERLINE (TYP.)
NEW SANITARY SEWER (TYP.)
TOWNHOME LOTS
SINGLE FAMILY ATTACHED LOTS
EXISTING POND
FOOTBRIDGE
SEWER PUMP STATION
RECTANGULAR BALL FIELD
New Rain Garden
State Route 644 Friendship Rd.
JAMES MADISON HIGHWAY
MIXED-USE
15,000 SF COMMERCIAL
30,000 SF COMMERCIAL
COMMUNITY BUILDING
SWIMMING POOL
PAVILION
100 0 100 200 300
Scale: 1"=100'

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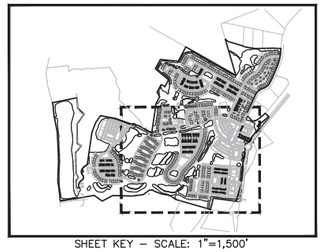
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Sheet No.: 10 OF15
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SHEET KEY – SCALE: 1"=1,500'

OPEN SPACE
SINGLE FAMILY ATTACHED LOTS
SINGLE FAMILY DETACHED LOTS
TOWNHOME LOTS
MIXED-USE
COMMUNITY BUILDING
SWIMMING POOL
RECTANGULAR BALL FIELD
PLAYGROUND
15,000 SF COMMERCIAL
12,000 SF COMMERCIAL
10,000 SF COMMERCIAL
5,000 SF COMMERCIAL
7,000 SF COMMERCIAL
10,000 SF COMMERCIAL
EXISTING POND
PROP. POND
New Rain Garden
BREEWOUSES AND GARDENS
MASS DRAINFIELD (TYP.)
NEW WATERLINE (TYP.)
NEW WATER TREATMENT FACILITY
Round-a-bout Construction To Occur Per Phasing Plan of Road Development.
"Welcome To Palmyra" Monument Sign (To Be Provided By Developer)
Full Access
U.S. Route 15 - James Madison Hwy
JAMES RIVER
ING LAKE
OTBRIDGE

Scale: 1"=100'

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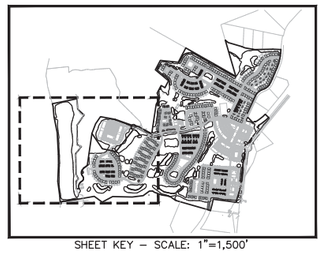
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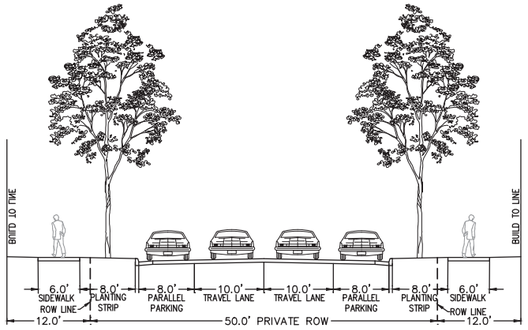
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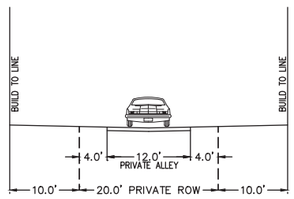
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Sheet No. 12 OF 15

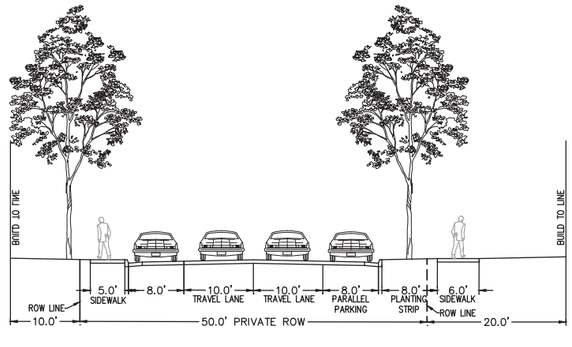
File No. 11.022



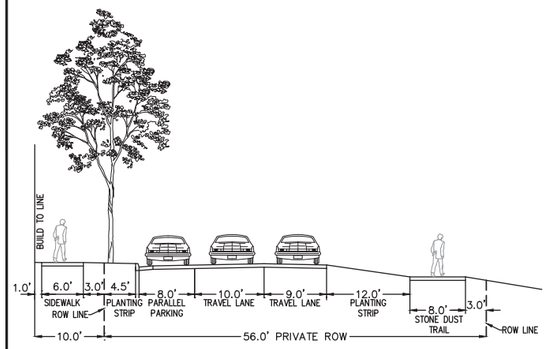
1 C13 ROAD CROSS SECTION DETAIL
SCALE: 1"=10'



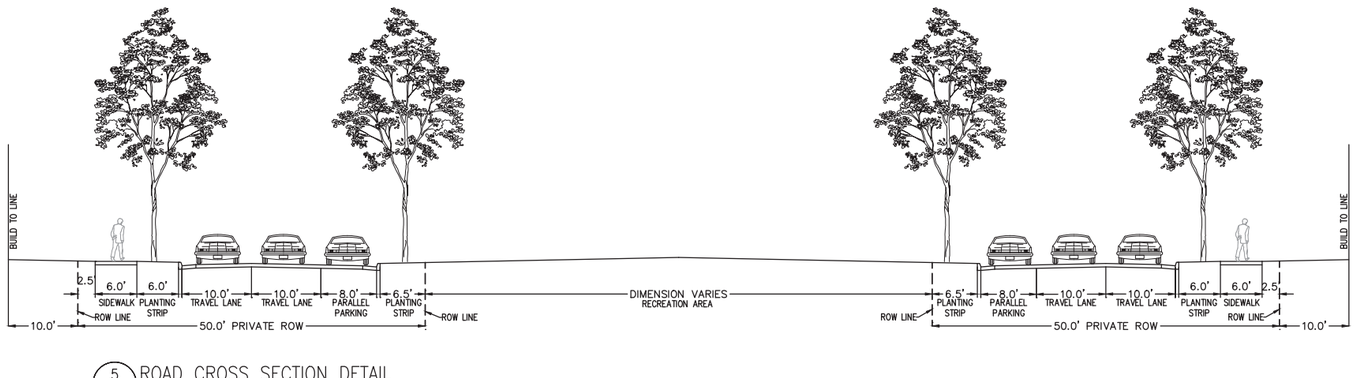
2 C13 ALLEY CROSS SECTION DETAIL
SCALE: 1"=10'



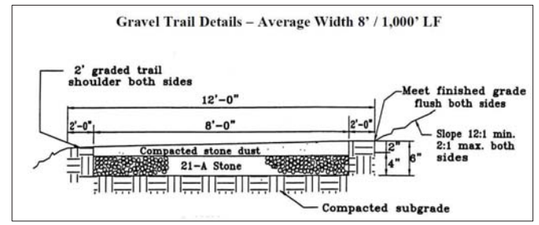
4 C13 ROAD CROSS SECTION DETAIL
SCALE: 1"=10'



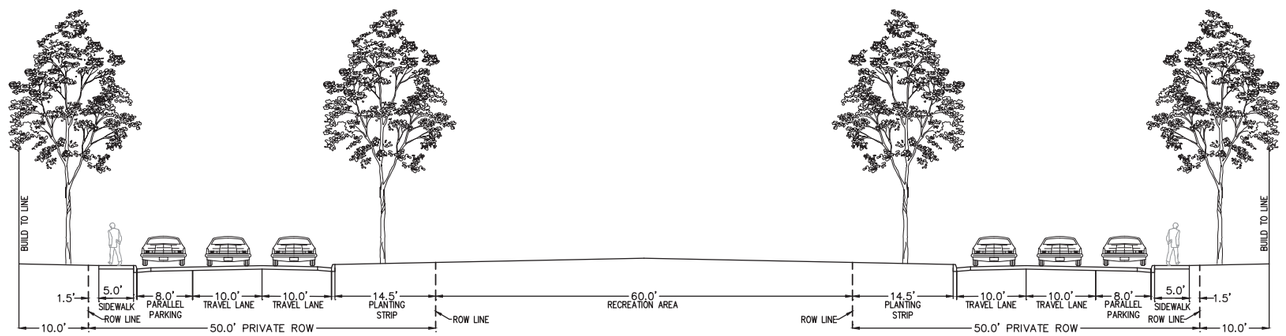
6 C13 ROAD CROSS SECTION DETAIL
SCALE: 1"=10'



5 C13 ROAD CROSS SECTION DETAIL
SCALE: 1"=10'



7 C13 TYPICAL STONE DUST TRAIL DETAIL
SCALE: 1"=10'



3 C13 ROAD CROSS SECTION DETAIL
SCALE: 1"=10'

Road Design Guidelines

Road Type	Design Speed	Min. Horizontal Radius	Maximum Grade	Notes
Primary Connecting Roadway (No On-Street Parking)	35 MPH	150 FT	14 %	Entry Road, Access to Block C, D and Camp Friendship
Primary Connecting Roadway (With On-Street Parking)	25 MPH	110 FT	10 %	Entry Road, Access to Block C, D and Camp Friendship
Subdivision Access Road (TH or SFD) (No On Street Parking)	25 MPH	110 FT	16%	Access to residential area, Blocks B2, B3, E1, E2
Subdivision Access Road (TH or SFD) (With On Street Parking)	20 MPH	110 FT	10 %	Access to residential area, Blocks B2, B3, E1, E2
Internal Access Road within Multifmaily or Commercial Development	100' Sight Distance	N/A	12%	Urban roads within parking and multifamily developments
Alleys	100' Sight Distance	N/A	16 %	Private Alleys at the rear of SFD and Townhomes

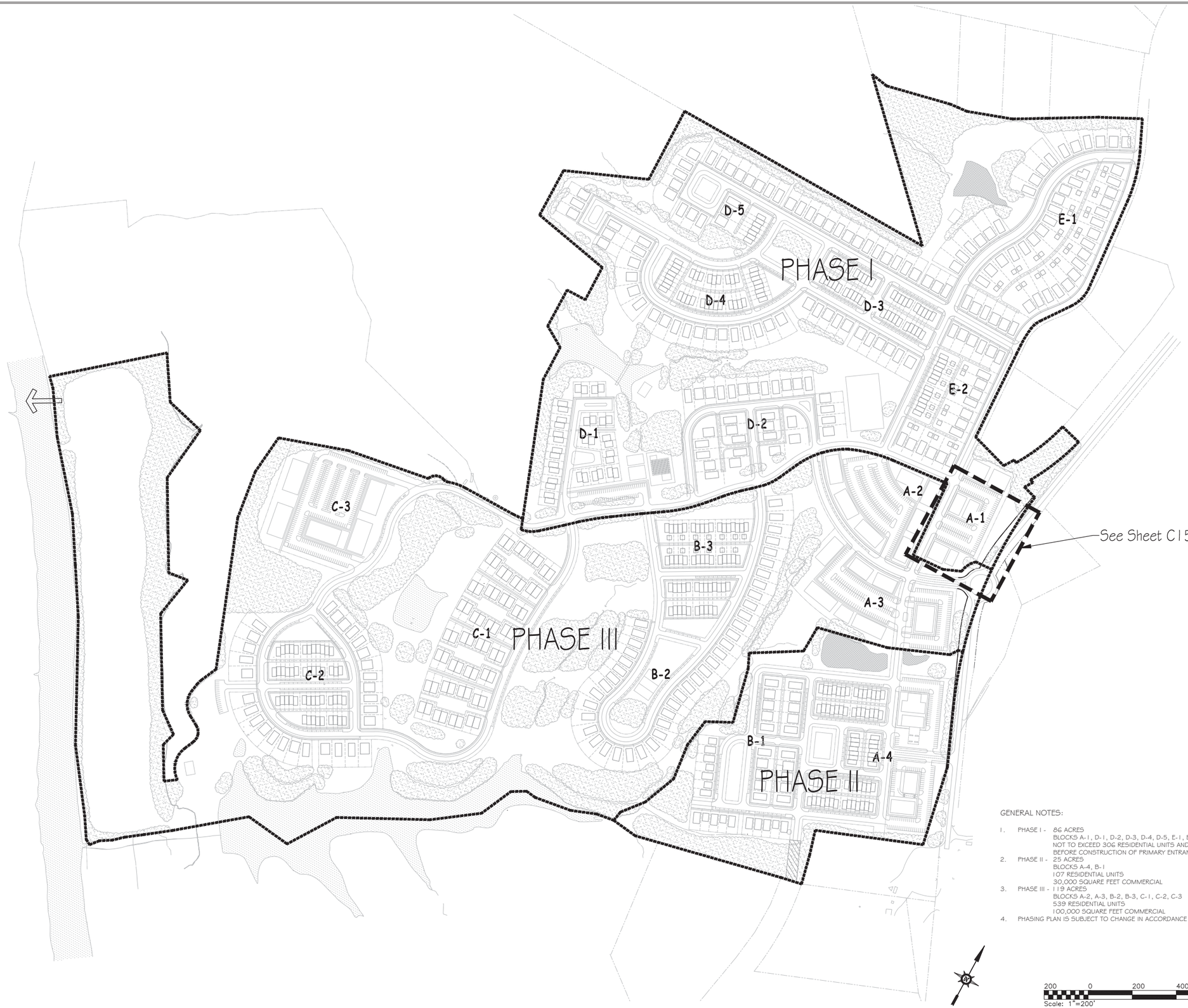
SHIMP ENGINEERING, P.C.
ENGINEERING · LAND PLANNING · PROJECT MANAGEMENT
201 E. MAIN ST, SUITE M
CHARLOTTESVILLE, VA 22902
PHONE: (434) 207-8086
JUSTIN@SHIMP-ENGINEERING.COM

SITE DETAILS

Rev #	Date	Description
1.	09/04/2012	Revisions to Site Density
2.	12/31/2012	Revisions Density and Engineering
3.	02/01/2013	Revisions For Access Road & Drainfields
4.	05/20/2013	Plan Clarifications
5.	09/17/2013	Revisions Per Staff Request

REZONING APPLICATION PLAN FOR:
WALKER'S RIDGE
FLUVANNA COUNTY, VIRGINIA

Date 07/01/2012
Scale N/A
Sheet No. 13 OF 15
File No. 11.022



GENERAL NOTES:

1. PHASE I - 86 ACRES
   BLOCKS A-1, D-1, D-2, D-3, D-4, D-5, E-1, E-2
   NOT TO EXCEED 306 RESIDENTIAL UNITS AND 37,000 SF COMMERCIAL
   BEFORE CONSTRUCTION OF PRIMARY ENTRANCE (ROUND-A-BOUT).
2. PHASE II - 25 ACRES
   BLOCKS A-4, B-1
   107 RESIDENTIAL UNITS
   30,000 SQUARE FEET COMMERCIAL
3. PHASE III - 119 ACRES
   BLOCKS A-2, A-3, B-2, B-3, C-1, C-2, C-3
   539 RESIDENTIAL UNITS
   100,000 SQUARE FEET COMMERCIAL
4. PHASING PLAN IS SUBJECT TO CHANGE IN ACCORDANCE WITH STIPULATIONS IN PROFFERS.

200 0 200 400 600
Scale: 1"=200'

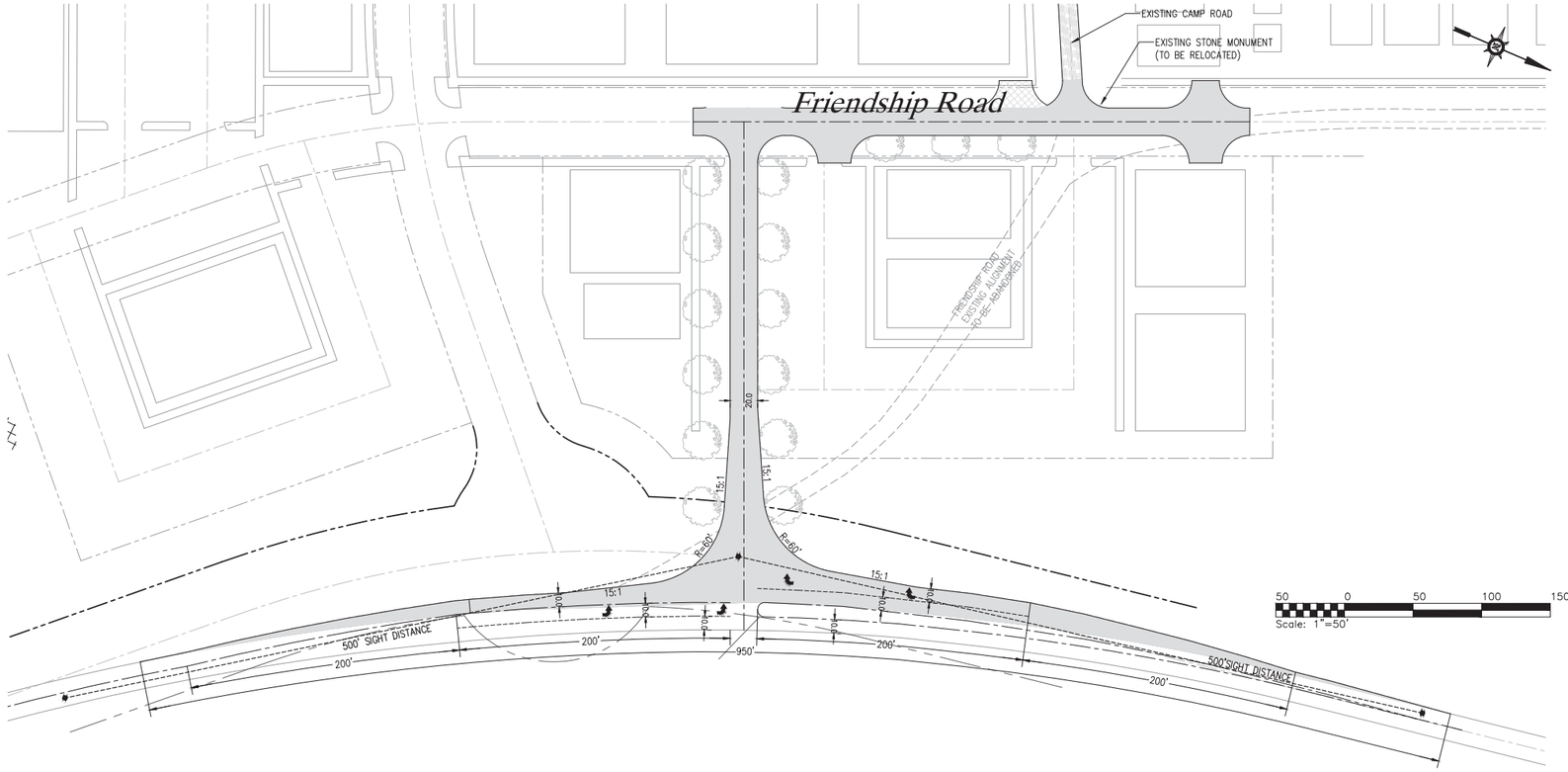
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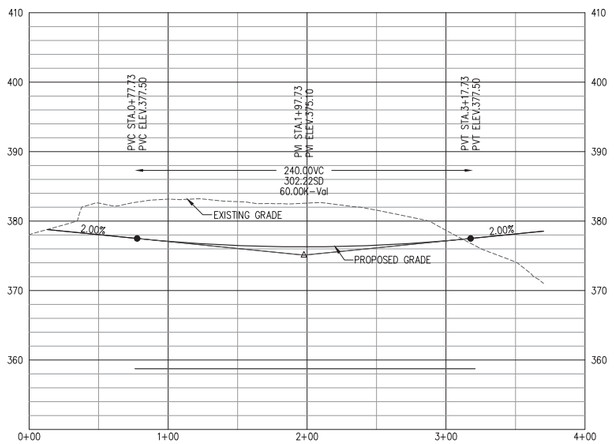
PHASING PLAN OVERVIEW

Rev #	Date	Description
1.	09/04/2012	Revisions To Site Density
2.	12/31/2012	Revisions Density and Engineering
3.	02/07/2013	Revisions For Access Road & Drainfields
4.	05/20/2013	Plan Clarifications
5.	09/17/2013	Revisions Per Staff Request

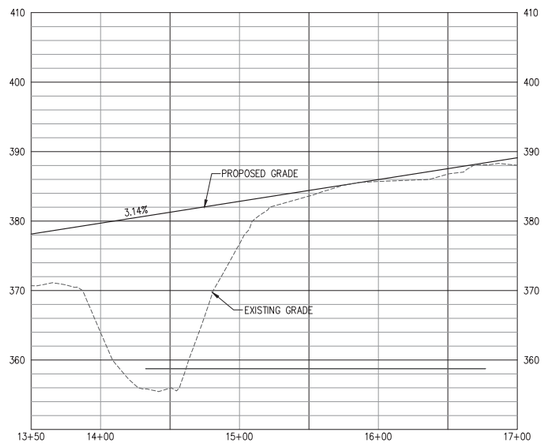
REZONING APPLICATION PLAN FOR:
WALKER'S RIDGE
FLUVANNA COUNTY, VIRGINIA

Date 07/01/2012
Scale 1"=200'
Sheet No. 14 OF 15
File No. 11.022

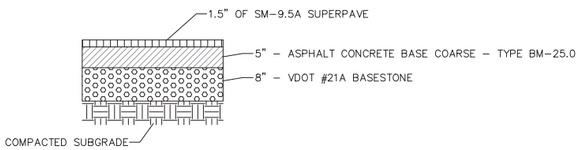




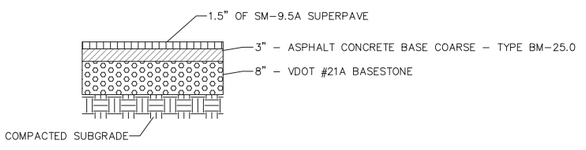
1 C15 ENTRANCE PROFILE
SCALE: 1"=50' Horiz.; 1"=10' Vert.



2 C15 FRIENDSHIP ROAD PROFILE
SCALE: 1"=50' Horiz.; 1"=10' Vert.



3 C15 TYPICAL NEW PAVEMENT SECTION FOR ROUTE 15
Not To Scale



4 C15 TYPICAL NEW PAVEMENT SECTION FOR FRIENDSHIP ROAD
Not To Scale

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PHASE I ENTRANCE DETAIL

Rev #	Date	Description
1.	09/04/2012	Revisions to Site Density
2.	12/17/2012	Revisions Density and Engineering
3.	05/01/2013	Revisions Per Comments Rec'd & Drainfields
4.	05/20/2013	Plan Clarifications
5.	09/17/2013	Revisions Per Staff Request

REZONING APPLICATION PLAN FOR:
WALKER'S RIDGE
FLUVANNA COUNTY, VIRGINIA

Date 07/01/2012
Scale 1"=50'
Sheet No. 15 OF 15
File No. 11.022

		Walker Student pop 1*	Walker Student Pop 2**
		772.32	415.62416
VA $/pupil	$ 10,584.00	**$ 8,174,234.88**	**$ 4,398,966.11**
Fluvanna $/pupil	$ 9,053.00	**$ 6,991,812.96**	**$ 3,762,645.52**
$/ SF (2011)	$ 17,134.00	6493786	
$/ TH (2011)	$ 12,135.00	3312855	
$/ MF (2011)	$ 8,633.00	2589900	
		$ 12,396,541.00	
$/ SF (2012)	$ 18,507.00	7014153	
$/ TH (2012)	$ 12,354.00	2725359	
$/ Mf (2012)	$ 9,983.00	2994900	
		$ 12,734,412.00	

SF= Single Family
TH = Townhome
MF = Multifamily

County Pop	K-12 Pop	K-12 Pop %	Pop per HH (own)	Pop per HH (rent)	Walker MF	Walker SF
25967	4713	16.6	2.63	2.55	300	652

Total Units	Walker MF	Walker TH	Walker SFA	Walker SFD	pupil/ SF	pupil/ TH	pupil/ MF
952	300	273	98	281	1.08	1	0.3

*Population 1 projected using = students generated per housing unit type X respective number of housing units

**Population 2 projected using = (population per household X number of housing units) X percentage of population between K-12

VDOT Virginia Department of Transportation

Northwestern
Regional Operations

To: **Mark Wood, PE**
Area Land Use Engineer
Culpeper District – Zion's Crossroads

From: **Jonathan Bonghi, EIT**
Traffic Engineer
NWRO - Culpeper District Traffic Engineering

Date: **March 5, 2013**

Traffic Impact Analysis Report Comments – Walkers Ridge Development

---

- The Report mentions that LOS D is acceptable at various movements in the future conditions, however LOS D is not considered acceptable for this rural location and the design engineers should strive to meet criteria that minimizes delay under post build conditions. A minimum LOS goal for rural areas should be C or better.

- Please transfer the Sidra analysis results to the LOS table 'X' so they can be directly compared without searching different sections of the report.

- Courthouse Road WB under 2037 no-build AM and PM falls to LOS C, while under 2037 build with mitigation AM and PM it falls to LOS F. Please provide mitigation at this intersection.

- The Proposed Sub Entrance is being presented with the Lefts out operating at LOS D, please consider other mitigation measures that would accommodate better performance of the lefts out of the proposed development.

- Friendship Road EB under 2037 no-build PM falls to LOS C, while under 2037 build with mitigation PM it falls to LOS E Please provide further mitigation at this intersection.

- The Synchro files show a center dual left turn lane also referred to as a "suicide lane" just north of route 616 on US 15 and again between the sub-entrance and the main-entrance on US 15, which is assumed to be the "receiving lane" mentioned in the report to allow motorists to make a two staged left out of the side streets. This is not an acceptable mitigation to left turn conflicts, considered alternate intersection control at all necessary locations, where left turn conflicts are present.

- There are several public streets within close proximity to the Palmyra Lane and church street intersection cluster and the Route 53 intersection, such as Route 1007 and Route 632 along with various others, which are not included in the Synchro network. Due to the close proximity of these Routes they is high probability that the traffic entering and exiting the mainline at these locations with effect the performance of the corridor and intersections, therefore they should be included as part of the Impact analysis for this project.

- The traffic volumes for many movements used in the analysis was '0', please use a minimum of 5 vehicles for any movement less than 5, to ensure these movements are accounted for when analyzing the future performance of the intersections.

- Synchro – Travel speeds and simulation speeds of vehicles was set at 30MPH for all segments of the network, however the posted speed limit through the effected Route 15 corridor varies from 45 to 35 to 45 and back to 55. The model should incorporate the correct travel speed for each segment of the route 15 corridor as this will have an effect on left and right turn gap acceptance at the intersection streets, and will have an effect on the reported delays, LOS, and queuing.

Steven Tugwell

From: Wood, Mark (VDOT) <James.Wood@VDOT.virginia.gov>
Sent: Friday, March 08, 2013 3:13 PM
To: Steven Tugwell
Cc: 'Justin Shimp'; 'Bill Wuensch'; Proctor, Charles C. (VDOT); Bonghi, Jonathan (VDOT); Wolfrey, Sharon A. (VDOT)
Subject: Additional Walker's Ridge TIA Comments

Importance: High

Steve,

I've been out of the Zion Crossroads office for several days working the night shift to support our snow removal operations and unfortunately I wasn't able to obtain all of VDOT's comments prior to my email dated March 7, 2013. Please include the following VDOT TIA comments for the Walker's Ridge Development along with those that were previously provided:

1. Page 1, Executive Summary, under ii - should say "203 single family **detached** dwelling units";
2. Page 2, Executive Summary, under iii, 2nd paragraph – Level of Service (LOS) values are not specified in the Traffic Impact Analysis regulations. However it refers to the change in delay as the evaluation tool. In addition, in rural areas lower delays are expected, which relates to better LOS values (generally 'C' or better in the rural areas). This being said any movement that shows significant change in delay will need to be mitigated to minimize the change;
3. Page 3 – Proposed Mitigation Measures, under 1, 4 and 5 – the study suggests adding an additional receiving lane to address the delay to the left turn traffic from the side streets or signalized the intersection. This two-step turning movement is generally not an acceptable mitigation. Also, in recent years it has been the County's policy not to install traffic signals. Therefore, VDOT recommends a roundabout as a possible solutions at these locations. A roundabout would eliminate the need for the additional turns and receiving lanes as well as the need for signalization and it may provide better Level of Service;
4. Page 17 – Trip Generation, 1st paragraph, 3rd sentence – should say "203 single family **detached** dwelling units";
5. Page 17 - Table V-A, the ITE code for Single Family Attached is different than for Townhomes. These are usually larger homes similar to Single Family Home that are paired together. ITE does not have a category for this type of unit. In the past, it has been acceptable to split to difference between townhouse and single family trip generation for this unit type;
6. Page 30 – as stated above in comment No. 3 above, recommend Roundabouts be considered in lieu of signals or receiving lanes or a combination of restricted access (RT in/out and possible Lt in) with roundabouts at key intersection to accommodate u-turns;
7. Page 32-33 – as stated in Comment No. 2 above, Level of Service value is not specified in the Traffic Impact Analysis regulations. However it refers to change in delay as the evaluation tool. In addition in rural areas lower delays are expected, which relates to better LOS values (generally 'C' or better in the rural areas). This being said any movement that shows significant change in delay will need to be mitigated to minimize the change;
8. Page 32-33 - as stated above in comment No. 3 above, recommend Roundabouts be considered in lieu of traffic signals or receiving lanes or a combination of restricted access (RT in/out and possible Lt in) with roundabouts at key intersection to accommodate u-turns;
9. Appendix C, Photo-Log, include State Route Numbers in addition to street names (i.e. Route 644-Friendship Rd., Route 601-Courthouse Rd., Route 1002-Palmyra Rd., etc.).

J. Mark Wood, P.E L.S.

Area Land Use Engineer

Virginia Department of Transportation

Land Development – South

P.O. Box 1017

11430 James Madison Highway

Troy, VA 22974

Phone: (434) 589-7932

Cell: (540) 223-5240

Fax: (434) 589-3967

Email: Mark.Wood@VDOT.Virginia.gov

Steven Tugwell

From: Wood, Mark (VDOT) <James.Wood@VDOT.virginia.gov>
Sent: Wednesday, June 26, 2013 2:38 PM
To: Steven Tugwell
Cc: Justin Shimp; Goodale, James E. (VDOT); Wolfrey, Sharon A. (VDOT)
Subject: VDOT Comments - Revised TIA for Walkers Ridge, Fluvanna County

Importance: High

Steve,

VDOT has reviewed the revised traffic study for Walkers Ridge and we have the following comments:

- The Level of Service (LOS) for rural areas is 'C' not 'D' that the study references. LOS of 'D' is generally where drivers start to experience delay and this is usually the minimum acceptable measure in urbanized areas. This project is proposed in what is considered a rural area where delays of this type are not expected by the drivers and an LOS of 'D" is generally not used as the minimum.
- Many of the study intersections still show significant increases in delay between the future background scenario and the future build out with mitigation scenario. In most instances the increase in delay is more than double for the impacted movements;
- The mitigation measure to install receiving lanes for the impacted left turn movements from the side streets **may** address some of the increase in delay issues, however, there has been no analysis to show the benefit if any to support this improvement. It is also suggested in the study that if this approach does not work to signalize the intersections. The County, to address some of these delay concerns/issues, may want to consider additional roundabouts as the treatment for the other intersection location as the ultimate solution.

J. Mark Wood, P.E., L.S.
Area Land Use Engineer
Virginia Department of Transportation
Land Development – South
P.O. Box 1017
11430 James Madison Highway
Troy, VA 22974
Phone: (434) 589-7932
Cell: (540) 223-5240
Fax: (434) 589-3967
Email: Mark.Wood@VDOT.Virginia.gov

VDOT Virginia Department of Transportation

PRE-SCOPE OF WORK MEETING FORM

Information on the Project
Traffic Impact Analysis Base Assumptions

The applicant is responsible for entering the relevant information and submitting the form to VDOT and the locality no less than three (3) business days prior to the meeting. If a form is not received by this deadline, the scope of work meeting may be postponed.

Contact Information			
Consultant Name: Tele: E-mail:	Bill Wuensch, P.E., PTOE, Engineering & Planning Resources, P.C. 804 647 7700 w.wuensch@epr-corp.com		
Developer/Owner Name: Tele: E-mail:	represented by - Justin Shimp, P.E. 207-8086 justin@shimp-engineering.com		
Project Information			
Project Name:	Walkers Ridge	Locality/County:	Fluvanna
Project Location: (Attach regional and site specific location map)	West side of Route 15 north of Palmyra (old Rivanna golf course site)		
Submission Type	Comp Plan ☐	Rezoning ☒	Site Plan ☐ / Subd Plat ☐
Project Description: (Including details on the land use, acreage, phasing, access location, etc. Attach additional sheet if necessary)	mixed use development with 43 SFDU, 1376 MFDU, 95 Townhomes, 90ksf of retail (generally specialty retail), and 60ksf of office. Current Zoning is R-3 residential, proposed development is PUD zone. 230+/- Acres proposed for development.		
Proposed Use(s): (Check all that apply; attach additional pages as necessary)	Residential ☐	Commercial ☐	Mixed Use ☒ / Other ☐
	Residential Uses(s) Number of Units: ____ ITE LU Code(s): 210- 43 SFDU 220 - 1376 MF 230 - 95 Towns **Commercial Use(s)** ITE LU Code(s): 814 - 90ksf 710 - 60ksf ____ Square Ft or Other Variable:		**Other Use(s)** ITE LU Code(s): ____ ____ ____ Independent Variable(s): ____ ____ ____
Total Peak Hour Trip Projection:	Less than 100 ☐	100 – 499 ☐	500 – 999 ☐ / 1,000 or more ☒

It is important for the applicant to provide sufficient information to county and VDOT staff so that questions regarding geographic scope, alternate methodology, or other issues can be answered at the scoping meeting.

Traffic Impact Analysis Assumptions				
Study Period	Existing Year: 2012	Build-out Year: 2032	Design Year: ~~2035~~ 2037	
Study Area Boundaries (Attach map)	North: northerly entrance (Route 15 at Friendship Road)	South: Route 53/15		
	East: Site	West: Route 15		
External Factors That Could Affect Project (Planned road improvements, other nearby developments)	new development in Zion Crossroads			
Consistency With Comprehensive Plan (Land use, transportation plan)	yes			
Available Traffic Data (Historical, forecasts)	Prior study for this site in year 2008			
Trip Distribution (Attach sketch)	Road Name: see attached estimate	Road Name:		
	Road Name:	Road Name:		
Annual Vehicle Trip Growth Rate:	1% (based on existing traffic north side of Sommerfield)	Peak Period for Study (check all that apply)	☒ AM ☒ PM ☐ SAT	
		Peak Hour of the Generator		
Study Intersections and/or Road Segments (Attach additional sheets as necessary)	1.Route 644 north end/15	6.		
	2.Route 644 south end (northerly site entrance)/15	7.		
	3.site entrance (roundabout)/15	8.		
	4.Courthouse (601)/ 15	9.		
	5.15/53	10.		
Trip Adjustment Factors	Internal allowance: ☒ Yes ☐ No Reduction: 15 % trips	Pass-by allowance: ☒ Yes ☐ No Reduction: 25%% trips		
Software Methodology	☒ Synchro ☐ HCS (v.2000/+) ☒ aaSIDRA ☐ CORSIM ☒ Other simtraffic for queues			
Traffic Signal Proposed or Affected (Analysis software to be used, progression speed, cycle length)	roundabout at site entrance, potential for traffic signal/roundabout at 15/53			

It is important for the applicant to provide sufficient information to county and VDOT staff so that questions regarding geographic scope, alternate methodology, or other issues can be answered at the scoping meeting.

Improvement(s) Assumed or to be Considered	Turn lanes at the site entrance, access management strategies, roundabout at site entrance, intersection changes to 15/53
Background Traffic Studies Considered	as noted in the available traffic data section.
Plan Submission	☒ Master Development Plan (MDP) ☐ Generalized Development Plan (GDP) ☐ Preliminary/Sketch Plan ☐ Other Plan type (Final Site, Subd. Plan)
Additional Issues to be Addressed	☒ Queuing analysis ☐ Actuation/Coordination ☐ Weaving analysis ☐ Merge analysis ☒ Bike/Ped Accommodations ☒ Intersection(s) ☐ TDM Measures ☒ Other entrance, and roundabout

NOTES on ASSUMPTIONS:

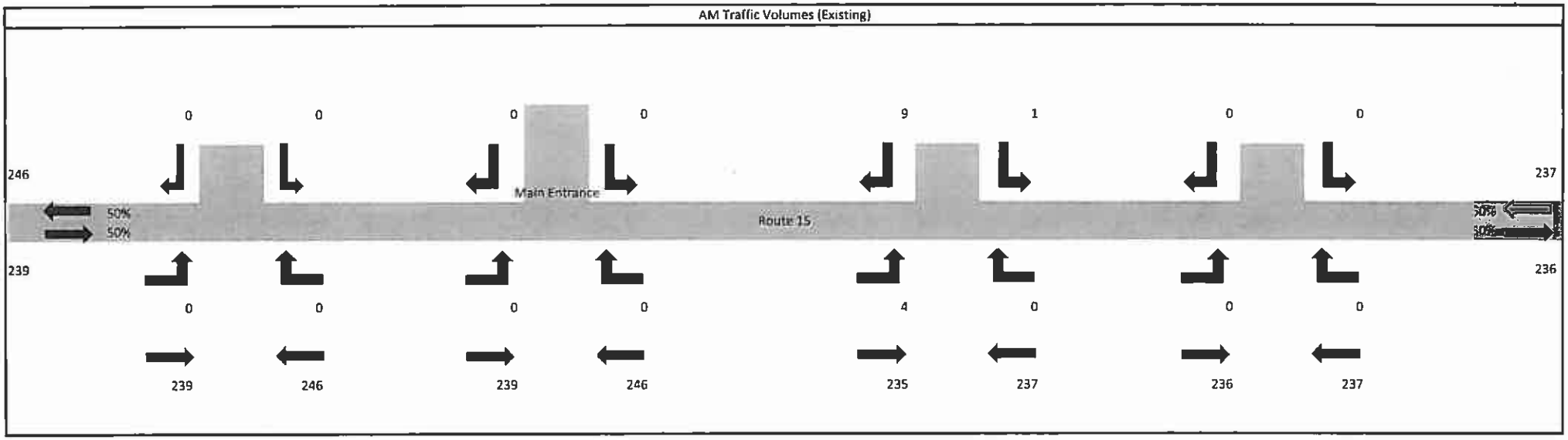
1. see attached trip generation and distribution sketches
2. passy percentages for use to be per the ITE trip gen handbook
3. final trip estimates, distribution, and resulting traffic figures to be approved by VDOT prior to conducting analysis
4. will need to recount 15/53 due to high school. South end of Friendship Road (Rt 644) recently re-counted. Year 2008 counts will be used for the northern end of Route 644 and also Courthouse Road (Rt 601).
5. build year is horizon analysis year (2032)

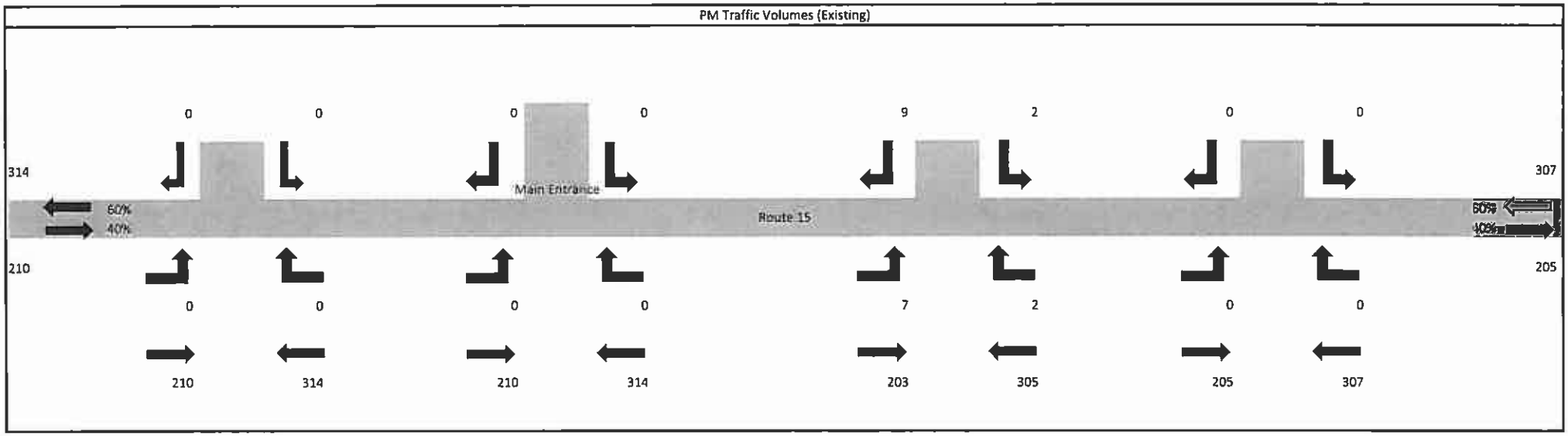
SIGNED: _____ DATE: _____
Applicant or Consultant

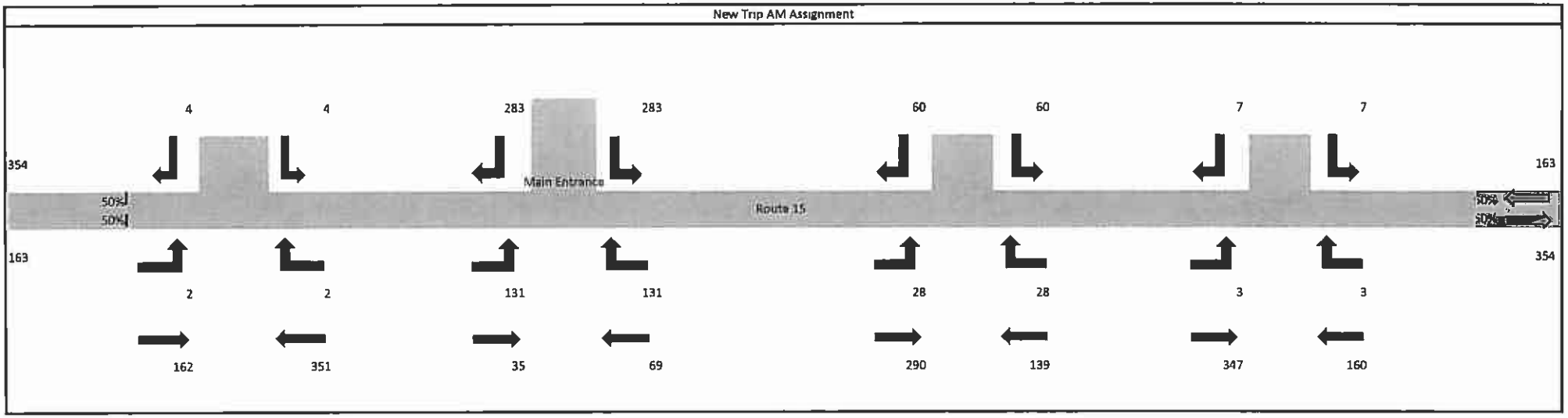
PRINT NAME: _____
Applicant or Consultant

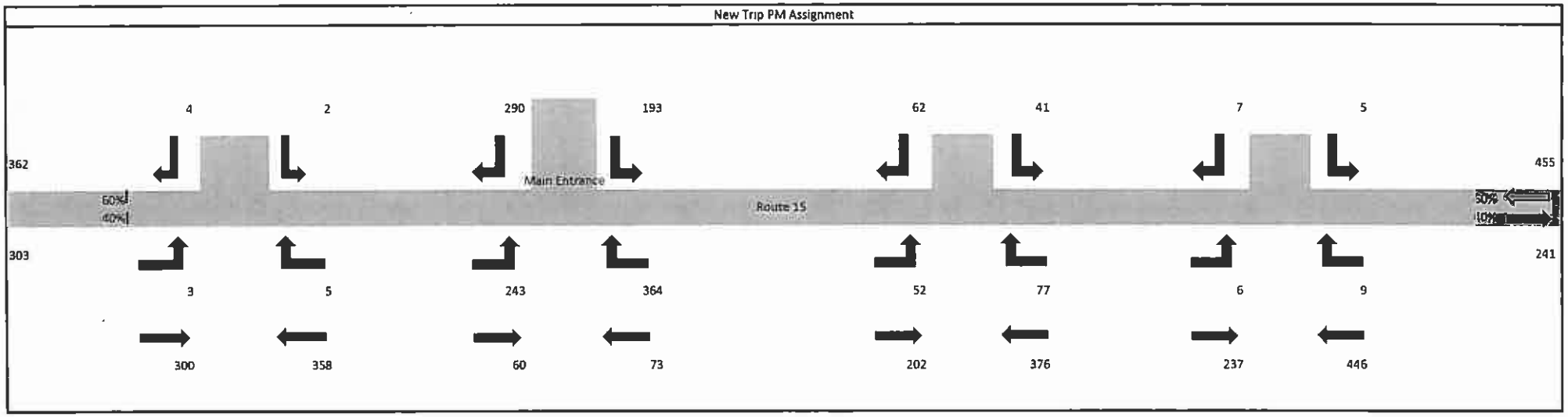
It is important for the applicant to provide sufficient information to county and VDOT staff so that questions regarding geographic scope, alternate methodology, or other issues can be answered at the scoping meeting.

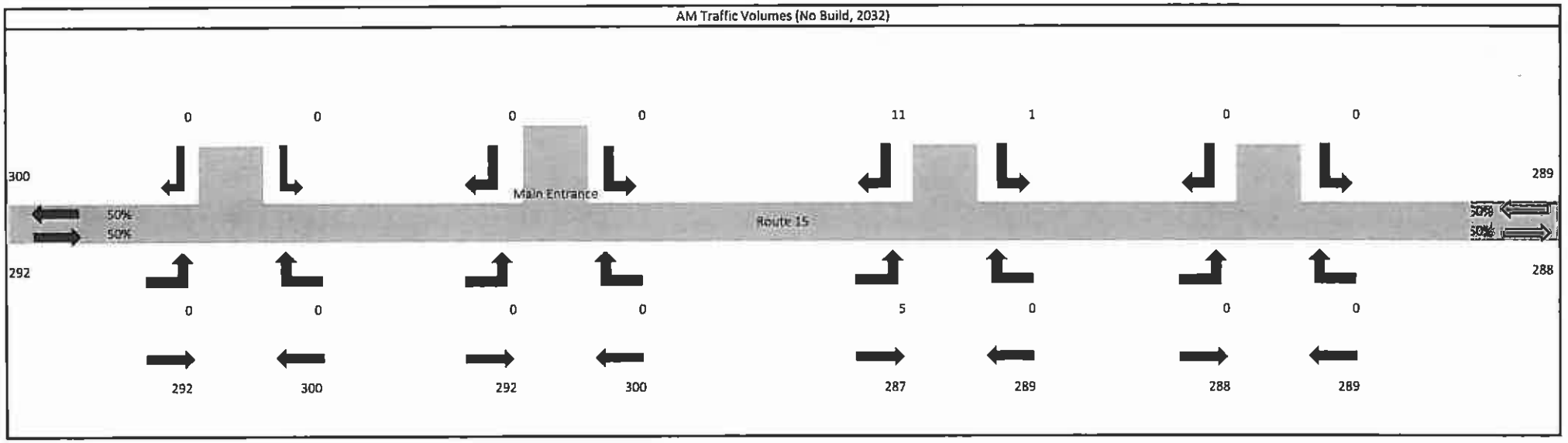
				AM		PM	
Use Description	**ITE**	**Qty**	**Daily**	**in**	**out**	**in**	**out**
Single Family Detached	210	43	478	10	30	31	18
Multi-Family Residentia	220	1,376	8,462	136	542	503	271
Townhouse	230	95	615	8	41	39	19
Retail	814	90,000	3,888	104	133	268	290
Office	710	60,000	900	110	15	25	121
	total		14,344	368	761	865	719
internal capture			583	16	20	40	43
Peak Hour Trips After Reductions (driveway trips)			13,761	352	741	825	676
Pass-by (25% of Retail)			972	26	33	67	72
Total New Trips			12,789	326	708	758	603
	total peak		12,789	1,034		1,362	

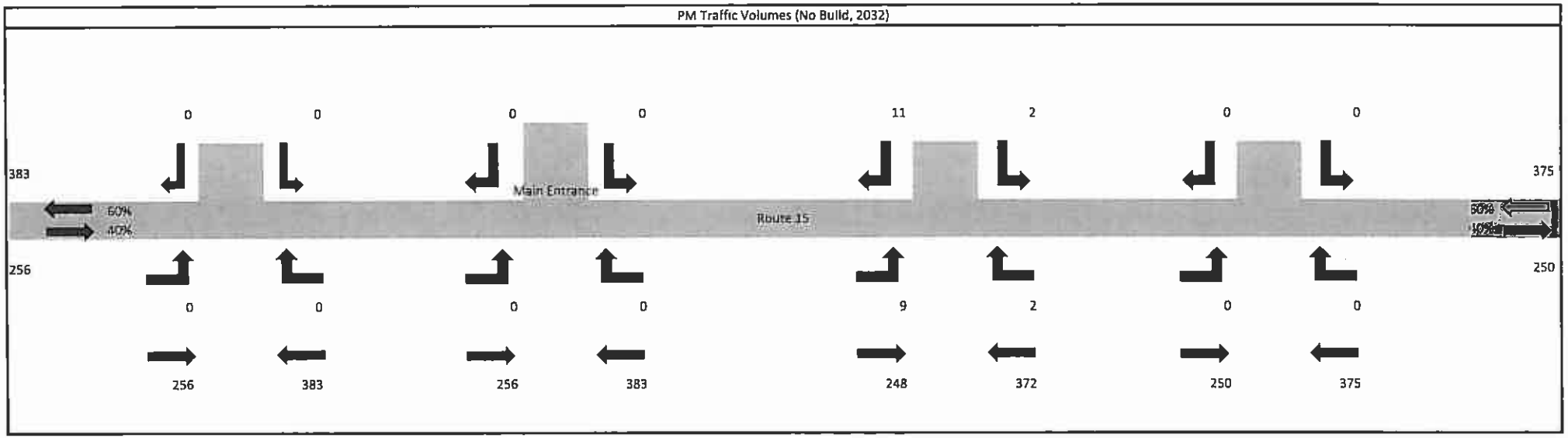

AM Traffic Volumes (Existing)
0
0
0
0
9
1
0
0
246
237
Main Entrance
50%
50%
Route 15
239
236
0
0
0
0
4
0
0
0
239
246
239
246
235
237
236
237

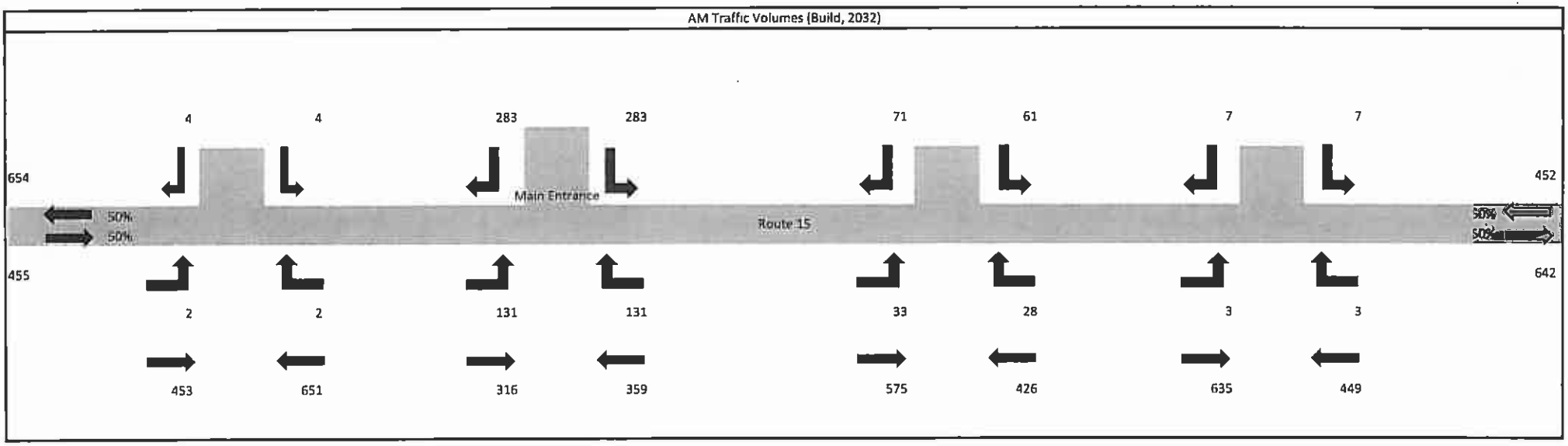

PM Traffic Volumes (Existing)
0
0
0
0
9
2
0
0
314
307
Main Entrance
60%
40%
Route 15
210
205
0
0
0
0
7
2
0
0
210
314
210
314
203
305
205
307

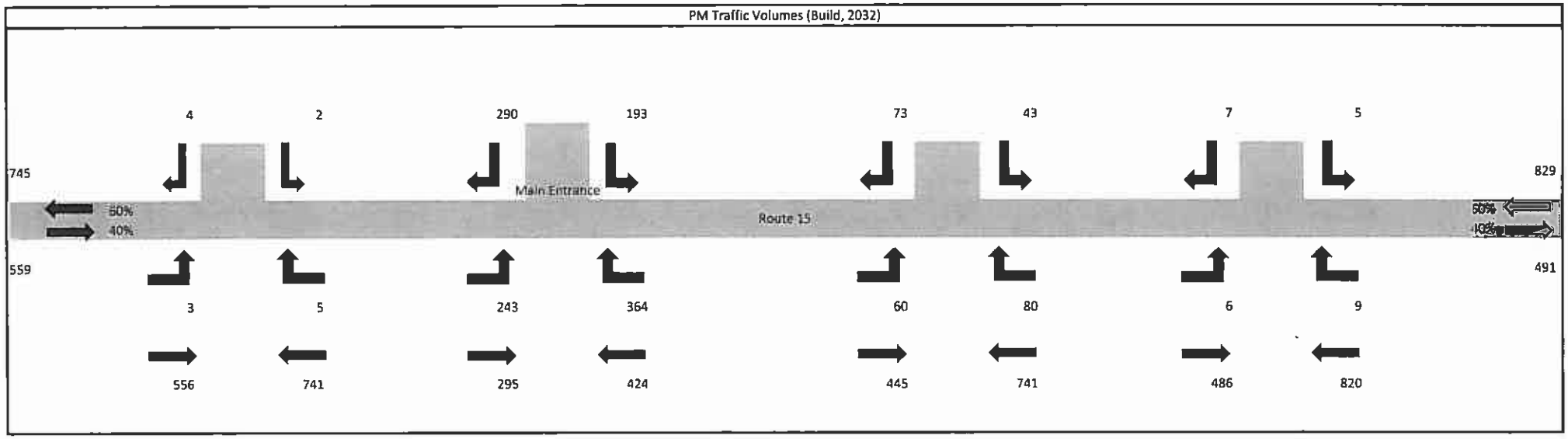

New Trip AM Assignment
4
4
283
283
60
60
7
7
354
163
Main Entrance
50%
50%
Route 15
50%
50%
163
354
2
2
131
131
28
28
3
3
162
351
35
69
290
139
347
160


New Trip PM Assignment
4
2
290
193
62
41
7
5
362
455
Main Entrance
60%
40%
Route 15
50%
50%
303
241
3
5
243
364
52
77
6
9
300
358
60
73
202
376
237
446


AM Traffic Volumes (No Build, 2032)
0
0
0
0
11
1
0
0
300
289
Main Entrance
50%
50%
Route 15
50%
50%
292
288
0
0
0
0
5
0
0
0
292
300
292
300
287
289
288
289


PM Traffic Volumes (No Build, 2032)
0
0
0
0
11
2
0
0
383
375
Main Entrance
60%
40%
Route 15
60%
40%
256
250
0
0
0
0
9
2
0
0
256
383
256
383
248
372
250
375


AM Traffic Volumes (Build, 2032)
4
4
283
283
71
61
7
7
654
452
Main Entrance
Route 15
50%
50%
50%
50%
455
642
2
2
131
131
33
28
3
3
453
651
316
359
575
426
635
449


PM Traffic Volumes (Build, 2032)
4
2
290
193
73
43
7
5
745
829
Main Entrance
Route 15
60%
40%
60%
40%
559
491
3
5
243
364
60
80
6
9
556
741
295
424
445
741
486
820

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File Name : Route 15 and Friendship
Site Code : 22222222
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Groups Printed- Passenger Veh - Trucks

	Route 15 From North					From East					Route 15 From South					Friendship Rd From West					
Start Time	Right	Thru	Left	Peds	App Total	Right	Thru	Left	Peds	App Total	Right	Thru	Left	Peds	App Total	Right	Thru	Left	Peds	App Total	Int Total
07 00 AM	0	47	0	0	47	0	0	0	0	0	0	55	0	0	55	0	0	0	0	0	102
07 15 AM	0	54	0	0	54	0	0	0	0	0	0	76	0	0	76	2	0	0	0	2	132
07 30 AM	0	71	0	0	71	0	0	0	0	0	0	52	0	0	52	2	0	0	0	2	125
07 45 AM	0	61	0	0	61	0	0	0	0	0	0	47	1	0	48	4	0	0	0	4	113
Total	0	233	0	0	233	0	0	0	0	0	0	230	1	0	231	8	0	0	0	8	472
08 00 AM	0	51	0	0	51	0	0	0	0	0	0	60	3	0	63	1	0	1	0	2	116
08 15 AM	1	35	0	0	36	0	0	0	0	0	0	68	4	0	72	0	0	0	0	0	108
08 30 AM	1	33	0	0	34	0	0	0	0	0	0	52	0	0	52	0	0	1	0	1	87
08 45 AM	1	28	0	0	29	0	0	0	0	0	0	53	6	0	59	2	0	0	0	2	90
Total	3	147	0	0	150	0	0	0	0	0	0	233	13	0	246	3	0	2	0	5	401
*** BREAK ***																					
04 00 PM	2	60	0	0	62	0	0	0	0	0	0	39	1	0	40	4	0	1	0	5	107
04 15 PM	2	63	0	0	65	0	0	0	0	0	0	47	1	0	48	2	0	1	0	3	116
04 30 PM	1	63	0	0	64	0	0	0	0	0	0	57	1	0	58	5	0	0	0	5	127
04 45 PM	0	78	0	0	78	0	0	0	0	0	0	48	4	0	52	1	0	1	0	2	132
Total	5	264	0	0	269	0	0	0	0	0	0	191	7	0	198	12	0	3	0	15	482
05 00 PM	0	77	0	0	77	0	0	0	0	0	0	52	1	0	53	3	0	1	0	4	134
05 15 PM	1	87	0	0	88	0	0	0	0	0	0	46	1	0	47	0	0	0	0	0	135
05 30 PM	2	73	0	0	75	0	0	0	0	0	0	30	3	0	33	1	0	0	0	1	109
05 45 PM	3	71	0	0	74	0	0	0	0	0	0	38	6	0	44	0	0	2	0	2	120
Total	6	308	0	0	314	0	0	0	0	0	0	166	11	0	177	4	0	3	0	7	498
Grand Total	14	952	0	0	966	0	0	0	0	0	0	820	32	0	852	27	0	8	0	35	1853
Apprch %	1.4	98 6	0	0		0	0	0	0		0	96 2	3 8	0		77 1	0	22 9	0		
Total %	0 8	51 4	0	0	52 1	0	0	0	0	0	0	44 3	1 7	0	46	1 5	0	0.4	0	1 9	
Passenger Veh	14	879	0	0	893	0	0	0	0	0	0	773	32	0	805	23	0	8	0	31	1729
% Passenger Veh	100	92 3	0	0	92 4	0	0	0	0	0	0	94 3	100	0	94 5	85 2	0	100	0	88.6	93.3
Trucks	0	73	0	0	73	0	0	0	0	0	0	47	0	0	47	4	0	0	0	4	124
% Trucks	0	7 7	0	0	7.6	0	0	0	0	0	0	5 7	0	0	5 5	14 8	0	0	0	11 4	6 7

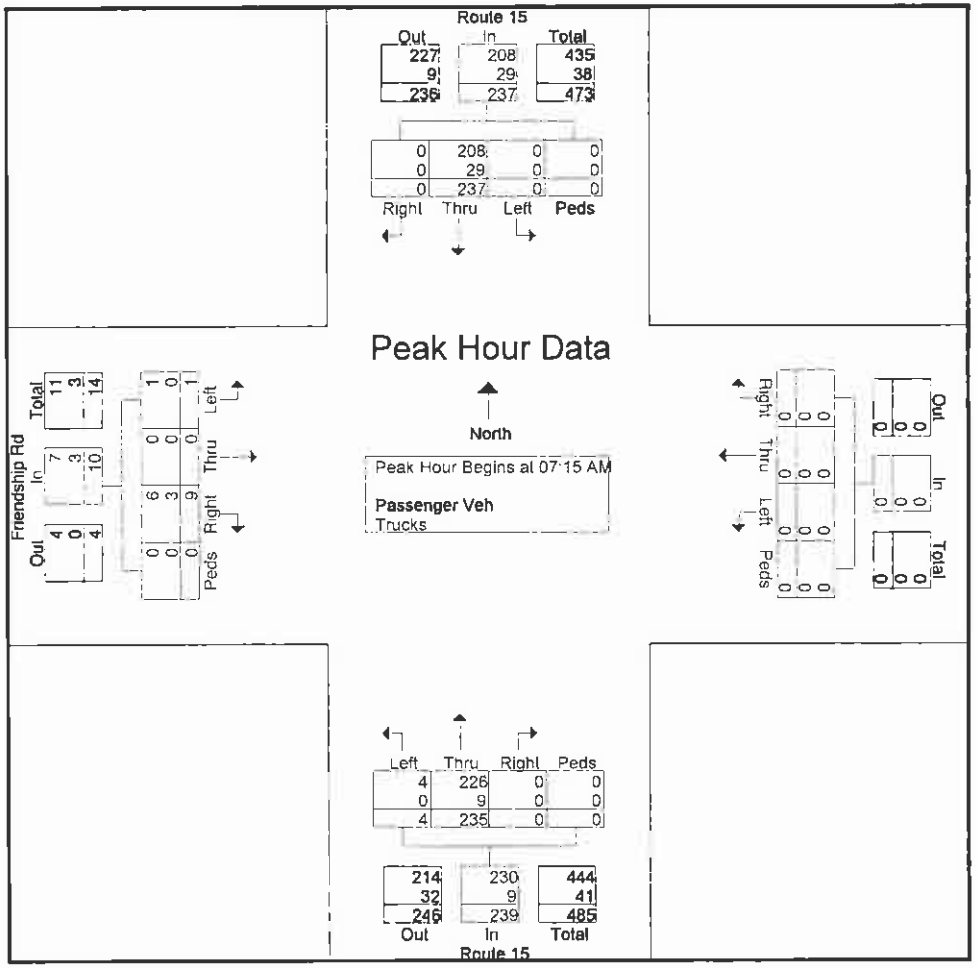
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Site Code : 22222222
Start Date : 2/2/2012
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	Route 15 From North					From East					Route 15 From South					Friendship Rd From West					
Start Time	Right	Thru	Left	Peds	App Total	Right	Thru	Left	Peds	App Total	Right	Thru	Left	Peds	App Total	Right	Thru	Left	Peds	App Total	Int Total
Peak Hour Analysis From 07:00 AM to 11 45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07 15 AM																					
07.15 AM	0	54	0	0	54	0	0	0	0	0	0	**76**	0	0	**76**	2	0	0	0	2	**132**
07:30 AM	0	**71**	0	0	**71**	0	0	0	0	0	0	52	0	0	52	2	0	0	0	2	125
07 45 AM	0	61	0	0	61	0	0	0	0	0	0	47	1	0	48	4	0	0	0	4	113
08 00 AM	0	51	0	0	51	0	0	0	0	0	0	60	3	0	63	1	0	1	0	2	116
Total Volume	0	237	0	0	237	0	0	0	0	0	0	235	4	0	239	9	0	1	0	10	486
% App Total	0	100	0	0		0	0	0	0		0	98.3	1 7	0		90	0	10	0		
PHF	000	835	000	000	835	000	000	000	000	000	000	773	333	000	.786	563	000	.250	000	.625	920
Passenger Veh	0	208	0	0	208	0	0	0	0	0	0	226	4	0	230	6	0	1	0	7	445
% Passenger Veh	0	87 8	0	0	87 8	0	0	0	0	0	0	96 2	100	0	96 2	66 7	0	100	0	70 0	91 6
Trucks	0	29	0	0	29	0	0	0	0	0	0	9	0	0	9	3	0	0	0	3	41
% Trucks	0	12.2	0	0	12.2	0	0	0	0	0	0	3 8	0	0	3 8	33 3	0	0	0	30.0	8.4

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File Name : Route 15 and Friendship
Site Code : 22222222
Start Date : 2/2/2012
Page No : 4

	Route 15 From North					From East					Route 15 From South					Friendship Rd From West					
Start Time	Right	Thru	Left	Peds	App Total	Right	Thru	Left	Peds	App Total	Right	Thru	Left	Peds	App Total	Right	Thru	Left	Peds	App Total	Int. Total
Peak Hour Analysis From 12 00 PM to 05 45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04 30 PM																					
04 30 PM	1	63	0	0	64	0	0	0	0	0	0	57	1	0	58	5	0	0	0	5	127
04 45 PM	0	78	0	0	78	0	0	0	0	0	0	48	4	0	52	1	0	1	0	2	132
05 00 PM	0	77	0	0	77	0	0	0	0	0	0	52	1	0	53	3	0	1	0	4	134
05 15 PM	1	87	0	0	88	0	0	0	0	0	0	46	1	0	47	0	0	0	0	0	135
Total Volume	2	305	0	0	307	0	0	0	0	0	0	203	7	0	210	9	0	2	0	11	528
% App Total	0.7	99 3	0	0		0	0	0	0		0	96 7	3 3	0		81 8	0	18 2	0		
PHF	500	876	000	000	872	000	000	000	000	000	000	890	438	000	905	450	000	500	000	550	978
Passenger Veh	2	290	0	0	292	0	0	0	0	0	0	190	7	0	197	9	0	2	0	11	500
% Passenger Veh	100	95 1	0	0	95 1	0	0	0	0	0	0	93 6	100	0	93.8	100	0	100	0	100	94 7
Trucks	0	15	0	0	15	0	0	0	0	0	0	13	0	0	13	0	0	0	0	0	28
% Trucks	0	4 9	0	0	4 9	0	0	0	0	0	0	6 4	0	0	6 2	0	0	0	0	0	5 3

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File Name : Route 15 and Friendship
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Page No : 5

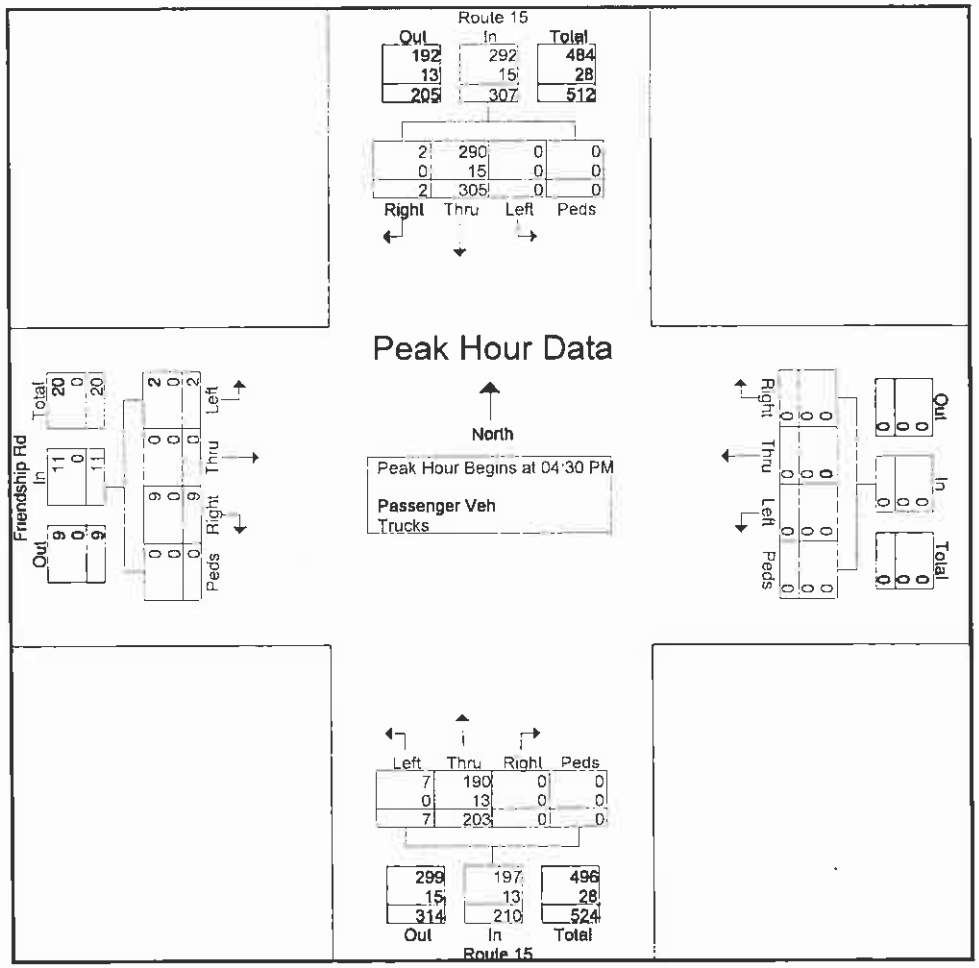
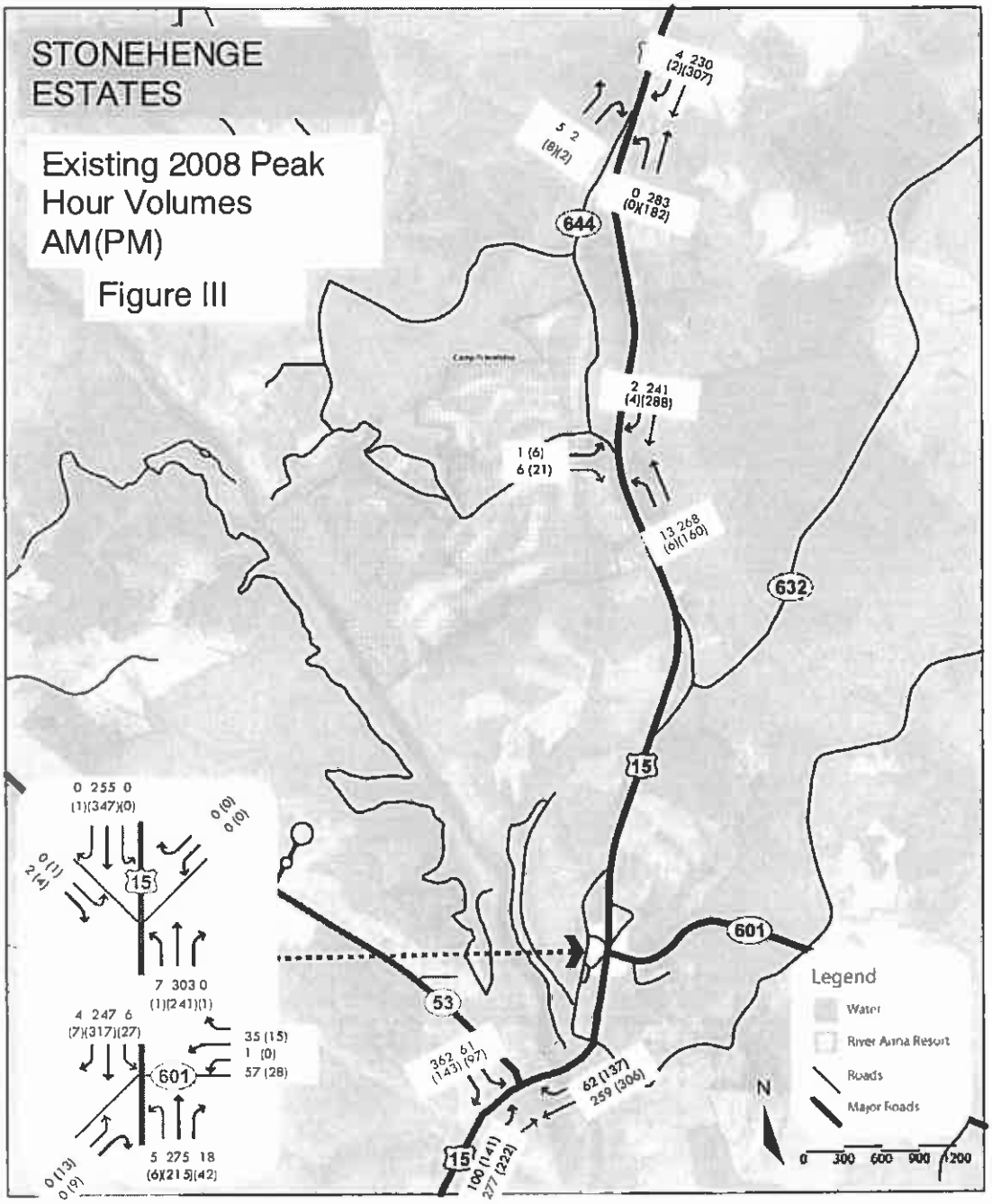


Figure III, Existing 2008 Turning Movement Counts, AM/PM Peak Hours



ENGINEERING & PLANNING RESOURCES, P.C.
CIVIL • STORMWATER • TRAFFIC • TRANSPORTATION

TO: JUSTIN SHIMP, P.E.

FROM: BILL WUENSCH, P.E., PTOE

ORGANIZATION: SHIMP ENGINEERING, P.C.

DATE: FEB 22, 2012

PHONE NUMBER:

SENDER'S REFERENCE NUMBER:

ASSESSMENT OF INTERSECTION NEEDS FOR ACCESS TO RIVANNA RESORT DEVELOPMENT

YOUR REFERENCE NUMBER:

MEMORANDUM

☐ URGENT x FOR REVIEW ☐ PLEASE COMMENT ☐ PLEASE REPLY X FOR YOUR USE

PURPOSE

A preliminary assessment of traffic impacts and access for the subject site has been performed in order to generally assess the level of traffic and to identify likely intersection geometry for the site access points along Route 15. A formal traffic impact study scoping meeting has not yet occurred with VDOT. The final Chapter 527 traffic study for VDOT will be performed to VDOT specifications. However, at this point in the site planning, the following preliminary analysis will suffice for initial coordination with the County and for site planning needs at this time.

TRAFFIC VOLUMES

Trip projections were developed based on the currently estimated level of development that is reflected in the current site concept. The following table summarizes the proposed use intensities and resulting estimated trip generation (per the ITE Trip Generation Manual.

Table 1- Trip Generation Table

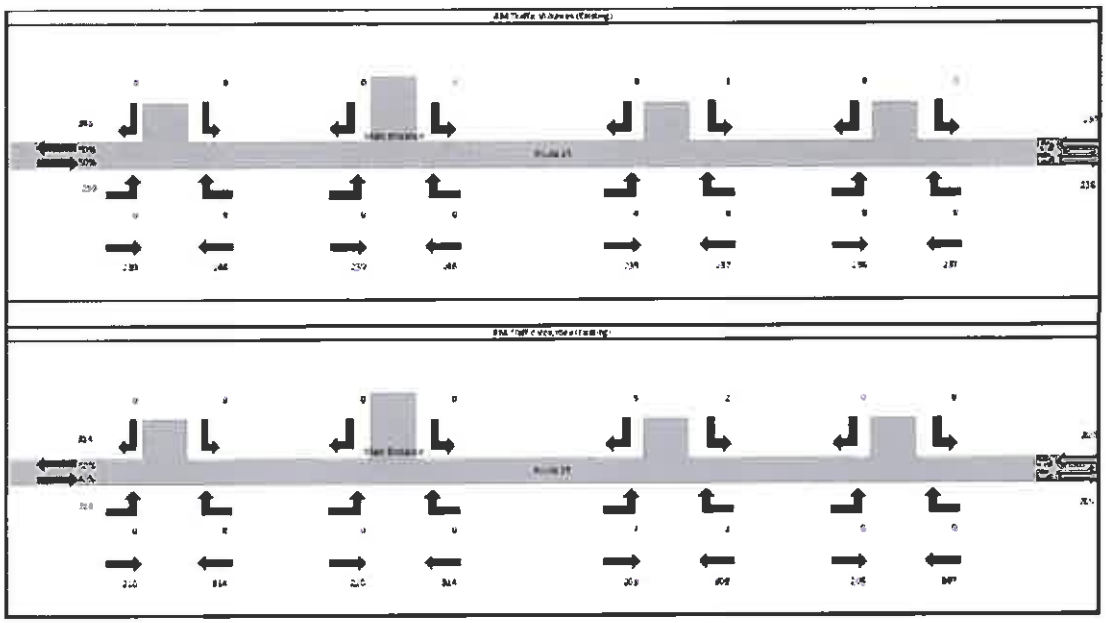
				AM		PM	
Use Description	**ITE**	**Qty**	**Daily**	**in**	**out**	**in**	**out**
Apartments	230	1,361	6235	71	346	289	142
General Office	710	54,300	834	101	14	24	116
Shopping	820	96,200	6622	59	38	304	316
	total		13691	231	397	617	574
internal capture				11	52	43	21
Peak Hour Trips After Reductions (driveway trips)				220	345	573	553
Pass-by (25% of Retail)				15	9	76	79
Total New Trips			11100	206	336	497	474
	total peak		11100	542		971	

637 BERKMAR CIRCLE
CHARLOTTESVILLE, VA 22901
PHONE (804) 647-7701
FAX (866) 233-8801

9602 BOBWHITE WAY
PENSACOLA, FL 32514
PHONE (850) 471-9579
FAX (850) 471-2086

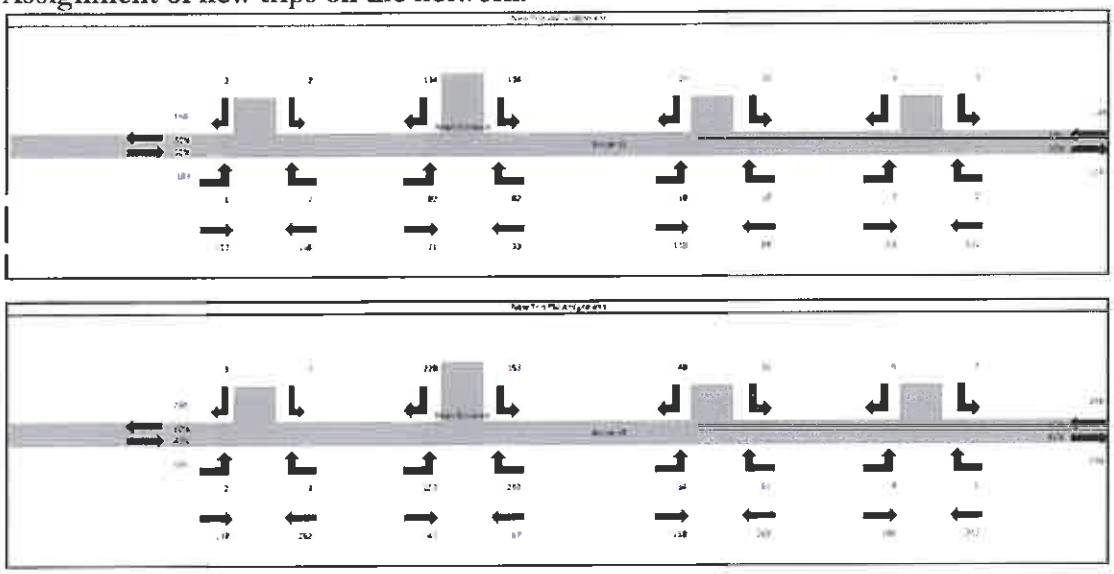
The following diagrams show:

1. The existing traffic as counted in late 2011 along Route 15 at the existing (southerly) Friendship Way intersection with Route 15. The through trips were projected through the network and across what will become the primary site entrance, southerly site entrance, and to the north (right side of graphic), the northerly intersection of Friendship Way at Route 15.



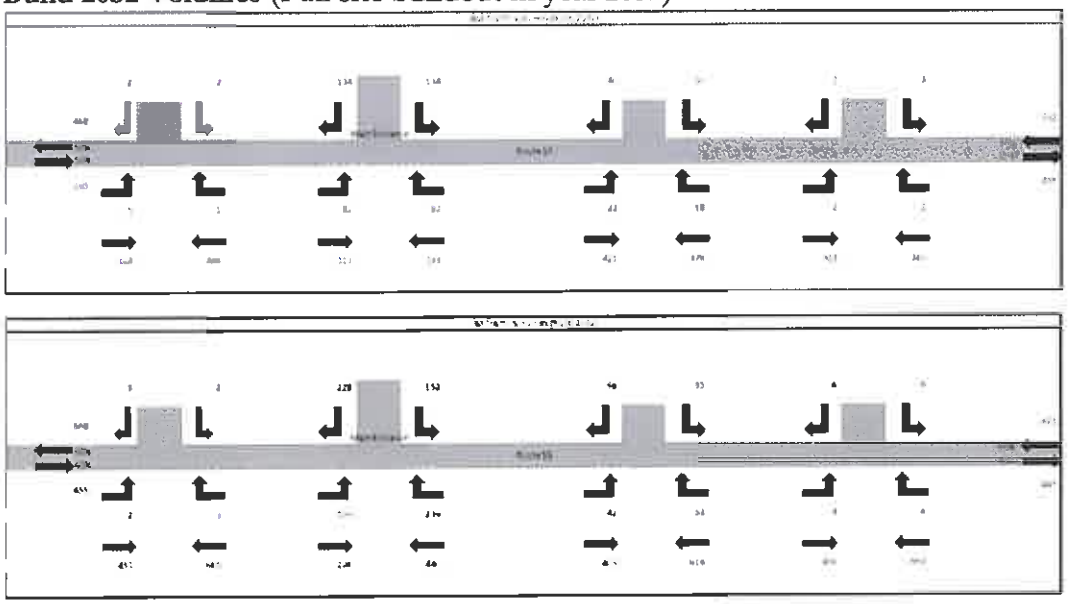
2. The projected site trips per Table 1. The trips were distributed onto Route 15 based on the patterns of the current traffic passing the site. This is to say that if in the afternoon 60% of the traffic on Route 15 is heading southbound, then we'll assume that 60% of the arrivals and departures from the site will occur to/from the south. Furthermore, since a major concern for site access is for the primary site entrance, we assumed that 80% of the site traffic will use this entrance. This conservatively high assumption is useful when performing a "fatal flaw" level analysis of the primary entrance intersection geometry. We then assumed that about 17% of the site traffic might use what is now the southerly Friendship Way intersection, and then the remainder of the site traffic was distributed to the other two intersection that might end up taking some of the site traffic (i.e. southerly site entrance and northerly Friendship Way intersection).

Assignment of new trips on the network.



3. The "build condition" year 2032 traffic was estimated by combining the existing volumes with the full site buildout volumes. In addition, the existing background volumes (current traffic volumes) were increased by 1% per year to capture growth in traffic resulting from countywide and regional traffic growth. These build condition year 2032 volumes represent a 20 year planning horizon volume set from which the intersection geometry was tested.

Build 2032 Volumes (Full site buildout in year 2032)



Summary of Intersection Analyses

The volumes as identified above for the build year 2032 were input into both a Synchro model for unsignalized and signalized intersections and also the Sidra model for roundabouts.

Based on this analysis, the following findings were identified.

1. A signal or roundabout will be necessary in the future for the primary site entrance. Turn lanes are warranted for a standard intersection, and when we near buildout conditions the sidestreet delays decrease to LOS F (i.e. it is very difficult to find sufficient gaps for the entering volume). Therefore, signalization will likely be required as the site continues to build out. As an alternative, a single lane roundabout could be constructed which would effectively and safely accommodate turning movements while providing a gateway feature to the village of Palmyra.

2. For the southerly Friendship Way intersection, signalization is not necessary in the future, however it is recommended that right and left turn lanes be provided.

3. For the southerly site access intersection, neither a right turn lane nor a left turn lane is required. However, it is recommended that this entrance, at some point in the future depending on volume growth, be restricted to right in/out only.

4. No turn lanes are needed for the northerly entrance to Friendship Way.

   The following graphics illustrate the preliminary recommendations for access to this site.

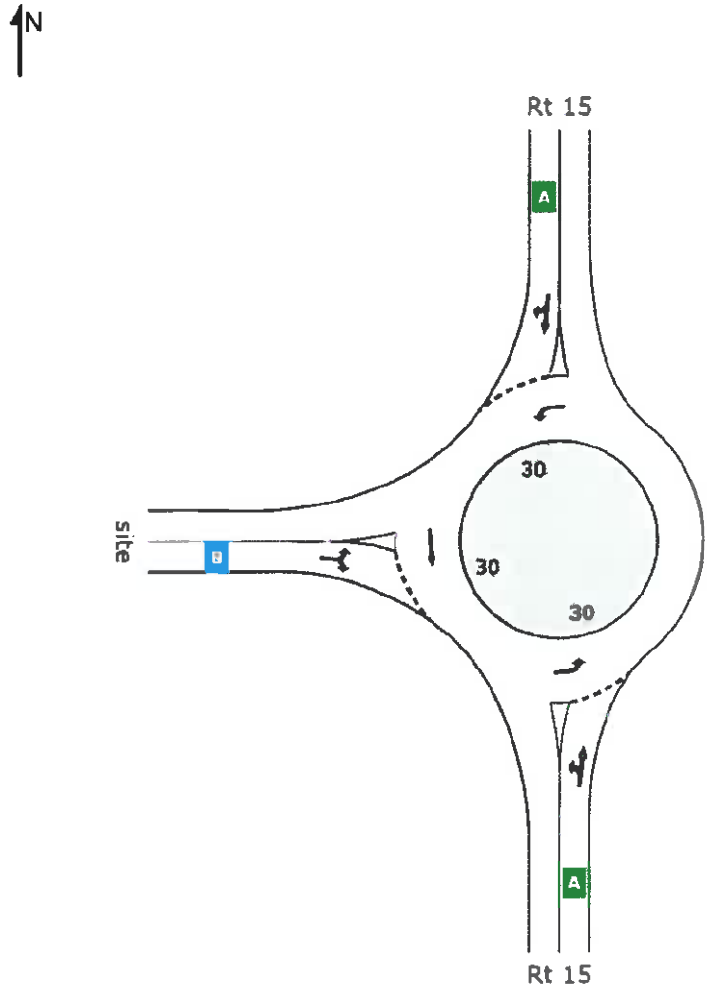
FPR ENGINEERING & PLANNING RESOURCES, P.C.

LEVEL OF SERVICE SUMMARY

Site: Rou 4-way 1i

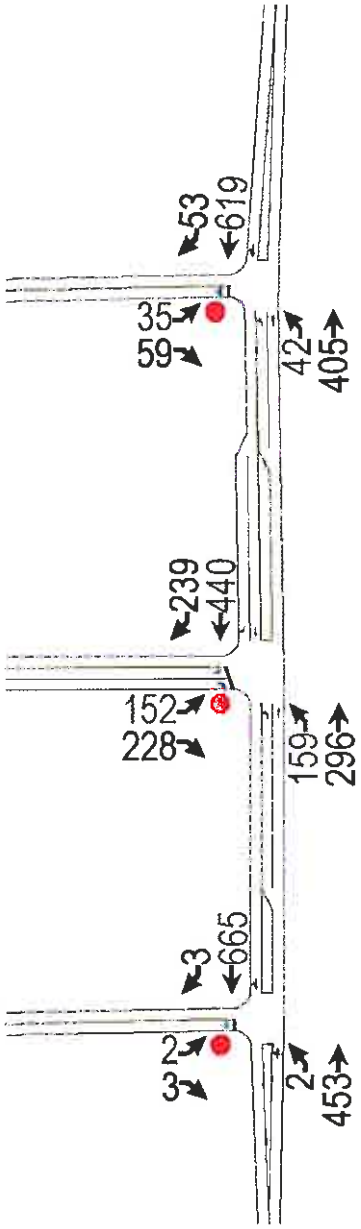
Roundabout with 1 & 2-lane approaches and circulating road
MUTCD (FHWA 2009) example number: 3C-4
Roundabout Guide (TRB 2010) example number: A-3

Roundabout



	South	North	West	Intersection
LOS	A	A	B	A

Level of Service (LOS) Method: Delay (HCM 2000)
Roundabout LOS Method: Same as Signalised Intersections
Lane LOS values are based on average delay per lane
Intersection and Approach LOS values are based on average delay for all lanes
SIDRA Standard Delay Model used



With the above noted recommendations, the level of service for all approaches will be at or above LOS C in the future year condition.

END OF MEMORANDUM

January 9, 2013 Neighborhood Meeting

SIGN IN SHEET FOR:

ZMP 12:02, Hotel Street Capital, LLC - An ordinance to amend the Fluvanna County Zoning Map with respect to 222.0 acres of Tax Map 30, Section A, Parcel 110, and 10 acres of Tax Map 19, Section A, Parcel 39C (former Rivanna Resort) to rezone the subject properties from R-3 (Residential, Planned Community) with proffers to PUD (Planned Unit Development). The subject property is located within the Palmyra Election District on the western side of U.S. Route 15 (James Madison Highway) at its intersection with State Route 644 (Friendship Road), approximately 0.25 miles north of State Route 661 (Rescue Lane). The proposed amendment would allow a maximum of 1,190 residential units (a mixture of single-family detached units, townhouses, and multi-family units) and 160,000 square feet of commercial space. According to the 2009 Comprehensive Plan, the property is located within the Palmyra Community Planning Area.

Please Print Your Name & Address:

1. GENE KOWACSKI 67 THOMAS JEFFERSON PKWY PALMYRA
2. Cris Higginbotham 573 Friendship Way Palmyra VA
3. Chuck Ackerbom " " " "
4. Ann Kirschnick 51 Nahor Dr Palmyra
5. Marvin Moss 14054 James Madison Hwy Palmyra
6. Jynnta Mickelson 33 MAIN ST PALMYRA VA 22963
7. Betty McGehee 630 Courthouse Rd, Palmyra, VA 22963
8. MARY TILMAN P.O. Box 238 - 15686 James Madison Hwy Palmyra VA 22963
9. Vicki Wilson 2704 Lake Monticello Rd -
10. Molly Suling PO BOX 153 219 MAIN ST Palmyra VA 22963
11. Overton McGehee 924 Courthouse Rd. Palmyra Va. 22963
12. _____
13. _____
14. _____

ZMP 12:02 (Walker's Ridge PUD Rezoning)

January 9, 2013 Neighborhood meeting notes:

- What will be the average square footage of the housing units and how will water and sewer be handled?
-Sq. Ft. will vary from 1,200-2,000
-Water and sewer will be handled on-site

-Will water wells be drilled?
-Yes. Well will be drilled, the water won't be coming from the Rivanna.

-Strong concern about drilling all of the on-site water wells that will be required and possibly draining the Rivanna River.

-Concern how there can be this many units without public water and sewer.

-What would prevent all of the units from becoming rental units?

-Why do you expect new business to survive when they're empty buildings and businesses already in Fluvanna?

-Why would the county want more residential development before we have new businesses?

-What kind of parking or number of parking spaces will be required for this development?
-There was concern that this PUD is being designed under regulations that don't necessarily protect the county citizenry. Maybe the PUD ordinance needs to be revised

-There was concern on what type of impact this development will have on Camp Friendship.

-Will there be proffers or restrictions that govern the number of units?

Marvin F. Moss
PO Box 394
Palmyra, VA 22963
mmoss8@centurylink.net

WALKERS RIDGE – LOTS OF GOOD REASONS TO OPPOSE THIS 1,200 UNIT DEVELOPMENT LOCATED ON ROUTE 15 JUST NORTH OF PALMYRA

A northern Virginia developer has proposed Fluvanna County's first Planned Unit Development (PUD) to be located on 230 acres purchased from Camp Friendship some years ago. This project would be, if approved as submitted, the largest development ever approved under Fluvanna's zoning laws (Lake Monticello predates zoning in Fluvanna). It would include almost 1,200 housing units as well as substantial commercial development.

I believe this proposal is a planning disaster which would increase the real estate and other taxes of Fluvanna residents for many years to come. The fiscal and environmental impact of such a large development in the center of Fluvanna County would be significant and enduring. I therefore ask the public to become involved with the Fluvanna Planning Commission and with our elected officials on the Board of Supervisors, who will have the ultimate say on whether the project is approved. **It should be defeated in its present form.**

A Bit of History

This site has a long history of special use permits and changes after it was sold by Camp Friendship. A special use permit (SUP 95:13) was approved for this site on January 17, 1996 to allow for the golf course. A special exception permit (SEP 91:05) was approved on October 16, 1991 to allow for a hotel/conference center on Tax Map 19, Section A, Parcels 39 & 39A and the final site plan (SDP 06:11) for the resort and conference center was approved on July 25, 2008. SUB 06:96 was approved on April 14, 2008 which subdivided the 10 acre parcel (19-A-39C) off of Tax Map 19, Section A, Parcel 39.

Finally in 2009, the owners requested that 230.56 acres be rezoned from A-1 agriculture to R-3 planned residential. I was serving on the Board of Supervisors at the time and found the initial request for over 400 housing units to be excessive. I played a role in getting the number of units reduced to 254 residential units in five separate areas (a density of 1.16 units per acre). Each residential area would consist of either duplexes, villas, or two-story flats as described in the preliminary master plan. The commercial area, as required in the R-3 zoning district, is also shown on the master plan. Three (3) commercial buildings are proposed, with a total square footage of 75,000 square feet. An

outdoor plaza area is also included in the commercial area. With my support the BOS approved this rezoning on May 20, 2009 by a unanimous vote.

I supported this zoning change simply because I felt that, absent a project of this kind, a denser form of development might be proposed for the site. That is precisely what has now happened. But the current zoning of this land allows for only 254 residential units and 75,000 square feet of commercial space – a far cry from what is now proposed.

Reasons for Opposing the Rezoning Request

I believe that there are many valid reasons for opposing Walkers Ridge as proposed. These include:

- **Fiscal:** The tax consequences of 1,200 units of new housing in an inappropriate location are astronomical. If you want to see your real estate and personal property taxes shoot up, then this project is your cup of tea.
- **Planning:** This rezoning request constitutes the epitome of bad community planning. It places over one thousand new housing units in an area where there are few jobs. It will require over 2,000 new Fluvanna residents to commute to our neighboring urban areas for jobs – a waste of fuel and an incredible increase of traffic on Route 15.
- **Environment:** This, the largest housing project ever proposed under Fluvanna's zoning laws, would provide water to 1,200 new housing units through the use of wells in an area of Fluvanna where the availability of ground water is not known. If we don't know how much ground water we have, it should be treated as a scarce commodity. Each unit in Walkers Ridge would have its own sewage treatment package plant. These alternative treatment plants are new technology and require extensive maintenance plans and inspections. Some Virginia jurisdictions had banned their use entirely until the General Assembly made that impossible. The Rivanna River is listed in every citizen survey as Fluvanna's most important natural resource. It would be severely threatened by such a massive development on the bluffs above the river.
- **Education:** With 1,200 new housing units each having an average of 1.2 children, we would be facing the potential of educating over 1,400 new students in a very short period of time. Just the cost of buying new school buses to transport these youngsters to our schools would be approximately $1.2 million. The county would again be faced with re-evaluating its school construction plans. In a year when we may be closing two elementary schools, it seems unwise to approve a development which could make such planning and action irrelevant.

A Plan of Action There are ample opportunities for Fluvanna's citizens to make their views known on Walkers Ridge. The developer will be making his presentation on the project at the ***February 27*** Planning Commission meeting. There will be no opportunity for the public to speak on it at that meeting; however, it will be an excellent way to learn the details as outlined by the developer. The most important opportunity will be at the Planning Commission's ***March 27*** meeting at which the public may speak. It is anticipated that a vote on the project could occur at that meeting.

Both Planning Commission meetings will commence at 7pm and are held in the Circuit Court room at the county courts building in Palmyra – the same location as the Board of Supervisors meetings.

RIVANNA CONSERVATION SOCIETY

Mailing Address
P.O. Box 1501
Charlottesville, VA 22902
434 97-RIVER
rcs@rivannariver.org

Physical Address
108 5th Street SE
Suite 206
Charlottesville, VA 22902

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Steven M. Nichols
Fluvanna County Administrator
County of Fluvanna
132 Main Street
PO Box 540
Palmyra, VA 22963

March 25, 2013

Dear Administrator Nichols,

On behalf of the Rivanna Conservation Society (RCS) I write to express out deep concern about the development being proposed near Camp Friendship and the Rivanna Golf Club.

RCS is opposed to this development, as currently proposed, because;

1) The Fluvanna County's sewage treatment facility's permit does not currently allow for the volume of waste water envisioned. A single well-maintained sewage treatment system for Palmyra is far preferable to multiple uncoordinated sewage networks operating in the same general area near the Rivanna.

2) Large drain fields or a private sewage treatment plant this close (and upstream) to public river access and swimming beaches is a potentially serious public health concern.

3) If Palmyra's is to grow as a "Community Development Area," as conceived in the Fluvanna Comprehensive Plan, then the necessary supporting infrastructure should be developed in a coherent and orderly manner. This especially applies to water supply, sewage treatment, and stormwater management infrastructures, any of which could cause severe damage to the Rivanna and other public environmental assets if not properly designed, built, and maintained.

4) There is currently no water utility to provide for the potable water needs of the proposed development. Deep wells may not provide a sustainable water supply and could alter the current hydrology of the area to the detriment of Camp Friendship and other existing residential wells, farms, and wildlife.

RCS has been a long-time advocate for the general growth management principles espoused by the Comprehensive Plan. We believe, however, that the scale of this development is much too large for Palmyra at this time.

Development at this scale should be directed elsewhere in Fluvanna's designated growth area (the Urban Development Area (UDA) sections), where the necessary infrastructures are in place or in the works and then only after County officials have demonstrated the commitment and capacity to manage major new development for minimal environmental damage.

This development is a bad idea and should not be approved.

Sincerely,

John K. Brown

Jack Brown, Board Chair

COUNTY OF FLUVANNA

"Responsive & Responsible Government"

P.O. Box 540
Palmyra, VA 22963
(434) 591-1910
FAX (434) 591-1911
www.co.fluvanna.va.us

March 8, 2013

Justin Shimp
Shimp Engineering, P.C.
201 E. Main Street: Suite M
Charlottesville, VA 22902

Delivered via mail

RE: Technical Review Committee (TRC) Comments
(ZMP 12:02 – Hotel Street Capital, LLC: Walker's Ridge)

Mr. Shimp:

The Technical Review Committee (TRC) had the following comments at their January 10, 2013 meeting regarding ZMP 12:02:

- Virginia Department of Transportation (VDOT)

  -See attached report from VDOT based on the submitted TIA.

- Planning Commission

  -See attached comment sheet.

- Fire Department

  A representative of the Fire Department stated that a fire suppression system will be needed; this system must have access to an adequate water supply. Most multi-family units will need to be equipped with an appropriate sprinkler system.

- Health Department

  -Mr. Rice stated that the revised plan shows that the developer now intends to develop/install both drinking water supply and on-site sewage disposal system, and that plans will have to be submitted to the Virginia Department of Health along with supporting documentation for Department review and approval from the Office of Drinking Water and the Virginia Division of Engineers.

- Central Virginia Electric Cooperative (CVEC)

  A representative of CVEC stated the company controls electric lines that run through the property to Camp Friendship. CVEC will need the applicant to submit the proposed master plan in AutoCAD or a similar electronic format, so that the company can appropriately design the electric system needed to serve the development. CVEC will also need to know the proposed phasing plan, so they can appropriately design their system.

A public hearing regarding this proposal is scheduled for **March 27, 2013** at the Planning Commission's regularly-scheduled meeting (7:00 PM at the Fluvanna County Circuit Courtroom).

Feel free to contact me via email (stugwell@fluvannacounty.org) or by phone at (434) 591-1910 if you have any questions.

Steve Tugwell
Senior Planner

CC: File
Hotel Street Capital, LLC, 31 Garrett Street, Warrenton, VA 20186

Steven Tugwell

From: Rice, Gary (VDH) <Gary.Rice@vdh.virginia.gov>
Sent: Monday, January 14, 2013 1:24 PM
To: Steven Tugwell
Subject: Comments _ last Thursday

ZMP 12:03 – Southern Development

Developer now intends to develop / install both Drinking Water supply and On-site Sewage Disposal system. Plans will have to be submitted to VDH along with supporting documentation for Department review and approval from Office of Drinking Water and the VDH Division of Engineers.

Steven Tugwell

From: Steven Tugwell
Sent: Thursday, February 14, 2013 4:22 PM
To: Wayne Stephens
Cc: Allyson Finchum
Subject: January 2, 2013 PUD plan

Hi Wayne,

Did you want to provide any written comments on the latest PUD rezoning application that I emailed you for the January TRC meeting? I'm trying to get the TRC comment letter together and I wanted to make sure that I included any comments that you may have. I'm also still waiting on VDOT to me provide me with their written comments so that we can use them as attachments in the staff report. I just need to get all of the comments finalized before the staff report is due on or around March 14th.

As you know, they submitted a revised plan on January 2nd – hence the following January 10th TRC meeting. Also, let me know if you would like to sit down and look at the plan- looking at the full-sized copy may be easier than the smaller emailed version.

Thanks!
Steve

Steve Tugwell
Senior Planner
Dept. of Planning & Community Development
Fluvanna County, VA
434-591-1910
stugwell@co.fluvanna.va.us

please conserve, do not print this e-mail unless necessary

Steven Tugwell

From: Mike-Kathy Brent <mkbrent7@gmail.com>
Sent: Tuesday, February 19, 2013 10:34 AM
To: Steven Tugwell
Subject: Re: TRC comments

Steve
I have no comments on the Jan. 10th meeting. The only comment for the Feb. 14th meeting is that we request a defensible space around the mulch pile for fire apparatus and/or personnel to protect a mulch fire from structures, adjacent properties, ect. That space should be a minimum of 25'.

Thanks
Mike

On Fri, Feb 15, 2013 at 1:45 PM, Steven Tugwell <stugwell@fluvannacounty.org> wrote:

Hi Mike,

Can you please email your comments from the January 10th TRC meeting, and yesterday's meeting? I need them for attachment for the staff report.

January 10th was the PUD rezoning and the proffer amendment. Yesterday was the landscaping business SUP.

Thanks!

Steve

Steve Tugwell

Senior Planner

Dept. of Planning & Community Development

Fluvanna County, VA

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Memo

TO: Steven Tugwell, Planning Department

FROM: Wayne Stephens, Public Works Department

DATE: September 11, 2012

RE: **INTERNAL MEMO** – Walker's Ridge Rezoning Application – Comments from Public Works Department

Cc: Allyson Finchum, Robert Popowicz

Steve,

Following are my preliminary comments and analysis for the Rezoning associated with the proposed Walker's Ridge Project. Please note that I have limited my comments to issues surrounding the availability and provision of water and sewer services for the proposed project I am still much less than 100% familiar with Fluvanna's Ordinances and Policies related to requirements for provision of public utilities to new subdivisions. I will, therefore, leave recommendations/decisions regarding the effects of my comments on the approvability of the application in your capable hands. Please let me know if you have any questions or concerns about my comments and/or the water and sewer capacity analysis I used to develop them:

1) Based on preliminary computations of drinking water and sanitary sewer services needed for the proposed Walker's Ridge project (plans dated 07/01/2012), it appears that at completion the project will exert an average daily demand of approximately 182,400 gallons per day (gpd) for drinking water supply and 182,400 gpd for sanitary sewer service. Additionally, there will be a need for about 121,600 gallons of drinking water storage capacity. Fire flow requirements will likely increase the water storage needed to approximately 175,000 gallons

2) There are currently no public water or sewer systems in the Palmyra area which can supply these estimated demands.

3) The Palmyra Area Wastewater Treatment Plant (WWTP) currently operates under a Virginia Pollutant Discharge Elimination System (VPDES) Permit which allows it to discharge average flows of 39,900 gallons.

4) Since school has gone in session and the new High School has opened, average daily flows at the Palmyra Area WWTP have increased to nearly 50% of the plant's permitted amount. While insufficient data currently exist to determine whether this is representative of the

permanent flows to be expected from the new school, it is in the best interests of the County to assume that the plant has excess capacity of no more than 20,000 gpd at this time.

5) Based on a 300 gpd assumed flow per unit, 20,000 gpd can meet the daily demand requirements of approximately 67 single family homes.

6) The VPDES Permit for the Palmyra Area WWTP is tiered so as to allow the possibility of expansion to flows as high as 150,000 gpd. However, the TMDL Standards adopted by DEQ in recent years will require a nutrient allocation for both Total Nitrogen and Phosphorous in order for the plant to be expanded beyond its current 39,900 gpd permitted flow. The plant does not have such an allocation at this time, and it is unlikely that one may be obtained. The current allocations were 'locked in' by DEQ on December 31, 2010. Possible options for obtaining Nitrogen and Phosphorous allocations for an upgrade of the Palmyra Area WWTP include finding an alternative means of disposal for treated wastewater from the facility, purchase of an existing nutrient allocation from another municipality within the James River basin or the permanent transfer of 'nutrient loadings' to the Palmyra facility via construction and maintenance of off-site facilities designed to reduce non-point-source release of nutrients from farmed land and/or possibly other developed properties. Each of these alternatives has various drawbacks, the most prominent among all of them being significant additional cost for the development of additional capacity at the Palmyra Area WWTP. Finally, as can be seen on the attached estimate of water and sewer requirements, the needs of this proposed development will almost certainly outstrip the capacity of the Palmyra Area WWTP even at its highest current tier.

7) The developer proposes to utilize the gravity sewer line recently constructed for the new High School (and other uses in the vicinity of Pleasant Grove) to convey sewage from the proposed Walker's Ridge project to the Palmyra Area WWTP. It is not known whether the capacity of that line is sufficient for the flows which will be generated by a project of that size. The developer should provide engineering calculations to show that the line will have the necessary capacity to serve the proposed project.

8) I am currently unaware of any drinking water system (public or otherwise) in the Palmyra area which has the source, storage and fire flow capacity necessary to support a project the size of the Walker's Ridge as it is proposed. Furthermore, there are no plans for the immediate future (5-10+ years) for a public water supply which could meet these demands, although the County's short-, medium- and long-range water plans are currently being developed. If it is anticipated that one or more projects the size of Walker's Ridge will be approved in the vicinity of Palmyra, then it will be important to include contingencies for such development in our water and sewer master planning.

Estimated Water and Sewer Capacity Required for Proposed Walker's Ridge Project

Block (from Plan)	Proposed Use	Type	Number of Structures	Estimated Meter Size	EMU Multiple	Estimated EMUs
A1	Bank w/Drive Thru	C	1	Full 3/4"	1.5	1.5
	Commercial Retail Pad	C	4	Full 3/4"	1.5	6
	Residential Condominium Bldg (+/- 25 Units)	R	2	1-12"	5	10
A2	Convenience Store w/Gas	C	1	Full 3/4"	1.5	1.5
	Restaurant w/Drive Thru	C	1	1"	2.5	2.5
	Commercial Pad Site	C	1	Full 3/4"	1.5	1.5
	Residential Condominium Bldg (+/- 25 Units)	R	2	1-12"	5	10
A3	2-Story Commercial Retail/Office	C	1	1"	2.5	2.5
	Residential Condominium Bldg (+/- 25 Units)	R	4	1-12"	5	20
B1	Residential Condominium Bldg (+/- 30 Units)	R	5	2"	8	40
B2	Single Family Detached House	R	29	5/8"x3/4"	1	29
B3	Single Family Detached House	R	7	5/8"x3/4"	1	7
	Townhouse	R	26	5/8"x3/4"	1	26
B4	Residential Condominium Bldg (+/- 25 Units)	R	1	1-12"	5	5
C1	Residential Condominium Bldg (+/- 30 Units)	R	3	2"	8	24
C2	Residential Condominium Bldg (+/- 25 Units)	R	2	1-12"	5	10
	Single Family Detached House	R	15	5/8"x3/4"	1	15
	Townhouses	R	46	5/8"x3/4"	1	46
C3	Residential Condominium Bldg (+/- 30 Units)	R	5	2"	8	40
	Community Building	C	1	1"	2.5	2.5
D1	Residential Condominium Bldg (+/- 30 Units)	R	4	2"	8	32
D2	Residential Condominium Bldg (+/- 30 Units)	R	6	2"	8	48
D3	Single Family Detached House	R	18	5/8"x3/4"	1	18
	Townhouses	R	42	5/8"x3/4"	1	42
D4	Single Family Detached Houses	R	20	5/8"x3/4"	1	20
	Townhouse	R	24	5/8"x3/4"	1	24
D5	Single Family Detached House	R	23	5/8"x3/4"	1	23
	Townhouse	R	34	5/8"x3/4"	1	34
E1	Single Family Detached House	R	38	5/8"x3/4"	1	38
E2	Single Family Detached House	R	17	5/8"x3/4"	1	17
	Townhouse	R	12	5/8"x3/4"	1	12
					Total Estimated EMUs Needed =	**608**

Estimated Water System Capacity Needed =	**182,400**	**Gallons per Day**
Estimated Water Storage Needed (exclusive of Fire Flow) =	**121,600**	**Gallons**
Estimated Sewage Treatment Capacity Needed =	**182,400**	**Gallons per Day**

NOTES:

1) This estimate of required water and sewer capacity is preliminary, and should be used as such until more is known about the actual uses for the individual buildings and facilities proposed at Walker's Ridge.

2) While there is no 'industry standard' description for a 'unit' of water or sewer capacity, terms such as Equivalent Meter Unit (EMU), Equivalent Residential Connection (ERC), Equivalent Residential Unit (ERU), etc. are often adopted/used by water and sewer service providers to describe the amount of system capacity (water and/or sewer) required to serve a typical residential dwelling. For this analysis, I have used the term Equivalent Meter Unit (EMU).

3) For design purposes, the VDH and DEQ require an assumption of 400 gpd for a typical residential dwelling (EMU) for water usage and sewer discharge, respectively, unless data is available to justify a lower amount. In actual practice, this value has proven to be quite conservative and it is typical for municipalities and water/sewer utility providers to adopt a lower value to 'define' an EMU for planning and design purposes. For the required capacity estimates in this analysis I have used 300 gpd per EMU for both water and sewer.

4) In this analysis, I have used the procedures outlined in AWWA Manual M-22 for determining estimated water and sewer usage, and meter sizes, for proposed uses other than typical residential homes. Basically, the procedure involves the use of a plumbing fixture count and computation of a maximum probable demand to set a meter size for each proposed building. The number of EMUs assigned to each building are based on the computed meter size, with each successively larger meter assigned a multiple of the standard 5/8" x 3/4" meter used for a typical residential dwelling (1 EMU). Lacking exact fixture counts, I have estimated required meter sizes based on my past experience performing fixture counts for various types of buildings and uses.

5) Virginia Waterworks Regulations require 200 gallons of storage capacity per EMU.

- *Location of Alleys:* Alleys should be shown in the appropriate areas, as described by the applicant's representatives at a meeting on January 8, 2013 (e.g. within Block E-2).
- *Maximum Commercial Square Footage:* Note 3 under General Notes (Sheet 5) states that there is no maximum commercial square footage. Sec. 22-14-2iii states that the PUD master plan layout describe "all proposed land uses within the PUD district, including the general location of uses, types of uses, mix of uses, lot types, density range of uses, and floor area ratio ranges." In my opinion, stating that there is no maximum square footage for commercial uses does not adequate describe the density range of uses or the floor-area ratio ranges.
- *Affordable Housing*: Paragraph 3 under Code of Development: Development Narrative (Sheet #3) states that "the Applicant will proffer provisions for affordable housing." No proffers for affordable housing have been received from the applicant. This discrepancy should be explained by the applicant. Proffers have not been submitted in conjunction with this application for rezoning. **Please provide proffers for this project if you plan on doing so.**
- *Phasing*: The Phasing Plan Overview (Sheet #11) shows that only Blocks D-3, D-4, D-5, E-1, and E-2 are included within Phase I. At a meeting on January 8, 2013, the applicant's representatives stated that Block A-1 is intended to be included in Phase I; the Phasing Plan Overview shows that this block is located in Phase III. This discrepancy should be explained by the applicant.
- *Uses Defined:* The uses defined in the *Table of Uses by Block* (Sheet #6) do not match the uses defined within the zoning ordinance. To ensure the plan's enforceability, the terms within the plan of development should match the terms and definitions within the zoning ordinance. For example, health spas and community farms are not defined uses within the zoning ordinance.
- *Home Occupations*: Within the *Table of Uses by Block* (Sheet #6), home occupations are described as a use only allowed by special use permit. Home occupations are permitted by-right with the A-1, R-1, R-2, R-3, and R-4 zoning district; they do not require a special use permit in any district. Requiring home occupations to obtain a special use permit within the PUD violates Sec. 22-14-5, since they do not require a special use permit within the residential zoning districts, and are not permitted at all within business zoning districts.
- *Major Utilities*: A water treatment facility and sewage pump station are shown on the plan, but are not described within the *Table of Uses by Block* (Sheet #6). These uses are described as *major utilities* within the zoning ordinance. Major utilities are defined as "facilities for the distribution, collection, treatment, production, transmission and generation of public, private and central utilities, including, but not limited to, transmission lines, production plants, electrical substations, pumping stations, treatment facilities, and communication facilities." Major utilities require a special use permit within all residential and business zoning districts; therefore, they require a special use permit within any PUD zoning district. Major utilities should be added as a use allowed by special use permit within the *Table of Uses by Block,* since those facilities are shown on the master plan.
- On sheet 6 of 12 under "Roof pitch and design", the last sentence says *"Garage doors should be decorative and screened with landscaping and trim from adjacent streets".* Please clarify what this means.

- The Proposed Development Key on the General Development Plan Overview does not match what is shown on the development plan. For example, the uses described within Blocks A-1, A-2, A-3 and C-2 do not match what is on the current plan. Block B-4 is not shown on the Proposed Development Key.
- Water and Sewer Notes: There is a typo in Note 1 ("while" should be "will"). Note 1 states that the existing wastewater treatment facility is able to accommodate the proposed development when expanded; no verification of this has been submitted.
- Yard Regulations on Block Plan: The plan says that "the minimum side or rear yard adjoining any residential use outside of the PUD shall be 30 feet." This is inconsistent with the PUD guidelines; Sec. 22-14-9(2) states that "lots at the perimeter of the PUD district shall conform to the setback requirements of the adjoining district, or to the setback requirements of the planned district, whichever is greater." Most adjoining properties are zoned A-1, with a rear setback of 75' and a side setback of 50'.
- Building Heights on Block Plan: The plan states that the maximum height for commercial buildings is 50' and the maximum height for residential buildings is 60'. This is inconsistent with the PUD guidelines; Sec. 22-14-12 states that the maximum height for single-family residential, multi-family residential, and business/non-residential structures within the Palmyra Community Planning Area is 45'.
- General Notes on Block Plan: Under General Notes on the Block Plan, Note #2 states that maximum proposed residential density is 1514 units, while the Proposed Block Development Summary on the same page shows 1,254 residential units. Note #3 states that there is no maximum commercial square footage, while the Proposed Block Development Summary shows 151,000 square feet.
- Development Narrative on Code of Development:
    - The maximum number of residential units and commercial space listed in paragraph 3 does not match what is shown on the current plan. 1,514 – 1,254?
    - The narrative for Block C needs to be updated to reflect the fact that Block C-2 now includes single-family homes (attached and detached).
    - The narrative for Block D needs to be updated to reflect the fact the Blocks, D-3, D-4, and D-5 now include single-family homes (attached and detached).
    - Within the narrative for Block E, "D-2" should be "E-2."
    - There are some inconsistencies between the Architectural/Landscape Standards described in the Code of Development and the Draft Architectural Guidelines dated June 29, 2012:
        - The Code of Development states that the minimum roof pitch shall be 6:12, except for flat roof sections; Sec. 3.2.2.7, 3.2.3.4, 3.3.2.5, 3.3.3.4, 3.3.4.5 of the Architectural Guidelines states that the minimum roof slope is 5:12.
        - The Code of Development states that vinyl siding shall not be permitted on the first or second floor exteriors; masonry, wood, and composites of wood are permitted on facades. Sec. 3.3.6 of the Architectural Guidelines allows the use of vinyl and aluminum siding.
        - The Code of Development states that exposed foundations shall be finished in stone, brick, or stucco. Sec. 3.3.6 allows the construction of painted concrete foundations with simulated brick face.
- There are some inconsistencies between the Table of Permitted Uses by Block and what is shown on the development plan:

- The table states that single-family attached dwellings, single-family detached dwellings, and townhouses are not permitted in Blocks C and D, but they are shown on the development plan within those areas.
- The table states that no commercial uses are permitted by-right within Block B, although office buildings are shown and the Proposed Block Development Summary shows 20,000 square feet of commercial space within Block B-4.
- The table states that no commercial uses are permitted by-right within Block C, although the Proposed Block Development Summary shows 12,000 square feet of commercial space within Block C-3.
- Gas stations are not listed as a permitted use in any district although one is shown on the development plan and described in the proposed development key; according to Sec. 22-14-5, uses not specified within the PUD Application package are not permitted. Per Article 22 of the Zoning Ordinance, "any use associated with automobile fuel sales shall be considered a gas station."
- Drive-thru windows are shown are requiring a special use permit in Block A, although two uses (bank and restaurant) are shown and described within the proposed development key as having drive-thru windows.
- Eating establishments are not listed as a permitted use within the R-1, R-2, R-3, R-4, B-1, B-C or I-1 zoning districts, although it is listed within the table of uses by block (Sec. 22-14-4 states that all uses permitted by-right in those districts may be permitted within the PUD). Restaurant, general; Restaurant; small; and Restaurant, fast food is the terminology used. All of those uses are permitted by-right within the B-1 and B-C zoning districts.

- **There appears to be a substantial amount of parking spaces in E-1, A-1, A-3, and A-4 that is exposed to Route 15. Staff recommends a landscaped berm to screen the paved parking areas from Route 15.**

urban ← COMMUNITY ELEMENT MATRIX → rural



Regional Mixed Use	Regional Employment	Neighborhood Mixed Use	Neighborhood Residential	Village	Rural Cluster	Rural Preservation
Street Types						
Commercial street Main street Neighborhood street	Commercial street Main street Neighborhood street	Commercial street Main street Neighborhood street	Neighborhood street	Commercial street Neighborhood street Rural road	Neighborhood street Rural road	Rural road
Block Size						
400–800 ft.	400–800 ft.	300–600 ft	200–600 ft.	200–600 ft.	200 ft.–varies	Varies
Building Height						
2–6 stories	2–6 stories	2–4 stories	1–3 stories	1–3 stories	1–2 stories	1–2 stories
Frontage						
Commercial storefront	Commercial storefront	Storefront Porch	Storefront Porch Residential yard	Storefront Porch Residential yard	Porch Residential yard	Porch Residential yard Open space
Parking						
Structured On-street Surface	On-street Surface	On-street Surface Residential	On-street Surface Residential	On-street Surface Residential	Residential	Residential Unstructured
Mix of Uses						
Large commercial (25–40%) Storefront retail (25–40%) Civic (10–25%) Office (10–25%) Restaurant (10–25%) Multifamily residential (5-20%)	Office (25–75%) Health/medical (10–25%) Light industrial (10–25%) Storefront retail (5–20%) Multifamily residential (5–20%)	Storefront retail (25–75%) Civic (10–25%) Office (10–25%) Restaurant (10–25%) Multifamily residential (10–35%) Single-family residential (5–20%)	Single-family residential (25–75%) Multifamily residential (25–50%) Limited retail (10–25%)	Storefront retail (10–25%) Civic (10–25%) Office (10–25%) Restaurant (5–20%) Multifamily residential (25–50%) Single-family residential (25–75%)	Single-family residential (50–100%) Multifamily residential (25–50%) Limited retail (10–25%)	Single-family residential (10%) Country stores (5%)
Density						
Commercial FAR: 2.0 Residential DUA: 10–15	Commercial FAR: 2.0 Residential DUA: 10–15	Commercial FAR: 1.0 Residential DUA: 8–10	Commercial FAR: 0.5 Residential DUA: 4–8	Commercial FAR: 0.75 Residential DUA: 4–6	Commercial FAR: 0.5 Residential DUA: 2–6 (net)	Commercial FAR: 0.1 Residential DUA: 0.5–0.1
Open Space						
Town square Pocket park	Pocket park	Town square Pocket park Neighborhood park	Neighborhood park Recreational park	Neighborhood park Recreational park Passive open space	Neighborhood park Recreational park Passive open space	Recreational park Agriculture and forest land Passive open space

Figure LU-21, Community Element Matrix

Palmyra Community Plan

Overview

Palmyra serves as the centrally located county seat and governmental center. The village proper has abundant natural and social resources that together form a vibrant village atmosphere. These assets include the historic courthouse and Old Stone Jail as well as the Main Street residences and businesses, the county administrative offices and courthouse, and the businesses that front Route 15 and Route 53.

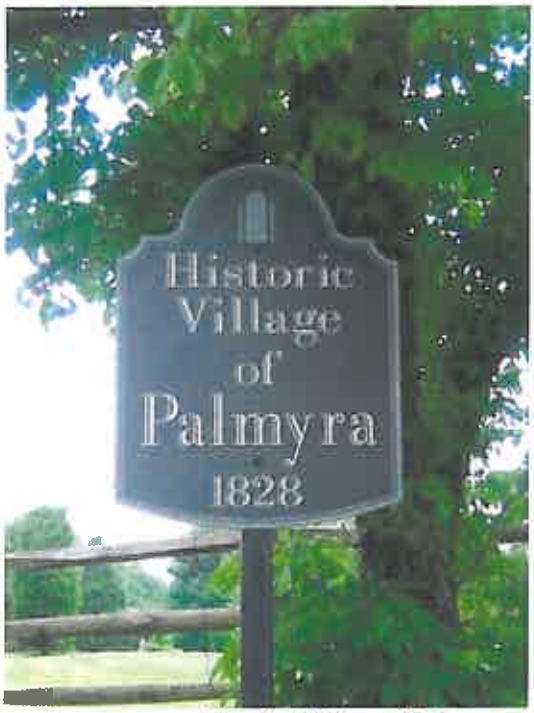


Figure CD-13, Sign for Village of Palmyra

Growth in the Palmyra area should occur at a village scale, with economic and residential development complementing the existing conditions and fostering street life. Existing and new development must be served by a safe, efficient, multimodal transportation system that respects pedestrians, bicyclists, and motorists. Finally, new development and improvements to the transportation system should not compromise the underlying natural and social fabric unique to Palmyra and Fluvanna County.

Development in the immediate area of the village of Palmyra should reflect the unique village style of development that currently exists. The area to the immediate south and southwest of the village should develop as a neighborhood mixed-use area.



Figure CD-14, Old Stone Jail

Existing assets within the community should be properly integrated with new development in order to promote a cohesive, well-planned community. New housing should be allowed that complements existing historic resources and provides an expanded population base for local businesses. Economic development is appropriate in this area, and opportunities for tourism, including commercial uses that complement the historic aspects of Palmyra and its government center, should be promoted.

The recommendations of the Palmyra Community Plan aim to fulfill the following goals:

- To enhance and maintain the village-scale atmosphere of Palmyra.
- To improve the safety, efficiency, and diversity of the transportation system.
- To protect the social and environmental resources of the area.

Recommendations

Enhance village character.

- Encourage active use of Confederate Park by improving access to the park.
- Improve the streetscape by burying utility lines, completing the sidewalk network through the existing village, installing streetlamps, and constructing a centrally located town clock.
- Install a gateway median and welcome signs on Route 15.

Guide village-scaled development.

- Develop guidelines to foster village-scaled developments that include a mix of building types, commercial uses, local jobs, increased retail options such as shopping, cafés and restaurants, and affordable housing.
- Seek out commercial uses that complement historic features and integrate new development with existing assets.
- Explore expansion of the historic district to include the area south of Stoneleigh Road and east of Route 15.



Figure CD-15, Historic Courthouse

- Provide sewer and water service to existing and new village areas to make desired compact form possible.

Improve the safety and efficiency of the transportation system.

- Coordinate short- and long-term transportation recommendations with the forthcoming Northwest Fluvanna / Southwest Louisa Corridor Study.
- Increase transportation choices by improving bus service, increasing participation in RideShare, and developing visible and accessible park-and-ride locations.
- Implement a coordinated plan to improve safety on Route 15 that includes roundabouts or other safety and capacity improvements, a median island, and curb and gutter enhancements for access management.
- Create short- and long-term solutions to improve connectivity to Pleasant Grove.
- Enhance the pedestrian network by improving access and coordinating pedestrian improvements with streetscape enhancements and traffic-calming measures.

- Ensure that pedestrian and bicycle facilities on Route 15 mirror those on the new Route 15 bridge.
- Explore the long-term option of constructing a pedestrian/bicycle bridge over the Rivanna River as part of a larger network of trails in the surrounding area.

Protect social and environmental resources.

- Consider alternative uses for the Palmyra School, including reinstating the facility as a community school or site for after-school programs.
- Encourage development that fosters social interaction and takes advantage of the natural beauty of the area.
- Actively preserve open space and the rural character of the area by clustering new development on a village scale, partnering with local and regional agencies, and analyzing the size of the Palmyra community planning area.
- Support the county's efforts to develop a stormwater management ordinance and a dark-sky ordinance.

Implementation

The implementation strategies that follow are presented in three general time frames—immediate, short-term, and long-term. Priority for individual projects is not implied in this list and should be considered in the context of funding availability. Designation as short-term or long-term is not meant to be a final categorization, nor is it tied to a specific time period.



Figure CD-16, Palmyra Community Study Area

Immediate

- Form a steering committee (completed).
- In addition to assisting with implementing the Palmyra Community Plan, the steering committee will assist the county with the Comprehensive Plan update.
- Combine pedestrian and pavement improvements with sewer work.
- Funnel any available construction or safety funds to improvements on Route 15 to alleviate potential increases in speed due to new geometry (concurrent with construction of new Route 15 bridge).

Short-Term

- Draft village development guidelines.
- Construct roundabout tied to new bridge alignment.
- Apply TEA grant money to expansion of rail trail and construction of parks.
- Expand water and sewer service beyond the government district.
- Develop interim connections to Pleasant Grove.

Walker's Ridge Planning Implications:

1. Comprehensive Plan
    a. Spot Zoning (Comp Plan, page 36)
        i. *Reclassifying of one or more tracts of land primarily for the private interests of one or more landowners instead of furthering the welfare of the entire community as part of an overall zoning plan. There must be valid reasons for any zoning amendment that are substantially related to the public welfare and necessity. It is not sufficient that an applicant merely show that there is no neighborhood objection to the requested amendment. Three questions may be asked as a litmus test for spot zoning:*
            1. *Is the proposed change contrary to the established land-use pattern?*
            2. *Is the proposed land-use change in conformance with the Comprehensive Plan?*
            3. *Would the proposal create an isolated zoning district unrelated to similar districts?*
        ii. Applications that do not address a project's external costs to the community and provide a clear fiscal benefit to the county will not be favorably received.
    b. Palmyra Community Planning Area – appropriate land use designations (Comp Plan, page 62)
        i. Neighborhood mixed use
        ii. Neighborhood residential
        iii. Village (Comp Plan page 79):
            1. *Growth in the Palmyra area should occur at a village scale, with economic and residential development complementing the existing conditions and fostering street life. Existing and new development must be served by a safe, efficient, multimodal transportation system that respects pedestrians, bicyclists, and motorists. Finally, new development and improvements to the transportation system should not compromise the underlying natural and social fabric unique to Palmyra and Fluvanna County.*
    c. Fiscal Impact Modeling (Comp Plan page 64)
        i. *Employ fiscal impact modeling and studies to evaluate future land-use changes prior to rezoning approvals. Appropriate planning/phasing of development to match the service/infrastructure availability and capacity should also be established.*
    d. *Promote infill development in existing communities* (Comp Plan page 64).
    e. *Improve the safety and efficiency of the transportation system* (Comp Plan page 80).
        i. *Implement a coordinated plan to improve safety on Route 15 that includes roundabouts or other safety and capacity improvement, a median island, and curb and gutter enhancements for access management.*
        ii. *Enhance the pedestrian network by improving access and coordinating pedestrian improvements with streetscape enhancements and traffic-calming measures.*
    f. Housing
        i. *The county actively encourages developments to include affordable housing within the context of a healthy, vibrant community that has a wide variety of*

housing available to high, medium, and lower income levels (Comp Plan page 195).

1. *Encourage proffers that achieve a target of 20 percent affordable units for developments with residential housing* (Comp Plan page 204).

ii. *Any rezoning application should be viewed as an opportunity to create some affordable housing (e.g., 15-20 percent of the units in the project)* (Comp Plan page 203).

iii. *Approve well-planned, holistic developments within growth areas and near supporting infrastructure such as schools, utilities, emergency services, parks, and natural areas in order to create balanced communities, maximize land use, and minimize negative environmental impacts* (Comp Plan page 203).

2. Zoning Ordinance
   a. Currently R-3 (Zoning Ordinance pages 293 - 294)
      i. *Intended to permit compact village-style residential development and associated institutional uses, community serving mixed uses, open spaces, and creative design in accordance with a master plan. The development should occur in a manner that will protect and preserve the natural resources, trees, watersheds, contours and topographic features of the land; and to protect and enhance the natural scenic beauty of the area and support. The scale of the housing and the commercial use should be appropriate to support the residential needs at a neighborhood scale.*
         1. *The location of the open areas which shall comprise not less than 25 percent of the whole. The open areas shall include parks, recreation facilities, residential clubhouse grounds, lakes trails, and land or water left in undisturbed natural condition and unoccupied by building lots, structures, streets and roads and parking lots. This area may be used for active recreation facilities identified in Section 22-7-12. The open areas of the tract shall be delineated dude to their noteworthy features and value to the continued rural character of the county, including, but not limited to, lands with high scenic, open space and water quality protection values including riparian corridors and wildlife habitat; high environmental sensitivity such as steep slopes, wetlands, floodplains; high recreational value and/or having noteworthy historical, archaeological or cultural features.*
   b. Seeking PUD (Planned Unit Development) Rezone (Zoning Ordinance page 327)
      i. *PUDs are intended to promote the efficient use of land by allowing flexibility in design standards and variety in densities and land uses to preserve the rural areas of the county. Development of such districts shall be in accordance with an approved PUD Application Package which should provide a variety and range of uses and densities in designated areas of the site.*

PUDs should be located within the designated growth areas of the county as set forth in the comprehensive plan, and should implements the goals of each Community Planning Area. PUDs should provide unified development that incorporates new urbanism and traditional neighborhood development principles, which includes a mix of residential and commercial uses, and interconnected

system of internal roads, pedestrian sidewalks and walkways and well planned access points along existing roadways. In addition to a mix of residential and commercial uses, planned developments should also provide a mix and variety of housing types.

The PUD District is intended to be applied to privately initiated zoning map amendments for land located within the County's Community Planning Areas (CPAs).

c. Character of Development (Zoning Ordinance pages 333)
    i. *The goal of the PUD district is to allow for and encourage development that incorporates new urbanism principles which includes:*
        1. *Pedestrian orientation*
        2. *Neighborhood friendly streets and paths*
        3. *Interconnected streets and transportation networks*
        4. *Parks, recreation improvements, and open space as amenities*
        5. *Neighborhood centers and civic space*
        6. *Buildings and spaces of appropriate scale*
        7. *Relegated parking*
        8. *Mixture of uses and use types*
        9. *Mixing of housing types and affordability*
        10. *Clear boundaries with any surrounding rural areas*
        11. *Environmentally sensitive design*
        12. *Adequate public facilities and infrastructure*
    ii. *An application is not necessarily required to possess every characteristic of the PUD district as delineated above in order to be approved. The size of the proposed district, its integration with surrounding districts, or other similar factors may prevent the application from possessing every characteristic.*
d. *Uses Permitted By-Right* (Zoning Ordinance Sec. 22-14-4)
    i. *In the PUD district, all uses permitted by-right in the residential (R-1, R-2, R-3, and R-4), business (B-1 and B-C), and limited industrial (I-1) zoning districts may be permitted as enumerated in the final PUD application package. Uses not specified within the PUD application package shall not be permitted.*
e. *Uses Permitted by Special Use Permit* (Zoning Ordinance Sec. 22-14-5)
    i. *One or more of the uses permitted by special use permit in the residential and business zoning districts may be permitted in the PUD district, as enumerated in the final PUD application package, upon issuance of a special use permit by the BOS. Uses not specified within the PUD application package shall not be permitted.*
f. *Minimum Area Required for a PUD* (Zoning Ordinance Sec. 22-14-6)
    i. *PUD districts shall be located on a single parcel of land or separate but contiguous parcels which are, or proposed to be, under common ownership, subject to approval of the rezoning application. The minimum area required for a PUD district shall be:*
        1. *Palmyra Community Planning Area: 5 acres*
    ii. *Additional Land Area may be added to an established PUD district if it is adjacent to and forms a logical addition to the approved development. The procedure for an addition shall be the same as if an original PUD zoning*

amendment application was filed, and the requirements of the article shall apply, except the minimum acreage requirement.

g. *Open Space, Recreation, Parks, and Civic Area* (Zoning Ordinance Sec. 22-14-7)
   i. *In the Community Planning Areas, not less than 30% of the gross area of a PUD district shall be preserved as open space. The required 30% open space may include private common and public open areas; perimeter open space; buffers between various uses, densities and adjacent properties' recreational space, neighborhood parks, civic areas' easement; water bodies and any undisturbed land not occupied by building lots, structures, streets, and parking lots. By way of this section, yards of individual residences shall not be considered open space.*
   ii. *Land designated for future facilities (i.e. schools, fire and rescue stations, places of worship, daycare centers, etc.) shall not be included toward the open space.*
   iii. *Not less than 15% of the total open space shall be provided for active and/or passive recreational activities.*
   iv. *Private common open areas shall be owned, maintained, and operated by a property owner's association. A property owner's association document shall be prepared declaring and specifying the care and maintenance of the common areas. This document shall be reviewed and approved by the Fluvanna County Attorney prior to final approval.*
   v. *Upon request of the Applicant, the Planning Commission, at its sole discretion, may decrease or eliminate certain requirements for open space and recreation land and improvements in a PUD District project, provided that the revised regulations shall be established and conditioned by the PUD Application Package.*

h. *Density* (Zoning Ordinance Sec. 22-14-8)
   i. *The maximum residential base density permitted for individual land uses to be located in the PUD district shall be as follows:*
      1. *Palmyra Community Planning Area* (Dwelling Units per Acre):
         a. *Single Family: 4*
         b. *Townhouses: 6*
         c. *Multifamily: 12*
   ii. *The allowable density for individual uses within the PUD District shall be calculated based on the Net Acreage of the land subject to the PUD zoning amendment application. The calculation of minimum and maximum yield for individual uses shall be based on the application of the minimum and maximum density for each use to an adjusted Net Acreage. The Net Acreage reduces the gross area of the PUD land by the total of the non-qualifying land components within the property. The Net Acreage=Gross Acreage – Non-Qualifying Area (acreage of the sum of the Non-Qualifying land components). The components that comprise the Non-Qualifying areas include:*
      1. *Area of existing dedicated public rights of way and easements*
      2. *Areas depicted on an adopted Official Transportation Map for future public improvements*
      3. *Area of existing land uses and structures, including platted lots, that are intended to remain as a part of the PUD project,*

4. *Areas deemed unbuildable dude to geological, soils, or other environmental deficiencies*
5. *Areas of wetlands and floodplains*
6. *Area of existing ponds, stormwater management facilities, and water features that are not defined as wetlands or floodplain*
7. *Area of terrain with slopes in excess of 30%*

iii. *An increase in the maximum residential density for a PUD district may be permitted in the following instances:*

1. *Open Space – If 50% or more of the gross area of a PUD is preserved as open space, then a 20% increase in density may be permitted. If 75% or more of the gross area of a PUD is preserved as open space, then a 30% increase in density may be permitted.*
2. *Affordable Housing – If between 10% and 15% of the total number of dwelling units within a PUD are reserved for affordable housing, then a 20% increase in density may be permitted. If more than 15% of the total number of dwelling units within a PUD are reserved for affordable housing, then a 30% increase in density may be permitted.*
3. *Open Space and Affordable Housing – Density bonuses may also be permitted with a combination of both open space and affordable housing. The increase in density that may be permitted shall be based on the following combinations of open space and affordable housing:*

Open Space Provided	**Affordable Housing Provided**	**Density Bonus Permitted**
50%	10-15%	35%
50%	+15%	45%
75%	10-15%	40%
75%	+15%	50%

iv. Setbacks (Zoning Ordinance Sec. 22-14-9)

1. *Minimum setbacks and yard regulations for each planned land use within the PUD district shall be specifically enumerated in a table to be included in the PUD Application Package.*
2. *Lots at the perimeter of the PUD district shall conform to the setback requirements of the adjoin district, or to the setback requirements of the planned district, whichever is greater.*

v. *Streets* (Zoning Ordinance Sec. 22-14-10)

1. *Streets within the PUD district may be either public or private, but shall conform to VDOT road design standards. Private subdivision streets shall be permitted in accordance with the provisions of Sec. 19-18-1(c) of this Code.*
2. *Alleys may be allowed within the PUD district provided they conform to either VDOT design standards or as otherwise prescribed in the master plan.*
3. *Sidewalks shall generally be provided on both sides of any streets, public or private, within the PUD district. Sidewalks shall conform to VDOT standards.*

4. *Traffic access and circulation within the PUD district shall be designed to provide safe accommodation of all users of the transportation network including pedestrians and bicyclists. Sidewalks, bicycle lanes and multi-use trails shall be provided where appropriate. Mixed-use areas of the development shall be designed to give priority to pedestrian and bicycling traffic.*
5. *Internal streets within the PUD district shall be permitted to intersect with existing public streets to the extent necessary. Such intersection s shall provide reasonable access and service to uses contained within the development and shall be developed using VDOT principles of access management.*

vi. *Parking* (Zoning Ordinance Sec. 22-14-11)

1. *Off-street parking facilities in mixed-use, business, industrial, and multi-family residential areas shall generally be relegated behind the front building line.*
2. *On-street parking shall be permitted, where appropriate.*
3. *In addition to the regulations included herein, all off-street parking shall be provided in accordance with the off-street parking and loading requirements of Article 22-26 of the zoning ordinance.*

vii. *Height of Buildings* (Zoning Ordinance Sec. 22-14-12)

1. PUD Maximum Heights

Building Types	Palmyra CPA
Single-Family	45 feet
Multi-Family	45 feet
Business, Industrial, and Non-Residential	45 feet

2. *Utilities* (Zoning Ordinance Sec. 22-14-13)
    a. *All uses and structures within a PUD district shall be served by both central water and sewerage systems, whether publicly or privately owned*
    b. *No overhead utility lines shall be permitted within a PUD district. All utility lines, including but not limited to, electric, telephone, cable television lines, etc. shall be placed underground.*
    c. *Telecommunications facilities are encouraged on the roofs of buildings within a PUD district to provide coverage to the district and surrounding area.*
3. *Building Design and Architecture* (Zoning Ordinance Sec. 22-14-14)
    a. *Within the multi-family residential, business, industrial, and mixed-use areas of a PUD district, building design styles shall be compatible with each other and shall exhibit consistency in terms of their exterior materials, architectural style, size, shape, scale, and massing.*
    b. *With the exception of detached single family dwellings, building facades shall maintain a consistent street edge. The street elevation of principal structures shall have at least one street-oriented entrance and contain the principal*

windows of the structure, with the exception of structures in a courtyard style.

c. *Site plans shall include drawings, renderings, or perspectives of a professional quality which illustrate the scale, massing, roof shape, window size, shape and spacing, and exterior materials of the structure.*

4. *Amendment* (Zoning Ordinance Sec. 22-14-15)
   a. *The Planning Director may approve a minor change to an approved PUD Application Package and Application Plan at the written request of the owner of the development. For purposes of this section, a "minor change" refers to changes of location and design of buildings, structures, streets, parking, recreational facilities, open space, landscaping, utilities, or similar details which do not significantly change the character of the approved PUD application package and PUD master plan.*
   b. *If the Planning Director determines that the requested change constitutes a significant change, or something more than a minor change to the approved zoning application package, then the owner may seek an amendment to the PUD Application Package and Application Plan from the BOS. The application procedure for such an amendment shall be the same as the application procedure for the original approval.*
5. Special Use Permits (Zoning Ordinance Sec. 22-17-4)
   a. *When permitted by this chapter, special use permits may be authorized by the governing body upon the governing body's finding that the proposed use will not be detrimental to the character and development of the adjacent area.*
   b. *The governing body may place conditions on the issuance of a special use permit.*
   c. *In the governing body's consideration of a special use permit application, the governing body shall consider the following guidelines:*
      i. *The proposed use shall not tend to change the character and established patter of the area or community in which it proposes to locate.*
      ii. *The proposed use shall be compatible with the uses permitted by right in that zoning district and shall not adversely affect the use and/or value of neighboring property.*

	Comprehensive Plan	Zoning Ordinance	Walker's Ridge
Adverse Impacts p. 36	*Zoning applications . . . should be well planned and integrated with the future vision of that area. Critical items include . . . factors that will mitigate any adverse impacts, and result in a fiscally responsible and value-added development for the community. Applications that do not address a project's external costs to the community and provide a clear fiscal benefit to the county will not be favorably received.*		
Architecture/ Design p. 36, 37, 38 (TND Design Elements) Sec. 22-14-14	Low-maintenance, sturdy, but attractive products should be used as a standard in lieu of more traditional materials such as vinyl or metal siding, low-grade asphalt shingles, or flat tarpaper roofing. State-of-the-art materials are more energy-efficient and require less upkeep. Brick, block, standing seam metal roofing, green roofs, higher-grade asphalt shingles, and other traditional materials are also encouraged. Architectural styles can and should vary widely among developments, *but should remain consistent within a project*. While it is not desirable to regulate specific materials, it is very feasible for a developer to commit to specific material types and styles as part of a project's approval, preferably *in the form of legally binding proffers.*	Within the multi-family residential, business, industrial, and mixed-use areas of a PUD district, building design styles shall be compatible with each other and shall exhibit consistency in terms of their exterior materials, architectural style, size, shape, scale, and massing. The street elevation of principal structures shall have at least one street-oriented entrance and contain the principal windows of the structure, with the exception of structures in a courtyard style.	Proffered design guidelines encourage specific materials, styles, etc. but do not *require* them.
Block Size p. 45 Sec. 22-14-3	200-600 ft Block size should relate to the lot size and density of residences. Higher-density blocks allow for smaller block sizes, where lower-density areas may have larger-scale blocks. Connectivity with adjacent land uses, primarily nearby neighborhoods, is encouraged.	The goal of the PUD district is to allow for and encourage development that incorporates new urbanism principles which include buildings and spaces of appropriate scale . . .	Block sizes vary. Many multifamily blocks exceed 200 feet, and many single family blocks exceed 600 feet.

Building Height/ Setbacks *p. 45* *Sec. 22-14-12*	1-3 Stories The majority of buildings in neighborhood residential areas are residences. As such, buildings have a reduced scale and greater setbacks in comparison to regional centers and neighborhood mixed use. Shorter setbacks are recommended for higher-density residential blocks.	45 ft No minimum setback	All uses 45' max
Connectivity *p. 36, 44* *Sec. 22-14-1*	The careful planning and placement of development has also led to a diverse mixed-use and mixed-income community that emphasizes the affordability of its housing stock *as well as the importance of creating neighborhoods that are connected and interactive with one another, as opposed to separate subdivisions that have no connection with their surroundings.* Connectivity with adjacent land uses, primarily nearby neighborhoods, is encouraged.	PUDs should provide unified development that incorporates new urbanism and TND principles which include . . . an interconnected system of internal roads, pedestrian sidewalks and walkways and well planned access points along existing roadways.	Physically isolated from and non-contiguous to other developments, neighborhoods, and uses – both internal and external
Density *p. 46* *Sec. 22-14-8*	4-8 DUA The neighborhood residential element is primarily composed of single-family residences. Residential development should strive to maintain a reasonable density (e.g. less than quarter-acre lots), freeing green space to be retained as a shared amenity.	The maximum residential base density permitted for individual land uses to be located in the PUD districts shall be (SF – 4 DUA, Townhome – 6 DUA, MF – 12 DUA). If 50% or more of the gross area of a PUD is preserved as open space, then a 20% increase in density may be permitted. If 75% or more of the gross area of a PUD is preserved as open space, then a 30% increase in density may be permitted. If between 10% and 15% of the total number of dwelling units within a PUD are reserved for affordable housing, then a 20% increase in density may be permitted. If more than 15% of the total number of dwelling units within a PUD are reserved for affordable housing, then a 30% increase in density may be permitted. Density bonuses may also be permitted with a combination of both open space and affordable housing.	6.86 DUA Single family lots are less than quarter-acre lots.
Fiscal *p. 36*	Critical items include . . . factors that will mitigate any adverse impacts, and result in a fiscally responsible and value-added development for the community. *Applications that do not address a project's external costs to the community and provide a clear fiscal benefit to the county will not be favorably received.*		Amount of cash proffer may not offset cost of impacts.

Frontage/ Facade *p. 45* *Sec. 22-14-9*	Storefront Porch Residential Yard	With the exception of detached single family dwellings, building facades shall maintain a consistent street edge. The street elevation of principal structures shall have at least on street-oriented entrance and contain the principal windows of the structure, with the exception of structures in a courtyard style.	Renderings are offered as examples and are not required.
Infrastructure *p. 36* *Sec. 22-14-3* *Sec. 22-14-13*	Other land use planning decisions include the direction of residential and commercial/ industrial growth to areas that have facilities and adequate infrastructure, both public and private.	The goal of the PUD district is to allow for and encourage development that incorporates new urbanism principles which include *adequate public facilities and infrastructure to serve the community.* All uses within a PUD district shall be served by both central water and sewerage systems, whether publicly or privately provided. No overhead utility lines permitted. Telecommunications facilities are encouraged on the roofs of buildings.	Public water and sewer not available at this time in Palmyra CPA. Two-lane roads serve Palmyra area.
Mix of Uses *p. 44, 46* *Sec. 22-14-3* *Sec. 22-14-4*	Single-Family (25-75%) Multifamily (25-50%) Limited Retail (10-25%) While predominately single-family residential, neighborhood residential areas should incorporate some degree of mixed use, primarily in the way of multifamily residential. Storefront retail and office may be integrated at a residential scale. No maximum commercial square footage.	The goal of the PUD district is to allow for and encourage development that incorporates new urbanism principles which include mixture of uses and use types, mixture of housing types and affordability . . . All uses permitted by-right in the residential, business, and limited industrial zoning districts may be permitted *as enumerated in the final PUD application package. Uses not specified within the PUD application package shall not be permitted.*	Residential Component (79.95 acres): Single Family = 17% Multifamily = 83% Commercial Component (12.66 acres): 5.5% of total site; 180,000 square feet.

Natural Environment *p. 8, 19* *Sec. 22-14-2* *Sec. 22-14-3*	Water and sewer systems will have a minimal, if not negligible, impact on local streams, rivers, and groundwater. The Rivanna, river is a critical part of . . . the county. Diverse and robust vegetative buffers along each river's floodplain, *sensitive development within the watersheds,* and other innovative development and preservation techniques have served to protect and enhance these important natural resources. Groundwater has been similarly protected and serves as the primary water source for the rural areas of the county. Fluvanna's strict groundwater regulations have allowed underground aquifers to recharge or remain stable over the years. Similarly, responsible, well-planned, compact development that efficiently utilizes green infrastructure, creating interconnected, walkable, and fiscally sustainable communities that employ the latest in environmental controls, is the rule, not the exception. Development should be required to show its projected impact on surrounding groundwater supplies, particularly within the context of the diminishing and limited supply of water available in any given area. Mitigating this impact on surrounding property owners is of utmost importance, especially in any discretionary zoning action. *Air pollutants that do exist come primarily from the combustion of fossil fuels from stationary and mobile sources. Motor vehicles are the major local source. The best way to maintain and enhance air quality and to conserve resources is to reduce energy use, thus decreasing fossil fuel combustion and air pollutant emissions. Transportation accounts for most of the total end use energy consumed in the county. The county can improve its transportation energy efficiency and reduce pollutant emissions with a reasonably compact development pattern . . . finally, land use patterns that are properly oriented, maximize infill, cluster, and employ mixed use development can enhance the usage of natural heating and cooling and reduce residents' transportation energy needs.*	At a minimum, the PUD Application Plan shall include a general stormwater management and best management practices master plan that includes how *negative impacts to nearby streams, wetlands, surface water, and groundwater resources as a result of development would be avoided and mitigated.* The goal of the PUD district is to allow for and encourage development that incorporates new urbanism principles which include clear boundaries with any surrounding rural areas; *environmentally sensitive design(i.e., sustainability and energy efficiency).*	More detail may be needed to make a determination.
Parks/ Open Space *p.7a, 46* *Sec. 22-14-7*	Zoning and subdivision regulations provide for the preservation of a significant amount of open space. Ideally, the neighborhood residential element can incorporate a shared green space at its core. Neighborhood parks may vary in scale, but are intended to serve local residents as recreational and gathering space. If possible, greenway trails should be integrated to link the neighborhood to surrounding neighborhoods and open spaces.	Not less than 30% of the gross area of a PUD shall be preserved as open space, (which) may include private common and public open areas; perimeter open space; buffers between various uses, densities and adjacent properties, recreational space, neighborhood parks, civic areas; easements; water bodies and any undisturbed land not occupied by building lots, structures, streets, and parking lots. Yards of individual residences shall not be considered open space. Land designated for future facilities *shall not be included toward the open space.* Not less than 15% of the total open space shall be provided for active and/ or passive recreational activities. Private common open areas shall be owned, maintained, and operated by a property owner's association.	47.3% open space (108.35 acres)

Parking *Sec. 22-14-3* *Sec. 22-14-11*	On-street Surface Residential On-street parking is suggested in higher-density residential areas. Where block sizes are bigger, on-street parking may fully give way to residential driveways and garages. Where garages are present it is important to set them to the side and rear of the residence, so that they do not dominate the residential frontage.	The goal of the PUD district is to allow for and encourage development that incorporates new urbanism principles which include relegated parking. Off-street parking facilities in mixed-use, business, industrial, and multifamily residential areas shall generally be relegated behind the front building line. On-street parking shall be permitted where appropriate. In addition to the regulations included herein, all off-street parking shall be provided in accordance with the off-street parking and loading requirements of 22-26 of the zoning ordinance.	It appears that on-street parking is permitted throughout the development. More information is necessary to make a full determination.
Phasing/ Timing *p. 71* *Sec. 22-14-2*	Another important element in designing a sustainable project, both for the developer and the host community, is the phasing of a project. Larger projects, in particular, will need to be phased, and this *strategy should be discussed during the rezoning/ master plan phase of the project.* Plans can be proffered in a certain order, during certain time frames, or contingent on the provision of certain infrastructure. For instance, a developer could proffer that a project's residential component would not commence until the county determined that an adequate public water supply was in place. Such a proffer assures the community that this infrastucture will be in place prior to additional demand being placed on the existing community's resources. The timing of a project is at least as critical to a developer as it is to their community, so *the wording of any proffers that may be made during a rezoning process should be clear, concise, and well thought out by the developer so that those commitments can be met if the project is approved.*	At a minimum, the PUD Application Plan shall include . . . *phased development areas. Subsequent subdivision plats and site plans should be closely correlated with master plan phases.*	1. Phase I – 76 Acres a. Blocks A-1, C-3, D-3, D-4, D-5, E-1, E-2 b. Not to exceed 260 residential units and 37,000 SF commercial before construction of primary entrance (roundabout) c. Block C-3 includes 30,000 gpd water supply from TMP 19-A-39 (Camp Friendship) 2. Phase II – 25 Acres a. Blocks A-4, B-1 b. 202 residential units c. 30,000 SF commercial 3. Phase III – 129 Acres a. Blocks A-2, A-3, B-2, B-3, C-1, C-2, D-1, D-2 b. 648 residential units c. 100,000 SF commercial 4. Phasing plan is subject to change in accordance with stipulations in proffers.

Proffers			• Open Space • Landscape Plan for Route 15 Buffers • Amenities • Swim and fitness facility • Phasing o Primary Entrance o Offsite improvements to Route 644 o Second Ingress/ Egress on Route 15 o Roundabout on 15 • Access easement to TMP 30-A-112A • Affordable housing • Frontage improvements • Cash proffer for schools o $1000 per dwelling unit • Cash proffer for public safety o $500 per dwelling unit • Cash proffer for governmental o $500 per dwelling unit
Public Facilities (Schools)	See attached projections and Frederick County (VA) example		

Rationality of Rezoning *p. 36* Sec. 22-20-1	There must be valid reasons for any zoning amendment that are substantially related to the public welfare and necessity. It is not sufficient that an applicant merely show that there is no neighborhood objection to the requested amendment. Three questions may be asked as a litmus test for spot zoning: 1. Is the proposed change contrary to the established land use pattern? 2. Is the proposed land use change in conformance with the Comprehensive Plan? 3. Would the proposal create an isolated zoning district unrelated to similar districts?	.	The adjacent properties are A-1 and rural in nature. The proposed land use change is not entirely in conformance with the Comprehensive Plan.
Screening *p. 36* *Sec. 22-14-2 (iii)*	Critical items include buffers and screening between incompatible uses . . .	At a minimum, the PUD Application Plan shall include . . . a general overall landscaping layout that includes methods or screening and buffering from adjacent properties and existing rights-of-way . . .	
Location of Palmyra's Growth *p. 39 (third bullet point)*	*Growth in the courthouse area of Palmyra should be scaled to match that of the surrounding village, with new neighborhood mixed-use developing near Pleasant Grove.*	"Buildings and spaces of appropriate scale"	
Street Types *p. 45* *22-14-10*	Neighborhood Street as primary type	May be public or private but must conform to VDOT standards. Alleys may be allowed provided they conform to either VDOT standards or as otherwise prescribed in master plan. Sidewalks shall generally be provided on both sides of any streets, public or private, within the PUD district, and must conform to VDOT standards. Traffic access and circulation within the PUD shall be designed to provide safe accommodation of all users of the transportation network including pedestrians and bicyclists. Sidewalks, bicycle lanes, and multi-use trails shall be provided where appropriate. Mixed-use areas of the development shall be designed to give priority to pedestrian and bicycling traffic.	Primary connecting roadway (no on-street parking) Primary connecting roadway (with on-street parking) Subdivision access road (no on-street parking) Subdivision access road (with on-street parking) Internal access road within multifamily or commercial development Alleys

Transportation *p. 116* *Sec. 22-14-10*	Fluvanna's economic success is due, in part, to its easy access to Interstate 64, Routes 250 and 15, and other primary routes . . . *In turn, these roads must be kept in good condition, with minimal increase in traffic congestion and level of service, with substantial upgrades paid for by the causal development.* Locally, alternative transportation systems include greenway trails, bicycle lanes, sidewalks, and regional transit, including ride sharing. The expansion of these networks is accomplished primarily through the development process and is recognized as a benefit to the community as a result of well-planned and coordinated projects. *Without the adequate maintenance and expansion of the local transportation system, new growth is not possible or sustainable without significant degradation to the high quality of life in Fluvanna County.*	Traffic access and circulation within the PUD district shall be designed to provide safe accommodation of all users of the transportation network including pedestrians and bicyclists. Sidewalks, bicycle lanes, and multi-use trails shall be provided where appropriate. Mixed use areas of the development shall be designed to give priority to pedestrian and bicycling traffic.	More detail may be necessary to determine if project is complementary.
Walkability *p. 36, 121* *Sec. 22-14-3*	*Zoning applications for residential, commercial, or industrial development should be well planned and integrated with the future vision of that area. Critical items include . . . connectivity and walkability.* There are very few sidewalks in the populous areas of the county, and many are in disrepair. The state is now required to provide pedestrian accommodations for all VDOT construction projects. *New subdivisions should provide for pedestrian access within the development and in conjunction with adjoining housing developments and businesses in order to reduce vehicle trips.*	The goal of the PUD district is to allow for and encourage development that incorporates new urbanism principles which include pedestrian orientation, neighborhood friendly streets and paths, interconnected streets and transportation networks	The size of the PUD makes traversing it on foot difficult, and pedestrian access to services, amenities, and other development is limited by the PUD's physical isolation.

A primary agent of sprawl development is often the sporadic rezoning of properties throughout a locality. Spot zoning is the reclassifying of one or more tracts of land primarily for the private interests of one or more landowners instead of furthering the welfare of the entire community as part of an overall zoning plan. There must be valid reasons for any zoning amendment that are substantially related to the public welfare and necessity. It is not sufficient that an applicant merely show that there is no neighborhood objection to the requested amendment. Three questions may be asked as a litmus test for spot zoning:

(1) Is the proposed change contrary to the established land-use pattern?

(2) Is the proposed land-use change in conformance with the Comprehensive Plan?

(3) Would the proposal create an isolated zoning district unrelated to similar districts?

Zoning applications for residential, commercial, or industrial development should be well planned and integrated with the future vision of that area. Critical items include buffers and screening between incompatible uses, connectivity and walkability, adequate infrastructure, sustainable and attractive design, and other factors that will mitigate any adverse impacts, and result in a fiscally responsible and value-added development for the community. Applications that do not address a project's external costs to the community and provide a clear fiscal benefit to the county will not be favorably received. This decision is subjective, and completely within the purview of the Board of Supervisors; however, this plan will be used as a reference in evaluating all such discretionary projects.

Future Land-Use Tools

In addition to the county's land-use assessment policy, ag/forestal districts, conservation easements, and cluster development regulations, as well as the land-use concepts that will be discussed below, additional policies and programs should be considered both to help implement the Zion Crossroads urban development area and the community planning areas, but also to achieve the county's rural preservation vision.

Innovative transfer of development rights (TDR) and purchase of development rights (PDR) programs should be seriously examined to encourage a transfer of density from the designated rural preservation or rural residential areas to the Zion Crossroads urban development area. These programs are allowed under state law, but have yet to be fully, or widely, implemented in a Virginia community. County funding of a TDR program may not be needed, but should be examined for its potential impact on such a program. A PDR program, at least initially, would need to be funded by the county.

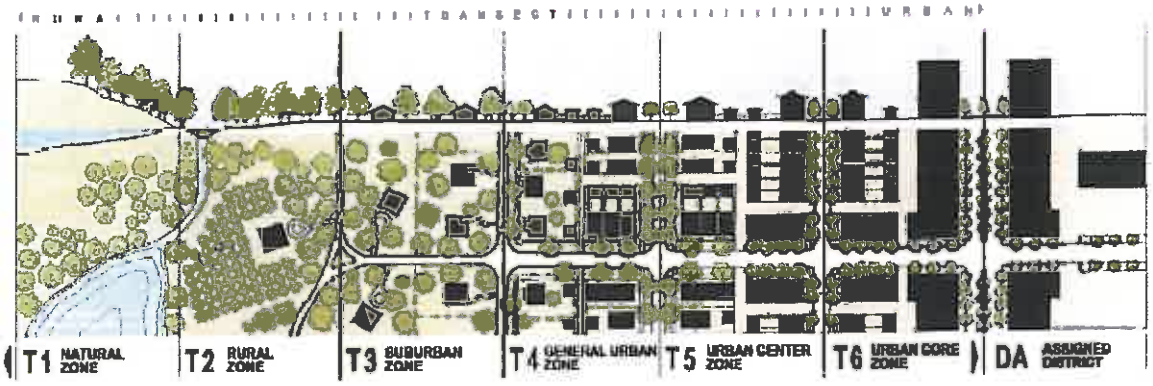
Utilities, specifically sewerage systems, need to be carefully controlled and regulated. Both centralized and decentralized systems have serious long-term maintenance challenges that need to be proactively addressed by the county in close coordination with the Virginia Department of Health. These regulations and controls are designed not to control land use but rather to assist in the implementation of the prescribed land-use plan in a sustainable and environmentally responsible manner.

Design Elements and Standards

The design elements and standards described in this section set the stage for how development should occur and what type of development should be permitted. The *transect concept* sets a framework for how development density and level of activity should be configured along an urban-to-rural continuum. *Traditional neighborhood development* describes what type of development should be permitted. *Community elements* set forth the standards for development along the transect continuum.

The Transect Concept

A transect is the continuum of zones from the town or city business district core outward through a high-density, mixed-use city center; a general-use area, including multifamily housing; an edge area of single-family housing and schools; and finally reserves of green space. Figure LU-7 shows how the areas can work together.



Source: Duany Plater-Zyberk & Company

Figure LU-7, Transect Concept

The transect focuses growth in more concentrated urban centers, thereby allowing for the preservation of rural land. The transect is also a device for planning walkable neighborhoods, in which pedestrians can travel comfortably from one destination to another within about a quarter-mile walk.

Within the transect concept, traditional neighborhood development (TND) captures the function and form of development.

Traditional Neighborhood Development (TND)

The TND model, also frequently interchanged with the terms *new urbanism* or *neotraditional development*, offers a blueprint for the greater community based on traditional community development patterns that were prevalent prior to the enormous expansion of the car-dominated suburbs in the post–World War II era. In other words, what is old is new again—and the traditional model worked well.

Function is the basic building block in traditional neighborhood developments. The emphasis is on human-scale design sized for easy walking distance, town and neighborhood centers, public spaces, civic uses, and other features that foster a sense of community. This type of development is also characterized by an interconnected network of narrow streets. Narrow street widths, on-street parking, street trees, and other features are intended to slow local traffic and create a safe, attractive environment for pedestrians, in addition to cars. Transit and bicycle travel are also accommodated. The grid pattern of streets includes collectors and arterials, but also provides a variety of routes for local traffic.

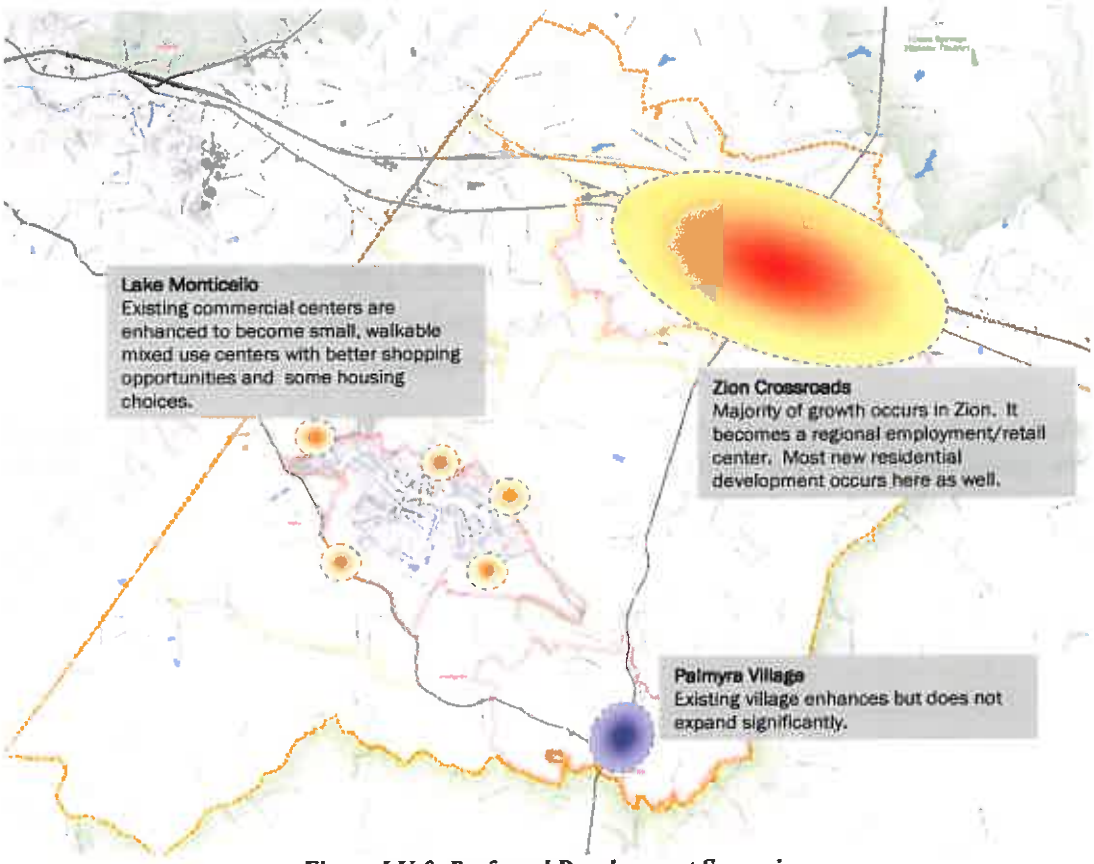
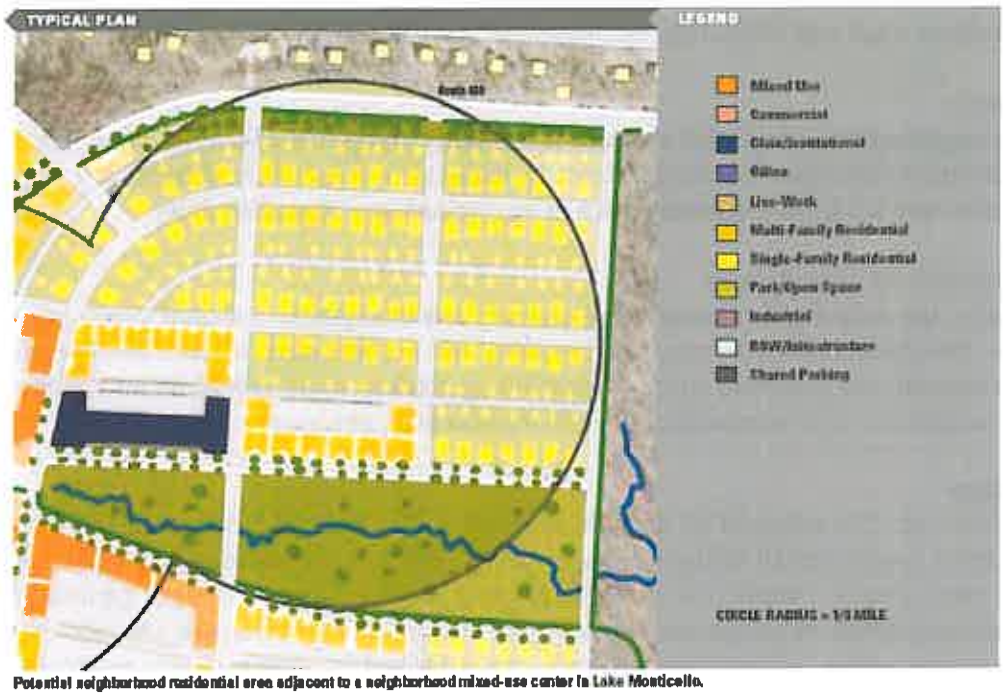


Figure LU-8, Preferred Development Scenario

Street Types
Neighborhood streets are the primary street type within the neighborhood residential element. Because of the residential character of these centers, commercial streets are limited.



Potential neighborhood residential area adjacent to a neighborhood mixed-use center in Lake Monticello.

Figure LU-15, Neighborhood Residential

Connectivity and Block Size
Block size should relate to the lot size and density of residences. Higher-density blocks allow for smaller block sizes, where lower-density areas may have larger-scale blocks. Connectivity with adjacent land uses, primarily nearby neighborhoods, is encouraged. Where street connections are not feasible, greenways are recommended.

Building Height and Frontage
The majority of buildings in neighborhood residential areas are residences. As such, buildings have a reduced scale and greater setbacks in comparison to regional centers and neighborhood mixed use. Shorter setbacks are recommended for higher-density residential blocks.


Figure LU-16, Residential Streetscape

Parking
On-street parking is suggested in higher-density residential areas. Where block sizes are bigger, on-street parking may fully give way to residential driveways and garages. Where

Parking
On-street parking is encouraged along both commercial and residential streets. Surface parking should be placed to the rear of buildings, shielded from the sidewalk and Main Street setting. Large surface parking lots should be placed within the interior of blocks and arranged to maximize sharing between multiple uses.

Mix of Uses
Although the neighborhood mixed-use element has a retail bias, a diverse integration of uses, including storefront retail, office, civic, and residential, is recommended. This mixed-use quality is important to the vibrancy of the center, creating an energized streetscape for residents, patrons, and workers.

Density
The neighborhood mixed-use element combines higher-density retail and residential uses. Large parking areas should be minimized in order to optimize the potential density of the center. Most residential uses should be multi-family, with single-family residences only appropriate at the edges as a transition into neighborhood residential areas.

Integration of Open Spaces
Due to its development intensity, the neighborhood mixed-use element allows limited opportunities for open space. A town square or pocket park is the most appropriate type of open space and is encouraged to establish a public civic space at the core. Greenways may connect between the center and peripheral areas. Recreational parks may be integrated at the edge of the commercial area to serve the community at large.

Neighborhood Residential
Neighborhood residential areas should provide a range of residential housing types and lot sizes. Generally, this includes a balance of single-family residences and some multifamily housing. A central neighborhood park is an excellent asset for a neighborhood center, and is strongly encouraged.

Connections should be made to surrounding neighborhoods and commercial centers wherever possible. Where roadway connections are not feasible, greenway connections are recommended. Neighborhood residential centers typically border higher-density neighborhood mixed-use areas. In some cases, some small commercial and institutional uses may be incorporated into the neighborhood residential community element.

garages are present, it is important to set them to the side and rear of the residence, so that they do not dominate the residential frontage.

Mix of Uses
While predominately single-family residential, neighborhood residential areas should incorporate some degree of mixed use, primarily in the way of multifamily residential. Storefront retail and office may be integrated at a residential scale.

Density
The neighborhood residential element is primarily composed of single-family residences. Residential development should strive to maintain a reasonable density (e.g., less than quarter-acre lots), freeing green space to be retained as a shared amenity.

Integration of Open Spaces
Ideally, the neighborhood residential element can incorporate a shared green space at its core. Neighborhood parks may vary in scale, but are intended to serve local residents as recreational and gathering space. If possible, greenway trails should be integrated to link the neighborhood to surrounding neighborhoods and open spaces.

Village
Villages are characterized by a small, mixed-use core surrounded by residential uses. An essential component of villages is their strong connection to surrounding natural features and open spaces. Despite their small scale and limited density, villages typically have a generous amount of mixed use, often in the form of a major civic use. Outside of a small mixed-use center, villages are generally characterized by single-family residential uses. By focusing development around the center, a green buffer may be created at the perimeter of the village, closely integrating open spaces with the developed area.



Potential village enhancements on US 15 in Palmyra.

Figure LU-17, Village Element

NATURAL ENVIRONMENT

Understanding Fluvanna's Natural Resources

VISION

Fluvanna has conserved its natural resources and managed its growth challenges by directing development into specified growth areas called community planning areas, as well as by specifying what kind of and how development will be sustainable and have a positive impact on the county. Well-managed forests and farms continue to be a primary land use, and a key component of the county's historic and rural character as well as its economic viability. Heritage tourism and ecotourism are also large contributors to this financial and environmental success.

The James, Rivanna, and Hardware rivers are a critical part of the history and ecology of the county and are healthy, viable rivers with a diversity of aquatic life. Diverse and robust vegetative buffers along each river's floodplain, sensitive development within the watersheds, and other innovative development and preservation techniques have served to protect and enhance these important natural resources. Groundwater has been similarly protected and serves as the primary water source for the rural areas of the county. Fluvanna's strict groundwater regulations have allowed underground aquifers to recharge or remain stable over the years.

Similarly, responsible, well-planned, compact development that efficiently utilizes green infrastructure, creating interconnected, walkable, and fiscally sustainable communities that employ the latest in environmental controls, is the rule, not the exception. Sustainable technologies have enabled continued residential and commercial development that employs alternative and renewable energy with minimal to no emissions, and has a positive impact on the county tax base. Fluvanna County's government leads by example with energy efficiency and the use of renewable technologies.

Low land-use assessment taxes and conservation easements continue to be valuable tools for land preservation and conservation. Ag/forestal districts are also abundant in rural areas, and permanent open spaces including greenway corridors, parks, and buffer areas are preserved as part of the development process. The growth area nodes and surrounding rural areas are integrally connected through this open-space network.

EXISTING CONDITIONS

Historic Conditions

Fluvanna County is, significantly, the product of centuries of intensive agricultural production and environmental exploitation. This fact in itself does not make the county unique, but the specific history of the intensity and duration of agricultural production within this geographic and geologic part of Virginia does tell a distinctive tale.

Fluvanna County has adopted an erosion and sediment control ordinance in compliance with state regulations. The purpose of this ordinance is to conserve the land, water, air, and other natural resources of the county, and to promote the public health and welfare of the people of Fluvanna County by establishing requirements for the control of erosion and sedimentation, and by establishing enforcement procedures.

Air Quality and Energy

Fluvanna's air quality is a major asset to the environment and scenic beauty of the county. The Environmental Protection Agency (EPA) establishes standards monitored by the Department of Environmental Quality, which determine whether a region is an "air quality attainment area" or not. Fluvanna County lies within a region that achieves this designation. Those areas that do not achieve designation as an air quality attainment area are required to design a plan and to take steps to improve air quality.

Air pollutants that do exist come primarily from the combustion of fossil fuels from stationary and mobile sources, originating not only locally but also from other areas. Motor vehicle emissions are the major local source. Preserving or planting appropriate trees species throughout heavily traveled vehicular corridors is a good way to mitigate the effects of automobile emissions.

The best way to maintain and enhance air quality and to conserve resources is to reduce energy use, thus decreasing fossil fuel combustion and air pollutant emissions. Advancement of the community as an energy-efficient model will not only lessen energy consumption locally but also encourage surrounding communities to conserve, which will lead to a reduction of migratory pollutants. Chapter 4, "Infrastructure," has more discussion on energy efficiency and the benefits of "green communities."



Figure NE-11, Tenaska

Transportation accounts for most of the total end use energy consumed in the county. The county can improve its transportation energy efficiency and reduce pollutant emissions with a reasonably compact development pattern, and by developing a greenway, bikeway, and walkway system.

Energy consumed by buildings, both residential and commercial, accounts for another main segment of the county's end use energy. Improving the efficiency of both new and existing buildings provides an opportunity for increased energy efficiency.

Finally, land-use patterns that are properly oriented, maximize infill, cluster, and employ mixed-use development can enhance the usage of natural heating and cooling and reduce residents' transportation energy needs

Tourism & Agriculture

Tourism remains a part of the economic renaissance over the last two decades, as the link between Fluvanna's heritage and history meets the opportunities Fluvanna enjoys along the I-64 corridor. Tourists come from as far away as Washington, Staunton, Hampton Roads and Danville to enjoy a weekend along the trails at Pleasant Grove's Heritage Museum, or to drive the circuit from Palmyra to Monticello and back. Working with the Fluvanna Historical Society, the rich heritage of Fluvanna's history from the Revolutionary War to the modern day offers a visitor a glimpse at what early America was like, what early America became, and perhaps an opportunity to both do business in — and possibly move to — Fluvanna County.

Land Use

Fluvanna's land use practices ensure the rural appearance of the county is not substantially different than it was 20 years ago, even though Fluvanna now has a larger population and a healthier economic base.

Land use is directly related to quality of life. Natural resources are protected, ensuring that our rivers and streams are clean and full of life. The land's relationship to the availability of clean and adequate water, clean air, and successful forestry and agriculture production -- both large scale and small scale -- are just a few of the factors considered in planning decisions.

Other land use planning decisions include the direction of residential and commercial/industrial growth to areas that have facilities and adequate infrastructure, both public and private. Areas of service include Columbia, Fork Union, Palmyra, Lake Monticello, and Zion Crossroads. Water and sewer systems will have a minimal, if not negligible, impact on local streams, rivers, and groundwater.

The continued protection of the Rivanna River remains a priority as a scenic river. Zoning and subdivision regulations provide for the preservation of a significant amount of open space, particularly within designated rural residential and rural preservation areas.

Agriculture, open space, and forestry continue to be important land uses over the next two decades. Networks and infrastructure for local farm and forest products and the expansion of diversified local and speciality markets continue to strengthen. Farmers and other large landowners will have local and state guidance in successfully navigating the challenges of increasing costs for energy, fertilizer, and other inputs.



Figure V-2: Agricultural Land

Lake Monticello

Lake Monticello continues to be the center of gravity for the county population, now being serviced with a collection of small shops as well as a completed set of biking trails and walking paths leading south to Pleasant Grove and Palmyra. Fire and rescue services continue to be well

Well-designed streetscapes focus on creating pedestrian-friendly environments and are essential to community preservation. Pedestrian promenades are effective in creating pedestrian-friendly areas for people to gather and walk. A streetscape's layout, quality, and appearance can largely determine whether an area appears safe and welcoming. For instance, wide streets that carry high volumes of traffic are hostile to pedestrians.

Phasing

Another important element in designing a sustainable project, both for the developer and the host community, is the phasing of a project. Rarely will a project be developed all at once, and paying for the critical infrastructure must be done carefully and according to the developer's ability to pay and financing arrangements. Larger projects, in particular, will need to be phased, and this strategy should be discussed during the rezoning/master plan phase of the project.

Plans can be proffered in a certain order, during certain time frames, or contingent on the provision of certain infrastructure. For instance, a developer could proffer that a project's residential component would not commence until the county determined that an adequate public water supply was in place. Such a proffer assures the community that this infrastructure will be in place prior to additional demand being placed on the existing community's resources. The timing of a project is at least as critical to a developer as it is to the community, so the wording of any proffers that may be made during a rezoning process should be clear, concise, and well thought out by the developer so that those commitments can be met if the project is approved.

Architecture

The design and style of buildings, both commercial and residential, significantly impacts the streetscape of a community. The quality of materials also affects the sustainability of the community. Low-maintenance, sturdy, but attractive products should be used as a standard in lieu of more traditional materials such as vinyl or metal siding, low-grade asphalt shingles, or flat tarpaper roofing.

State-of-the-art materials are more energy-efficient and require less upkeep. Current products vary widely but include HardiePlank siding, composite decking, nontoxic cellulose wall insulation, low-VOC caulks, adhesives, and paints, low-E argon-filled windows, and Energy Star light fixtures. Recycled or renewable products such as bamboo floors reduce the environmental footprint of development. Brick, block, standing seam metal roofing, green roofs, higher-grade asphalt shingles, and other traditional materials are also encouraged.

Architectural styles can and should vary widely among developments, but should remain consistent within a project. While the attractiveness of a style is subjective, its quality of material and sustainability should not vary widely, and should not be compromised by low-quality, high-maintenance materials. While it is not desirable to regulate specific materials, it is very feasible for a developer to commit to specific material types and styles as part of a project's approval, preferably in the form of legally binding proffers.

Community Elements

The Northwest Fluvanna / Southwest Louisa Multimodal Corridor Study identifies a preferred development scenario for Fluvanna County that focuses growth within and around existing centers using a model of walkable mixed-use centers. The study provides specific descriptions for each of the seven community elements.

- Most new growth occurs at Zion Crossroads, which develops into a large regional mixed-use center featuring employment centers as well as a diverse mix of retail opportunities and housing options.
- The current retail centers surrounding Lake Monticello, in the Rivanna community planning area, develop into neighborhood mixed-use centers with smaller-scale retail opportunities and housing options.
- Growth in the courthouse area of Palmyra should be scaled to match that of the surrounding village, with new neighborhood mixed-use developing near Pleasant Grove.
- Fork Union should continue to develop as a village in the core area near Fork Union Military Academy, surrounded by residential neighborhoods.
- Finally, developments occurring in rural areas should be limited to rural housing clusters and limited residential development with a large open-space component.

Regional Centers

Regional Mixed-Use Center

The regional mixed-use center is a focal point for the larger region and reinforces this through its scale of development and rich range of land uses. Regional mixed-use development is characterized by a higher intensity and mixture of land uses than surrounding areas. Larger-scale commercial uses, such as big-box stores, are situated along the main arterial roadway, with slower-speed streets and smaller block sizes pulled off of the busy arterial.



Figure LU-9, Walkable Streetscape

Regional Employment Center

The regional employment center is predominately devoted to employment uses, but still maintains a small mixed-use component to serve employees and surrounding residents. In the Zion Crossroads area, it will play an integral part in the vitality of the mixed-use center. Employment uses may include professional office space, research facilities, storefront offices, and warehouse and light industrial uses. Office uses are recommended at the core, while warehousing and light industry are appropriate at the periphery. It is important to link larger single-use areas with adjacent mixed-use development. Live-work units are recommended to maximize the residential capacity of regional

TRANSPORTATION

How to Get There from Here

VISION

Transportation systems are closely correlated with land-use policies for a comprehensive and diverse network of roads and alternative transportation networks. Primary roads serve all community planning areas with a well-maintained network of secondary and local roads that are connected to disperse traffic throughout each community.

Roadways are well maintained through a combination of state and local funding sources. Local funds are primarily derived from the county's commercial and industrial tax base, which is a primary beneficiary of the extensive road network. Fluvanna's economic success is due, in part, to its easy access to Interstate 64, U.S. Routes 250 and 15, and other primary routes, along with its location between Interstates 81 and 95. In turn, these roads must be kept in good condition, with minimal increase in traffic congestion and level of service, with substantial upgrades paid for by the causal development.

Alternative transportation sources include rail, transit, and regional airports. All of these transportation systems have grown over time to compete with automobile travel, particularly for the transport of goods. As the economy continues to diversify, so too must the delivery of the goods demanded by end users.

Locally, alternative transportation systems include greenway trails, bicycle lanes, sidewalks, and regional transit, including ride sharing. The expansion of these networks is accomplished primarily through the development process and is recognized as a benefit to the community as a result of well-planned and -coordinated projects. Without the adequate maintenance and expansion of the local transportation system, new growth is not possible or sustainable without significant degradation to the high quality of life in Fluvanna County.

EXISTING CONDITIONS

The Fluvanna transportation system is comprised of a local and regional system of roads, JAUNT paratransit service, and limited accommodations for pedestrians and bicyclists. As with most rural localities, Fluvanna's transportation system is oriented to automobiles. However, recent approaches to land-use planning—most notably community plans for Palmyra, Fork Union, and Lake Monticello, along with the Northwest Fluvanna / Southwest Louisa Multimodal Corridor Study—offer other considerations. They emphasize alternative transportation options, especially walking, biking, and transit, as methods of reducing reliance on the automobile.

Secondary Roads
Secondary roads are those numbered 600 and above. There are 285 miles of roads in the secondary system, with 261 paved miles and 24 stabilized dirt (gravel) miles. Aside from funding, the most significant hindrance to improvement on many roads is inadequate right-of-way. Relatively few of the miles have the required fifty-foot right-of-way needed for adequate bank cut, shoulders, and drainage. Utilities, both above- and belowground, challenge the limits of the narrow rights-of-way. The secondary road system has thirty-six bridges and twenty-six major culverts of various designs and construction methods, with fifty-two being two-lane and ten being one-lane.

Former gravel roads, currently being paved, have eighteen feet of pavement, mitigated curves, and wide shoulders. New bridges and culverts installed as individual projects are wide enough to accommodate later road upgrades. Many secondary roads serve as heavily traveled commuter routes, commercial routes, and emergency detours during natural disasters.

An annual allocation of funds to the county from VDOT provides for improvements to the secondary road system. These funds are used as decided by the Board of Supervisors with advice of the Louisa VDOT resident administrator and through input at annual public hearings.

Private Roads
There are numerous private roads in the county, ranging from primitive logging roads to the fifty-eight-mile paved system of Lake Monticello. The Department of Game and Inland Fisheries and the Department of Conservation and Recreation have a limited road presence in the county. The county has some direct responsibility for roads such as those in the Carysbrook complex and the landfill access road.

Alternative Transportation

Rail Access
AMTRAK passenger rail service is available in Charlottesville, with at least two trains daily. The Crescent travels between New Orleans and New York City, stopping in Charlottesville in the morning on the way north, and in the evening on the way south. A second train, the Cardinal, travels between New York (by way of Washington, D.C.) and Chicago three times a week.

Freight rail serving Fluvanna County is the CSX line, whose single track follows the James River along the county's southern border from Columbia in the southeast to Scottsville in the southwest.

Pedestrians
There are very few sidewalks in the populous areas of the county, and many are in disrepair. The state is now required to provide pedestrian accommodations for all VDOT construction projects. New subdivisions should provide for pedestrian access within the development and in conjunction with adjoining housing developments and businesses in order to reduce vehicle trips.

An Ordinance To Amend The Fluvanna County Zoning Map, With Respect To 222.03 acres of Tax Map 30, Section A, Parcel 110 and 10 acres of Tax Map 19, Section A, Parcel 39C, for an aggregate of 232.03 acres, to rezone the same from R-3, Residential, Planned Community to Planned Unit Development (PUD). (ZMP 12:02)

BE IT ORDAINED BY THE FLUVANNA BOARD OF SUPERVISORS, pursuant to Virginia Code Section 15.2-2285, that the Fluvanna County Zoning Map be, and it is hereby, amended, as follows:

That 222.03 acres of Tax Map 30, Section A, Parcel 110 and 10 acres of Tax Map 19, Section A, Parcel 39C, be and is hereby, rezoned from R-3, Residential, Planned Community, to Planned Unit Development (PUD) subject to the submitted proffers as set out in the letter dated September 23, 2013, which is attached hereto.

PROFFER STATEMENT

Walker's Ridge

Date of Proffer:	9-18-13
Project Name:	Walker's Ridge
ZMP Number:	12:02
Owner:	Hotel Street Capital, LLC 31 Garrett Street Warrenton, VA 20186
Existing Zoning:	R3-Residential
Zoning Requested:	Planned Unit Development (PUD)
Acreage of Parcel:	232.03 acres
Magisterial District:	Palmyra
Tax Map #(s):	Tax Map 30 Section A Parcel 110 (222.03 acres) Tax Map 19 Section A Parcel 39C (10.00 acres)
Legal Reference:	Fluvanna County Deed Book 859 Page 634 (TMP 30-A-110) Fluvanna County Deed Book 859 Page 631 (TMP 19-A-39C)
Exhibit(s)/References:	1) Rezoning Application Plan for Walker's Ridge (sheets 1 through 15 dated last revised 09/17/2013), prepared by Justin Shimp, P.E. 2) Section 3 of the Architectural Design Standards, dated 05/20/2013 which are attached.

RECEIVED
SEP 23 2013
FLUVANNA COUNTY
PLANNING DEPARTMENT

The Term "Owner" as referenced within this document shall include within its meaning the owner, or owners, of record of the Property, or properties, and their successors in interest.

The Owner hereby voluntarily proffers that if the Fluvanna County Board of Supervisors acts to rezone the Property from the R3 District to the Planned Unit Development District as requested, the Owner shall develop the Property in accord with the following proffered development conditions (each, a "Proffer," and collectively, the "Proffers"), which the Owner acknowledges are reasonable, pursuant to Section 15.2-2303 of the Code of Virginia, 1950, as amended, and pursuant to Section 22-14-2 of the Fluvanna County Zoning Ordinance. If rezoning application is approved, these proffers shall replace the eleven (11) proffers approved with ZMP 09:02 on

May 20, 2009. If rezoning application ZMP 12:02 is denied, these proffers shall immediately be null and void and of no force and effect.

As used throughout these Proffers, the following capitalized terms shall have the following meanings:

"Owners' Association" shall refer collectively to one or more responsible property owners' associations to be created by the Owner for the purpose of, inter alia, maintaining common areas within Walker's Ridge.

"First Residential Building Permit" shall mean the building permit issued for the first residential dwelling unit within the Property.

The Master Plan. The approved final Master Plan is proffered for land use, residential density and site improvements. And;

- The approved final master plan shall serve as the sketch plans for the subdivision and the site plan process.
- **Prior to development of the site to include any of its phases, a final site development plan for that phase and or phases shall be submitted as required by the applicable zoning and subdivision ordinances of the Fluvanna County Code for review and approval.**

Architectural Guidelines. Section 3, the "Design Standards" from the architectural guidelines are proffered as the required design standard for all construction within the development. (A copy of which is attached)

1) **Open Space.** The Owner shall provide green space on the Property in the locations shown on Sheet 4 of the Application Plan as "Open Space". Each portion of the Open Space Areas shall be conveyed to the Owners' Association in conjunction with the approval of any final subdivision plat or site plan for lots that are adjacent to such Open Space Areas. For the purposes of this Proffer, the term "adjacent" shall refer to land located within the Property abutting or immediately across the street or road from any Open Space Areas, as show on the final subdivision plat of such land. The conveyance of each portion of the Open Space Areas shall be completed prior to the issuance of building permits for eighty percent (80%) of the adjacent residential lots. Open Space Areas shall be dedicated to and maintained by the Owners' Association

2) **Landscape Plan for Route 15 Buffers.** Prior to approval of the first final site plan within Block A-1, A-3, and A-4 as depicted on Sheet 8 of the Application Plan, a landscape plan shall be provided, reflecting the general intent of the Buffers as described in the Code of Development on Sheet 9 and depicted on sheet 5 of the Application Plan, to the Fluvanna County Planning Department for approval. The Owner shall install landscaping in

accordance with the approved Landscaping Plans within one (1) year after issuance of the first Certificate of Occupancy for the applicable site plan. The Owner shall be responsible for maintaining the landscaping provided in the approved Landscaping Plans until such time as the Open Space Areas are conveyed to the Owners' Association, whereupon the Owners' Association shall be responsible for all maintenance of the landscaping.

3) **Amenities** The Owner shall provide amenities on the Property in the locations shown on Sheet 6 (and called out in the Proposed Development Key on the same sheet) of the Application Plan. Each specified amenity shall be conveyed to the Owners' Association in conjunction with the approval of any final subdivision plat or site plan for lots that are adjacent to the location of said amenities. For the purposes of this Proffer, the term "adjacent" shall refer to land located within the Property abutting or immediately across the street or road from any amenity, as shown on the final subdivision plat of such land. The conveyance of each amenity shall be completed prior to the issuance of building permits for eighty percent (80%) of the adjacent residential lots. Amenities shall be dedicated to and maintained by the Owners' Association.
   a) **Construction phasing of the amenities.**
      i) **Prior to the submittal of the 2nd and/or 3rd phase site plan all amenities shown on Sheet 7 shall be completed and/or under construction. Under construction shall be defined as the receipt of the required County permits to construct the amenity.**

4) **Swim and Fitness facility.** The above paragraph 3 notwithstanding, the owner may choose, at his or her discretion, to provide the swimming and fitness facility, as shown on Sheet 6 of the Application Plan, as a commercial facility with a third party Owner and/or Operator. In conjunction with this arrangement, such a facility may provide memberships outside of the Walker's Ridge development and to the general public.

5) **Phasing for Transportation.** Construction of the Walker's Ridge PUD development shall be consistent with the Phasing Plan provided on Sheets 14 and 15 of the Application Plan. The phasing of the development may vary dependent upon variations in the demand of both the residential and commercial real estate markets subject to the following conditions:

Sub-paragraph	Description of Improvement	Trigger for Improvement
a	Re-alignment of S.R. 644 at south intersection with U.S. 15	First Residential Building Permit
b	100' x 100' turn taper on S.R. 644 at north intersection with U.S. 15	Development ADT exceeds 4,000
c	Sub-site entrance	Development ADT exceeds

		4,000
d	Roundabout (primary entrance)	Development ADT exceeds 8,000

(a) Phase One Entrance.
Upon demand of the County, but no earlier than the issuance of the First Residential Building Permit, the Owner shall dedicate right-of-way for the realignment of State Route 644 & Route 15 (Friendship Road) and provide improvements as shown on sheet 15 of the Application Plan.

(b) Off-site improvements to S.R. 644.
Upon demand of the County, but no earlier than the application for a subdivision plat or site development plan which causes the net Average Daily Traffic (as determined by ITE Trip Generation figures, and using VDOT Administrative Guidelines for reductions caused by internal capture rates and pass-by trips) for the Walker's Ridge development to exceed four thousand (4,000), the Owner shall provide a 100' left-turn storage lane and a 100' left-turn taper lane on S.R. 644 at the northern intersection with U.S. 15.

(c) Second Ingress/Egress on U.S. 15, Phase Two.
Upon demand of the County, but no earlier than application for a subdivision plat or site development plan which causes the net Average Daily Traffic (as determined by ITE Trip Generation figures, and using VDOT Administrative Guidelines for reductions caused by internal capture rates and pass-by trips) for the Walker's Ridge development to exceed four thousand (4,000), the Owner shall provide a second entrance onto U.S. Route 15 (James Madison Highway), consistent with sheet 4 of the Application Plan for ingress and egress into block A4..

(d) Roundabout on U.S. 15 (Primary entrance).
Upon demand of the County, but no earlier than application for a subdivision plat or site development plan which causes the net Average Daily Traffic (as determined by ITE Trip Generation figures, and using VDOT Administrative Guidelines for reductions caused by internal capture rates and pass-by trips) for the Walker's Ridge development to exceed eight thousand (8,000), **and/or the submittal of 2nd and/or 3rd phase site plan,** the Owner shall provide a roundabout on U.S. Route 15 (James Madison Highway) at the primary entrance to the Walker's Ridge development, consistent with sheet 4 of the Application Plan. In addition, no certificate of occupancy for any residential unit outside of phase I shall be issued prior to construction of the primary entrance (roundabout).

6) **Frontage Improvements.** Contemporaneously with, and as part of, frontage improvements along James Madison Highway (U.S. 15) required in connection with any subdivision plat or

site plan for the Property, the Owner shall construct such turn lanes and improvements to the horizontal alignment, vertical alignment and cross-section of James Madison Highway (U.S. 15) as shown in the Application Plan, and as reasonably necessary to provide safe and convenient access to Walker's Ridge; provided, however, that the Owner's responsibility under this Proffer shall be limited to the extent of the Property's frontage only. Improvements constructed in accordance with this proffer shall be designed and constructed to applicable VDOT standards, including, without limitation, VDOT's Geometric Design Standard for a Rural Collector Road as such standards may be amended from time to time.

7) **Phase one commercial. Prior to the submittal of the 2nd and/or 3rd phase site plan the commercial area shown on Sheet 7 (Block A-1/Phase 1) shall be built.**

8) **Water. For phase 1, a private on-site water system, consisting of wells, storage tanks(s) and a water treatment facility or other similar systems approved by the Virginia Department of Health shall be permitted. Onsite groundwater wells shall not be permitted for water supply for development within phases 2 and 3.**

9) **Affordable Housing.** For each dwelling unit constructed on the Property, the Owner shall contribute to the Fluvanna/Louisa Housing Foundation, for the exclusive use of Fluvanna County Citizens as follows: Five hundred dollars ($500.00) for each dwelling unit. The contribution for each dwelling unit shall be paid at the time of the issuance of the building permit for such dwelling unit.

Cash Proffers Methodology:

a. All cash proffers are per. the attached adopted FY 2014-2018 Capital Improvement Plan "C.I.P.", of $48,500,000.00 rounded up.
b. All cash proffers below are based on an estimate of approximately 10,000.00 dwellings currently located within Fluvanna County.

10) **Cash Proffer for "Community Services".** For each dwelling unit constructed on the Property, the Owner shall contribute cash to Fluvanna County for funding the items as delineated in the current adopted FY 2014-2018 'C.I.P" under the heading **"Community Services"**, as follows: Eight Hundred Dollars ($800.00) for each dwelling unit. The cash contribution for each dwelling unit shall be paid at the time of the issuance of the building permit for such dwelling unit.

11) **Cash Proffer for "Public Safety".** For each dwelling unit constructed on the Property, the Owner shall contribute cash to Fluvanna County for funding the items as delineated in the current adopted FY 2014-2018 'C.I.P" under the heading **"Public Safety"** , as follows: One Thousand Dollars ($1,000.00) for each dwelling unit. The cash contribution for each dwelling unit shall be paid at the time of the issuance of the building permit for such dwelling unit.

12) **Cash Proffer for "Schools".** For each dwelling unit constructed on the Property, the Owner shall contribute cash to Fluvanna County for funding the items as delineated in the current adopted FY 2014-2018 'C.I.P" under the heading _, as follows: Three Thousand Dollars ($3,000.00) for each dwelling unit. The cash contribution for each dwelling unit shall be paid at the time of the issuance of the building permit for such dwelling unit.

WITNESS the following signature:

Hotel Street Capital, LLC

By: _____
Owner and or designated Agent.

COMMONWEALTH OF VIRGINIA
CITY/COUNTY OF Fluvanna, to wit:

The foregoing instrument was acknowledged before me this 23 day of September 2013 by Keith Smith, Owner and or designated Agent of Hotel Street Capital, LLC, a Virginia Corporation.

My Commission expires: 10/31/2015

_____
Notary Public

AMY-JO HELFRICH NOTARY PUBLIC

Commonwealth of Virginia
Amy-Jo Helfrich - Notary Public
Commission No. 7509817
My Commission Expires 10/31/2015

Rivanna Woods	Walker's Ridge Pre 9/13	Walker's Ridge Post 9/13
*The units in "**The Point at The Rivanna Resort**" will be sold subject to the attached "Residential density yield plan dated 02/27/09."* **254 total units.**	Open Space: *The owner shall provide green space on the Property in the locations shown on Sheet 4 of the Application Plan as "Open Space." Each portion of the Open Space Areas shall be conveyed to the Owners' Association in conjunction with the approval of any final subdivision plat or site plan for lots that are adjacent to such Open Space Areas. For the purposes of this proffer, the term "adjacent" shall refer to land located within the property abutting or immediately across the street or road from any Open Space Areas, as shown on the final subdivision plat of such land. The conveyance of each portion of the Open Space Areas shall be completed prior to the issuance of building permits for eighty percent of the adjacent residential lots. Open Space Areas shall be dedicated to and maintained by the Owners' Association.*	Open Space. *The owner shall provide green space on the property in the locations shown on Sheet 4 of the application plan as "Open Space." Each portion of the Open Space Areas shall be conveyed to the Owners' Association in conjunction with the approval of any final subdivision plat or site plan for lots that are adjacent to such Open Space Areas. For the purposes of this proffer, the term adjacent shall refer to land located within the Property abutting or immediately across the street or road from any open space areas, as shown on the final subdivision plat of such land. The conveyance of each portion of the Open Space Areas shall be completed prior to the issuance of building permits for 80% of the adjacent residential lots. Open space areas shall be dedicated to and maintained by the owners association.*
Rivanna Woods Golf Club L.P. proffers the attached Preliminary Master Plan for land use purposes. All vegetative buffers, building and parking locations adjoin existing Public Road Rights-of Ways shall be as per the attached Preliminary Master Plan. Necessary site developments shall be determined during the site plan approval process. **Block 1: Commercial Center** **45,000 sq ft retail / 30,000 sq ft** office space *The buildings are arranged around a central plaza with clock tower and fountain. Architectural styles shall be in general accord with the adjacent Palmyra Fire Station.*	Landscape Plan for Route 15 Buffers. *Prior to approval of the first final site plan within Block A1, 2, and 4 as depicted on Sheet . . . a landscape plan shall be provided, reflecting the general intent of the buffers as described in the Code of Development on Sheet . . . to the Fluvanna County Planning Department for approval. The owner shall install landscaping in accordance with the approved Landscaping Plans within one year after issuance of the first Certificate of Occupancy for the applicable site plan. The Owner shall be responsible for maintaining the landscaping provided in the approved Landscaping Plans until such time as the Open Space Areas are conveyed to the Owners' Association, whereupon the Owners'*	Landscape Plan for Route 15 Buffers. *Prior to approval of the first final site plan with Block . . . as depicted on Sheet 8 of the Application Plan, a landscape plan shall be provided, reflecting the general intent of the buffers as described in the Code of Development on Sheet 9 and depicted on Sheet 5 of the application plan, to the Fluvanna county planning department for approval. The owner shall install landscaping in accordance with the approved Landscaping Plans within one year after issuance of the first CO for the applicable site plan. The owner shall be responsible for maintaining the landscaping*

Buildings shall be red brick and match the historic architectural features of the Fire Station. Parking shall be provided per the Fluvanna County Zoning Ordinance. No parking space, building or other permanent improvement shall be located with ***75' of the US Route 15 ROW*** **Block 2: Resort and Golf Club House** *The resort shall provide several amenities for the development including a restaurant, meeting rooms, and the pro-shop for the golf course. Parking is provided at the resort building for the golf course.* **Block 3: Residential** *This block consists of three two story stacked flats. A maximum of 72 residential units are proposed within block 3. Surface parking adjacent to each unit shall be provided. Amenities include a community center with pool, tot lot, and picnic area and shall be provided for use by the residents of the Point.* **Block 4: Residential** *Four two story stacked flats shall be situated along the ridge between the steep slopes adjacent to the river and the proposed driving range. A maximum of ninety-six residential units are proposed within block 4. Buildings are proposed as 2-stories with subterranean parking. Amenities in block 4 include a tot lot and driving range.* **Block 5: Residential** *A maximum of 17 two story duplex units on small parking courts. A minimum of two surface parking spaces shall be provided per*	*Association shall be responsible for all maintenance of the landscaping.*	*provided in the approved landscaping plans until such time as the Open Space Areas are conveyed to the Owners' Association, whereupon the Owners' Association shall be responsible for all maintenance of the landscaping.*

unit in accordance with Fluvanna County Parking Ordinances. **Block 6: Residential** *A maximum of 36 villa style units sit between holes five, six, and seven. The villa units shall be one story, above grade, and a combination of driveways, garages, and surface parking spaces shall be provided for this block.* **Block 7: Residential** *A maximum of 16 villa style units are located between holes 16, 17, and 18. The villa units shall be one story above grade and parking shall be provided in driveways, garages, or surface parking spaces.* **Emergency Access Road** *The developer shall provide an emergency access road to Rt. 644. The road shall be open to emergency vehicles only.*		
*The golf course at **"The Point at the Rivanna Resort"** shall not become a private club but shall remain open to the public. The golf course property shall not be used for any land use other than uses associated with the operation and support of the golf course.*	Amenities. *The Owner shall provide amenities on the Property in the locations shown on Sheet 6 (and called out in the Proposed Development Key on the same Sheet) of the Application Plan. Each specified amenity shall be conveyed to the Owners' Association in conjunction with the approval of any final subdivision plat or site plan for lots that are adjacent to the location of said amenities. For the purposes of this proffer, the term adjacent shall refer to land located within the property abutting or immediately across the street or road from an amenity, as shown on the final subdivision plat of such land. The conveyance of each amenity shall be completed prior to the issuance of building permits for 80% of the adjacent residential*	Amenities. *The owner shall provide amenities on the property in the locations shown on Sheet 6 (and called out in the proposed development key on the same) of the application plan. Each specified amenity shall be conveyed to the owners association in conjunction with the approval of any final subdivision plat or site plan for lots that are adjacent to the location of said amenities. For the purposes of this proffer, the term adjacent shall refer to land located within the property abutting or immediately across the street of road from any amenity, as shown on the final subdivision plat of such land. The*

	lots. Amenities shall be dedicated to and maintained by the Owners' Association.	*conveyance of each amenity shall be completed prior to the issuance of building permits for 80% of the adjacent residential lots. Amenities shall be dedicated to and maintained by the Owners association.* *a. Construction phasing of the amenities.* a. *Prior to the submittal of the second and/or third phase site plan all amenities shown on Sheet 7 shall be completed and/or under construction.* ***Under construction shall be defined as the receipt of the required County permits to construct the amenity.***
. . . cash proffer of $5,000 per residential unit constructed at the proposed "Point . . ." project which funds shall be used for the construction of the new High School to offset any possible additional expenses that this rezoning might cost the Fluvanna County Public Schools. In the event the proffered funds cannot be used for this purpose, they should be used for the development costs for the Pleasant Grove Community Center. The cash proffer shall be due and payable at closing of the sale of each unit or prior to the issuance of a CO for such units, whichever occurs first.	Swim and Fitness facility. *The above paragraph 3 notwithstanding, the owner may choose, at his or her discretion, to provide the swimming and fitness facility, as shown on . . . as a commercial facility with a third party Owner and or Operator. In conjunction with this arrangement, such a facility may provide memberships outside of the Walker's Ridge development and to the general public.*	Swim and Fitness Facility. *The above paragraph 3 notwithstanding, the owner may choose, at his or her discretion, to provide the swimming and fitness facility, as shown on Sheet 6 of this Application Plan, as a commercial facility with a third party owner and/ or operator. In conjunction with this arrangement, such a facility may provide memberships outside of the Walker's Ridge development and to the general public.*
. . . $1,000 to the Fluvanna / Louisa Housing Foundation per residential unit constructed at the proposed "Point . . ." This money shall be earmarked for emergency repairs for Fluvanna County residents earning less than 80% of the	*Phasing. Construction of the Walker's Ridge PUD shall be consistent with the Phasing Plan provided on . . . The phasing of the development may vary dependent upon variations in the demand of both the residential and commercial real estate markets subject to the*	Phasing for Transportation. *Construction of the Walkers Ridge PUD development shall be consistent with the Phasing Plan provided on Sheets 14 and 15 of the application plan. The phasing of the development may vary*

area medium income. This proffer shall be due and payable at closing of the sale of each unit or prior to the issuance of a CO for such units, whichever occurs first.	*following conditions:* *a. Re-alignment of SR 644 at south intersection with US 15 (triggered by first residential building permit)* *b. 100' by 100' turn taper on SR 644 at north intersection with US 15 (triggered by development ADT exceeds 4000)* *c. Sub-site entrance (triggered by development ADT exceeds 4000)* *d. Roundabout (triggered by development ADT exceeds 8000).*	*dependent on variations in the demand of both the residential and commercial real estate markets subject to the following conditions:* *a. Re-alignment of SR 644 at south intersection with US 15 (triggered by first residential building permit)* *b. 100' by 100' turn taper on SR 644 at north intersection with US 15 (triggered when development ADT exceeds 4000)* *c. Sub-site entrance (triggered when development ADT exceeds 4000)* d. *Roundabout (triggered when development ADT exceeds 8000* ***AND/ OR the submittal of 2nd and / or 3rd phase site plan****). In addition, no CO for any residential unit outside of Phase I shall be issued prior to construction of the primary entrance (roundabout).*
. . .will improve Rt. 644 / Rt. 15 as provided in the traffic impact study and VDOT's requirements associated with the site plan approval.	Affordable Housing. *For each dwelling unit constructed on the property, the owner shall contribute to the Fluvanna / Louisa Housing Foundation, for the exclusive use of Fluvanna County Citizens as follows: $500 for each dwelling unit. The contribution for each dwelling unit shall be paid at the time of the issuance of the building permit for such dwelling unit.*	Frontage Improvements. *Contemporaneously with, and as part of, frontage improvements along US 15 required in connection with any subdivision plat or site plan for the property, the owner shall construct such turn lanes and improvements to the horizontal alignment, vertical alignment, and cross-section of US 15 as shown in the application plan, and as reasonably necessary to provide safe and convenient access to Walker's Ridge; provided, however, that the Owner's responsibility under this proffer shall be limited to the extent of the property's*

		frontage only. Improvements constructed in accordance with this proffer shall be designed and constructed to applicable VDOT standards, including without limitation, VDOT's Geometric Design Standard for a Rural Collector Road as such standards may be amended from time to time.
*. . . shall proffer up to $50,000 to the construction of a future traffic light, if required by VDOT as a result of future additional development in the area, at the intersection of Route 15 and Route 644 (*expires if construction hasn't started after 5 years).	Frontage Improvements. *Contemporaneously with, and as part of, frontage improvements along US 15 required in connection with any subdivision plat or site plan for the property, the owner shall construct such turn lanes and improvements to the horizontal alignment, vertical alignment, and cross-section of US 15 as shown in the application plan, and as reasonably necessary to provide safe and convenient access to Walker's Ridge; provided, however, that the owner's responsibility under this proffer shall be limited to the extent of the property's frontage only. Improvements constructed in accordance with this proffer shall be designed and constructed to applicable VDOT standards, including without limitation, VDOT's Geometric Design Standard for a Rural Collector Road as such standards may be amended from time to time.*	Phase One commercial. *Prior to the submittal of the second and/or third phase site plan the commercial area shown on Sheet 7 shall be built.*
. . . will provide a water and sewer tap connection location for the Palmyra Fire Station, located on Route 15, adjacent to the property. This is to facilitate the expansion of sewer services in the greater Palmyra area as the service area has been designed. Palmyra Fire Department and or others will be responsible for application for service, application fee, required permitting by any prevailing authority, connection and construction expenses and or other fees and	Cash Proffer for Schools. *For each dwelling unit constructed on the property, the owner shall contribute cash to Fluvanna County for funding the items and delineated in the current adopted 2013-2017 CIP under the heading "Schools" as follows: $1000 for each dwelling unit. The cash contribution for each dwelling unit shall be paid at the time of the issuance of the building permit for such dwelling unit.*	Water. *For Phase 1, a private on-site water system, consisting of wells, storages tanks, and a water treatment facility or other similar systems approved by the VA Department of health shall be permitted. Onsite groundwater well shall not be permitted for water supply for development within Phases 2 and 3.*

any required engineering.		
. . . will provide one water and sewer tap connection location on Rt 15 to facilitate the expansion of sewer services in the greater Palmyra area as the service area has been designed. The expanding entity and or others will be responsible for application for service, application fee, required permitting by any prevailing authority, connection and construction expenses and or other fees and any required engineering.	Cash Proffer for Public Safety. *For each dwelling unit constructed on the Property, the owner shall contribute cash to Fluvanna County for funding the items as delineated in the current adopted FY 2013-2017 CIP under the heading "Public Safety" as follows: $500 for each dwelling unit. The cash contribution for each dwelling unit shall be paid at the time of the issuance of the building permit for such dwelling unit.*	Affordable Housing. *For each dwelling unit constructed on the property, the owner shall contribute to the Fluvanna / Louisa Housing Foundation, for the exclusive use of Fluvanna County Citizens as follows: $500 for each dwelling unit. The contribution for each dwelling unit shall be paid at the time of the issuance of the building permit for such dwelling unit.*
. . . shall proffer the exterior commercial architectural guidelines in "Block #1 Commercial Center" as "The Point . . ." to be consistent with the architectural design and materials used for the new Palmyra Fire Station located on Rt 15, as determined by the convening County authority for site plan approval.	Cash Proffer for Governmental. *For each dwelling unit constructed on the property, the owner shall contribute cash to Fluvanna County for funding the items as delineated in the current adopted FY 2013-2017 CIP under the heading "Governmental" as follows: $500 for each dwelling unit. The cash contribution for each dwelling unit shall be paid at the time of the issuance of the building permit for such dwelling unit.*	Cash Proffer for "Community Services." *For each dwelling unit constructed on the property, the owner shall contribute cash to Fluvanna County for funding the items as delineated in the current adopted FY 2014-2018 CIP under the heading "Community Services," as follows: $800 for each dwelling unit. The cash contribution for each dwelling unit shall be paid at the time of the issuance of the building permit for such dwelling unit.*
. . . shall proffer the following residential exterior architectural guidelines at "The Point . . . " 1. *Siding:* a. *No vinyl, aluminum, and or metal siding shall be allowed. Only architectural grade natural siding products shall be allowed; such as cement fiber board siding, wood, or equal.* 2. *Roofing:* a. *Only architectural grade*		Cash Proffer for "Public Safety." *For each dwelling unit constructed on the property, the owner shall contribute cash to Fluvanna County for the funding the items as delineated in the current adopted FY 2014-2018 CIP under the heading "Public Safety," as follows: $1000 for each dwelling unit. The cash contribution for each dwelling unit shall be paid at the time of the issuance of the building permit for such dwelling unit.*

roofing and metal roofing or any combination thereof shall be allowed. No three tab shingles shall be allowed. *3. Foundation covering:* *a. All concrete and or masonry foundations above grade shall be embossed with either a brick and or stone pattern.*		

	ADOPTED CAPITAL IMPROVEMENTS PLAN -- FY2014 - 2018 (Updated 4-17-13)		FY2014						FY2015					FY2016					FY2017					FY2018					FY14-18 Total
	TOTAL BY YEAR		$3,684,662						$8,427,438					$6,169,990					$6,223,193					$23,872,102					$48,377,385
	FUNDING SOURCE		CASH Operating	CASH FB	GRANT	PROFFER	BORROW	OTHER	CASH	GRANT	PROFFER	BORROW	OTHER	CASH	GRANT	PROFFER	BORROW	OTHER	CASH	GRANT	PROFFER	BORROW	OTHER	CASH	GRANT	PROFFER	BORROW	OTHER	
No.	TOTAL BY SOURCE		$ 605,000	$ 2,733,662	$196,000	$ -	$ -	$150,000	$ 7,672,138	$267,300	$ -	$ -	$488,000	$ 6,059,990	$110,000	$ -	$ -	$ -	$ 5,340,093	$320,000	$ -	$ -	$563,100	$ 2,122,102	$875,000	$ -	$ 20,000,000	$875,000	
	Governmental	PRF																											
01	Schools Capital Reserve Maintenance Fund (CASH)	●	175,000						175,000					175,000					175,000					175,000					875,000
02	County Capital Reserve Maintenance Fund (CASH)	●	155,000						155,000					155,000					155,000					155,000					775,000
03	*Additional Munis Module Implementation /Training	●		25,000					25,000					25,000					25,000										100,000
																													-
	Community Services																												
	Parks & Recreation																												
04	PG Athletic Field and Fencing								105,000																				105,000
05	PG Amphitheater	●		5,000	46,000																								51,000
06	PG Restroom								100,000				113,000																213,000
07	PG Multi-Purpose Structure									157,300																			157,300
08	Crofton Trail Park Development								110,000	110,000																			220,000
09	PG Playground Expansion													39,500	10,000														49,500
10	PG Farm Museum													10,000	100,000														110,000
11	PG Athletic Field Lighting																		321,000										321,000
12	PG Outdoor Swimming Pool & Pool House Building																			320,000			563,100						883,100
13	PG Spray Ground Park																		150,000										150,000
14	Multigenerational Center																							875,000	875,000			875,000	2,625,000
																													-
	Public Works																												
15	*Phase 1 Hydrogeologic Study	●		50,000																									50,000
16	MACAA Roof Replacement & Other Improvements	●		50,000					75,000																				125,000
17	*Devlop Add'l Drinking Water Source for FUSD System							150,000					375,000																525,000
18	*Construction of Water/Sewer System for Zion Crossroads Dev. Area	●		575,000					3,100,000					975,000															4,650,000
19	*Countywide Building Assessments	●		25,000					25,000					25,000															75,000
20	*County Fleet Vehicle Replacement	●		157,000					190,000					166,000					122,000										635,000
21	*Major Electrical and Mechanical Upgrades - Treasurer/COR Bldg								500,000					500,000															1,000,000
22	*Roof Replacement for Carysbrook (Gym and Social Services)								55,000					55,000															110,000
																													-
	Public Safety																												-
	Sheriff																												
23	Programmed Fleet Replacement - Sheriff Vehicles	●	125,000						125,000					125,000					125,000					125,000					625,000
24	In Excess of Programmed Fleet Replacement - Sheriff Vehicles	●		101,000					91,000					101,000					131,000					155,000					579,000
																													-
	E911																												
25	Phone Equipment Replacement	●		97,100	150,000																								247,100
																													-
	Fire & Rescue																												-
26	*Fluvanna F&R Personal Protective Equip. Replacement	●		70,000					70,000					71,750															211,750
27	*Apparatus - Replacement	●		240,000					650,000										315,000										1,205,000
28	Apparatus - Rechassis													100,000										100,000					200,000
																													-
	Care of Prisoners																												
29	Central Virginia Regional Jail Expansion	●		229,550					229,550																				459,100
	Schools																												
30	Munis Financial System Implementation	●●●		185,000																									185,000
31	Programmed Fleet Replacement - School Buses	●●●	150,000						150,000					150,000					150,000					150,000					750,000
32	In Excess of Programmed Fleet Replacement - School Buses	●●●		187,102					187,102					187,102					187,102					187,102					935,510
33	Recoat Middle School/Central Wasterwater Treatment Plant	●●●		70,000																									70,000
34	Carysbrook Upper Elementary Renovations	●●●		270,910																									270,910
35	Fluvanna Middle School (Former High School) - HVAC													2,999,638															2,999,638
36	Middle School (Former High School) - Gym & Locker Room								1,354,486																				1,354,486
37	Middle School (Former High School) - Annex Gym HVAC																		483,991										483,991
38	Abrams Building Renovations																		2,800,000										2,800,000
39	*Internet Equipment Upgrades	●●●		146,000																									146,000
40	*Server Virtualization Implementation	●●●		250,000																									250,000
41	*Wireless Network Upgrade	●●●							200,000					200,000					200,000					200,000					800,000
42	*New Elementary School																										20,000,000		20,000,000
																													$ 48,377,385
	Additional General Fund Operational Costs		FY2014						FY2015					FY2016					FY2017					FY2018					FY2014-18
	911 Phone Equipment Replacement		17,927																										17,927
	PG Pool & Pool House - Staff, Utilities, Insurance & Supplies																		92,472					84,472					176,944
	Multigenerational Center																							105,000					105,000
	PG Restroom - Utilitiies								3,000					3,000					3,000					3,000					12,000
	PG Athletic Field Lighting - Utilities																		2,400					2,400					4,800
	PG Playground Expansion													500					500					500					1,500
	PG Spray Ground Park - Utilities & Supplies																		6,000					6,000					12,000
	PG Farm Museum - Personnel, Utilities, Insurance & Contract Svcs													3,000					3,000					3,000					9,000
	Develop Additional Drinking Water Source for Fork Union								19,000					19,570					20,155					20,765					79,490
	Battery Replacement - Public Safety Building								3,000					3,090					3,185					3,280					12,555
	Schools Munis Financial System - Maintenance Contract								19,620					19,620					19,620					19,620					78,480
			17,927						44,620					48,780					150,332					248,037					509,696

* Denotes a new project, all others were part of the FY13-17 CIP PROFFERS: ● Single Family Homes - Phase 1,2 & 3 ($111,000) ● Villas - Phase 1 ($69,000) ● Villas - Phase 2 ($84,000) ***Pending

RECEIVED
MAY 22 2013
FLUVANNA COUNTY
PLANNING DEPARTMENT

WALKER'S RIDGE PUD

ARCHITECTURAL GUIDELINES

FLUVANNA COUNTY, VIRGINIA

May 20, 2013

SECTION 3 DESIGN STANDARDS

3.1 Architectural Standards:

3.1.1 General Requirements:

3.1.1.1 Structures within Walker's Ridge PUD shall be designed to be generally compatible with the architectural vocabulary of the historic village of Palmyra and the surrounding area of Fluvanna County. This can be accomplished through use of compatible materials, appropriate massing and scale, and detailing of structures.

3.1.1.2 There is no requirement for a particular style of architecture, but forms, roofs, scale, materials, fenestration, and similar features shall be compatible with the existing village. This can be accomplished with architecture that is traditional as well as contemporary.

3.1.1.3 Architectural Zone I: Properties within Blocks A and E shall comply with the requirements of Architectural Zone I.

3.1.1.4 Architectural Zone II: Properties within Blocks B, C, and D shall comply with the requirements of Architectural Zone II.

3.1.2 Height Limit shall be as permitted by right in the Fluvanna County Zoning Ordinance.

3.1.3 Exterior materials used within the PUD shall be chosen from the materials listed hereinafter for the specific Architectural Zone and be of a low maintenance character in the interest of maintaining a quality appearance.

3.1.3.1 Because multiple siding types and textures are present in the historic village of Palmyra, use of multiple textures is encouraged.

3.1.3.2 Use of shutters on front elevations of residential structures is encouraged, but not required to reflect the historic character of the village and environs.

3.1.4 Where classical columns are used, they shall be architecturally correct for the style and order chosen.

3.1.5 Metal outbuildings are prohibited within the PUD.

3.2 Architectural Standards for Architectural Zone I:

3.2.1 Commercial and Civic Structures:

3.2.1.1 Massing of commercial and civic structures shall be broken up in such a manner as to avoid boxy appearing buildings. Use of gables, offsets, and similar details to break down the mass of the building is strongly encouraged.

3.2.1.2 Buildings shall maintain a consistent street edge with at least one street oriented entrance.

3.2.1.3 Use of multiple, yet compatible wall materials is encouraged.

3.2.1.4 Use of arches, columns, quoins, and similar details is encouraged.

3.2.1.5 Storefront metal shall be factory finished. Mill finish aluminum is prohibited.

3.2.2 Single Family Residences:

3.2.2.1 Single family residences in Architectural Zone I shall have at least 1,800 square feet of gross finished floor area.

3.2.2.2 Houses on adjacent lots shall not be constructed from the same plan.

3.2.2.3 Garages shall be rear entry from the alley when alleys are provided for a particular lot.

3.2.2.4 Covered front porches are strongly encouraged. Wood visible from the street shall be painted or stained in a manner consistent with the style of the house.

3.2.2.5 Use of multiple, yet compatible wall materials is encouraged.

3.2.2.6 Secondary guest suites or home offices above detached garages are permitted.

3.2.2.7 Minimum roof slope is 5/12. Some styles require a steeper roof slope, and use of steeper roofs is encouraged when appropriate.

3.2.2.8 Minimum exterior trim width is 3¼".

3.2.3 Townhouses:

3.2.3.1 Townhouses in Architectural Zone II shall have at least 1,400 square feet of gross finished floor area.

3.2.3.2 Townhouse fronts shall stagger at least two feet between units.

3.2.3.3 Covered front porches are strongly encouraged.

3.2.3.4 Use of multiple, yet compatible wall materials is encouraged.

3.2.3.5 Minimum roof slope is 5/12. Some styles require a steeper roof slope, and use of steeper roofs is encouraged when appropriate.

3.2.3.6 Minimum exterior trim width is 2".

3.2.4 Multi- Family Structures:

3.2.4.1 Massing of multi-family structures shall be broken up in such a manner as to avoid boxy appearing buildings. Use of gables, offsets, balconies, and similar details to break down the mass of the building is strongly encouraged.

3.2.4.2 Use of multiple, yet compatible wall materials is encouraged.

3.2.4.3 Use of arches, columns, quoins, and similar details is encouraged.

3.2.4.4 Minimum roof slope is 5/12. Some styles require a steeper roof slope, and use of steeper roofs is encouraged when appropriate.

3.2.5 Other Structures:

3.2.5.1 Accessory structures shall be constructed of materials similar to the main structure on the lot.

3.2.5.2 Accessory structures shall be constructed at least three (3) feet from side lot lines.

3.2.6 Permitted Wall Materials

A. Brick
B. Stone, natural or portland cement simulated (Cultured Stone or similar)
C. Fiber reinforced cementitious siding (Hardiplank or similar)
D. Wood siding, painted or stained
E. Wood or fiber reinforced cement shingles
F. Architectural precast concrete (cast stone)
G. Stucco
H. Vinyl (on SFD/ TH/ SFA only)

3.2.7 Permitted Visible Roofing Materials

A. Standing seam metal
B. Slate
C. Simulated slate
D. Architectural shingles designed to simulate slate.

3.2.8 Permitted Trim Materials

A. Fiber reinforced cementitous trim (Hardietrim, Hardiesoffit, or similar)
B. Cellular PVC
C. Wood, painted or stained
D. Factory finished aluminum clad wood (fascia & rake boards)
E. Vented or unvented aluminum or vinyl soffit panels
F. Vinyl (on SFD/ TH/ SFA only)

3.2.9 Permitted Window Materials

A. Painted Wood
B. Clad (aluminum or fiberglass) wood
C. Extruded fiberglass or aluminum
D. Aluminum Storefront (commercial buildings only)
E. Divided light windows shall have SDL or true divided light muntins.
F. Vinyl

3.2.10 Permitted Door Materials

A. Wood
B. Insulated metal
C. Fiberglass
D. Aluminum storefront (commercial buildings only)

Walkers Ridge
at Palmyra

THE GAINES GROUP, PLC







House Type 1

Based on:
+ Various Palmyra house types

Walkers Ridge
at Palmyra

THE GAINES GROUP, PLC







House Type 2

Based on:
+ Various Palmyra house types

Walkers Ridge
at Palmyra

THE GAINES GROUP, PLC







House Type 3

Based on:
+ Various Palmyra house types

Walkers Ridge
at Palmyra

THE GAINES GROUP, PLC



House Type 4

Based on:
+ Various Palmyra house types

Walkers Ridge
at Palmyra

THE GAINES GROUP, PLC







Condos

Based on:
+ Mills found in Palmyra
+Various Palmyra house types

Walkers Ridge
at Palmyra

THE GAINES GROUP, PLC









Townhomes

Based on:
+Various Palmyra house types

Walkers Ridge
at Palmyra

THE GAINES GROUP, PLC







Office A

Based on:
+ Palmyra Courthouse

Walkers Ridge
at Palmyra

THE GAINES GROUP, PLC







Office B

Based on:
+ Palmyra Courthouse

Walkers Ridge
at Palmyra

THE GAINES GROUP, PLC







Retail

Based on:
+ Palmyra Courthouse

Walkers Ridge
at Palmyra

THE GAINES GROUP, PLC







Bank

Based on:
+ Palmyra Courthouse

Walkers Ridge
at Palmyra

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Gas Station/Cafe

Based on:
+ Mills found in Palmyra
+Various Palmyra store types

Index Map

Attachment M



Overall Master Plan, Page 2

Overall Amenity Plan, Page 3

Perspective of Apartments and Streetscape, Page 7

North Perspective from Route 15, Page 5

Perspective of Main Entrance and Commercial Area, Page 4

South Perspective from Route 15, Page 6



Master Plan of Development Phase I, Page 8

Perspective of Single-Family House and Open Space, Page 9

Perspective of Main Entrance in Phase I, Page 10

Attachment M



SHIMP ENGINEERING P.C.
PROJECT MANAGEMENT
CIVIL ENGINEERING
LAND PLANNING

Overall Amenities Plan

Attachment M



SHIMP ENGINEERING P.C.
PROJECT MANAGEMENT
CIVIL ENGINEERING
LAND PLANNING

WALKER'S RIDGE 4

Perspective of Main Entrance and Commercial Area

Attachment M



SHIMP ENGINEERING P.C.
PROJECT MANAGEMENT
CIVIL ENGINEERING
LAND PLANNING

North Perspective from Route 15

Attachment M



SHIMP ENGINEERING P.C.
PROJECT MANAGEMENT
CIVIL ENGINEERING
LAND PLANNING

South Perspective from Route 15

Attachment M



SHIMP ENGINEERING P.C.
PROJECT MANAGEMENT
CIVIL ENGINEERING
LAND PLANNING

Perspective of Apartments and Streetscape

Attachment M



SHIMP ENGINEERING P.C.
PROJECT MANAGEMENT
CIVIL ENGINEERING
LAND PLANNING

Attachment M



SHIMP ENGINEERING P.C.
PROJECT MANAGEMENT
CIVIL ENGINEERING
LAND PLANNING

Perspective of Main Entrance in Phase I

Attachment M



SHIMP ENGINEERING P.C.
PROJECT MANAGEMENT
CIVIL ENGINEERING
LAND PLANNING

Perspective of Single-Family Houses and Open Space in Phase I

Attachment M

g Point
spective



SHIMP ENGINEERING P.C.
PROJECT MANAGEMENT
CIVIL ENGINEERING
LAND PLANNING

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October 22, 2013

Hotel Street Capital, LLC
31 Garrett Street
Warrenton, VA 20186

REF: ZMP 12:02 & SUP 13:02 (Tax Map parcels 30-A-110 & 19-A-39C)

Dear Applicant:

This letter serves as notification of the action taken by the Fluvanna County Board of Supervisors at their meeting on October 16, 2013, with regard to the requests referenced above. By a vote of 4-1, your request to amend the zoning map from R-3 (conditional) to PUD (conditional), and the Special Use Permit request for major utilities, has been remanded to the Planning Commission for further consideration. The Board requested additional review of the project with particular emphasis on the following issues:

- Water: Requires satisfactory information to demonstrate adequate water source(s), and that the use of such sources will not negatively impact adjacent properties;
- Sewer: Must demonstrate a specific plan for the operability of the site's sewerage system, including, among other things, the suitability of the property for onsite land disposal of wastewater;
- Traffic: Additional VDOT report is required with revised information regarding multiple relocations of a public road (i.e., demonstration that an uncontrolled "T" intersection with State Route 644 and Route 15, James Madison Highway, provides reasonable access and an acceptable level of service for Phase I alone).

This issue has been placed on the Planning Commission agenda for discussion at their next meeting on Wednesday, October 23, 2013.

Please contact my office if you require further assistance.

Sincerely,

Allyson L. Finchum
Planning Director

cc:
Mr. Keith B. Smith, 35 Acre Lane, Palmyra, VA 22863
Mr. Justin M. Shimp, Shimp Engineering, P.C., 201 E. Main Street, Charlottesville, VA 22902

Steven Tugwell

From: Steven Tugwell
Sent: Friday, November 22, 2013 5:00 PM
To: Planning Commission
Cc: Steve Nichols; Robert Popowicz; 'Frederick W. Payne'; Wayne Stephens
Subject: Walker's Ridge additional information
Attachments: 10 16 2013 Board action letter.pdf; Walker's Ridge Hydrogeological Studies_10 30 2013.pdf; Walker's Ridge_Drainfield Analysis, Soil Study, VDOT responses.pdf; revised VDOT data based on VDOT comments.pdf; email exchanges and Mark Wood's comments.pdf; Wayne Stpehens comments from grounwater and soils info.pdf; Letter to Tugwell re Stephens Comments 11-22-13.pdf; ResponseToCountyComments-Nov2013.pdf

Dear Planning Commissioners:

As you know, the Walker's Ridge Planned Unit Development rezoning application was scheduled, and presented to the Board of Supervisors at their October 16, 2013 meeting. At that time, the Board did not feel as though the Commission had received and considered all, or adequate information sufficient enough in order to make a complete recommendation. In particular, with regard to the SUP part of the application, and specifically related to the items in the attached letter dated October 22, 2013.

That letter was mailed to the applicants, and in turn the applicants responded with data submitted to our office on October 31, 2013, November 1, 2013. Planning staff then distributed that data to Wayne Stephens (public works director), and Mark Wood (area land use engineer) with the Virginia Department of Transportation. Mr. Stephens and Mr. Wood then reviewed the data and provided written comments to the applicants. (see attached). VDOT comments have been provided by Mr. Wood via email exchanges with the applicant, which are also attached.

Now that we have written comments from Mr. Stephens and Mr. Wood, I am forwarding all of the data that was submitted, plus the comments, and the responses from the applicants for the Planning Commission's consideration.

I have requested additional information from the applicants with regard to the Talley easement, that information is forthcoming, and I will forward it as soon as it becomes available.

Thank you, and please let me know if you have any questions.

-Steve

Steve Tugwell
Senior Planner
Dept. of Planning & Community Development
Fluvanna County, VA
434-591-1910
stugwell@co.fluvanna.va.us

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DATE: November 15, 2013
TO: Steve Tugwell - Acting Planning & Zoning Administrator
FROM: J. Wayne Stephens, PE - County Engineer

SUBJECT: Walker's Ridge proposed development – Groundwater and Soils information submitted in support of proposed on-site central drinking water and sewage systems:

1) Letter dated October 30, 2013 from Justin Shimp, PE, to Allyson Finchum RE: "Hydrogeological Studies and Impacts for Groundwater for Phase 1 Development
2) Document prepared by Eaton Geological Consulting, LLC, titled: *Feasibility Study of Groundwater Potential for The Walker's Ridge Development.*
3) Undated letter (received by County on 10/31/2013) from Nick H. Evans, PhD of CSG, to Justin Shimp, PE
4) Letter dated November 1, 2013 from Justin Shimp, PE, to Allyson Finchum RE: "Preliminary drainfield analysis, soils studies..."
5) Document prepared by NCS Wastewater Solutions, titled: *Preliminary Feasibility Assessments of Drainfield Capacity for Supporting Walker's Ridge Development On-Site Wastewater System.*
6) Letter dated October 29, 2013, from Environmental Soil Consultants (ESC) to NCS Wastewater Solutions, RE: *Soil Feasibility: Walker's Ridge Development...*

Following are my observations and comments resulting from my review of the subject documents:

Groundwater

- In my opinion, the documentation provided does not constitute a complete Phase 1 Hydrogeologic Study.

- 300 gpd per unit is a reasonable and correct usage figure for water source requirements and on central water systems in Virginia. While actual consumption per unit is usually less than 300 gpd, this figure takes in to account losses due to system leakage, filter backwash cycles, required flushing, etc. In any event, I recommend a minimum 300 gpd per unit be used in the design of any central water system being constructed in the County.

- For groundwater systems, the VDH Waterworks Regulations require 0.5 gpm of well capacity per Equivalent Residential Connection (ERC, aka EMU). For purposes of sustainability and system redundancy, 1.0 gpm per EMU is often required by localities when adopting their own central water system design criteria. In any event, the state standard must be met.

- The 306 EMUs proposed in Phase 1 of the project will require a total sustainable groundwater yield of at least 153 gpm. Using the reported 8 gpm median yield in the documentation provided, approximately 20 wells would be needed to provide water for Phase 1 of the project.

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- Groundwater recharge which may be realized from proposed on-site drainfields should not be used in any water balance computations for the project. The letter from Mr. Shimp seems to state an intent to include drainfields in these computations. Section 2.1 of the Eaton document states the following assumption: "groundwater withdrawls are consumptive; that is, there is no return of water to the on-site aquifer via infiltration"; while Section 7.0 of that same document suggests that 50% of extracted water should be assumed to return to the groundwater via infiltration. These discrepancies should be cleared up, and the developer's intent made clear.

- The Eaton document states an assumption that the developed site will have an overall 5% impermeability (i.e. 95% of the site will contribute to groundwater recharge) . While no preliminary stormwater computations were provided, this seems unrealistic for a PUD development, even assuming that some of the SWM/BMP facilities are designed to allow some infiltration.

- It appears from the documentation provided that no field work had been performed to confirm the initial photolineament study. Independent field mapping of the site, including locations, orientations and sizes of visible rock outcroppings are needed in order to complete the fracture trace analysis. These are used to help confirm (or refute) the apparent fracture orientations and locations inferred from the photolineament analysis. It is my opinion that Fracture Trace Analyses cannot be considered complete without this field observation, verification and comparison work being completed.

- It is likely I will have more comments when more complete information is available.

Soils & Drainfield Feasibiility

- The documentation provided indicates that some preliminary field work has been performed, including the digging of auger holes and recordation of soil profiles. A map should be prepared and submitted showing all auger locations, and accompanied by soils profile information.

- The soils chart included in the NCS document lists the soils, and approximate areas of those soils, for about 212 acres of the site. Of these, approximately 83 acres of those soils are classified by the USDA-NRCS as having a high potential of being hydric soils (Nf, Tc and Td). Hydric soils are not suitable to be used for drainfields. Until the actual soils are classified for the site, it is not reasonable to assume that these areas will be suitable for use as drainfields.

- Also in the included soils chart, approximately 109 acres of land is listed as being in soils with average slopes greater than 15%, with about 10 acres of that being in soils greater than 25%. Drainfield suitability declines as slopes increase, and the Me and Mg soil classifications

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are already considered only 'Moderately' suitable for use as drainfields. Even when soils are suitable, steep slopes require that drainfields be designed with larger spacing between drain lines than on flatter slopes. This results in larger areas being needed for both primary and reserve drainfields.

- The ESC letter states: "The soils on the property that occur on less than 15% slopes can generally be utilized in mass drainfields". I agree with this statement, although it eliminates a large percentage of the soils listed in the NCS document from contention for use as drainfields.

- The ESC letter makes reference to limitation on their assessment of suitability for areas contained within the greens, sand traps and tees of the old golf course located on the site. The letter further states that former fairway areas will need to be "evaluated carefully for cut and fill areas", since these areas would not be suitable for use as drainfields.

- It is my opinion that despite the conclusions drawn by the developer's consultant, the documents and information provided by the developer indicate that a very high percentage of the proposed development site will not be suitable for use as mass drainfields. This is apparent even without knowing the locations of the truly suitable soils in relation to proposed roads, houses, buildings, parking lots, SWM/BMP facilities, etc., the construction of which is likely to further reduce the usability of these suitable soil areas.

SHIMP ENGINEERING, P.C.
PROJECT MANAGEMENT
CIVIL ENGINEERING
LAND PLANNING

Received
NOV 0 1 2013
Fluvanna County

November 1st, 2013

Ms. Allyson Finchum
Planning Director
Fluvanna County

Regarding: **Walkers Ridge, Preliminary Drain field Analysis, Soil Studies and VDOT Right of Way And Traffic responses.**

Dear Ms. Finchum

As requested in your letter of October 22nd, 2013 we have completed an analysis demonstrating that the soils on the Walkers Ridge development are adequate for the proposed shallow drip or mass drain field systems that we have proposed. Our consultant, NCS Wastewater Solutions, has performed onsite soil evaluations and mapped the soils for the property to determine the area required for drain fields. They have identified ample qualified soils and available locations for our proposed disposal systems.

You also requested that we confirm that VDOT will approve our request to create a temporary intersection as shown on the phase I plans that may be subsequently abandoned. VDOT has confirmed that concept is acceptable as presented. A copy of our correspondence from VDOT has been attached for your reference. You have also asked for documentation that the proposed Phase I entrance will function from a traffic operations standpoint. Bill Wuensch, PE, PTOE, of EPR, P.C. has prepared a Phase I traffic impact analysis that reviews the impacts of the traffic generated from Phase I on the proposed Phase I entrance. EPR has found that the level of service is acceptable for all movements with only minimal delay occurring for vehicles exiting the development. In addition, the study identifies the proposed turn lane and storage lane lengths to be adequate.

The reports and correspondence with VDOT that we have provided address the remaining request of your October 22nd letter that were not previously addressed with a separate submittal. Please let me know if you have any questions about the information we have presented. We look forward to bringing this information back to the Planning Commission and Board of Supervisors at the earliest opportunities.

Sincerely,

Justin Shimp, P.E.

Attachments:
Walkers Ridge Phase I Development Traffic Impact Check, EPR, P.C.
Email from Mark Wood, VDOT, on 10-28-13
Preliminary Feasibility Assessments of Drainfield Site Capacity, NCS

Justin Shimp

From: Wood, Mark (VDOT)
Sent: Monday, October 28, 2013 6:09 PM
To: Justin Shimp
Cc: Bill Wuensch; DeNunzio, Joel D., P.E. (VDOT); Goodale, James E. (VDOT); Barron, L. Marshall (VDOT); Proctor, Charles C. (VDOT)
Subject: RE: Walkers Ridge Entrance on Route 15, Fluvanna County

Importance: High

Justin

VDOT has reviewed your email and attachment below and we have the following comments:

- Yes, VDOT would approve the creation and later abandonment of a Right of Way for a secondary road, however, even if it is to be a temporary State facility it would still need to be constructed to VDOT's standards, including the Road Design Manual. The design would have to incorporate the appropriate geometric design standards as per Appendix A (horizontal curve radius, pavement width, shoulder width, etc.) as well as entrance spacing standards per VDOT's Access Management Design Standards (Appendix F).
- How much development is planned to be built before the ultimate location for the facility is constructed?
- Has a traffic analysis been performed to show what improvement(s) would be needed at the temporary connection to Route 15?

If the developer wants to construct Walker's Ridge using a phasing plan for the development, VDOT can review the phasing plan and provide you with comments.

J. Mark Wood, P.E., L.S.
Area Land Use Engineer
Virginia Department of Transportation
Land Development – South
P.O. Box 1017
11430 James Madison Highway
Troy, VA 22974
Phone: (434) 589-7932
Cell: (540) 223-5240
Fax: (434) 589-3967
Email: Mark.Wood@VDOT.Virginia.gov

From: Justin Shimp [mailto:justin@shimp-engineering.com]
Sent: Monday, October 21, 2013 10:47 AM
To: Wood, Mark (VDOT)
Cc: Bill Wuensch; DeNunzio, Joel D., P.E. (VDOT); Goodale, James E. (VDOT)
Subject: Walkers Ridge Entrance on Route 15

Hello Mark,

The County attorney in Fluvanna has asked a question as to whether or not VDOT would approve the creation and later abandonment of ROW for a secondary road associated with the Walkers Ridge development.

I've attached our proposed phase I entrance, it shows the squaring off of route 644 into a perpendicular intersection in roughly the same location as the current intersection. To do this we will need to abandon the current 644 ROW. We own the land on both sides of the road where this is to occur. Can you confirm that VDOT will allow this to happen?

Secondly, our phase I entrance will be temporary in nature (maybe 6-12 years) we propose to construct the roundabout as part of phase II (proposed ROW lines are shown on the sheet) and at that time would abandon our phase I entrance ROW (or perhaps relocate is the better word). Same as In the first item, can you confirm VDOT would allow this to occur?

Obviously all of these proposals are with the caveat that all design/construction/etc must be in conformance with all applicable VDOT standards.

Thanks!

Justin M. Shimp, P.E.
President
Shimp Engineering, P.C.
201 E. Main Street, Suite M
Charlottesville, VA 22902

E: Justin@shimp-engineering.com
P: 434-953-6116 (Direct)
P: 434-207-8086 (Office)
F: 804-302-7997

Received
NOV 0 1 2013
Fluvanna County

EPR, P.C. "ENGINEERING & PLANNING RESOURCES"
637 BERKMAR CIRCLE, CHARLOTTESVILLE, VA 22901

TO: JUSTIN SHIMP, P.E.	FROM: BILL WUENSCH, PE, PTOE
ORGANIZATION: SHIMP ENGINEERING	DATE: NOVEMBER 1, 2013
PHONE NUMBER:	SENDER'S REFERENCE NUMBER:
RE: WALKERS RIDGE PHASE I DEVELOPMENT TRAFFIC IMPACTS	YOUR REFERENCE NUMBER:

MEMORANDUM

☐ URGENT ☐ FOR REVIEW ☐ PLEASE COMMENT ☐ PLEASE REPLY X FOR YOUR USE

Walkers Ridge Phase I Development Traffic Impact Check

1. Introduction

EPR examined traffic impacts for the first phase of development for the Walkers Ridge development. The planned Phase I Development of Walkers Ridge includes: 173 single-family detached houses, 99 townhomes, 34 single-family attached houses, 27,000 square feet offices, 6,000 square feet specialty retails, and 4,000 square feet high-turnover restaurants.

The access to this initial phase of the development will be via an unsignalized entrance at the intersection of Route 15 and the realigned Route 644 (Friendship Road). The intersection will consist of a northbound through lane, a northbound left turn lane, a southbound through lane and a southbound right turn lane on Route 15, as well as a combined eastbound left/right turn lane on the realigned Route 644.

2. Existing and Background Conditions

The existing and background traffic volumes were calculated from 2012 traffic count data in last Walkers Ridge TIS report by using a 1% per year background growth rate.

Figure 1 and **Figure 2** illustrate the existing (2013) and the future year (2018) no-build traffic volumes.

EPR, P.C. "Engineering & Planning Resources"
637 Berkmar Circle, Charlottesville, VA 22901

3. Site Trip Generation and Distribution

Site trip generation was calculated per ITE Trip Generation (9th Edition). Land use code 210 was used for single-family detached houses, land use code 230 was used for both townhomes and single-family attached houses, land use code 710 was used for offices, land used code 826 was used for specialty retails, and land used code 932 was used for the high-turnover restaurants.

Table 1 summarizes the trip generation for the Phase I of Walkers Ridge Development.

Table 1 Site Trip Generation

				AM		PM	
Use Description	**ITE**	**Qty**	**Daily**	**in**	**out**	**in**	**out**
Single Family Detached	210	173	1,739	33	98	108	64
Townhomes/Single Family Attached	230	133	824	11	54	51	25
Office	710	27,000	485	59	8	18	90
Specialty Retail	826	6,000	266	0	0	16	20
High-Turnover (Sit-Down) Restaurant	932	4,000	509	24	19	24	16
	total		3,823	127	179	217	215
internal capture			189	12	4	9	19
(15% of smaller of residential uses or others)							
Peak Hour Trips After Reductions (driveway trips)			3,634	114	175	209	196
Pass-by			194	6	5	10	9
(25% of Specialty Retail and Restaurant)							
Primary Trips			3,441	108	170	199	187
	total peak		3,441	279		386	

Site trip distribution was developed based on an examination of the existing traffic volumes travelling from north and south on Route 15. **Figure 3 and Figure 4** illustrates the site trip distribution percentages and site trips. This distribution is consistent with that used in the previous full traffic impact study.

4. Build Conditions

Figure 5 illustrates the future year (2018) build traffic volumes.

5. Analysis Results

The future year (2018) build conditions were simulated with Synchro and SimTraffic and the resulting levels of service for the proposed configuration of the intersection were shown in **Table 2**.

EPR, P.C. "Engineering & Planning Resources"
637 Berkmar Circle, Charlottesville, VA 22901

Table 2 Build Condition LOS, Delay, and Queuing

			Build 2018 (Phase I)				
			AM				
No.	Intersection	Movement	Synchro Delay	LOS	Synchro Queue	SimTraffic Delay	SimTraffic Queue
			(sec/veh)		(ft)		
1	**Route 15 at Entrance (Friendship Road)**						
	Entrance EB	Left/Right	17.4	C	50	9.6	112
	Route 15 NB	Left	8.2	A	4	5.9	40
	Route 15 NB	Through	0.0	A	0	1.0	0
	Route 15 SB	Through	0.0	A	0	1.1	0
	Route 15 SB	Right	0.0	A	0	4.5	0
	Intersection		4.3	A	54	3.1	152

			Build 2018 (Phase I)				
			PM				
No.	Intersection	Movement	Synchro Delay	LOS	Synchro Queue	SimTraffic Delay	SimTraffic Queue
			(sec/veh)		(ft)		
1	**Route 15 at Entrance (Friendship Rd)**						
	Entrance EB	Left/Right	19.1	C	62	11.5	126
	Route 15 NB	Left	8.7	A	8	7.0	47
	Route 15 NB	Through	0.0	A	0	1.1	0
	Route 15 SB	Through	0.0	A	0	2.2	0
	Route 15 SB	Right	0.0	A	0	5.1	13
	Intersection		4.9	A	70	4.1	186

The analysis results indicate that the proposed geometry and configuration at the intersection of Route 15 and the realigned Route 644 will provide adequate capacity for satisfactory levels of service at the entrance intersection and the proposed lengths for northbound left turn lane and southbound right turn lane will provide adequate space for the turning queues.

Figure 1 Existing (2013) Traffic Volumes

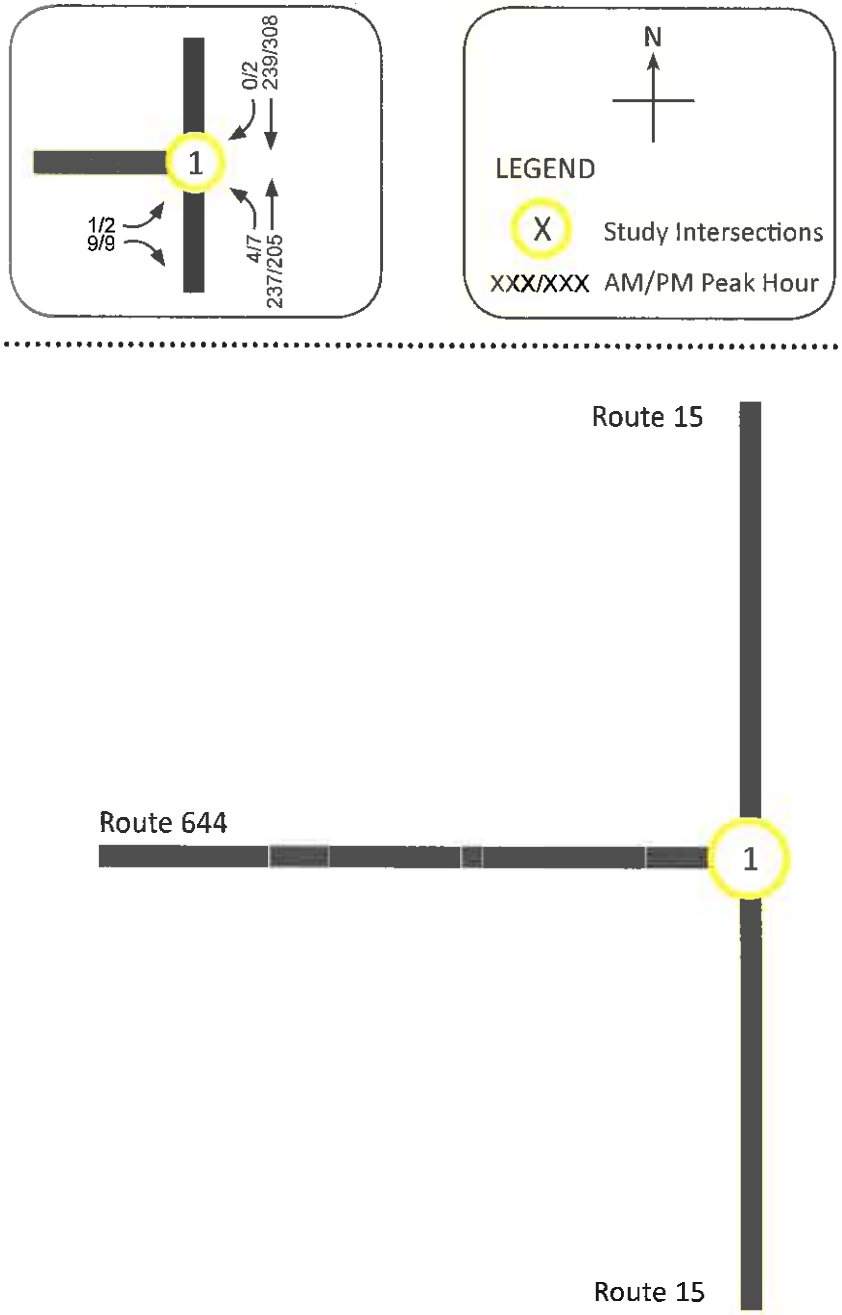


Figure 2 Future (2018) No Build Traffic Volumes

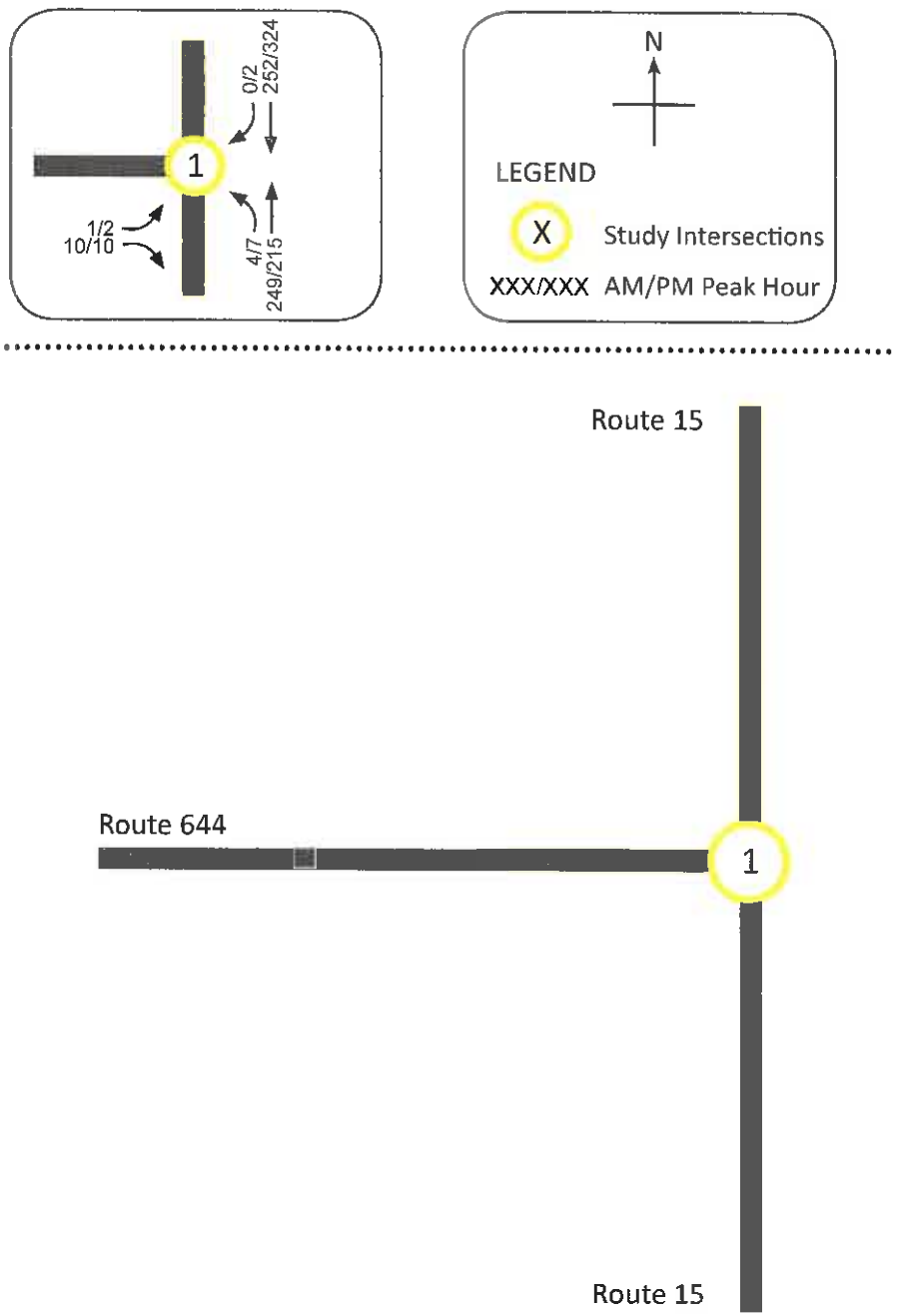


Figure 3 Site Trip Distribution

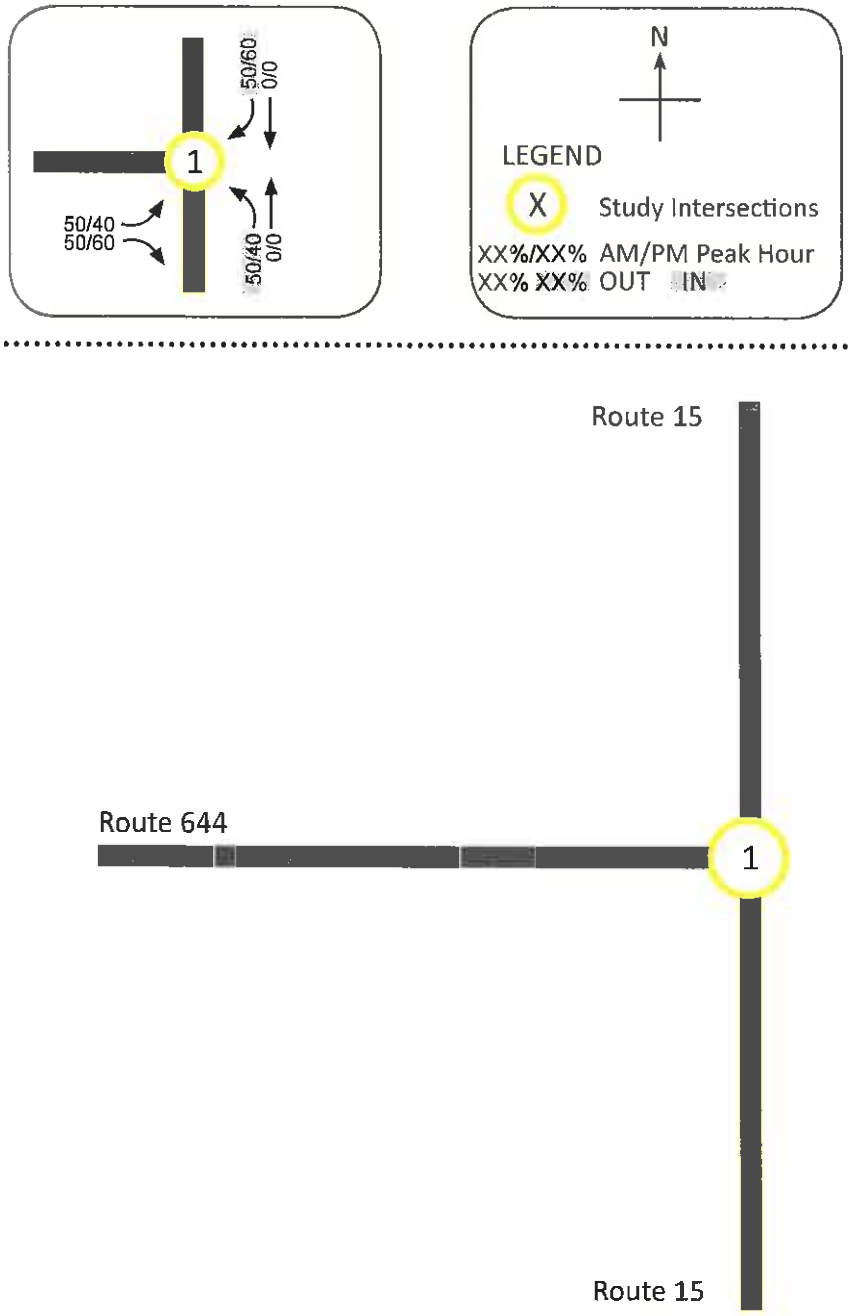


Figure 4 Site Trips

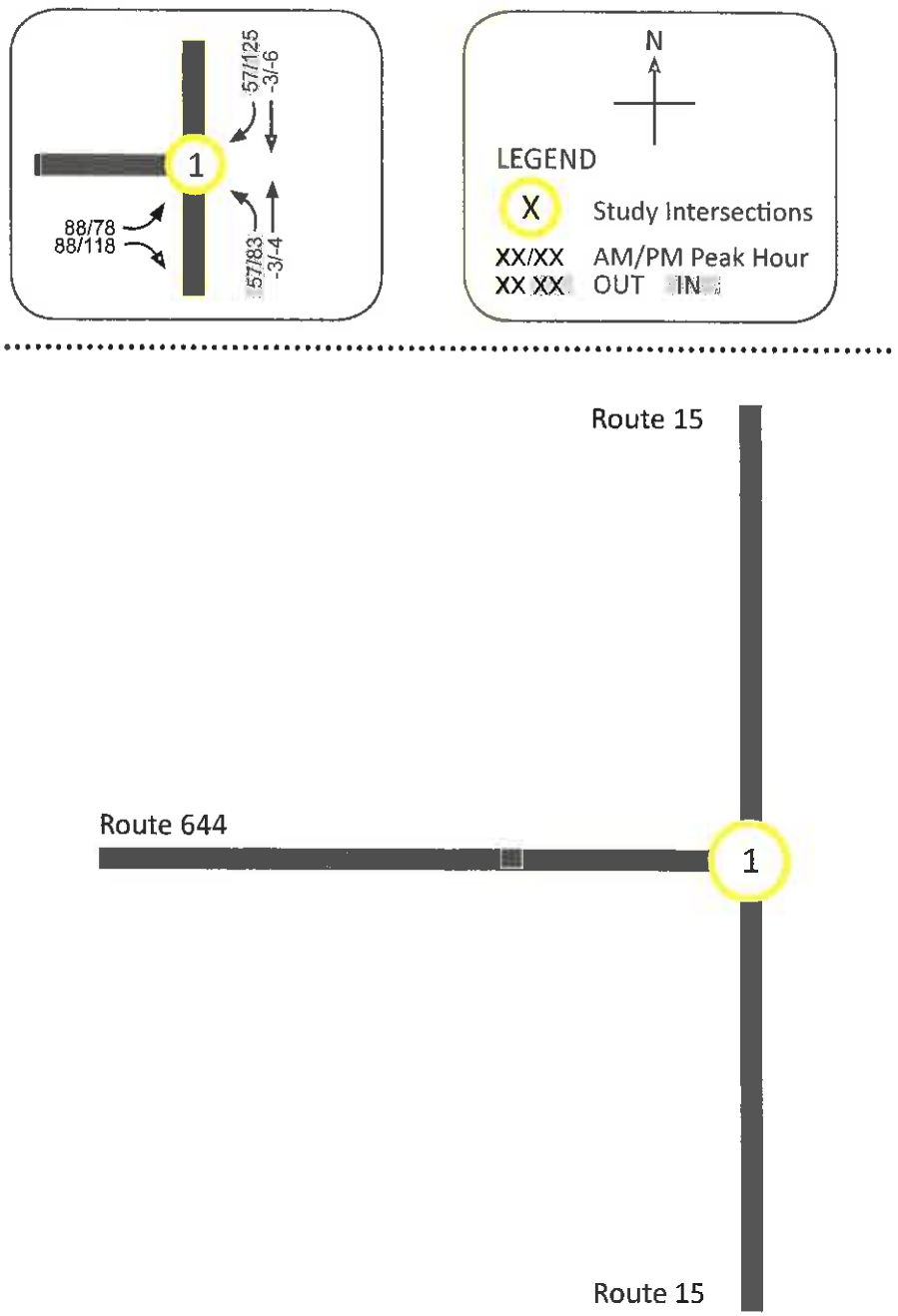
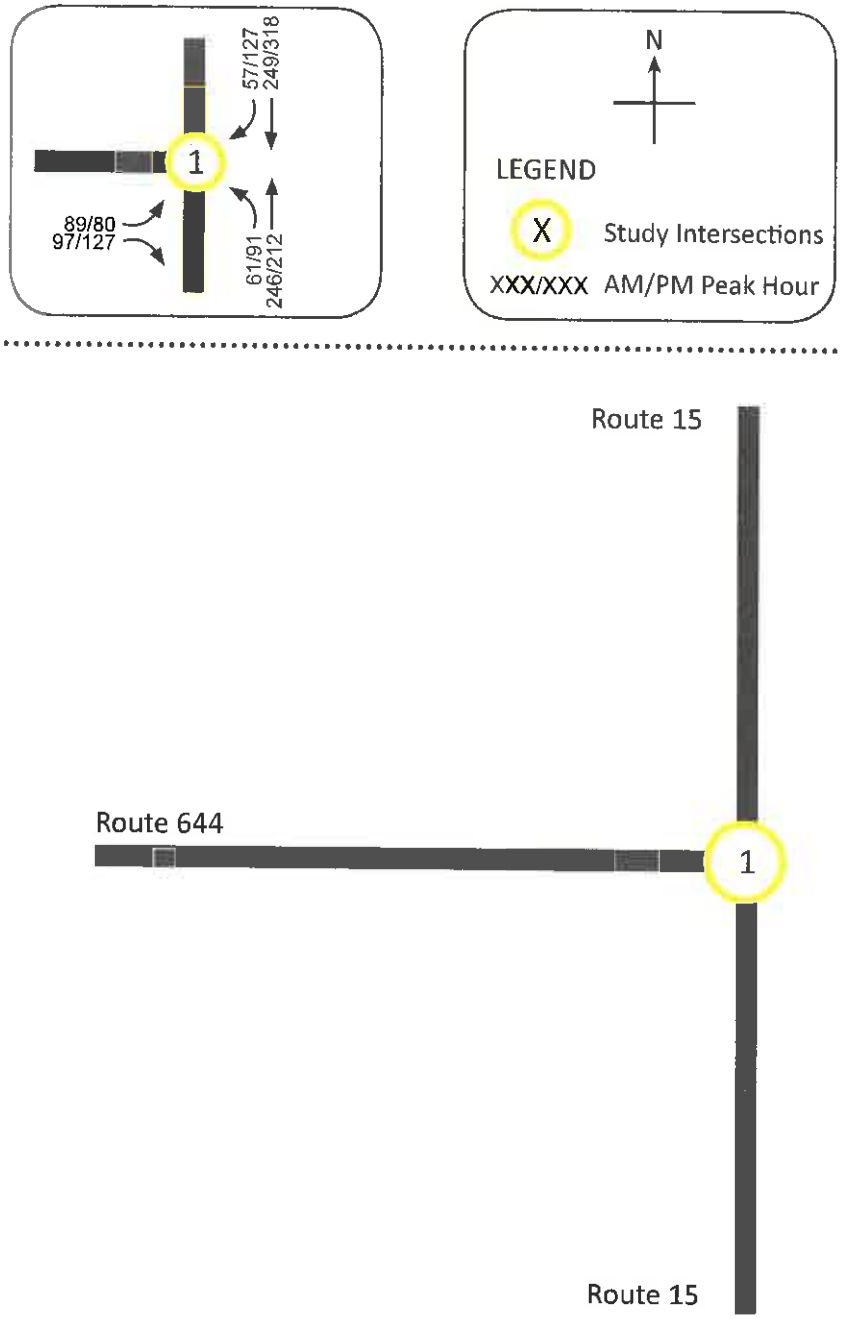


Figure 5 Future (2018) Build Traffic Volumes



HCM Unsignalized Intersection Capacity Analysis

3: Entrance & Route 15

10/28/2013

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	89	97	61	246	249	57
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.77	0.84	0.92
Hourly flow rate (vph)	97	105	66	319	296	62
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	749	296	358			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	749	296	358			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	73	86	94			
cM capacity (veh/h)	359	743	1200			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	202	66	319	296	62
Volume Left	97	66	0	0	0
Volume Right	105	0	0	0	62
cSH	491	1200	1700	1700	1700
Volume to Capacity	0.41	0.06	0.19	0.17	0.04
Queue Length 95th (ft)	50	4	0	0	0
Control Delay (s)	17.4	8.2	0.0	0.0	0.0
Lane LOS	C	A			
Approach Delay (s)	17.4	1.4		0.0	
Approach LOS	C				

Intersection Summary			
Average Delay	4.3		
Intersection Capacity Utilization	37.4%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
3: Entrance & Route 15

10/28/2013

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	80	127	91	212	318	127
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.89	0.88	0.92
Hourly flow rate (vph)	87	138	99	238	361	138
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	797	361	499			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	797	361	499			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	73	80	91			
cM capacity (veh/h)	322	683	1065			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	225	99	238	361	138
Volume Left	87	99	0	0	0
Volume Right	138	0	0	0	138
cSH	477	1065	1700	1700	1700
Volume to Capacity	0.47	0.09	0.14	0.21	0.08
Queue Length 95th (ft)	62	8	0	0	0
Control Delay (s)	19.1	8.7	0.0	0.0	0.0
Lane LOS	C	A			
Approach Delay (s)	19.1	2.6		0.0	
Approach LOS	C				

Intersection Summary			
Average Delay	4.9		
Intersection Capacity Utilization	44.0%	ICU Level of Service	A
Analysis Period (min)	15		

SimTraffic Simulation Summary
Phase I 2018 Build AM

10/28/2013

Summary of All Intervals

Run Number	1	10	2	3	4	5	6
Start Time	6:57	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:07	8:07	8:07	8:07	8:07	8:07	8:07
Total Time (min)	70	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2	2
# of Recorded Intvls	1	1	1	1	1	1	1
Vehs Entered	803	781	853	786	818	744	786
Vehs Exited	803	781	851	786	820	738	780
Starting Vehs	4	5	7	7	8	2	5
Ending Vehs	4	5	9	7	6	8	11
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	2	0	0	0	0
Travel Distance (mi)	264	257	279	259	270	245	258
Travel Time (hr)	6.9	6.7	7.5	6.8	7.2	6.2	6.6
Total Delay (hr)	0.7	0.8	1.0	0.8	1.0	0.6	0.7
Total Stops	213	190	223	202	201	171	188
Fuel Used (gal)	11.0	10.4	11.6	10.6	11.1	9.7	10.3

Summary of All Intervals

Run Number	7	8	9	Avg
Start Time	6:57	6:57	6:57	6:57
End Time	8:07	8:07	8:07	8:07
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	2	2	2	2
# of Recorded Intvls	1	1	1	1
Vehs Entered	793	817	786	797
Vehs Exited	797	819	787	796
Starting Vehs	6	10	5	3
Ending Vehs	2	8	4	7
Denied Entry Before	0	1	0	0
Denied Entry After	0	0	0	0
Travel Distance (mi)	262	268	259	262
Travel Time (hr)	6.9	7.4	6.7	6.9
Total Delay (hr)	0.8	1.0	0.7	0.8
Total Stops	189	231	199	201
Fuel Used (gal)	10.6	11.2	10.6	10.7

Interval #0 Information Seeding

Start Time	6:57
End Time	7:07
Total Time (min)	10

Volumes adjusted by Growth Factors.
No data recorded this interval.

SimTraffic Simulation Summary
Phase I 2018 Build AM 10/28/2013

Interval #1 Information Recording

Start Time	7:07
End Time	8:07
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	803	781	853	786	818	744	786
Vehs Exited	803	781	851	786	820	738	780
Starting Vehs	4	5	7	7	8	2	5
Ending Vehs	4	5	9	7	6	8	11
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	2	0	0	0	0
Travel Distance (mi)	264	257	279	259	270	245	258
Travel Time (hr)	6.9	6.7	7.5	6.8	7.2	6.2	6.6
Total Delay (hr)	0.7	0.8	1.0	0.8	1.0	0.6	0.7
Total Stops	213	190	223	202	201	171	188
Fuel Used (gal)	11.0	10.4	11.6	10.6	11.1	9.7	10.3

Interval #1 Information Recording

Start Time	7:07
End Time	8:07
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	793	817	786	797
Vehs Exited	797	819	787	796
Starting Vehs	6	10	5	3
Ending Vehs	2	8	4	7
Denied Entry Before	0	1	0	0
Denied Entry After	0	0	0	0
Travel Distance (mi)	262	268	259	262
Travel Time (hr)	6.9	7.4	6.7	6.9
Total Delay (hr)	0.8	1.0	0.7	0.8
Total Stops	189	231	199	201
Fuel Used (gal)	10.6	11.2	10.6	10.7

SimTraffic Performance Report
Phase I 2018 Build AM 10/28/2013

3: Entrance & Route 15 Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Total Delay (hr)	0.2	0.1	0.1	0.1	0.1	0.1	0.7
Delay / Veh (s)	9.6	5.2	5.9	1.0	1.1	4.5	3.1
Total Stops	91	95	15	0	0	0	201
Travel Dist (mi)	11.7	12.2	11.4	45.2	36.9	8.6	126.1
Travel Time (hr)	0.7	0.6	0.4	0.9	0.8	0.3	3.7
Avg Speed (mph)	18	20	38	50	48	42	37
Fuel Used (gal)	0.4	0.4	0.3	1.5	1.4	0.2	4.2
HC Emissions (g)	4	4	3	41	74	5	131
CO Emissions (g)	167	192	179	1316	2059	225	4138
NOx Emissions (g)	11	13	13	136	197	15	385
Vehicles Entered	91	95	62	246	245	58	797
Vehicles Exited	91	95	62	246	245	58	797
Hourly Exit Rate	91	95	62	246	245	58	797
Input Volume	89	97	61	246	249	57	799
% of Volume	102	98	102	100	98	102	100
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

Total Network Performance

Total Delay (hr)	0.8
Delay / Veh (s)	3.6
Total Stops	201
Travel Dist (mi)	262.1
Travel Time (hr)	6.9
Avg Speed (mph)	39
Fuel Used (gal)	10.7
HC Emissions (g)	324
CO Emissions (g)	11171
NOx Emissions (g)	964
Vehicles Entered	797
Vehicles Exited	796
Hourly Exit Rate	796
Input Volume	1598
% of Volume	50
Denied Entry Before	0
Denied Entry After	0

Queuing and Blocking Report
Phase I 2018 Build AM 10/28/2013

Intersection: 3: Entrance & Route 15

Movement	EB	NB
Directions Served	LR	L
Maximum Queue (ft)	112	40
Average Queue (ft)	43	11
95th Queue (ft)	83	33
Link Distance (ft)	670	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		200
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

SimTraffic Simulation Summary
Phase I 2018 Build PM

10/28/2013

Summary of All Intervals

Run Number	1	10	2	3	4	5	6
Start Time	6:57	6:57	6:57	6:57	6:57	6:57	6:57
End Time	8:07	8:07	8:07	8:07	8:07	8:07	8:07
Total Time (min)	70	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2	2
# of Recorded Intvls	1	1	1	1	1	1	1
Vehs Entered	957	942	1022	950	971	916	926
Vehs Exited	955	936	1019	942	967	911	919
Starting Vehs	3	4	7	5	8	8	5
Ending Vehs	5	10	10	13	12	13	12
Denied Entry Before	0	0	1	1	0	0	0
Denied Entry After	0	0	0	0	1	1	2
Travel Distance (mi)	311	308	331	307	317	299	303
Travel Time (hr)	8.6	8.6	9.6	8.8	8.8	8.2	8.2
Total Delay (hr)	1.1	1.3	1.6	1.3	1.2	1.1	1.1
Total Stops	258	237	269	263	231	226	233
Fuel Used (gal)	13.3	12.8	14.1	12.9	13.2	12.4	12.6

Summary of All Intervals

Run Number	7	8	9	Avg
Start Time	6:57	6:57	6:57	6:57
End Time	8:07	8:07	8:07	8:07
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	2	2	2	2
# of Recorded Intvls	1	1	1	1
Vehs Entered	986	968	952	960
Vehs Exited	985	967	955	955
Starting Vehs	8	10	6	6
Ending Vehs	9	11	3	8
Denied Entry Before	0	0	2	0
Denied Entry After	1	0	0	0
Travel Distance (mi)	320	317	312	312
Travel Time (hr)	9.2	8.9	8.7	8.8
Total Delay (hr)	1.4	1.3	1.2	1.3
Total Stops	264	257	262	250
Fuel Used (gal)	13.5	13.4	13.2	13.1

Interval #0 Information Seeding

Start Time	6:57
End Time	7:07
Total Time (min)	10

Volumes adjusted by Growth Factors.
No data recorded this interval.

SimTraffic Simulation Summary
Phase I 2018 Build PM

10/28/2013

Interval #1 Information Recording

Start Time	7:07
End Time	8:07
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	957	942	1022	950	971	916	926
Vehs Exited	955	936	1019	942	967	911	919
Starting Vehs	3	4	7	5	8	8	5
Ending Vehs	5	10	10	13	12	13	12
Denied Entry Before	0	0	1	1	0	0	0
Denied Entry After	0	0	0	0	1	1	2
Travel Distance (mi)	311	308	331	307	317	299	303
Travel Time (hr)	8.6	8.6	9.6	8.8	8.8	8.2	8.2
Total Delay (hr)	1.1	1.3	1.6	1.3	1.2	1.1	1.1
Total Stops	258	237	269	263	231	226	233
Fuel Used (gal)	13.3	12.8	14.1	12.9	13.2	12.4	12.6

Interval #1 Information Recording

Start Time	7:07
End Time	8:07
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	986	968	952	960
Vehs Exited	985	967	955	955
Starting Vehs	8	10	6	6
Ending Vehs	9	11	3	8
Denied Entry Before	0	0	2	0
Denied Entry After	1	0	0	0
Travel Distance (mi)	320	317	312	312
Travel Time (hr)	9.2	8.9	8.7	8.8
Total Delay (hr)	1.4	1.3	1.2	1.3
Total Stops	264	257	262	250
Fuel Used (gal)	13.5	13.4	13.2	13.1

3: Entrance & Route 15 Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Total Delay (hr)	0.2	0.2	0.2	0.1	0.2	0.2	1.1
Delay / Veh (s)	11.5	6.4	7.0	1.1	2.2	5.1	4.1
Total Stops	79	132	38	0	0	1	250
Travel Dist (mi)	10.1	17.0	16.9	38.1	47.7	19.7	149.6
Travel Time (hr)	0.6	0.9	0.6	0.8	1.1	0.7	4.7
Avg Speed (mph)	17	19	35	51	46	38	35
Fuel Used (gal)	0.3	0.6	0.4	1.3	1.8	0.6	5.0
HC Emissions (g)	4	7	5	43	48	9	118
CO Emissions (g)	177	303	243	1319	1846	487	4375
NOx Emissions (g)	13	22	19	135	146	26	361
Vehicles Entered	79	133	92	207	318	131	960
Vehicles Exited	78	132	92	207	316	131	956
Hourly Exit Rate	78	132	92	207	316	131	956
Input Volume	80	127	91	212	318	127	955
% of Volume	98	104	101	98	99	103	100
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

Total Network Performance

Total Delay (hr)	1.3
Delay / Veh (s)	4.7
Total Stops	250
Travel Dist (mi)	312.4
Travel Time (hr)	8.8
Avg Speed (mph)	37
Fuel Used (gal)	13.1
HC Emissions (g)	304
CO Emissions (g)	12277
NOx Emissions (g)	947
Vehicles Entered	960
Vehicles Exited	955
Hourly Exit Rate	955
Input Volume	1910
% of Volume	50
Denied Entry Before	0
Denied Entry After	0

Queuing and Blocking Report
Phase I 2018 Build PM

10/28/2013

Intersection: 3: Entrance & Route 15

Movement	EB	NB	SB
Directions Served	LR	L	R
Maximum Queue (ft)	126	47	13
Average Queue (ft)	50	20	1
95th Queue (ft)	93	43	7
Link Distance (ft)	670		
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		200	200
Storage Blk Time (%)			
Queuing Penalty (veh)			

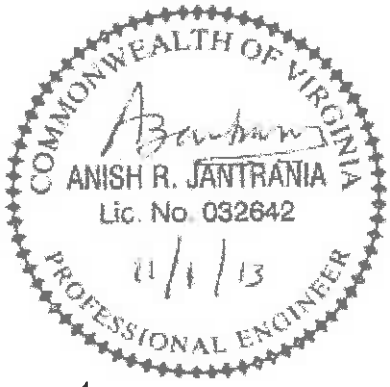
Network Summary

Network wide Queuing Penalty: 0

NCS Wastewater Solutions
A Division of Northwest Cascade, Inc.
P.O. Box 73399
Puyallup, WA 98373
(800) 444-2371
www.nwcascade.com

Received
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Fluvanna County





November 1, 2013

Preliminary Feasibility Assessments of Drainfield Site Capacity

For Supporting

Walker's Ridge Development On-Site Wastewater System
Fluvanna County, Virginia
Tax Map #30, Section A, Parcel 110 and
Tax Map #19, Section A, Parcel 39C

Prepared for:

Mr. Justin Shimp, P.E.
SHIMP ENGINEERING, P.C.
201 East Main Street, Suite M
Charlottesville, VA 22902

I. Introduction

Walker's Ridge is a proposed Planned Unit Development (PUD) project in Fluvanna County on two properties totaling about 223 acres. The two properties are Tax Map #30, Section A, Parcel 110, and Tax Map #19, Section A, Parcel 39C.

Public sewer is not available in the area, thus an on-site system is considered for adequate treatment and disposal of the wastewater generated from the proposed PUD.

On-site wastewater systems typically have three main components: collection, treatment, and disposal. While the feasibility for designing collection and treatment components is not dependent on soil characteristics, feasibility for designing subsurface disposal system is very much dependent on the soil characteristics and overall site conditions present on the property.

The first step in determining if an on-site wastewater system is feasible for a PUD like the Walker's Ridge is to conduct a preliminary assessment of the soil and site conditions for the proposed property and determine if there is adequate amount of land area available to support subsurface disposal for the projected volume of wastewater.

Permitting of an on-site wastewater system is done by Virginia Department of Health (VDH) and soil/site requirements are specified in the VDH regulations. While deep, well-drained soil on a relatively flat topography is the most preferred site condition for conventional on-site wastewater systems, i.e., septic systems, sites with moderate to poorly drained soil on a sloping topography are also being accepted under the VDH regulations for alternative on-site wastewater systems.

Alternative on-site wastewater systems include a secondary or advanced secondary treatment system (in addition to a septic tank) and some type of engineered disposal option such as a low-pressure-pipe or a drip system or other forms of pressured time-dosed effluent dispersal. When an alternative on-site wastewater treatment and effluent dispersal technology is used along with maintenance provided by a responsible management entity or a regulated utility, VDH will accept an engineered design for this site.

NCS Wastewater Solutions, a Division of Northwest Cascade, Inc. (www.nwcascade.com) specializes in designing, installing, and operating alternative on-site wastewater systems for a large PUD like Walker's Ridge. We are currently offering wastewater services to the Fox Glen subdivision in Fluvanna County, albeit quite small in size compared to the proposed Walker's Ridge subdivision. However, we have successfully completed a comparable size project in Georgia, called Still Water Cove's in Lincoln County. We have also completed several projects in other counties in Virginia, namely Lancaster County and Charles City County. Visit our website for case-studies on some of our projects.

We were asked to conduct a preliminary soil/site assessments to determine if adequate drain field capacity exists on the site that is proposed for Walker's Ridge PUD in Fluvanna County. We received the site map of the project site and details on the proposed development in terms of number and size of residential and commercial units from Shimp Engineering, the site engineers. This report presents results of our assessment of the project site for drain field capacity.

II. Wastewater Flow Projections

The amount of land required for subsurface effluent dispersal system (disposal system) will depend on several factors; one of which will be the amount of wastewater (daily flow measured in gallons) expected from the proposed development.

The VDH regulations contain a table that specifies the design flow for different types of dwelling and for different activities expected from a residential and commercial development. However, for a large project like this, the VDH allows professional engineers to propose the design flow based on their judgment, experience, and actual data from similar projects.

Based on the development plan proposed for Walker's Ridge PUD, we have analyzed projected wastewater flow data. Table 1 presents the details on daily flow of wastewater projected from each of the proposed block of the Walker's Ridge PUD. The unit flow values used for projecting the daily flow have adequate safety factors. Projected daily flow values that we have used in our calculation is 283,000 gallons per day (GPD).

VDH allows design and construction of a large scale on-site wastewater system in phases and sub-phases if necessary. However, VDH requires the design engineer to show that adequate amount of land area is available on the property for the ultimate capacity necessary at the built-out. In the current economic conditions, phased development is a preferred option.

The Walker's Ridge PUD is planned in three phases. Shimp Engineering has identified the type of development proposed for each of the three phases. We have estimated wastewater flow expected from each phase. Table 2 presents the projected GPD from each phase as well as the cumulative (total) GPD at the end of each phase. Note that development activities proposed for Phase 1 and 3 are significantly larger than the Phase 2, thus the projected GPD values for the Phase 1 and 3 are significantly larger than the value for the Phase 2.

Construction and operation of a large on-site wastewater treatment in phases allows the responsible management entity to work with the VDH to justify the assumptions used in the design and make adjustment to the system capacity when needed. Overall, this approach allows the responsible management entity to offer wastewater services to the PUD cost-effectively.

Table 1: Projected Daily Flow (GPD) on Complete Built-Out

Wastewater Flow Data Projections					
Block #	Dwelling Types	GPD/Unit	Unit		GPD
A-1	12,000 SF of Bank	200	1,000	SF	2,400
	25,000 SF of Retail	200	1,000	SF	5,000
A-2	20,000 SF of Retail	200	1,000	SF	4,000
	20,000 SF of Retail	200	1,000	SF	4,000
	80 Multi-Family 144 people	100	1.8	people/Home	14,400
A-3	7,500 SF Restaurent - 1 seat/200 SF	50	37.5	seats	1,875
	15,000 SF Retail	200	1,000	SF	3,000
	20,000 SF Office	200	1,000	SF	4,000
	70 Multi-Family 126 people	100	1.8	people/Home	12,600
A-4	6,500 SF Drive Through - 1 seat/200 SF	50	32.5	seats	1,625
	5,500 SF C-Store	200	1,000	SF	1,100
	14,000 SF of Retail	200	1,000	SF	2,800
	70 Townhomes 140 people	100	2	people/Home	14,000
B-1	37 Single Family Detached 148 people	100	4	people/Home	14,800
B-2	42 Single Family Detached 168 people	100	4	people/Home	16,800
B-3	55 Townhomes 110 people	100	2	people/Home	11,000
C-1	64 Single Family Attached 256 people	100	3	people/Home	19,200
C-2	49 Townhomes 98 people	100	2	people/Home	9,800
	29 Single Family Detached 116 people	100	4	people/Home	11,600
C-3	5,000 SF Restaurent - 1 seat/200 SF	50	25	seats	1,250
	5,000 SF of Retail	200	1,000	SF	1,000
	150 Multi-Family 270 people	100	1.8	people/Home	27,000
D-1	34 Single Family Attached 102 people	100	3	people/Home	10,200
D-2	32 Single Family Detached 128 people	100	4	people/Home	12,800
D-3	40 Townhomes 80 People	100	2	people/Home	8,000
	11 Single Family Detached 44 people	100	4	people/Home	4,400
D-4	38 Townhomes 76 people	100	2	people/Home	7,600
	24 Single Family Detached 96 people	100	4	people/Home	9,600
D-5	7 Townhomes 14 people	100	2	people/Home	1,400
	36 Single Family Detached 144 people	100	4	people/Home	14,400
E-1	51 Single Family Detached 204 people	100	4	people/Home	20,400
E-2	14 Townhomes 28 people	100	2	people/Home	2,800
	19 Single Family Detached 76 people	100	4	people/Home	7,600
			TOTAL PROJECTED GPD =		282,450

Table 2: Projected Daily Flow (GPD) for each Phase

Phase and Block #	GPD	Total GPD
1: A-1, D-1, D-2, D-3, D-4, D-5, E-1, E-2	106,600	106,600
2: A-4, B-1	34,325	140,925
3: A-2, A-3, B-2, B-3, C-1, C-2, C-3	141,525	282,450

III. Soil and Site Condition Assessments

The land use summary table prepared by Shimp Engineering (presented on the site plan sheet number 8 of 15) designates about 110 acres, or 47% of the total area, as open space for the proposed development. Area designated as open space in a development is typically used for designing and installing a subsurface effluent dispersal (drain field) system.

Soil and site conditions present in the open space area will dictate if the available area is sufficient for disposal of the projected daily flow from the proposed development, which in this case is 283,000 GPD. We have used a conservative area loading rate of 2 cm/day (about 0.5 gallons per day per square foot) for estimating the drain field area for this project.

At the area loading rate of 2 cm/day, approximately 14 acres primary and 14 acres reserve or a total of 28 acres of drain field area will be required for this project. Note that the VDH regulations allow for higher loading rates based on the field soil testing (conductivity test) results. Higher loading rate will reduce the amount of area required for drain field.

For preliminary feasibility analysis, we have used 30 acres as the maximum drain field area that will be required to support the subsurface effluent disposal for this project. This includes 100% reserve area, i.e., 15 acres primary and 15 acres reserved area. Our projected maximum drain field area is less than 30% of the total area designated as open space for this project.

USDA-NRCS soil survey maps are a great place to start the site feasibility analysis. Shimp Engineering has prepared a soils overview map for the proposed project area and has identified soil names (soil type) present within the boundaries. Figure 1 shows the soils overview map and list of the soil series prepared by Shimp Engineering. We reviewed the USDA-NRCS web-soil information database to determine the soil types that offer potential for locating drain field sites. Table 3 presents the soil types that offer potential for drain field sites and basic characteristics that influence the design of drain field (effluent dispersal) systems.

While the USDA-NRCS soil information is a good starting point for site feasibility analysis, the information is very broad and requires field verification. NCS retained services from John D. Harper, Licensed Professional Soil Scientist, to conduct the preliminary feasibility analysis for this project. John used the USGS-NRCS soil map data as well as preliminary field investigation to assess the soil and site conditions and to prepare a map that shows the suitability ratings for supporting drain field systems on the property. John Harper's complete report along with his assessment of the potential areas for drain field locations are contained in Appendix A, and his findings are summarized in this section. Harper's assessment must be considered as preliminary for planning purpose and not a substitute for detailed field evaluation, which will be necessary for designing drain fields and getting VDH permit approval.



Figure 1: Soil survey overview map.

Table 3: Soil basic information from USDA-NRCS web-soil database.

Soils Basic								
Soil Series and Approximate Area (Acres)	Slope %	Depth (inches)		Ksat Limiting			Typical Soil Profile
		to restriction	to WT	inch/hr	cm/day	Midpoint	
Me—Manteo silt loam, hilly phase (99.6 Acres)	15 - 25	10 - 20	> 80	0.00 - 5.95	0 - 360	180	0 to 6 inches: Silt loam 6 to 15 inches: Very channery silt loam 15 to 25 inches: Bedrock
Mf—Manteo silt loam, rolling phase (0.4 Acres)	8 - 15	10 - 20	> 80	0.00 - 5.95	0 - 360	180	0 to 6 inches: Silt loam 6 to 15 inches: Very channery silt loam 15 to 25 inches: Bedrock
Mg—Manteo silt loam, steep phase (9.8 Acres)	25 - 50	10 - 20	> 80	0.00 - 5.95	0 - 360	180	0 to 6 inches: Silt loam 6 to 15 inches: Very channery silt loam 15 to 25 inches: Bedrock
Nf—Nason silt loam, rolling phase (1.0 Acres)	8 - 15	40 - 60	> 80	0.00 - 0.06	0 - 4	2	0 to 5 inches: Silt loam 5 to 40 inches: Clay 40 to 60 inches: Silt loam
Ng—Nason silt loam, undulating phase (5.0 Acres)	2 - 8	40 - 60	> 80	0.00 - 0.06	0 - 4	2	0 to 5 inches: Silt loam 5 to 40 inches: Clay 40 to 60 inches: Silt loam
Tb—Tatum silt loam, rolling phase (5.4 Acres)	8 - 15	40 - 60	> 80	0.00 - 0.06	0 - 4	2	0 to 4 inches: Silt loam 4 to 48 inches: Silty clay loam 48 to 62 inches: Bedrock
Tc—Tatum silt loam, undulating phase (75.1 Acres)	2 - 8	40 - 60	> 80	0.00 - 0.06	0 - 4	2	0 to 4 inches: Silt loam 4 to 48 inches: Silty clay loam 48 to 62 inches: Bedrock
Td—Tatum silty clay loam, eroded rolling phase (7.0 Acres)	8 - 15	40 - 60	> 80	0.00 - 0.06	0 - 4	2	0 to 7 inches: Silty clay loam 7 to 44 inches: Silty clay loam 44 to 62 inches: Bedrock
Te—Tatum silty clay loam, eroded undulating phase (6.7 Acres)	2 - 8	40 - 60	> 80	0.00 - 0.06	0 - 4	2	0 to 7 inches: Silty clay loam 7 to 44 inches: Silty clay loam 44 to 62 inches: Bedrock

Preliminary field investigation was done by walking the project area looking for site conditions and soil profile based on augur holes. John took several pictures of the site to support his observations and assessments of the site. Picture 1 and 2 are good examples of the soil area and soil profile that John has characterized as "Fair" for drain field sites.

Picture 1: Example of "Fair" open area for installing drip system.



Picture 2: Soil profile indicating no major limitation for drain field siting.



In Appendix A, the last page shows the boundaries of Soil Feasibility Groups 1 through 4, where Group 1 and 2 with the most potential for drain field sites. About 40 acres on the property are classified as Soil Feasibility Group 1, which is more than the maximum drain field area required (30 acres) to support the subsurface effluent disposal for this project.

Detailed soil evaluation will be required within the boundaries of Group 1 and 2 to determine soil depth and conductivity values for sizing drip or other similar effluent dispersal system. Values of the critical design parameters such as area loading rate and depth of installation can only be determined based on the detailed soil evaluation and field testing.

IV. Summary

On-site wastewater systems offer an alternative to public sewer connection for a project like Walker's Ridge PUD. Subsurface disposal of treated wastewater is a component of an on-site wastewater system that requires adequate amount of land area that would meet the VDH requirements for soil and site conditions. Projected wastewater flow rate of 283,000 GPD was used for determining maximum area (about 30 acres) that may be required for drain fields to support the on-site wastewater system for this project.

Preliminary feasibility assessments of the soil and site conditions show that there is at least 40 acres available on the property that is noted by our soil scientist as Soil Feasibility Group 1, "Fair" for locating potential drain field sites. About 110 acres out of total 232 acres of this project area are classified as "Open Space," where drain field sites can be located after detailed field evaluation. Areas noted as Soil Feasibility Group 2, "Marginal to Poor" may also be used if necessary, for drain field sites. Thus, we feel confident that adequate amount of area is available to support an on-site wastewater disposal system for the proposed Walker's Ridge PUD.

Use of an on-site wastewater system under a responsible management entity model is recommended for this project. A responsible management entity offers design-build-operate services and takes full responsibility for the performance and permit compliance to the PUD customers. A responsible management entity will charge a sewer fee to cover life-cycle operating costs, thus offering sewer services to the home and business owners similar to what is done by public sewer authority.

NCS-NWC acts as a responsible management entity in Virginia and currently manages the wastewater system for Fox Glen in Fluvanna County. We are ready to offer similar services to the property owners of the Walker's Ridge PUD when it is ready for development.

APPENDIX – A

JOHN HARPER'S SOIL REPORT

Total 5 pages to follow.

Environmental Soil Consultants, LLC
Soil Mapping, Soil Evaluations & Drainfield Designs

October 29, 2013

NCS Wastewater Solutions
10412 John Bananola Way East
PO Box 73399
Puyallup, WA 98373

RE: Soil Feasibility Study: Walker's Ridge Development
232 ± Acres, Route 644
Fluvanna County, Virginia

Dear Sirs:

Scope of Study

This Soil Report and Map are designed to provide a planning tool for the layout potential mass drainfields on the proposed Walker's Ridge project. The soil map represents the results of a preliminary field evaluation and is intended for use as a general planning map and decision making tool. Soil areas intended for use with drainfield systems will require detailed documentation followed by coordination with the local health department.

The soil map units represent landscape topographic positions and were sketched based on field evaluations and landscape analysis; consequently, some fluctuation in the location of the delineation is anticipated.

Recommendations pertaining to soil area require detailed documentation for each drainfield area and are based on observed soil characteristics and how they relate to current State Department of Health Regulations regarding mass drainfield suitability. Information contained in the Sewage Handling and Disposal Regulations, published by the State Health Department, was used to estimate infiltration rates for the soil map units that follow.

General Soil and Site Conditions

The soils within the vicinity of the soil feasibility map are deep to moderately deep and well drained with moderate permeability. They are formed in residuum from sericite schist, phyllite, or other fine-grained metamorphic rocks in the Piedmont Physiographic Province. The soils found in drainways and low areas have potential for Waters of the United States including wetlands.

The site investigated was an abandoned golf course. Consequently, the Soil Feasibility Map units

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will contain areas of cut and fill that occurred during the construction of the golf course. Areas in and around the greens, Tees and sand traps will need to be excluded from drainfield use. Additionally, areas along the fairways that are planned for use with the mass drainfields will require detailed investigation for cut and fill activities in the pass and this may affect their suitability for drainfield use.

Soil Rating System

The Soil Feasibility Map Units in this report are rated using a good to poor system. The soil rating system is based on the frequency and severity of several limiting factors as prescribed in the Virginia Health Department (VDH) regulations. Depth to limiting zone, soil absorption rate and topographic landscape features are the three main categorizes that affect the quality and rating of the soil map units. A brief description for each limiting category as well as an explanation of Environmental Soil Consultant's Soil Map Unit system is shown below to illustrate the factors associated in rating the soils.

The following is a brief description of the soil feasibility ratings:

- **Good**- These soils will have little or no significant limiting factors.
- **Fair**- These soils will have some limitations to one or more limiting factors listed above. The specific site limitations will need to be addressed to obtain drainfield sites.
- **Marginal**- These soils will have significant limitations to one or more limiting factors. The specific site limitations will need to be addressed to obtain drainfield sites. The drainfield will often dictate the home site location, lot layout and lot size.
- **Poorly Suited**- These soils will have severe limitations to one or more limiting factors and should be considered unusable. These limiting factors preclude the installation of drainfield systems in accordance with Virginia Health Department regulations. Drainfield sites in some cases may be found in inclusions of better rated soil.

The depth to limiting zone is an important factor when rating soil map units. The Virginia Department of Health regulations have set minimum standards for the vertical separation distance between a drainfield absorption trench and a limiting zone in the soil. Several common soil limiting zones are depth to water table, bedrock, pans, or impermeable zone in the soil. The depth to limiting zone determines if a drainfield site is available as well as determining whether or not the system will require conventional or pretreated drainfields.

The soil absorption rate is an important factor when rating soil map units. The absorption rate is a measure of how fast the soil can accept effluent expressed in minutes per inch (mpi). The estimate of the soil absorption rate is affected by the soil texture (proportion of sand, silt, and clay) and soil structure. The Virginia Department of Health considers soils that have a soils absorption rate greater than 120 mpi to be unusable. The absorption rate defines the size of the drainfield.

Topographic features are another important factor when rating soil map units. Topography is a

description of the physical surface features of the landscape. Some of these features are percent slope, streams, drainways, swales, gullies and areas of excessive erosion. The Virginia Department of Health regulations designate setback distances from various topographic landscape features such as streams, springs, wetlands and sinkholes. The Virginia Department of Health regulations prohibit the placement of any drainfield in drainways, swales or concave topographic positions. Other topographic features such as slope and excessive erosion significantly affect the placement of drainfields and the rating of the soil map unit. The lot yield, system type, and lot layout can be affected in areas that have significant topographic limitations.

All of the soil limitations discussed above effect the amount of soil area needed to assure that a drainfield area can be documented on a soil map unit. An estimate of the minimum soil area required for drainfield documentation has been made for each soil feasibility map unit. This estimate of minimum soil area is not a recommendation for lot sizes. The total lot area should take into account the soil area needed to assure documentation of a drainfield as well as other factors including house and well location.

MAP UNIT DESCRIPTION:

SOIL FEASIBILITY GROUP NO. 1: The soils of this feasibility group are deep, gently sloping to moderately steep (2 to 15 percent) and well drained. They have developed from the weathering products of sericite schist, phyllite, or other fine-grained metamorphic rocks of the Piedmont Physiographic Province and are rated **fair** for use as mass drainfield sites. Estimated percolation rates of 50 to 90 minutes per inch are anticipated. Seasonal perched water tables are usually more than five feet below the soil surface. Permanent water tables are 45 to 70 feet below the soil surface. Inclusions of the soils of feasibility group #2, #3 and #4 may be found within these units.

SOIL FEASIBILITY GROUP NO. 2: The soils of this feasibility group are deep to moderately deep, moderately steep(12 to 25 percent) and well drained. They have developed from the weathering products of sericite schist, phyllite, or other fine-grained metamorphic rocks of the Piedmont Physiographic Province and are rated **Marginally suited** for use as mass drainfield sites due to slope and potential shallow rock. Estimated percolation rates of 50 to 90 minutes per inch are anticipated. Seasonal perched water tables are usually more than five feet below the soil surface. Permanent water tables are 45 to 70 feet below the soil surface. Inclusions of the soils of feasibility group #1, #3 and #4 may be found within these units.

SOIL FEASIBILITY GROUP NO. 3: The soils of this feasibility group are moderately deep to shallow, moderately steep(greater than 25 percent) and well drained. They have developed from the weathering products of sericite schist, phyllite, or other fine-grained metamorphic rocks of the Piedmont Physiographic Province and are rated **poorly suited** for use as mass drainfield sites due to slope and shallow rock.

SOIL FEASIBILITY GROUP NO. 4: The soils of this feasibility group are deep and moderately well to poorly drained. They have developed from loamy and silty deposits of alluvial origin and from rocks of the Piedmont. These soils are rated **poorly suited** for use in mass drainfields. These soils usually occur along drainways and are subject to flooding after heavy rainfall incidents. State Health Department Regulations prohibit placement of any drainfield within 50 feet of a drainway.

Some sites within this feasibility group meet some or all of the hydric soil, vegetative and hydrology definitions of nontidal wetlands as outlined by current guidelines. Detailed field mapping will be necessary to determine the location and extent of the nontidal wetlands.

We recommend that development of these mapping units be limited to necessary uses. Careful evaluation of "wetland" criterion is warranted for any construction disturbance. Construction or environmental permits may be required.

Remarks:

We estimate a minimum of 40 acres of soils in Feasibility Map Unit 1 are available on the property for detailed evaluation for us in a mass drainfields. The soils on the property that occur on less than 15% slopes can generally be utilized in mass drainfields. Limitations on this general statement will be within the old golf course in areas around the greens, sand traps and tees. Any drainfield areas on the fairways will be evaluated carefully for cut and fill areas. Drainfield areas may extend into the areas of slopes of between 15 and 20 percent where there are no other limiting factors present.

Soil feasibility groups are identified by the numbers on the map that accompanies this report and the number sequence is solely applicable to this report. Local ordinances regarding zoning were not considered when soil feasibility units were rated.

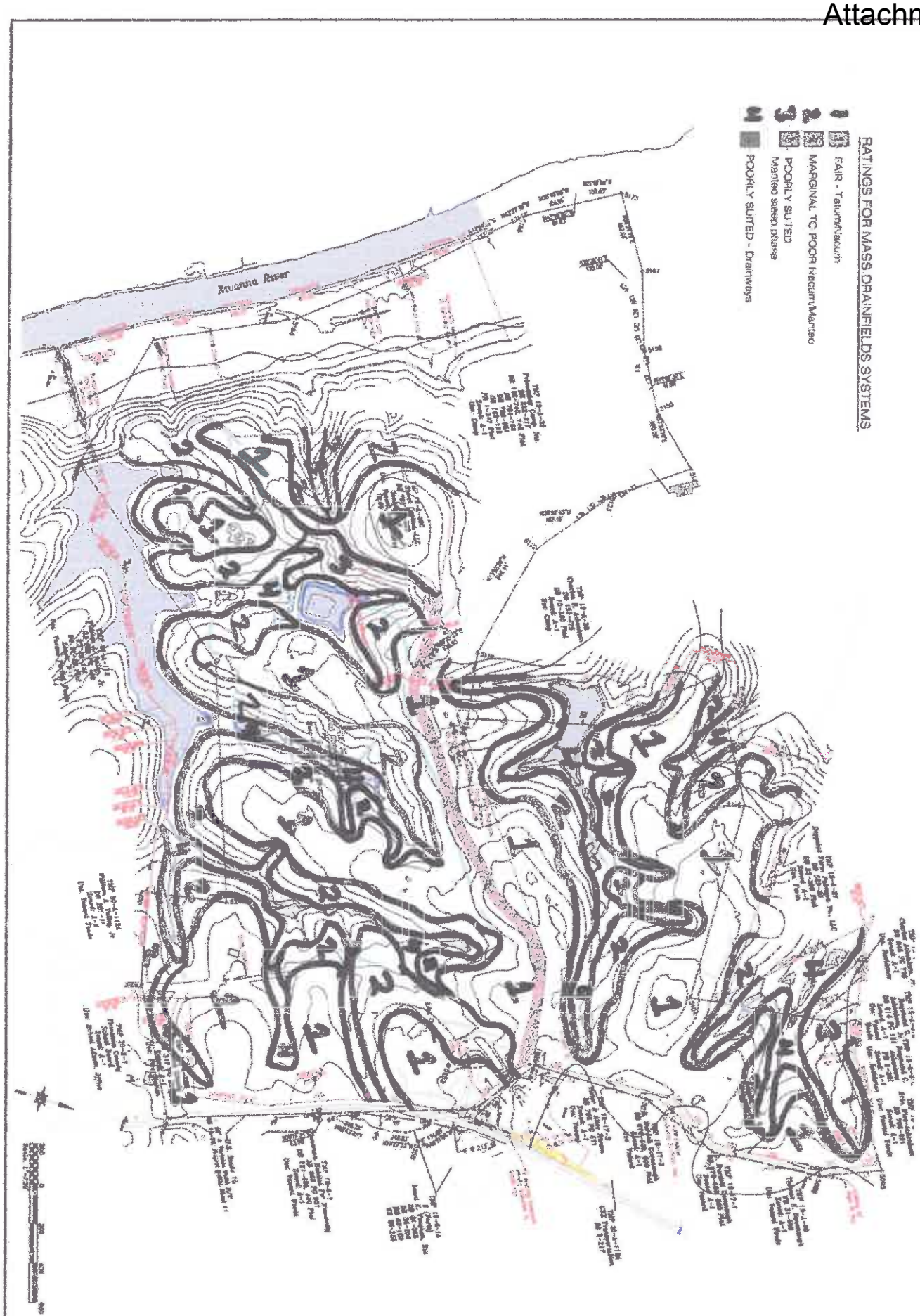
If you have any questions please call our office.

Sincerely,

Environmental Soil Consultants, LLC

John D. Harper, LPSS

COMMONWEALTH OF VIRGINIA
10/29/13
JOHN D HARPER SR
#3401000274
LICENSED
PROFESSIONAL SOIL
SCIENTIST



11.092	12/16/2011	Walker's Ridge PUD Fluvanna County, Virginia	Soils Overlay Map	SHIMP ENGINEERING, P.C. ENGINEERING · LAND PLANNING · PROJECT MANAGEMENT

SHIMP ENGINEERING, P.C.
PROJECT MANAGEMENT
CIVIL ENGINEERING
LAND PLANNING

Received
OCT 31 2013
Fluvanna County

October 30th, 2013

Ms. Allyson Finchum
Planning Director
Fluvanna County

Regarding: Walkers Ridge, Hydrogeological Studies and Impacts from Groundwater Withdrawal For Phase I Development.

Dear Ms. Finchum

As requested in your letter of October 22nd, 2013 we have completed two hydrogeological studies to address the questions raised by your letter. The first question is that of capacity, to determine capacity from a technical permitting aspect we have been working with Dr. Louis Scott Eaton. Dr. Eaton has prepared a summary report of the expected groundwater yields from the project area and conservatively projects a yield of 707 equivalent residential units (ERU's). His approach was to review the project from a permitting approach and has identified preliminary locations for wells via fracture trace analysis. It should be noted that the permitting requirement of 300 gallons per day per unit is well above actual usage in communities like Walkers Ridge. Dr. Eaton's feasibility study and resume are attached.

A second report has been prepared by Dr. Nick Evans, a Certified Professional Geologist and president of the Center for Sustainable Groundwater His report reviews the projected groundwater recharge from the site to determine if the project would use water in excess of the natural groundwater recharge which could potentially have an adverse impact on adjoining properties. Dr. Evans finds that the total available groundwater for our site to be 263,668 gallons per day. This is in excess of his projection for water usage for the complete development of our site and in excess of projections previously prepared by the Fluvanna County Public Works Director based upon a higher proposed density. Dr. Eaton projected a slightly lower daily recharge due to using a very conservative assumption of overall groundwater efficiency. Dr. Evans utilized his prior extensive research on Fluvanna County to prepare his projections. Even in the most conservative case there is expected adequate groundwater recharge to accommodate the development of Phase I in Walkers Ridge.

During prior discussions about the proposed water and sewer systems for Walkers Ridge we have consistently stated that our proposal is to recharge the groundwater supply by utilizing onsite drain fields and shallow drip systems. Dr. Evans has stated that "to the extent that waste water is to be disposed of through on-site drainfield(s), overall water usage for this project would not be consumptive of groundwater". Dr. Eaton has identified a conservative recharge rate from onsite sewer systems of 50%. Using this conservative figure effectively doubles the available groundwater capacity for the development and would provide for adequate capacity for 1,414 ERU's based on Dr. Eaton's findings. The two hydrogeological studies demonstrate that the site is of adequate area and geology to provide sufficient groundwater recharge, or balance for the development of Phase I within Walkers Ridge.

In addition to demonstrating sufficient groundwater recharge for the development, it is noted in both reports that geotechnical investigations to locate wells that are not hydrologically connected to wells on adjoining properties will remove the risk of impact to adjoining properties. Our geologist will provide us with the information required to properly site the wells to avoid any adverse impacts to adjoining properties.

The reports we have provided address the request of your October 22nd letter. We are diligently working on responses to the other items and will provide them on the schedule that we have previously committed too. Please let me know if you have any questions about the information we have presented. We look forward to bringing this information back to the Planning Commission and Board of Supervisors at the earliest opportunities.

Sincerely,

Justin Shimp, P.E.

Attachments:
Feasibility Study of Groundwater Potential of The Walkers Ridge Development; Eaton Geological Consulting
Resume for Dr. Eaton
Walkers Ridge Groundwater Impacts; The Center for Sustainable Groundwater
Resume for Dr. Evans

CC.
Dr. Nick Evans
Dr. Scott Eaton
Keith Smith

L. SCOTT EATON - CURRICULUM VITAE

ADDRESS

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395 South High St., MSC 6903
James Madison University
Harrisonburg, Virginia 22807
540.568.3339
eatonls@jmu.edu

Received
OCT 31 2012
Fluvanna County

POSITION

Professor of Geology, James Madison University

EDUCATION

Ph.D., Environmental Sciences
Department of Environmental Sciences, University of Virginia; 1999.
Dissertation: *Debris flows and Landscape evolution in the Upper Rapidan Basin, Blue Ridge Mountains, Central Virginia*
Advisor: Dr. Alan D. Howard.

M.S., Geology
Department of Geology, Southern Illinois University, 1991. Thesis: *Fluvial-Geomorphic Analysis of Wolf Creek Basin, Alexander County, Illinois.*
Advisor: Dr. Margaret E. Berry.

B.S., Geology
James Madison University, 1988. Honors Thesis: *Depositional History of the Lowest North River Terrace at Bridgewater Air Park, Virginia.*
Advisor: Dr. W. Cullen Sherwood.

PROFESSIONAL WORK EXPERIENCE

Field Geologist (faculty appointment), U.S. Geological Survey, Reston, Virginia, 1996 - present.
Principal investigator in mapping debris flow and flood deposits in the Blue Ridge Mountains of Central Virginia, including documentation of the stratigraphy and sedimentology of prehistoric surficial deposits.

Geological Consultant, 1996 – present.
Responsible for locating high yielding water wells using fracture trace analysis in conjunction with geophysical methods of investigation.

TEACHING ACTIVITY

Courses Taught:
Physical Geology, Geomorphology, Hydrogeology, Stream Ecology, Field Course in Ireland, Field Course in New Mexico, Surface Processes, Natural Hazards, Soils and Land Use, Engineering Geology, Undergraduate Student Research, Undergraduate Internship.

New Courses Developed/Modified Since Tenure/Promotion:
Surface Processes, Field Course in Ireland, Natural Hazards, Stream Ecology, Engineering Geology

SCHOLARLY ACTIVITY

(undergraduate student research, publications, abstracts, presentations, and funding)

JMU Undergraduates Collaborating in Research with L. Scott Eaton
Summary:

- Forty-three research students in the past 14 years
- In the past 7 years (since tenure and promotion):
  - 38% received outside funding to support their research
  - 35% presented at regional or national conferences
  - 8% coauthors in international geoscience journals

Bold of student name indicates external funding for student support

Year	Student Name	Title of Project	Product
2010-11	Brendan McGowan	Hydrogeology Project: T.B.A.	T.B.A.
	Brad Fitzwater	The Surficial Geology of the Luray Quadrangle, Virginia	(Projected) Publication of mapping as VGDMR product
2009-10	Alben Sellers	The application of fracture trace analysis in locating high-yielding water wells in sedimentary rocks of the Shenandoah Valley, Virginia	Presentation at Dept. Student Forum
2008-09	**Holly Polivka** **Elizabeth Weisbrot**	Using soils and sedimentology for deciphering the origins of geomorphic surfaces near Massanutten Mountain, eastern Rockingham County, Virginia	Presentation at Dept. Student Forum GSA presentation and publication in regional journal
	Timothy Heltzel	Man and Moo: The effects of channelization, cattle grazing, and elimination of grazing on a pasture land stream, western Albemarle County, Virginia	Presentation at Dept. Student Forum Potential GSA presentation and publication in regional journal
	Nicholas Bass	Summer internship at ECS, Manassas	Presentation at Dept. Student Forum

JMU Undergraduates Collaborating in Research with L. Scott Eaton (continued)

2008-09	Meghan Sibbard	Groundwater Inventory of Madison County, VA	GIS Database with analysis for Madison County Planning Commission
2007-08	Alyssa Melberg	Concentrations of floodplain soils along the South River, Shenandoah Valley, VA	Presentation at Dept. Student Forum
	Katie Jepson	Historic record of debris flows in the central Appalachians	**Data published in USGS Professional Paper**
2006-07	**Sarah Roberts**	Mixing Geomorphology and Ecology: Relationships between fish populations and stream bed permeability	**Presented at Geological Society of America National Meeting**
	Tanner Simensen	Bedload transport of sediment at Smith Creek, Rockingham County, VA	Presentation at Dept. Student Forum
	Sara Rangel	A water budget for the South River, Shenandoah Valley, VA	Student Research Credit
2005-06	Dan Bosener Clark Weigel	Surficial drainage patterns and geomorphic history of the Paine and Meadow Runs, Crimora, VA	Presentation at Dept. Student Forum
	Scott Nash	The applicability of the combined use of hydrological and geophysical methods for monitoring landfill leachate in areas at risk for groundwater contamination	Presentation at Dept. Student Forum
2004-05	**Robert Sas**	Geologic Controls of Basin Denudation from Debris Flows in Rockbridge County, VA,	NE regional *Geological Society of America abstract sectional meeting* Presentation at Dept. Student Forum ***Publication in Landslides Journal***
	Sam Powell	*Magneto-Telluric and Streaming Potential Embankment Seepage Analysis of the Blue Ridge School Dam*	Presentation at Dept. Student Forum
	Jackie Hess	*Paleoflood Discharges and Origins of Surficial Deposits of Meadow Run,Augusta County, VA*	Presentation at Dept. Student Forum
2003-04	**Kristin Felker** **Meredith Benedict**	Sedimentology and geomorphic processes of Blackrock block stream, Shenandoah National Park, Virginia.	Presentation at Dept. Student Forum *SE Geological Society of America abstract sectional meeting*
	Melissa Orndorff	Geomorphic processes and inventory of block streams in the Paine Run drainage, Grottoes, Virginia	Presentation at Dept. Student Forum *SE Geological Society of America abstract sectional meeting*
	Eric Turner	Reactivation of slope failures along Meadow Run, Shenandoah Valley, Virginia	Presentation at Dept. Student Forum *SE Geological Society of America abstract sectional meeting* ***Publication in Landslides Journal***
	Erin Peebles	Geomorphic history of Meadow Run Flood Plain, Crimora, Virginia	Presentation at Dept. Student Forum *SE Geological Society of America abstract sectional meeting*
	Joanie Clark	Karst processes of Southeast Asia	Presentation at Dept. Student Forum

JMU Undergraduates Collaborating in Research with L. Scott Eaton (continued)

2003-04	John Lacombe	Defining the Rosgen Method of Stream Restoration	Presentation at Dept. Student Forum
2002-03	Sargent Bray Harry Hibbitts	Rotational slides in saprolitized alluvium on the western flank of the Blue Ridge near Grottoes, Virginia.	Presentation at Dept. Student Forum *Journal Article in conjunction with USGS (in progress)*
	Stephen Reynolds	Trends in Vegetation Reestablishment on the Kinsey Run Debris Fan, Madison County, Virginia	Presentation at Dept. Student Forum *SE Geological Society of America abstract sectional meeting*
2001-02	Russel Pace	The Study and Application of Fracture Trace Analysis, Harrisonburg Quad.	Presentation at Dept. Student Forum
	Andrew McNown	Analysis of Longitudinal Variations of Particle Size, Shape, and Orientation of the Blackrock Block Slope, Shenandoah National Park, Virginia	Presentation at Dept. Student Forum. *Geological Society of America abstract National meeting*
	Jennifer Allen Matthew Tymchak	Developing Regional Curves for Stream Hydraulic Geometry in the Central Blue Ridge, and their Application in Stream Restoration	Presentation at Dept. Student Forum *Pilot study for Jeffress grant proposal; submitted April, 2003.*
	Brian Neeley	Grain Size Analysis of Debris Fans, Madison County, Virginia	Presentation at Dept. Student Forum Presentation at Virginia Academy of Sciences,
2000-01	Chris Printz	Karst development of the Hurricane Ridge and Union Cave Spring Drainage Basin, Monroe County, WV.	Presentation at Dept. Student Forum Presentation at Virginia Academy of Sciences
	Todd Burton	Fracture Trace Analysis of the Dayton, Virginia Area	Presentation at Dept. Student Forum
1999-00	Todd Waldrop	Fracture Trace Analysis: Effectiveness and Application	Presentation at Dept. Student Forum
	Chris Printz	Characterization of the Isopod Habitat, Shenandoah Valley, VA	*Report Prepared for US Fish and Wildlife Service* Presentation at Dept. Student Forum
	Ryan Sensenig	Integrated Earth Science Field Study for Teachers: An Online Resource.	Web Page for State High School Applications.
1998-99	Christy McQuiddy Mary Sherrill	A periglacial stratified slope deposit in Madison County, Virginia	Presentation at Dept. Student Forum *Data used for Geomorphology Publication (Eaton et al., 2003)*
	Stephanie Booth	Trends of river terraces of the Rapidan River	*Data used for Geomorphology Publication (Eaton et al., 2003)*
1997-98	Heather Shroyer	Selected sedimentologic aspects of the June, 1995 flood event of Madison County, Virginia	*Publication in Geomorphology (Springer et. al., 2001)*

Publications (*indicates peer-reviewed)

*__Eaton, L.S.__, Kochel, R.C., Hubbard, D.A., Simoni de Cannon, F.V., and Mose, D.G., (in press), Geologic Hazards of Virginia, *in* Bailey, C.M., Eaton, L.S., and Sherwood, W.C. (eds.), *The Geology of Virginia*, Virginia Division of Geology and Mineral Resources, Charlottesville.

*Whittecar, G.R., Newell, W.L., and **Eaton, L.S.,** (in press), Landscape evolution in Virginia, *in* Bailey, C.M., Eaton, L.S., and Sherwood, W.C. (eds.), *The Geology of Virginia*, Virginia Division of Geology and Mineral Resources, Charlottesville.

*Heller, M., and **Eaton, L.S.**, (2010), Surficial Geology of the Elkton West Quadrangle, Virginia: Virginia Division of Geology and Mineral Resources Publication.

*Sherwood, W.C., Hartshorn, A., and **Eaton, L.S.,** 2010, Geology, Soils, and Land Use in the Eastern Blue Ridge and Western Piedmont of Central Virginia, Geological Society of America, Boulder, CO.

Bailey, C.M., Southworth, S., **Eaton, L.S.,** Hancock, G., Lamoreaux, M.H., Litwin, R.J., Burton, W.C., and Whitten, J., 2009, The Geology of the Shenandoah National Park Region, Virginia Geological Field Conference Guide Book.

*Wieczorek, G.F., **Eaton, L.S.,** Morgan, B.A., Wooten, R.M., and Morrissey, M., 2009, An examination of selected historical rainfall-induced debris flow events within the central and southern Appalachian Mountains of the Eastern United States, *U.S. Geological Survey Professional Report Series 2009-1155.*

*Kochel, R.C., Nickelsen, R.P., and **Eaton, L.S.**, 2009, Catastrophic Middle Pleistocene Jökulhlaups in the Upper Susquehanna River: Distinctive Landforms from Breakout Floods in the Central Appalachians, *Geomorphology*, v. 110, p. 80-95.

*May, C.L., **Eaton, L.S.**, and Whitmeyer, S., 2009, Integrating student-led research in environmental geology into traditional field courses: a case study from James Madison University's field course in Ireland, In S.J. Whitmeyer, D.W. Mogk, & E.J. Pyle (Eds.), *Field geology education: Historical perspectives and modern approaches*: GSA Special Paper 461. Boulder, CO: Geological Society of America.

Publications (continued)

*Sas, R.J., Jr., and **Eaton, L.S.**, 2008, Quartzite terrains, geologic controls, and basin denudation by debris flows: their role in long-term landscape evolution in the central Appalachians, *Journal of Landslides*, v. 5, no. 1, p. 97-106.

*Sas, R.J., Jr., Sklar, **L.S., Eaton**, L.S., and Davis, J., 2008, A Method for Developing Regional Road-Fill Failure Hazard Assessments Using GIS and Virtual Fieldwork, *Environmental and Engineering Geosciences*; v. 14:221-229.

*Wieczorek, G.F., **Eaton, L.S.,** Yanowsky, T.M., and Turner, E.J., 2006, Landslide activity along Meadow Run, Shenandoah Valley, Virginia, *Journal of Landslides*, v. 3, pp. 95-106.

Eaton, L.S., 2005, Assessment of the Geologic and Geomorphologic Resources of Shenandoah National Park, Virginia, *Technical Report*, National Park Service.

Eaton, L.S., Bailey, C.M., and Gilmer, A. K. 2004, The Debris Flows of Madison County, Virginia. Virginia Geological Field Conference Guidebook., 27 p.

*Litwin, R.J., Morgan, B.A., **Eaton, L.S.**, and Wieczorek, G.F., 2004, Assessment of Late Pleistocene to recent climate-induced vegetation changes in and near the Shenandoah National Park (Blue Ridge Province, VA), *USGS Open File Report 2004-1351.*

***Eaton, L.S.**, Morgan, B.A., Kochel, R.C., and Howard, A.D., 2003, Role of debris flows in long-term landscape denudation in the central Appalachians of Virginia. *Geology*, v. 31, p. 339-342.

***Eaton, L.S.**, Morgan, B.A. Kochel, R.C., and Howard, A.D., 2003, Quaternary deposits and landscape evolution of the central Blue Ridge of Virginia, *Geomorphology*, v. 56, p. 139-154.

*Morgan, B.A., **Eaton, L.S.**, Wieczorek, G.F., 2003, Pleistocene and Holocene colluvial fans and terraces in the Blue Ridge region of Shenandoah National Park, Virginia, *U. S. Geological Survey, Report: OF 03-0410*, 25 pp., 1 Sheet.

***Eaton, L.S.**, Morgan, B.A. Kochel, R.C., and Howard, A.D., 2003, Quaternary deposits and landscape evolution of the central Blue Ridge of Virginia, *Geomorphology.*

*Wieczorek, G.F., Larsen, M.C., **Eaton, L.S.,** Morgan, B.A. and Blair, J. L., 2002, Debris-flow and flooding deposits in coastal Venezuela associated with the storm of December 14-16, 1999: U.S. Geological Survey, Geologic Investigation Series Map I-2772.

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*Eaton, L.S., Morgan, B.A., and Blair, J.L., 2001, Surficial geology of the Fletcher, Madison, Stanardsville, and Swift Run Gap, 7.5-minute quadrangles, Madison, Greene, Albemarle, Rockingham, and Page Counties, Virginia, US Geol. Surv. OFR 01-92. 1 table, 1 appendix, 4 plates, 1 CD.

*Larsen, M.C., Wieczorek, G.F., **Eaton, L.S.,** Torres-Sierra, H., Morgan, B.A. 2001, Natural Hazards on Alluvial Fans; The Venezuela Debris Flow and Flash Flood Disaster, USGS Fact Sheet.

*Larsen, M.C., Wieczorek, G. F., **Eaton, L.S.,** Morgan, B.A., and Torres-Sierra, H., 2001, Natural hazards on alluvial fans: the debris-flow and flash-flood disaster of northern Venezuela, December 1999: EOS, Transactions: American Geophysical Union, v. 82, p. 572-574.

*Springer, G.S., Dowdy, H.S., and **Eaton, L.S.,** 2001, Sediment budgets for two mountainous basins affected by a catastrophic storm: Blue Ridge Mountains, Virginia: Geomorphology, v. 37, p. 135–148.

*Wieczorek, G.F., Larsen, M.C., **Eaton, L.S.,** Morgan, B.A. and Blair, J. L., 2001, Debris-flow and flooding hazards associated with the December 1999 storm in coastal Venezuela and strategies for mitigation: U.S. Geological Survey Open File Report 01-144, 40p., 3 tables, 2 appendices, 3 plates, 1 CD.

*Larsen, M.C., Wieczorek, G. F., **Eaton, L.S.,** and Torres-Sierra, H., 2000, The Venezuela landslide and flash flood disaster of December 1999, In: Mugnai, A., Guzzetti, R., and Roth, E. (Eds.), Mediterranean Storms, Proceedings of the 2nd Plinius Conference, October, 2000, Siena, Italy, p. 519-529.

Eaton, L.S., 1999, Debris flows and Landscape evolution in the Upper Rapidan Basin, Blue Ridge Mountains, Central Virginia, Ph.D. thesis, University of Virginia, 154 p.

Eaton, L.S., Lin, M.A., and Lynn, C., 1998, Assessment of opportunities for enhanced cooperation in acquiring and disseminating weather data among selected Virginia government agencies; Virginia Transportation Research Council, Report Number VTRC 98-R16.

Abstracts

(JMU student authors are shown in **bold**)

Eaton, L.S., Baedke, S.J., Haynes, J., Johnson, E.A., Leslie, S.A., Pyle, E.J., Whitmeyer, S., Whitmeyer, S.J., 2009, Dueling Topics: Success using a two track option in the James Madison University Ireland Field Course, Geological Society of America Abstracts with Programs, Portland, OR.

Eaton, L. S., **Polivka, H., and Weisbrot, L.**, 2009, Using soils and sedimentology for deciphering the origins of geomorphic surfaces near Massanutten Mountain, central Shenandoah Valley, Virginia, , Geological Society of America Abstracts with Programs, Portland, OR.

Eaton, L.S., 2008, Long term rates of landscape denudation of the central Appalachians, and their significance on sedimentation in the Chesapeake Bay , US EPA Proceedings on Fine Grain Sedimentation within the Chesapeake Bay, Baltimore, MD. *INVITED SPEAKER*.

Eaton, L.S., 2008, Effects of land use changes and channelization on the stability of streams: A case study from the Shawnee Hill country of southern Illinois, Geohazards in Transportation in the Appalachian Region, Charleston, WV, Aug. 5-7, 2008. *SESSION ORGANIZER AND CHAIR*.

Eaton, L.S., May, C.L., Moore, K.R., Harris, M.J., and Whitmeyer, S.J., 2007, Integrating student-led research in environmental geology into traditional field courses: a case study from James Madison University's field course in Ireland, Geological Society of America Abstracts with Programs, Vol. 39, No. 6, p. 622.

Sas, R.J., Jr., and Eaton, L. S., 2007, An integrative approach to assessing potential road-fill failures and downslope hazards, Geological Society of America Abstracts with Programs, Vol. 39, No. 6, p. 363.

Harris, M.J., Whitmyer, S., Kelly, S., Whitmyer, S. J., Feely, M., and Eaton, L. S., 2006, Digital Mapping and 3D Visualization in a geology summer field course, Geological Society of America Abstracts with Programs.

Roberts, S. M., May, C. L., Eaton, L. S., and Hudy, M., 2006, Mixing Geomorphology and Ecology: Relationships between fish populations and stream bed permeability, Geological Society of America Abstracts with Programs.

Sas, R.J., Jr. and Eaton, L. S., 2006, Landslide Warning Action Plan: Prioritizing Areas of High Risk Along Blue Ridge Parkway Using VisiData, Eos, Transactions, American Geophysical Union.

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Sas, R.J., Jr. and Eaton, L. S., 2005, Geologic controls of basin denudation from debris flows in Rockbridge County, Virginia, Geological Society of America Abstracts with Programs.

Eaton, L.S., 2004, The role of debris flows in long-term denudation and landscape evolution in the central Appalachians, Eos, Transactions, American Geophysical Union.

Felker, K.C., Benedict, M.L., and Eaton, L.S., 2004, Sedimentology and geomorphology of Blackrock block stream, Shenandoah National Park, Virginia, Geological Society of America Abstracts with Programs, Vol. 36, No. 2, p. 73.

Frangos, W., and Eaton, L.S., 2004, Case History: Merging the Tools of DC Resistivity and Fracture Trace Analysis for Locating High Yield Domestic Water Wells in Karst Terrain, Shenandoah Valley, Virginia, USA, (abstract), AGU Montreal Meeting, May, 2004.

Litwin, R.J., Morgan, B.A., and Eaton, L.S., 2004, Proxy climate trends in the Blue Ridge of Virginia, 0-45 KA, and comparison to the Greenland ice core record, Geological Society of America Abstracts with Programs, Vol. 36, No. 2, p. 114.

Peebles, E.K., and Eaton, L.S., 2004, The past, present, and future locations of the stream of Meadow Run, Blue Ridge Mountains, Virginia, Geological Society of America Abstracts with Programs, Vol. 36, No. 2, p. 114.

Turner, E.J., and Eaton, L.S., 2004, Reactivation of slope failures along Meadow Run, Shenandoah Valley, Virginia: Geological Society of America Abstracts with Programs, Vol. 36, No. 2, p. 120.

Wieczorek, G.F., Eaton, L.S., and **Turner, E.J.** 2004, Landslide activity along Meadow Run, Shenandoah Valley, Virginia, Geological Society of America, vol.36, no.2, pp.149.

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Abstracts (continued)

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Kochel, R.C., Nickelsen, R.P., and Eaton, L.S., 2003, Elongated low-gradient debris fans: Jokulhlaups resulting from tributary damming by Pre-Wisconsinan glacial ice lobes moving up the Buffalo Creek Valley in central Pennsylvania, Geological Society of America, National Annual Meeting, Program Abstracts, Seattle, WA, October 2003.

Bierman, P.R., Pavich, M., Eaton, L.S., Finkel, R., and Larsen, J., 2002, The boulders of Madison County, Abstracts with Programs - Geological Society of America, 34(6), p.127; Geological Society of America, 2002 annual meeting, Denver, CO, Oct. 27-30, 2002.

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Eaton, L.S.; **Reynolds, S.H.**, 2002, Trends in vegetation recovery of the Kinsey Run debris fan, Madison County, Virginia, Abstracts with Programs - Geological Society of America, 34(2), p.8; Geological Society of America, Southeastern Section, 51st annual meeting; Geological Society of America, North-Central Section, 36th annual meeting, Lexington, KY, Apr. 3-5, 2002.

Neely, B.,H., and Eaton, L.S., 2002, Soil pedogenesis of debris fans, Graves Mill, VA Virginia Journal of Science, 52(2), p.111; 79th annual meeting of the Virginia Academy of Science, Harrisonburg, VA, May 22-25, 2001.

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Larsen, M.C., Wieczorek, G.F., Eaton, L.S., and Torres-Sierra, H., 2001, The rainfall-triggered landslide and flash-flood disaster in northern Venezuela, December 1999: 7th Federal Interagency Sedimentation Conference, March, 2001, Reno, Nevada, p. IV-9 to IV-16.

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Kochel, R.C., Eaton, L.S., Daniel, N., and Howard, A.D., 1997, Impact of 1995 debris flows on geomorphic evolution of Blue Ridge debris fans, Madison County, Virginia, Geological Society of America, National Annual Meeting, Program Abstracts, Salt Lake City, UT, October 20 - 23, 1997.

Nash, C.L., and Eaton, L.S., 1997, Rapid mass movement events in the central Blue Ridge and landscape evolution: implications for the study of native settlement patterns in upland fan locations, Program Abstracts, Third International Conference on Soils, Geomorphology, and Archeology, Annual Meeting, Woodstock, Virginia, May 22 - 24, 1997.

Sherwood, W.C., and Eaton, L.S., 1997, Landscape evolution and land use in the Blue Ridge Mountains of central Virginia, Program Abstracts, Symposium on Culture-History of the Mountainous Eastern United States, Harrisonburg, VA, May 16-18, 1997.

Eaton, L.S., 1996, Prehistoric debris flows and landscape evolution in Madison County, Virginia; Virginia Association of Professional Soil Scientists Fall Meeting, Culpeper, VA, November 13, 1996.

Kochel, R.C., Eaton, L.S., and Howard, A.D., 1996, Catastrophic debris flows in the central Appalachians: Considerations of their role in the evolution of Piedmont geomorphology, Geological Society of America, National Annual Meeting, Program Abstracts, Denver, CO, October 28 - 31, 1996.

Invited Presentations:

General Topic: *The role of debris flows in landscape evolution of the Blue Ridge Mountains, central Virginia.*

- Dept. of Geology and Environmental Science, JMU, 2009
- US EPA Fine Sediment and the Chesapeake Bay Conference, 2008
- National Academy of Sciences, Washington, D.C., 2005
- Dept. of Geology, Humboldt State University, Sept. 2003
- Dept. of Geology, South Carolina University, Feb. 2002
- Dept. of Geology, East Carolina University, Nov. 2001
- Stewards of the upper Rapidan, Madison, VA July 2002.
- Dept. of Environmental Sciences, Univ. of Virginia, Jan. 2001
- Dept. of Geology, College of William and Mary, Nov. 1999
- Harrisonburg Rotary Club, April 25, 1999.

Invited Presentations (continued):

General Topic: *Groundwater resources of Virginia*

- West Virginia Dept. of Natural Resources, September 2009.
- Naturalist, Old Rag Chapter, October 2006
- Virginia Nursery Association Annual Meeting, Middletown, VA, April 2003.
- Virginia and West Virginia State Horticulture Society Annual Meeting, Williamsburg, VA, January 24, 2001.
- Winchester Rotary Club, March 15, 2001.
- US Natural Resources Conservation Service-Sponsored *Drip Irrigation Conference*, Middletown, VA, December, 1999.

General Topic: *Integrating student-led research in environmental geology into traditional field courses: a case study from James Madison University's field course in Ireland.*

- The Cutting Edge: Teaching Geoscience in the Field in the 21st Century; Bozeman, MT, 2010.

General Topic: *Effects of land use changes and channelization on the stability of streams:*

- Geohazards in Transportation in the Appalachian Region, Charleston, WV, Aug. 2008.

General Topic: Landslides and catastrophic flooding in northern Venezuela, December, 1999.

- Dept. of Geology, South Carolina University, Feb. 2002.

Funding:

Meierjurgen Faculty Fellowship, University of Oregon, ($15,000), spring/summer 2011.

Virginia Division of Geology and Mineral Resources, *Surficial Geology of the Luray Quadrangle, Virginia,* ($7500), fall/spring, 2010-11.

Virginia Division of Mineral Resources, *Surficial Geology of the Elkton West Quadrangle, Virginia,* ($8000*), summer and fall, 2008.
*of which $1000 for **student support**

College of Science and Mathematics, JMU, *A novel approach for measuring and predicting streambed mobility during natural and experimental floods in a large regulated river* ($4000), summer, 2008.

Funding (continued):

US Geological Survey, *Landslide Warning Action Plan: Prioritizing areas of high risk along Blue Ridge Parkway,* (~$10,000), 2006-2007. (Grant covers travel expenses, and supports one faculty and **two students**)

Canaan Valley Institute, Geomorphology of Smith Creek, Rockbridge County Virginia
Student support ($3000) summer, 2006.

US Geological Survey, *Geologic Controls of Basin Denudation from Debris Flows in Rockbridge County, VA.*
Student support ($1500) for field research, 2004/2005 academic year

US Geological Survey, *Surficial Geology of Shenandoah National Park,*
Faculty research support ($2,000), Fall, 2005

National Park Service, *Assessment of the Geologic and Geomorphologic Resources of Shenandoah National Park, Virginia,*
Faculty research support ($10,000) summer/fall 2005

Virginia Division of Mineral Resources, *Surficial Geologic Investigation on the Grottoes and Vesuvius 7.5-minute Quadrangles*
Faculty support ($2500), 2005/2006.
Student support ($1000) 2006/2007

US Geological Survey, *Surficial Geology of Shenandoah National Park,*
Student research support ($2,500), Fall, 2004

SERVICE (major contributions)

Department

- **Chair**: Search Committee; Soils and Engineering Geology (Fall 2009)
- **Chair**: Academic Program Review (spring 2007- Spring 2008)
- **Chair**: Department Newsletter (2008-present)
- Member: Department Recruitment (2007-present)
- Member: Ali Dortery Scholarship committee (2006-present)
- Member: Search Committee; Geophysics position (2005)
- Member: Search Committee; Structural Geology position (2004)
- Member: Search Committee; Geologic Education Position (2003)
- Geologic Education Position Search Committee (2003)
- Geophysics Search Committee (2000, 2005)

Service (continued):

College

- Member: College Council (1999; 2007-2010)
  - **Chair (2009 -2010)**
- Member: Faculty Assistance Committee (2000-2007)
- Member: Search Committee (Biology); Stream Ecology position search (2007)
- Cluster 3, Package A representative, General Education (2000-2003)
- Cluster 3, Package A, Mathematics subcommittee representative (2002-2003)

University

- Member: Faculty Senate (2005-2007)
- Member: General Education Cluster 3 committee (2003-2005)
- Member: General Education Faculty Assistance Committee (2005)

Profession

- **Co-editor**: *The Geology of Virginia* (2008-present)
- **Leader**: Virginia Geological Field Conference (2004, 2009)
- **Leader**: GSA regional field trip (2010)
- **Board of Directors**: Geohazards in Transportation in the Appalachians (2008-present)
- Member: Eastern landslide rapid response team (2000-present)
- Member: USGS storm team advisory board (2004-present)
- Chair: Fluvial processes session, Geohazards in Transportation in the Appalachians conference (2008).

Professional Affiliations

- Member: Geological Society of America
- Member: American Geophysical Union
- Member: Virginia Association of Professional Soil Scientists

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OCT 31 2013
Fluvanna County

Feasibility Study of Groundwater Potential of The Walker's Ridge Development
Fluvanna County, Virginia

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25 October 2013

Executive Summary

Eaton Geological Consulting, LLC has conducted a feasibility study of groundwater potential at Walker's Ridge, Fluvanna County, Virginia.

A theoretical groundwater availability analysis suggests that recharge available on site is capable of supporting sustainable withdrawals on the order of **212,239 gallons per day** (GPD). Based on a 300 GPD ECR, this amount of recharge could in theory support a maximum of **707 ECRs**.

The site is entirely within the Mine Run Complex geological formation. In a database containing 103 wells drilled within three miles of this site, the median reported yield is 8.0 GPM. Approximately 68% of the wells are in the 0 to 120 GPM range; the highest reported yield of a well within this formation is 100 GPM. Quartz veins are locally present in the bedrock; these represent favorable targets for groundwater development.

Soils on the eastern portion of the property in general have thickness and permeability that are favorable to groundwater storage and transmission. Soils on the western portion are thinner, but still favorable.

The Rivanna River, located on the western boundary of the property, has the capability of buffering groundwater levels and perhaps providing additional recharge to the system. This may be an asset in terms of groundwater development on the property to the extent that connectivity exists with bedrock fractures.

Fracture trace analysis has identified a significant number of lineaments that may correlate with water-bearing bedrock fractures.

Overall, groundwater potential on this site is moderate. Although yields of randomly sited wells in this geology typically yield in the range of 0 to 15 GPM, yields in the 25 to 35 GPM range have been achieved elsewhere in this geology when sited using a combination of fracture trace analysis and geophysical survey.

Eaton Geological Consulting, LLC finds that the groundwater potential of this site is sufficiently favorable that it would be feasible to conduct geophysical survey work and drill test wells.

1.0 Introduction

In order to assess the feasibility of groundwater development on the Walker's Ridge property (Figure 1), Eaton Geological Consulting, LLC has examined physical aspects of the site, and drawn upon data and field experience gained conducting hydrogeologic investigations on similar sites elsewhere in the western Piedmont physiographic province of Virginia. This report summarizes all available information and draws conclusions regarding the groundwater potential of the

site. Recommendations are presented as to proceeding with geophysical investigations, and drilling test wells in favorable groundwater zones.

2.0 Theoretical Groundwater Availability Analysis

A groundwater availability analysis has been conducted for Walkers Ridge in order to estimate the theoretical yearly rate of recharge of the bedrock aquifer, and to provide a hypothetical projection of the number of Equivalent Residential Connections (ERCs) that could be supplied by onsite groundwater. This approach is based on the theory that, over the long term, a maximum sustainable groundwater withdrawal rate could be considered to be approximately equal to the natural recharge rate. Ideally, this would require that the fracture network in the bedrock be interconnected throughout the property with all supply wells, at 100% efficiency, so that all available groundwater on-site is actually captured by the wells. Since this is seldom the case in the natural world, a conservative, and estimated efficiency factor of 50% has been assigned based on our knowledge of the geology at Walker's Ridge.

2.1 Assumptions

- Groundwater withdrawals are consumptive; that is, there is no return of water to the on-site aquifer via infiltration.
- The source of groundwater recharge is precipitation only.
- 95% per cent of the entire site contributes to groundwater recharge by precipitation, including storm water retention ponds that capture and slowly return surface water to the ground via infiltration. The remaining 5% represents impervious areas such as roofs and roads, and ephemeral stream channels and near-stream zones, which exit the basin via surface flow.
- On-site groundwater moves from storage, through bedrock fractures and into water supply wells with an overall efficiency rate of 50%.

2.2 Recharge Estimate

According to published NOAA data, the average annual precipitation normal for Fluvanna County (1971-2000) is 43.7 inches (NOAA Monthly Station Normals of Temperature, Precipitation, and Heating and Cooling Degree Days 1971 – 2000). In this region approximately 2/3 of precipitation is lost to a combination of surface water runoff and evapotranspiration. To the extent that this proportion is accurate, the average annual precipitation that is available for groundwater recharge is estimated at 10.5 inches or 0.875 feet (U.S. Geological Survey Scientific Investigations Report 2011-5198).

The Walker's Ridge drainage basin and associated tributaries that contribute to groundwater recharge to the site comprises approximately 572 acres, or

24,916,320 square feet. Assuming that 95% of that area, or 23,670,504 square feet, contributes to recharge, and a 50% efficiency rate of groundwater movement into supply wells, the theoretical recharge available to supply wells is 10,355,846 cubic feet per year, or 212,239 gallons per day (GPD). Based on a 300 GPD ECR, this amount of recharge could in theory support a maximum of 707 ECRs.

3.0 Regional Geologic Setting and Water Well Productivity

Walker's Ridge is situated within a regionally extensive geologic formation called the Mine Run Complex (Figure 2). This formation is primarily Cambrian-age sedimentary rock that has been folded, faulted, and metamorphosed during tectonic events that span the past 450 million years.

In this part of the Virginia Piedmont, groundwater occurs within fractured bedrock aquifer media. Water well productivity is a direct function of the density of fractures within the bedrock, and the efficiency with which fractures conduct groundwater out of storage, and into wells that penetrate the rock. The degree to which various rock-types respond to tectonic stress by brittle fracture, as opposed to ductile shearing and folding, is largely a function of the mineralogy of the rock. Generally speaking, rocks that contain a substantial percentage of micaceous minerals, as do schists and phyllites of the Mine Run Complex, have a tendency to deform by ductile shear rather than brittle fracture. These rocks tend not to contain the widespread, extensive water-bearing fractures that are characteristic of rocks such as granite that contain a higher percentage of minerals such as quartz and feldspar.

In our database of almost 130 wells located within a radius of three miles of Walker' Ridge, the median reported yield is 8.0 GPM. Approximately 68% of the wells are in the 0 to 120 GPM range. Parcels contiguous to the study site that have wells within the Mine Run Complex show yields ranging from 0-15 GPM (Figure 3). It should be noted that the vast majority of the wells in the database are randomly-sited domestic wells, and that zero-yield wells, or "dry holes" are also included in the database. Hence, we used the median value rather than the mean to better represent the 'middle' value of water well yields in this region of the County.

4.0 Walker's Ridge Site Characterization

4.1 Physiography and Topography

The Walker's Ridge site is situated in rolling terrain typical of Virginia's western Piedmont (Figure 1). There is about 160 feet of topographic relief on site, with elevations ranging from about 230 feet along the Rivanna River on the western boundary of the property, to above 390 feet along the drainage divide of the eastern boundary.

The topography is a result of incision of the landscape by tributaries of the Rivanna River, giving distinct topographic expressions in the western portion of the property versus the eastern portion. The level of incision, or down-cutting by these small tributaries, is deeper in the western portion of the property than in the eastern portion. Bedrock outcrops are common in stream bottoms and side slopes in the southwestern portion of the property. In contrast, bedrock exposures are less common in the eastern uplands of the property, which is covered by a thick mantle of soils and saprolite.

4.2 Bedrock Geology

Geologic mapping by the U.S. Geological Survey shows that the entire parcel is underlain by the Mine Run Complex (Figure 2). These rocks are dominantly phyllites, schists, and mélange-type characteristics, and are highly deformed via ductile shear rather than brittle fracture. These rocks tend not to contain the widespread, extensive water-bearing fractures that are characteristic of rocks such as granite that contain a higher percentage of minerals such as quartz and feldspar.

The quality of bedrock exposures in the vicinity of the property is generally poor (typical of Mine Run schists and phyllites), making it difficult to identify small-scale structures in the rock. In most outcrops, a primary schistosity defined by the orientation of mica crystals was the only discernable structural element. The north to northeast strike, and moderate southeasterly dip of the schistosity are typical of Mine Run rocks in this part of Virginia. The orientation of the dominant schistosity appears to have influenced the orientation of some local streams. In some outcrops, small-scale folds are visible; locally, there are minor fractures associated with these folds, but these joints do not generally appear to extend beyond the limits of the outcrop. Generally, through-going joint sets are absent in outcrop.

The bedrock contains numerous lenses of white quartz, which was precipitated during metamorphism. These chunks of quartz (which does not decompose during the weathering process) are ubiquitous in the soils and saprolite that overlie bedrock. Whereas quartz in isolated lenses is not necessarily significant in terms of groundwater movement, quartz in continuous veins can be very significant in creating zones of water storage and transmission.

4.3 Soils and Saprolite

A review of published NRCS soils maps indicates that that the gently sloping hilltops and moderately steep sideslopes are dominated by variants of the Tatum and Nason soils (Figure 4). In general, these two soil series are deep and well drained. The subsoil of both soils is strongly acid and permeability is moderate.

These soils are relatively favorable in terms of groundwater transmission and storage capabilities.

Manteo Silt loams variants are locally present in small drainageways, upland flats and depressions at the base of slopes. These soils are generally thin and moderately drained, and are relatively favorable in terms of groundwater transmission and storage capabilities.

In general, soils and saprolite in the eastern upland portion of the property are thicker than in the western, incised portion. As such, the soils and saprolite constitute a more favorable storage medium for groundwater in the southern portion of the property than in the northern portion.

5.0 Fracture Trace Analysis

Eaton Geological Consulting, LLC reviewed stereo aerial photography covering the subject property. The photos include a set obtained from the Virginia Department of Transportation (scale 1:16,800, date 04Feb1968) The photographs were stereoscopically analyzed and a fracture trace analysis was performed over the subject site and surrounding area. For this locality, the lineaments/fracture traces are moderately well-expressed by topographic features across portions of the landscape. The individual trace locations that were identified on the photos were transferred to a 2009 aerial photograph depicting Walker's Ridge (Figure 5). Locations where fractures intersect are considered prime targets for potential high producing water wells (targets shown as green circles in the Figure). These sites will be physically located on the ground via flagging pending arrangement of schedules of the client and Eaton Geological Consulting. LLC.

6.0 Prioritized Groundwater Potential Zones

The fracture trace analysis results and available geologic mapping have been utilized to locate areas on site that are favorable to geophysical survey and drilling of test wells (Figure 5).

Eaton Geological Consulting, LLC has identified four sites (green circles, Figure 5) considered to possess the best potential to develop groundwater resources within the parcel. Two of these areas are in the low lying terrain and likely have the best potential for high water yields (sites 1 and 2 in Figure 5). The other two sites are on upland flats. Each site will require consideration with regards to feasibility of permitting by the Virginia Department of Health (VDH), and ease of access for drilling equipment.

These areas should be considered "starting points" for groundwater exploration of the site, and represent a minimum of groundwater prospecting areas

necessary to fully characterize the property. It is anticipated that additional zones will be explored as geophysical investigation proceeds.

7.0 Discussion

By all indications the groundwater potential on this site is moderate. Historical well data, theoretical recharge modeling, and the physical characteristics of the site suggest likely achievable well yields in the range of 10 to 35 gallons per minute. There are positive attributes to the site that may lead to better-than-average yields. These attributes include a significant number of lineaments that may correlate with water-bearing bedrock fractures, and thus higher than average sustainable yields. In addition, the eastern portion of the property is underlain by a relatively thick overburden of soils and saprolite that are favorable to groundwater storage and transmission to bedrock fractures. The Rivanna River flows along the western boundary of the property; this serves as direct recharge to bedrock fractures that are connected to the river bed.

Additionally, the water budget model used for this study was purposely *conservative*; that is, groundwater withdrawals were assumed consumptive and there was no return of water to the on-site aquifer via infiltration from septic systems. However, numerous studies have shown that septic systems are largely non-consumptive in water use; and that a large portion (35% to 90%) of the extracted water is eventually returned to the groundwater system via septic field inputs. Being that the soils are well-drained and have good porosity and permeability, a conservative value of 50% is suggested for the volume of water returned to the water budget via septic system delivery. Therefore, the data derived for this study suggest that this additional source of recharge not factored into the water budget provides a buffer in water supply availability; and helps to minimize the unlikely event of impacting the water supply of adjoining properties.

In summary, the data suggest that the water availability in the Walkers Ridge drainage basin (707 ECRs) meets the proposed 306 ECR requirements by a factor of two.

8.0 Limitations

This report represents compilation of existing information, and site characterization conducted in accordance with generally accepted industry standards. There is no guarantee, stated or implied, as to the aggregate yield of wells drilled during further phases of this project.



Figure 1. Approximate property boundary of Walker's Ridge.



Figure 2. Geologic map of the Walker's Ridge area (Source: U.S. Geological Survey compilation map).



Figure 3. Proximal water wells and associated yields at the time of well completion. Units are in gallons per minute.



Figure 4: Soils map of the Walker's Ridge study area. Symbols "T", "N", and "M" represent the Tatum, Nason, and Manteo soil series, respectively. Lower case letters denote degree of slope, with slope increasing proportionally from 'a' to 'g'.



Figure 5: Fracture trace analysis of the Walker's Ridge property, Fluvanna County, Virginia. Numbers proximal to green dots denote site name and are not to be used as a favorability ranking of water well yield.

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Education

Phillips Exeter Academy
University of Virginia, 1973, BA Environmental Sciences
Virginia Tech, 1984, PhD Geology
The Princeton Course, Groundwater Pollution and Hydrology, 1995
Sorensen Institute for Political Leadership, 2000

Experience

2002 to present: **Virginia Groundwater LLC, President and Chief Hydrogeologist**

- Conduct geologic and hydrologic assessments of land parcels for groundwater characterization and water well siting: recharge potential, hazards to water quality, flow direction and availability; clients include individual landowners, developers, industry, agriculture and local government.
- Design, conduct and interpret geophysical surveys to map groundwater in the subsurface.
- Design, conduct and interpret aquifer tests and water quality tests to characterize water well performance and long term sustainability.
- Provide consulting services and technical expertise in areas of structural geology, geophysics, hydrology, water supply planning and water resources management.

1999 to present: **Thomas Jefferson Soil & Water Conservation District, Director and Chairman**

- Oversee District programs in support of responsible stewardship of water resources.
- Build consensus among District board members in support of innovative programs that enhance the District's role in water resources protection and conservation.
- Build partnerships with citizen groups, local governments, State and Federal agencies, and non-profit organizations that broaden the reach of District programs and leverage District resources through grant funding and volunteer activities.
- Foster informed public policy in water resources management by providing technical expertise, written comment, and oral presentations to citizens, planners and elected government officials.
- Created the Thomas Jefferson Water Resources Protection Foundation under auspices of TJSWCD, to administer the District's riparian conservation easement program (2002).
- Co-chair, Task Force on Erosion and Sediment Control and Storm Water Management Law for the Virginia Association of Soil & Water Conservation Districts (2001).
- Initiated regional Water Resources Advisory Committee, jointly sponsored by TJSWCD and the Thomas Jefferson Planning District Commission (2000). Chaired

WRAC technical studies of sedimentation in the South Fork Rivanna Reservoir (2000) and water supply planning for TJPDC's Eastern Planning Initiative (2001).

1984 to 2002: **Virginia Department of Mines, Minerals and Energy, Senior Geologist**

- Project team member and coauthor, Albemarle County Hydrogeologic Assessment Phase 1: Mechums River and Ivy Creek Basins (2000-2002).
- Pioneered development of computer-based geology map/water well database for Albemarle County (1995-2002) in partnership with the County and the Virginia Department of Health.
- Convened two Piedmont Water Summits in central Virginia which brought together elected State and local officials and planners to discuss water resources issues affecting multiple jurisdictions (1999, 2000).
- Partnered with TJPDC, private-sector consultants, and local planners in Louisa and Fluvanna counties to evaluate groundwater and surface water resources in support of comprehensive water supply planning (1995-2000).
- Developed geology/water well databases as planning tools for Louisa (1996) and Fluvanna (1997) counties.
- Project team member, Albemarle County Pilot Groundwater Study for the North Fork/South Fork Hardware River Watershed (1994).
- Team leader for twenty people from DMR, USGS, academia and the private sector in coordinating production of the Blue Ridge and Piedmont portion of the 1993 Geologic Map of Virginia.
- Completed numerous Geologic Quadrangle mapping projects in southwestern, western and central Virginia (1984 – 2002).

Professional Affiliations

- Albemarle County Groundwater Committee (1999 to present)
- Chairman, Area II, Virginia Association of Soil & Water Conservation Districts (2004)
- Scientific Advisory Board, Wintergreen Nature Foundation (1999 to present)
- Virginia Certified Professional Geologist #2801-001041
- Virginia Licensed Air-Rotary Drilling Contractor #2705-080012
- Eagle Scout

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Justin M. Shimp, P.E.
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Charlottesville, VA 22902

Dear Mr. Shimp:

At your request I have done a preliminary assessment of the potential for off-site impacts of groundwater usage at the proposed Walkers Ridge development. I have conducted this study using resources available in my files and on the internet; I have not visited the site.

It is my understanding that this project could entail as many as 952 residential units plus a commercial center at build-out. Groundwater supply from on-site wells is proposed for the initial phase of development (Phase 1, 306 residential units plus limited commercial); subsequent phases will not use additional groundwater from on-site wells for water supply. Waste water will be handled through centralized on-site drainfield(s).

My findings are summarized below:

1) Theoretical natural groundwater recharge to the site averages about 1136 gallons per day per acre, or **263,668** gallons per day (GPD) for the whole 232 acres (see water budget model, below; Evans and Collins, 2010). Residential water demand for the project at build-out of 952 residential dwellings would be on the order of 95,200 to 142,800 GPD, assuming 100 to 150 GPD water usage per household (commonly accepted figures for US households that are not conservation-minded). Commercial water demand at build-out would be approximately 32,000 GPD. Thus total water demand for the project at build-out would be approximately **127,200 to 174,800** GPD.

   Residential water demand for Phase 1 (306 residential dwellings) would be 30,600 to 45,900 GPD; phase 1 commercial demand would be approximately 7,500. Total water demand for Phase 1 of the project would be approximately **38,100** to **53,400** GPD. On the basis of this model, it appears that even if water for the entire project were to be supplied by groundwater (instead of just Phase 1), there would be sufficient natural recharge on the site to meet the demand.

2) To the extent that waste water is to be disposed of through on-site drainfield(s), overall water usage for this project would not be consumptive of groundwater. A significant

proportion (most) of the groundwater used would be returned to the ground as recharge, through a sanitary drainfield system.

3) Surface water bodies on site include 4 ponds and the adjacent Rivanna River. Each of these constitutes a hydrologic buffer that recharges groundwater contained in the surrounding rocks. These surface water features have the effect of stabilizing or augmenting groundwater levels by supplementing the recharge that comes from rainwater.

4) The average yield of 155 Fluvanna County wells drilled in the same type of bedrock that underlies Walkers Ridge (chlorite-muscovite phyllite) is **7.8** gallons per minute (GPM), with a maximum of **60** GPM (Evans and Hostettler, 2001). Water demand for Phase 1 (38,100 to 53,400 GPD) is equivalent to about **26** to **38** GPM. These numbers suggest that several wells would be required to supply demand at build-out, and likely more than one well in order use groundwater just for Phase 1 water supply.

   Off-site impacts are not likely from this amount of groundwater withdrawal, given factors cited in points 1, 2 and 3, above. However wells that are located in geologic structures that are hydrological connected with off-site wells could potentially cause impacts to those wells. Geotechnical investigations on site would help locate optimal drilling sites for wells, both to ensure sustainability of yield and to minimize any possibility of off-site impacts.

5) The greatest potential threat to groundwater (both on- and off-site) from this project is the creation of impervious surfaces (roofs, pavement, degradation of natural land cover) that alter the percentage of precipitation entering the ground as recharge. A significant increase in surface water runoff due to additional impervious surfaces could ultimately affect groundwater levels in both on-site and off-site wells, and potentially impact the hydrology of the Rivanna River. These adverse impacts could be mitigated by implementing aggressive storm water management strategies that minimize off-site runoff, and preserve the natural hydrologic cycle on site.

Please contact me if you have questions or would like to discuss the above. I will be glad to provide further assistance as needed.

Sincerely,

Nick H. Evans

Water budget model

It is instructive to model the natural hydrologic cycle on the property by developing a theoretical water budget. This uses the best available scientific data to define the relationship among precipitation, evapotranspiration by plants and trees, groundwater recharge and surface water runoff. The water budget can be expressed by the equation:

total precipitation = (surface water runoff) + (groundwater recharge) + (water lost to evapotranspiration).

Accurate numbers exist for annual precipitation in central Virginia thanks to many decades of record-keeping by the UVa Climatology Office. Accurate numbers for surface water runoff in central Virginia are available from the US Geological Survey in the form of discharge data from the gaging station on the James River at Cartersville. The James River basin above Cartersville comprises a 6252 square mile watershed that includes Fluvanna County.

Precipitation = 42.7 inches per year, or 3221 gallons per day (GPD) per acre.

Runoff = (3793352914 GPD at Cartersville / 4,001,280 watershed acres) = 948 GPD per acre.

Evapotranspiration and groundwater recharge rates are affected by many variables that are difficult to measure. However, we do know that the sum (groundwater recharge + evapotranspiration) equals the quantity (precipitation – runoff). For the Cartersville watershed in central Virginia, we can calculate this quantity as

(3221 GPD) – (948 GPD) = (2273 GPD), or 70.6% of precipitation.

Researchers who have studied the relationship between groundwater recharge and evapotranspiration in the mid-Atlantic region have generally agreed that the two terms can be considered approximately equal in proportion to each other. Under this assumption, groundwater recharge and evapotranspiration would each comprise 35.3% of precipitation, or 1136.5 gallons per day per acre. Using this model, theoretical total daily groundwater recharge on the Walkers Ridge site would be

(1136.5 gallons per acre) x (232 acres) = **263,668 GPD.**

References

Evans, Nick H. and Collins, Michael C., 2010, Underground Albemarle Revisited: The role of groundwater ecosystem services in determining an optimal sustainable population size for the Charlottesville/Albemarle community; Charlottesville, Virginia: Advocates for a Sustainable Albemarle Population, 52p.

Evans, Nick H. and Hostettler, Karen K., 2001, A Hydrogeologic Database for Fluvanna County, Virginia; Virginia Division of Mineral Resources Publication 158 (CD-ROM).

Rivanna River Basin Commission
A CONFLUENCE OF INTERESTS

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Keith Lancaster

FLUVANNA COUNTY
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THOMAS JEFFERSON SWCD
Lonnie Murray

EXECUTIVE DIRECTOR
Leslie Middleton

PROGRAM MANAGER
Jessica Lassetter

PROGRAM ASSISTANT & GIS SPECIALIST
Jed Grubbs

April 30, 2013

Hon. Shaun Kenney, Chairman, Board of Supervisors
Mr. Barry A. Bibb, Chairman, Planning Commission
County of Fluvanna
P.O. Box 540
Palmyra, VA 22963

Re: Comment on proposed Walker's Ridge PUD

Dear Mr. Kenney and Mr. Bibb,

By this letter, the Rivanna River Basin Commission offers comments on the PUD proposed rezoning, Walker's Ridge, on the Rivanna River near the Village of Palmyra. We have concern about the size and number of units at build-out, the configuration of the development, and the proximity of the development to the Rivanna River and the resources it provides to citizens and aquatic species.

The Rivanna River Basin Commission (RRBC) is empowered, by Virginia statute, to "provide guidance and make recommendations to local, state, and federal legislative and administrative bodies, and to others as it deems necessary and appropriate, regarding the use, stewardship, and enhancement of the [Rivanna] Basin's water and other natural resources." Fluvanna County has been a member since RRBC's inception in 2007, and our staff has worked with Fluvanna County staff on numerous occasions to enhance our collective understanding of the impacts of development on the health of natural and water resources throughout the watershed. We offer the following specific comments to help inform decision-makers charged with evaluating this project.

Impact on Virginia State Scenic River Status. The Rivanna holds a special place in the history of Fluvanna, and it was precisely because of this, and the Rivanna's relatively unspoiled character, that Fluvanna citizens were instrumental in obtaining Virginia state scenic river status for the Rivanna at the inception of the Commonwealth's program in the 1970s. Maintaining this special status depends on maintaining views from the river that are not cluttered by signs of human development. A development of this size and character, so close to – and visible from – the river will change the character of this stretch of the river, which is directly across from the Pleasant Grove, a public, but minimally developed facility.

Impacts on Groundwater Recharge. The 2009 Fluvanna County Comprehensive Plan states, "Groundwater recharge is critical in sustaining stream flow in dry weather." The proposed development will rely on several wells for obtaining groundwater from this site to serve the residents. There is already anecdotal evidence from long-time Fluvanna residents that the stream flows in Fluvanna's

portion of the Rivanna have decreased over the years. Department of Environmental Quality's Director, Mr. David Paylor, reported on April 10, 2013, at the Environment Virginia conference that USGS studies are showing reduced overall stream flows throughout the Commonwealth.

The 1999 TJPDC report, *Water Resources in Fluvanna*, notes that the county should [italics added]

> establish a groundwater hydrogeologic testing program to ascertain the effects of new wells on existing wells. *This is particularly important when approving new subdivisions, which will be dependent on groundwater.* Incorporate data from all hydrogeologic tests performed in the County into the hydrogeologic database.

Without the necessary data from such a program, the county is risking depletion of groundwater resources that help maintain adequate flow to neighboring wells and to the Rivanna to the detriment of aquatic and terrestrial organisms that rely on these resources.

Presence of globally rare and threatened species of freshwater mussels. The section of the Rivanna River located adjacent to the proposed development is identified by the Department of Conservation and Recreation (Division of Natural Heritage) as containing aquatic natural heritage resources that are either globally rare or threatened (see Attachment A). Specifically, these natural heritage resources are one or both of two mussel species, *Fusconaia masoni* (Atlantic Pigtoe) and *Lasmigona subviridis* (Green Floater). Both are sensitive to excessive sedimentation and other water quality issues. Greater stormwater flow volumes from increased impervious surfaces generated from the proposed development will threaten natural heritage resources in the Rivanna River, here and downstream.

Change in land use due to proposed development. The overarching issue for this site is that the proposed development will result in a major land cover change, decreasing forest cover and increasing the amount of impervious surface. Even with state-mandated stormwater management requirements in the design of this development, these changes will result in less infiltration for groundwater recharge and additional, harmful runoff to the Rivanna River.

The local water quality-monitoring group, StreamWatch, developed a model that predicts water quality within sub-watersheds based on land use. Given current land use within the sub-watershed in which the development is proposed, water quality in the river and streams is likely to be in "fair to good" condition (and leaning towards fair). In other words, the waterways in the sub-watershed are likely to be "on the cusp," not meeting Virginia water quality standards for aquatic resources. There is potential for water quality improvement if measures are taken to improve conditions in the sub-watershed (see Attachment B).

The StreamWatch *Land Use Study* (2011) shows that changes from forested land cover to impervious surface in our Rivanna watershed result in degradation of habitat and water quality that do not support biological life, including fish for fishermen and aquatic life that non-human species rely on.

Thus, changes in forest and impervious land cover at Walker's Ridge could determine whether this area's streams meet or fail Virginia water quality standards. Using 2009 RRBC Land Use/Land Cover Map data, RRBC estimates that roughly 60% of existing forest will be eliminated from the site based on the current plans proposal (see Attachment C).

Human waste management. RRBC is concerned about the addition of an "innovative" on-site drain field used to handle multiple units at once, being sited close to the Rivanna River. While cluster development is a hallmark of low impact design (LID), clustering housing works best when municipal sewage treatment systems are utilized. In addition, unrelated and potentially uncoordinated alternative systems, designed to meet the needs of sites for single family homes, have the potential to be overwhelmed by capacity needs, resulting in unintended infiltration to groundwater or, worse, overland flow to the Rivanna, resulting in a human health problem and direct impacts on the aesthetics and safety during recreational uses of the Rivanna and its adjacent properties due to bacterial contamination.

In addition, Fluvanna County estimated 6,067 septic systems (as of January 2012) for county's Chesapeake Bay WIP II submission, a number based based on the total amount of housing units from the 2010 census minus the number of homes on public sewer. The county's total estimated load was based on this number along with other factors. Providing centralized sewer (and water supply) are important ways that Fluvanna County can ensure environmental safety and economic development. The increase in the number of separate systems will impede Fluvanna's ability to achieve the required nutrients and sediment reductions called for by the Chesapeake Bay TMDL. See
http://www.rivannariverbasin.org/docs/ChesBayTMDL/Fluvanna_WIPIISubmittal_12Feb01.pdf

If the Walker's Ridge PUD moves forward with Fluvanna's approval, RRBC recommends the following be included in the rezoning:

1. *Riparian Buffers.* RRBC recommends that the 100-foot riparian buffer be reforested before other phases of construction are begun and the floodplain be reforested during initial phases of construction to provide additional filtration and replacement for existing forest that is to be eliminated. The July 2012 Walker's Ridge rezoning plan proposes that the Rivanna's floodplain become a "wooded area," and RRBC commends this. However, according to 2009 RRBC Land Use/Land Cover Map data, the majority of the floodplain is not currently forested, including sections of the Rivanna's 100-foot riparian buffer, A fully forested 100-foot stream buffer can reduce 97% of sediment (as well as 80% of nitrogen and 77% of phosphorus) from entering the river.

2. *Walker's Ridge as an example of the best in stormwater management in Fluvanna County.*
RRBC recommends that Fluvanna require the Walker's Ridge PUD to utilize stormwater best management practices beyond those minimally required by the Virginia stormwater management permit. These include low impact development techniques, large-scale rainwater harvesting and reuse, water conservation features, individual rain gardens, tree planting in open space, and constructed wetlands for water quality and quantity treatment. The 2009 Fluvanna County Comprehensive Plan notes, "All of these techniques can be used in both residential and commercial/industrial development, and should either be strongly encouraged or required." The Walker's Ridge development could serve as a model for how to minimize the effects of land use change by requiring the development to go beyond the minimum requirements.

RRBC understands that the decision about the Walker's Ridge PUD proposal is, in part, a decision about investing in Fluvanna's economic future. RRBC believes that economic development can go hand-in-hand with sound environmental planning. RRBC recommends that the county consider how a development of this scale adjacent to the Rivanna River will impact water quality, groundwater flows, stream flows, aquatic and terrestrial species, and the quality of life for Fluvanna well in to the future.

Sincerely,



Leslie Middleton, Executive Director, on behalf of the RRBC

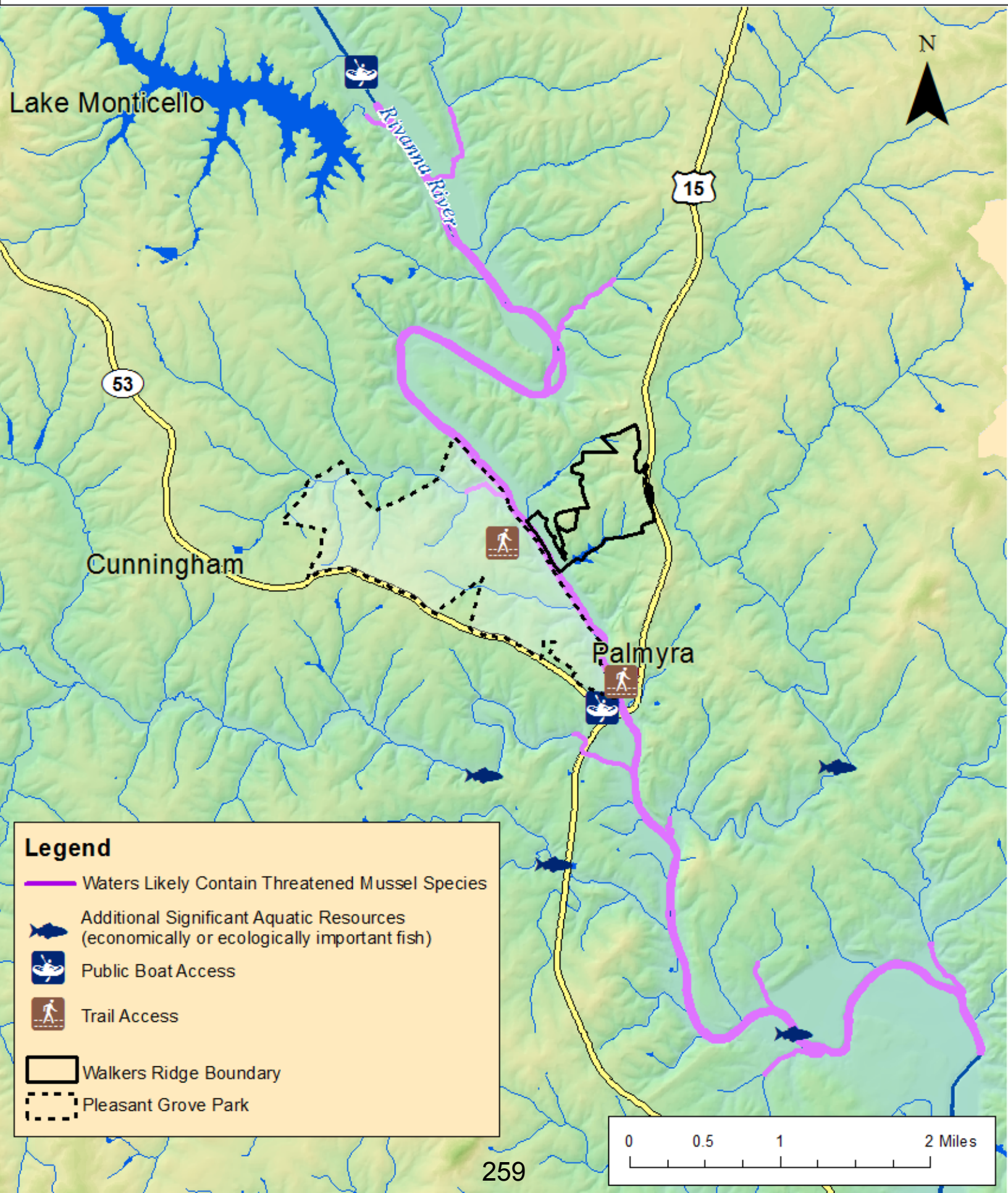
cc:
Fluvanna Board of Supervisors
Fluvanna Planning Commission
Ms. Allyson Fincham, Planning Director

Attachment A: Aquatic Resources and Recreation
Attachment B: StreamWatch Predicted Stream Health of Subwatersheds
Attachment C: Proposed Walker's Ridge Subdivision Land Use Evaluation (RRBC)

Rivanna River Vicinity Map: Aquatic Resources and Recreation

Attachment N

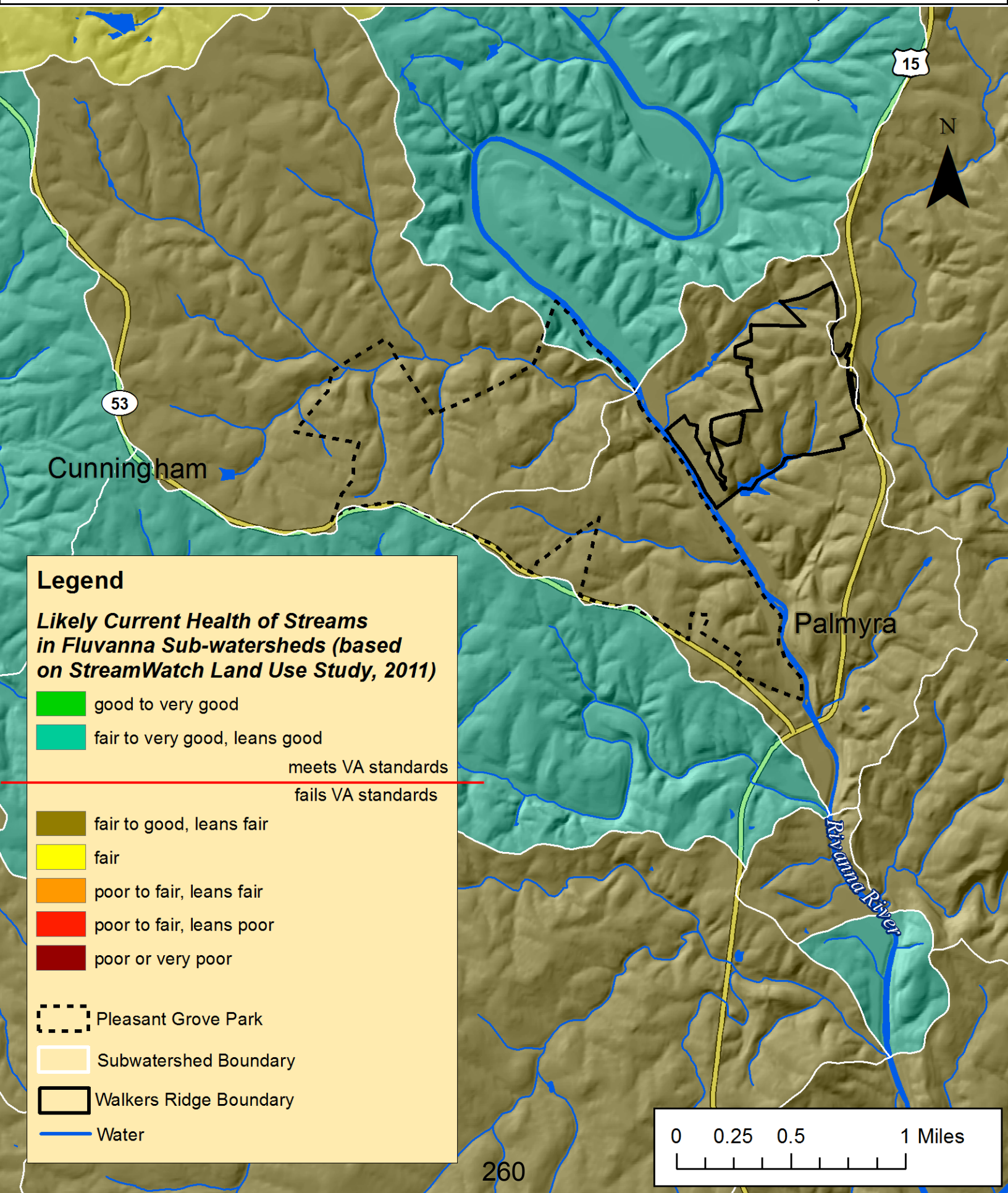
Attachment A
Map Created 4/19/2013



Rivanna River Vicinity Map: StreamWatch Predicted Stream Health of Subwatersheds

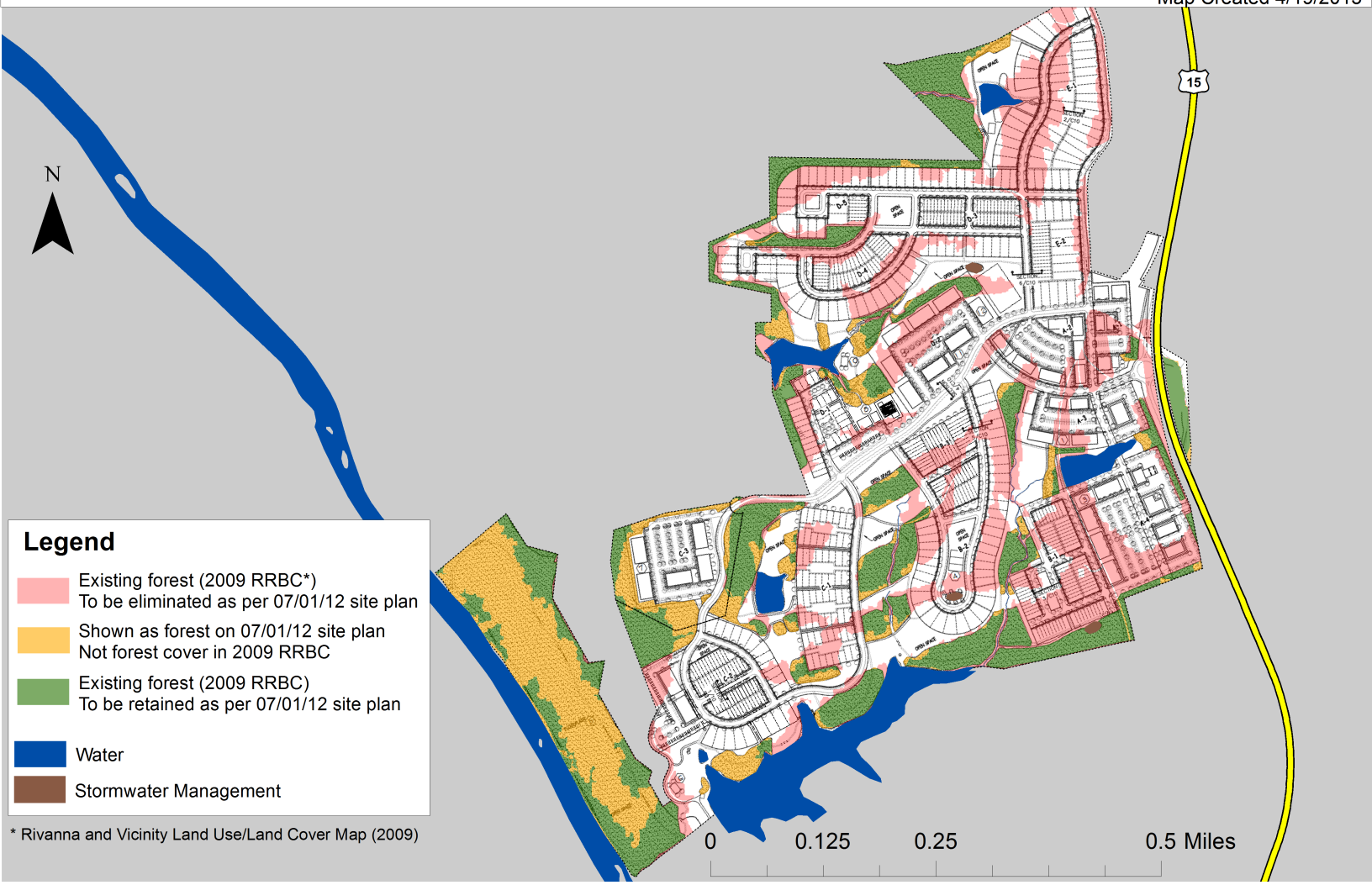
Attachment N

Attachment B
Map Created 4/19/2013



Proposed Walkers Ridge Subdivision Land Use Evaluation (RRBC)

Attachment C
Map Created 4/19/2013



EPR-ENGINEERING & PLANNING RESOURCES
637 BERKMAR CIRCLE, CHARLOTTESVILLE, VA 22901

TO: JUSTIN SHIMP, P.E.	FROM: BILL WUENSCH, P.E., PTOE
ORGANIZATION: SHIMP ENGINEERING	DATE: NOVEMBER 13, 2013
PHONE NUMBER:	SENDER'S REFERENCE NUMBER:
RE: WALKERS RIDGE – PHASE 1 DEVELOPMENT TURN LANE WARRANT FOR NORTHERN ROUTE 644	YOUR REFERENCE NUMBER:

MEMORANDUM

☐ URGENT ☐ FOR REVIEW ☐ PLEASE COMMENT ☐ PLEASE REPLY X FOR YOUR USE

This memorandum responds to the question about the potential northbound left turn lane need, under the first phase of development, at the northerly Route 644 at Route 15 intersection. Also addressed is the question about a potential need for a 2nd egress lane at that same intersection to separate out the rights and lefts.

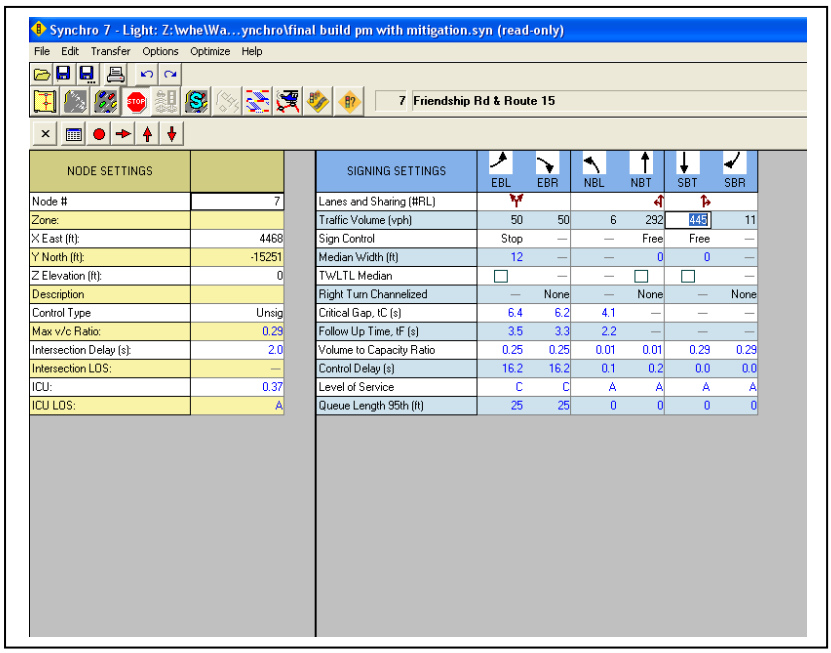
The projected traffic along Route 15 was generated using the growth rate per all previous memos for this study. The site traffic was then applied to the background growth, consistent with the memorandum dated 11-1 that summarized intersection operations for the re-aligned southern end of Route 644 at Route 15.

The need for the left turn lane on the northern intersection of Route 644 at Route 15 was examined using the VDOT (based on FHWA) turn lane warrants. Based on the warrants, as many as 27 and 23 northbound left turns in the AM and PM peak hour, respectively, could be accommodated before a left turn lane would be warranted. This would constitute between ½ and 1/3 of the overall site trips in the peak hours using the northern Route 644 intersection for the northbound left movement. Note that at present, there are zero left turns occurring from Route 15 onto the northern entrance to Route 644 in the AM and PM peak hours of the day.

Based on this assessment of the turn lane warrants and per the layout of the site plan for phase 1, it seems unlikely that the phase 1 development would result in turn volumes at the northerly Route 644 intersection to warrant the northbound left turn lane.

The need for the 2nd egress lane was studied base on projecting the traffic shown in the attached Figure 5 up to the north. (same data as used for the left turn lane analysis as described above). It was found that with the phase 1 development, projected to occur by year 2018, as many as 50 rights and lefts (100 total) could access Route 15 at that intersection while still maintaining a LOS C, all within one egress lane (i.e. shared left / right lane). We wouldn't expect these levels of volumes, but this analysis proves that there is no capacity or

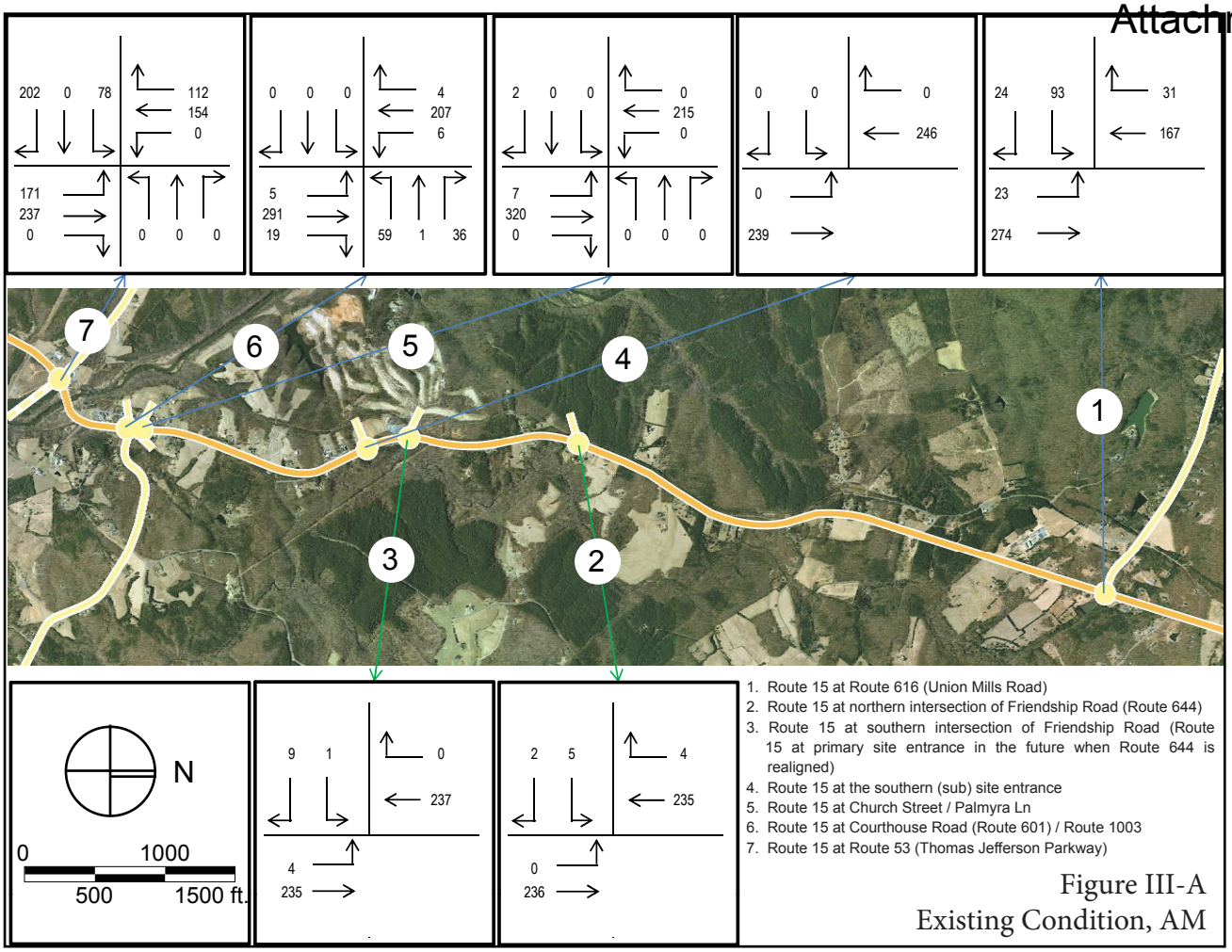
delay issue at that location under the phase 1 development scenario. The screenshot below is from Synchro unsignalized analysis.



END of MEMORANDUM

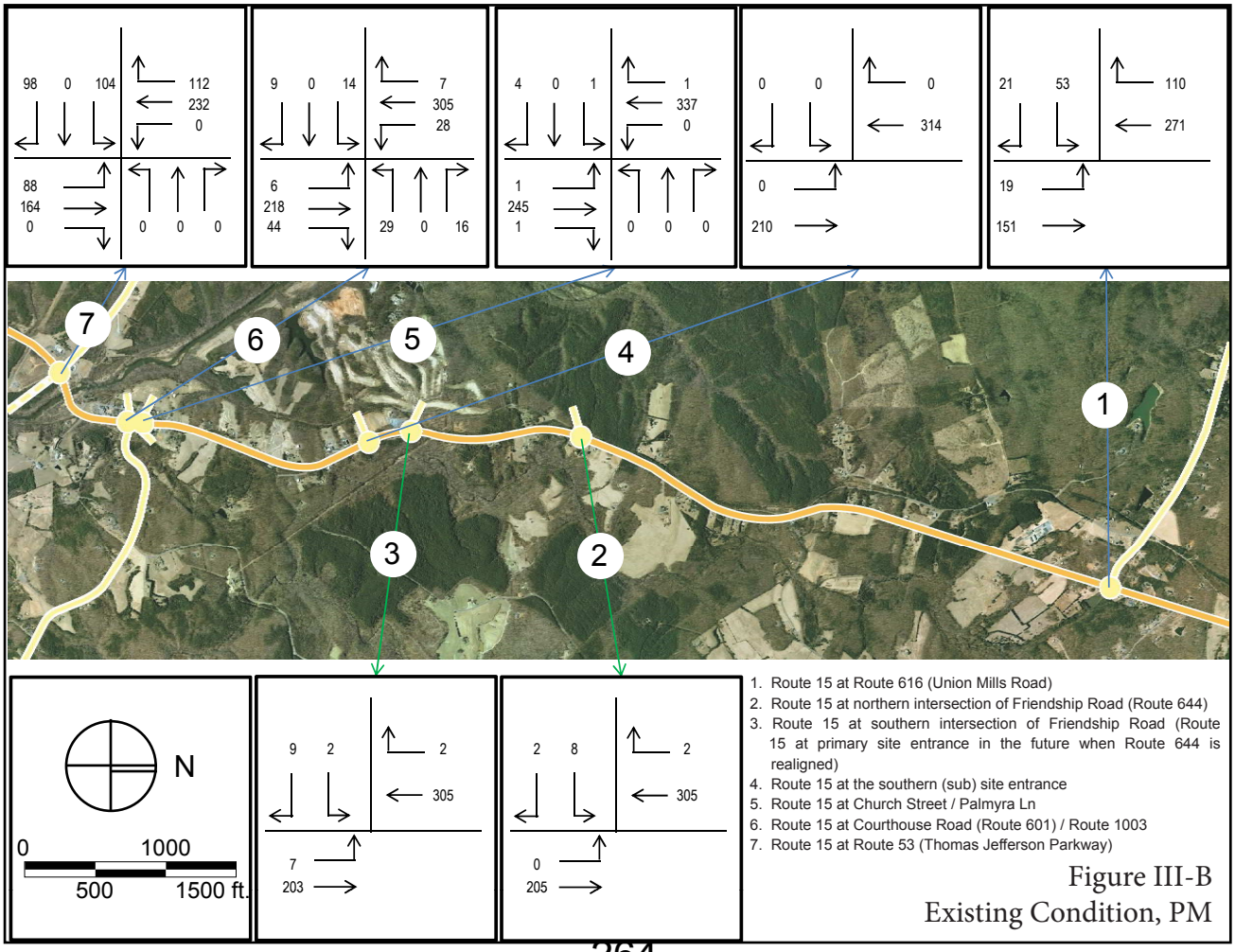
Attachments:

1. Existing volumes summary
2. Excerpt of prior memo site volumes at the southerly entrance
3. Warrant forms for the northerly entrance (volumes deduced from the volume summary for the southerly entrance)



1. Route 15 at Route 616 (Union Mills Road)
2. Route 15 at northern intersection of Friendship Road (Route 644)
3. Route 15 at southern intersection of Friendship Road (Route 15 at primary site entrance in the future when Route 644 is realigned)
4. Route 15 at the southern (sub) site entrance
5. Route 15 at Church Street / Palmyra Ln
6. Route 15 at Courthouse Road (Route 601) / Route 1003
7. Route 15 at Route 53 (Thomas Jefferson Parkway)

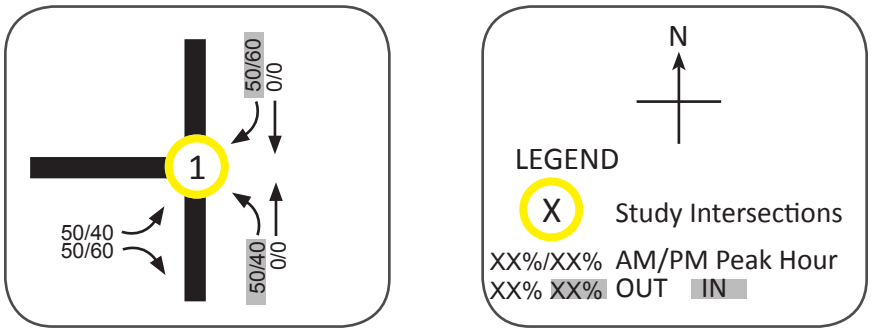
Figure III-A
Existing Condition, AM



1. Route 15 at Route 616 (Union Mills Road)
2. Route 15 at northern intersection of Friendship Road (Route 644)
3. Route 15 at southern intersection of Friendship Road (Route 15 at primary site entrance in the future when Route 644 is realigned)
4. Route 15 at the southern (sub) site entrance
5. Route 15 at Church Street / Palmyra Ln
6. Route 15 at Courthouse Road (Route 601) / Route 1003
7. Route 15 at Route 53 (Thomas Jefferson Parkway)

Figure III-B
Existing Condition, PM

Figure 3 Site Trip Distribution



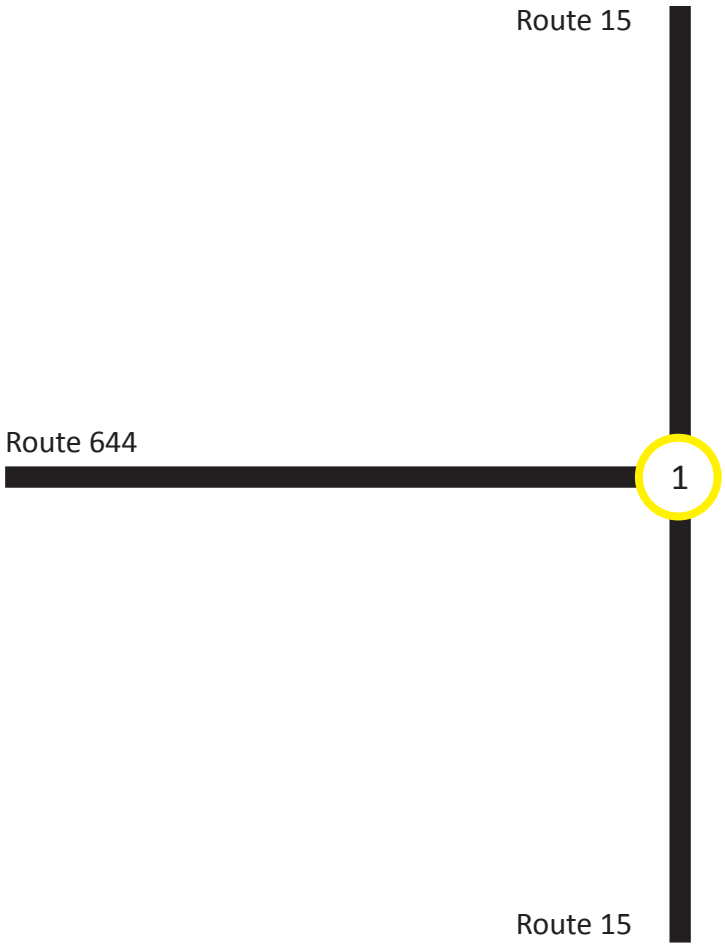
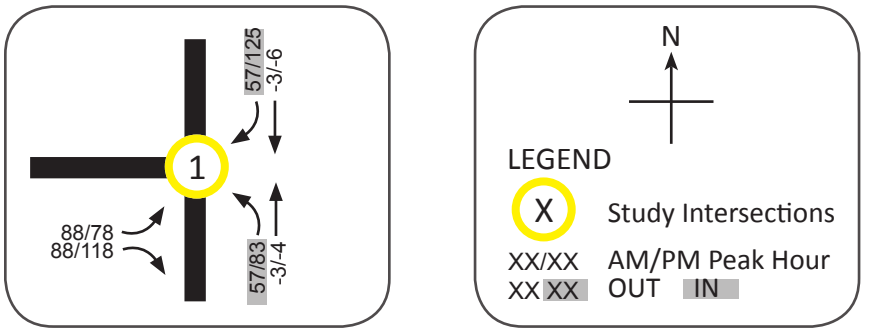


Figure 4 Site Trips



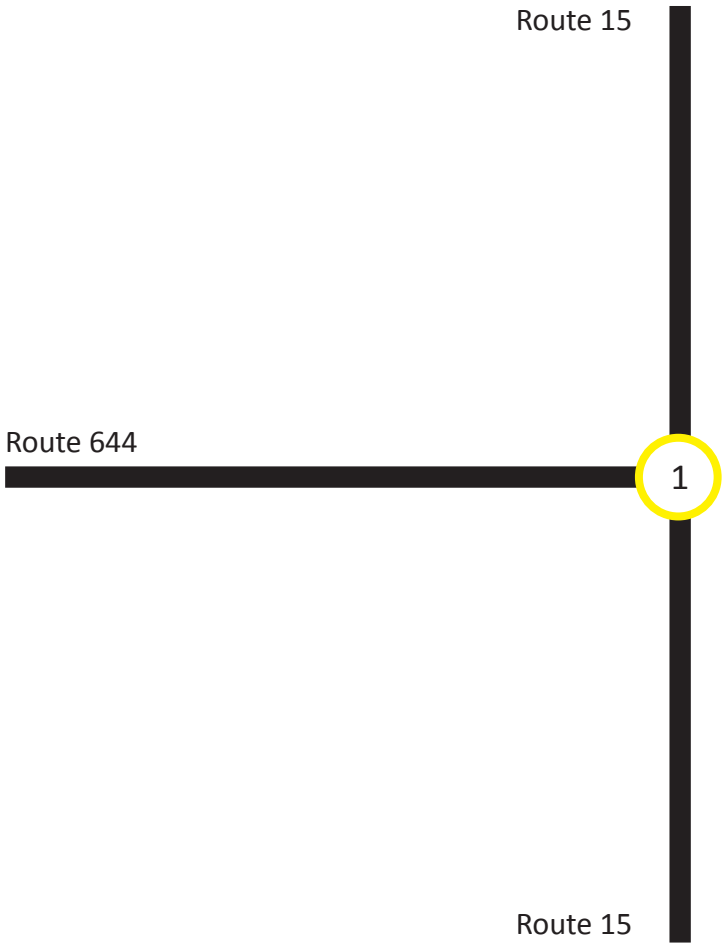
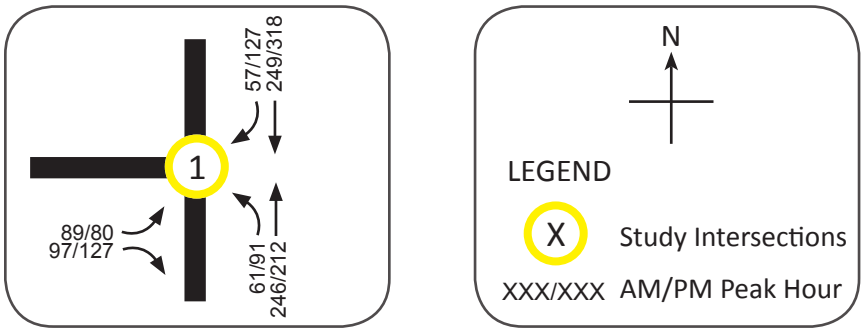
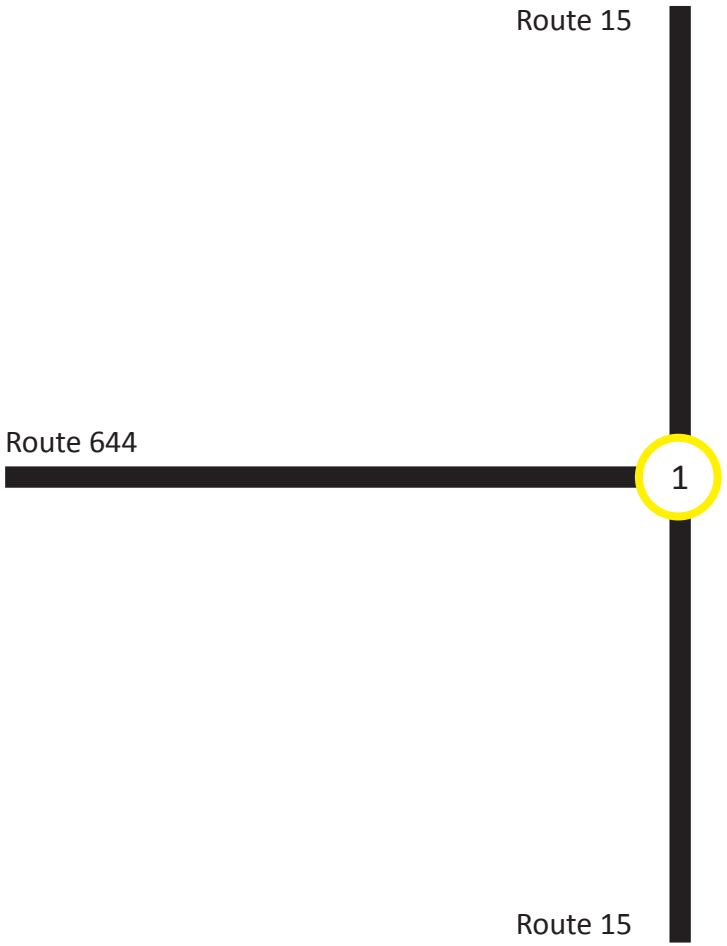


Figure 5 Future (2018) Build Traffic Volumes





WARRANT FOR LEFT-TURN STORAGE LANES ON TWO-LANE HIGHWAYS

Project:	Walkers Ridge	Analysis Date:	2018
Intersection:	Route 15 at Route 644 (northern end)	Data Date:	2018
Approach Direction:	Northbound	Projection Year:	2018
Peak Hour:	AM Peak		

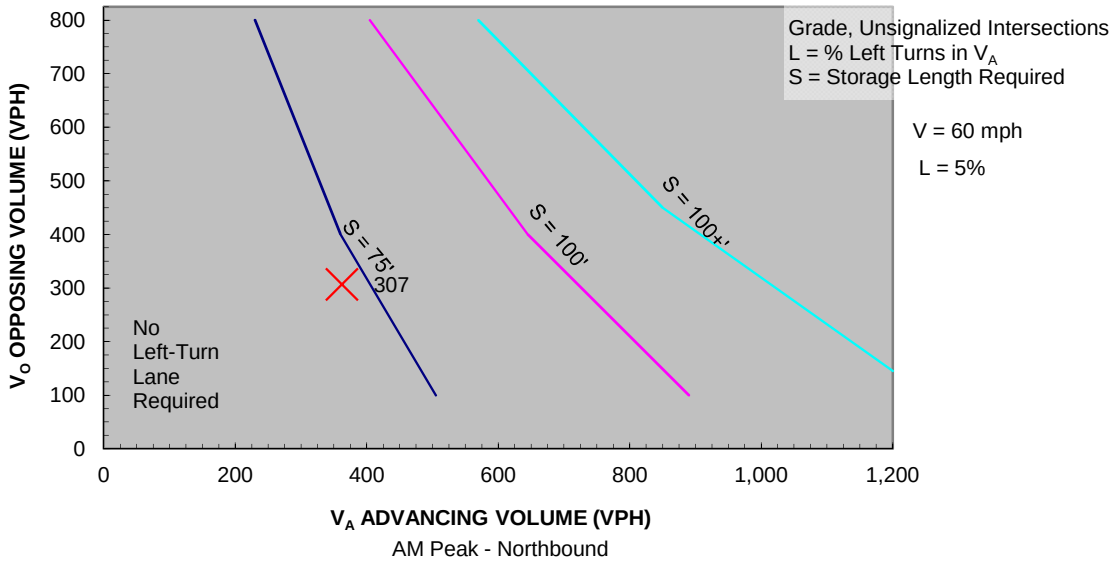
Peak Hour Left Turns (V_L):	27	vph
Advancing Volume (V_A):	362	vph (Northbound Approach)
Opposing Volume (V_O):	307	vph (Southbound Approach)
Operating/Design Speed (V):	**60**	mph

% Left Turns in V_A (L):	**5%**	(Calculated Value: 7.5%)
Optional % Left Turn Override:		
		(0' storage required based on chart)
% Trucks in V_L:	0%	(0' additional storage for trucks)

CONCLUSION: **No Left-Turn Lane Required**

WARRANT FOR LEFT-TURN STORAGE LANES ON 2-LANE HIGHWAYS Figure 14

Walkers Ridge - Route 15 at Route 644 (northern end)



Source: Highway Research Record Number 211 - Figure 14

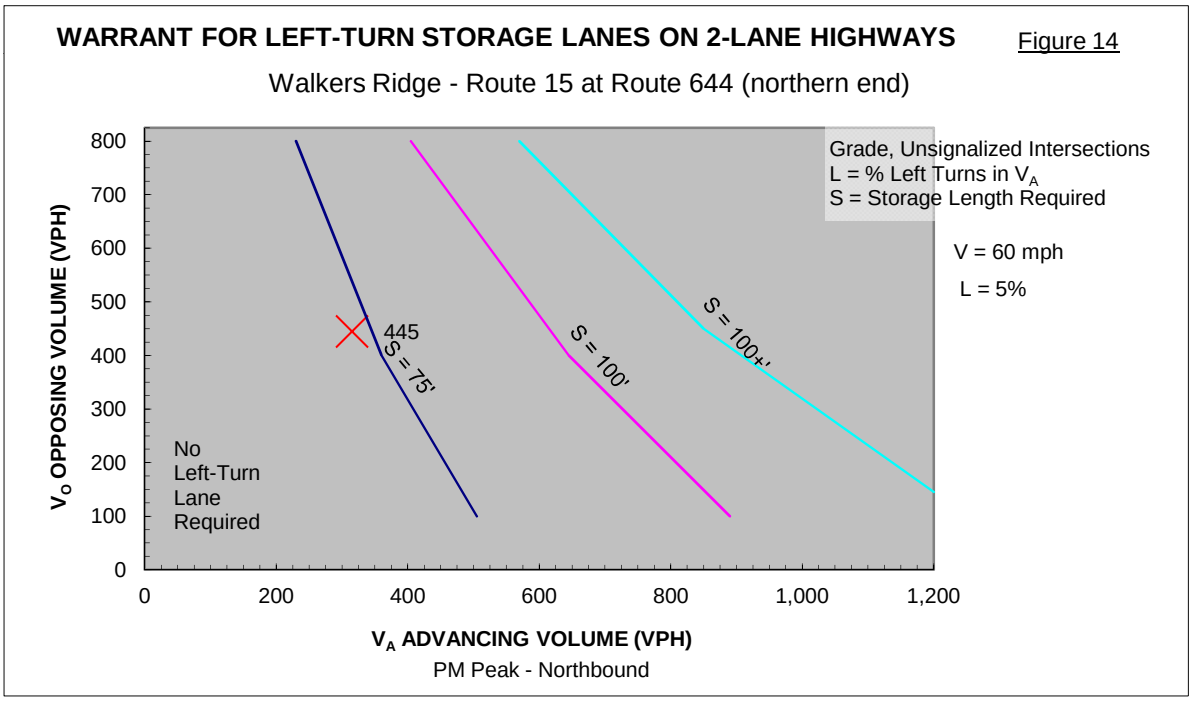
WARRANT FOR LEFT-TURN STORAGE LANES ON TWO-LANE HIGHWAYS

Project:	Walkers Ridge	Analysis Date:	2018
Intersection:	Route 15 at Route 644 (northern end)	Data Date:	2018
Approach Direction:	Northbound	Projection Year:	2018
Peak Hour:	PM Peak		

Peak Hour Left Turns (V_L):	23	vph
Advancing Volume (V_A):	315	vph (Northbound Approach)
Opposing Volume (V_O):	445	vph (Southbound Approach)
Operating/Design Speed (V):	**60**	mph

% Left Turns in V_A (L):	**5%**	(Calculated Value: 7.3%)
Optional % Left Turn Override:		
		(0' storage required based on chart)
% Trucks in V_L:	0%	(0' additional storage for trucks)

CONCLUSION: **No Left-Turn Lane Required**



Source: Highway Research Record Number 211 - Figure 14

Experts in non-sewered development

A Division of Northwest Cascade Inc.

November 21, 2013

Justin M. Shimp, P.E.
President
Shimp Engineering, P.C.
201 E. Main Street, Suite M
Charlottesville, VA 22902

Subject: Response to County Engineer's Comments on Soils & Drainfield Feasibility Report for the proposed Walker's Ridge development.

Dear Justin:

I have reviewed Mr. J. Wayne Stephens, P.E. (the County Engineer) comments on the Soils and Drainfield Feasibility Report that we prepared earlier this month for the proposed Walker's Ridge development in Fluvanna County. I will address the comments and concerned raised by the County Engineer related to the soils and drainfield feasibility report for this project in this letter.

Overall, it appears that the County Engineer is concerned over availability of "suitable" land area to support subsurface effluent disposal system. Based on our preliminary field assessment and review of the USDA-NRCS soil information, and our experience in designing large drip systems, we are confident that there is an adequate amount of land area available on the property for installing a drip system.

Our preliminary field evaluation did not indicate "high potential" of hydric soils in the proposed open area where soils are classified as Nason silt loam, rolling phase (Nf), Tatum silt loam, undulating phase (Tc), or Tatum silty clay loam, eroded rolling phase (Td). The USDA-NRCS soil report classifies these soil types as "Well drained" soils with depth to water table more than 80 inches. While the USDA-NRCS soil report classifies capacity of the most limiting layer to transmit water as "Very low to moderately low" with Ksat values less than 4 cm/day, when we conduct field testing for these type of soils we typically observe Ksat values greater than 2 cm/day in the upper soil horizons.

We have used a very conservative application rate of 2 cm/day to determine the drip area necessary for this project. Field testing of Ksat along with detailed description of soil profile and mapping of soil testing locations will be performed during the VDH permitting process, if this project moves forward. For preliminary field assessments to determine if the site as a whole provides the opportunity for adequate area for drip systems a detailed soil evaluation is not required.

10412 John Bananola Drive • P.O. Box 73399 • Puyallup, WA 98373
www.ncswastewater.com 800-444-2371 phone 253-848-2545 fax

Drip systems are suitable for the type of soil and site conditions observed on the property proposed for the Walker's Ridge development. Drip systems have been successfully used in Virginia and in other states on sites with moderate to steep slopes.

Following three pictures show use of drip in area with steep to moderate slopes. While the first picture is out-of-state picture not taken by me, the rest of the pictures are from Virginia taken by me.



Photo from Geoflow drip system. Geoflow drip system installation at Yosemite West, steep slope.

The above pictures shows potential of using a drip system on sites with extreme slope. This type of site conditions are not present on the property prosed for Walker's Ridge development. The above picture is included just to show how drip technology is used to overcome adverse site conditions where conventional low-pressure-pipe type system cannot be used for subsurface effluent disposal.



Drip system installed at the Explorer Park, Roanoke, VA, side-slope of the parking lot.



Drip system installed at Greentown Gaskin Road, Lancaster County, VA, gentle slope.

Sites with slope in the range of 15-25% are approved by VDH for drip system because the drip emitters allows extremely low discharge rates (typically less than 1 gallon/hour per emitter), and the spacing between drip tubing does not have to be increased as typically necessary for a low-pressure pipe drain line system mainly because high discharge rate (typically more than 60 gallon/hour per discharge point).

During our preliminary field evaluation of the proposed site, we saw site conditions throughout the site as shown in the following three pictures, which we believe would be ideal and acceptable by VDH for installing drip systems. Preliminary soil evaluations in the area done by our soil scientist indicated no hydric soil conditions and good soil texture and structure indicating adequate conductivity to support hydraulic loading rate greater than 2 cm/day. Drip systems are typically installed in shallow soil horizons within top 18 inches of the ground surface to take advantage of the most robust natural soil treatment possible for polishing effluent.



Relatively flat area found on the proposed property.



Area with gentle slope less than 15%



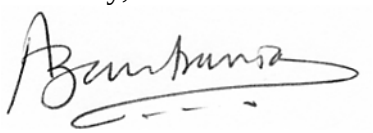
Long and narrow area within the abandon golf course

We are confident that there is adequate area (approximately 30 acres) of suitable soils outside the limits of the proposed development, and within the more than 100 acres of open space for the design and installation of a drip system for the proposed development.

Our detailed soil and site evaluation will focus first within the area shown in the above three pictures, and we will explore other areas with slopes steeper than what is seen in the above three pictures only if necessary. The area we will identify for installing drip system will be acceptable by the VDH for approving this project under the current laws and regulations.

Please let me know if you or the County have any additional questions related to wastewater system for the proposed Walker's Ridge development.

Sincerely,



Anish Jantrania, Ph.D., P.E.
Senior Project Manager.

Steven Tugwell

From: Justin Shimp <justin@shimp-engineering.com>
Sent: Monday, January 06, 2014 9:29 AM
To: Steven Tugwell
Cc: Keith Smith
Subject: RE: Walker's Ridge questions

Hello Steve,

In response to the questions below:

1) The reports from our geologist addressed the phase I water requirements specifically. Required (From Dr. Evans report, page 1, Par 4) is estimated at between 38,100 and 53,400 GPD for Phase I. Note that a the total available water from the site is estimated at 263,688 GPD by Dr. Evans.
2) Storage capacity is dictated by the Waterworks Regulations. The minimum is 200 GPD/residential connection at minimum pressure. The storage requirement may be greater for commercial type uses as they have a larger fire flow requirement. This design is coordinated between the VDH drinking water office and the local building and fire officials during the site plan process. This number may be much larger than the required volume for use. For example, an office might need only 1000 GPD, but require 40,000 gallons (or more) of storage for fire protection. That number is based on the size of the building, class of construction, etc. Those are the items that require coordination with the local building and fire officials. These details are worked out in the siteplan stage as specific engineering for the location of fire lines, building types, etc are all required to complete the computation. As we have noted before, siteplan approval would be contingent on addressing all of these issues.

From the prior email:

Testing data, for contamination is only available on public drinking wells, we know of three wells on the property, only one of which is classified as public (the golf course well). There are several other wells in the area that we pulled data on as well look at contamination history. The wells closest to our property are:

Rivanna Woods GC Well (on our site, at the clubhouse), Yield 5 GPM
Fluvanna County School Board Well (At old Palmyra School), Yield 7 GPM
Palmyra VFD, Yield 60 GPM

We pulled the available testing history from the Rivanna Woods well and the School Board well available on the VDH database and found no reports of non-compliance, exceedances of the permit limits, or contamination.

In regard to traffic, I can only direct Mr. Bibb to our studies that have been reviewed and vetted by VDOT that determine that our proposal meets the standards and will not cause excessive delays on route 15.

Likewise, on the storm water, it is the State (via DEQ) that sets the rules that must be adhered to.

Please let me know if you have any additional questions.

Thanks,

-Justin

From: Steven Tugwell [mailto:stugwell@fluvannacounty.org]
Sent: Friday, January 03, 2014 11:48 AM
To: Justin Shimp
Cc: Keith Smith
Subject: FW: Walker's Ridge questions

FYI I have a few additional questions from Mr. Bibb after speaking with him on the phone this morning. They are:

1. How much water is anticipated to be required and/or used for the Phase I development?
2. How much storage capacity will there be?

As asides- Mr. Bibb commented that he has heard that 5 times as much storage capacity should be available than what is needed or used. He also commented that he is concerned about the impact on the Rivanna River, traffic, and stormwater management.

Ahead of our work session on the 8th, please respond to the questions above, and Mr. Bibb's question in his email dated December 30th as soon as you're able.

Thanks!
Steve

From: Barry Bibb
Sent: Monday, December 30, 2013 11:05 AM
To: Steven Tugwell
Cc: Planning Commission
Subject: Re: Walker's Ridge questions

I would like information on wells already on property. We heard from a former owner of part of this property who said that a well was dug and at 500 feet they got only 1/2 gal. Per minute. I would like to know gal. Per minute and whether they are still active and if any are contaminated. I would like to inquire this from both applicant and the Health Department. Through all of this we have not heard what is already available?
Barry

Sent from my iPad

On Dec 30, 2013, at 9:45 AM, "Steven Tugwell" <stugwell@fluvannacounty.org> wrote:

Hi Commissioners:

Hope everyone had a great Christmas!

I wanted to follow-up with you from our December 16th meeting. You all were going to let me know if you had any additional questions regarding Walker's Ridge. Since I haven't received any questions, may I assume that you are satisfied with the information that has been provided?

If you do have questions, please contact me at your convenience, and I will promptly forward them to the applicant.

Thanks!
Steve

Steve Tugwell
Senior Planner
Dept. of Planning & Community Development
Fluvanna County, VA
434-591-1910
stugwell@co.fluvanna.va.us


please conserve, do not print this e-mail unless necessary

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Sent: Monday, January 06, 2014 9:29 AM
To: Steven Tugwell
Cc: Keith Smith
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If you do have questions, please contact me at your convenience, and I will promptly forward them to the applicant.

Thanks!
Steve

Steve Tugwell
Senior Planner
Dept. of Planning & Community Development
Fluvanna County, VA
434-591-1910
stugwell@co.fluvanna.va.us


please conserve, do not print this e-mail unless necessary

Steven Tugwell

From: Zimmer, Edward H. (DOF) <Ed.Zimmer@dof.virginia.gov>
Sent: Monday, January 06, 2014 1:24 PM
To: Steven Tugwell
Subject: Walkers Ridge Info

Sorry this is so late. I took copious notes from the material you provided and then lost the notebook. I found it yesterday and, if there is time, would like you to forward to the applicant and the rest of the PC, if possible.

Hydrogeologic Study

- The study states the applicant will be recharging groundwater from onsite drain fields. What mechanism is in place to ensure that happens? Is it a proffer, a permit requirement, or simply a stated intention that is not binding?
- The math in the document does not always add up to me. How does a 50% recharge rate double the water capacity? It seems like a 50% recharge rate would increase the 707 ERUs to 1060, not 1414.
- One main concern of local citizens was the impact to other wells in the area. The document says that appropriate siting of wells can ensure there will be no impact. Again, is that a proffer, a regulatory requirement, or simply a promise/intention that may or may not be binding?

Eaton Report

- Some of the math here looks strange. The assumption that only 5% of the area will be impervious seems optimistic, given the building footprint.
- In the map, neighboring wells have a mean output of only 6 gal/min, with a median of 5.5. The assumption that wells can be drilled that will produce significantly above that seems optimistic and unsupported by the closest, best evidence. How was that conclusion arrived at?

Evans Report

- Just to clarify – has the proffer been modified to state that development after the 306 residential units in Phase 1 will not utilize additional groundwater, as the report states?
- It seems strange that the gauging station at Cartersville was used for the report, rather than the seemingly more appropriate one at Palmyra. There may be a great reason for this. Is there?

Miscellaneous

- There was no evidence presented to support the claim that wells in the 25-35 gpm range are available. Neighboring wells seem to contradict this claim. How was it arrived at?
- Has the stated intention that the sewage system will be a central one and be operated by a licensed utility been assured by a proffer, or does the SUP cover that?

Rivanna River Basin Commission Comments

- Throughout this process, I do not remember the concerns of the RRBC being addressed.
    - How are the impacts to the Rivanna viewshed being addressed?
    - Will forest cover be reduced by 60%, as the RRBC letter claims?

Again, sorry for the late submittal. Let me know if any of my comments or questions need clarification.

Ed Zimmer
Regional Forester
Virginia Department of Forestry
Central Region
900 Natural Resources Drive, Suite 800
Charlottesville, VA 22903
Office: 434-220-9178
Cell: 757-653-7511
Fax: 434-220-9189
Email:
Web:
VDOF: Protecting and Serving since 1914

SHIMP ENGINEERING P.C.
PROJECT MANAGEMENT
CIVIL ENGINEERING
LAND PLANNING

November 22nd, 2013

Mr. Steven Tugwell
Acting Planning and Zoning Administrator
Fluvanna County

Regarding: Response to letter by J. Wayne Stephens, Groundwater and Sewer Capacity for Walkers Ridge PUD.

Dear Mr. Tugwell,

Thank you for forwarding the letter from J. Wayne Stephens to us. His letter outlines some concerns and makes a few general statements about central water and sewer systems. In reviewing both the information that was submitted to the County and the response from Mr. Stephens it is paramount to understand that these documents were provided to address specific questions raised by the Board of Supervisors in their action letter dated October 22nd, 2013 actually were. Concerning water, the letter stated:

Water: Requires satisfactory information to demonstrate adequate water source(s), and that the use of such sources will not negatively impact adjacent properties.

In response to the bullet point statements by Mr. Stephens, please consider the following:

- Dr. Eaton's report is titled "Phase I Hydrogeological Assessment". Dr. Eaton has a Ph.D in environmental sciences and has been working professionally as a geologist since 1996. He has been published over 20 times in peer reviewed journals. While we understand that there is no set delineation of scope for a phase I assessment we do feel confident that if Dr. Eaton considers the report to be one, that it is reasonable to be considered as such. Please note that the Board action letter did not require any particular titled study, so this first comment may not be particularly relevant to the question at hand.
- We agree with Mr. Stephens that 300 GPD is generally the VDH rule for water system planning, and that actual consumption will be less. This was reflected in the report by Dr. Evans that used a value more closely associated with the actual water usage in his analysis.
- We agree with Mr. Stephens that the health department requires a 0.5 Gallons Per Minute flow rate per ERU. An important distinction to make here is that we are not preparing VDH permit drawings or applications at this time. The analysis done by Dr. Evans, which indicated a lower required gallon per minute yield reflects the anticipated average withdrawal rate from the ground. The request by the Supervisors was to "... *demonstrate adequate water source(s)"* and to show that the use of those sources *"will not negatively impact adjacent properties"* The information provided by our consultants is in response to this request. Based on their findings the proposed phase I development has ample water supply that will be recharged at a greater rate than the rate of withdrawal. There is no reason to expect any negative impacts on neighboring properties.

- Concerning the number of wells, it is the professional opinion of Dr. Eaton that wells in the 25-35 GPM range will be available. This flow rate would considerable reduce the number of wells required for the development. Even if 20 wells are needed to achieve an adequate flow rate, this would not be an unusual number for a residential development of approximately 88 acres (The Phase I area). It would be significantly less than the number of wells typically required for a 232 acre residential development.
- Groundwater recharge from the on-site drain fields (which release treated water below ground) should be considered in the study, however we have performed the baseline calculations assuming no recharge from these drain fields. This makes Dr. Eaton's calculation of 707 units particularly conservative. He notes later in the report that in actuality the expected connectivity between effluent discharge from the drip system and groundwater for the wells is between 35% and 90% with 50% being a reasonable value for planning purposes. This was the basis of the statement provided in my prior letter. It should be noted, that Dr. Evans, who has studied Fluvanna County groundwater extensively, believes that the connectivity between the drip systems and groundwater supply would be closer to 100% and he notes that this project would be minimally consumptive of groundwater in this case.
- It should be noted that as our proffer restricts on-site wells to the phase I development area we have computed the baseline area for recharge based on that fact. Approximately 88 acres out of 232 would be developed, thus an effective loss area of 13% from phase I. We believe this is reasonable especially considering the upcoming changes in SWM regulations that will require infiltration practices and other means of treatment designed to minimize groundwater loss from development.
- Dr. Eaton has provided the professional background information in response to the Board of Supervisors action letter. Upon approval, this project will require a significant amount of additional time to determine appropriate placement of wells.

Concerning sewer, Mr. Stephens' comments were forwarded to Anish Jantrania, our soils engineer. Mr. Jantrania has drafted a response, which I have attached. In summary it would appear that Mr. Stephens did not consider that drip systems may be utilized on slopes greater than 15%. Please refer to the attached letter from Mr. Jantrania which addresses this issue in detail.

The Board of Supervisors did not request a full Virginia Department of Health permit package for design and installation of the drip system, but rather:

Sewer: Must demonstrate a specific plan for the operability of the site's sewerage system, including among other things the suitability of the property for onsite land disposal of wastewater;"

In many prior meetings and public hearings it was clearly stated that the site's system would be a central system operated by a licensed utility operator with pre-treatment works and a sub-surface drip or mass drain field system. Mr. Jantrania has been on the site with a soil scientist and has identified an area required for the drip systems based upon the design effluent discharge and has further identified adequate soils for this system. This area is outside of the limits of the proposed construction of buildings and infrastructure and within the open space of the development.

Lastly, we wish to point out that upon notice that a special use permit was required for the central utility (received many months after the initial submittal) an application was submitted and you scheduled a technical review committee meeting for the request. It is our understanding that only you, Mike Brent (Chief of

Fluvanna County Fire Department), and the Applicant's representative, Keith Smith was in attendance. No specific additional information for the special use permit was requested (in writing and form similar to the October 22 Action Letter) by County Staff and it was our understanding that further information and comments would not be provided until the site plan review stage. We found that to be reasonable as that is typically the time to review detailed engineering drawings. We have no new information to provide on the water and sewer other than the clarifications provided above and in the attached letter from Mr. Jantrania.

In addition to the summary information contained herein regarding water and sewer we have also forwarded to you correspondence and follow up traffic memorandums with VDOT which answer all traffic related concerns outlined in the October 22nd Board Action Letter.

As always, we welcome the opportunity to meet with you or any County Staff, Planning Commissioner or Supervisor to discuss this matter further and will make ourselves available at your convenience. We have provided adequate documentation to address the three issues raised by the Supervisors as documented in the October 22nd letter. We respectively request that this project be heard by the Planning Commission at its December 16th meeting.

Sincerely,

Justin Shimp, P.E.

Attachments:
Letter from Anish Jantrania, Ph.D, P.E. Dated November 21, 2013.

CC:
Dr. Nick Evans
Dr. Scott Eaton
Mr. Anish Jantrania
Mr. Keith Smith

Justin Shimp

From: Wood, Mark (VDOT)
Sent: Monday, October 28, 2013 6:09 PM
To: Justin Shimp
Cc: Bill Wuensch; DeNunzio, Joel D., P.E. (VDOT); Goodale, James E. (VDOT); Barron, L. Marshall (VDOT); Proctor, Charles C. (VDOT)
Subject: RE: Walkers Ridge Entrance on Route 15, Fluvanna County

Importance: High

Justin

VDOT has reviewed your email and attachment below and we have the following comments:

- Yes, VDOT would approve the creation and later abandonment of a Right of Way for a secondary road, however, even if it is to be a temporary State facility it would still need to be constructed to VDOT's standards, including the Road Design Manual. The design would have to incorporate the appropriate geometric design standards as per Appendix A (horizontal curve radius, pavement width, shoulder width, etc.) as well as entrance spacing standards per VDOT's Access Management Design Standards (Appendix F).
- How much development is planned to be built before the ultimate location for the facility is constructed?
- Has a traffic analysis been performed to show what improvement(s) would be needed at the temporary connection to Route 15?

If the developer wants to construct Walker's Ridge using a phasing plan for the development, VDOT can review the phasing plan and provide you with comments.

J. Mark Wood, P.E., L.S.
Area Land Use Engineer
Virginia Department of Transportation
Land Development – South
P.O. Box 1017
11430 James Madison Highway
Troy, VA 22974
Phone: (434) 589-7932
Cell: (540) 223-5240
Fax: (434) 589-3967
Email: Mark.Wood@VDOT.Virginia.gov

From: Justin Shimp [mailto:justin@shimp-engineering.com]
Sent: Monday, October 21, 2013 10:47 AM
To: Wood, Mark (VDOT)
Cc: Bill Wuensch; DeNunzio, Joel D., P.E. (VDOT); Goodale, James E. (VDOT)
Subject: Walkers Ridge Entrance on Route 15

Hello Mark,

Steven Tugwell

From: Wood, Mark (VDOT) <James.Wood@VDOT.virginia.gov>
Sent: Tuesday, October 29, 2013 8:03 AM
To: Steven Tugwell
Subject: FW: Walkers Ridge Entrance on Route 15, Fluvanna County

Importance: High

Steve,

F.Y.I., VDOT's response to an inquiry from Justin Shimp, P.E.

J. Mark Wood, P.E., L.S.
Area Land Use Engineer
Virginia Department of Transportation
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P.O. Box 1017
11430 James Madison Highway
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Phone: (434) 589-7932
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To: Wood, Mark (VDOT)
Cc: Bill Wuensch; DeNunzio, Joel D., P.E. (VDOT); Goodale, James E. (VDOT)
Subject: Walkers Ridge Entrance on Route 15

Hello Mark,

The County attorney in Fluvanna has asked a question as to whether or not VDOT would approve the creation and later abandonment of ROW for a secondary road associated with the Walkers Ridge development.

I've attached our proposed phase I entrance, it shows the squaring off of route 644 into a perpendicular intersection in roughly the same location as the current intersection. To do this we will need to abandon the current 644 ROW. We own the land on both sides of the road where this is to occur. Can you confirm that VDOT will allow this to happen?

Secondly, our phase I entrance will be temporary in nature (maybe 6-12 years) we propose to construct the roundabout as part of phase II (proposed ROW lines are shown on the sheet) and at that time would abandon our phase I entrance ROW (or perhaps relocate is the better word). Same as In the first item, can you confirm VDOT would allow this to occur?

Obviously all of these proposals are with the caveat that all design/construction/etc must be in conformance with all applicable VDOT standards.

Thanks!

Justin M. Shimp, P.E.
President
Shimp Engineering, P.C.
201 E. Main Street, Suite M
Charlottesville, VA 22902

E: Justin@shimp-engineering.com
P: 434-953-6116 (Direct)
P: 434-207-8086 (Office)
F: 804-302-7997

Steven Tugwell

From: Justin Shimp <justin@shimp-engineering.com>
Sent: Friday, November 22, 2013 4:16 PM
To: Steven Tugwell
Subject: FW: Walkers Ridge Entrance on Route 15, Fluvanna County
Attachments: Walkers Ridge Phase I Development Traffic Impact analysis.pdf; 19-39-ZMA-sheet 7 phasing.pdf

From: Justin Shimp [mailto:justin@shimp-engineering.com]
Sent: Friday, November 01, 2013 7:46 AM
To: Wood, Mark (VDOT)
Cc: Bill Wuensch; DeNunzio, Joel D., P.E. (VDOT); Goodale, James E. (VDOT); Barron, L. Marshall (VDOT); Proctor, Charles C. (VDOT)
Subject: RE: Walkers Ridge Entrance on Route 15, Fluvanna County

Mark,

Thank you for clearing up the ROW issue for us. In response to your questions Bill has prepared a traffic memo which demonstrates adequate capacity of our proposed Phase I development. Our plan and proffers stipulate that we will not build beyond Phase I without constructing the round-a-bout. The phase I numbers are: 306 residential units and up to 37,000 SF of commercial.

I have attached Bill's memo and a copy of the phasing sheet.

-Justin

From: Wood, Mark (VDOT) [mailto:James.Wood@VDOT.virginia.gov]
Sent: Monday, October 28, 2013 6:09 PM
To: Justin Shimp
Cc: Bill Wuensch; DeNunzio, Joel D., P.E. (VDOT); Goodale, James E. (VDOT); Barron, L. Marshall (VDOT); Proctor, Charles C. (VDOT)
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Steven Tugwell

From: Justin Shimp <justin@shimp-engineering.com>
Sent: Friday, November 22, 2013 3:59 PM
To: Steven Tugwell
Subject: FW: Walkers Ridge Entrance on Route 15, Fluvanna County

From: Proctor, Charles C. (VDOT) [mailto:]
Sent: Monday, November 04, 2013 12:51 PM
To: Wood, Mark (VDOT)
Cc: Bill Wuensch; DeNunzio, Joel D., P.E. (VDOT); Goodale, James E. (VDOT); Barron, L. Marshall (VDOT); Justin Shimp
Subject: RE: Walkers Ridge Entrance on Route 15, Fluvanna County

Was any consideration given to the impact on the northern Route 644 intersection with Route 15. Based on the layout the northern portion of the development may head north on Route 644 to north on Route 15.

Other than that the study provide a worst case scenario for the proposed temporary intersection with adequate turning lanes.

Let me know if there are any questions.

Thanks,

Chuck
Charles C. Proctor II
Culpeper District
Planning and Land Development Section
Phone 540-829-7553

From: Justin Shimp [ ]
Sent: Friday, November 01, 2013 7:46 AM
To: Wood, Mark (VDOT)
Cc: Bill Wuensch; DeNunzio, Joel D., P.E. (VDOT); Goodale, James E. (VDOT); Barron, L. Marshall (VDOT); Proctor, Charles C. (VDOT)
Subject: RE: Walkers Ridge Entrance on Route 15, Fluvanna County

Mark,

Thank you for clearing up the ROW issue for us. In response to your questions Bill has prepared a traffic memo which demonstrates adequate capacity of our proposed Phase I development. Our plan and proffers stipulate that we will not build beyond Phase I without constructing the round-a-bout. The phase I numbers are: 306 residential units and up to 37,000 SF of commercial.

I have attached Bill's memo and a copy of the phasing sheet.

Justin

From: Wood, Mark (VDOT) [mailto:]
Sent: Monday, October 28, 2013 6:09 PM

Steven Tugwell

From: Wood, Mark (VDOT) <James.Wood@VDOT.virginia.gov>
Sent: Friday, November 15, 2013 4:51 PM
To: Justin Shimp
Cc: Barron, L. Marshall (VDOT); Proctor, Charles C. (VDOT); DeNunzio, Joel D., P.E. (VDOT); Goodale, James E. (VDOT); Wolfrey, Sharon A. (VDOT); Steven Tugwell; Bill Wuensch
Attachments: Geometry of Temporary Through Road.pdf

Importance: High

Justin,

As a follow up to our phone conversation this afternoon, VDOT has the following comments based on your most recent submissions:

- The temporary alignment of Rte. 644 has to be built to state standards which will include a horizontal curve instead of the "T" intersection as shown on Revision #5, dated 09/17/2013 for the "Rezoning Application Plan for Walker's Ridge". See attached .pdf entitled "Geometry of Temporary Through Road" for the location of horizontal curve.
- Was a study conducted to determine the impact on the northern Route 644 intersection with Route 15 (approximately 0.85 miles north)?. Based on the layout of the proposed development, traffic from the northern portion of the development may head north on Route 644 to gain access to Route 15 when travelling towards the Zion Crossroads area.

J. Mark Wood, P.E., L.S.
Area Land Use Engineer
Virginia Department of Transportation
Land Development – South
P.O. Box 1017
11430 James Madison Highway
Troy, VA 22974
Phone: (434) 589-7932
Cell: (540) 223-5240
Fax: (434) 589-3967
Email:

Steven Tugwell

From: Justin Shimp <justin@shimp-engineering.com>
Sent: Saturday, November 16, 2013 12:01 PM
To: Wood, Mark (VDOT)
Cc: Barron, L. Marshall (VDOT); Proctor, Charles C. (VDOT); DeNunzio, Joel D., P.E. (VDOT); Goodale, James E. (VDOT); Wolfrey, Sharon A. (VDOT); Steven Tugwell; Bill Wuensch
Subject: RE:
Attachments: Phase 1 turn lane at northern 644 rev 11-13.pdf

Mark,

We did evaluate the 644 intersection for phase I traffic. The results are that no additional turn lanes are required based on what I believe to be a very high assumption of north bound vehicles that would turn left and then double back to the site on 644. Please see the attached memo from Bill Wuensch which provides the details for this scenario.

-Justin

From: Wood, Mark (VDOT) [mailto:]
Sent: Friday, November 15, 2013 4:51 PM
To: Justin Shimp
Cc: Barron, L. Marshall (VDOT); Proctor, Charles C. (VDOT); DeNunzio, Joel D., P.E. (VDOT); Goodale, James E. (VDOT); Wolfrey, Sharon A. (VDOT); ; Bill Wuensch
Subject:
Importance: High

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COUNTY OF FLUVANNA

"Responsive & Responsible Government"

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Palmyra, VA 22963
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www.fluvannacounty.org

DATE: November 15, 2013
TO: Steve Tugwell - Acting Planning & Zoning Administrator
FROM: J. Wayne Stephens, PE - County Engineer

SUBJECT: Walker's Ridge proposed development – Groundwater and Soils information submitted in support of proposed on-site central drinking water and sewage systems:

1) Letter dated October 30, 2013 from Justin Shimp, PE, to Allyson Finchum RE: "Hydrogeological Studies and Impacts for Groundwater for Phase 1 Development
2) Document prepared by Eaton Geological Consulting, LLC, titled: *Feasibility Study of Groundwater Potential for The Walker's Ridge Development.*
3) Undated letter (received by County on 10/31/2013) from Nick H. Evans, PhD of CSG, to Justin Shimp, PE
4) Letter dated November 1, 2013 from Justin Shimp, PE, to Allyson Finchum RE: "Preliminary drainfield analysis, soils studies..."
5) Document prepared by NCS Wastewater Solutions, titled: *Preliminary Feasibility Assessments of Drainfield Capacity for Supporting Walker's Ridge Development On-Site Wastewater System.*
6) Letter dated October 29, 2013, from Environmental Soil Consultants (ESC) to NCS Wastewater Solutions, RE: *Soil Feasibility: Walker's Ridge Development...*

Following are my observations and comments resulting from my review of the subject documents:

Groundwater

- In my opinion, the documentation provided does not constitute a complete Phase 1 Hydrogeologic Study.

- 300 gpd per unit is a reasonable and correct usage figure for water source requirements and on central water systems in Virginia. While actual consumption per unit is usually less than 300 gpd, this figure takes in to account losses due to system leakage, filter backwash cycles, required flushing, etc. In any event, I recommend a minimum 300 gpd per unit be used in the design of any central water system being constructed in the County.

- For groundwater systems, the VDH Waterworks Regulations require 0.5 gpm of well capacity per Equivalent Residential Connection (ERC, aka EMU). For purposes of sustainability and system redundancy, 1.0 gpm per EMU is often required by localities when adopting their own central water system design criteria. In any event, the state standard must be met.

- The 306 EMUs proposed in Phase 1 of the project will require a total sustainable groundwater yield of at least 153 gpm. Using the reported 8 gpm median yield in the documentation provided, approximately 20 wells would be needed to provide water for Phase 1 of the project.

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- Groundwater recharge which may be realized from proposed on-site drainfields should not be used in any water balance computations for the project. The letter from Mr. Shimp seems to state an intent to include drainfields in these computations. Section 2.1 of the Eaton document states the following assumption: "groundwater withdrawls are consumptive; that is, there is no return of water to the on-site aquifer via infiltration"; while Section 7.0 of that same document suggests that 50% of extracted water should be assumed to return to the groundwater via infiltration. These discrepancies should be cleared up, and the developer's intent made clear.

- The Eaton document states an assumption that the developed site will have an overall 5% impermeability (i.e. 95% of the site will contribute to groundwater recharge) . While no preliminary stormwater computations were provided, this seems unrealistic for a PUD development, even assuming that some of the SWM/BMP facilities are designed to allow some infiltration.

- It appears from the documentation provided that no field work had been performed to confirm the initial photolineament study. Independent field mapping of the site, including locations, orientations and sizes of visible rock outcroppings are needed in order to complete the fracture trace analysis. These are used to help confirm (or refute) the apparent fracture orientations and locations inferred from the photolineament analysis. It is my opinion that Fracture Trace Analyses cannot be considered complete without this field observation, verification and comparison work being completed.

- It is likely I will have more comments when more complete information is available.

Soils & Drainfield Feasibiility

- The documentation provided indicates that some preliminary field work has been performed, including the digging of auger holes and recordation of soil profiles. A map should be prepared and submitted showing all auger locations, and accompanied by soils profile information.

- The soils chart included in the NCS document lists the soils, and approximate areas of those soils, for about 212 acres of the site. Of these, approximately 83 acres of those soils are classified by the USDA-NRCS as having a high potential of being hydric soils (Nf, Tc and Td). Hydric soils are not suitable to be used for drainfields. Until the actual soils are classified for the site, it is not reasonable to assume that these areas will be suitable for use as drainfields.

- Also in the included soils chart, approximately 109 acres of land is listed as being in soils with average slopes greater than 15%, with about 10 acres of that being in soils greater than 25%. Drainfield suitability declines as slopes increase, and the Me and Mg soil classifications

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are already considered only 'Moderately' suitable for use as drainfields. Even when soils are suitable, steep slopes require that drainfields be designed with larger spacing between drain lines than on flatter slopes. This results in larger areas being needed for both primary and reserve drainfields.

- The ESC letter states: "The soils on the property that occur on less than 15% slopes can generally be utilized in mass drainfields". I agree with this statement, although it eliminates a large percentage of the soils listed in the NCS document from contention for use as drainfields.

- The ESC letter makes reference to limitation on their assessment of suitability for areas contained within the greens, sand traps and tees of the old golf course located on the site. The letter further states that former fairway areas will need to be "evaluated carefully for cut and fill areas", since these areas would not be suitable for use as drainfields.

- It is my opinion that despite the conclusions drawn by the developer's consultant, the documents and information provided by the developer indicate that a very high percentage of the proposed development site will not be suitable for use as mass drainfields. This is apparent even without knowing the locations of the truly suitable soils in relation to proposed roads, houses, buildings, parking lots, SWM/BMP facilities, etc., the construction of which is likely to further reduce the usability of these suitable soil areas.

BOARD OF SUPERVISORS AGENDA ITEM

Meeting Date: February 19, 2014

SUBJECT:	Adoption of the Fluvanna County Board of Supervisors regular meeting minutes.
MOTION(s):	**I move the regular meeting minutes of the Fluvanna County Board of Supervisors for Wednesday, February 05, 2014 be adopted.**
STAFF CONTACT:	Mary L. Weaver, Clerk to the Board of Supervisors
RECOMMENDATION:	Approval
TIMING:	Routine
DISCUSSION:	None
FISCAL IMPLICATIONS:	N/A
POLICY IMPLICATIONS:	N/A
LEGISLATIVE HISTORY:	None
ENCLOSURES:	Draft minutes for February 05, 2014

FLUVANNA COUNTY BOARD OF SUPERVISORS
REGULAR MEETING MINUTES
Circuit Court Room
February 05, 2014, 4:00 pm

MEMBERS PRESENT: Mozell Booker, Chairperson
Bob Ullenbruch, Vice-Chairperson
Mike Sheridan
Donald W. Weaver
Tony O'Brien

ALSO PRESENT: Steven M. Nichols, County Administrator
Fred Payne, County Attorney
Mary Weaver, Clerk to the Board of Supervisors

CALL TO ORDER/PLEDGE OF ALLEGIANCE/MOMENT OF SILENCE

Chairperson Booker called the meeting of Wednesday, February 05, 2014, to order at 4:00 p.m., in the Circuit Courtroom in Palmyra, Virginia; and the Pledge of Allegiance was recited, after which, Chairperson Booker called for a moment of silence.

COUNTY ADMINISTRATOR'S REPORT

Mr. Nichols reported on the following topics:

- Habitat for Humanity dedicated another house in Fluvanna County on January 25, 2014
- Public Works Department staff has done a great job keeping the roads, parking lots and sidewalks well maintained during the snow and icy conditions.
- Sheriff's Department conducted a successful 'Active Shooter' Training Class at the former Cunningham elementary School.
- Fluvanna County Social Services' Virginia Initiative for Employment Not Welfare (VIEW) program was ranked 5th in the state during the last monthly rating period.
- Daddy and Daughter Valentines Dance is Saturday, February 8, 2014, at the Carysbrook Gym.
- Senior Valentine's Day Dance is Wednesday, February 12, 2014, at the Carysbrook Gym.
- Joint Work Session with Planning Commission scheduled for Wednesday, March 5, 2014, at 7:00 pm. Discussion will be PUDs, UDAs and review of Planning and Zoning issues for Zion Crossroads development.
- New Senior Program Support Assistant in Planning, Kelly Belanger-Harris, started on Tuesday, January 28, 2014.
- Provided Pleasant Grove Diesel Storage Tank procedures update.
- Reviewed upcoming meetings and work sessions for the month of February.

PUBLIC COMMENTS #1

Chairperson Booker opened the floor for the first round of public comments.

- Gerald Bare, Property on 250 – Encouraged the Board to continue with putting water and sewer to the Zion Crossroads area.

With no one else wishing to speak, Chairperson Booker closed the first round of public comments.

PUBLIC HEARING

None

ACTION MATTERS

Grant Application for FY15 School Resource Officers – This request was deferred to the February 19,

2014 meeting.

County Driver DMV Checks Policy – Mr. Wayne Stephens, Public Works Director, addressed this request to make the following updates and amendments to the Motor Vehicle Use Policy:

1. Clarify various existing procedures, requirements & responsibilities.
2. Specify a 5-year frequency for DMV driving record checks.
3. Centralize responsibility for initiating DMV driving record checks.
4. Add a requirement for annual verification of valid license.
5. Clarify accident reporting and investigation procedures.
6. Update and clarify the Authorized Drivers section of the policy.

MOTION:

Mr. Ullenbruch moved to adopt and approve the revised Fluvanna County Motor Vehicle Use Policy effective February 5, 2014. Mr. Weaver seconded. The motion carried, with a vote of 5-0. AYES: Booker, Sheridan, O'Brien, Ullenbruch and Weaver. NAYS: None. ABSENT: None.

Appointment/Fork Union Sanitary District Advisory Committee (FUSD) –

MOTION:

Mr. Weaver moved to appoint Mr. Gerard Zink to the Fork Union Sanitary District Advisory Committee (FUSD), with a term to begin immediately and to terminate December 31, 2017.
Mr. O'Brien seconded. The motion carried, with a vote of 5-0. AYES: Booker, Sheridan, O'Brien, Ullenbruch and Weaver. NAYS: None. ABSENT: None.

Appointment/Youth Advisory Council (YAC), BOS Representative Position –

MOTION:

Mr. Ullenbruch moved to appoint Mrs. Mozell Booker to the Youth Advisory Council (YAC), BOS Representative Position, with a term to begin immediately and to terminate December 31, 2015. Mr. Weaver seconded. The motion carried, with a vote of 5-0. AYES: Booker, Sheridan, O'Brien, Ullenbruch and Weaver. NAYS: None. ABSENT: None.

ZMP 13:02, Cowboys, LLC – Applicant requested this item be deferred from the February 19th, 2014 meeting to the March 19th, 2014 meeting.

MOTION:

Mr. Ullenbruch moved to defer ZMP 13:02, a request to amend the Fluvanna County Zoning Map with respect to 2.631 acres of Tax map 30, Section A, Parcel 84B, to conditionally rezone the same from A-1, Agricultural, General, to B-1, Business, General, subject to the submitted proffer. Mr. O'Brien seconded. The motion carried, with a vote of 5-0. AYES: Booker, Sheridan, O'Brien, Ullenbruch and Weaver. NAYS: None. ABSENT: None.

PRESENTATIONS

VDOT Report – Mr. Joel DeNunzio, Charlottesville Residency Administrator, gave all the Board members a binder containing current VDOT contact information, FY13-19 Six-Year Plan, and current work projects. Mr. DeNunzio reviewed the monthly report and the projects currently being worked on. Mr. DeNunzio also met recently with the school transportation team to address winter weather concerns.
Mr. Weaver mentioned some road signs down on Briar Creek Road and Rolling Road South. Green street signs are the county responsibility. Sherriff's Office will be notified. All other signs are VDOT's responsibility.

FY15 Operating Budget and Capital Improvements Plan (CIP) – Mr. Steven M. Nichols, County Administrator, reviewed with the Board the proposed FY14 Budget. Mr. Nichols' priorities developing this budget were to:

- Perform a rigorous review of all budget areas.
- Continue improvements in Service, Efficiency, and Effectiveness (SEE).
- Provide for adequate maintenance of County facilities and recreation areas
- Plan for the cost of new or upgraded Capital Improvements Plan (CIP) infrastructure project requirements in future budget years.
- Support staff with adequate pay and benefit plans.

The proposed budget totals $77,486,022 is balanced on a real property tax rate of $0.85 per $100 of assessed value. Mr. Nichols explained in detail the $11.1 million increase to revenues and expenditures. Mr. Nichols also discussed two pay plan proposals, expected employee health insurance costs and additional county staff needs to maintain efficiency while managing increasing staff workloads. Mr. Nichols reviewed a variety of other revenue sources that could be implemented to bring in additional revenue.

FY15 Revenues/Expenditures - Mrs. Barbara Horlacher, Finance Director, reviewed with the Board:

- Five largest revenues for the County
- Proposed Real Property Tax
- Real Estate Tax Rate History and Comparison
- Public Service Corporation Tax
- Proposed Personal Property Tax and Rate Comparison
- Delinquent Taxes and Collection Rate History
- Commonwealth of Virginia Revenue
- Sales Tax History
- Total Debt and Debt Service History
- Fund Balance
- Impact of Tax Rate Changes and 2014 Reassessment

CONSENT AGENDA

The following items were approved under the consent agenda:

MOTION:

Mr. Weaver moved to approve the consent agenda, which consisted of:

- Minutes of January 8, 2014, as amended
- Minutes of January 15, 2014
- Accounts Payable Report
- FY14 Cunningham and Columbia School Appraisals

Mr. Ullenbruch seconded. The motion carried, with a vote of 5-0. AYES: Booker, Sheridan, O'Brien, Ullenbruch and Weaver. NAYS: None. ABSENT: None.

UNFINISHED BUSINESS

None

NEW BUSINESS

Mrs. Booker is attending the 2014 Virginia County Board Chairpersons' Institute from February 6-9, 2014, in Richmond, VA.

PUBLIC COMMENTS #2

Chairperson Booker opened the floor for the second round of public comments.

DRAFT

With no one wishing to speak, Chairperson Booker closed the second round of public comments.

RECESS at 6:13pm

MOTION:

Mr. O'Brien moved to recess the meeting for dinner break and reconvene at 7:00pm. Mr. Ullenbruch seconded. The motion carried, with a vote of 5-0. AYES: Booker, Sheridan, O'Brien, Ullenbruch and Weaver. NAYS: None. ABSENT: None.

RECONVENED at 7:00pm

FY15 Agency Budget Request Presentations:

Fire and Rescue – Chief Scott Carpenter, Chairman of the Fire and Rescue Association, addressed the Board in regards to Fire and Rescue FY15 budget requests. Please reconsider reallocating the funds for parking lot lighting and drainage repair for the Lake Monticello Fire and Rescue Buildings.

Health Department – Dr. Lilian Peake, Director of Health Department, reviewed with the Board the mission, to have Healthy People and Healthy Communities, and three major goals of the Health Department;

1. Control Communicable Diseases
2. Improve the Health of Women and Children.
3. Work collaboratively to improve Community Health Services.

Library – Ms. Cyndi Hoffman, Library Director, gave an overview to the Board of the participation and use of the library. Ms. Hoffman discussed the requests for more bandwidth to improve the internet service and five additional staff hours per week.

Department of Social Services – Mrs. Susan Muir, Social Services Director, reviewed with the Board the mission of Social Services, to fundamentally promote the well-being and quality of life for the citizens of this county, along with their FY15 budget request. Mrs. Muir requested the Board to consider funding for one more staff position and some staff transition coverage money. The Board discussed the funding requirements for the Social Services Department from the State.

Cooperative Extension Office and Registrar/Electoral Board – Mr. Steve Nichols, County Administrator, addressed the Cooperative Extension Office and Registrar/Electoral Board's FY15 funding requests.

Chairman Booker discussed with the Board the procedure in communicating with the Fluvanna County School Board and School Superintendent.

EXTEND MEETING

MOTION:

Mr. Weaver moved to extend the Board of Supervisors meeting to 12:00 a.m. Mr. O'Brien seconded. The motion carried with a vote of 5-0. AYES: Booker, Sheridan, O'Brien, Ullenbruch and Weaver. NAYS: None. ABSENT: None.

CLOSED SESSION

MOTION TO ENTER INTO A CLOSED MEETING:

At 7:50 p.m., Mr. Weaver moved the Fluvanna County Board of Supervisors enter into a

closed session, pursuant to the Virginia Code Section 2.2-3711A.3, 2.2-3711A.5, 2.2-3711A.6 and 2.2-3711A.7 for discussion of Disposition of Real Estate, Prospective Industry, Investment of Funds and Legal Matters. Mr. Ullenbruch seconded. The motion carried, with a vote of 5-0. AYES: Booker, Sheridan, O'Brien, Ullenbruch and Weaver. NAYS: None. ABSENT: None.

MOTION TO EXIT A CLOSED MEETING & RECONVENE IN OPEN SESSION:

At 9:51 p.m., Mr. Weaver moved the closed meeting be adjourned and the Fluvanna County Board of Supervisors reconvene again in open session. Mr. O'Brien seconded. The motion carried, with a vote of 5-0. AYES: Booker, Sheridan, O'Brien, Ullenbruch and Weaver. NAYS: None. ABSENT: None.

MOTION:

At 9:52 p.m., the following resolution was adopted by the Fluvanna County Board of Supervisors, following a closed meeting held Wednesday, February 5, 2014, on motion of Mr. Weaver, seconded by Mr. Sheridan and carried by the following vote of 5-0. AYES: Booker, Sheridan, Weaver, Ullenbruch and O'Brien. NAYS: None. ABSENT: None.

"BE IT RESOLVED to the best of my knowledge (i) only public business matters lawfully exempted from open meeting requirements under Section 2.2-3711-A of the Code of Virginia, 1950, as amended, and (ii) only such public business matters as were identified in the motion by which the closed meeting was convened were heard, discussed or considered in the meeting."

ADJOURN

MOTION:

At 9:53 p.m., Mr. O'Brien moved to adjourn the meeting of Wednesday, February 5, 2014. Mr. Sheridan seconded. The motion carried, with a vote of 5-0. AYES: Booker, Sheridan, O'Brien, Ullenbruch and Weaver. NAYS: None. ABSENT: None.

ATTEST: FLUVANNA COUNTY BOARD OF SUPERVISORS

_____ _____

Mary L. Weaver, Clerk Mozell Booker, Chairperson

DRAFT

FLUVANNA COUNTY BOARD OF SUPERVISORS AGENDA ITEM

Meeting Date: February 19, 2014

AGENDA TITLE:	Open Space Contract/Matthew L. Dickey – Mel Sheridan, Commissioner of the Revenue				
MOTION(s):	**I move to approve the open space contract for Mr. Matthew L. Dickey for Tax Map Parcel 56-1-6; agreement shall remain in effect for a term of five (5) consecutive years.**				
CATEGORY	Public Hearing	Action Matter	Presentation	Consent Agenda	Other
				X	
STAFF CONTACT(S):	Andrew M. Sheridan, Commissioner of the Revenue				
PRESENTER(S):					
RECOMMENDATION:	Approval				
TIMING:	Immediate				
DISCUSSION:	This property qualifies for an Open Space contract with Fluvanna County in accordance with Code Section 58.1-3229 et. seq. of the Virginia State Code.				
FISCAL IMPACT:	None				
POLICY IMPACT:	In accordance with Section 58.1-3229 et. seq. of Virginia State Code.				
LEGISLATIVE HISTORY:					
ENCLOSURES:	-Mr. Matthew L. Dickey's executed Open Space Contract -Power of Attorney Documentation -Aerial Image of Map Number 56-1-6				
REVIEWS	Legal	Finance	Purchasing	HR	Other

CONTRACT FOR OPEN SPACE LAND USE ASSESSMENT

THIS AGREEMENT, made this 11th day of February, 2014, by and between **Matthew L. Dickey**, party(ies) of the first part, hereinafter called the Grantor, and the COUNTY OF FLUVANNA, a political subdivision of the Commonwealth of Virginia, party of the second part, hereinafter called the County:

WITNESSETH

WHEREAS, the Grantor owns certain real estate, described below, hereinafter called the Property; and

WHEREAS, the County is the local governing body having real estate tax jurisdiction over the Property; and

WHEREAS, the County has determined:

A. That it is in the public interest that the Property should be provided or preserved for conservation of agricultural and forestal land and of wildlife and

B. That the property meets the applicable criteria for real estate devoted to open-space use as prescribed in Article 4 (Section 58.1-3229 et. seq.) of Chapter 32 of Title 58.1 of the Code of Virginia, and the standards for classifying such real estate prescribed by the Director of the Virginia Department of Conservation and Recreation; and

C. That the provisions of this agreement meet the requirements and standards prescribed under section 58.1-3233 of the Code of Virginia for recorded commitments by landowners not to change an open-space use to a non-qualifying use; and

WHEREAS, the Grantor is willing to make a written recorded commitment to preserve and protect the open-space uses of the Property during the term of this agreement in order for the Property to be taxed on the basis of a use assessment, and the Grantor has submitted an application for such taxation to the Commissioner of the Revenue of the County pursuant to Section 58.1-3234 of the Code of Virginia and Section 20-4-2(d) of the Fluvanna County Code; and

WHEREAS, the County is willing to extend the tax for the Property on the basis of a use assessment commencing with the next succeeding tax year and continuing for the term of this agreement, in consideration of the Grantor's commitment to preserve and protect the open-space uses of the property, and on the condition that the Grantor's application is satisfactory and that all other requirements of Article 4, Chapter 32, Title 58.1 of the Code of Virginia and Section 20-4-2(d) of the Fluvanna County Code are complied with.

NOW, THEREFORE, in consideration of the recital and the mutual benefits, covenants and terms herein contained, the parties hereby **COVENANT** and **AGREE** as follows:

1. This agreement shall apply to all the following described real estate:

   Tax Map Parcel: 56-1-6 (19.35 acres in Open Space of 21.35 total acres)

2. The Grantor agrees that during the term of this agreement:

   A. There shall be no change in the use or uses of the Property that exist as of the date of this agreement to any use that would not qualify as open-space use. The qualifying use for the Property is conservation of agricultural and forestal land and of wildlife.
   B. There shall be no display of billboards, signs or other advertisements on the property except to (i) state solely the name of the Grantor and the address of the Property, (ii) advertise the sale or lease of the Property, (iii) advertise the sale of goods or services produced pursuant to the permitted use of the Property, or (iv) provide warnings. No sign shall exceed four feet by four feet.
   C. There shall be no construction, placement or maintenance of any structure on the Property unless such structure is either:
      1) on the Property as of the date of this agreement; or
      2) related to and compatible with the open-space uses of the Property which this agreement is intended to protect or provide for.
   D. There shall be no dumping or storage of trash, garbage, ashes, waste, junk, abandoned property or other unsightly or offensive material on the Property.
   E. There shall be no filling, excavating, mining, drilling, removal of topsoil, sand, gravel, rock, minerals, or other materials which alters the topography of the Property, except as required in the construction of permissible building structures and features under this agreement.
   F. There shall be no construction or placement of fences, screens, hedges, walls or other similar barriers which materially obstruct the public view of scenic areas of the Property.

G. There shall be no removal or destruction of trees, shrubs, plants and other vegetation, except that the Grantor may:
    1) engage in agricultural, horticultural or silvicultural activities, provided that there shall be no cutting of trees, other than selective cutting and salvage of dead or dying trees, within 100 feet of a scenic river, a scenic highway, a Virginia Byway or public property listed in the approved State Comprehensive Outdoor Recreation Plan (Virginia Outdoors Plan), and
    2) remove vegetation which constitutes a safety, a health or an ecological hazard, e.g., vegetation classified as noxious weed pursuant the Code of Virginia (1950), as amended.

H. There shall be no alteration or manipulation of natural water courses, shores, marshes, swamps, wetlands or other water bodies, nor any activities or uses which adversely affect water quality, level or flow.

I. On areas of the Property that are being provided or preserved for conservation of land, floodways or other natural resources, or that are to be left in a relatively natural or undeveloped state, there shall be no operation of dune buggies, all-terrain vehicles, motorcycles, motorbikes, snowmobiles or other motor vehicles, except to the extent necessary to inspect, protect or preserve the area.

J. There shall be no industrial or commercial activities, conducted on the property, except for the continuation of agricultural, horticultural or silvicultural activities; or activities that are conducted in a residence or an associated outbuilding such as garage, smokehouse, small shop or similar structure which is permitted on the property.

K. There shall be no separation or split-off of lots, pieces or parcels from the property. The Property may be sold or transferred during the term of this agreement only as the same entire parcel that is the subject to this agreement, provided, however, that the Grantor may grant to a public body or bodies open-space, conservation or historic preservation easements which apply to all or part of the Property.

3. This agreement shall be effective upon acceptance by the County, provided, however, that the real estate tax for the Property shall not be extended on the basis of its use value until the next succeeding tax year following timely application by the Grantor for the use assessment and taxation in accordance with Section 20-4-2(d) of the Fluvanna County Code. Thereafter, this agreement shall remain in effect for a terms of five (5) consecutive years.

4. Nothing contained herein shall be construed as giving to the public a right to enter upon or to use the Property or any portion thereof, except as the Grantor may otherwise allow, consistent with the provisions of this agreement.

5. The County shall have the right at all reasonable times to enter the Property to determine whether the Grantor is complying with the provisions of this agreement.

6. Nothing in this agreement shall be construed to create in the public or member thereof a right to maintain a suit for any damages against the Grantor for any violation of this agreement.

7. Nothing in this agreement shall be construed to permit Grantor to conduct any activity or to build or maintain any improvement which is otherwise prohibited by law.

8. If any provision of this agreement is determined to be invalid by a court of competent jurisdiction, the remainder of the agreement shall not be affected thereby.

9. The provisions of this agreement shall run with the land and be binding upon the parties, their successors, assigns, personal representatives, and heirs.

10. Words of one gender used herein shall include the other gender, and words in the singular shall include words in the plural, whenever the sense requires.

11. This agreement may be terminated in the manner provided in Section 15.1-1513 of the Code of Virginia for withdrawal of land from an agricultural, forestal or an agricultural and forestal district.

12. Upon termination of this agreement, the Property shall thereafter be assessed and taxed at its fair market value, regardless of its actual use, unless the County determines otherwise in accordance with applicable law.

13. NOTICE: WHEN THE OPEN SPACE USE OR USES BY WHICH THE PROPERTY QUALIFIED FOR ASSESSMENT AND TAXATION ON THE BASIS OF USE CHANGES TO A NONQUALIFING USE OR USES, OR WHEN THE ZONING FOR THE PROPERTY CHANGES TO A MORE INTENSIVE USE AT THE REQUEST OF THE GRANTOR, THE PROPERTY, OR SUCH PORTION OF THE PROPERTY WHICH NO LONGER QUALIFIES SHALL BE SUBJECT TO ROLLBACK TAXES IN ACCORDANCE WITH SECTION 58.1-3237 OF THE CODE OF VIRGINIA. THE GRANTOR SHALL BE SUBJECT TO ALL OF THE OBLIGATIONS AND LIABILITIES OF SAID CODES SECTION.

Samuel Dickey for Matthew Dickey (P.O.A.) (SEAL)
Landowner

LAUREN M. RYALLS NOTARY PUBLIC REG # 7509714 MY COMMISSION EXPIRES 3/31/2015 COMMONWEALTH OF VIRGINIA

_____ (SEAL)
Co-owner (s)

STATE OF VIRGINIA
COUNTY OF FLUVANNA, to-wit:

The foregoing instrument was acknowledged before me by

Samuel Dickey for Matthew Dickey (P.O.A.) Landowner (s)

on this 11th day of February, 2014.

My commission expires: 3/31/2015

Lauren M Ryalls
Notary Public

COUNTY OF FLUVANNA, VIRGINIA

By: _____
County Administrator

STATE OF VIRGINIA
COUNTY OF FLUVANNA, to-wit:

The foregoing instrument was acknowledged before me by

_____, Fluvanna County Administrator

on this _____ day of _____, _____.

My commission expires: _____

_____
Notary Public

0900
0713

900 713

SPECIFIC POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That I, **MATTHEW L. DICKEY**, whose address is P. O. Box 847, Scottsville, Virginia 24590, have made, constituted and appointed, and by these presents do make, constitute and appoint my father, **SAMUEL L. DICKEY**, as and for my true and lawful attorney, for me and in my name, place and stead, to bargain, grant, and convey to such person or persons, corporation, associations, or entities as my said attorney shall deem most for my advantage and profit, in connection with a refinance/construction/permanent mortgage loan from Access National Bank to be secured by my real property known as Lot 6, Hardware River Drive, Scottsville, Virginia 24590 (the "Property").

My attorney-in-fact, shall have the power and authority to make, co-sign and/or guaranty any and all necessary contracts, deeds, deeds of trust, deed of trust notes, loan agreements, modification agreements and conveyances, with such covenants, certifications, warranties, and assurances as to my said attorney shall seem expedient for the financing and/or refinancing of the Property as my said attorney shall deem necessary; including, but not limited to the power to sign, seal, acknowledge, and deliver the same as well as disclosure statements, settlement statements, affidavits, notices of right of rescission, customer identification statements, loan applications, insurance notices, affidavits, statements of loan purpose, indemnification agreements, draw request forms, mechanic's lien waiver agreements and such other documents as may be required in connection with the financing or refinancing of any and all such real estate; to sign and endorse checks payable to me or my account and to accept and receive the sum or sums of money or other consideration which shall be coming to me or my account by reason of said financing; and to do, make, execute, and perform all and every other act or acts, thing or things in law needful and necessary to be done in connection with said financing, as fully, largely, and amply, to all intents and purposes, as I myself might or could do if acting personally. Specifically, my said attorney shall be authorized to execute and deliver all documents necessary in connection with (1) a first deed of trust loan in the approximate amount of $234,000.00, from Access National Bank to (i) refinance an existing deed of trust loan on the Property, and (ii) provide construction/permanent mortgage financing for the construction of a residence on the Property; and (2) the construction of the improvements on the Property, including without limitation any indemnification agreements required for affirmative mechanic's lien coverage for the said lender's loan title insurance policy, any draw request forms, any mechanic's lien waiver agreements, designation of mechanic's lien agent forms and any other documents required by the said lender or the title insurer for the lender's loan in connection with the construction of the improvements and the issuance of affirmative mechanic's and materialmen lien title insurance coverage.

Pursuant to the provisions of Section 26-75 of the 1950 Code of Virginia, as amended, this is a durable power of attorney and shall not terminate on disability of the principal.

Book original of 7/25/2002 by Samuel L. Dickey 301

This power of attorney shall be deemed effective as of the date of execution hereof and I hereby ratify and conform all lawful acts done by my said attorney by virtue hereof.

WITNESS the following signature and seal this 19 day of July, 2013 (date of execution).

Matthew L. Dickey (SEAL)
Matthew L. Dickey

COMMONWEALTH OF VIRGINIA, AT LARGE;

CITY/COUNTY of ARLINGTON; to wit:

I, SHANELL KITT, a Notary Public in and for the said jurisdiction, do hereby certify that this day personally appeared before me, MATTHEW L. DICKEY, whose name is signed to the foregoing Specific Power of Attorney, and acknowledged the same before me in my said jurisdiction.

GIVEN under my hand and notarial seal this 19 day of July, 2013.

Shanell Kitt
Notary Public as aforesaid

My commission expires: 6/30/17

Notary Registration No. 7560925

SHANELL L. KITT
Notary Public
Commonwealth of Virginia
7560925
My Commission Expires Jun 30, 2017

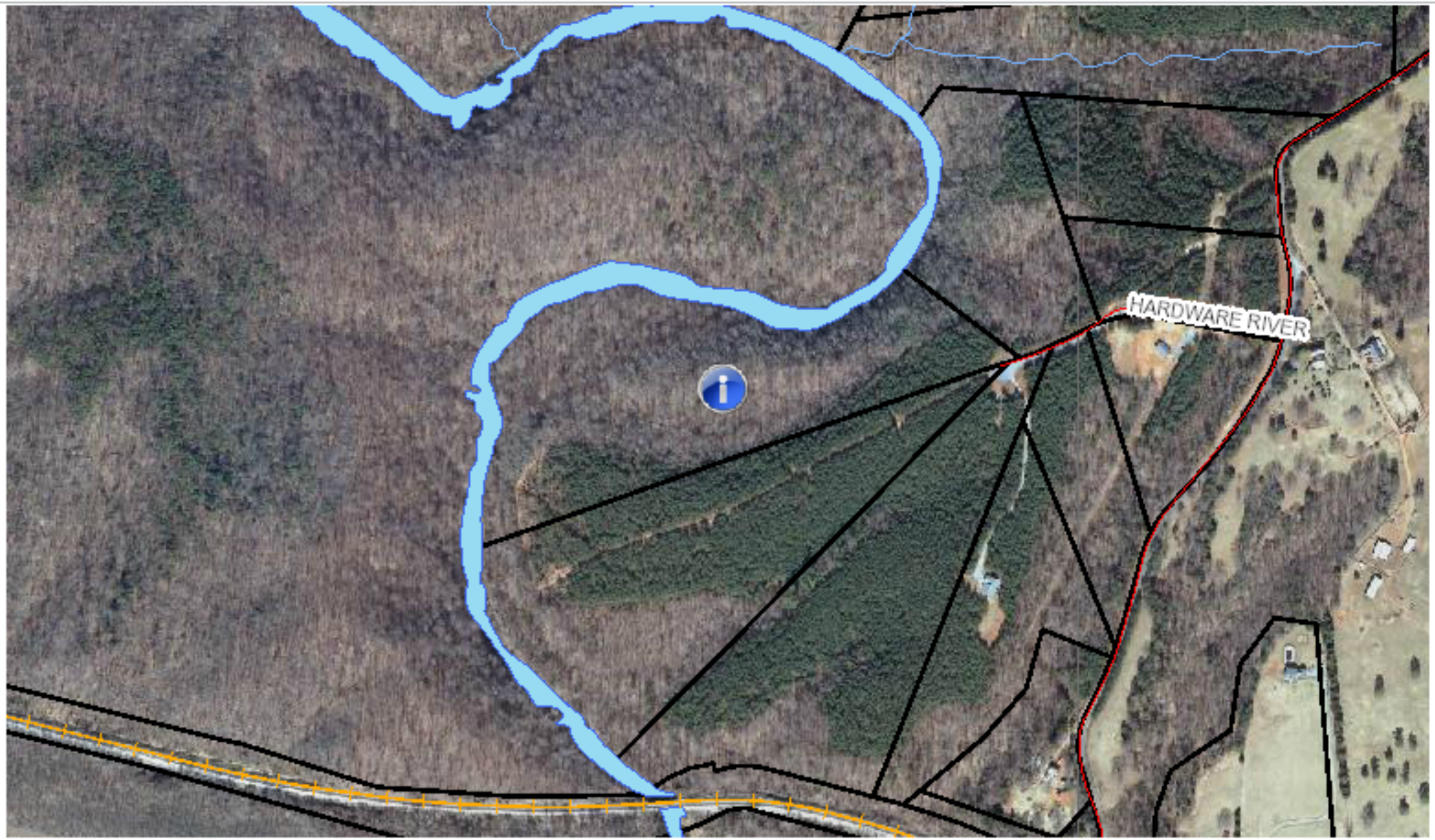
NOTARY PUBLIC

INSTRUMENT #130J017
RECORDED IN THE CLERK'S OFFICE OF
FLUVANNA COUNTY ON
JULY 25, 2013 AT 11:24AM

BOUSON E. PETERSON, CLERK
RECORDED BY: TLL

Matthew L. Dickey

Map Number 56-1-6 Located at 206 Hardware River Drive, Scottsville, VA 24590



Scale: 1:9027.977411	Date: 02/11/2014	Printed By:

Under Virginia State Law, these real estate assessment records are public information. Display of this property information on the internet is specifically authorized by the Code of Virginia §58.1-3122.2(as amended).

FLUVANNA COUNTY BOARD OF SUPERVISORS AGENDA ITEM

Meeting Date: February 19, 2014

AGENDA TITLE:	Open Space Contract/Janet Grubbs – Mel Sheridan, Commissioner of the Revenue				
MOTION(s):	**I move to approve the open space contract for Ms. Janet Grubbs for Tax Map Parcels 14-A-20A, 14-8-2 & 14-8-3; agreement shall remain in effect for a term of five (5) consecutive years.**				
CATEGORY	Public Hearing	Action Matter	Presentation	Consent Agenda	Other
				X	
STAFF CONTACT(S):	Andrew M. Sheridan, Commissioner of the Revenue				
PRESENTER(S):					
RECOMMENDATION:	Approval				
TIMING:	Immediate				
DISCUSSION:	These properties qualify for an Open Space contract with Fluvanna County in accordance with Code Section 58.1-3229 et. seq. of the Virginia State Code.				
FISCAL IMPACT:	None				
POLICY IMPACT:	In accordance with Section 58.1-3229 et. seq. of Virginia State Code.				
LEGISLATIVE HISTORY:					
ENCLOSURES:	-Ms. Janet Grubbs' executed Open Space Contract -Aerial Image of Map Numbers 14-A-20A, 14-8-2 & 14-8-3				
REVIEWS	Legal	Finance	Purchasing	HR	Other

CONTRACT FOR OPEN SPACE LAND USE ASSESSMENT

THIS AGREEMENT, made this 26 day of July, 2013, ~~by~~ _____, by and between Janet Grubbs Green, party(ies) of the first part, hereinafter called the Grantor, and the COUNTY OF FLUVANNA, a political subdivision of the Commonwealth of Virginia, party of the second part, hereinafter called the County:

WITNESSETH

WHEREAS, the Grantor owns certain real estate, described below, hereinafter called the Property; and

WHEREAS, the County is the local governing body having real estate tax jurisdiction over the Property; and

WHEREAS, the County has determined:

A. That it is in the public interest that the Property should be provided or preserved for conservation of agricultural and forestal land and of wildlife and

B. That the property meets the applicable criteria for real estate devoted to open-space use as prescribed in Article 4 (Section 58.1-3229 et. seq.) of Chapter 32 of Title 58.1 of the Code of Virginia, and the standards for classifying such real estate prescribed by the Director of the Virginia Department of Conservation and Recreation; and

C. That the provisions of this agreement meet the requirements and standards prescribed under section 58.1-3233 of the Code of Virginia for recorded commitments by landowners not to change an open-space use to a non-qualifying use; and

WHEREAS, the Grantor is willing to make a written recorded commitment to preserve and protect the open-space uses of the Property during the term of this agreement in order for the Property to be taxed on the basis of a use assessment, and the Grantor has submitted an application for such taxation to the Commissioner of the Revenue of the County pursuant to Section 58.1-3234 of the Code of Virginia and Section 20-4-2(d) of the Fluvanna County Code; and

WHEREAS, the County is willing to extend the tax for the Property on the basis of a use assessment commencing with the next succeeding tax year and continuing for the term of this agreement, in consideration of the Grantor's commitment to preserve and protect the open-space uses of the property, and on the condition that the Grantor's application is satisfactory and that all other requirements of Article 4, Chapter 32, Title 58.1 of the Code of Virginia and Section 20-4-2(d) of the Fluvanna County Code are complied with.

NOW, THEREFORE, in consideration of the recital and the mutual benefits, covenants and terms herein contained, the parties hereby **COVENANT** and **AGREE** as follows:

1. This agreement shall apply to all the following described real estate:
   Tax Map Parcels: 14-A-20A of 10.000 acres
   14-8-2 of 13.614 acres
   14-8-3 of 10.857 acres
   Totaling: 34.471 acres
2. The Grantor agrees that during the term of this agreement:

   A. There shall be no change in the use or uses of the Property that exist as of the date of this agreement to any use that would not qualify as open-space use. The qualifying use for the Property is conservation of agricultural and forestal land and of wildlife.
   B. There shall be no display of billboards, signs or other advertisements on the property except to (i) state solely the name of the Grantor and the address of the Property, (ii) advertise the sale or lease of the Property, (iii) advertise the sale of goods or services produced pursuant to the permitted use of the Property, or (iv) provide warnings. No sign shall exceed four feet by four feet.
   C. There shall be no construction, placement or maintenance of any structure on the Property unless such structure is either:
      1) on the Property as of the date of this agreement; or
      2) related to and compatible with the open-space uses of the Property which this agreement is intended to protect or provide for.
   D. There shall be no dumping or storage of trash, garbage, ashes, waste, junk, abandoned property or other unsightly or offensive material on the Property.
   E. There shall be no filling, excavating, mining, drilling, removal of topsoil, sand, gravel, rock, minerals, or other materials which alters the topography of the Property, except as required in the construction of permissible building structures and features under this agreement.
   F. There shall be no construction or placement of fences, screens, hedges, walls or other similar barriers which materially obstruct the public view of scenic areas of the Property.

G. There shall be no removal or destruction of trees, shrubs, plants and other vegetation, except that the Grantor may:
    1) engage in agricultural, horticultural or silvicultural activities, provided that there shall be no cutting of trees, other than selective cutting and salvage of dead or dying trees, within 100 feet of a scenic river, a scenic highway, a Virginia Byway or public property listed in the approved State Comprehensive Outdoor Recreation Plan (Virginia Outdoors Plan), and
    2) remove vegetation which constitutes a safety, a health or an ecological hazard, e.g., vegetation classified as noxious weed pursuant the Code of Virginia (1950), as amended.

H. There shall be no alteration or manipulation of natural water courses, shores, marshes, swamps, wetlands or other water bodies, nor any activities or uses which adversely affect water quality, level or flow.

I. On areas of the Property that are being provided or preserved for conservation of land, floodways or other natural resources, or that are to be left in a relatively natural or undeveloped state, there shall be no operation of dune buggies, all-terrain vehicles, motorcycles, motorbikes, snowmobiles or other motor vehicles, except to the extent necessary to inspect, protect or preserve the area.

J. There shall be no industrial or commercial activities, conducted on the property, except for the continuation of agricultural, horticultural or silvicultural activities; or activities that are conducted in a residence or an associated outbuilding such as garage, smokehouse, small shop or similar structure which is permitted on the property.

K. There shall be no separation or split-off of lots, pieces or parcels from the property. The Property may be sold or transferred during the term of this agreement only as the same entire parcel that is the subject to this agreement, provided, however, that the Grantor may grant to a public body or bodies open-space, conservation or historic preservation easements which apply to all or part of the Property.

3. This agreement shall be effective upon acceptance by the County, provided, however, that the real estate tax for the Property shall not be extended on the basis of its use value until the next succeeding tax year following timely application by the Grantor for the use assessment and taxation in accordance with Section 20-4-2(d) of the Fluvanna County Code. Thereafter, this agreement shall remain in effect for a terms of ~~three (3)~~ consecutive years.

five (5) JH JJ

4. Nothing contained herein shall be construed as giving to the public a right to enter upon or to use the Property or any portion thereof, except as the Grantor may otherwise allow, consistent with the provisions of this agreement.

5. The County shall have the right at all reasonable times to enter the Property to determine whether the Grantor is complying with the provisions of this agreement.

6. Nothing in this agreement shall be construed to create in the public or member thereof a right to maintain a suit for any damages against the Grantor for any violation of this agreement.

7. Nothing in this agreement shall be construed to permit Grantor to conduct any activity or to build or maintain any improvement which is otherwise prohibited by law.

8. If any provision of this agreement is determined to be invalid by a court of competent jurisdiction, the remainder of the agreement shall not be affected thereby.

9. The provisions of this agreement shall run with the land and be binding upon the parties, their successors, assigns, personal representatives, and heirs.

10. Words of one gender used herein shall include the other gender, and words in the singular shall include words in the plural, whenever the sense requires.

11. This agreement may be terminated in the manner provided in Section 15.1-1513 of the Code of Virginia for withdrawal of land from an agricultural, forestal or an agricultural and forestal district.

12. Upon termination of this agreement, the Property shall thereafter be assessed and taxed at its fair market value, regardless of its actual use, unless the County determines otherwise in accordance with applicable law.

13. NOTICE: WHEN THE OPEN SPACE USE OR USES BY WHICH THE PROPERTY QUALIFIED FOR ASSESSMENT AND TAXATION ON THE BASIS OF USE CHANGES TO A NONQUALIFING USE OR USES, OR WHEN THE ZONING FOR THE PROPERTY CHANGES TO A MORE INTENSIVE USE AT THE REQUEST OF THE GRANTOR, THE PROPERTY, OR SUCH PORTION OF THE PROPERTY WHICH NO LONGER QUALIFIES SHALL BE SUBJECT TO ROLLBACK TAXES IN ACCORDANCE WITH SECTION 58.1-3237 OF THE CODE OF VIRGINIA. THE GRANTOR SHALL BE SUBJECT TO ALL OF THE OBLIGATIONS AND LIABILITIES OF SAID CODES SECTION.

Janet Gubbs Green

Janet Gubbs Green (SEAL)
Landowner

_____ (SEAL)
Co-owner (s)

STATE OF VIRGINIA
COUNTY OF FLUVANNA, to-wit:



The foregoing instrument was acknowledged before me by

Janet Green, Landowner (s)

on this 16 day of December, 2013.

My commission expires: 12-31-15

_____
Notary Public

County/City of Farmville
Commonwealth/State of VA
The foregoing instrument was acknowledged before me this 16 day of Dec 2013, by Janet Green
(name of person making acknowledgment)
Notary Public
My commission expires: 12-31-15

COUNTY OF FLUVANNA, VIRGINIA

By: _____
County Administrator

STATE OF VIRGINIA
COUNTY OF FLUVANNA, to-wit:

The foregoing instrument was acknowledged before me by

_____, Fluvanna County Administrator

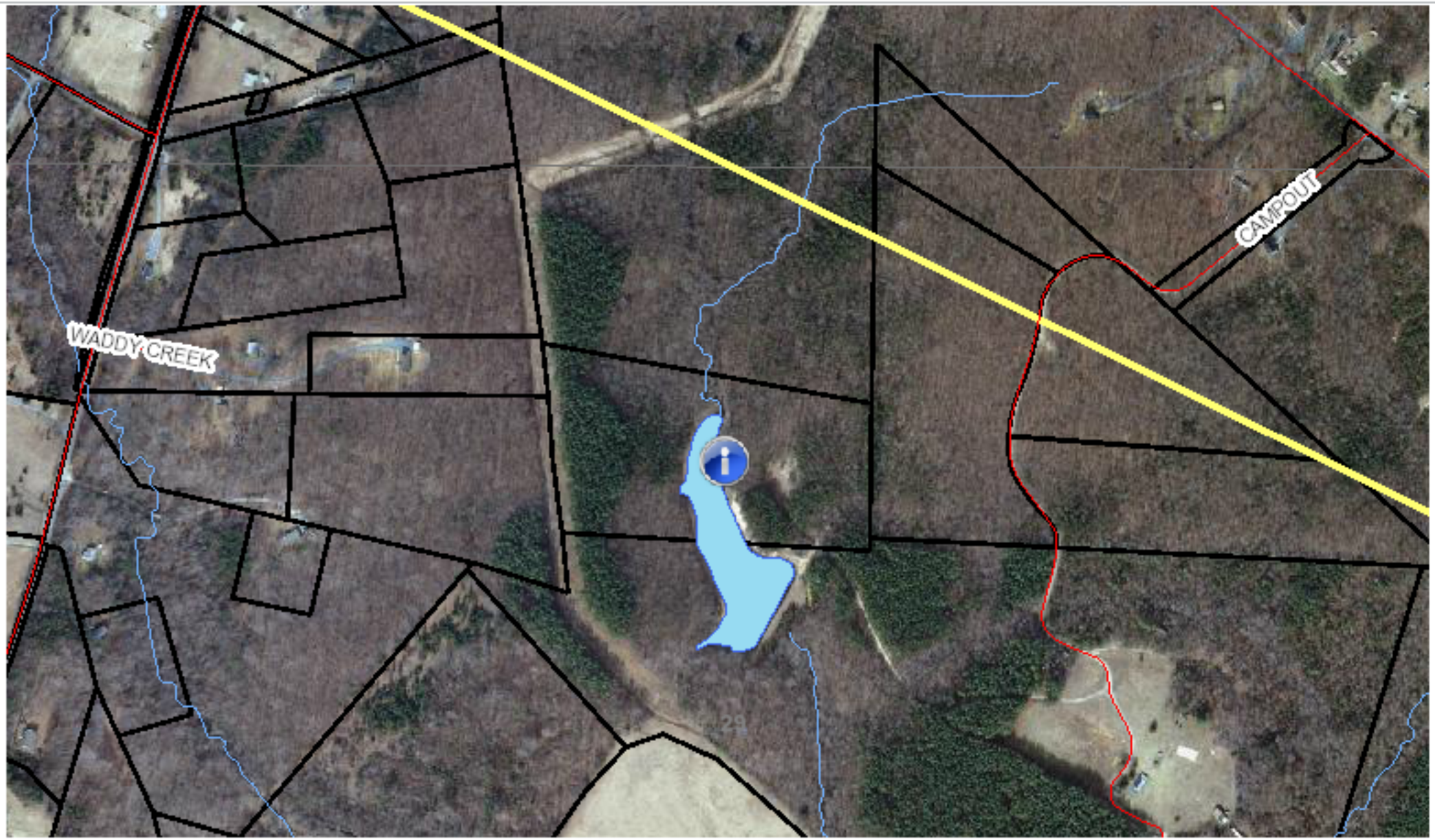
on this _____ day of _____, _____.

My commission expires: _____

_____
Notary Public

Janet Grubbs

Map Number 14-A-20A Located near the Louisa County border in Kents Store, VA

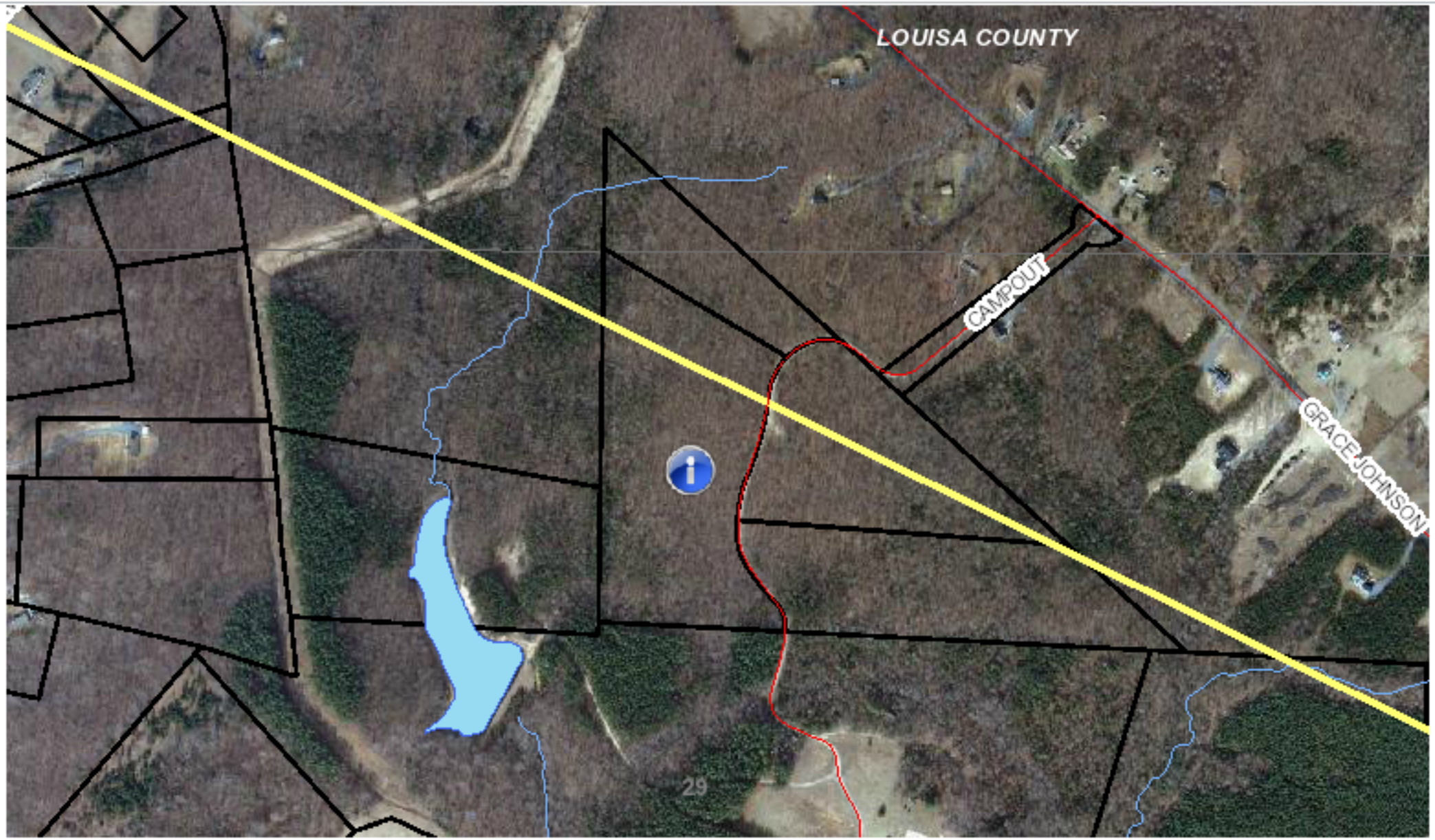


Scale: 1:9027.977411	Date: 02/11/2014	Printed By:

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Janet Grubbs

Map Number 14-8-2 Located on the Louisa County border in Kents Store, VA

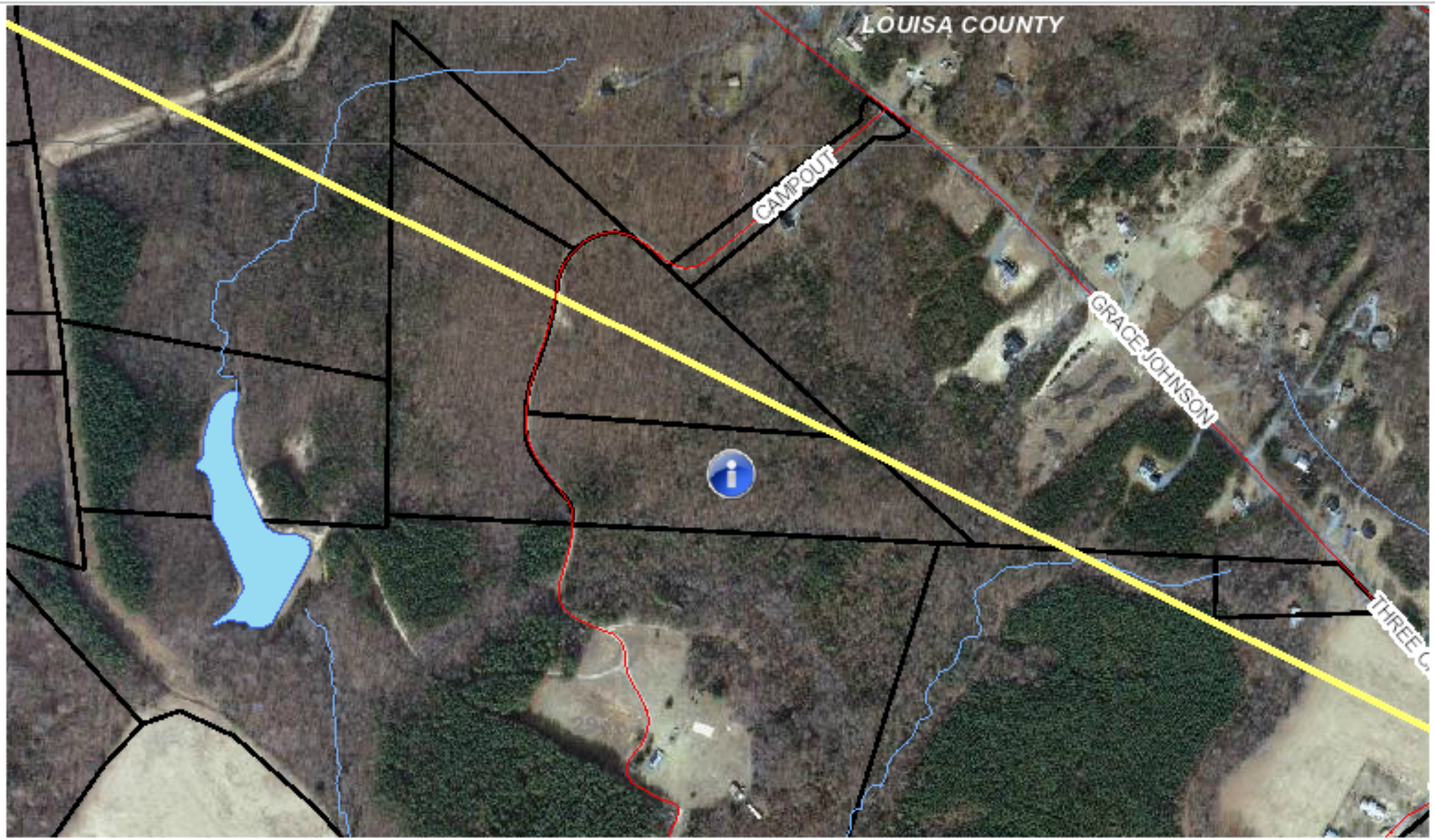


Scale: 1:9027.977411	Date: 02/11/2014	Printed By:

Under Virginia State Law, these real estate assessment records are public information. Display of this property information on the internet is specifically authorized by the Code of Virginia §58.1-3122.2(as amended).

Janet Grubbs

Map Number 14-8-3 Located on the Louisa County border in Kents Store, VA



Scale: 1:9027.977411	Date: 02/11/2014	Printed By:

Under Virginia State Law, these real estate assessment records are public information. Display of this property information on the internet is specifically authorized by the Code of Virginia §58.1-3122.2(as amended).

FLUVANNA COUNTY BOARD OF SUPERVISORS AGENDA ITEM

Meeting Date: 02/19/2014

AGENDA TITLE:	FY14 Voluntary Contributions 1st Half
MOTION(s):	**I move the Board of Supervisors approve the following supplemental appropriation for FY14 Voluntary Contributions - 1st Half:** • **$155.00 – Transfer to DSS: Special Welfare Fund** • **$255.00 - County Library: Books/Publications** • **$190.00 – Sheriff's Dept.: Other Operating Supplies** • **$30.13 – Parks & Rec Dept.: Site Improvements** • **$120.00 – General Fund: BOS Contingency** • **$934.70 – Transfer to Schools: Instruction**

CATEGORY	Public Hearing	Action Matter	Presentation	Consent Agenda	Other
				X	

STAFF CONTACT(S):	Eric Dahl, Management Analyst
PRESENTER(S):	Eric Dahl, Management Analyst
RECOMMENDATION:	I recommend approval of the following actions.
TIMING:	Routine
DISCUSSION:	The Board of Supervisors approved the "Fluvanna County Voluntary Contributions Program Policy" August 7th, 2013, with the program to become effective September 1st, 2013.
FISCAL IMPACT:	This supplemental appropriation would authorize staff to appropriate the revenue to the specific donation general ledger account and expenditures as indicated above.
POLICY IMPACT:	N/A
LEGISLATIVE HISTORY:	N/A
ENCLOSURES:	N/A

REVIEWS	Legal	Finance	Purchasing	HR	Other
		X			

FLUVANNA COUNTY BOARD OF SUPERVISORS AGENDA ITEM

Meeting Date: 2/19/2014

AGENDA TITLE:	FY14 Fluvanna County Public Schools Budget Supplement - Donations				
MOTION(s):	**I move the Board of Supervisors approve a supplemental appropriation to the FY14 School budget for $934.70 to reflect additional funds from donations received by Fluvanna County and designated for FCPS.**				
CATEGORY	Public Hearing	Action Matter	Presentation	Consent Agenda	Other
				X	
STAFF CONTACT(S):	Ed Breslauer, Director of Finance, Fluvanna County Public Schools Barbara Horlacher, Director of Finance, Fluvanna County				
PRESENTER(S):	Barbara Horlacher				
RECOMMENDATION:	Approval				
TIMING:	Immediate				
DISCUSSION:	Fluvanna County will transfer an additional $934.70 to FCPS for donations received by Fluvanna County and designated for FCPS. This supplemental appropriation will increase the Local Government revenue by $934.70 and will be used for Instruction.				
FISCAL IMPACT:	Increase in FY14 School budget by $934.70 to $35,366,315.63				
POLICY IMPACT:	N/A				
LEGISLATIVE HISTORY:	N/A				
ENCLOSURES:	Supplemental Appropriation Request #1				
REVIEWS	Legal	Finance	Purchasing	HR	Other
		X			

Supplemental appropriation request #1

Item: The County new donations policy received $934.70 in donations specified for Fluvanna County Public Schools through January 2014. It is requested that the funds be provided to the Schools as an increase in the Local Government appropriation in the amount of $934.70.

Information:	(1) Amount:	$934.70
	(2) Source:	Local Government (County donations policy)
	(3) Fiscal Year:	FY 2014
	(4) Schools State category:	Instruction (all funds)

The adjustment to the Local Government appropriation of $934.70 increases the total appropriation for the Schools to $35,366,315.63.

FLUVANNA COUNTY BOARD OF SUPERVISORS AGENDA ITEM

Meeting Date: 2/19/2014

AGENDA TITLE:	FY14 Fluvanna County Public Schools Budget Supplement – Insurance Claim				
MOTION(s):	**I move the Board of Supervisors approve a supplemental appropriation to the FY14 School budget for $45,168.23 to reflect additional funds from an insurance claim.**				
CATEGORY	Public Hearing	Action Matter	Presentation	Consent Agenda	Other
				X	
STAFF CONTACT(S):	Ed Breslauer, Director of Finance, Fluvanna County Public Schools Barbara Horlacher, Director of Finance, Fluvanna County				
PRESENTER(S):	Barbara Horlacher				
RECOMMENDATION:	Approval				
TIMING:	Immediate				
DISCUSSION:	FCPS received $45,168.23 in an insurance claim as a result of sprinkler damage. This supplemental appropriation will increase other local revenue by $45,168.23 and will be used for Instruction, Technology, and Operations.				
FISCAL IMPACT:	Increase in FY14 School budget by $45,168.23 to $35,411,484.86				
POLICY IMPACT:	N/A				
LEGISLATIVE HISTORY:	N/A				
ENCLOSURES:	Supplemental Appropriation Request #2				
REVIEWS	Legal	Finance	Purchasing	HR	Other
		X			

Supplemental appropriation request #2

Item: Fluvanna County Public Schools received an insurance claim payment in the amount of $45,168.23 for damage resulting from activation of a sprinkler. The funds are being used to restore damage and replace damaged contents, primarily textbooks.

Information:	(1) Amount:	$45,168.23	
	(2) Source:	Other Local (insurance claim payment)	
	(3) Fiscal Year:	FY 2014	
	(4) Schools State categories:	Instruction:	$14,695.90
		Technology:	$ 2,526.82
		Operations:	$27,945.51

The adjustment to the Other Local appropriation of $45,168.23 increases the total appropriation for the Schools to $35,411,484.86.

Supplemental appropriation request #1

Item: The County new donations policy received $934.70 in donations specified for Fluvanna County Public Schools through January 2014. It is requested that the funds be provided to the Schools as an increase in the Local Government appropriation in the amount of $934.70.

Information:	(1) Amount:	$934.70
	(2) Source:	Local Government (County donations policy)
	(3) Fiscal Year:	FY 2014
	(4) Schools State category:	Instruction (all funds)

The adjustment to the Local Government appropriation of $934.70 increases the total appropriation for the Schools to $35,366,315.63.

Capital Reserve Maintenance Fund Request

MOTION: I move that the Board of Supervisors approve a Capital Reserve Maintenance Fund Request to:

Purchase and install signage for the School Board Administration Building, along Route 15 for the three appropriate schools, on the entrance wall of West Central Primary, and on the exterior wall of Fluvanna Middle School.

Section 1 - REQUEST

Requesting Department/Agency	Dept/Agency Contact	Date of Request
FCPS	Chuck Winkler	2014/01/30
Phone	**Fax**	**Fiscal Year**
434-589-8208	434-589-2248	FY14

Reserve Fund Purpose Category: Other one-time, minor capital projects less than $20,000

Description of Project/Repair	Qty	Unit Price	Total Price
Signage for School Administration Building to Include Cast Lettering	2	$1,988.00	$3,976.00
Aluminum Cast Lettering Signage for Fluvanna Middle School	1	$2,060.00	$2,060.00
Highway Signage for Middle, Central and West Central on Rt. 15	2	$963.00	$1,926.00
Aluminum Cast Lettering Signage for West Central Primary School	1	$1,802.00	$1,802.00
		Total Request:	$9,764.00

Description and justification for proposed use.

There is no signage in place at the School Board Administration Building and proper identification is needed for visitors and the community. The road signs along Route 15 are incorrect and need replaced. West Central Primary and Fluvanna Middle School require adequate signage on the exterior of each building for community and visitors for identification purposes as well. A 50% deposit in the amount of $4882 is required by Legacy Signs before any work can be started.

Department/Agency Head Name	Signature	Date
Fluvanna Co. Public Schools	Chuck Winkler Digitally signed by Chuck Winkler DN: cn=Chuck Winkler, o=Fluvanna County Public Schools, ou, email=cwinkler@fcps.fluvco.org, c=US Date: 2013.06.20 11:51:28 -04'00'	2014/01/30

Section 2 - REVIEW

Recommended?	County Finance Director	Date
☒ Yes ☐ No	Barbara J. Anderson 2014.02.03 15:05:01 -05'00'	
Recommended?	**County Administrator**	**Date**
☒ Yes ☐ No	Steven M. Nichols 2014.02.03 20:33:16 -05'00'	

Section 3 - BOARD OF SUPERVISORS

Approved?	Decision Date	Comments
☐ Yes ☐ No		

COUNTY OF FLUVANNA

"Responsive & Responsible Government"

P.O. Box 540, Palmyra, VA 22963 · (434) 591-1910 · FAX (434) 591-1911 · www.fluvannacounty.org

MEMORANDUM

TO: Board of Supervisors

FROM: Eric Dahl, Management Analyst

SUBJECT: FY14 Contingency Balance

DATE: February 10, 2014

The balance for the BOS Contingency line for FY14 is as follows:

Board of Supervisors Contingency:

Beginning Budget:	$100,000.00
LESS: U12 Youth Football 6.19.13	-$19,965.00
LESS: James River Water Authority Funding 11.20.13	-$25,000.00
LESS: Town of Columbia Signage 11.20.13	-$3,000.00
LESS: Cunningham and Columbia Schools Insurance 12.04.13	-$4,751.00
LESS: Fluvanna County Public Schools MUNIS Implementation 01.08.14	-$20,000.00
LESS: Cunningham and Columbia Schools Appraisal 02.05.14	-$3,000.00
Available:	$24,284.00

Total Available Budget: Board of Supervisors Contingency Line **$24,284.00**

COUNTY OF FLUVANNA

"Responsive & Responsible Government"

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MEMORANDUM

TO: Board of Supervisors

FROM: Eric Dahl, Management Analyst

SUBJECT: FY14 Capital Reserve Balance

DATE: February 10, 2014

The balance for the Capital Reserve for County and Schools in FY14 is as follows:

County Capital Reserve:

FY14 Beginning Budget:	$171,575.00
LESS: County Building and Fire Code Issues 12.04.13	-$8,000.00
LESS: Cunningham School Tank Removal 12.04.13	-$12,000.00
LESS: Carysbrook Field Lighting 12.18.13	-$37,000.00
LESS: Social Services Building Preconditioning HVAC System 12.18.13	-$22,400.00
Available:	**$92,175.00**

Schools Capital Reserve:

FY14 Beginning Budget:	$200,580.00
LESS: Abrams building datacenter infrastructure and generator 07.03.13	-$40,000.00
LESS: Central Elementary intercom and phone system split 07.03.13	-$8,500.00
LESS: School Bus Monitoring Cameras with GPS and Video Software 11.06.13	-$25,500.00
Available:	**$126,580.00**