#### A G E N D A JAMES CITY COUNTY BOARD OF SUPERVISORS REGULAR MEETING County Government Center Board Room 101 Mounts Bay Road, Williamsburg, VA 23185 April 28, 2015 6:30 PM

- A. CALL TO ORDER
- B. ROLL CALL
- C. MOMENT OF SILENCE
- D. PLEDGE OF ALLEGIANCE
  - 1. Pledge Leader Alexander Cavitt

# E. **PRESENTATIONS**

- 1. Fair Housing Poster Contest
- F. PUBLIC COMMENT Until 7 p.m.

# G. CONSENT CALENDAR

- 1. Minutes April 15, 2015 Budget Work Session
- 2. Minutes April 20, 2015 Budget Work Session
- 3. Approval of Withdrawal from Membership and Participation in the Hampton Roads Economic Development Alliance
- 4. Appointment of County Attorney

# H. PUBLIC HEARING(S)

- 1. SUP-0001-2015, Sprint John Tyler Highway Tower
- 2. Rezoning-0005-2014 Peninula Pentecostals, Kirby Tract

# I. BOARD CONSIDERATION(S)

- 1. Approval of Williamsburg Landing, Inc. Revenue and Refunding Bonds through Other Jurisdictions
- 2. FY2016 Budget Appropriation

# J. BOARD REQUESTS AND DIRECTIVES

# K. REPORTS OF THE COUNTY ADMINISTRATOR

- 1. County Administrator's Report
- L. PUBLIC COMMENT
- M. CLOSED SESSION

# N. ADJOURNMENT

1. Adjourn until 6:30 p.m. on May 12, 2015 for the Regular Meeting

# AGENDA ITEM NO. D.1.

# **ITEM SUMMARY**

DATE:	4/28/2015
TO:	The Board of Supervisors
FROM:	Teresa J. Fellows, Secretary to the Board
SUBJECT:	Pledge Leader - Alexander Cavitt

# **REVIEWERS:**

DepartmentReviewerActionDateBoard SecretaryFellows, TeresaApproved4/13/2015 - 9:36 AM

# AGENDA ITEM NO. E.1.

# **ITEM SUMMARY**

DATE:	4/28/2015
TO:	The Board of Supervisors
FROM:	A. Vaughn Poller Housing Administrator
SUBJECT:	James City County Marks Fair Housing Month

To mark the anniversary of the federal Fair Housing Act, James City County's Office of Housing and Community Development and Parks and Recreation once again held a contest for children in the after-school program.

# **ATTACHMENTS:**

	Description	Туре
D	Memo	Cover Memo

#### **REVIEWERS:**

Department	Reviewer	Action	Date
Housing & Community Development	Hutchens, Diana	Rejected	3/27/2015 - 10:23 AM
Housing & Community Development	Poller, Vaughn	Approved	3/31/2015 - 1:39 PM
Housing & Community Development	Poller, Vaughn	Approved	3/31/2015 - 1:43 PM
Community Services	Hutchens, Diana	Approved	4/1/2015 - 11:10 AM
Publication Management	Burcham, Nan	Approved	4/1/2015 - 11:48 AM
Board Secretary	Fellows, Teresa	Approved	4/1/2015 - 1:40 PM
Board Secretary	Kinsman, Adam	Approved	4/6/2015 - 10:48 AM
Board Secretary	Fellows, Teresa	Approved	4/6/2015 - 12:35 PM

### **MEMORANDUM**

DATE:	April 28, 2015
TO:	The Board of Supervisors
FROM:	A. Vaughn Poller, Housing and Community Development Administrator
SUBJECT:	James City County Office of Housing and Community Development Marks Fair Housing Month

Each April, the US Department of Housing and Urban Development marks the passage of the federal Fair Housing Act. This landmark law, intended to supplement the Civil Rights Act, was signed April 11, 1968, shortly after the assassination of Reverend Dr. Martin Luther King, Jr.

In 1972 the General Assembly enacted Virginia's first fair housing law. Today the Virginia Fair Housing Law is somewhat broader than the federal Fair Housing Act and states:

"It is the policy of the Commonwealth of Virginia to provide for fair housing throughout the Commonwealth, to all its citizens, regardless of race, color, religion, national origin, sex, elderliness, familial status, or handicap, and to that end to prohibit discriminatory practices with respect to residential housing by any person or group of persons, in order that the peace, health, safety, prosperity, and general welfare of all the inhabitants of the Commonwealth may be protected and insured. Code of Virginia Section 36-96.1"

To mark the anniversary of the federal Fair Housing Act, James City County's Office of Housing and Community Development and Parks and Recreation once again held a contest for children in the afterschool program. The theme again this year was to draw your "dream home." The after school participants were provided HUD's "Fair Housing Means I'm Welcome to Choose Where I Live" coloring books and HUD Fair Housing information was given to their parents.

This year Housing Partnerships Inc. (HPI) joined with the Office of Housing and Community Development to assist in judging the submissions. HPI graciously offered awards in the form of gift cards to the top three participants.

Mr. Vaughn Poller, Administrator of Housing and Community Development will introduce the first, second and third place winners. Staff requests the presentation be conducted as it was last year, where the Board of Supervisors Chair presented the awards acknowledging the recipients accomplishments.

AVP/nb FairHousingMth-mem

# AGENDA ITEM NO. G.1.

# **ITEM SUMMARY**

DATE:	4/28/2015
TO:	The Board of Supervisors
FROM:	Teresa J. Fellows, Secretary to the Board
SUBJECT:	Minutes Adoption

# **ATTACHMENTS:**

	Description		Ту	pe	
D	Minutes		Mi	inutes	
<b>REVIEV</b> Departme Board Se	ent	<b>Reviewer</b> Fellows, Teresa	Action Approved		Date 4/16/2015 - 10:53 AM

#### MINUTES JAMES CITY COUNTY BOARD OF SUPERVISORS BUDGET WORK SESSION County Government Center Board Room 101 Mounts Bay Road, Williamsburg, VA 23185 April 15, 2015 4:00 PM

## A. CALL TO ORDER

### B. ROLL CALL

Mary K. Jones, Berkeley District John J. McGlennon, Roberts District Kevin D. Onizuk, Vice-Chairman, Jamestown District James G. Kennedy, Stonehouse District Michael J. Hipple, Chairman, Powhatan District

Bryan J. Hill, County Administrator Adam R. Kinsman, Interim County Attorney Suzanne R. Mellen, Director of Financial and Management Services

# C. BOARD DISCUSSIONS

#### 1. Budget Overview

Mr. Hill offered a recapitulation of the five strategic initiatives set forth in his proposed budget. He displayed an interactive calculator so that the Board could see the immediate effects of adding or subtracting items from these five initiatives. Ms. Jones asked Mr. Hill what the dollar amount was in the "flat" budget; in particular, funding for stormwater and/or neighborhood drainage. Mr. Hill said \$2.1 million dollars overall. Mr. Hipple asked about the cost of the existing problems, to which Mr. Hill responded \$23 million. Ms. Jones replied that if assessments go up and more businesses come to the County, this would create the opportunity to generate more tax revenue. Mr. Kennedy noted that getting a parcel ready for economic development will cost millions of dollars, as this is what other counties are already offering. Ms. Jones asked that we talk to the businesses already located in the County, many of whom tell her that the permitting process is cumbersome. Mr. Hill stated that a lot of change is coming to the County and that issues like this will be improved upon. Mr. Kennedy asked that Mr. Russell Seymour speak to the Board regarding what other localities are doing to attract business and to discuss what the Business Development Coordinator has accomplished.

Mr. Hill explained that the five strategic items and the tax increase associated with them are intended to move the County forward and to do business "better than usual." Mr. Onizuk stated that we need to get serious about economic development. Mr. Kennedy stated that an economic plan is needed from the County's professional staff and the Economic Development Authority. Mr. McGlennon noted that we have had a good rate of economic growth; however,

it has been unable to pay for increased costs as housing prices have remained low.

Mr. Hill introduced Ms. Mellen to explain the interactive calculator spreadsheet and to work through the budget overview. Mr. Kennedy indicated that his concern with the schools is a lack of planned maintenance. He would like to see a comprehensive plan that would allow the County to anticipate costs. Mr. Hill stated that such a document exists and that the school representatives will present it today.

Ms. Mellen stated that she is prepared to discuss revenue changes and will be able to answer questions related to any particular department. Mr. McGlennon asked Ms. Mellen what is the degree of attrition in the County workforce since 2007/2008? Ms. Mellen stated that there was about a 10% reduction in the County workforce since then. Mr. Kennedy recalled the audit that was done several years ago regarding staffing levels; this report found that many of the departments were understaffed.

The Board generally discussed use of the County's sports facilities and the incomes associated with such use. Mr. McGlennon asked about ALS/BLS fees and Ms. Mellen stated that these are expected to be a bit lower this year. She stated that we are planning to increase these fees this year to keep us in sync with Williamsburg rates. He further asked for an update on sales and meals tax revenue. Ms. Mellen said that they are coming in what was budgeted which was between 2-4% higher than last year. She stated that the new ride at Busch Gardens may create a bump in the tax revenues; however, it is quite weather dependent. She explained that the occupancy tax was stabilizing and that through the month of February we are up 2.2%. Ms. Mellen then detailed the real estate assessment projection, which is expected to be within 1% of the previous assessment. The falling assessments have stopped but prices have not recovered.

Personal property revenues are up 5.6%, so the number and value of vehicles is going up. Mr. Kennedy asked about BPOL taxes. Ms. Mellen stated that this is a difficult tax to predict because it comes in May. The budget kept with the historic trend of small increases but is hoping with the growth of new retail in the County the number will increase.

Mr. Hill asked if there were any action items that should be answered after this meeting. Mr. Onizuk asked if it would possible to go through the budget line by line. Mr. Hill stated that this was done last year and that there are no changes to this budget. Mr. Kennedy asked for a list of unfunded mandated positions and would consider cutting those. He also asked about costs of the AFD program; specifically, what land is not actively farmed and is zoned commercial, residential, or industrial. Mr. Hipple stated that when Mr. Hill was hired, the Board tasked him with telling the Board what he saw and what he thought needs to be done. He believes that money has been saved through the difficult financial times, but if we continue in the current direction the County will be put in a bad position. We need to start looking at the five strategic items to determine which, if any, of them will be cut or adopted. Ms. Jones liked the suggestions presented in the Henderson/Everson presentation at last night's meeting and would like for Mr. Hill to consider them. She also stated that the County has stepped in and helped the City of Williamsburg during previous years regarding the school contracts; perhaps this should be

reconsidered. Mr. Hill said that this will be renegotiated next year. Mr. Kennedy wants Mr. Hill to project where the new revenue will be put in years beyond this one, when the fund balance has been replenished. Ms. Jones would like to reconsider contributions to outside agencies and would like to revisit the County's various memberships.

2. Discussion with W-JCC Schools

The WJCC School Board called their meeting to order. Five members of the School Board were present: Ms. Larson, Ms. Cordasco, Mr. Kelly, Ms. Cook, and Ms. Emanuel, as well as Dr. Constantino and Ms. Christina Berta.

Mr. Kelly summarized the School's process to develop the budget and the fact that the budget was passed unanimously by the School Board. He also thanked the Board for the support of the new middle school.

Dr. Constantino began by speaking about the School's CIP budget and handed out the School's CIP budget which detailed the improvements needed by schools. He stated that the proposed improvements to Clara Byrd Baker cannot be pushed any further, nor can the roof repairs to James River. He then summarized the needed improvements in the years beyond 2016. Those items that remain in 2016 may be categorized as "mission critical." He then stated that he would be happy to take questions from the Board.

Mr. Hipple asked about the HVAC replacements in Norge and Jamestown and why they are so expensive. Dr. Constantino directed Mr. Hipple to the handout, which explained the various requested repairs. Mr. Hipple asked for additional detail on the planned replacements. He asked whether the schools get a third-party inspection of the roofs once they've been replaced. Dr. Constantino said that the schools get a warranty on each roof, but he is not sure whether there are any third-party inspections of a newly completed roof. Mr. Kelly stated that a construction management firm is hired to oversee the project. Mr. Hipple stated that the warranty usually covers the product, not the installation.

Mr. McGlennon asked that Ms. Mellen explain the difference between the roof replacement cost shown on the Board's budget and the WJCC budget. Ms. Mellen explained that the complete County contribution was included. Mr. Onizuk noted that the County staff is trying to save as much money as they can and asked what would happen if the County is unable to come up with the money to pay for these items. Mr. Kelly confirmed that the budget contains only needs and that each of them must be done. Ms. Cordasco stated that the additional 2.91 cents needed is a small portion of the increase requested by the Board. These changes are needed but that is a question that should be asked of the citizens. Ms. Cordasco stated that the requests are all needed, but that a tax increase to pay for it is a prerogative of the Board. There are no spas or fluff in the School's budget.

Mr. Kennedy asked Mr. Hill if he gave WJCC School Board guidance on the budget; Mr. Hill said that the request was for 2% for operations and that the schools came in at 2.9%. Since that time, the schools have reduced that to 2%. Mr. Kennedy stated that the Board gets bombarded with questions better directed at the School Board, including specifically the "Cadillac Plan" of health care. Ms. Cordasco stated that the School Board gets those questions

quite regularly. Dr. Constantino offered a general overview of the health care options given to the schools over the past five years. He noted that a major increase happened last year, which was anomaly. They are locked into the current choice for this year. the WJCC School Board has asked that he investigate newer, less expensive options for next year. The plan will be to drive down costs as far as possible when the time for a new choice comes.

Mr. Kennedy also asked about "block scheduling" for cost savings. Dr. Constantino explained that the School Board has talked about changing schedules to save money, but that these schedules must take into account the physical design of the schools. They are looking at high school schedules in terms of redesign of the buildings. He is listening to teachers and principals about what it is that they want and what they think could be done to improve the scheduling as well. Ms. Larson stated that suggestions regarding reduction of staffing levels to state minimum standards would be unacceptable and would result in a loss of quality in the school system.

Mr. McGlennon asked about raises for the teachers. Ms. Christina Berta, Chief Financial Officer for WJCC Schools, stated that the state is providing some money for SOQ funded staff and contains a matching component. The Schools are unable to determine which are SOQ teachers and which are not, so it provides the raises for all teachers. Mr. McGlennon noted that the state portion is a minute amount of the actual cost. Dr. Constantino indicated that this was necessary to keep their excellent staff and to remain competitive across the peninsula. Mr. Kennedy asked if Dr. Constantino could quantify the gap in state funding of Schools from 2008 to now, which is an amount that the locality has had to absorb. Dr. Constantino said that this is a significant, seven-figure number. Ms. Berta said it is \$1 million dollars and the Schools also now have an additional 600 children since 2009.

Mr. Hipple asked how many staff members there were in the administrative office. Ms. Cordasco stated that this information is contained in the budget book. Ms. Larson noted that the Schools are held accountable for all positions and that there are no superfluous positions. Dr. Constantino stated that he will get the numbers to Mr. Hipple. Mr. Hipple commented that the WJCC Schools are some of the best in the area and that they are excellent. Mr. Onizuk asked if the County Board was unable to provide the additional \$3 million sought, what would happen to the requested improvements? Ms. Larson said that these are critical needs and that the WJCC Board would have to make a decision how to change the budget and where to place the impacts. Mr. Kelly stated that a decision not to improve Clara Byrd Baker now will result in large cost increases later due to the damage caused. Dr. Constantino explained that this would mean doing less with less. Ms. Cordasco said that they would have no problem handling it and that it was not fair to ask hypotheticals. She said that this is more defined than drainage issues that are contained within the proposed County budget.

# 3. Board Discussion

The two Boards generally discussed the two budgets and the proposed tax increase and funding levels.

# D. CLOSED SESSION

# E. ADJOURNMENT

1. Adjourn until 4 p.m. on April 20, 2015 for the Budget Work Session

A motion to Adjourn was made by John McGlennon and the motion result was Passed. AYES: 5 NAYS: 0 ABSTAIN: 0 ABSENT: 0 Ayes: Jones, Kennedy, McGlennon, Onizuk, Hipple.

At 6:25 p.m., Mr. Hipple adjourned the Board.

Mr. Kelly adjourned the School Board members as well.

Bryan J. Hill Clerk to the Board

# AGENDA ITEM NO. G.2.

# **ITEM SUMMARY**

DATE:	4/28/2015
TO:	The Board of Supervisors
FROM:	Teresa J. Fellows, Secretary to the Board
SUBJECT:	Minutes Adoption

# **ATTACHMENTS:**

	Description	Туре		
D	Image: 042015 budget work sessionMinutes			
REVIEV	VERS:			
Departme	ent Reviewer	Action	Date	

Department	Reviewer	Action	Date
Board Secretary	Fellows, Teresa	Approved	4/21/2015 - 1:56 PM

#### MINUTES JAMES CITY COUNTY BOARD OF SUPERVISORS BUDGET WORK SESSION County Government Center Board Room 101 Mounts Bay Road, Williamsburg, VA 23185 April 20, 2015 4:00 PM

# A. CALL TO ORDER

### B. ROLL CALL

Mary K. Jones, Berkeley District John J. McGlennon, Roberts District Kevin D. Onizuk, Vice-Chairman, Jamestown District James G. Kennedy, Stonehouse District Michael J. Hipple, Chairman, Powhatan District

Bryan J. Hill, County Administrator Adam R. Kinsman, Interim County Attorney Suzanne R. Mellen, Director, Financial and Management Services

## C. BOARD DISCUSSIONS

### 1. Jamestown-Yorktown Foundation

Mr. Hill introduced Philip Emerson of the Jamestown Yorktown Foundation.

Mr. Emerson summarized the JYF's budget request of \$145,000 and gave the Board a power point presentation on the operations of the JYF. \$115,000 of the request is for a Special Exhibition entitled "Trading with the Indians." Mr. Onizuk asked Mr. Emerson how this proposed funding would impact tourism in JCC. Mr. Emerson stated that this is a great public relations tool to have something new and different for tourists to return to the Historic Triangle. Mr. Kennedy asked bout the Commonwealth's contributions to JYF. Mr. Emerson stated that they represent about 50% of the JYF's income. Mr. Kennedy noted that the Commonwealth has been reducing contributions for years and that the localities have been picking up the difference. Mr. Emerson stated that the Commonwealth ha been a good partner but that the JYF has been actively seeking additional public private partnerships to help fund the various special exhibits. Mr. McGlennon noted that the Board has typically funded items that help drive repeat attendance and that the JYF has done a good job of getting tourists to explore history. In response to a question posed by Mr. McGlennon, Mr. Emerson stated that the new Yorktown building will be completed in 2016. Even though they have moved in, there is still much to do. The public relations "splash" won't happen until 2017. 2017 should provide a good tourism boost to the area.

2. Board Discussion

### COMPENSATION/HEALTH INSURANCE

Mr. Hill informed the Board that there were an additional 6 topics to cover and that they should forward any additional questions to him and he will forward them to Mr. Emerson. Mr. Hill introduced Cindy Monk, Acting Director of Human Resources, to discuss the proposed compensation package. Ms. Monk gave a brief presentation on heath insurance and compensation. Ms. Jones asked if there were any particular positions that were difficult to fill. Ms. Monk noted that Information Technology, engineering, and similar professional positions were most often the toughest. Ms. Mellen noted that the County was doing outreach with the College to recruit students if possible. Mr. Hill noted that often the County's starting salary is less than that which is offered to college graduates without any work experience. Mr. Kennedy asked for staff to look at specialized positions closely if those are the ones that are the most difficult to fill, rather than an across-the-board compensation review. Ms. Monk noted that staff turnover is becoming a problem; it is currently at 10%, which is much more than usual. In response to a question from Mr. McGlennon, Ms. Monk summarized the monetary difference to employees caused by the changes in health insurance. She also noted that employee loss ends up costing the County because of the additional training needed. Mr. Kennedy asked about the nature of the employee loss - Ms. Monk stated that there were a number of reasons, including retirement. At mid-year, the turnover was at about 5% excepting retirement. Based upon exit interviews, people were leaving based upon salary reasons. Mr. Hill noted that the JCSA was losing employees as well; many have headed to similar institutions in other localities.

### NEIGHBORHOOD DRAINAGE PROGRAM

Mr. Hill introduced Ms. Fran Geissler to explain the Stormwater Program Advisory Committee's ("SPAC") report to the County and the general aspects of the stormwater system. She stated that the assumption has always been that neighborhoods that have HOAs are taking care of the BMPs and the associated maintenance. She stated that neighborhoods without HOAs represent approximately 25% of the parcels in the County and that these BMPs and associated drainage structures are often not taken care of at all. She explained that the SPAC determined that additional data was needed and that in any case it was not feasible for the County to take over all of the BMPs and drainage structures in the County.

Mr. Kennedy asked what was left to be done. Ms. Geissler stated that the SPAC report gives a good summary of what work remains. She further explained the various details of the proposed stormwater/neighborhood drainage program.

#### FISCAL HEALTH

Ms. Mellen explained the beginning and ending fund balances for the fund reserve and noted how these numbers will grow over time and will allow for additional debt capacity. The plan is to allow for the transfer of funds in the future to account for the opening of the middle school without causing a tax increase. Mr. Hipple asked if this will bring our fund reserve into line where it should be. Ms. Mellen stated that this will show the rating agencies that we are on a good trend of saving rather than continually drawing down those funds.

#### CIP ITEMS

Ms. Mellen explained the general CIP plan and that the proposal was for continual funding of the maintenance programs so that the County's buildings are regularly maintained. All of the current projects are maintenance and replacement - none are new. Ms. Mellen noted that the Planning Commission received a road match fund request. She stated that the plan is to begin to fund the road match request over time beginning in FY17. She summarized the more noteworthy projects that are planned for FY17 and the more complex maintenance projects.

Ms. Mellen stated that they were looking at the 2006 bonds to see if savings could be realized by refinancing those; however, the call date is not until later this year, so it will depend on what the interest rate is at that time. Mr. Onizuk stated that the items listed in the CIP appear to be those that must be handled now and that cannot be pushed off any further.

Ms. Mellen detailed the stormwater structure line item and explained that this amount was to cover a number of projects. Mr. Onizuk stated that there is ambiguity on the requirements and questioned how we were prioritizing the projects to be certain that we maximize the credit we will get. Ms. Mellen stated that each of the projects should get us credit for each of the various projects. Mr. Onizuk asked whether we would take care of MS4 projects first or if we were taking them in some other order. Ms. Mellen stated that the SPAC will help prioritize those projects that give the most credit for the money. Ms. Geissler confirmed that the project priority focus was to be certain that we will get credit for each. She believes that this will meet our FY18 obligations and prepare us to meet our 2023 requirements for MS4. The listed projects are a snapshot of what we know is currently needed; however, we may be able to find projects that are more cost-efficient.

Mr. Hipple asked if there is anything coming up in the future that will come back to surprise the Board. Mr. Hill said that he will ask the staff to analyze each project and to do only those that are absolutely required. His desire is for a 5-year plan of projects so that staff can begin working on them as soon as possible. Mr. Hipple asked for the County to raise the development bar so that the costs are not passed down to County citizens later on.

#### JCSA

Mr. Hill asked if the Board had any questions on the JCSA. None of the Board members had any questions. He introduced Mr. Doug Powell, General Manager of the JCSA. Mr. Powell gave the Board a brief presentation on the new JCSA fees and rate structure. Mr. McGlennon voiced his approval of the proposed JCSA changes. Mr. Hipple stated that he hoped that the JCSA BOD would consider additional programs to discourage using potable water on lawns. Mr. McGlennon hoped that the JCSA could consider additional programs to change household fixtures to encourage water conservation.

#### ERRATA

Ms. Mellen asked if the Board members had any questions that had not been addressed during this meeting. In response to a question from Mr. Kennedy, Ms. Mellen stated that there was a section on the bottom of all the budget pages of the various constitutional officers that shows how much the County is funding that remains unfunded from the Commonwealth.

Mr. Hill stated that the document from the Commonwealth on unfunded mandates is 300 pages long. Ms. Mellen said that the Comprehensive Services Act and the stormwater mandates are both the most expensive. Mr. Hill explained that the rationale behind this budget was to help move the County forward. Mr. Hipple said that this Board is looking to right the ship and that they realize that thee proposed changes will carry the County forward for a number of years. His hope is that there will not be a need in the future for such a large spike to cover costs.

Ms. Jones thanked Mr. Hill for sending out the information regarding the dues and membership cost list. She further complimented him on the transparency of this process and for his willingness to meet with all citizens and to answer each and every question posed to him. Mr. Kennedy said that he's always frustrated that we install substandard products that need replacement sooner than usual. He wants a replacement schedule to which the County can adhere.

Mr. Hill advised the Board that he will place all of the documents discussed today onto the web. Mr. Kennedy stated that he may not be able to make the next work session meeting depending upon his health.

Mr. Hill informed the Board that the last work session will deal with the Chamber and the tourism funds.

### D. CLOSED SESSION

# E. ADJOURNMENT

1. Adjourn until 4 p.m. on April 22, 2015 for the Budget Work Session

A motion to Adjourn was made by John McGlennon and the motion result was Passed. AYES: 5 NAYS: 0 ABSTAIN: 0 ABSENT: 0 Ayes: Jones, Kennedy, McGlennon, Onizuk, Hipple.

At 5:48 p.m., Mr. Hipple adjourned the Board.

Bryan J. Hill Clerk to the Board

### AGENDA ITEM NO. G.3.

### **ITEM SUMMARY**

DATE:	4/28/2015
TO:	The Board of Supervisors of James City County
FROM:	Russell C. Seymour, Director, Office of Economic Development
SUBJECT:	Approval of Withdrawal from Membership and Participation in the Hampton Roads Economic Development Alliance

During its April 9, 2015 meeting, the Economic Development Authority (EDA) of James City County approved a resolution recommending that the Board of Supervisors cease membership and participation in the Hampton Roads Economic Development Alliance (HREDA) effective July 1, 2015. The BOS authorized joining HREDA on January 11, 2005 coinciding with the merger of the Peninsula Alliance for Economic Development and HREDA. Since FY 2010, participation in HREDA has been funded by the Economic Development Authority (EDA) per the request of County Administration.

Additionally at its April 9, 2015 meeting, the EDA voted to authorize cessation of funding for participation in HREDA.

The EDA recognizes the importance of marketing JCC for economic development purposes and believes that those efforts are better furthered through focused regional initiatives in partnership with the City of Williamsburg and York County. HREDA supports 15 counties and cities, of which JCC is the northernmost locality.

Staff recommends approval of withdrawal from membership and participation in HREDA and that the BOS support the EDA's use of the budgeted \$0.95 per capita previously identified for regional initiatives to support the joint economic development efforts of the three EDAs.

### **ATTACHMENTS:**

	Description	Туре
D	BOS Resolution - HREDA Withdrawal	Resolution
D	Approved EDA Resolution - HREDA Participation	Backup Material

#### **REVIEWERS:**

Department	Reviewer	Action	Date
Economic Development	Seymour, Russell	Approved	4/9/2015 - 2:50 PM
Publication Management	Burcham, Nan	Approved	4/9/2015 - 3:40 PM

Board Secretary Board Secretary Board Secretary Fellows, Teresa Kinsman, Adam Fellows, Teresa Approved Approved Approved 4/13/2015 - 9:33 AM 4/20/2015 - 2:17 PM 4/20/2015 - 2:30 PM

### **RESOULTION AUTHORIZING CESSATION OF JAMES CITY COUNTY'S MEMBERSHIP IN**

#### THE HAMPTON ROADS ECONOMIC DEVELOPMENT ALLIANCE

- WHEREAS, on January 11, 2005, the James City County Board of Supervisors, by resolution, approved the merger of the Peninsula Alliance for Economic Development and the Hampton Roads Economic Development Alliance (HREDA); and
- WHEREAS, James City County is currently a member of HREDA; and
- WHEREAS, in 2009 County Administration requested that the James City County Economic Development Authority (JCC EDA) provide funding for certain activities, including HREDA, beginning in Fiscal Year 2010; and
- WHEREAS, the JCC EDA has budgeted funding for James City County's participation in HREDA for each Fiscal Year since 2010; and
- WHEREAS, the JCC EDA and the Economic Development Authorities of York County and the City of Williamsburg have resolved to strengthen and expand their joint efforts and collectively refocus their regional economic development initiatives; and
- WHEREAS, during its meeting on April 9, 2015, the JCC EDA resolved to cease funding James City County's participation in HREDA effective July 1, 2015, and recommended that the James City County Board of Supervisors cease James City County's membership and participation in HREDA; and
- WHEREAS, the James City County Board of Supervisors joins the JCC EDA in recognizing the importance of refocusing regional economic development efforts.
- NOW, THEREFORE, BE IT RESOLVED that the Board of Supervisors of James City County, Virginia, hereby cease its membership in the Hampton Roads Economic Development Alliance, effective July 1, 2015. The Chairman is hereby authorized to execute any documents necessary for such withdrawal.

	Michael J. Hi Chairman, Bo		pervisors	5
ATTEST:		VOTE AYE		ABSTAIN
	JONES MCGLENNON			
Bryan J. Hill Clerk to the Board	ONIZUK KENNEDY HIPPLE			

Adopted by the Board of Supervisors of James City County, Virginia, this 28th day of April,

2015.

HREDAMbrWthdrl-res

#### RESOLUTION AUTHORIZING THE CESSATION OF FUNDING FOR PARTICIPATION IN THE HAMPTON ROADS ECONOMIC DEVELOPMENT ALLIANCE

- WHEREAS, on January 11, 2005 the James City County Board of Supervisors, by resolution, approved the merger of the Peninsula Alliance for Economic Development and the Hampton Roads Economic Development Alliance (HREDA); and,
- WHEREAS, James City County is currently a member of HREDA; and,
- WHEREAS, in 2009, County Administration requested that the James City County Economic Development Authority (JCC EDA) provide funding for certain activities, including HREDA, beginning in Fiscal Year 2010; and,
- WHEREAS, the JCC EDA has budgeted funding for James City County's participation in HREDA for each Fiscal Year since 2010, most recently at a level of \$0.95 per capita; and,
- WHEREAS, the JCC EDA and the Economic Development Authorities (EDAs) of York County and the City of Williamsburg recognize the value in continuing to strengthen and expand their joint efforts and have each resolved to contribute \$0.95 per capita to support a joint, regional effort by the three EDAs; and
- WHEREAS, the JCC EDA believes that the purposes of Code of Virginia §§ 15.2-4900 *et seq.* and the economic welfare of James City County, Virginia are better furthered by refocusing regional efforts.
- NOW, THEREFORE, BE IT RESOLVED that, as of July 1, 2015, the Economic Development Authority of James City County, Virginia will no longer fund James City County's participation in HREDA, and will use the \$0.95 per capita previously identified for regional initiatives to support the joint economic development efforts of the three EDAs.
- BE IT FURTHER RESOLVED that the Economic Development Authority of James City County, Virginia recommends that the James City County Board of Supervisors cease its membership and participation in HREDA effective July 1, 2015.

The undersigned hereby certifies that the above Resolution was duly adopted by the directors of the Economic Development Authority of James City County, Virginia at a meeting duly called and held on April 9, 2015 and that such resolution is in full force and effect on the date hereof.

An D. Car

Robin D. Carson Vice Chair, Economic Development Authority James City County, Virginia

AYE NAY ABSTAIN WARNER CARSON DUBOIS GERHARDT HARRIS MONTGOMERY TINGLE

Adopted by the Economic Development Authority of James City County, Virginia, this 9<sup>th</sup> day of April, 2015.

Attest:

Russell C. Seymour Secretary to the EDA

# AGENDA ITEM NO. G.4.

# **ITEM SUMMARY**

DATE:	4/28/2015
TO:	The Board of Supervisors
FROM:	Bryan J. Hill, County Administrator
SUBJECT:	Appointment of County Attorney

Please see the attached documents.

# **ATTACHMENTS:**

	Description	Туре
D	Memo	Cover Memo
D	Resolution	Resolution
D	Draft Agreement	Exhibit

# **REVIEWERS:**

Department	Reviewer	Action	Date
Board Secretary	Fellows, Teresa	Approved	4/21/2015 - 2:35 PM

### **MEMORANDUM**

DATE: April 24, 2015

TO: The Board of Supervisors

FROM: Bryan J. Hill, County Administrator

SUBJECT: Appointing Michelle M. Gowdy as County Attorney

Attached for your consideration is a copy of the proposed contract for employment of the new County Attorney, Michelle M. Gowdy.

I recommend adoption of the attached resolution allowing the Chairman and me to execute the contract and to formally appoint Ms. Gowdy as the County Attorney, effective June 1, 2015.

BJH/nb CAttorneyAppt-mem

Attachments

# <u>RESOLUTION</u>

#### APPOINTING MICHELLE M. GOWDY AS COUNTY ATTORNEY

- WHEREAS, the County Administrator recently concluded an exhaustive search to find a new County Attorney; and
- WHEREAS, the Board of Supervisors and the County Administrator are unanimous in their support for Michelle M. Gowdy to serve as the County Attorney of James City County commencing on June 1, 2015; and
- WHEREAS, the Board of Supervisors and the County Administrator are of the unanimous and unqualified opinion that Michelle M. Gowdy has the education, experience, and training to fulfill the duties of County Attorney for James City County; and
- WHEREAS, the Board of Supervisors and Michelle M. Gowdy have agreed to terms of an employment agreement for Michelle M. Gowdy to serve as County Attorney for an initial period of two years effective June 1, 2015, and shall be automatically renewed on its anniversary date for one-year terms.
- NOW, THEREFORE, BE IT RESOLVED by the Board of Supervisors of James City County, Virginia, that Michelle M. Gowdy is appointed to the position of County Attorney of James City County, effective June 1, 2015.
- NOW, THEREFORE, BE IT FURTHER RESOLVED that the Chairman of the Board of Supervisors and the County Administrator are hereby authorized to execute an employment agreement with Michelle M. Gowdy based on the terms and conditions agreed to by the Board of Supervisors.

Michael J. Hipple Chairman, Board of Supervise			pervisors	5
ATTEST:		VOTE <u>AYE</u>	S <u>NAY</u>	ABSTAIN
	JONES MCGLENNON			
Bryan J. Hill Clerk to the Board	— ONIZUK KENNEDY HIPPLE			

Adopted by the Board of Supervisors of James City County, Virginia, this 24th day of April, 2015.

CAttorneyAppt-res

# COUNTY ATTORNEY EMPLOYMENT AGREEMENT

# INTRODUCTION

This Agreement is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_\_, 2015, by and between the Board of Supervisors of James City County("Employer" or "County") and \_\_\_\_\_\_. ("Employee"), pursuant to a Resolution of the Board of Supervisors adopted on \_\_\_\_\_\_, 2015. The County and the Employee agree as follows:

# SECTION 1: TERM

The term of this Agreement shall be for an initial period of two (2) years commencing on \_\_\_\_\_\_\_, 2015 and ending \_\_\_\_\_\_\_, 2017 and shall automatically be renewed on its anniversary date for one (1) year terms unless terminated by the Employer or Employee as provided in Section 7, 8, or 9 of this Agreement. In the event the Agreement is not renewed, all compensation, benefits and requirements of the Agreement shall remain in effect until the expiration of the term of the Agreement unless Employee voluntarily resigns. In the event that the Employee is terminated, as described in Section 7 of this Agreement, the Employee shall be entitled to the compensation and benefits provided for in this Agreement.

# SECTION 2: DUTIES AND AUTHORITY

Employer agrees to employ Employee as County Attorney. The Employee shall serve as the chief civil legal advisor to the Board, the County Administrator, and all departments, boards, commissions, and agencies of the County, including the regional library, in all matters affecting the interests of the County and shall represent such departments and employees in any and all civil litigation. In additional to all functions and duties specified in the *Code of Virginia*, 1950, as amended, the County Attorney shall perform such other appropriate responsibilities assigned by the County Administrator. The Employee shall report directly to the County Administrator.

# SECTION 3: COMPENSATION

A. Base Salary: Employer agrees to pay Employee an annual base salary of One Hundred Twenty Seven Thousand Five Hundred Dollars (\$127,500.00) payable in installments at the same time that the other management employees of the Employer are paid.

B. This Agreement shall be automatically amended to reflect any salary adjustments or bonuses that Employer may provide after the Employee's annual evaluation.

# SECTION 4: HEALTH, DISABILITY AND LIFE INSURANCE BENEFITS

The Employer agrees to provide and to pay the employer portion of premiums for health, hospitalization, surgical, vision, dental, comprehensive medical insurance, and life insurance

which are provided to all other employees of James City County. The Employee shall name the beneficiary of the life insurance policy.

#### SECTION 5: VACATION, SICK, AND MILITARY LEAVE

A. Upon commencing employment, the Employee shall earn and shall be allowed to accrue sick and vacation leave equal to that of an employee with five or more years of service with the County.

B. Upon commencing employment, the Employee shall be eligible to participate in the County's sick leave bank.

C. The Employee is entitled to accrue all unused leave in accordance with the County's Personnel Policies and Procedures Manual and in the event the Employee's employment is terminated, either voluntarily or involuntarily, the Employee shall be compensated for all accrued vacation and sick time pursuant to the County's Personnel Policies and Procedures Manual.

### SECTION 6: GENERAL BUSINESS EXPENSES

A. Employer agrees to budget as it deems appropriate to pay for professional dues and subscriptions of the Employee necessary for continuation and full participation in national, regional, state, and local associations, and organizations necessary and desirable for the Employee's continued professional participation, growth, and advancement, and for the good of the Employer.

B. Employer agrees to budget as it deems appropriate to pay for travel and subsistence expenses of Employee for professional and official travel, meetings, and occasions to adequately continue the professional development of Employee and to pursue necessary official functions for Employer.

C. Employer also agrees to budget as it deems appropriate to pay for travel and subsistence expenses of Employee for short courses, institutes, and seminars that are necessary for the Employee's professional development and for the good of the Employer.

D. Employer recognizes that certain expenses of a non-personal but job related nature are incurred by Employee, and agrees to reimburse or to pay said general expenses. The finance director is authorized to disburse such moneys upon receipt of duly executed expense or petty cash vouchers, receipts, statements, or personal affidavits.

#### SECTION 7: TERMINATION

For the purpose of this Agreement, termination shall occur when:

A. The County Administrator recommends termination of the Employee and the majority of the governing body votes to terminate the Employee at a duly authorized public meeting.

B. The Employer reduces the base salary, compensation or any other financial benefit of the Employee, unless it is applied in no greater percentage than the average reduction of all department heads, such action shall constitute a breach of this Agreement and will be regarded as a termination.

C. The Employee resigns following an offer to accept resignation, whether formal or informal, by the Employee as representative of the majority of the governing body that the Employee resigns then the Employee may declare a termination as of the date of the suggestion.

D. The Employee declared Employer defaulted under this Agreement and the Employer fails to cure the default within 14 days of receiving written notice. Written notice of a breach of contract shall be provided in accordance with the provisions of Section 16.

### **SECTION 8: SEVERANCE**

A. Severance shall be paid to the Employee when employment is terminated as described in Section 7.

B. If the Employee is terminated, the Employer shall provide severance payment equal to three months' salary at the current rate of pay. This severance shall be paid in a lump sum unless otherwise agreed to by the Employer and the Employee.

C. The Employee shall also be compensated for accrued sick leave and vacation time as provided in the County's Personnel Policies and Procedures Manual.

D. If the Employee is terminated because of poor performance, breach of this Agreement where Employee has not cured the breach within 14 days of notice as provided pursuant to Section 16, arrest or conviction of felony or a crime of moral turpitude, or conduct unbecoming of a County employee as evidenced by a violation of the County's Personnel Policies and Procedures Manual, then the Employer is not obligated to pay severance under this Section.

### SECTION 9: RESIGNATION

In the event that the Employee voluntarily resigns his/her position with the Employer, the Employee shall provide a minimum of 30 days' notice unless the parties agree otherwise.

# SECTION 10: PERFORMANCE EVALUATION

The County Administrator shall annually review the performance of the Employee in July of. each year of this Agreement, and may perform a six month review in January of each year of this

Agreement, subject to a process, form, criteria, and format for the evaluation which shall be mutually agreed upon by the County Administrator and Employee. The process at a minimum shall include the opportunity for both parties to: (1) prepare a written evaluation, (2) meet and discuss the evaluation, and (3) present a written summary of the evaluation results. The final written evaluation should be completed and delivered to the Employee within 30 days of the evaluation meeting.

## **SECTION 11: HOURS OF WORK**

It is recognized that the Employee must devote a great deal of time outside the normal office hours on business for the Employer, and to that end Employee shall be allowed to establish an appropriate work schedule. It is anticipated that Employee will work at least forty (40) hours per week.

# **SECTION 12: OUTSIDE ACTIVITIES**

The employment provided for by this Agreement shall be the Employee's sole employment. Recognizing that certain outside consulting or teaching opportunities provide indirect benefits to the Employer and the community, the Employee may, with the prior concurrence of the Employer, accept limited teaching, consulting or other business opportunities with the understanding that such arrangements shall not constitute interference with nor a conflict of interest with his or her responsibilities under this Agreement. In no event shall approved outside employment exceed eight (8) hours per week.

# SECTION 13: INSURANCE AND LIABILITY PROTECTION

Beyond that required under federal, state or local law, Employer shall be responsible for defending, insuring, and providing legal counsel to Employee to protect against any personal liability against any tort, professional liability claim or demand or other legal action, whether groundless or otherwise, arising out of an alleged act or omission occurring in the performance of Employee's duties as County Attorney or resulting from the exercise of judgment or discretion in connection with the performance of program duties or responsibilities, unless the act or omission involved willful or wanton conduct. Legal representation, provided by Employer for Employee, shall extend until a final determination of the legal action including any appeals brought by either party. The Employer must insure or otherwise be responsible for any and all losses, damages, judgments, interest, settlements, fines, court costs and other reasonable costs and expenses of legal proceedings including attorney's fees, and any other liabilities incurred by, imposed upon, or suffered by such Employee in connection with or resulting from any claim, action, suit, or proceeding, actual or threatened, arising out of or in connection with the performance of his or her duties. Any settlement of any claim must be made with prior approval of the Employer in order for indemnification, as provided in this Section, to be available.

### SECTION 14: BONDING

Employer shall bear the full cost of any fidelity or other bonds required of the Employee under any law or ordinance.

# SECTION 15: OTHER TERMS AND CONDITIONS OF EMPLOYMENT

The Employer may fix any such other terms and conditions of employment, as it may determine from time to time, relating to the performance of the Employee, provided such terms and conditions are not inconsistent with or in conflict with the provisions of this Agreement, the James City County Charter or any state or federal law.

### SECTION 16: NOTICES

Notice pursuant to this Agreement shall be given by depositing in the custody of the United States Postal Service, First Class, postage prepaid, addressed as follows:

### **EMPLOYER**:

Board of Supervisors James City County P.O. Box 8784 Williamsburg, Virginia 23187-8784.

### EMPLOYEE:

MICHELLE GOUDT 4603 BLACH Rell H PROVIDENCE FORGE, VAZ3140

Alternatively, notice required pursuant to this Agreement may be personally served in the same manner as is applicable to civil judicial practice. Notice shall be deemed given as of the date of personal service or as the date of deposit of such written notice in the course of transmission in the United States Postal Service.

# SECTION 17: GENERAL PROVISIONS

A. Integration. This Agreement sets forth and establishes the entire understanding between the Employer and the Employee relating to the employment of the Employee by the Employer. Any prior discussions or representations by or between the parties are merged into and rendered null and void by this Agreement. The parties by mutual written agreement may amend any provision of this agreement during the life of the agreement. Such amendments shall be incorporated and made a part of this Agreement. B. Effective Date. This Agreement shall be effective as of the date first above written with employment commencing \_\_\_\_\_\_, 2015.

C. Severability. The invalidity or partial invalidity of any portion of this Agreement will not affect the validity of any other provision. In the event that any provision of this Agreement is held to be invalid, the remaining provisions shall be deemed to be in full force and effect as if they have been executed by both parties subsequent to the expungement or judicial modification of the invalid provision.

EMPLOYER:

# COUNTY OF JAMES CITY, VIRGINIA

By:\_\_\_\_

Michael J. Hipple, Chairman of the Board of Supervisors

By:\_\_\_\_\_ Bryan J. Hill County Adminsitrator

EMPLOYEE NAME

MICHELE GAUPY 4/8/15

**EMPLOYEE:** 

# AGENDA ITEM NO. H.1.

# **ITEM SUMMARY**

DATE:	4/28/2015
TO:	Board of Supervisors
FROM:	Savannah Pietrowski, Planner I
SUBJECT:	SPECIAL USE PERMIT-0001-2015. Sprint John Tyler Highway Tower

Mr. Philip Stetler of Site Link Wireless has applied on behalf of Sprint for an SUP to allow the addition of three-panel antennas to an existing +/-121-foot monopole tower located at 4311 John Tyler Highway.

# **ATTACHMENTS:**

	Description	Туре
D	Staff Report	Staff Report
D	Resolution	Resolution
D	Location Map	Exhibit
D	Unapproved Planning Commission Minutes 3/4/15	Minutes
D	Master Plan	Exhibit
D	Exhibit A Wooded Buffer	Exhibit
D	Photos of Existing Tower	Exhibit
D	Performance Standards for Wireless Communications Facilities that Require a Special Use Permit	Exhibit

### **REVIEWERS:**

wer A	Action	Date
Paul A	Approved	4/13/2015 - 8:43 AM
hy, Allen A	Approved	4/13/2015 - 9:00 AM
am, Nan A	Approved	4/13/2015 - 9:16 AM
ws, Teresa A	Approved	4/13/2015 - 9:34 AM
nan, Adam A	Approved	4/20/2015 - 2:22 PM
ws, Teresa A	Approved	4/20/2015 - 2:31 PM
	PaulAhy, AllenAam, NanAvs, TeresaAnan, AdamA	PaulApprovedhy, AllenApprovedam, NanApprovedvs, TeresaApprovedhan, AdamApproved

# SPECIAL USE PERMIT-0001-2015. Sprint John Tyler Highway Tower Staff Report for the April 28, 2015, Board of Supervisors Public Hearing

This staff report is prepared by the James City County Planning Division to provide information to the Planning Commission and Board of Supervisors to assist them in making a recommendation on this application. It may be useful to members of the general public interested in this application.

PUBLIC HEARINGS Planning Commission: Board of Supervisors:	Building F Board Room; County Government Complex March 4, 2015, 7:00 p.m. April 28, 2015, 6:30 p.m.
SUMMARY FACTS Applicant:	Mr. Philip Stetler of Site Link Wireless
Land Owner:	Sheila and Axel Nixon
Proposal:	Addition of three panel antennas on an existing +/-121-foot monopole tower
Location:	4311 John Tyler Highway
Tax Map/Parcel No.:	4620100020
Parcel Size:	+/-12.96 acres
Zoning:	R-8, Rural Residential
Comprehensive Plan:	Low Density Residential
Primary Service Area:	Inside

### **STAFF RECOMMENDATION**

Staff finds the proposal to be compatible with surrounding zoning and development and consistent with the 2009 Comprehensive Plan. Staff recommends that the James City County Board of Supervisors approve this application subject to the conditions detailed in the attached resolution.

Staff Contact: Savannah Pietrowski Phone: 253-6882

### PLANNING COMMISSION RECOMMENDATION

The Planning Commission recommended approval of this Special Use Permit (SUP) application and the proposed conditions at its March 4, 2015 meeting by a vote of 7-0.

#### Proposed Changes Made Since the Planning Commission Meeting

There have been no proposed changes to the application since the Planning Commission meeting.

# PROJECT DESCRIPTION

Mr. Philip Stetler of Site Link Wireless has applied on behalf of Sprint for an SUP to allow the addition of three-panel antennas to an existing +/-121-foot monopole tower located at 4311 John Tyler Highway. The tower was originally built in 1998 and permitted by right as a camouflaged tower in the R-8, Rural Residential, district. Due to changes in the Zoning Ordinance, an SUP is now required. The purpose of this application is to bring the tower into conformance and allow expansion of the use for the additional antennas. The additional antennas are proposed to be mounted on the existing array at the top of the tower at a height of 118 feet and will not change the total height of the tower.

# Surrounding Zoning and Land Use

The site is bordered to the east by the James City Service Authority (JCSA) Water Treatment Facility (zoned R-8, Rural Residential, and designated Federal, State, and County Land), as well as additional County-owned property to the south (zoned PL, Public Lands and designated Park, Public or Semi-public Open Space). Located to the west is additional vacant property (zoned R-1, Limited Residential, and designated Low Density Residential). Other smaller surrounding properties are zoned R-8 and designated Low Density Residential. Also nearby are the Chanco's Grant subdivision to the southeast (zoned R-8 and designated Low Density Residential), St. George's Hundred to the west (zoned R-1 and designated Low Density Residential), and Clara Byrd Baker Elementary School to the east (zoned PL and designated Federal, State, and County Land).

# PUBLIC IMPACTS

# Engineering and Resource Protection, Public Utilities, and Transportation

The site is located in the Powhatan Creek Watershed. The Engineering and Resource Protection Division did not review this application as the tower is existing and there is no land disturbance proposed with this application. The site is located inside the Primary Service Area. The JCSA did not review this application as it does not generate additional need for the use of public utilities. The Virginia Department of Transportation did not review this application as it does not create significant additional vehicular trips in the area. The site will continue to be accessed via an existing driveway off John Tyler Highway.

### VISUAL IMPACTS

The proposed tower is located on the south-eastern portion of the property and is surrounded by a wooded buffer. The tower is located approximately 1,000 feet from John Tyler Highway and approximately 2,000 feet from Ironbound Road. The tower is approximately 400 feet from the nearest residence in Chanco's Grant. The base and the equipment enclosures of the existing tower are not visible from surrounding properties given the distance to property lines and the wooded nature of the property. The tower is not visible from surrounding residential areas or the Five Forks Community Character Area. The top of the tower is visible from a portion of Ironbound Road as well as points inside the Clara Byrd Baker Elementary School site. Photographs illustrating the view of the tower from these locations are attached. A condition has also been included with this application requiring the tower and any proposed antennas to be muted in color to minimize the visual impacts.

### PERFORMANCE STANDARDS

The James City County Board of Supervisors adopted several performance standards for Wireless Communications Facilities (WCFs) (Attachment No. 7). These standards note that tower-mounted WCFs should be located and designed in a manner that minimizes their impacts to the maximum extent possible and minimizes their presence in areas where they would depart from existing and future patterns of development. While all standards support the goals outlined in the Comprehensive Plan, some may be more critical to the County's ability to achieve these goals on a case-by-case basis. Therefore, some standards may be weighed more heavily in any recommendation or decision on an SUP. To date, towers granted an SUP have substantially met these standards.

### A. Collocation and Alternative Analysis

Standard A1 encourages collocation. This application meets this standard, as the proposal is for collocation on an existing tower.

Standard A2 pertains to the demonstration of a need for the proposal and the examination of alternatives, including using alternative mounting structures. Staff finds that the proposal meets the intent of this standard, as it is utilizing an existing tower.

Standard A3 recommends that the site be able to contain at least two towers on-site to minimize the need for additional towers elsewhere. This application meets this standard, as there is a second tower already existing on the site.

Standard A4 pertains to the allowance of future service providers to collocate on the tower. The applicant is willing and able to allow collocation for additional wireless carriers.

# B. Location and Design

Performance Standard B1 states that towers and tower sites should be consistent with existing and future surrounding development and the Comprehensive Plan. More specifically, towers should be compatible with the use, scale, height, size, design, and character of surrounding existing and future uses. The tower is slightly taller than the existing tree line and nearby buildings. The tower is not visible from most surrounding areas and it is unlikely the tower would be visible to any future development as a large portion of the area surrounding the site is designated as Resource Protection Area (RPA).

Performance Standard B2 states that towers should be located in a manner that use a camouflaged design or have minimal intrusion onto residential areas, historic and scenic resources areas or roads in such areas, or scenic resource corridors. Staff finds the tower does not impact any residential areas or historic and scenic resource areas. Staff acknowledges that the tower is visible from the Ironbound Road Community Character Corridor; however, a condition has been included with the application requiring the tower and any proposed antennas to be muted in color to minimize the visual impacts. There will be no adverse impacts to archaeological or architectural resources as there is no change in the site footprint or additional land disturbing activity.

Performance Standard B3 states that towers should be less than 200 feet to avoid lighting. This application meets this standard.

Performance Standard B4 states that towers should be freestanding and not supported by guy wires. This application meets this standard.

### C. Buffering

The Performance Standards state that towers should be placed on a site in a manner that maximizes buffering from existing trees, including a recommended 100-foot-wide wooded buffer around the base of the tower, and that the access drive should be designed in a manner that provides no off-site view of the tower base or related facilities. The tower is buffered from adjacent properties by existing trees. The road access is internal to the site, and the base of the tower is surrounded by a fence enclosure. Staff considers this standard to be met by the application.

# **COMPREHENSIVE PLAN**

The 2009 James City County Comprehensive Plan Land Use Map designates this property as Low Density Residential. Recommended uses are primarily residential but schools, churches, and very limited commercial uses are also allowed. In general, the Comprehensive Plan discusses minimizing the impacts of newly approved WCFs.

**Staff Comments:** As discussed earlier, staff finds the tower is not visible from nearby residential areas and is generally unnoticeable to the casual observer from the visibility points on Ironbound Road and the Clara Byrd Baker Elementary School site. Also, the property is surrounded by a significant wooded buffer, of which a large portion is designated RPA which will further protect the current buffering. A condition has also been

included with this application requiring the tower and any proposed antennas to be muted in color to minimize the visual impacts.

#### **RECOMMENDATION**

Staff finds the proposal to be compatible with surrounding zoning and development and consistent with the 2009 Comprehensive Plan. Staff recommends that the James City County Board of Supervisors approve this application subject to the conditions detailed in the attached resolution.

SP/gb Sup0001-15-SprintTower.doc

#### ATTACHMENTS:

- 1. Resolution
- 2. Location Map
- 3. Unapproved minutes from the March 4, 2015, meeting of the Planning Commission
- 4. Master Plan
- 5. Exhibit A Wooded Buffer
- 6. Photos of existing tower
- 7. Performance Standards for Wireless Communications Facilities that Require a Special Use Permit, approved by the Board of Supervisors on January 10, 2012

#### **RESOLUTION**

#### CASE NO. SUP-0001-2015. SPRINT JOHN TYLER HIGHWAY TOWER

- WHEREAS, the Board of Supervisors of James City County has adopted by ordinance specific land uses that shall be subjected to a Special Use Permit (SUP) process; and
- WHEREAS, Mr. Phillip Stetler has applied for an SUP to allow for a 121-foot monopole tower (the "Tower") on property zoned R-8, Rural Residential, located at 4311 John Tyler Highway, Williamsburg, Virginia 23185, further identified as James City County Real Estate Tax Map Parcel No. 4620100020 (the "Property"); and
- WHEREAS, the Tower is depicted on the plan prepared by the James City County Planning Division, dated February 24, 2015, and entitled "JCC-SUP-0001-2015 Sprint John Tyler Highway Master Plan" (the "Master Plan"); and
- WHEREAS, the Tower is located in its entirety on the Property; and
- WHEREAS, a public hearing was advertised, adjoining property owners notified, and a hearing conducted on Case No. SUP-0001-2015; and
- WHEREAS, the Planning Commission, following its public hearing on March 4, 2015, voted 7-0 to recommend approval of Application No. SUP-0001-2015.
- NOW, THEREFORE, BE IT RESOLVED that the Board of Supervisors of James City County, Virginia, does hereby approve Application No. SUP-0001-2015, as described herein, subject to the following conditions:
  - <u>Master Plan and Use</u>: This SUP shall be valid for one monopole tower on the Property at a total height not to exceed 121 feet above grade, including all appurtenances. The Tower shall be in accord with the Master Plan with such minor changes as the Director of Planning, or his designee, determines do not change the basic concept or character of the development. In the event that the Director of Planning finds that the proposed change alters the basic concept or character of the development, the applicant may appeal the Director of Planning's determination to the Development Review Committee.
  - <u>Enclosure</u>: All equipment shall be enclosed by fencing. Any new or replacement fencing shall be vinyl-coated and shall be dark green or black in color. Any new or replacement fencing shall be approved by the Director of Planning, or his designee, prior to final site plan approval.
  - 3. <u>*Tower Color*</u>: The Tower and all appurtenances shall be painted gray in color. Any paint color used shall be approved by the Director of Planning, or his designee, prior to final site plan approval.
  - 4. <u>Lighting</u>: Lighting, beacons, and other similar devices shall be prohibited on the Tower unless required by the Federal Communications Commission (FCC) or Federal Aviation Administration (FAA). When required by the FCC or FAA, a red beacon light or lights of low-medium intensity shall be used rather than a white strobe light. Should the regulations and requirements of this condition conflict with any regulation or

requirement by the FCC or FAA, then the regulations of the FCC and FAA shall govern. At the time of site plan review, a copy of the FCC and/or FAA findings shall be provided to the County.

- 5. <u>Buffer</u>: The wooded buffer on the Property, as shown on Exhibit A, shall remain in an undisturbed state. The Director of Planning, or his designee, shall approve any tree trimming or clearing plan.
- 6. <u>*Commencement*</u>: A final building inspection for the antennas on the Tower shall be obtained within 24 months from the date of the issuance of this SUP, or the SUP shall be void.
- 7. <u>Severance Clause</u>: This SUP is not severable. Invalidation of any word, phrase, clause, sentence, or paragraph shall invalidate the remainder.

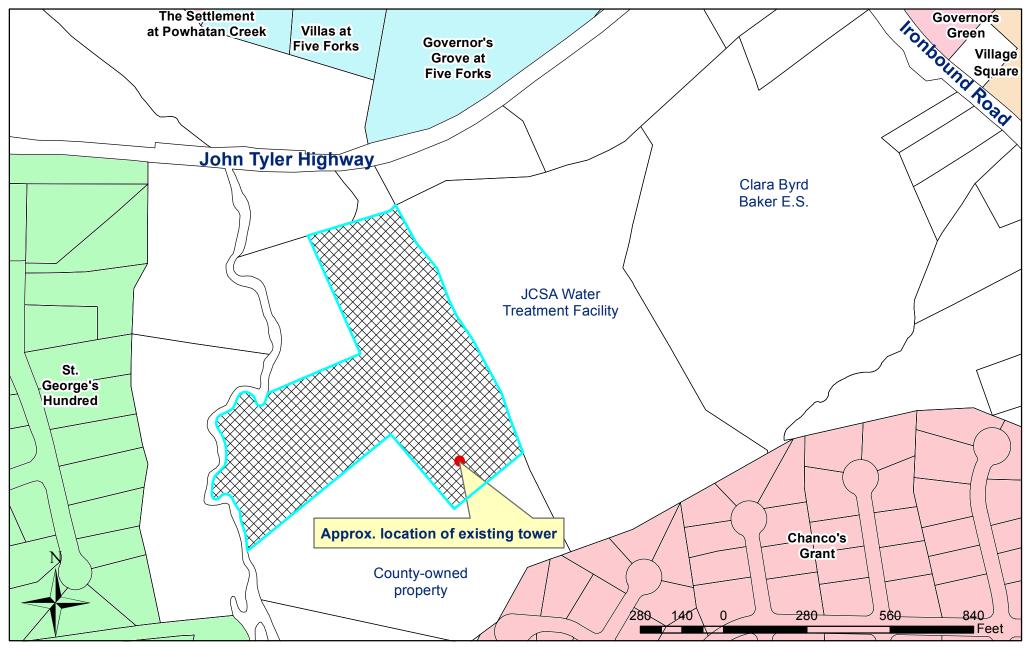
		Michael J. Hipple Chairman, Board of Supervisors			
		VOTE			
		AYE	NAY	<u>ABSTAIN</u>	
	JONES MCGLENNON				
Bryan J. Hill Clerk to the Board	— ONIZUK KENNEDY				
Clerk to the Board	HIPPLE				

Adopted by the Board of Supervisors of James City County, Virginia, this 28th day of April, 2015.

Sup0001-15-SprintTower-res

# JCC-SUP-0001-2015 Sprint John Tyler Highway Tower





## Unapproved Minutes of the March 4, 2015 Planning Commission Meeting

#### A. Case No. SUP-0001-2015, Sprint John Tyler Highway Tower

Ms. Savannah Pietrowski, Planner I, provided the Commission with a presentation on the proposed special use permit which would bring the existing tower into conformance with the Zoning Ordinance and allow the addition of three additional panel antennas.

Mr. Krapf opened the floor to questions for staff.

Ms. Bledsoe inquired if staff had heard from any adjacent property owners.

Ms. Pietrowski replied that she had not.

Mr. Richardson inquired if the antennas will be the same color as the existing tower.

Ms. Pietrowski confirmed.

Mr. Richardson inquired regarding the definition of slicksticks, as referenced in the Wireless Communications Facilities Policy.

Mr. Paul Holt stated that slicksticks are towers in which the antennas are housed inside of the pole. Mr. Holt noted that there are two slicksticks currently on the County Government Center property.

Mr. Krapf called for disclosures from the Commissioners. There were no disclosures made by the Commissioners

Mr. Krapf opened the public hearing and noted that the applicant was not in attendance.

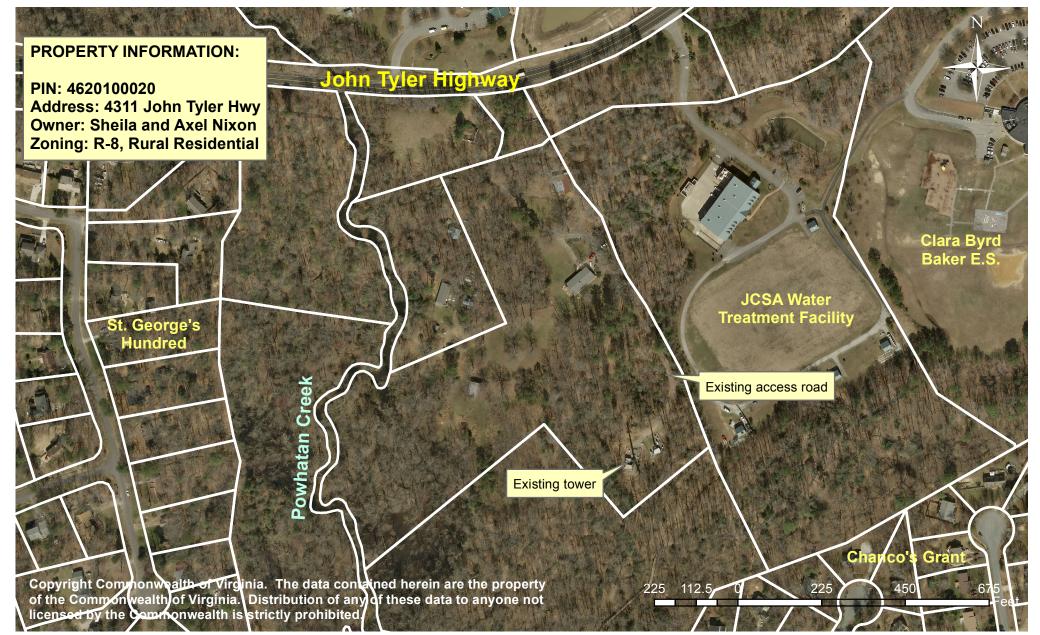
As no one wished to speak, Mr. Krapf closed the public hearing.

Mr. Basic moved to recommend approval.

On a roll call vote, the Planning Commission recommend approval of SUP-0001-2015, subject to the conditions listed in the staff report, by a vote of 7-0.

# JCC-SUP-0001-2015 Sprint John Tyler Highway Tower Master Plan

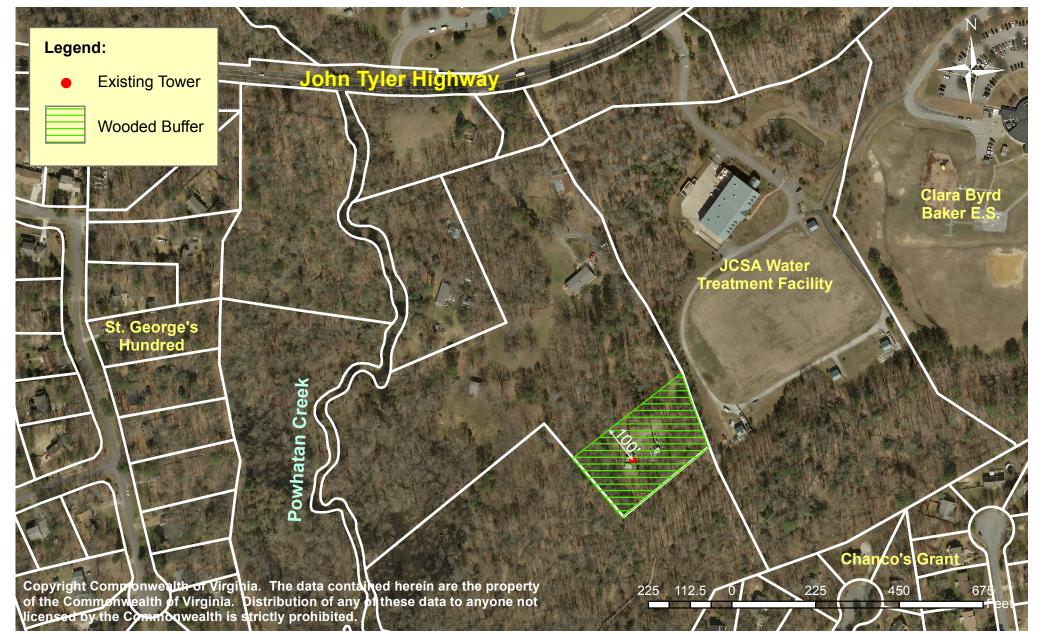




February 24, 2015

# JCC-SUP-0001-2015 Sprint John Tyler Highway Tower Exhibit A







View from the rear of Clara Byrd Baker Elementary School.



View from office building across Ironbound Road.

#### PERFORMANCE STANDARDS FOR WIRELESS COMMUNICATIONS FACILITIES THAT REQUIRE A SPECIAL USE PERMIT January 10, 2012

In order to maintain the integrity of the James City County's significant historic, natural, rural and scenic resources, to preserve its existing aesthetic quality and its landscape, to maintain its quality of life and to protect its health, safety, general welfare, and property values, wireless communications facilities (WCFs) should be located and designed in a manner that minimizes their impacts to the maximum extent possible and minimizes their presence in areas where they would depart from existing and future patterns of development. To implement these goals, the Planning Commission and the Board of Supervisors have adopted these performance standards for use in evaluating special use permit applications for WCFs. While all of the standards support these goals, some may be more critical to the County's ability to achieve these goals on a case by case basis. Therefore, some standards may be weighed more heavily in any recommendation or decision on a special use permit, and cases that meet a majority of the standards may or may not be approved. The terms used in these standards shall have the same definition as those same terms in the Zoning Ordinance. In considering an application for a special use permit, the Planning Commission and the Board of Supervisors will consider the extent to which an application meets the following performance standards:

#### A. Collocation and Alternatives Analysis

- 1. Applicants should provide verifiable evidence that they have cooperated with others in colocating additional antenna on both existing and proposed structures and replacing existing towers with ones with greater co-location capabilities. It should be demonstrated by verifiable evidence that such co-locations or existing tower replacements are not feasible, and that proposed new sites contribute to the goal of minimizing new tower sites.
- 2. Applicants should demonstrate the following:
  - a. That all existing WCFs and potential alternative mounting structures more than 60 feet tall within a three-mile radius of the proposed site for a new WCF cannot provide adequate service coverage or an antenna mounting opportunity.
  - b. That adequate service coverage cannot be provided through an increase in transmission power, replacement of an existing WCF within a three mile radius of the site of the proposed WCF, or through the use of a camouflaged WCF, alternative mounting structure, multi-antenna system or a system that uses lower antenna heights than proposed.
  - c. The radii of these study areas may be reduced where the intended coverage of the proposed WCF is less than three miles.
- 3. Towers should be sited in a manner that allows placement of additional WCF facilities. A minimum of two tower locations, each meeting all of the requirements of the Zoning Ordinance and these standards, should be provided at all newly approved tower sites.
- 4. All newly permitted towers should be capable of accommodating enough antennas for at least three service providers or two service providers and one government agency. Exceptions may be made where shorter heights are used to achieve minimal intrusion of the tower as described in Section B.2. below.

#### B. Location and Design

- 1. WCFs should be consistent with existing and future surrounding development and the Comprehensive Plan. While the Comprehensive Plan should be consulted to determine all applicable land use principles, goals, objectives, strategies, development standards, and other policies, certain policies in the Plan will frequently apply. Some of these include the following: (1) WCFs should be compatible with the use, scale, height, size, design and character of surrounding existing and future uses, and such uses that are generally located in the land use designation in which the WCF would be located; and (2) WCFs should be located and designed in a manner that protects the character of the County's Community Character Corridors and historic and scenic resource areas and their view sheds.
- 2. WCFs should be located and designed consistent with the following criteria:

Propos	ed Location of WCF	Impact Criteria
a.	Within a residential zone or residential designation in the Comprehensive Plan	Use a camouflage design, a well buffered slickstick, Multi-Antenna system, or have a minimal intrusion on to residential areas, historic and scenic resources areas or roads in such areas, or community character corridors.
b.	Near a historic or scenic resource area or on a Community Character Corridor	Use a camouflaged design or slicksticks that have minimal intrusion on to residential areas, historic and scenic resources areas or on community character corridors.
С.	Within a rural lands designation in the Comprehensive Plan	For areas designated rural lands in the Comprehensive Plan that are within 1,500 feet from the tower, use a well buffered monopole, a camouflaged design, or other design that has minimal intrusion on to residential areas, or community character corridors. For rural lands more than 1,500 feet from the tower, no more than the upper 25% of the tower should be visible.
d.	Within a commercial or in an industrial designation in the Comprehensive Plan	Use a camouflage design, well buffered monopole, or other design that has minimal intrusion on to residential areas, historic and scenic resources areas or roads in such areas, or community character corridors.

*Notes for the above table:* 

1. Exceptions to these criteria may be made on a case by case basis where the impact of the proposed WCF is only on the following areas: (1) An area designated residential on the Comprehensive Plan or zoning map which is not a logical extension of a residential subdivision or which is a transitional area between residential and nonresidential uses, (2) a golf course or a golf course and some combination of commercial areas, industrial areas, or utility easements, provided the tower is located on the golf course property, or (3) a scenic easement.

- 2. A *WCF* will meet the minimal intrusion criteria if it is not visible off site above the tree line. Such *WCF* should only be visible off-site when viewed through surrounding trees that have shed their leaves.
- 3. Camouflaged towers having the design of a tree should be compatible in scale and species with surrounding natural trees or trees native to Eastern Virginia.
- 4. WCFs should be less than 200 feet in height in order to avoid the need for lighting. Taller heights may be acceptable where views of the WCF from residential areas and public roads are very limited. At a minimum, WCFs 200 feet or more in height should exceed the location standards listed above.
- 5. Towers should be freestanding and not supported with guy wires.
  - C. Buffering
    - 1. WCFs should be placed on a site in a manner that takes maximum advantage of existing trees, vegetation and structures so as to screen as much of the entire WCF as possible from view from adjacent properties and public roads. Access drives should be designed in a manner that provides no view of the WCFs base or related facilities.



Figure 1: Example of a well buffered slickstick with minimal intrusion

- 2. Towers should be buffered from adjacent land uses and public roads as much as possible. Following buffer widths and standards should be met:
  - a. In or adjacent to residential or agricultural zoning districts, areas designated residential or rural lands on the Comprehensive Plan, historic or scenic resource areas, or community character corridors, an undisturbed, completely wooded buffer consisting of existing mature trees at least 100 feet wide should be provided around the tower.
  - b. In or adjacent to all other areas, at least a 50 foot wide vegetative buffer consisting of a mix of deciduous and evergreen trees native to Eastern Virginia should be provided.

ZO10-11WCOrd\_att6-Fin

#### AGENDA ITEM NO. H.2.

#### **ITEM SUMMARY**

DATE:	4/28/2015
TO:	Board of Supervisors
FROM:	Ellen Cook, Senior Planner II
SUBJECT:	Rezoning-0005-2014 Peninsula Pentecostals, Kirby Tract

A request to rezone three parcels located at 9230, 9240, and 9250 Pocahontas Trail from M-2, General Industrial to MU, Mixed Use with proffers for a place of public assembly and commercial uses.

#### **ATTACHMENTS:**

	Description	Туре
D	Staff Report	Staff Report
D	Resolution	Resolution
D	Location Map	Exhibit
D	Planning Commission Minutes March 4, 2015	Minutes
D	Master Plan	Exhibit
D	Traffic Study	Backup Material
D	Signed Proffers	Backup Material
D	Archaeological Summary	Backup Material
D	Building Elevation	Backup Material
D	Environemental Narrative and Exhibits	Backup Material
D	Construction Phasing Schedule	Backup Material
D	Letter from Adjacent Property Owner	Backup Material

#### **REVIEWERS:**

Department	Reviewer	Action	Date
Planning	Holt, Paul	Approved	4/13/2015 - 8:41 AM
Development Management	Murphy, Allen	Approved	4/13/2015 - 8:59 AM
Publication Management	Burcham, Nan	Approved	4/13/2015 - 9:12 AM
Board Secretary	Fellows, Teresa	Approved	4/13/2015 - 9:34 AM
Board Secretary	Kinsman, Adam	Approved	4/21/2015 - 3:55 PM
Board Secretary	Fellows, Teresa	Approved	4/21/2015 - 4:00 PM

#### **REZONING-0005-2014.** Peninsula Pentecostals, Kirby Tract Staff Report for the April 28, 2015, Board of Supervisors Public Hearing

This staff report is prepared by the James City County Planning Division to provide information to the Planning Commission and Board of Supervisors to assist them in making a recommendation on this application. It may be useful to members of the general public interested in this application.

<b>PUBLIC HEARINGS</b> Planning Commission: Board of Supervisors:	Building F Board Room; County Government Complex March 4, 2015, 7:00 p.m. April 28, 2015, 7:00 p.m.
SUMMARY FACTS Applicant:	Mr. Tim Trant of Kaufman and Canoles
Land Owner:	Green Mount Associates, L.L.C.
Proposal:	130,000-square-foot place of public assembly, day-care center for up to 150 children and up to 30,000 square feet of commercial uses
Location:	9230, 9240, and 9250 Pocahontas Trail
Tax Map/Parcel Nos.:	6010100006, 6010100007, and 6010100008
Parcel Size:	40.3 acres
Existing Zoning:	M-2, General Industrial
Proposed Zoning:	MU, Mixed Use with proffers
Comprehensive Plan:	Mixed Use (GreenMount Mixed Use Area)
Primary Service Area:	Inside

#### **STAFF RECOMMENDATION**

This property is zoned, M-2, General Industrial, which is the only exclusively industrial zone in the County, provides a significant source of revenue to the County's tax base, and is limited in the amount remaining. This property is also included in the County's designated Enterprise Zone. While the Comprehensive Plan designation was changed to Mixed Use in 2003, the Mixed Use language still lists "industrial uses" as a primary recommended use for this area. Should this proposal be approved, it would result in the loss of M-2 zoned land through a rezoning proposal that does not include any of the recommended industrial component. Overall, staff does not find this development proposal consistent with the GreenMount Mixed Use description in terms of uses and the nature of the development. Staff also has remaining concerns about the degree to which the project is addressing the right-of-way for Skiffe's Creek Connector, and Newport News Waterworks continues to object to the storage and dispensing of fuel use on these parcels. Staff recommends the Board of Supervisors deny this rezoning application. Should the Board of Supervisors wish to approve the application and accept the voluntary proffers, a resolution has been provided as an attachment to this report.

Staff Contact:

Ellen Cook, Senior Planner II

Phone: 253-6693

#### Changes Made by the Applicant Since the Planning Commission Meeting

The applicant submitted revised proffers on April 8, 2015, which include the following elements:

- For the proposed fueling facility, a commitment to submit a spill prevention, control, and countermeasure plan for County review and approval and a commitment to locate the facility no closer than 300 feet to the Skiffe's Creek Reservoir. (See relevant discussion under the Engineering and Resource Protection section of the staff report below.)
- For the place of public assembly, a commitment to on-going evaluation and submission of the traffic management plan to the County as the future phases of the building are completed. (See relevant discussion under the Transportation section of the staff report below.)
- For the commercial parcels (the middle and eastern properties), a commitment to submit design review standards for County review and approval prior to preliminary approval of any site plan in this area. (See relevant discussion under the Project Description and Comprehensive Plan sections of the staff report below.)

#### PLANNING COMMISSION RECOMMENDATION

At the Planning Commission meeting on March 4, 2015, a motion to approve this application failed by a vote of 3-4.

**Proffers:** Proffers are signed and submitted in accordance with the James City County Proffer Policy.

#### **PROJECT DESCRIPTION**

Mr. Tim Trant of Kaufman and Canoles, has applied for a rezoning from M-2, General Industrial to MU, Mixed Use for three parcels located on Pocahontas Trail in the GreenMount Industrial Park. On the western parcel, the proposed use is a place of public assembly to be constructed in three phases which would ultimately total 130,000 square feet and have a seating capacity of 2,400 seats. A child day-care center with a maximum proffered enrollment of 150 children is also proposed within the public assembly structure. Finally, this use also includes an accessory apartment, an accessory Family Life Center with activities space, a utility structure, and multi-purpose fields. The Master Plan depicts a future building between the place of public assembly and the Family Life Center, and the construction phasing schedule submitted by the applicant in accordance with Section 24-515(a)(2) of the Zoning Ordinance (Attachment No. 8), states that this area would be constructed as part of Phase 3 as additional administration and day care area. For the uses on this western parcel, the master plan depicts the proposed site layout, including the general building locations and parking areas. In addition, for the uses, provisions have been made in the proffers for consistency of the built structure with the architectural elevations that have been submitted; specific signage style, height, materials, and architectural character; and minimization of glare from exterior lighting on adjacent properties.

On the middle and eastern properties, the proposed use is a grouping of commercial uses, to potentially include up to 30,000 square feet of retail, to include a restaurant and a convenience store with sale of fuel. The Master Plan does not depict a proposed site layout for the grouping of commercial uses. The submitted proffers provide for administrative review in the form of submission of a concept plan to the County prior to development, but no specifics are provided as to the content or development intent. The version of the proffers submitted on April 8, 2015 includes a commitment to submit design review standards for County review and approval prior to preliminary approval of any site plan in this area, and a commitment to thereafter submit architectural elevations for the commercial uses for approval consistent with the standards.

The project is located on parcels that are partially wooded and partially cleared cropland, and are encumbered by a high voltage electricity transmission line easement. The project is across Pocahontas Trail from other parcels in the Green Mount Industrial Park, which are zoned M-2, General Industrial and designated General Industry. To the north of the project is a vacant 103-acre parcel which is zoned M-2, General Industrial and designated General Industry. To the east of the project is the Skiffe's Creek Reservoir and associated buffer land owned by the City of Newport News, which is zoned M-2, General Industrial and designed General Industry. To the west of the project are the Skiffe's Creek and Carter's Village townhouse communities which are zoned R-5, Multi-family Residential and designated Moderate Density Residential. To the southwest is the Morning Star Baptist Church which is zoned M-2, General Industrial and designated General Industry. Pocahontas Trail is designated by the Comprehensive Plan as a CCC.

#### PUBLIC IMPACTS

#### Archaeology

Over the years, several archaeological investigations have taken place on this property. The primary study, conducted in 1999 was a Phase I investigation of the entire property. Other studies have been associated with investigations of specific road alignments and have covered portions of the property. In connection with this application, Circa Cultural Resources Management provided a summary of the studies, noting that there was one site, JCC1024, which had been recommended to potentially be eligible for nomination to the National Register of Historic Places, one site, JCC1028, for which no further work was recommended and a number of other sites that had positive shovel tests, some of which were grouped in one location but which had not been assigned a site number through the Virginia Department of Historic Preservation (VDHR). The Circa summary was submitted to VDHR, which concurred with Circa that either avoidance or further work on JCC1024 was warranted, and further recommended that the grouping of positive shovel tests be investigated and delineated. The submitted proffers include a commitment to addressing the two areas recommended for further action by VDHR.

#### **Engineering and Resource Protection**

#### Watershed: Skiffe's Creek

The applicant has submitted information in accordance with the Environmental Constraints Analysis policy, and much of this information is reflected on the Master Plan. The western boundary is a tributary stream to Skiffe's Creek and the northern and eastern boundaries are Skiffe's Creek just to the west of the Skiffe's Creek Reservoir. The project has wetlands and Resource Protection Area (RPA) along most of the property lines. Note that the RPA location depicted on the Master Plan is approximate as it has not been field verified to-date (verification of the RPA at the legislative stage is typical for most major development proposals). The project's environmental narrative specifies that erosion and sediment control measures will need to be designed to protect Skiffe's Creek and the Skiffe's Creek Reservoir, and that stormwater runoff during and after construction will need to conform to water quality and quantity design criteria. More specific information about stormwater management practices for development on the western parcel has been provided. The project narrative indicates that stormwater runoff from this development will be conveyed to the Best Management Practice (BMPs) for quality improvement and quantity control prior to discharge to a stilling basin upstream of the wetlands, then discharge to Skiffe's Creek. The narrative indicates that one of two options for the BMPs on-site will be used, either an option that uses several bioretention basins and an extended detention pond or an option that uses one or more wet ponds. The Master Plan and submission documents do not show a specific stormwater management approach for the middle and eastern properties, but the submitted proffers provide for administrative review of a stormwater master plan for the middle and eastern parcels prior to development in that area, as well as a commitment to preparation of a stormwater management plan for any establishment selling or dispensing fuels. The version of the proffers submitted on April 8, 2015 includes a commitment in relation to the proposed fueling facility to submit a spill prevention, control, and countermeasure plan for County review and approval, and a commitment to locate the facility no closer than 300 feet to the Skiffe's Creek Reservoir.

**Staff Comments:** Engineering and Resource Protection staff have reviewed the materials submitted by the applicant and found them sufficient for ERP to reach the conclusion that the bio-retention approach is best suited for this site, pending additional review of engineering and design details at the development plan level. ERP staff noted that the RPA boundary shown requires verification to ensure there is no encroachment by the proposed structures. If the verified RPA is different than what is shown on the

Master Plan, the structures may need to be reconfigured, or any encroachments would need to be approved by the Chesapeake Bay Board.

In recognition that Skiffe's Creek Reservoir is an important drinking water supply resource, staff recommends thoroughly addressing water quality issues for all parcels. In addition to the erosion and sediment control and stormwater control items mentioned above, stormwater quality treatments could take the form of turf management commitments or measures to address specific site uses. In relation to one possible use listed on the Master Plan, the convenience store with sale of fuel, Newport News Waterworks (NNWW) staff indicated that they would have strong concerns about any fuel storage and/or dispensing facilities located on these parcels. NNWW staff noted that in Newport News, the reservoir protection ordinance prohibits fuel storage with limited exceptions and believe that the intent of these water quality protections should be applied to this location. NNWW staff further noted that these are protections for the drinking water system used by residents in all of the jurisdictions where NNWW provides water service, including James City County. As another point of information, in York County the reservoir protection ordinance requires a 700-foot separation distance between the reservoir or tributary stream and any fuel bulk storage or distribution of petroleum.

#### **Public Utilities**

The property is proposed to be served by public water (NNWW) and public sewer. For water, the project proposes to tie into an existing 30-foot NNWW waterline that runs along Pocahontas Trail. For sewer, the project proposes to tie into an existing 8 foot James City Service Authority (JCSA) sanitary sewer line that runs along the western property line.

**Staff Comments:** JCSA staff have reviewed the submitted materials and concurs with the information submitted, while noting that additional information will need to be considered at the development plan design stage and that further coordination will be required with Newport News Waterworks (please see also information on reservoir protection listed under Engineering and Resource Protection Staff Comments above).

#### **Transportation**

The Master Plan depicts two points of ingress/egress onto Pocahontas Trail: a main entrance to be shared by all uses on the site, and a secondary right-out egress at the far western edge of the property. A traffic impact analysis (TIA) prepared for this application examined the main and secondary project entrance and three other area intersections, including James River Elementary School/Colony Drive, Endeavor Drive (the entrance to James River Commerce Center), and GreenMount Parkway (the entrance to GreenMount Industrial Park). The TIA examined trip generation for the house of worship/day care on weekday peak hours, as well as conditions associated with several times during Sunday services. Finally, the TIA examined existing conditions, future conditions without construction of the house of worship/day care, future conditions with Phase I of the house of worship/day care, and future conditions with Phase III of the house of worship/day care.

For future conditions with Phase I, the study projects acceptable levels of service for all intersections and individual turn movements other than northbound through/left turn movement during the PM peak hour at the intersection of Endeavor Drive. For future conditions with Phase III, the study projects acceptable levels of service for all intersections and individual turn movements other than the northbound through/left-turn movement during the PM peak hour and two periods of Sunday at the intersection of Endeavor Drive and other than the main project ingress/egress. With regard to the intersection of Endeavor Drive, the TIA states that the increase in delay at this intersection is minor as compared with the "no build" conditions and that the LOS at this intersection is projected to already be on the threshold of Level of Service (LOS) D. The TIA states that there are two potential mitigation measures to address the northbound through/left turn movement at Endeavor Drive – a traffic signal and widening of Route 60, but that neither of these mitigation measures are warranted nor are they reasonable for improvements to mitigate delay for between 11 and 22 vehicles per hour for three hours a week. With regard to the

intersection at the main project ingress/egress, for the southbound left-turn egress, the TIA projects a LOS D during one time period on Sunday at Phase I of build-out, and a LOS F during two time periods on Sunday at Phase III of build-out. The TIA recommends turn lane improvements at Phase I and Phase III of build-out which would consist of a 200-foot right-turn lane and 200-foot taper on the westbound Pocahontas Trail approach, and a 200-foot left-turn lane and 200-foot (250 feet at Phase III build-out) left-turn lane and 200-foot taper at the eastbound Pocahontas Trail approach. Further, the TIA describes various mitigation measures that the house of worship could use to address egress delays and monitor ingress queues to make sure they do not back onto Pocahontas Trail, such as police officer traffic control, on-site signage, closing components of the parking to minimize conflicting movements on-site.

Pocahontas Trail is addressed in both the Regional Bikeways Map and the Pedestrian Accommodations Master Plan. These plans identify a multi-use path along Pocahontas Trail (from the western property line to the intersection of Pocahontas Trail and GreenMount Parkway). Per Section 24-35(a)(1) of the Zoning Ordinance, the multi-use path will be required at the site plan stage. In addition, Section 24-35(a)(4) will require a connection from the multi-use trail into the development and has some standards for connectivity internal to the parcel. The submitted Master Plan or proffers do not include more specific commitments for internal connectivity, such as can typically be found in design guidelines.

The Master Plan also depicts an alignment for the proposed Skiffe's Creek Connector, a roadway which is designed to connect Pocahontas Trail and Route 143 to help relieve traffic congestion issues. Based on information provided by VDOT, design work for the Skiffe's Creek Connector proposal is currently on hold due to funding and environmental issues. Staff understands that prior to being put on hold the proposal was in the Location Study phase with various options being examined. One of the two options was an alignment through the area that is now the proposed location of the house of worship, and the second option was an alignment that lines up with GreenMount Parkway, as currently generally depicted on the Master Plan. The alignment through the area now proposed for development was projected to be the less expensive of the two options (\$53.8 million versus \$72.8 million).

**Traffic Counts:** The James City County/Williamsburg/York County Comprehensive Transportation Study (Regional Study) that was completed in March 2012 indicated that the most recent weekday volume for Pocahontas Trail from BASF Road to the Newport News city line was 11,499 trips. This represents a current weekday PM peak hour LOS of A-C for the corridor.

**Projected Traffic Volume:** On Pocahontas Trail from the Newport News city line to the Grove Interchange, the 2009 Comprehensive Plan projects 21,186 AADT for 2035 – this is in the Watch category and is anticipated to need improvement. The Regional Study notes that the PM peak hour LOS for the corridor is projected to be at a LOS of F in 2034.

**VDOT Comments:** As of the time of packet preparation, VDOT comments had not yet been received. Staff will distribute the comments as soon as they are received.

**Staff Comments:** For the intersection at Endeavor Drive, staff concurs with the recommendation in the TIA that improvements are not warranted by this development to address the LOS D through/left turning movement. For the main project ingress/egress, staff concurs with the TIA on the recommended right- and left-turn lanes and tapers, and the submitted proffers include a commitment to construct these improvements. As described in the traffic study, staff has concerns about the potential for ingress queues to block Pocahontas Trail, should conflicting traffic movements on-site slow vehicle entry. The submitted proffers do include a commitment to submit a traffic management plan to address circulation and queuing of vehicles so as to limit the impact on traffic flows along Pocahontas Trail. In addition, the version of the proffers submitted on April 8, 2015 include a commitment to on-going evaluation and submission of the traffic management plan to the County as the future phases of the building are completed. As a point of reference and for a sense of scale, St. Bede's Church on Ironbound Road is 38,000 square feet in size.

It is important to note that the TIA submitted for this application only includes projected traffic for development on the western parcel and does not include any projected traffic from the proposed

commercial uses on the middle and eastern parcels. The submitted proffers provide for administrative review of a TIA to be submitted prior to the commercial development, and a commitment to construction of the traffic improvements recommended by the TIA. Submission of a TIA that covers all development components and commitment to specific transportation improvements at the legislative stage is more typical for most major development proposals.

In recognition that Pocahontas Trail and the Skiffe's Creek Connector that will connect it to Route 143 are important transportation resources, both for surrounding residential and current and future economic development traffic and in recognition that this proposal would affect the options available for its alignment, staff recommended that the right-of-way for Skiffe's Creek Connector be fully addressed by this project. The submitted proffers do not include a provision to dedicate any right-of-way for the Skiffe's Creek Connector.

#### **COMPREHENSIVE PLAN**

During the 2003 Comprehensive Plan update, this property was the subject of a property owner-initiated Land Use Designation Change Application to change the designation from General Industrial to Mixed Use. As part of the change to Mixed Use, the following Mixed Use description was included:

"For the GreenMount tracts north of Pocahontas Trail (Route 60), a balanced and integrated mixture of industrial, commercial, and residential uses is suggested. The combination of uses should complement the General Industry property surrounding it by concentrating on support uses and by leaving sufficient road and water capacity for the general industry uses to develop. Commercial uses should have a limited market area, primarily focused on direct services to nearby neighborhoods and employment centers, and should not include high traffic generators. In order to protect and enhance the character of the area and to maintain an access level that keeps the area attractive to large-scale economic development, the area should be designed and developed under a unified master plan that provides shared access and parking, compatible landscaping and architectural treatment, adequate buffering and screening, true mixed use concepts, and other measures that ensure it does not develop in a typical strip commercial fashion. Careful coordination between development and transportation issues will be important to avoid worsening the level of service along Pocahontas Road (Route 60), to retain a high degree of mobility through the area, and to preserve the options for improvements and/or alternatives to Pocahontas Road (Route 60). Shared access with the parcel to the north should be preserved as an option."

Staff notes the following in relation to this description language:

- This property is zoned, M-2, General Industrial, which is the only exclusively industrial zone in the County, provides a significant source of revenue to the County's tax base, and is limited in the amount remaining. This property is also included in the County's designated Enterprise Zone. While the Comprehensive Plan designation was changed to Mixed Use in 2003, the Mixed Use language still lists "industrial uses" as the first of the uses recommended for this area. Should this proposal be approved, it would result in the loss of M-2 zoned land through a rezoning proposal that does not include any of the recommended industrial component.
- The proposed day care and commercial uses may be consistent with type and nature specified in the language ("limited market area," "focused on direct services to nearby neighborhoods"), but the commercial uses are a less certain component of the development proposal.
- With regard to the nature of the development as described in the fourth sentence, the applicant had previously committed to submission of a conceptual plan for the commercial parcels to be reviewed administratively, and the April 8, 2015 version of the proffers includes a commitment to submission of design guidelines that would be reflected in the building elevations. The general wording of the proffer language means that the specific details on items such as the building massing, internal circulation/connections, Community Character Corridor buffer and other landscaping, signage, open

spaces, or a more specific description of the intended architecture would be determined later at an administrative level.

• With regard to transportation issues listed in the final sentence, please see the Staff Comments under the Transportation section above.

Overall, staff does not find this development proposal consistent with the GreenMount Mixed Use description in terms of uses and the nature of the development.

#### **RECOMMENDATION**

This property is zoned, M-2, General Industrial, which is the only exclusively industrial zone in the County, provides a significant source of revenue to the County's tax base and is limited in the amount remaining. This property is also included in the County's designated Enterprise Zone. While the Comprehensive Plan designation was changed to Mixed Use in 2003, the Mixed Use language still lists "industrial uses" as a primary recommended use for this area. Should this proposal be approved, it would result in the loss of M-2 zoned land through a rezoning proposal that does not include any of the recommended industrial component. Overall, staff does not find this development proposal consistent with the GreenMount Mixed Use description in terms of uses and the nature of the development. Staff also has remaining concerns about the degree to which the project is addressing the right-of-way for Skiffe's Creek Connector, and Newport News Waterworks continues to object to the storage and dispensing of fuel use on these parcels. Staff recommends the Board of Supervisors deny this rezoning application. Should the Board of Supervisors wish to approve the application and accept the voluntary proffers, a resolution has been provided as an attachment to this report.

EC/nb Z-0005-14KirbyTract

#### Attachments:

- 1. Rezoning Resolution
- 2. Location Map
- 3. Minutes from the March 4, 2015, Planning Commission Meeting
- 4. Master Plan
- 5. Traffic Study
- 6. Proffers
- 7. Archaeological Summary
- 8. Building Elevation
- 9. Environmental Narrative, Exhibits and Worksheets
- 10. Construction Phasing Schedule
- 11. Letter from Adjacent Property Owner

#### <u>RESOLUTION</u>

#### CASE NO. Z-0005-2014. PENINSULA PENTECOSTALS, KIRBY TRACT

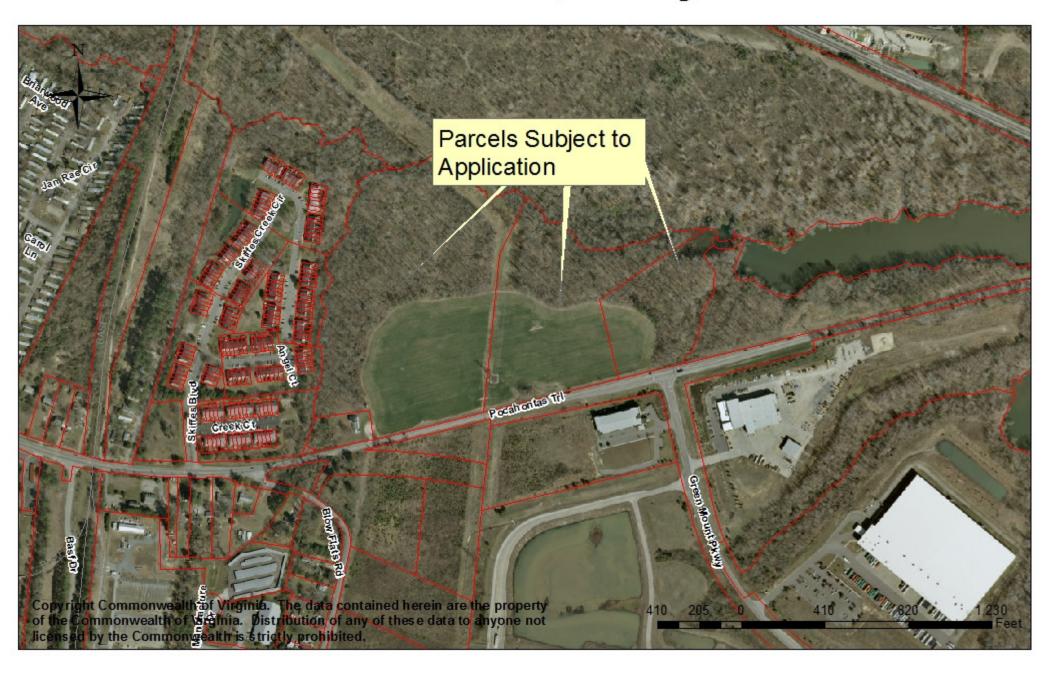
- WHEREAS, in accordance with § 15.2-2204 of the Code of Virginia, and Section 24-13 of the James City County Zoning Ordinance, a public hearing was advertised, adjoining property owners notified, and a hearing scheduled on Zoning Case No. Z-0005-2014, for rezoning 40.3 acres from M-2, General Industrial to MU, Mixed Use with proffers; and
- WHEREAS, the proposed project is shown on a Master Plan, prepared by Vanasse Hangen Brustlin, Inc., entitled Peninsula Pentecostal Church and dated January 20, 2015; and
- WHEREAS, the property is located at 9230, 9240, and 9250 Pocahontas Trail and can be further identified as James City County Real Estate Tax Map/Parcel Nos. 6010100006, 6010100007, and 6010100008; and
- WHEREAS, following a public hearing at the Planning Commission meeting on March 4, 2015, a motion to approve this application failed by a vote of 3-4; and
- WHEREAS, the Board of Supervisors of James City County, Virginia, finds this use to be consistent with the 2009 Comprehensive Plan Use Map designation for this Property.
- NOW, THEREFORE, BE IT RESOLVED that the Board of Supervisors of James City County, Virginia, does hereby approve Case No. Z-0005-2014 and accept the voluntary proffers.

	Michael J. Hipple Chairman, Board of Supervisors			
ATTEST:		VOTE <u>AYE</u>		ABSTAIN
	JONES MCGLENNON			
Bryan J. Hill Clerk to the Board	ONIZUK KENNEDY HIPPLE			

Adopted by the Board of Supervisors of James City County, Virginia, this 28th day of April, 2015.

Z-0005-14KirbyTract-res

# JCC-Z-0005-2014 Peninsula Pentecostals, Kirby Tract



## Minutes of the March 4, 2015 Planning Commission Meeting

#### A. Z-0005-2014, Peninsula Pentecostals, Kirby Tract

Ms. Ellen Cook, Senior Planner, provided the Commission with a presentation on the proposed rezoning from M-2, General Industrial to MU, Mixed Use for three parcels located on Pocahontas Trail in the GreenMount Industrial Park to allow a 130,000 square foot place of public assembly, a day care center for up to 150 children, and up to 30,000 square feet of commercial uses.

Mr. Krapf opened the floor for questions from the Commissioners.

Mr. Basic inquired whether Newport News Waterworks had seen and responded to the revised proffers related to fuel dispensing.

Ms. Cook responded that Newport News Waterworks had provided some very preliminary comments on the revised proffers and still had reservations about allowing fuel dispensing on the property due to the proximity to the reservoir.

Mr. Basic requested clarification on the discrepancies between the proffered traffic management plan and the plan that staff would prefer.

Ms. Cook stated that the proffers indicate that submission of traffic circulation plan to address circulation and queuing of vehicles to limit the impact along Pocahontas Trail and implementation of the recommendations will be triggered when the certificate of occupancy for Phase 1 is issued. Ms. Cook stated that staff would like to see language included that addresses a means of tracking the measures and ensuring that they are effective in the field over time as additional phases are constructed and as additional vehicle trips are generated and additional parking areas and internal connections are constructed.

Mr. Basic inquired if staff had concerns about the potential for ingress queues to block Pocahontas Trail if conflicting traffic movements on-site slow vehicle entry.

Ms. Cook confirmed.

Ms. Bledsoe inquired about the amount of revenue currently generated by the parcel.

Ms. Cook responded that the information was not immediately available but would be provided.

Mr. Wright inquired about the length of time the property has been actively marketed.

Ms. Cook responded that the property is currently in crop production; however, she is not familiar with the marketing history.

Mr. Krapf suggested that the applicant could speak to that during his presentation.

Mr. O'Connor inquired whether spill prevention had been addresses in the proffers.

Ms. Cook responded that Newport News Waterworks would prefer not to see fuel dispensing on the property; however, if it did go forward, a spill prevention plan would be a high priority.

Ms. Bledsoe inquired if staff's main concern about the traffic circulation plan was to have a way to review the existing conditions as development progresses to ensure that the improvements are adequately addressing issues.

Ms. Cook responded that staff would want to be able to consider traffic flow at each development phase.

Mr. Wright inquired whether staff would be ensuring that development on the parcel is in compliance with the Zoning Ordinance.

Ms. Cook stated that staff would review any proposal against the Zoning Ordinance and any other State or Federal requirements. Ms. Cook further stated that with proffers, staff looks to ensure that any situations not covered by another regulation will be addressed.

Mr. O'Connor inquired whether a fueling station would require an SUP.

Ms. Cook responded that fueling stations are a permitted use in the Mixed Use district.

Mr. O'Connor requested that staff indicate where the proposed Skiffes Creek Connector alignment would fall in relation to the proposed development.

Mr. Krapf inquired about the difference in cost between the two options for the Skiffes Creek Connector.

Mr. Holt responded that Alternate A has a cost estimate of \$72.8 million and Alternate A-1 has a cost estimate of \$53.8 million. Mr. Holt stated that the estimates are for a four-lane cross section; however, staff is working with VDOT to determine if a two-lane cross section would be feasible and less costly. Mr. Holt noted that those figures have not been provided by VDOT.

Ms. Bledsoe inquired if the Skiffe's Creek Connector is in the VDOT Six Year Plan.

Mr. Holt confirmed that the project is included for the study phase; however, VDOT will not proceed past that phase until construction funding is identified.

Mr. Krapf called for disclosure from the Commissioners regarding meetings or discussion with the applicant.

Mr. Wright, Mr. Drummond, Ms. Bledsoe and Mr. Basic each stated that they had spoken with Mr. Trant.

Mr. Krapf opened the public hearing.

Mr. Timothy O. Trant, Kaufman and Canoles, PC, stated that he represents the applicant, Peninsula Pentecostals. Mr. Trant stated that Pastor Jared Arango, the Church Administrator John McSharry, Steve Romeo with VHB and, Mr. Chris Lawrence, with A. E. Comp. are also available to answer any questions.

In response to the question about the length of time the property has been on the market, Mr. Trant stated the property has been marketed for industrial development for approximately 25 years. In response to the question about spill prevention, Mr. Trant stated that those are part of the regulatory requirements for the permitting of a fueling station; however, the applicant is agreeable to providing greater assurance of compliance through any method suitable to the County. Mr. Trant further stated that the applicant intends for the traffic management plan to be a living document which would provide for periodic review.

Mr. Trant provided a history of the applicant's interest in the subject properties and efforts to establish a campus in James City County. Mr. Trant further provided an overview of the proposal and its benefits to the Grove community.

Mr. Krapf inquired if there were any questions for the applicant.

Mr. Richardson inquired about the difference between the design phase and the location study phase for the Skiffes Creek Connector.

Mr. Holt responded that the design phase is to develop a set of engineered plans. Mr. Holt further stated that currently VDOT is doing environmental analysis for the site.

Mr. Richardson inquired if the applicant is aware that the more cost effective alignment for the Skiffes Creek Connector impacts the proposed location of the house of worship.

Mr. Trant responded that while the applicant is aware of the potential alignment, they believe that the alignment shown on their master plan is the only viable option based the existing alignments and connections to existing businesses.

Mr. Steve Romeo stated that Alternate A-1, despite the cost savings, presents too many physical barriers to the smooth movement of vehicular traffic.

Mr. O'Connor inquired why the applicant chose to apply for the Mixed Use zoning district when many of the proposed uses such as places of public assembly and fueling stations are by-right under the M-1 zoning district.

Mr. Trant responded that the applicant chose Mixed Use because it was consistent with the Comprehensive Plan designation for the property.

Mr. Krapf noted that the application covers three parcels and that there is substantial detail provided for parcel 1 where the house of worship will be located regarding the location of the

structures, parking, etc.; however there is far less detail provided for the other two parcels than is customarily provided with rezoning applications and inquired about the reason for the lack of detail. Mr. Krapf further inquired whether the applicant would consider proffering a right-of-way for the Skiffes Creek Connector on the easternmost parcel that would allow VDOT to implement that alignment if necessary.

Mr. Trant responded that the absence of detail for the commercial parcels is to allow the future uses on those parcels to reflect what the County and other stakeholders deem best for the area. Mr. Trant noted that the proposed mix of uses is based on recommendations from the Office of Economic Development as well as adjacent businesses and residents of the Grove community. Mr. Trant noted that the lack of detail also related to the uncertainty over the Skiffes Creek Connector and how it will ultimately affect the development on the parcel. Mr. Trant stated that the proffers provide for submittal of a detailed concept plan and stormwater plan once those impacts are known.

Mr. Trant requested clarification on what is meant by "proffer a right-of-way."

Mr. Krapf stated that he believed it would be ensuring that VDOT would have the right to construct the roadway on the parcel.

Mr. Trant stated that this has already been done through the notation on the master plan. Mr. Trant further stated that it is customary that a right-of-way established on a master plan provides statutory assurances and that the intent of the applicant is to ensure that the right-of-way is preserved for construction of the roadway.

Mr. O'Connor inquired whether the proposal is considered a high traffic generator.

Mr. Trant responded that the peak hour traffic for this proposal would be on Sunday morning and mid-day. Mr. Trant stated that the traffic study is fairly accurate in analyzing the potential impact on the corridor at peak times. Mr. Trant noted that the impact of the proposal on the corridor between build and no build conditions is 19 seconds.

Mr. Chris Lawrence further explained that the peak hour for the church traffic corresponds with a time when there is little other traffic on Pocahontas Trail which accounts for the minimal impact. Mr. Lawrence further stated that the weekday impacts will be barely noticeable.

Mr. O'Connor inquired whether traffic generation was calculated for the future phases.

Mr. Lawrence stated that traffic generation was considered for both the church and the daycare at both weekday peak hours and the four hours on Sunday covering the church service.

Mr. Richardson inquired about how far out the traffic projections went.

Mr. Lawrence responded that the projections went out 10 years.

Mr. Richardson inquired if staff had LOS projections for Route 60 for 10 to 20 years out.

Ms. Cook responded that the Comprehensive Plan projection for the Pocahontas Trail Corridor was 21,186 average annual daily trips for 2035 and the corridor is listed in the Watch category and is anticipated to need improvement. Ms. Cook further stated that the Regional Traffic Study projects a peak hour LOS of F in 2034. Ms. Cook noted that staff anticipates a more traditional weekday traffic generation from the proposed commercial uses on the property and that, while currently unquantified by the study submitted for the application, a use such as the fueling station could potentially be considered as a high traffic generator. Ms. Cook further noted that a traffic study would be submitted for the future uses.

Mr. Basic asked what assurances are in place to prevent development of the property that varies greatly from what is currently being discussed if there is no binding master plan.

Mr. Trant stated that nothing can happen on the site that is not a permitted use under the zoning district. Mr. Trant further stated the proffered requirement for approval of a concept plan prior to site plan development would provide further assurances.

Mr. Basic inquired about what would happen if the property were subdivided.

Mr. Trant stated that before any development can occur, even on a portion of the property, a master plan would be required and be reviewed and approved by staff for consistency with current ordinances; there would not be piecemeal development that would be in conflict with that master plan.

Ms. Bledsoe inquired about the number of church services each week.

Pastor Jarred Arango stated that the services would be on Sunday morning at 10:00 a.m. for Sunday School with the main worship service at 11:15 a.m. and an additional service Sunday evening at 6:30 p.m.

Ms. Bledsoe asked for a show of hands how many of the members live in James City County.

Based on the response, Ms. Bledsoe noted that it appeared that the majority of members might live in other jurisdictions.

Ms. Bledsoe asked Mr. Drummond, as Roberts District representative, to comment on the availability of restaurants and shops in the Grove community.

Mr. Drummond noted that there are some limited shops and few restaurants. Those that exist are primarily fast food.

Ms. Bledsoe inquired if they were places where people might choose to stop and eat.

Mr. Drummond responded that the choices are limited.

Ms. Bledsoe noted that she would like to see more traffic in the Grove area to generate additional business in the community.

Mr. O'Connor inquired if there was any condition to limit residential development.

Mr. Trant stated that the proffers limit residential development to a single accessory apartment for pastoral care or temporary uses.

Mr. Krapf opened the floor for comments from the public.

Ms. Marjorie Daniel, Ball Corporation, 8935 Pocahontas Trail, Williamsburg, spoke in support of the application. Ms. Daniel stated that the proposed development of the property would be a benefit to the residents of Grove as well as employees of the businesses along that portion of the corridor. Ms. Daniel further stated that the Ball Corporation is interested in partnering with the Church on community outreach efforts.

Mr. David Green, 206 Carters Neck Road, Williamsburg, requested that the Commission recommend approval of the application so that the Church would be able to make a difference in the community for those who are seeking spiritual fulfillment.

Rev. Jared Arango, 901 Waystone Court, Newport News, addressed the Commission on the history of the Church and its mission to make a positive impact on individuals, families and the community. Rev. Arango noted that healthy people make a healthy community. Rev. Arango requested that the Commission recommend approval of the application.

Mr. Douglas Beck, 9915 Swallow Ridge, Toano, stated that the development proposal for the property was designed to provide benefits to the County's tax base as well as services to the community. Mr. Beck requested that the Commission recommend approval of the application.

Mr. John McSharry, 818 Enos Court, Newport News, stated that the proposal for the property would be a fitting bridge between the existing residential neighborhood and the GreenMount Industrial Park. Mr. McSharry stated that the Church desires to develop the parcel in keeping with the County's recommendations and be a benefit to the community. Mr. McSharry requested that the Commission recommend approval of the application.

Mr. Dedric Sanford, 4917 Court House Street, Williamsburg, stated that he has recently opened a business in James City County. Mr. Sanford noted that while the four employees he is hiring is a drop in the bucket, the proposed development would bring new businesses to Grove and that if those businesses each hired four employees there would be a tremendous impact on the economy. Mr. Sanford addressed the Commission on the positive impact that the Church has on its members and stated that the Church hopes to improve the lives of individuals throughout Hampton Roads.

Ms. Sherry Horton, 8209 Bridlington Way, Williamsburg, addressed the Commission on the importance and benefit of membership in the Peninsula Pentecostal Church.

Ms. Diana Peters, 9 Saybrooke Court, Newport News, addressed the Commission on the impact of Christian education in the lives of children.

Ms. Michelle Rocheleau, 103 Indian Circle, Williamsburg, addressed the Commission on the impact of membership in the Peninsula Pentecostal Church on her family and the community. Ms. Rocheleau stated that the Church would provide the revitalization needed in the Grove community.

A speaker who did not provide her name addressed the Commission on the blessings of contributing to the building fund for the new building.

Mr. B.J. Anderson, 1002 80<sup>th</sup> Street, Newport News, stated his family centers their life around the Church and that he would be moving back to James City County when the Church opens its new building.

Mr. Ben Farmer, 8386 Mohawk Lane, Gloucester, addressed the Commission on the unique character of the Church and the impact of the Church on the lives of its youth. Mr. Farmer requested that the Commission recommend approval of the application so that the Church could be a beneficial influence on the children in the community.

As no one wished to speak, Mr. Krapf closed the public hearing.

Mr. Krapf opened the floor for Commission discussion.

Mr. Drummond stated that he represents and lives in Grove. Mr. Drummond stated that he believes the proposed development would be well suited to the site and the community. Mr. Drummond commented on the disparity between some of the uses that would be allowed by-right on the site such as a gun shop, and those that would require a special use permit. Mr. Drummond stated that he would prefer to see a church on the property. Mr. Drummond further stated that the traffic generated by a church would have less impact than the commercial truck traffic currently using the corridor. Mr. Drummond stated that there is nothing about the proposal that would deter him from voting in favor of the application.

Mr. Richardson stated that the Grove area is one of the major industrial areas in the County and is well suited for industrial operations. Mr. Richardson further stated that even though the property has been on the market for a significant amount of time, he believes an economic turnaround will occur and that any proposal to remove land from industrial use should be weighed carefully. Mr. Richardson stated that he believes the master plan does not have sufficient detail to move forward. Mr. Richardson further stated that the traffic impacts could be significant and should be considered in conjunction with the future traffic demands along Route 60. Mr. Richardson stated that, for those reasons, he would not be inclined to support the application.

Mr. Basic stated that the issue being reviewed by the Commission is a land use issue and that the decision of the Commission should not be viewed as a reflection on the Church and its mission. Mr. Basic further stated that he supports the development of a church on Parcel 1, but does not feel that the plans for Parcels 2 and 3 are up to standard and are inconsistent with sound community planning and land use practices. Mr. Basic stated that approving what is essentially a

blank master plan could set a somewhat dangerous precedent in that the details of the master plan will be reviewed and approved administratively. Mr. Basic stated that he believed that application was heading in the right direction; however, it needed additional work to reach a point where it could be approved.

Mr. Wright stated that considering the surrounding land uses and environmental features of the property, the proposal would have equal or less impact than a purely industrial use. Mr. Wright further noted that a viable proposal for the property has not been brought forward in 25 years and no other proposal appears to be forthcoming. Mr. Wright noted that the only other use for a portion of the property would be the Skiffes Creek Connector which did not appear to be imminent due to funding issues. Mr. Wright stated that the land owner and applicant have been delayed long enough and the Church should be allowed to proceed with its primary mission in the community. Mr. Wright stated that he would support the application.

Ms. Bledsoe stated that while she has some concerns about the application, she also has full confidence in Planning staff and the established processes. Ms. Bledsoe stated that she concurred that the construction of the Skiffes Creek Connector would not occur in the foreseeable future. Ms. Bledsoe stated that despite the talk about reserving the property for industrial use which is believed to be the higher and better use, there is no one seeking to establish industrial uses on the property. Ms. Bledsoe stated that she believes the applicant's proposal will bring something very unique to the community. Ms. Bledsoe stated that she believes that both the applicant and staff have met the needs that were required to be met with this application and that staff would continue with an excellent job of follow through. Ms. Bledsoe stated that she supports the application.

Mr. Basic stated that he has been outspoken about the removal of industrial designated land when its removal would allow the property to become retail, commercial or resort property that is still surrounded by industrial zoned land. Mr. Basic stated that such use would be inconsistent. Mr. Basic further stated that he could potentially support the application in the future because a church campus is the perfect neighbor for the two adjacent residential neighborhoods.

Mr. O'Connor stated that he believes that M-1 would be a better designation for the parcels in keeping with the surrounding zoning and the proposed uses. Mr. O'Connor noted that he does have reservations about allowing a fueling station because of the proximity to the reservoir. Mr. O'Connor further stated that he does not feel that the application is sufficiently complete to be approved as it is. Mr. O'Connor stated that he could support the proposed development of the church on the one parcel but he would prefer to see M-1 as the underlying zoning because the permitted uses would be better suited to the environmental features of the area. Mr. O'Connor stated he also believed that the application was heading in the right direction; however, it needed additional work.

Mr. Krapf stated that as a Planning Commissioner, he has to review land use cases from the standpoint of whether the proposal is consistent with the Comprehensive Plan and an appropriate use for the property based on anticipated growth. Mr. Krapf stated that he believes that the application is not consistent with the Comprehensive Plan. Mr. Krapf stated that the Comprehensive Plan language for the Mixed Use portion of this tract states that the predominant

use should be industrial which is not found in the application. Mr. Krapf stated that he also has concerns about the potential impact of locating a church on the property on the existing industrial tenants in the GreenMount Industrial Park should they plan to expand. Mr. Krapf further stated that he is concerned about taking a substantial amount of M-2 zoned property which is part of the Enterprise Zone off the books. Mr. Krapf stated that he would not support the application.

Mr. Drummond stated that when he considers a land use issue, he takes into account the support from the neighborhood. Mr. Drummond stated that there is substantial support for the project. Mr. Drummond stated that he believes the project is compatible with the surrounding uses and that it would be an asset to the Grove community and to the County. Mr. Drummond further stated that he felt it was his duty as a resident and representative of Grove to support the application.

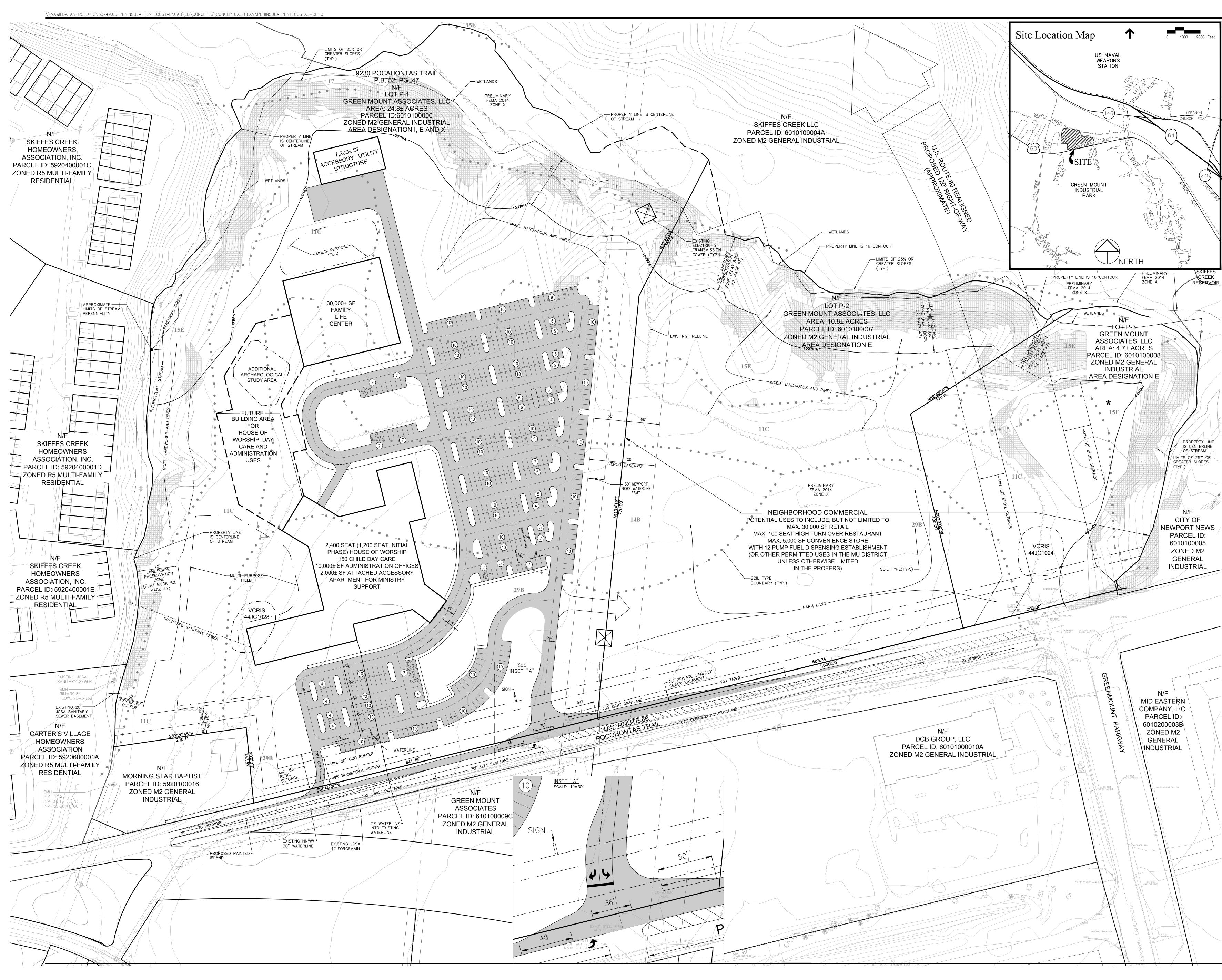
Ms. Bledsoe moved to recommend approval of the application.

Mr. Basic stated that it appeared that the project could have significant support if certain issues were addressed with respect to the proposed commercial uses. Mr. Basic inquired whether the applicant is clear on where the application stands and where it might be headed.

The applicant confirmed.

On a roll call vote the motion to approve failed by a vote of 3-4.

Mr. Holt noted that the application would still move forward for review by the Board of Supervisors. Mr. Holt noted that the Board would consider the Planning Commission recommendation; however, it would hold its own public hearing and take its own vote.





Vanasse Hangen Brustlin, Inc.

Transportation Land Development Environmental Services

351 McLaws Circle, Suite 3 Williamsburg, Virginia 23185 757.220.0500 • FAX 757.220.8544



 $\bigcirc$ 

SENERAL NOTES: I. THE PROPERTY IS IDENTIFIED ON THE JAMES CITY COUNTY GEOGRAPHIC INFORMATION SYSTEM MAP SERIES AS GPIN: 6010100006 AND IS ZONED M2, GENERAL INDUSTRIAL. THE PROPERTY IS FURTHER DESCRIBED AS 9230 POCAHONTAS TRAIL. THE PROPERTY IS IDENTIFIED ON THE JAMES CITY COUNTY GEOGRAPHIC INFORMATION SYSTEM MAP SERIES AS GPIN: 6010100007 AND IS ZONED M2, GENERAL INDUSTRIAL. THE PROPERTY IS FURTHER DESCRIBED AS 9240 POCAHONTAS TRAIL. THE PROPERTY IS IDENTIFIED ON THE JAMES CITY COUNTY GEOGRAPHIC INFORMATION SYSTEM MAP SERIES AS GPIN: 6010100008 AND IS ZONED M2, GENERAL INDUSTRIAL. THE PROPERTY IS FURTHER DESCRIBED AS 9250 POCAHONTAS TRAIL. ; THE PARCELS ARE LOCATED WITHIN THE PRIMARY SERVICE AREA AND OUTSIDE THE 100 YEAR FLOOD PLAIN. THE COMPREHENSIVE PLAN DESIGNATION FOR THESE PARCELS IS MIXED USE.

 BOUNDARY INFORMATION IS FROM PLAT OF RECORD RECORDED IN PB. 52, PG. 47, TOPOGRAPHIC AND EXISTING FEATURES INFORMATION DEPICTED HEREON IS FROM JAMES CITY COUNTY GEOGRAPHIC INFORMATION SYSTEM MAPPING.

3. POCAHONTAS TRAIL IS CLASSIFIED AS COMMUNITY CHARACTER CORRIDOR ALONG THE FRONTAGE OF THE SUBJECT PROPERTY.

## SUMMARY TABULATION

PROPOSED DEVELOPMENT PROGRAM:
ADDRESS: P-1 9230 POCAHONTAS TRAIL WILLIAMSBURG, VA. 23185
<ul> <li>ADDRESS: P-2 9240 POCAHONTAS TRAIL WILLIAMSBURG, VA. 23185</li> </ul>
• ADDRESS: P-3 9250 POCAHONTAS TRAIL WILLIAMSBURG, VA. 23185
<ul> <li>PARCEL ID: 6010100006(P-1), 6010100007(P-2), 6010100008(P-3)</li> </ul>
ZONING: M2 GENERAL INDUSTRIAL
<ul><li>WATERSHED: SKIFFES CREEK</li><li>RECEIVING STREAM: SKIFFES CREEK</li></ul>

GROSS SITE AREA:  $40.3\pm$  ACRES (TOTAL PARCEL) DEVELOPABLE AREA (SEC. 24-2):  $27.4\pm$  OR 1,193,545 $\pm$  S.F. IMPERVIOUS AREA: MAXIMUM 60% PERVIOUS AREA: MINIMUM 40%

PROPERTY APPEARS TO BE IN ZONE X (AREAS OF 0.2% ANNUAL CHANCE OF FLOOD) FIRM MAP NUMBER 51095C0230C DATED SEPTEMBER 28, 2007

SOILS WITHIN SITE AREA: 11C=CRAVEN-UCHEE COMPLEX-HYDROLOGIC SOIL GROUP C K=0.37 HIGH ERODIBILITY 14B=EMPORIA FINE SANDY LOAM-HYDROLOGIC SOIL GROUP C K=0.28 MODERATE ERODIBILITY 15E=EMPORIA COMPLEX-HYDROLOGIC SOIL GROUP C K=0.28 MODERATE ERODIBILITY 17=JOHNSTON COMPLEX-HYDROLOGIC SOIL GROUP D K=.20 LOW ERODIBILITY 29B=SLAGLE FINE SANDY LOAM-HYDROLOGIC SOIL GROUP C

29B=SLAGLE FINE SANDY LOAM-HYDROLOGIC SOIL GROUP C K=0.24 MODERATE ERODIBILITY

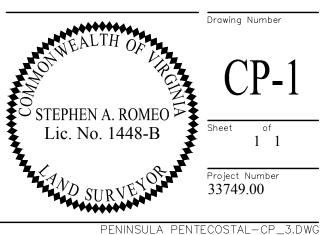
60		0	6	0	120	
		SCALE	in fee	Т		
					<u> </u>	
					<u> </u>	
					<u> </u>	
					+	
No.		Revision		Date	Appvd.	
Design	<sup>ed by</sup> SAR	Drawn by	VND	Checked by A	rs	
CAD checked by			Approved by SAR			
<sup>Scale</sup> 1"=60' <sup>Date</sup> January 20, 2015				015		
Projec	Project Title					
Peninsula Pentecostal						

Church

Pocahontas Trail Williamsburg, Virginia

Not Approved for Construction

Conceptual Plan



## 2-0005-2014

PLANNING DIVISION

JAN 30 2015

# The Peninsula Pentecostals Traffic Impacts Analysis

ALL Pentecostals

# James City County, Virginia

Prepared on

January 21st, 2015

**Prepared** for

**The Peninsula Pentecostals** 

Newport News, Virginia

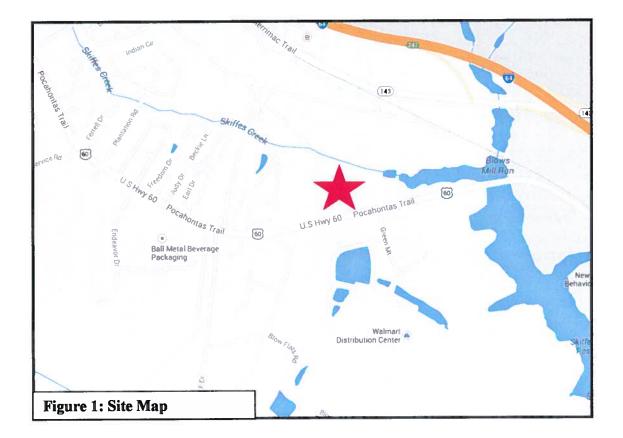
#### Prepared by

Chris Lawrence, P.E. 3168 Burt Lane Hayes, VA 23072 804-815-1140 2-0005-3014

### The Peninsula Pentecostals TIA

#### I. Introduction

The Peninsula Pentecostals (TPP) Church is proposing to construct a new church on U.S. Route 60 (Pocahontas Trail) near Greenmount Parkway in James City County. The Church is proposing to initially construct a 1,200 seat facility with a child care facility for 150 children, ultimately the Church is being designed to be able to expand to a 2,400 seat facility (the day care facility will remain the same size). TPP is proposing to rezone land from M2 – General Industrial to MU – Mixed-Use to allow for their proposed church and day care facility. TPP proposes two access points on U.S. Route 60 located approximately  $\frac{1}{4}$  mile west of Greenmount Parkway - one full access driveway and one right-out driveway located to the west of the full access driveway. The proposed site is 40 acres in size and is currently undeveloped. **Figure 1** displays the location of the church. A copy of the conceptual site plan is provided in the Technical Appendix.



January 21st, 2015

### The Peninsula Pentecostals TIA

### II. Existing Conditions

The site is located on the north side of U.S. Route 60 approximately 1/4 mile west of Greenmount Parkway. Adjacent to the site U.S. Route 60 is a two-lane undivided urban other principal arterial with a posted speed limit of 45 MPH. U.S. Route 60 provides approximately 24 feet of asphalt pavement with open drainage. There are earthen shoulders on both sides of U.S. Route 60, on the industrial park frontage on the south side of U.S. Route 60 there is an asphalt shoulder.

The study area chosen in consultation with VDOT and James City County includes three existing intersections on U.S. Route 60: James River Elementary School/Colony Drive, Endeavor Drive, and Greenmount Parkway. The limits of the study area spans 1.5 miles along U.S. Route 60. There are several substantial trip generators between the study area intersections which cause the existing conditions traffic counts to be unbalanced. Some of the notable trip generators inside the study area are as follows: Carters Village Multi-family Residential Development, Skiffes Creek Multi-Family Residential Development, Morning Star Baptist Church, and Ball Metal Packaging Plant.

The study will include traditional weekday a.m. and p.m. peak hour traffic analysis. Additionally, there are three Sunday church services that will be analyzed – 10:00 a.m., 11:15 a.m., and 6:30 p.m. Peak hours were chosen to be centered on the start of service. In addition to studying the entering traffic, egress traffic from the 11:15 a.m. service will also be analyzed. The vast majority of the congregation that leaves the morning services does so at the conclusion of the 11:15 a.m. service. Four one-hour turning movement counts were conducted at each of the study area intersection. The Sunday time periods that were counted for inclusion in the analysis include the following:

- 10:00 a.m. service 9:30-10:30 a.m. (focus on entering traffic)
- 11:15 a.m. service 10:30-11:30 a.m. (focus on entering traffic)
- 11:15 a.m. service 12:30-1:30 p.m. (focus on exiting traffic)
- 6:30 p.m. service 6:00-7:00 p.m. (focus on entering traffic)

Sunday turning movement traffic counts were conducted on September 28, 2014. Weekday peak period (7-9 a.m. and 4-6 p.m.) turning movement traffic counts were conducted between September 30 and October 2. The results of the traffic counts are documented in the Technical Appendix. The existing conditions volumes can be found in **Figures 2-7**.

The Peninsula Pentecostals TIA

Pocahontas Tra Z R Figure 2: Existing Conditions Weekday AM Peak Hour Volumes and Lane Configuration <sup>328</sup> 33 Greenmount Parkway Church Site **1** 285 Note: Not to Scale. ► • <sup>₩</sup> 4 0 0 μ Endeavor Drive 4 **↑ ↑** ¶ •₽ 8 227 27 James River Elem. School ĥ 83 5 **↑ ↑** 58 88 ₽ ٩ ø ~ 13 Pocahontas Trai



Figure 3: Existing Conditions Weekday PM Peak Hour Volumes and Lane Configuration

Pocahontas Tra Z ß **1**<sup>35</sup> **1**<sup>3</sup> 8 Greenmount Parkway Ľ ₽ ₽ 88 9 ₹ Note: Not to Scale. **3**95 ₽ 22 ' ∰ ¤ ♣ **Ļ** 4 0 8 Endeavor Drive **م ا ا ا** ო ₽₽ 2 Ĺ 9 ო James River Elem. School 3 9 **←」↑ /** 0 7 Pocahontas Trail

James City County, Virginia The Peninsula Pentecostals Traffic Impact Analysis

January 21<sup>st</sup>, 2015

Page 3

Pocahontas Trai Pocahontas Trai Z Z Figure 4: Existing Conditions Sunday 9:30-10:30 AM Peak Hour Volumes and Lane Configuration Figure 5: Existing Conditions Sunday 10:30-11:30 AM Peak Hour Volumes and Lane Configuration 5 ę 4 **↓** Greenmount Parkway ŝ 16 Greenmount Parkway <sup>22</sup> <sup>22</sup> <sup>23</sup> <sup>24</sup> <sup>2</sup> ≅ **¢ r**► Church Site **1** 133 Church Site ₹ 337 Note: Not to Scale. Note: Not to Scale. 169 174 **₩** 247 2 ო ե Endeavor Drive Endeavor Drive 2 **▲ | ▲** 3 <sup>281</sup> **₽** ₽ ۶ •₽ 0 2 3 ŝ 0 ° <sup>379</sup> ° ŝ James River Elem. School 0 James River Elem. School 2 15 158 158 ٩ **~** ~ 179 **1 \*** ₽ 0 0 4 9 7 Pocahontas Trail Pocahontas Trail

The Peninsula Pentecostals Traffic Impact Analysis James City County, Virginia

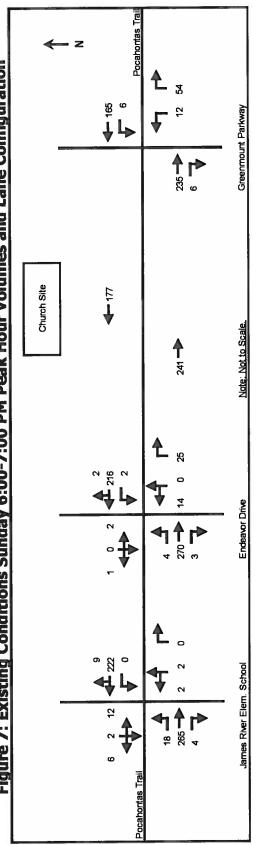
January 21<sup>st</sup>, 2015

Page 4

Pocahontas Tra Z <sup>12</sup> 338 Greenmount Parkway 9 Church Site **1** 38 Note: Not to Scale. 212 °∛ ♣₽ ဖ Endeavor Drive **€1 € r>** <sup>™</sup> <sup>™</sup> <sup>™</sup> •₽ 2 ÷ ﷺ + James River Elem. School 0 თ 14 **1** ₽ ₹ 0 9 Pocahontas Trail

Figure 6: Existing Conditions Sunday 12:30-1:30 PM Peak Hour Volumes and Lane Configuration

Figure 7: Existing Conditions Sunday 6:00-7:00 PM Peak Hour Volumes and Lane Configuration



Traffic Impact Analysis James City County, Virginia The Peninsula Pentecostals

January 21<sup>st</sup>, 2015

Page 5

A 7-day classification count was conducted on U.S. Route 60 in front of the proposed church site between October 3 and October 9, 2014. The average daily traffic was 8,513, which is very close to VDOT's latest published traffic count of 8,700 in 2013 for U.S. Route 60. A summary of the classification count can be found in **Table 1**.

Day of Week	Date	Passenger Vehicles (Class 1-3)	Trucks (Class 4-14)	Truck %	Total Vehicles
Friday	10/3/14	9,612	608	6%	10,220
Saturday	10/4/14	8,554	202	2%	8,756
Sunday	10/5/14	8,347	175	2%	8,522
Monday	10/6/14	7,132	498	7%	7,630
Tuesday	10/7/14	7,494	547	7%	8,041
Wednesday	10/8/14	7,411	671	8%	8,082
Thursday	10/9/14	7,735	606	7%	8,341
Average		8,041	472	6%	8,513

Table 1: Summary of 7-Day Classification Traffic Count

Traffic analysis was conducted at each of the three study area intersections using the peak hour turning movement counts found in **Figures 2-7**. Traffic analysis was conducted using Synchro 8 using HCM 2010 methodology. A summary of the existing conditions traffic analysis can be found in **Tables 2-4**.

### Existing Conditions Weekday Peak Hour Analysis

All three study area intersections are currently operating with adequate service levels (See **Table 2**). Overall intersection service levels at Greenmount Parkway are at LOS A in both peak hours, they are at LOS B at Plantation Road/James River Elementary School, and each movement and Endeavor Drive is at LOS C or better.

### Sunday Peak Hour Analysis

Sunday peak hour analysis is summarized in **Tables 3 and 4**. The signalized study area intersections, Greenmount Parkway and Plantation Road/James River Elementary School, operate with no lower than LOS B overall intersection service levels during all four Sunday peak hours. The unsignalized intersection of Endeavor Drive operates with no lower than LOS C conditions at all the individual movements during all four Sunday peak hours.

# Table 2 Summary of Existing Conditions Weekday Peak Hour Traffic Analysis HCM 2010 Methodology

	AM Peak Hour		PM Peak Hour	
Movement (Type)	Delay (sec./veh.)	Level of Service	Delay (sec./veh.)	Level of Service
James River Elem. Sch./Colony Dr. @ Rt. 60				
EB U.S. Route 60 Left	31.0	С	27.3	С
EB U.S. Route 60 Through	12.9	В	9.6	Α
EB U.S. Route 60 Right	11.2	В	7.1	А
WB U.S. Route 60 Left	26.2	С	31.7	С
WB U.S. Route 60 Through/Right	12.0	В	11.6	В
NB James River Elem. School Through/Left	21.2	С	23.7	С
NB James River Elem. School Right	19.5	В	22.8	С
SB Colony Drive Left/Through/Right	23.3	с	26.6	С
Overall Intersection	14.3	В	12.1	B
Endeavor Drive @ U.S. Route 60		-		
NB Endeavor Drive Through/Left	17.1	С	21.5	С
NB Endeavor Drive Right	10.1	В	11.0	В
EB U.S. Route 60 Left	7.9	А	8.3	Α
WB U.S. Route 60 Left	8.1	Α	8.1	А
SB Endeavor Drive Left/Through/Right	15.2	С	16.8	С
<u>Greenmount Parkway @ U.S. Route 60</u>				
EB U.S. Route 60 Through	9.2	A	9.3	А
EB U.S. Route 60 Right	5.8	Α	4.6	Α
WB U.S. Route 60 Left	5.2	A	5.7	Α
WB U.S. Route 60 Through/Right	3.5	А	4.5	А
NB Greenmount Parkway Left	17.8	В	18.0	В
NB Greenmount Parkway Right	22.8	С	19.8	В
Overall Intersection	7.0	A	7.7	A

Table 3 Summary of Existing Conditions Sunday Peak Hour Traffic Analysis HCM 2010 Methodology					
Mouromant (Tura)	Sunday 9	:30-10:30	Sunday 10	0:30-11:30	
Movement (Type)	Delay (sec./veh.)	Level of Service	Delay (sec./veh.)	Level of Service	
James River Elem, Sch./Colony Dr. @ Rt. 60		Dervice		Service	
EB U.S. Route 60 Left	27.3	С	25.2	С	
EB U.S. Route 60 Through	5.1	A	7.3	Α	
EB U.S. Route 60 Right	4.4	Α	6.1	A	
WB U.S. Route 60 Left	0.0	А	35.4	D	
WB U.S. Route 60 Through/Right	10.2	В	10.3	В	
NB James River Elem. School Through/Left	33.8	с	30.8	с	
NB James River Elem. School Right	0.0	А	0.0	A	
SB Colony Drive Left/Through/Right	17.7	В	23.3	с	
Overall Intersection	9.0	A	10.2	В	
Endeavor Drive @ U.S. Route 60					
NB Endeavor Drive Through/Left	12.3	В	16.3	С	
NB Endeavor Drive Right	9.2	A	9.5	A	
EB U.S. Route 60 Left	7.8	A	8.4	А	
WB U.S. Route 60 Left	7.6	А	7.7	A	
SB Endeavor Drive Left/Through/Right	11.0	В	12.8	В	
Greenmount Parkway @ U.S. Route 60					
EB U.S. Route 60 Through	6.7	A	7.8	A	
EB U.S. Route 60 Right	5.2	А	5.2	Α	
WB U.S. Route 60 Left	4.5	A	5.0	Α	
WB U.S. Route 60 Through/Right	3.0	A	4.1	Α	
NB Greenmount Parkway Left	17.5	В	18.1	В	
NB Greenmount Parkway Right	23.0	с	18.1	В	
Overall Intersection	5.5	A	6.1	A	

## Table 4 Summary of Existing Conditions Sunday Peak Hour Traffic Analysis

	Sunday 12	2:30-1:30	Sunday 6	:00-7:00
Movement (Type)	Delay (sec./veh.)	Level of Service	Delay (sec./veh.)	Level of Service
James River Elem, Sch./Colony Dr. @ Rt. 60				
EB U.S. Route 60 Left	22.3	С	20.3	С
EB U.S. Route 60 Through	8.0	Α	5.2	А
EB U.S. Route 60 Right	6.5	А	4.0	А
WB U.S. Route 60 Left	27.9	С	0.0	Α
WB U.S. Route 60 Through/Right	9.8	А	9.8	Α
NB James River Elem. School Through/Left	26.4	С	26.5	С
NB James River Elem. School Right	28.3	С	0.0	А
SB Colony Drive Left/Through/Right	21.0	С	19.4	В
Overall Intersection	9.8	A	8.3	A
Endeavor Drive @ U.S. Route 60				
NB Endeavor Drive Through/Left	14.5	В	13.9	В
NB Endeavor Drive Right	9.6	A	10.2	В
EB U.S. Route 60 Left	8.1	А	7.8	Α
WB U.S. Route 60 Left	7.7	А	7.9	Α
SB Endeavor Drive Left/Through/Right	13.1	В	12.5	В
<u>Greenmount Parkway @ U.S. Route 60</u>				
EB U.S. Route 60 Through	7.0	Α	8.5	Α
EB U.S. Route 60 Right	5.1	A	4.6	Α
WB U.S. Route 60 Left	4.7	Α	5.8	Α
WB U.S. Route 60 Through/Right	3.5	A	3.9	А
NB Greenmount Parkway Left	17.9	В	15.3	В
NB Greenmount Parkway Right	18.6	В	17.3	В
Overall Intersection	5.3	A	8.0	A

### **Programmed Projects**

There are several programmed transportation projects in VDOT's Six-Year Improvement Program that are located in the study area. A Safe Routes to School Project (UPS 97214) at James River Elementary School is currently under construction to provide pedestrian signals and curb ramps within the project limits. Two Regional Surface Transportation Program (RSTP) projects: Relocated Route 60 Project (UPS 13496) and Skiffes Creek Connector Project (UPC 100200) are within the project limits. The Church will coordinate with these projects as the footprints of some of these projects impact the church site.

### III. No Build Conditions

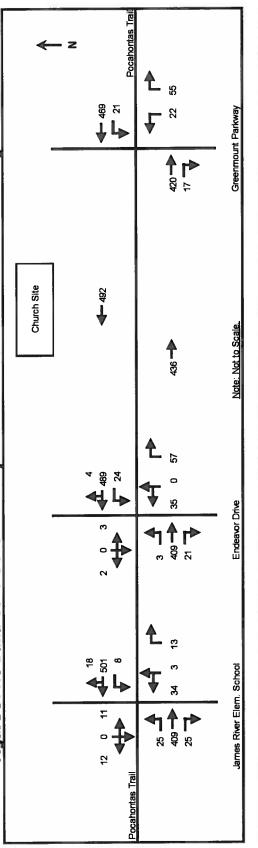
No Build conditions are those conditions that would exist in the future without development of proposed church and day care facilities. No Build conditions are studied to provide a comparison to Build conditions to determine the marginal impact on traffic operations. The church and day care facility are anticipated to be opened in the Year 2018, per VDOT regulations, a study of traffic 6 years after opening day is the design year that is studied - 2024.

Forecasting background traffic growth to the Year 2024 was accomplished by reviewing historic VDOT traffic counts on U.S. Route 60 and review of the Hampton Roads travel demand model. Historical traffic counts on U.S. Route 60 displayed a slightly negative growth trend over the last 10+ years. However, the Hampton Roads travel demand model forecasts average annual growth rates exceeding 2% per year. In consultation with VDOT and James City, a 1% average annual growth rate was chosen for this study. The No Build conditions traffic volumes were developed by applying the 1% average annual growth rate uniformly to the study area intersections; the peak hour No Build conditions traffic volumes can be found in **Figures 8-13**.

Pocahontas Trai Z t ß ₩ 43 202 Greenmount Parkway **\* 1** Church Site A 315 Note: Not to Scale. 346 9 0 4 Endeavor Drive 4 **↑** → ≋ ≋ 4 •₽ 2 \* % ≈ ₩ ഗ James River Elem. School 8 17 **\*1 <b>†** r\* ® <sup>%</sup> ® ŧ ~ 13 Pocahontas Trail

Figure 8: No Build Conditions Weekday AM Peak Hour Volumes and Lane Configuration

Figure 9: No Build Conditions Weekday PM Peak Hour Volumes and Lane Configuration



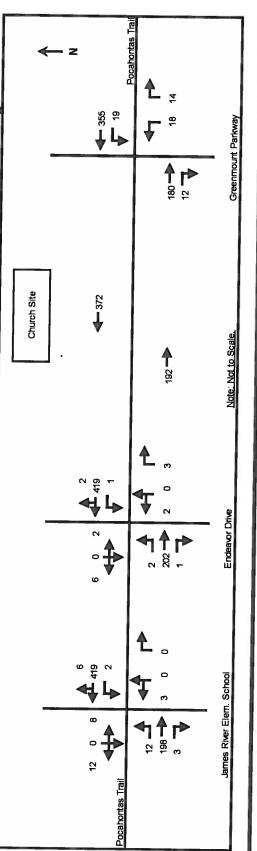
The Peninsula Pentecostals Traffic Impact Analysis James City County, Virginia

January 21<sup>st</sup>, 2015

Page 11

Pocahontas Trai z Figure 10: No Build Conditions Sunday 9:30-10:30 AM Peak Hour Volumes and Lane Configuration 5 ₽ ₽ ₽ Greenmount Parkway **41**<sup>2</sup> Church Site **1**213 Note: Not to Scale. 187 187 <sup>2 223</sup> 5 Endeavor Drive 2 **م**اً ∯ • 2 ₽ <sup>4</sup> James River Elem. School 4 • ۲≯ 175 0 4 2 5 Pocahontas Trail

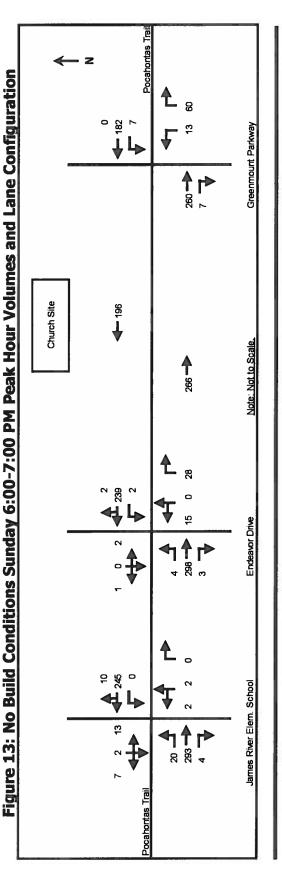
Figure 11: No Build Conditions Sunday 10:30-11:30 AM Peak Hour Volumes and Lane Configuration



The Peninsula Pentecostals Traffic Impact Analysis James City County, Virginia

Page 12

Pocahontas Trai Z Figure 12: No Build Conditions Sunday 12:30-1:30 PM Peak Hour Volumes and Lane Configuration 9 <sup>320</sup> Greenmount Parkway 7 Church Site ₽ Bg1 Note: Not to Scale. 234 **A** 4 ₽ 2 Endeavor Drive 4 **\*1 ↑ r** ™ ↑ r • 2 <sup>₽ 88</sup> -James River Elem. School 5 <sup>281</sup> <sup>1</sup><sup>2</sup> 6 0 7 Pocahontas Trail



The Peninsula Pentecostals Traffic Impact Analysis James City County, Virginia

Page 13

No Build traffic analysis was conducted at each of the three study area intersections using the peak hour turning movement counts found in **Figures 8-13**. Traffic analysis was conducted using Synchro 8 using HCM 2010 methodology. A summary of the No Build conditions traffic analysis can be found in **Tables 5-7**.

### No Build Conditions Weekday Peak Hour Analysis

All three study area intersections are forecast to operate with adequate service levels in the No Build conditions (see **Table 5**). Overall intersection service levels at Greenmount Parkway are forecasts at LOS A in both peak hours, they are forecasts at LOS B at Plantation Road/James River Elementary School, and each movement and Endeavor Drive is forecasts at LOS C or better.

### Sunday Peak Hour Analysis

Sunday peak hour No Build analysis is summarized in **Tables 6 and 7**. The signalized study area intersections, Greenmount Parkway and Plantation Road/James River Elementary School, are forecasts to operate with no lower than LOS B overall intersection service levels during all four Sunday peak hours. The unsignalized intersection of Endeavor Drive is forecast to operate with no lower than LOS C conditions at all the individual movements during all four Sunday peak hours.

### Table 5 Summary of No Build Conditions Weekday Peak Hour Traffic Analysis HCM 2010 Methodology AM Peak Hour **PM Peak Hour** Movement (Type) Level of Level of Delay Delay (sec./veh.) (sec./veh.) Service Service James River Elem, Sch./Colony Dr. @ Rt. 60 С 29.0 С 30.8 EB U.S. Route 60 Left В 9.8 Α EB U.S. Route 60 Through 13.1 EB U.S. Route 60 Right 11.3 B 7.0 A С 32.9 С WB U.S. Route 60 Left 26.7 В 12.0 B WB U.S. Route 60 Through/Right 12.2 С 25.2 С NB James River Elem. School Through/Left 21.8 С B 24.3 NB James River Elem. School Right 19.9 28.2 С SB Colony Drive Left/Through/Right 23.7 С **Overall Intersection** 14.6 B 12.6 B Endeavor Drive @ U.S. Route 60 C 24.9 С NB Endeavor Drive Through/Left 17.6 NB Endeavor Drive Right 10.2 В 11.4 В A 8.4 EB U.S. Route 60 Left 8.0 A 8.2 WB U.S. Route 60 Left 8.2 Α Α С C 18.5 SB Endeavor Drive Left/Through/Right 15.6 Greenmount Parkway @ U.S. Route 60 9.4 9.6 A EB U.S. Route 60 Through A EB U.S. Route 60 Right 5.8 Α 4.4 Α 5.2 A 5.8 A WB U.S. Route 60 Left 4.6 WB U.S. Route 60 Through/Right 3.5 Α Α NB Greenmount Parkway Left 18.1 B 19.1 B 22.8 С 21.1 С NB Greenmount Parkway Right **Overall Intersection** 7.1 A 7.9 A

Table 6 Summary of No Build Conditions Sunday Peak Hour Traffic Analysis HCM 2010 Methodology						
	Sunday 9	:30-10:30	Sunday 1	0:30-11:30		
Movement (Type)	Delay (sec./veh.)	Level of Service	Delay (sec./veh.)	Level of Service		
James River Elem, Sch./Colony Dr. @ Rt. 60				Scivice		
EB U.S. Route 60 Left	27.8	С	24.2	С		
EB U.S. Route 60 Through	5.1	A	7.4	A		
EB U.S. Route 60 Right	4.3	A	6.3	A		
WB U.S. Route 60 Left	0.0	A	40.2	D		
WB U.S. Route 60 Through/Right	10.1	В	10.2	В		
NB James River Elem. School Through/Left	34.3	С	32.3	с		
NB James River Elem. School Right	0.0	A	0.0	A		
SB Colony Drive Left/Through/Right	18.0	В	22.2	С		
Overall Intersection	9.0	A	10.2	В		
Endeavor Drive @ U.S. Route 60						
NB Endeavor Drive Through/Left	12.7	В	15.1	С		
NB Endeavor Drive Right	9.3	А	9.4	A		
EB U.S. Route 60 Left	7.9	A	8.3	A		
WB U.S. Route 60 Left	7.6	А	7.7	A		
SB Endeavor Drive Left/Through/Right	11.3	В	12.1	В		
Greenmount Parkway @ U.S. Route 60						
EB U.S. Route 60 Through	7.0	A	7.4	A		
EB U.S. Route 60 Right	5.2	А	5.2	A		
WB U.S. Route 60 Left	4.7	А	4.9	Α		
WB U.S. Route 60 Through/Right	3.1	А	3.8	Α		
NB Greenmount Parkway Left	17.5	В	18.4	В		
NB Greenmount Parkway Right	21.8	с	18.1	В		
Overall Intersection	5.7	A	5.7	A		

Table 7 Summary of No Build Conditions Sunday Peak Hour Traffic Analysis HCM 2010 Methodology					
	Sunday 1	2:30-1:30	Sunday 6	:00-7:00	
Movement (Type)	Delay (sec./veh.)	Level of Service	Delay (sec./veh.)	Level of Service	
James River Elem. Sch./Colony Dr. @ Rt. 60					
EB U.S. Route 60 Left	23.1	С	20.4	С	
EB U.S. Route 60 Through	7.9	Α	5.2	Α	
EB U.S. Route 60 Right	6.3	А	4.0	A	
WB U.S. Route 60 Left	30.0	С	0.0	Α	
WB U.S. Route 60 Through/Right	9.8	Α	9.8	А	
NB James River Elem. School Through/Left	27.4	С	26.8	С	
NB James River Elem. School Right	29.4	С	0.0	А	
SB Colony Drive Left/Through/Right	21.7	С	19.6	В	
Overall Intersection	9.8	A	8.3	A	
Endeavor Drive @ U.S. Route 60					
NB Endeavor Drive Through/Left	15.5	С	14.1	B	
NB Endeavor Drive Right	9.7	А	10.2	В	
EB U.S. Route 60 Left	8.2	А	7.8	А	
WB U.S. Route 60 Left	7.8	А	7.9	А	
SB Endeavor Drive Left/Through/Right	13.9	В	12.7	В	
Greenmount Parkway @ U.S. Route 60					
EB U.S. Route 60 Through	7.3	A	8.6	Α	
EB U.S. Route 60 Right	5.1	Α	4.7	Α	
WB U.S. Route 60 Left	4.8	Α	5.8	A	
WB U.S. Route 60 Through/Right	3.7	А	4.0	А	
NB Greenmount Parkway Left	17.8	В	15.3	В	
NB Greenmount Parkway Right	18.5	В	17.3	В	
Overall Intersection	5.5	A	8.1	A	

### **IV. Trip Generation**

Phase I of the proposed church will total 58,600 square feet of floor area providing a 1,200 seat sanctuary and the day care facility will provide service to 150 students. Phase I of the church is what will be initially constructed. There are plans for later phases of development, Phase II will bring the church to 80,000 square feet of floor area and provide 1,800 seats in the sanctuary, and Phase III will expand the church to 130,000 square feet of floor area and provide 2,400 seats in the sanctuary. There are no concrete schedules for constructing Phases II and III. The day care facility is to remain the same size throughout the expansion phases of the church. This study evaluates Phase I and Phase III in the Year 2024 based on discussions with VDOT and James City County. Applying rates developed in ITE's *Trip Generation* (Ninth Edition) to the size and type of development, forecasts of daily and peak hour trips have been developed (See **Table 8**). Trip generation values were calculated using trip generation rates. The forecasts of trips have been computed as follows:

Har Generation. Proposed Church and Day care											
Land Use (ITE	(sq. ft. or	Weekday Daily	kday AM ily Ho		Weekday AM Peak Hour		Weekday PM Peak Hour		Sunday Daily	Sunday Peak Hour	
Code)	students)	Trips	Enter	Exit	Enter	Exit	Trips	Enter	Exit		
Church (560)	58.6k	534	20	12	15	17	2,264	346	360		
Day Care (565)	150	657	64	56	57	64	56	9	8		
Phase I Total	N/A	1,191	84	68	72	81	2,320	355	368		
Church (560)	130k	1,184	45	28	34	37	5,022	767	798		
Day Care (565)	150	657	64	56	57	64	56	9	8		
Phase III Total	N/A	1,841	109	84	91	101	5,078	776	806		

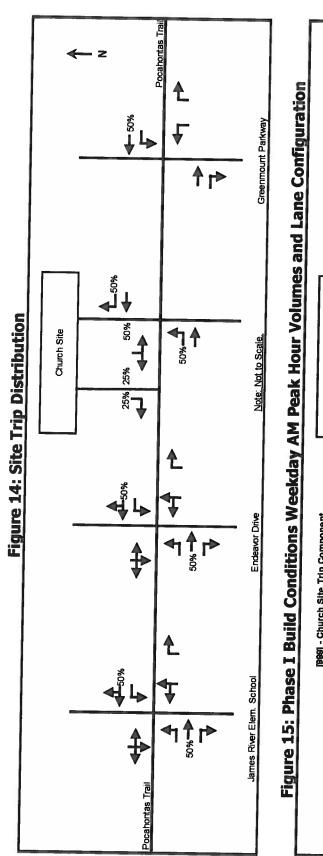
TABLE 8 TRIP GENERATION: Proposed Church and Day Care

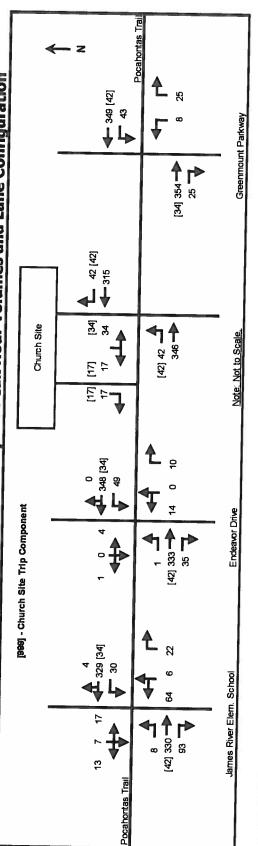
### V. Build Conditions

The forecasted Build conditions traffic volumes are the sum of the No Build conditions traffic volumes plus the forecasted peak hour trips that will be generated by the church and day care. Sunday church (and day care) trips are applied to the road network in a manner that reflects current church service time periods and attendance patterns. Church (and day care) trips are applied in the following manner:

- 10:00 a.m. Sunday School Service (9:30-10:30 a.m. analysis hour) 100% peak hour entering trips applied, 0% peak hour exiting trips applied
- 11:15 a.m. Worship Service (10:30-11:30 a.m. analysis hour) 100% peak hour entering trips applied, 25% peak hour exiting trips applied
- 11:15 a.m. Worship Service (12:30-1:30 p.m. analysis hour) 0% peak hour entering trips applied, 100% peak hour exiting trips applied
- 6:30 p.m. Worship Service (6:00-7:00 p.m. analysis hour) 100% peak hour entering trips applied, 0% peak hour exiting trips applied

Site trips were distributed 50% to the east on U.S. Route 60 and 50% to the west on U.S. Route 60 for both weekday traffic and Sunday traffic; this was based on discussions with VDOT and James City County. The 50%/50% trip distribution is based on two main reasons - the current church being located to the east in Newport News, which will continue serve most of the current church members; and, new church members are anticipated to be derived from the west throughout James City County and beyond. The trip distribution split between the two church driveways is split evenly for egress trips heading westbound, all other trips will use the main church driveway which provides for full access. Site trip distribution is displayed in **Figure 14**. The forecasted Phase I Build conditions traffic volumes can be found in **Figures 15-20**. The forecasted Phase III Build conditions traffic volumes can be found in **Figures 21-26**. Church site trips are shown in brackets in all the Build conditions figures. The southbound main church driveway provides for two lanes of egress.

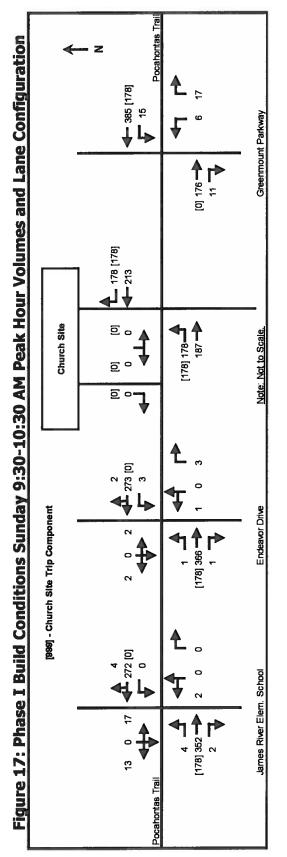




The Peninsula Pentecostals Traffic Impact Analysis James City County, Virginia

Pocahontas Trai Z 505 [36]
21
21 នេ ส Greenmount Parkway [41] 461 🕇 <sup>36 [36]</sup> **1** 492 4 [36] 36 **4 1** Church Site Note: Not to Scale. [2] 2 <u>R</u> R 530 [40] 24 24 2 0 ŝ [899] - Church Site Trip Component Endeavor Drive ო [36] 445 **۲** ج ¶ ‴ ₽ 0 2 ♣ <sup>18</sup> 542 [40] φ 8 ო James River Elem. School Ļ 8 **41 4**5 <sup>23</sup> <sup>23</sup> 45 <sup>23</sup> <sup>23</sup> 45 <sup>23</sup> ÷ Ĵ 0 4 Pocahontas Trail

# Figure 16: Phase I Build Conditions Weekday PM Peak Hour Volumes and Lane Configuration



The Peninsula Pentecostals Traffic Impact Analysis James City County, Virginia

January 21<sup>st</sup>, 2015

Page 21

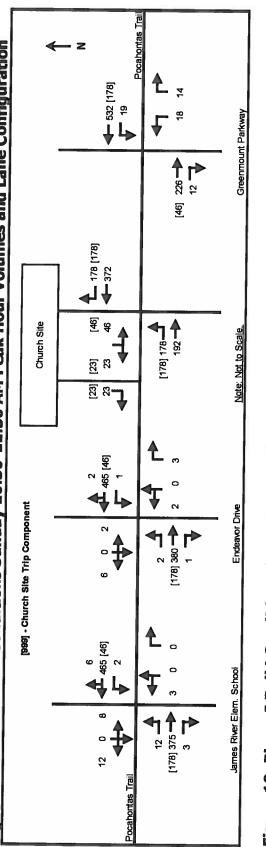
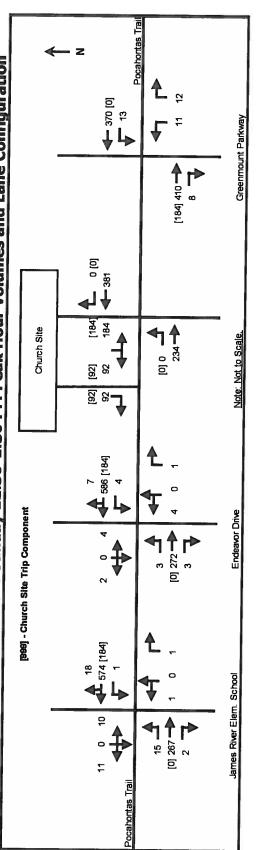


Figure 18: Phase I Build Conditions Sunday 10:30-11:30 AM Peak Hour Volumes and Lane Configuration

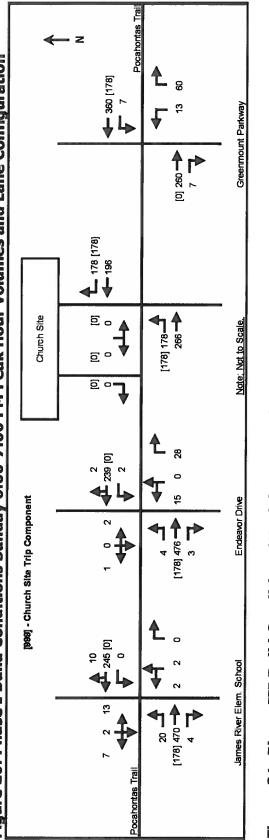




January 21<sup>st</sup>, 2015

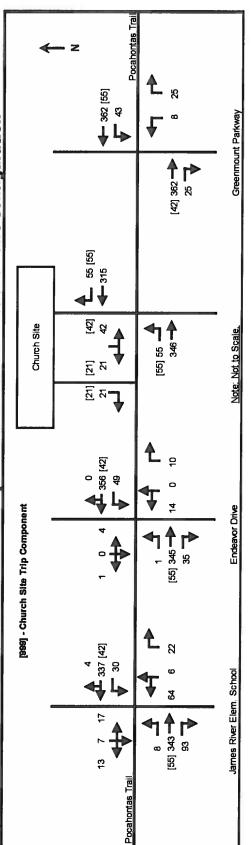
Page 22

The Peninsula Pentecostals Traffic Impact Analysis James City County, Virginia









The Peninsula Pentecostals Traffic Impact Analysis James City County, Virginia

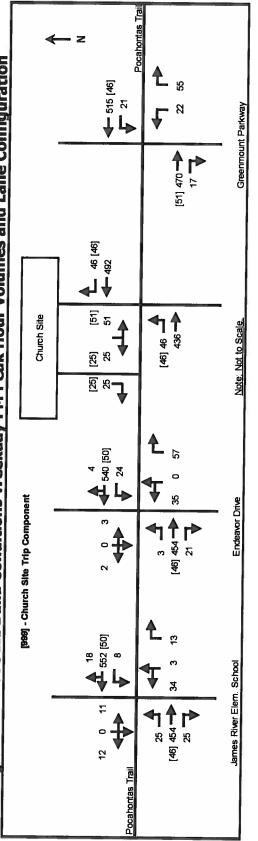
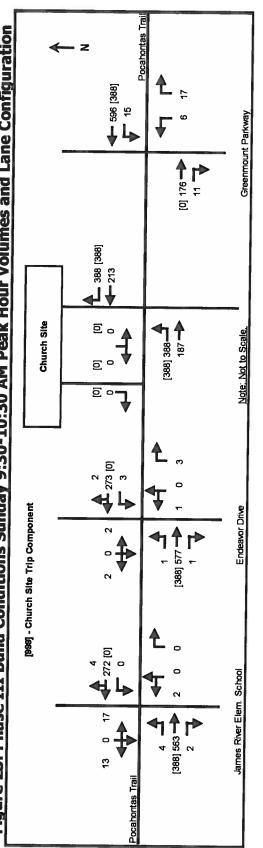


Figure 22: Phase III Build Conditions Weekday PM Peak Hour Volumes and Lane Configuration

Figure 23: Phase III Build Conditions Sunday 9:30-10:30 AM Peak Hour Volumes and Lane Configuration

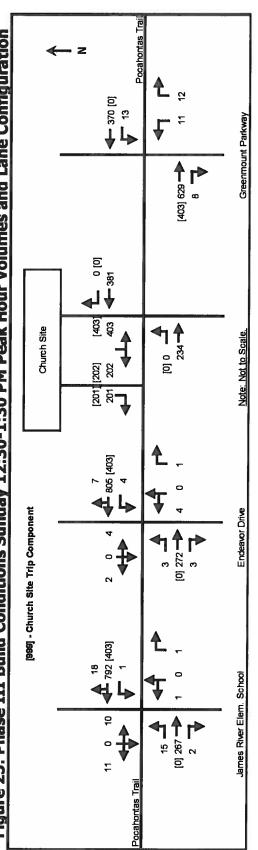


The Peninsula Pentecostals James City County, Virginia Traffic Impact Analysis

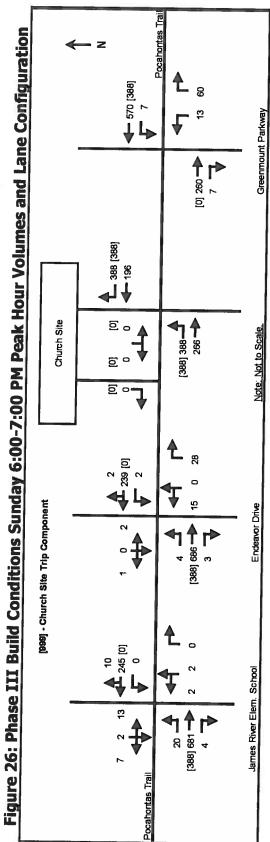
Pocahontas Trai Z **743** [388] ₽ L 18 Greenmount Parkway [101] 281 📕 <sup>12</sup> 🕇 388 [388] ₹225 [<u>1</u>0] [388] 388 **4** Church Site -Note: Not to Scale 20 20 <u>8</u> 8 (999) - Church Site Trip Component Endeavor Drive 2 **1** 2369] 2300 ۳ \$ 0 9 James River Elem. School ო <sup>15</sup> [388] 586 **4** œ 0 9 Pocahontas Trail

Figure 24: Phase III Build Conditions Sunday 10:30-11:30 AM Peak Hour Volumes and Lane Configuration





James City County, Virginia The Peninsula Pentecostals Traffic Impact Analysis



James City County, Virginia The Peninsula Pentecostals Traffic Impact Analysis

January 21<sup>st</sup>, 2015

Page 26

### Phase I Build Conditions Weekday Peak Hour Analysis

Table 9 summarizes the Phase I Build conditions weekday peak hour analysis. All three study area intersections are forecast to operate with adequate service levels under Phase I Build conditions. Overall intersection service levels at Greenmount Parkway are forecasts at LOS A in both peak hours, they are forecasts at LOS B at Plantation Road/James River Elementary School, and each movement at Endeavor Drive is forecast at LOS D or better. The northbound left turn movement at Endeavor Drive is the only movement forecast to operate with LOS D conditions in the p.m. peak hour, a total of 22 vehicles make this movement in the p.m. peak hour. LOS D is considered adequate by AASHTO in urban settings; Route 60 is classified as an urban other principal arterial. James City County policy defines adequate service levels to be LOS C or better. There are two potential mitigation measures to address the LOS D conditions found at Endeavor Drive in the p.m. peak hour on the northbound through/left turn movement – a traffic signal and widening Route 60. Neither of these mitigation measures are warranted nor are they reasonable improvements to mitigate delay for 22 vehicles in one peak hour. All of the movements at the two proposed church driveway intersections with Route 60 are forecast to operate with LOS C or better service levels.

### Phase I Sunday Peak Hour Analysis

Sunday peak hour Build analysis is summarized in **Tables 10 and 11**. The signalized study area intersections, Greenmount Parkway and Plantation Road/James River Elementary School, are forecast to operate with no lower than LOS A overall intersection service levels during all four Sunday peak hours. The unsignalized intersection of Endeavor Drive is forecast to operate with no lower than LOS C conditions at all the individual movements during all four Sunday peak hours. All of the movements at the proposed main church's driveway intersection with Route 60 are forecast to operate with LOS D or better service levels. The southbound left turn movement from the main church's driveway is forecast to experience LOS D conditions during the 10:30-11:30 Sunday hour. Police officer traffic control is a potential mitigation for the lower service levels for egress movements from the church on Sundays. However, conditions during Phase I are not severe enough to require police control in order to ensure reasonable delays during major periods of egress from the church.

Lower service levels for the egress movements from the main church driveway on peak Sunday hours will cause queues to develop; these queues may impede ingress church traffic to the parking lots nearer Route 60 which could potentially spill back to Route 60. This situation is most problematic during the 10:30-11:30 a.m. Sunday hour when there is a large amount of ingress traffic and a fair

amount of egress traffic. SimTraffic analysis of the southbound left turn queue during this hour forecasts a 95<sup>th</sup> percentile queue length of 53 feet. The throat length of the main driveway is approximately 250 feet long so there should be no influence on Route 60. Other peak hours, such as 12:30-1:30 p.m., may have more egress traffic than the 10:30-11:30 a.m. peak hour and therefore longer southbound queues leaving the church, however there will not be any significant ingress traffic during this hour.

### Phase III Build Conditions Weekday Peak Hour Analysis

**Table 12** summarizes the Phase III Build Conditions weekday peak hour analysis. All three study area intersections are forecast to operate with adequate service levels under Phase I Build conditions. Overall intersection service levels at Greenmount Parkway are forecast at LOS A in both peak hours, they are forecast at LOS B at Plantation Road/James River Elementary School, and each movement at Endeavor Drive is forecast at LOS D or better. As was stated previously, there are two potential mitigation measures to address the LOS D conditions found at Endeavor Drive in the p.m. peak hour on the northbound through/left turn movement – a traffic signal and widening Route 60. Neither of these mitigation measures is warranted nor are they reasonable improvements to mitigate delay for 22 vehicles in one peak hour. All of the movements at the proposed main church's driveway intersection with Route 60 are forecast to operate with LOS D or better service levels.

### Phase III Sunday Peak Hour Analysis

Sunday peak hour No Build analysis is summarized in Tables 13 and 14. The signalized study area intersections, Greenmount Parkway and Plantation Road/James River Elementary School, are forecast to operate with no lower than LOS B overall intersection service levels during all four Sunday peak hours. The unsignalized intersection of Endeavor Drive is forecast to operate with no lower than LOS D conditions at all the individual movements during all four Sunday peak hours. LOS D conditions are forecast for the northbound through/left turn movement at Endeavor drive during two of the Sunday peak hours (see the previous paragraph discussion on mitigation of these service levels). All of the movements at the proposed main church's driveway intersection with Route 60 are forecast to operate with LOS D or better service levels with two exceptions, the southbound left turn movement exiting the church is forecast to operate with LOS F conditions during the 10:30-11:30 a.m. hour and the 12:30-1:30 p.m. peak hour. Police officer traffic control is a potential mitigation for the lower service levels for egress movements from the church on Sundays. The church may choose to use Police traffic control or similar measures at a point in time when egress delay becomes extreme (i.e. LOS F).

Lower service levels for the egress movements from the main church driveway on peak Sunday hours will cause queues to develop; these queues may impede ingress church traffic to the parking lots nearer Route 60 which could potentially spill back to Route 60. This situation is most problematic during the 10:30-11:30 a.m. Sunday hour when there is a large amount of ingress traffic and a fair amount of egress traffic. SimTraffic analysis of the southbound left turn queue during this hour forecasts a 95<sup>th</sup> percentile queue length of 594 feet. The throat of the driveway is approximately 250 feet long so there is certainly the potential to influence Route 60. By Phase III it is evident that the church may need the assistance of police officers to assist with traffic control so that egress during the 10:30-11:30 a.m. and 12:30-1:30 p.m. Sunday peak hours will be only experience reasonable delays (and queue lengths). The church should consider installing "DO NOT BLOCK THE INTERSECTION" signage on the southbound main driveway approach to the southern parking lots to help prevent northbound queues entering the church from causing any impact on Route 60. Another mitigation technique the church could employ would be closing access to the southern parking areas from the main church driveway during peak periods of egress in order to prevent ingress vehicles from attempting to make a left turn to this area during periods when there may be significant opposing queues.

Table 9 Summary of Phase I Build Conditions Weekday Peak Hour Traffic Analysis HCM 2010 Methodology						
	AM Pea	ak Hour	PM Pe	ak Hour		
Movement (Type)	Delay (sec./veh.)	Level of Service	Delay (sec./veh.)	Level of		
James River Elem, Sch./Colony Dr. @ Rt. 60		Jervice	(sec./veii.)	Service		
EB U.S. Route 60 Left	32.2	С	30.3	С		
EB U.S. Route 60 Through	13.1	В	9.9	A		
EB U.S. Route 60 Right	10.9	В	6.8	A		
WB U.S. Route 60 Left	28.2	С	34.1	C		
WB U.S. Route 60 Through/Right	12.1	B	12.2	В		
NB James River Elem. School Through/Left	23.2	С	26.4	C		
NB James River Elem. School Right	21.2	С	25.4	C		
SB Colony Drive Left/Through/Right	25.1	С	29.4	C		
Overall Intersection	14.6	В	12.7	B		
Endeavor Drive @ U.S. Route 60		No. of Concession, Name				
NB Endeavor Drive Through/Left	19.5	С	28.4	D		
NB Endeavor Drive Right	10.5	В	11.7	В		
EB U.S. Route 60 Left	8.1	Α	8.6	A		
WB U.S. Route 60 Left	8.3	A	8.4	A		
SB Endeavor Drive Left/Through/Right	17.0	С	20.3	С		
Main Church Driveway @ U.S. Route 60						
EB U.S. Route 60 Left	8.1	A	8.6	A		
SB Church Driveway Left	17.0	С	23.5	С		
SB Church Driveway Right	10.3	В	11.8	В		
Secondary Church Driveway @ U.S. Route 60						
SB Church Driveway Right	10.4	В	12.1	В		
Greenmount Parkway @ U.S. Route 60						
EB U.S. Route 60 Through	9.4	A	9.6	А		
EB U.S. Route 60 Right	5.6	А	4.2	Α		
WB U.S. Route 60 Left	5.2	A	5.9	A		
WB U.S. Route 60 Through/Right	3.5	A	4.7	A		
NB Greenmount Parkway Left	19.1	В	20.0	С		
NB Greenmount Parkway Right	23.9	с	22.2	С		
Overall Intersection	7.0	A	8.0	A		

Table 10 Summary of Phase I Build Conditions Sunday Peak Hour Traffic Analysis HCM 2010 Methodology						
	Sunday 9:	30-10:30	Sunday 10	:30-11:30		
Movement (Type)	Delay (sec./veh.)	Level of Service	Delay (sec./veh.)	Level of Service		
James River Elem. Sch./Colony Dr. @ Rt. 60						
EB U.S. Route 60 Left	29.4	С	26.8	С		
EB U.S. Route 60 Through	5.7	A	8.0	Α		
EB U.S. Route 60 Right	4.0	А	5.7	Α		
WB U.S. Route 60 Left	0.0	Α	42.8	D		
WB U.S. Route 60 Through/Right	9.2	A	9.6	A		
NB James River Elem. School Through/Left	35.9	D	34.8	С		
NB James River Elem, School Right	0.0	Α	0.0	Α		
SB Colony Drive Left/Through/Right	19.5	В	24.7	С		
Overall Intersection	8.0	A	9.6	A		
Endeavor Drive @ U.S. Route 60						
NB Endeavor Drive Through/Left	15.3	С	19.8	С		
NB Endeavor Drive Right	10.5	В	10.7	В		
EB U.S. Route 60 Left	7.9	Α	8.4	Α		
WB U.S. Route 60 Left	8.1	А	8.1	Α		
SB Endeavor Drive Left/Through/Right	12.3	В	13.6	В		
Main Church Driveway @ U.S. Route 60						
EB U.S. Route 60 Left	8.2	Α	8.7	Α		
SB Church Driveway Left	0.0	А	25.5	D		
SB Church Driveway Right	0.0	Α	10.8	В		
Secondary Church Driveway @ U.S. Route 60						
SB Church Driveway Right	0.0	Α	11.0	В		
Greenmount Parkway @ U.S. Route 60						
EB U.S. Route 60 Through	7.0	А	7.6	Α		
EB U.S. Route 60 Right	5.2	Α	5.1	A		
WB U.S. Route 60 Left	4.7	A	4.9	Α		
WB U.S. Route 60 Through/Right	3.7	A	4.6	Α		
NB Greenmount Parkway Left	17.5	В	18.9	В		
NB Greenmount Parkway Right	21.5	С	18.7	В		
Overall Intersection	5.4	A	6.0	Α		

Table 11 Summary of Phase I Build Conditions Sunday Peak Hour Traffic Analysis HCM 2010 Methodology					
Movement (Ture)	Sunday 1	2:30-1:30	Sunday (	5:00-7:00	
Movement (Type)	Delay (sec./veh.)	Level of Service	Delay (sec./veh.)	Level of Service	
James River Elem. Sch./Colony Dr. @ Rt. 60		UCIVICE		JEIVICE	
EB U.S. Route 60 Left	26.3	С	22.2	с	
EB U.S. Route 60 Through	6.9	A	5.8	Α	
EB U.S. Route 60 Right	5.5	A	3.7	A	
WB U.S. Route 60 Left	36.9	D	0.0	А	
WB U.S. Route 60 Through/Right	10.1	В	9.2	А	
NB James River Elem. School Through/Left	30.6	С	28.6	С	
NB James River Elem. School Right	32.6	С	0.0	A	
SB Colony Drive Left/Through/Right	24.8	С	21.3	С	
Overall Intersection	9.8	A	7.8	A	
Endeavor Drive @ U.S. Route 60					
NB Endeavor Drive Through/Left	19.1	С	17.5	С	
NB Endeavor Drive Right	9.7	A	11.8	В	
EB U.S. Route 60 Left	8.7	A	7.8	А	
WB U.S. Route 60 Left	7.8	А	8.4	A	
SB Endeavor Drive Left/Through/Right	16.8	С	14.9	В	
Main Church Driveway @ U.S. Route 60					
EB U.S. Route 60 Left	0.0	A	8.1	A	
SB Church Driveway Left	20.9	С	0.0	A	
SB Church Driveway Right	11.7	В	0.0	A	
Secondary Church Driveway @ U.S. Route 60					
SB Church Driveway Right	12.8	В	0.0	A	
Greenmount Parkway @ U.S. Route 60					
EB U.S. Route 60 Through	8.1	A	8.6	A	
EB U.S. Route 60 Right	4.6	А	4.7	A	
WB U.S. Route 60 Left	4.9	A	5.8	A	
WB U.S. Route 60 Through/Right	3.3	A	4.7	A	
NB Greenmount Parkway Left	19.7	В	15.3	В	
NB Greenmount Parkway Right	20.4	с	17.3	В	
Overall Intersection	6.2	A	7.4	A	

The Peninsula Pentecostals Traffic Impact Analysis James City County, Virginia

Table 12 Summary of Phase III Build Conditions Weekday Peak Hour Traffic Analysis HCM 2010 Methodology					
	AM Pea	ık Hour	PM Pea	k Hour	
Movement (Type)	Delay (sec./veh.)	Level of Service	Delay (sec./veh.)	Level of Service	
James River Elem. Sch./Colony Dr. @ Rt. 60					
EB U.S. Route 60 Left	32.6	С	30.6	С	
EB U.S. Route 60 Through	13.1	В	9.9	Α	
EB U.S. Route 60 Right	10.8	В	6.8	Α	
WB U.S. Route 60 Left	28.6	С	34.4	С	
WB U.S. Route 60 Through/Right	12.0	В	12.3	В	
NB James River Elem. School Through/Left	23.6	С	26.7	С	
NB James River Elem. School Right	21.6	С	25.7	С	
SB Colony Drive Left/Through/Right	25.5	С	29.7	С	
Overall Intersection	14.6	В	12.7	В	
Endeavor Drive @ U.S. Route 60					
NB Endeavor Drive Through/Left	20.1	С	29.2	D	
NB Endeavor Drive Right	10.6	В	11.8	В	
EB U.S. Route 60 Left	8.1	А	8.6	Α	
WB U.S. Route 60 Left	8.3	А	8.4	Α	
SB Endeavor Drive Left/Through/Right	17.4	С	20.8	С	
Main Church Driveway @ U.S. Route 60					
EB U.S. Route 60 Left	8.1	A	8.6	Α	
SB Church Driveway Left	18.2	С	25.5	D	
SB Church Driveway Right	10.3	В	11.8	В	
Secondary Church Driveway @ U.S. Route 60					
SB Church Driveway Right	10.5	В	12.2	В	
Greenmount Parkway @ U.S. Route 60					
EB U.S. Route 60 Through	9.3	А	9.7	Α	
EB U.S. Route 60 Right	5.5	A	4.2	A	
WB U.S. Route 60 Left	5.2	А	5.9	A	
WB U.S. Route 60 Through/Right	3.6	А	4.7	A	
NB Greenmount Parkway Left	19.3	В	20.3	С	
NB Greenmount Parkway Right	24.1	С	22.5	С	
Overall Intersection	7.0	A	8.0	A	

The Peninsula Pentecostals Traffic Impact Analysis James City County, Virginia

Table 13 Summary of Phase III Build Conditions Sunday Peak Hour Traffic Analysis HCM 2010 Methodology						
	Sunday 9	:30-10:30	Sunday 10	0:30-11:30		
Movement (Type)	Delay (sec./veh.)	Level of Service	Delay (sec./veh.)	Level of Service		
James River Elem, Sch./Colony Dr. @ Rt, 60		Jervice	(sec./ven.)	Service		
EB U.S. Route 60 Left	31.7	С	29.8	С		
EB U.S. Route 60 Through	6.7	A	9.1	Α		
EB U.S. Route 60 Right	3.7	Α	5.2	Α		
WB U.S. Route 60 Left	0.0	Α	45.8	D		
WB U.S. Route 60 Through/Right	8.3	А	9.1	А		
NB James River Elem. School Through/Left	38.1	D	37.8	D		
NB James River Elem. School Right	0.0	A	0.0	A		
SB Colony Drive Left/Through/Right	21.7	С	27.7	С		
Overall Intersection	7.9	A	9.8	A		
Endeavor Drive @ U.S. Route 60						
NB Endeavor Drive Through/Left	19.8	С	28.4	D		
NB Endeavor Drive Right	12.5	В	12.6	В		
EB U.S. Route 60 Left	7.9	A	8.6	Α		
WB U.S. Route 60 Left	8.8	А	8.8	Α		
SB Endeavor Drive Left/Through/Right	14.9	В	16.1	С		
Main Church Driveway @ U.S. Route 60						
EB U.S. Route 60 Left	8.9	A	9.9	A		
SB Church Driveway Left	0.0	А	244.7	F		
SB Church Driveway Right	0.0	Α	11.1	В		
Secondary Church Driveway @ U.S. Route 60						
SB Church Driveway Right	0.0	A	11.6	В		
Greenmount Parkway @ U.S. Route 60						
EB U.S. Route 60 Through	6.8	А	7.0	A		
EB U.S. Route 60 Right	5.1	А	4.4	A		
WB U.S. Route 60 Left	4.6	A	4.4	A		
WB U.S. Route 60 Through/Right	4.8	А	5.6	A		
NB Greenmount Parkway Left	17.9	В	22.0	С		
NB Greenmount Parkway Right	22.2	с	21.7	С		
Overall Intersection	5.7	A	6.4	A		

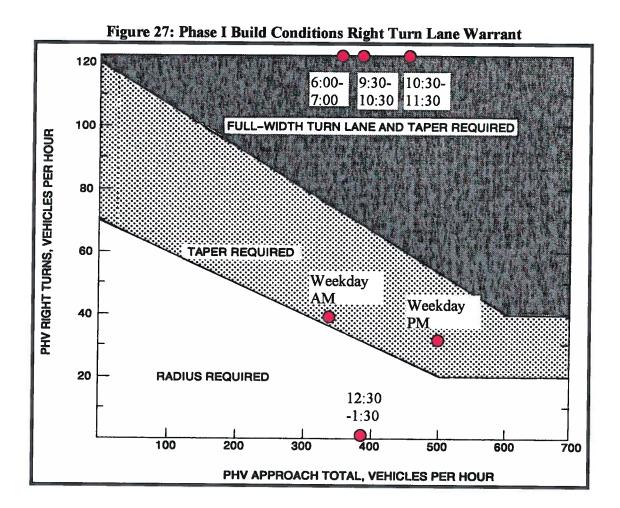
The Peninsula Pentecostals Traffic Impact Analysis James City County, Virginia

Table 14 Summary of Phase III Build Conditions Sunday Peak Hour Traffic Analysis HCM 2010 Methodology				
Movement (Type)	Sunday 12:30-1:30		Sunday 6:00-7:00	
	Delay (sec./veh.)	Level of Service	Delay (sec./veh.)	Level of Service
James River Elem. Sch./Colony Dr. @ Rt. 60				
EB U.S. Route 60 Left	31.5	С	24.8	С
EB U.S. Route 60 Through	5.8	Α	6.8	A
EB U.S. Route 60 Right	4.7	A	3.4	A
WB U.S. Route 60 Left	49.5	D	0.0	Α
WB U.S. Route 60 Through/Right	12.4	В	8.1	А
NB James River Elem. School Through/Left	35.7	D	31.1	С
NB James River Elem. School Right	37.7	D	0.0	А
SB Colony Drive Left/Through/Right	29.9	С	23.8	С
Overall Intersection	11.4	B	8.0	A
Endeavor Drive @ U.S. Route 60				
NB Endeavor Drive Through/Left	25.2	D	23.2	С
NB Endeavor Drive Right	9.7	A	14.4	В
EB U.S. Route 60 Left	9.5	А	7.8	Α
WB U.S. Route 60 Left	7.8	A	9.2	А
SB Endeavor Drive Left/Through/Right	21.8	С	18.9	С
Main Church Driveway @ U.S. Route 60				
EB U.S. Route 60 Left	0.0	А	8.8	A
SB Church Driveway Left	85.0	F	0.0	A
SB Church Driveway Right	13.6	В	0.0	Α
Secondary Church Driveway @ U.S. Route 60				
SB Church Driveway Right	18.7	С	0.0	Α
Greenmount Parkway @ U.S. Route 60				
EB U.S. Route 60 Through	9.0	A	8.0	A
EB U.S. Route 60 Right	3.9	А	4.3	A
WB U.S. Route 60 Left	5.6	A	5.5	A
WB U.S. Route 60 Through/Right	2.9	A	5.7	A
NB Greenmount Parkway Left	23.5	С	16.7	В
NB Greenmount Parkway Right	24.2	С	18.8	В
Overall Intersection	7.1	A	7.4	A

*The Peninsula Pentecostals Traffic Impact Analysis James City County, Virginia* 

### VI. Turn Lane Warrant Analysis

Warrant analysis was conducted using nomographs found in VDOT's Road Design Manual Appendix F. Right turn lane warrant analysis was conducted using the forecasted Build volumes found in **Figures 15-20**. **Figure 27** displays the warrant for right turn lanes on a two-lane highway (U.S. Route 60). The main site entrance on U.S. Route 60 meets warrants for a 200 foot full-width turn lane and 200 foot taper for three of the Sunday services in Phase I. A 200 foot left turn lane with 200 feet of taper is warranted during both weekday peak hours (See **Figure 28**) and during 3 peak hours on Sunday in Phase I (See **Figure 29**).



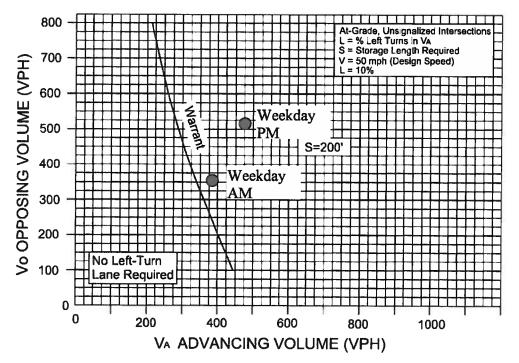


Figure 28: Phase I Build Conditions Left Turn Lane Warrant Weekday Peak Hours

The Peninsula Pentecostals Traffic Impact Analysis James City County, Virginia

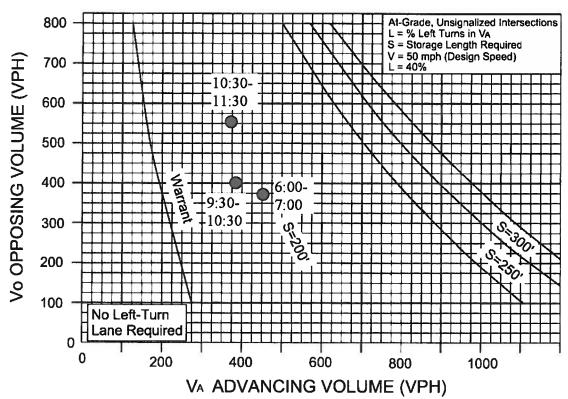
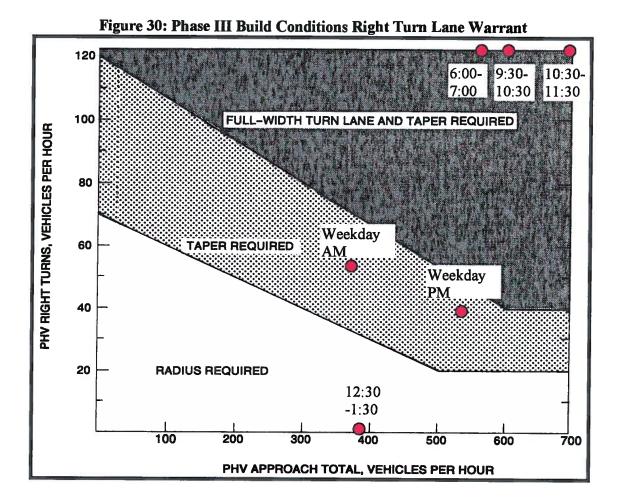
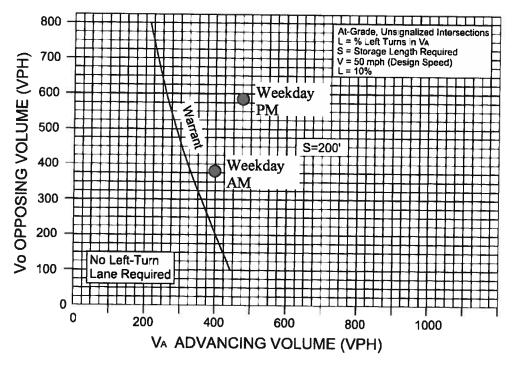


Figure 29: Phase I Build Conditions Left Turn Lane Warrant Sunday Peak Hours

**Figure 30** displays the warrant for right turn treatments on two-lane roads (U.S. Route 60) for Phase III Build conditions. A 200 foot right turn lane with 200 feet of taper is warranted for three Sunday hours.

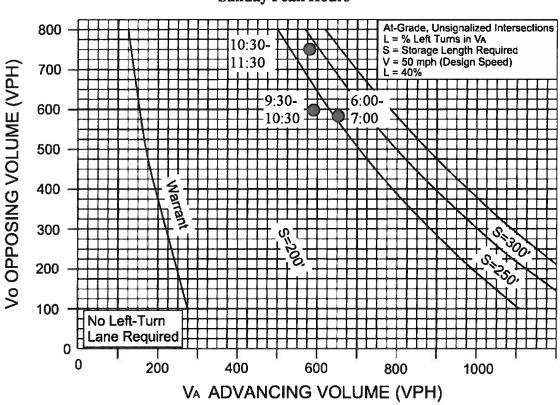


**Figure 31** displays the warrants for a left turn lane treatment for Phase III Build conditions during the weekday peak hours. A 200 foot left turn lane with 200 feet of taper is warrant for the a.m. and p.m. weekday peak hours in Phase III Build conditions.



#### Figure 31: Phase III Build Conditions Left Turn Lane Warrant Weekday Peak Hours

**Figure 32** displays the warrants for a left turn lane treatment for Phase III Build conditions during Sunday hours. A 250 foot left turn lane with 200 feet of taper is warranted for two hours in Phase III Build conditions on Sunday.



#### Figure 32: Phase III Build Conditions Left Turn Lane Warrant Sunday Peak Hours

An alternative analysis of the left turn lane storage length needs at the site entrance was conducted using SimTraffic microsimulation software. The 10:30-11:30 Sunday hour was specifically chosen as the analysis time period because it experiences the heaviest combination of left turn traffic versus opposing traffic. Simulations were conducted ten times for this Sunday hour under both Phase I and Phase III Build conditions. Average 95<sup>th</sup> percentile queue lengths for the left turn lane in Phase I Build conditions were 83 feet and they were 219 feet under Phase III Build conditions.

## Access Management

VDOT has design standards for entrance locations and types of access known as Access Management Design Standards for Entrances and Intersections for roads maintained by VDOT such as Route 60. These standards apply to "commercial entrances". The design standards are based on two variables, the classification of the road and its speed limit. Route 60 is classified as an urban other principal arterial and it has a posted speed limit of 45 MPH in the vicinity of the church. Based on these variables, the VDOT minimum spacing standards for full access entrances is 565 feet and its minimum spacing for partial access (such as rightout only driveways) is 305 feet. The main church driveway is located approximately 1,000 feet from Greenmount Parkway. The secondary church driveway (right-out only) is located approximately 100 feet east of Morning Star Baptist Church's driveway and approximately 450 feet west of the main church Morning Star Baptist Church is a very small church that is entrance. approximately 2,000 square feet in size. On Sunday, January 18th, 2015 a traffic count was conducted at Morning Star Baptist Church's driveway from 9:30-11:50 a.m. Morning Star Baptist Church advertises its services at 10:00 a.m., 11:00 a.m., and 11:30 a.m. A total of 4 vehicles entered the church during the entire count period and none left. Assuming the 4 entering vehicles left at the conclusion of the 11:30 a.m. service there would have been approximately 8 total trips on that particular Sunday. VDOT defines a commercial entrance as any entrance serving land uses that generate more than 50 vehicular trips per day. Based on the Sunday, January 18th, 2015 traffic count, Moring Star Baptist Church's entrance is not a commercial entrance, nor is it close to generating enough traffic to be considered a commercial entrance. Based on this information the proposed secondary church entrance does not violate the access management standards.

## VII. Conclusion

The Peninsula Pentecostals Church is proposing to construct a new church and day care facility on 40 acres of land on Route 60 just west of Greenmount Parkway. This study has analyzed the impacts of the church in Phase I when the church will seat 1,200 members and Phase III when the church expands to 2,400 seats. The day care facility is planned to remain at the 150 student level throughout the expansion phases of the church. The church proposes two points of access on Route 60 – one full access driveway and a right-out only driveway.

Three adjacent intersections on Route 60 were chosen for inclusion in this study based on consultation with James City County and VDOT - James River Elementary School/Colony Drive, Endeavor Drive, and Greenmount Parkway. Study periods included weekday peak hours, a.m. and p.m., and four hours on

January 21st, 2015

Sunday that capture the arrival and departure hours of the current church's worship services. All of the capacity analysis scenarios are summarized in **Table 15**. The Greenmount Parkway intersection is currently operating with overall intersection LOS A conditions during both weekday peak hours and the four Sunday peak hours. The James River Elementary School/Colony Drive intersection is operating with no lower than LOS B overall intersection levels of service in the existing conditions.

The church anticipates opening Phase I in 2018 and VDOT regulations require analysis 6 years after build out which makes the design year 2024. No Build conditions were developed by growing existing conditions traffic volumes by 1% annually for a period of 10 years. The annual growth rate of 1% was derived through discussions with James City County and VDOT. The church has no timetable for construction of Phases II and III.

The three study area intersections were evaluated with 2024 No Build conditions volumes. The Greenmount Parkway intersection is forecast to operate with overall intersection LOS A conditions during both weekday peak hours and the four Sunday peak hours. The James River Elementary School/Colony Drive intersection is forecast to operate with no lower than LOS B overall intersection levels of service in the existing conditions.

Two Build conditions scenarios were evaluated under 2024 traffic volumes, Phases I and III of the proposed church. All three of the study area intersection experience only moderate increases in delay in comparison to the No Build conditions. All levels of service at the three study area intersection are forecast to operate at LOS D or better conditions during both phases of the church. The northbound through/left turn movement at Endeavor Drive experienced minor increases in delay in the weekday p.m. peak hour between the No Build conditions and the Build conditions, the delay increased from 24.9 (LOS C) seconds/vehicle to 28.4 (LOS D) in Phase I and 29.2 (LOS D) in Phase III. By chance the No Build conditions were on the cusp of the LOS C/LOS D delay threshold of 25 seconds/vehicle, therefore any increase in traffic volumes would push the delay into LOS D conditions. LOS D is considered adequate by AASHTO in urban settings; Route 60 is classified as an urban other principal arterial. James City County policy defines adequate service levels to be LOS C or better. There are two potential mitigation measures to address the LOS D conditions found at the northbound through/left turn movement on Endeavor Drive in the p.m. peak hour and on two Sunday hours - a traffic signal and widening Route 60. Neither of these mitigation measures are warranted nor are they reasonable improvements to mitigate delay for between 11 to 22 vehicles per hour for three hours a week.

January 21st, 2015

Southbound left turn egress from the main church driveway is forecast to operate with LOS D conditions during the 10:30-11:30 Sunday hour under Phase I Build conditions. This same movement is forecast to operate with LOS F conditions during the 10:30-11:30 and 12:30-1:30 Sunday hours under Phase III Build Conditions. Police officer traffic control is a potential mitigation for the lower service levels for egress movements from the church on Sundays. The church may choose to employ Police traffic control or similar measures when delay becomes extreme (i.e. LOS F). The church will monitor ingress church traffic patterns in order to keep this traffic from queuing back onto Route 60. Mitigation techniques to prevent ingress queues from spilling onto Route 60 include on-site signage to not block the internal intersection to the southern parking lots or they could include closing the closest internal site intersection to Route 60 with traffic cones.

There are several programmed VDOT projects located in the study area limits that have the potential to impact the church site -Two Regional Surface Transportation Program (RSTP) projects: Relocated Route 60 Project (UPS 13496) and Skiffes Creek Connector Project (UPC 100200) are within the project limits. The church has begun coordination with these projects to minimize the impact of the future development of these projects.

Table 15 Summary of Capacity Analysis HCM 2010 Methodology								
Intersection	Weekday AM Peak	Weekday PM Peak	Sunday Sunday 9:30- 10:30- 10:30 11:30		Sunday 12:30- 1:30	Sunday 6:00- 7:00		
Existing Conditions								
James River Elem. Sch./Colony Dr. @ Rt. 60	В	В	Α	В	А	Α		
Endeavor Drive @ Rt. 60*	с	с	В	с	В	В		
Greenmount Parkway @ Rt. 60	А	Α	A	A	Α	Α		
No Build Conditions								
James River Elem. Sch./Colony Dr. @ Rt. 60	В	В	Α	В	А	Α		
Endeavor Drive @ Rt. 60*	с	с	В	с	с	В		
Greenmount Parkway @ Rt. 60	A	А	Α	A	A	Α		
Phase I Build Conditions		2	2					
James River Elem. Sch./Colony Dr. @ Rt. 60	В	В	A	A	А	A		
Endeavor Drive @ Rt. 60*	с	D	с	с	с	с		
Main Church Driveway @ Rt. 60	С	С	Α	D	С	A		
Secondary Church Driveway @ Rt. 60	В	В	A	В	В	A		
Greenmount Parkway @ Rt. 60	A	A	Α	A	A	Α		
Phase III Build Conditions								
James River Elem. Sch./Colony Dr. @ Rt. 60	В	В	А	A	В	Α		
Endeavor Drive @ Rt. 60*	С	D	С	D	D	с		
Church Driveway @ Rt. 60	С	D	Α	F	F	Α		
Secondary Church Driveway @ Rt. 60	В	В	Α	В	С	Α		
Greenmount Parkway @ Rt. 60	А	A	Α	A	A	А		

\*Worst individual movement level of service is shown for unsignalized intersections. This is typically a left turn movement from the minor street.

The Peninsula Pentecostals Traffic Impact Analysis James City County, Virginia January 21st, 2015

An evaluation of turn lane warrants at the main site driveway was conducted for both Phase I and Phase III Build conditions using nomographs found in VDOT's Road Design Manual Appendix F. Additional evaluation of the turn lane storage length needs for the left turn lane into the main church entrance was conducted using SimTraffic microsimulation. SimTraffic analysis confirmed the storage lengths required by the standard VDOT nomographs were sufficient to handle 95<sup>th</sup> percentile traffic conditions (analysis can be found in the Technical Appendix). Based on the analysis conducted in this report the following improvements are recommended to mitigate traffic impacts associated with the development of the proposed church and day care facility:

Phase I - Based on the analysis a 200' right turn lane and a 200' taper should be installed on westbound Route 60 approach the main site entrance and a 200' left turn lane and 200' taper should be installed on the eastbound Route 60 approach to the main site entrance.

Phase III - Based on the analysis a 200' right turn lane and a 200' taper should be installed on westbound Route 60 approach the main site entrance and a 250' left turn lane and 200' taper should be installed on the eastbound Route 60 approach to the main site entrance.

January 21st, 2015

Page 46

Tax Parcel Numbers 6010100006, 6010100007, and 6010100008

## **PROFFERS**

## THE PENINSULA PENTECOSTALS, INC.

April 8, 2015

Prepared by: Kaufman & Canoles, P.C. 4801 Courthouse Street, Suite 300 Williamsburg, Virginia 23188

#### THE PENINSULA PENTECOSTALS, INC.

THESE PROFFERS are made this 8<sup>th</sup> day of April, 2015, by <u>THE PENINSULA</u> <u>PENTECOSTALS, INC.</u>, a Virginia non-stock corporation, its successors and/or assigns, the contract purchaser of the "Property" (hereinafter defined) (to be indexed as grantor), and <u>GREEN MOUNT ASSOCIATES, L.L.C.</u>, a Virginia limited liability company, the record owner of the "Property" (to be indexed as grantor) (collectively and/or individually hereinafter referred to as "Owner"):

#### **<u>RECITALS</u>**:

<u>R-1</u>. The Peninsula Pentecostals, Inc. ("Peninsula Pentecostals") is the contract purchaser of certain real property (the "Property") owned of record by Green Mount Associates, L.L.C. ("Green Mount") located in the County of James City, Virginia, containing 40.3 acres, more or less, more particularly described on <u>Exhibit A</u> attached hereto and made a part hereof.

<u>R-2</u>. The Property is now zoned M-2. The Property is designated Mixed Use on the County's Comprehensive Plan Land Use Map.

<u>R-3</u>. The Owner has applied to rezone the Property from M-2 to MU, with proffers.

<u>R-4</u>. Owner has submitted to the County a conceptual plan of development ("Master Plan") entitled "Peninsula Pentecostal Church Conceptual Plan CP-1 Sheet 1 of 1 Project Number 33749.00", dated January 20, 2015, prepared by Vanasse Hangen Brustlin, Inc., for the Property in accordance with the County Zoning Ordinance. The Master Plan is on file in the office of the County Planning Director.

<u>R-5.</u> A traffic impact study ("Traffic Impact Study") entitled "The Peninsula Pentecostals Traffic Impact Analysis", dated January 21, 2015, prepared by Chris Lawrence, P.E., has been submitted to the County and the Virginia Department of Transportation ("VDOT") for review in connection with the Application. The Traffic Study is on file in the office of the County Planning Director.

<u>R-6</u>. An archaeological report ("Archaeological Report"), dated October 2014, prepared by Circa~ Cultural Resource Management, L.L.C., has been submitted to the County and the Virginia Department of Historic Resources ("VDHR") for review in connection with the Application. The Archaeological Report is on file in the office of the County Planning Director.

<u>R-7</u>. Owner desires to offer to the County certain conditions on the development of the Property not generally applicable to land zoned MU.

NOW, THEREFORE, for and in consideration of the approval of the requested rezoning, and pursuant to Section 15.2-2303 of the Code of Virginia, 1950, as amended (the "Virginia Code"), and the County Zoning Ordinance, Owner agrees that it shall meet and comply with all of the following conditions in developing the Property. If the requested rezoning is not granted by the County, these Proffers shall be null and void.

#### **<u>CONDITIONS</u>**:

1. <u>Master Plan</u>. The Property shall be developed generally in accordance with the Master Plan with only changes thereto that the County or its duly authorized designee determines do not alter the basic concept or character of the development in accordance with Section 24-

516(a) of the Zoning Ordinance in effect on the date hereof; provided, however, such development shall be expressly subject to such changes in configuration, composition and location as required by all other governmental authorities having jurisdiction over such development.

#### 2. <u>Limitation on Uses</u>. The following uses shall be prohibited on the Property:

- a. Apartments
- b. Group homes or residential facilities
- c. Group quarters
- d. Home care facilities
- e. Independent living facilities
- f. Multi-family dwellings
- g. Single-family dwellings

The above use prohibitions shall not be deemed to prohibit the existence of an accessory apartment on Lot P-1 attached to the proposed house of worship building(s).

3. <u>Lot P-2 & Lot P-3</u>.

a. Prior to preliminary approval of any site plan for the initial development ("Lot P-2/P-3 Development") of all or any portion of the parcels of land shown on the Master Plan as Lot P-2 or Lot P-3 (a "Lot P-2/P-3 Site Plan"): (a) traffic impact analysis for such Lot P-2/P-3 Development ("Lot P-2/P-3 Development TIA") shall be submitted to the County for review and approval, (b) any traffic improvements recommended by such Lot P-2/P-3 Development TIA the need for which is triggered by the Lot P-2/P-3 Development shall be shown on the Lot P-2/P-3 Site Plan and constructed or "Guaranteed" (hereinafter defined) in accordance therewith, and (c) a conceptual development plan and stormwater master plan for the development of Lot P-2 and Lot P-3 shall be submitted to the County.

b. Prior to preliminary approval of any site plan for the development of an establishment for the selling or dispensing of petroleum based fuels (a "Fueling Facility") on Lot
P-2 or Lot P-3 the stormwater runoff from which ultimately drains to Skiffes Creek Reservoir:

(i) a stormwater management plan for the Fueling Facility shall be submitted to the County Planning Director for review and approval which demonstrates adequate measures to achieve, post development, the same degree of water quality for stormwater runoff from the Fueling Facility as exists prior to the development of the site utilizing the applicable best management practices as outlined in the Virginia Department of Environmental Quality Stormwater BMP Clearinghouse;

(ii) a Spill Prevention, Control and Countermeasure Plan for theFueling Facility shall be submitted to the County Planning Director for review and approval;

(iii) the fuel dispensing devices of the Fueling Facility shall be located on the Property no closer than 300 feet to Skiffes Creek Reservoir as determined by the mean water level of the reservoir.

#### 4. <u>Archaeology</u>.

a. A Limited Phase I Archaeological Site Assessment (based on shovel testing at 25 foot intervals) of the area shown on the Master Plan as Additional Archaeological Study Area (the "Potential Site") shall be submitted to and approved by the County for review and approval prior to issuance of a land disturbance permit for land disturbance activities within the Potential Site or in the immediate vicinity thereof. If a Limited Phase I study is undertaken and recommends Phase II evaluation of the Potential Site, then a Phase II Archaeological Site Assessment of the Potential Site, or such portions of it proposed for disturbance, shall be submitted to and approval prior to issuance of a land disturbance activities within the Potential Site or in the immediate activities within the Potential Site or disturbance, shall be submitted to and approved by the County for review and approval prior to issuance of a land disturbance permit for land disturbance activities within the Potential Site or in the immediate vicinity thereof. If a Phase II study is undertaken and recommends Phase III evaluation of the Potential Site, or such portions of the Potential Site or in the immediate vicinity thereof. If a Phase II study is undertaken and recommends Phase III evaluation of the Potential Site, then a Phase III Archaeological Site Assessment of the Potential Site, or such

portions of it proposed for disturbance, shall be submitted to and approved by the County for review and approval prior to issuance of a land disturbance permit for land disturbance activities within the Potential Site or in the immediate vicinity thereof.

b. Prior to preliminary approval of any site plan for the Lot P-2/P-3 Development, a Phase II Archaeological Boundary Determination for Site 44JC1024 (the "Archaeological Site") shall be submitted to the County for review and approval, and the boundaries of the Archaeological Site shall be shown on the Lot P-2/P-3 Site Plan. If the Archaeological Site is proposed to be disturbed by the Lot P-2/P-3 Development, then a Phase II Archaeological Site Assessment of the Archaeological Site, or such portions of it proposed for disturbance, shall be submitted to and approved by the County for review and approval prior to issuance of a land disturbance permit for land disturbance activities within the boundary of the Archaeological Site. If a Phase II study is undertaken and recommends Phase III evaluation of the Archaeological Site, then a Phase III Archaeological Site Assessment of the Archaeological Site, or such portions of it proposed for disturbance, shall be submitted to and approved by the County for review and approval prior to issuance of a land disturbance permit for land disturbance activities within the boundary of the Archaeological Site, or such portions of it proposed for disturbance, shall be submitted to and approved by the

c. All Phase II and Phase III studies shall meet the Virginia Department of Historic Resources' Guidelines for Preparing Identification and Evaluation Reports for Submission Pursuant to Sections 106 and 110, National Historic Preservation Act, Environmental Impact Reports of State Agencies, Virginia Appropriations Act, 1998 Session Amendments and Guidelines for Archeological Investigations in Virginia June 1996 and shall be conducted under the supervision of a qualified archaeologist who meets the qualifications set forth in the Secretary of the Interior's Professional Qualification Standards. Upon approval by the County, all treatment plans shall be incorporated into the plan of development for the Property and the clearing, grading or construction activities thereon.

5. <u>Traffic Improvements</u>.

a. The following traffic improvements (the "Phase 1 Traffic Improvements") on U.S. Route 60 at the primary entrance to Lot P-1 from U.S. Route 60 into the Property shall be guaranteed ("Guaranteed") in accordance with Section 15.2-2299 of the Virginia Code prior to final site plan approval for development of Lot P-1 in accordance with the Master Plan and shall be completed prior to issuance of a certificate of occupancy for a place of public assembly located on Lot P-1:

i. a westbound 200 foot right turn lane and a 200 foot right turn taper as generally depicted on the Master Plan; and

ii. an eastbound 200 foot left turn lane and a 200 foot left turn taper as generally depicted on the Master Plan.

b. Prior to final site plan approval for expansion of the place of public assembly located on Lot P-1 for seating capacity in excess of 1,800 persons, the following traffic improvement (the "Phase 2 Traffic Improvement") shall be Guaranteed and shall be completed prior to issuance of a certificate of occupancy for expansion of the place of public assembly located on Lot P-1 for seating capacity in excess of 1,800 persons:

i. the eastbound left turn lane along U.S. Route 60 at the primary entrance to Lot P-1 from U.S. Route 60 into the Property shall be extended to a total length of 250 feet with a 200 foot left turn taper as generally depicted on the Master Plan.

c. Within 180 days after issuance of a certificate of occupancy for a place of public assembly located on Lot P-1, a traffic management plan (the "TMP") addressing the

circulation and queing of vehicles on Lot P-1 associated with peak occupancy periods for the place of public assembly so as to limit the impact on traffic flows along U.S. Route 60 shall be submitted to the County Planning Director for review and approval for consistency with the terms of this proffer. The approved TMP shall be implemented on Lot P-1 for peak occupancy periods for the place of public assembly. The TMP shall be evaluated for its effectiveness within 180 days after initial implementation and, based on such evaluation, be revised as necessary to maintain consistency with this proffer. Thereafter, the TMP shall be reevaluated and resubmitted to the County Planning Director for review and approval for consistency with this proffer within 60 days after issuance of a certificate of occupancy for any expansion of the place of public assembly located on Lot P-1

#### 6. <u>Design</u>.

a. The improvements on the Lot P-1 shall be constructed generally in accordance with the architectural elevations entitled "THE PENINSULA PENTECOSTAL CHURCH NEWPORT NEWS, VIRGINIA" prepared by Zion Church Builders, Inc. and "THE PENINSULA PENTECOSTAL CHURCH" prepared by Daniel G. White, Architect, LLC, dated October 16, 2009, last revised June 6, 2013 (collectively, the "Elevations"), a copy of which are on file in the office of the County Planning Director. The Elevations may be modified from time to time provided that such modifications do not alter the basic character and intent of the Elevations and provided that such amendments are approved by the County Planning Director for consistency with the terms of this proffer.

b. Signage on Lot P-1 located along U.S. Route 60 shall (i) be limited to externally illuminated monument style signs, (ii) be limited to a maximum of 8 feet in height, (iii) have an architectural character consistent with the Elevations, and (iv) have a base

constructed of materials consistent with the materials used in the place of public assembly located on Lot P-1. Prior to final site plan approval for development of Lot P-1, renderings of such signage shall be submitted to the County Planning Director for review and approval for consistency with the terms of this proffer. Nothing in this proffer shall be construed to apply to the use of exterior signage internal to the site such as informational signage, traffic signage, parking signage, directories, building face signage, and the like.

c. The Lot P-2/P-3 Development shall be constructed so as to have a common architectural character and design which is complimentary to the architectural character and design of the improvements then located on Lot P-1. Prior to preliminary approval of any site plan for the Lot P-2/P-3 Development, design review standards for the Lot P-2/P-3 Development shall be submitted to the County Planning Director for review and approval for consistency with the terms of this proffer. Prior to final approval of any site plan for the Lot P-2/P-3 Development, architectural elevations for the Lot P-2/P-3 Development shall be submitted to the County Planning Director shall be submitted to the County Planning prize plan for the Lot P-2/P-3 Development, architectural elevations for the Lot P-2/P-3 Development shall be submitted to the County Planning Director for consistency with the terms of this proffer.

7. <u>Day Care</u>. The number of children in attendance at the child day care located on Lot P-1 shall not exceed 150 children.

8. <u>Lighting</u>. Exterior lighting on Lot P-1 shall be designed so as to minimize glare onto adjacent properties and rights-of-way to the extent practicable and still achieve the reasonable illumination for the use, safety, and function of the improvements on Lot P-1. The exterior lighting plan shall be subject to the review and approval of the County Planning Director for consistency with this proffer prior to issuance of a building permit for any improvements on Lot P-1.

9. <u>Headings</u>. All section and subheadings of these Proffers are for convenience only and shall not be read as a part of these Proffers or utilized in interpretation thereof.

10. <u>Delegation of Subsequent Approvals</u>. The County Board of Supervisors by accepting these Proffers is exercising its legislative function. While these Proffers provide for subsequent approvals by the County or by its duly authorized designees appointed by the County, such subsequent approvals by any duly authorized designee of the County shall not include the exercise of any legislative function.

11. <u>Severability</u>. In the event that any clause, sentence, paragraph, section or subsection of these Proffers shall be adjudged by any court of competent jurisdiction to be invalid or unenforceable for any reason, including a declaration that it is contrary to the Constitution of the Commonwealth of Virginia or of the United States, or if the application thereof to any owner of any portion of the Property or to any government agency is held invalid, such judgment or holding shall be confined in its operation to the clause, sentence, paragraph, section or subsection hereof, or the specific application thereof directly involved in the controversy in which the judgment or holding shall have been rendered or made, and shall not in any way affect the validity of any other clause, sentence, paragraph, section or provision hereof.

12. <u>Conflicts</u>. In the event that there is any conflict between these Proffers and the Zoning Ordinance, the conflict shall be resolved by the County's Zoning Administrator subject to the appeal process to the Board of Supervisors and the Courts as otherwise provided by law.

13. <u>Successors and Assigns</u>. This Proffer Agreement shall be binding upon and shall inure to the benefit of the parties hereto, and their respective heirs, successors and/or assigns.

14. <u>Void if Application not Approved</u>. In the event that the Application is not approved by the County, these Proffers shall be null and void.

WITNESS the following signature, thereunto duly authorized:

## [SIGNATURES LOCATED ON FOLLOWING PAGES]

## [SIGNATURE PAGE TO PROFFERS]

- 、

.

THE PENINSULA PENTECOSTALS, INC., a Virginia corporation By: Name: Name: Title: LEAP PASTOR
COMMONWEALTH OF VIRGINIA / City OF NEW poet NEWS AT LARGE, to-wit: The foregoing instrument was acknowledged before me this 7 day of APRIL, 2015, by JARED R. ARANDO, LEAD PASTUR of The Peninsula Pentecostals, Inc., a
Virginia corporation, in its behalf. My commission expires: $AU6UST 31, 2015$ My registration number is: $7038333$

#### [SIGNATURE PAGE TO PROFFERS]

Green Mount Associates, L.L.C., a Virginia limited liability company, joins herein as the owner of the Property for the purpose of approving of and consenting to these Proffers.

> GREEN MOUNT ASSOCIATES, L.L.C., a Virginia limited liability company

Anne noatter By:

Donald N. Patten, Authorized Agent

#### COMMONWEALTH OF VIRGINIA AT LARGE, to-wit:

The foregoing instrument was acknowledged before me this  $\frac{15^{++}}{15^{++}}$  day of , 2015, Donald N. Patten, Authorized Agent of Green Mount Associates, L.L.C. a Virginia limited liability company, in its behalf.

Karen Walden Stephens Notary Public

My commission expires: December 31, 2018 My registration number is: 7622735





#### EXHIBIT A

All those certain lots or parcels of land with appurtenances thereto pertaining, lying, situate and being in James City County, Virginia and designated as Lots 1, 2, and 3 as shown on plat entitled Kirby's, James City County, Virginia", dated March 8, 1990, drawn by Coenen & Associates, Inc., Engineers – Planners – Surveyors, which plat was recorded in the Office of the Clerk of the Circuit Court for the City of Williamsburg and the County of James City on June 28, 1990, at Plat Book 52, page 47.

#### Circa~ Cultural Resource Management, L.L.C. 453 McLaws Circle, Suite 3 Williamsburg, Virginia 23185 (757) 220-5023

## **PLANNING DIVISION**

NOV 14 2014

#### October 2014

RECEIVED

The Peninsula Pentecostal Church contracted with Circa~ Cultural Resource Management, LLC (Circa~) to review the cultural resource surveys completed thus far on the Kirby Trac, the northern tract located within the GreenMount Industrial Park (Attachments 1, 2, and 3). The tract is bordered to the south by Route 60, to the north and east by Skiff's Creek, and to the west by a tributary to Skiff's Creek (Figure 1). The majority of the tract is an open agricultural field currently planted in corn. The north, eastern, and western edges of the tract consist of a hardwood and softwood forest.

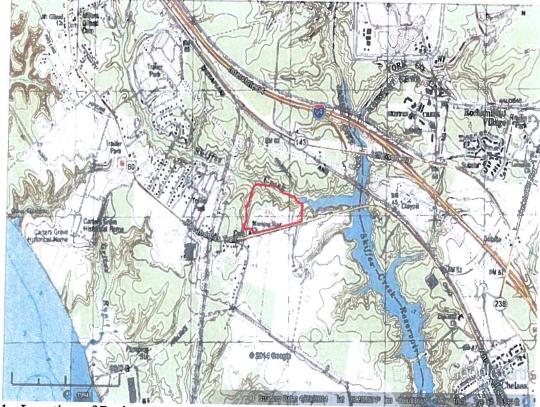


Figure 1. Location of Project Area on Yorktown USGS quad.

Circa~ performed an archival search for Greenmount property using the Virginia Department of Historic Resources (VDHR) online V-CRIS system. This research was completed to determine if historic resources exist within the project area boundaries. The search identified two archaeological resources and no architectural resources within the project area boundaries. Table 1 lists all of the resources within the project area boundaries. Figure 2 shows the approximate project area boundaries (yellow shaded area) and resources within the project area boundaries. A

brief description of these resources follows Table 1. Six Phase I surveys have been completed on the tract. These surveys are described following Table 1.

VDHR Survey Number	Date of resource	Description of resource	Survey Information	Recommendation
		Archaeological Resource	es e	
44JC1024	18 <sup>th</sup> century 19 <sup>th</sup> century	Farmstead, approximately 0.69 acres	Phase I survey 7/99, 2001, and 6/13	VDHR determined potentially eligible 8/28/01
44JC1028	20th century	Farmstead, approximately 0.38 acres	Phase I survey 7/99	None made

Table 1. Resources Within Project Area Boundaries.

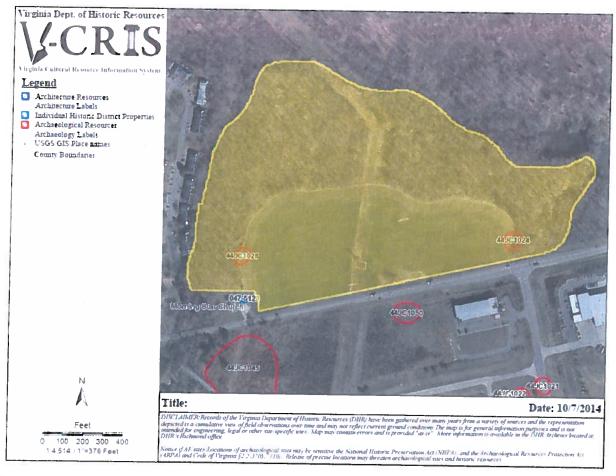


Figure 2. V-CRIS map showing the project area boundaries.

In June 1991, Virginia Commonwealth University (VCU) surveyed a portion of the project tract while conducting a Phase I archaeological survey of approximately seven miles of proposed water transmission main pipeline easement in James City County and the City of Newport News. Within the project tract, VCU surveyed within the power line easement and did not identify any artifacts from the easement.

In the late summer and fall of 1999, Archaeological and Cultural Solutions, Inc (ACS) completed the first overall survey of the tract for the GreenMount Associates, Inc. ACS conducted the Phase I field survey with 10 field students from Christopher Newport College, guided by topographic maps made available by the project sponsor. Following a preliminary archival and field assessment of the project, ACS decided to survey the whole tract rather than portions of it. The agricultural field provided 60% to 90% visibility of the ground surface, allowing surface collections to be made by walking transects 50 feet apart. Subsequently, temporary numbers were assigned to materials collected and each area was shovel tested in a cruciform pattern at intervals of 50 feet. All wooded areas were shovel tested at 50-foot intervals with transects located 50 feet apart. This interval was reduced to 25 feet, as necessary, where potentially important finds were encountered. All shovel test soils were screened through ¼-inch wire mesh and their locations mapped. ACS located three isolated finds, one dump, and two archaeological sites within the project area. However, the ACS project maps shows other positive shovel tests, these positives appear to be random isolated finds (see below).

In March 2001, the William and Mary Center for Archaeological Research (WMCAR) surveyed a portion of the project tract while conducting a supplemental survey of their Phase I archaeological survey of the realigned, proposed Route 60 Alternatives A1 and B2 within the GreenMount Industrial Park. However, WMCAR did not shovel test within the project area; relying instead on the previous survey work.

In August 2001, WMCAR surveyed a portion of the project tract while conducting a supplemental survey of their Phase I archaeological survey of the realigned, proposed Route 60 Alternatives A1 and B2 within the GreenMount Industrial Park. Their revised project alignment was located in the eastern edge of Site 44JC1024. However, WMCAR did not shovel test within the project area; relying instead on the previous survey work.

In 2012, Cultural Resources, Inc. (CRI) surveyed a portion of the project tract while conducting a Phase I Cultural Resources Survey of the Proposed Approximately 20.2-Mile Dominion Virginia Power Skiffs Creek to Whealton 230 kV Transmission Line. Their project area ran through James City and York Counties, and the Cities of Newport News and Hampton, Virginia. Within the project tract, they surveyed within the power line easement and did not identify any artifacts from within the easement.

In June 2013, McCormick Taylor surveyed the site during a Phase I survey for the Skiffe's Creek Connector from U. S. Route 60 to VA Route 143. Their project area consisted of two right-of-ways one located to the west towards near Morning Star Church and one located on the eastern edge of the project area.

## Archaeological Resources Located on the Tract

#### GMB18-Isolated Find

One whiteware fragment was located on the surface of the field just northeast of Morning Star Church. ACS excavated five shovel tests in this location, all were negative. The gray sandy loam plowzone is 0.50 feet deep. Subsoil appears as dark orange clay at least 0.80 feet thick. ACS recommended no further work at this isolated find.

#### **GMB19-Isolated Find**

One handmade brick fragment was collected from the surface of an open field just north of Route 60. ACS excavated five shovel tests in this location, all were negative. Plowzone is brown sandy loam 0.80 feet deep. Yellow clay subsoil is present to a depth of over 0.30 feet below plowzone. ACS recommended no further work at this isolated find.

#### GMB20-Isolated Find

One handmade brick fragment was recovered from the edge of the power line easement on the surface of the field. ACS excavated five shovel tests in this location, all were negative. Plowzone consists of brown sandy loam 0.90 feet deep. Subsoil is yellow clay at least 0.10 feet thick. ACS recommended no further work at this isolated find.

#### GMB46-Dump

A mid 20<sup>th</sup> century dump site was noted on the point of land jutting out in to Skiffe's Creek. The material was not collected, but Virginia license plates dating 1949, 1950, and 1953, clear glass milk and liquor bottles, Pond's milk glass jars, one Brellis wave set hair treatment bottle, amber Clorox bottles, screw top clear glass salt and pepper shakers, and crown top drink bottles labeled Pepsi-cola, Coca-Cola, Pal, 7-Up, and Dr. Pepper were noted strewn about the ground surface. ACS recommended no further work at this location. McCormick Taylor shovel tested this area during their survey and expanded the site to the south towards Route 60. They also recommended no further work for the resource.

In addition, the ACS project map shows an additional 16 positive shovel tests on the map with no labeling associated with the positive shovel tests. The artifact inventory lists 17 positive shovel tests (see listing below). Circa~ could not recreate the grid to determine where these artifacts were recovered on the tract since the ACS map did not have any grid numbers for the transect and the shovel test lines. The Transect 11 shovel tests may coincide with a grouping of five positive shovel tests located in the northwestern corner of the woods, and probably represents a small late 19<sup>th</sup> to early 20<sup>th</sup> century site.

Shovel Test 2/1	One modern clear bottle glass fragment
Shovel Test 5-2	Two cut or wrought iron nail fragments
Shovel Test 11-2	Two colorless modern bottle glass fragments
Shovel Test 11/3	Three handmade brick fragments
Shovel Test 11/3A	One brown transfer-print whiteware plate fragment, one amber bottle glass fragment, one cinder fragment, eight handmade brick fragments, and one fire-cracked quartzite fragment
Shovel Test 11/3B	One pale blue pharmaceutical bottle glass fragment, one colorless bottle glass fragment, one iron wire nail, and two scrap iron fragments

Shovel Test 11/3C	One iron plow blade fragment, one colorless bottle glass fragment, three iron cut nails, and one handmade brick fragment
Shovel Test 21/1 Shovel Test 24/2	One handmade brick fragment One porcelain fragment
Shovel Test 24/5	Three modern sheet iron fragments and one pale green window glass fragment
Shovel Test 28/1	One handmade brick fragment
Shovel Test 29/1	One handmade brick fragment
Shovel Test 29/1B	One American gray stoneware sherd
Shovel Test 36	One handmade brick fragment
Between Shovel Test 47/2 and 48/2	One machine-made brick fragment
Shovel Test 49/1	One colorless modern glass condiment jar fragment
Shovel Test 49/2	One machine-made brick fragment and one rodent jaw bone fragment

#### Site 44JC1024

Situated on the east side of the landform sloping to a ravine, ACS identified this site by artifacts scattered on the surface of an open field. Approximately 275 feet north to south by 250 feet east to west, the borders were established from the surface as well as from 22 shovel tests. At this location, plowzone soils of gray-brown sandy loam range in depths from 0.70 feet to 1.10 feet. Underlying subsoil is yellow clay at least 0.20 feet thick.

ACS collected 109 artifacts from the field surface. Of the artifacts recovered, one or 1% date to the Native American period, five or 5% are natural, and 103 or 94% are historic. The Native American artifact consisted of one quartzite flake. ACS also recovered three bog iron fragments, one Yorktown fossilized clam shell, and one deer antler. The historical material included 85 ceramic sherds, 10 glass fragments, three bog iron fragments, one oyster shell fragment, one mortar sample, and six handmade brick fragments. The ceramic sherds included 70 pearlware (post 1780), four whiteware (post 1820), six English bone china (circa 1810), three Chinese porcelain (18<sup>th</sup> century), one English Canary ware (circa 1790 – 1820), three Pennsylvania coarse earthenware (circa 1740 – 1820), and four American blue and gray stoneware (post 1800). The glass fragments. Three crown window glass fragments and two fire-damaged clear glass fragments were also recovered.

The ACS shovel test map shows 22 shovel tests excavated in a cruciform pattern across the surface collect area. Of this number, 11 shovel tests were positive. Of the 40 artifacts recovered,

none or 0% date to the Native American period, none or 0% are natural, and 40 or 100% are historic. The historical material included six ceramic sherds, one glass fragment, two indeterminate nail fragments, two oyster shell fragments, and 29 handmade brick fragments. The ceramic sherds included four pearlware sherds (post 1780) and two Pennsylvania coarse earthenware sherds (circa 1740 to 1820). The glass fragment consisted of one crown window glass fragment.

The ceramics, as well as the two recovered English wine bottle glass fragments, suggest a domestic site with occupation from circa 1780 to circa 1840. ACS believed that the site is likely to contain subsurface deposits preserved below plowzone. Thus, ACS recommended avoidance of this location or a Phase II evaluation.

In 2001, WMCAR's revised project alignment was located on the eastern edge of Site 44JC1024. However, WMCAR did not shovel test within the project area; relying instead on the previous survey work. WMCAR noted that the site was likely associated with the George Blow family, a large landowner in the area and potentially the operations of the nearby Blow's Mill. They further noted that historic deposits were thought to potentially represent an occupation by an overseer, field hand, or a tenant that many have been involved in the operation of the mill. In August 2001, VDHR stated that the site was potentially eligible for listing on the National Register of Historic Places.

In 2013, McCormick Taylor noted that the site was located in open fields and woods of their alignment for the intersection of Route 60 and I-64. Both ACS and WMCAR had the site located only in the field more towards the west of where McCormick Taylor mapped the site. McCormick Taylor recovered 57 artifacts from their survey efforts. These artifacts included one aqua-tinted glass fragment, two lime fragments, one wire fragment, one iron rod fragment, 12 oyster shell fragments, one clam shell fragment, 18 indeterminate shell fragments, 12 brick fragments (not retained), one wrought nail, one cut nail, two whiteware sherds, one refined whiteware sherd, three blue transfer-print pearlware sherds, and one blue shell-edged pearlware sherd. These artifacts appear to be slightly different and not the same quantities as the artifacts recovered from the ACS survey. In addition, ACS had two positive shovel tests in the McCormick Taylor location during their survey, which they mapped as outside of their boundary for 44JC1024.

It is possible that two sites are located within this area, the original Site 44JC1024 located by both ACS and WMCAR entirely in the field and another later site located by McCormick Taylor partially in the field and within the woods. Currently in the VDHR V-CRIS system, the site is mapped to the east where McCormick Taylor thought the site was, instead of entirely in the field where ACS and WMCAR noted the site was located. McCormick Taylor concurred with VDHR that Site 44JC1024 was potentially eligible for listing on the National Register of Historic Places and recommended that a Phase II survey of the site be conducted if the site could not be avoided by future construction.

Circa~ visited the project area after the corn was harvested to see if the site locations could be determined. The area where ACS mapped the site is on the edge of an elevated landform that slopes down to the ravine to the east. Circa~ noted three pearlware sherds and two brick

fragments on this rise. Ground visibility was at 90% or less as debris from the corn harvest was covering the ground surface (Plate 1). The area where McCormick Taylor mapped the site (and where it is currently shown on the V-CRIS mapping) is located at a lower elevation, almost in a hole, with the surrounding land south of Route 60 and to the west of their site at a higher elevation. This site location would seem impractical as the surrounding water would all drain to this location and then into Swift Creek. In addition, the area where ACS had mapped the site was dry and the area where McCormick had mapped the site was still wet from rainfall over the weekend.



Plate 1. View of the upland where ACS mapped 44JC1024 from where McCormick Taylor mapped the site, looking west.

#### 44JC1028

Situated in a wooded setting overlooking a tributary of Skiffe's Creek, Site 44JC1028 appears to be the remains of a small, demolished 20<sup>th</sup> century brick pier supported structure. Artifacts were recovered on the surface and in shovel tests in an area approximately 150 feet north to south by 100 feet east to west. The borders were established from the surface as well as from 15 shovel tests. The top soil layer consists of brown sandy loam 0.70 feet to 0.90 feet deep. Light brown clay subsoil follows and is over 0.10 feet thick.

The surface of the site was littered with machine-molded brick, concrete, and scrap iron. The recovered material includes modern colorless glass. No further work is recommended at this destroyed  $20^{\text{th}}$  century building site. This site is shown at the edge of the field on the current V-CRIS maps. Circa~ believes that the site is located further to the west in the woods.

In sum, Circa~ does not recommend any further Phase I survey work be completed on the overall tract. The survey completed on the open cultivated fields was done with enough visibility to identify resources on the ground surface. In addition, the wooded area was shovel tested at 50-foot intervals. Circa~ does recommend verifying the locations of the three possible archaeological sites through either surface identification of artifacts or some limited shovel testing.

#### **REFERENCED CITED**

Archaeological and Cultural Solutions, Inc.

1999 Phase I Cultural Resources Investigations of +/- 218 Acres on the Greenmount Tract, James City County, Virginia.

#### Cultural Resources, Inc.

2012 A Phase I Cultural Resources Survey of the Proposed Approximately 20.2-Mile Dominion Virginia Power Skiffe's Creek to Whealton 230 kV Transmission Line in James City and York Counties and the Cities of Newport News and Hampton.

#### McCormick Taylor

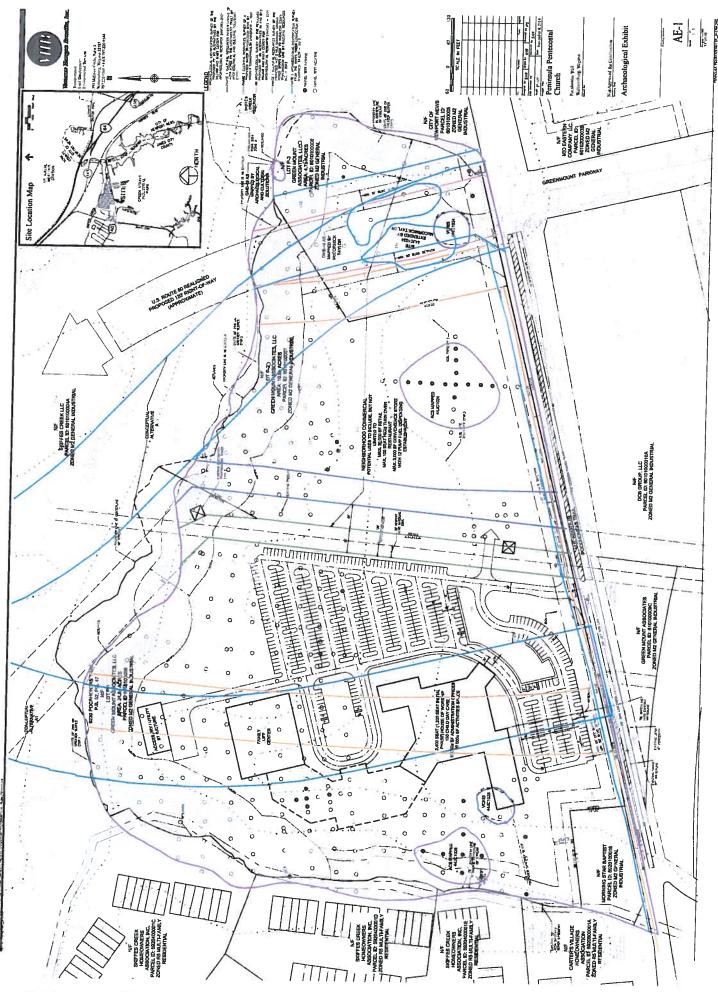
2013 Phase I Archaeological Identification Survey for the Skiffe's Creek Connector (from U. S. 60 to VA Route 143), Williamsburg, James City County, Virginia

#### Virginia Commonwealth University

1991 Phase I Cultural Resources Survey of a Proposed Water Transmission Main for the City of Newport News, Virginia.

#### William and Mary Center for Archaeological Research

- 2001a An Archaeological Identification Survey of the Proposed Route 60 Alternatives, James City County and City of Newport News, Virginia.
- 2001b An Archaeological Survey of the Realigned Proposed Route 60 Alternatives A-1 and B-2 Within the Greenmount Industrial Park



# 2-000 6 - 2014



## PLANNING DIVISION FEB 02 2015 RECEIVED

#### **Project Description**

The Peninsula Pentecostals Rezoning of the  $40.3\pm$  acre Greenmount Kirby Tract (Lots P-1, P-2 & P-3) contemplates development of a House of Worship, Day Care, Administration Offices, Ministry Support Apartment, Family Life Center, Accessory/Utility Structure, multi-purpose recreational fields, 480 car parking lot and associated drive aisles and sidewalks on the  $24.8\pm$  acre Lot P-1. The Peninsula Pentecostals Rezoning of the  $40.3\pm$  acre Greenmount Kirby Tract also contemplates a Commercial Mixed Use development on the  $10.8\pm$  acre Lot P-2 and  $4.7\pm$  acre Lot P-3. The  $40.3\pm$  acre Greenmount Kirby Tract (Lots P-1, P-2 & P-3) is located on the northerly side of US Route 60 (Pocahontas Trail) near the corporate boundary between James City County and Newport News.

#### **Existing Site Conditions**

Lot P-1 is 24.8± acres in size, half of which is wooded. The other half is in cropland. Lot P-1 is also encumbered by a high voltage electricity transmission line and appurtenant easement. The easement is maintained in a cleared condition. 15± acres of the Lot P-1 is anticipated to be disturbed as a part of this project. The western boundaries of Lot P-1 is the centerline of a tributary stream to Skiffes Creek. The northern boundary is the centerline of Skiffes Creek. There are wetlands and buffers upland and along the northern and western boundaries. The southern boundary is US Route 60 (Pocahontas Trail) a Community Character Corridor and the eastern boundary is the centerline of the 120' wide easement for the existing high voltage electricity transmission line.

Lot P-2 is 10.8 acres in size,  $4.5\pm$  acres are wooded and  $6.3\pm$  acres are open, in cropland. Lot P-2 is also encumbered by an high voltage electricity transmission line and appurtenant easement. The easement is maintained in a cleared condition.

Lot P-3 is  $4.7\pm$  acres in size,  $3.5\pm$  acres are wooded and  $1.2\pm$  acres are open, in cropland. Part of Lot P-3 has been identified as corridor for the preferred alternative for the Skiffes Creek Connector (US Route 60 Realignment) project.

Lots P-2 and P-3 are bound on the west by Lot P-1, the north and erast by Skiffes Creek and south by US Route 60 (Pocahontas Trail) a Community Character Corridor.

Slopes vary from less than 2% across the cropland areas to 3:1 or steeper along embankments leading down to the streams. Elevations range from 16 to 60 feet above sea level.



#### Adjacent Area

Adjacent property to the west, north and east of Lots P-1, P-2 and P-3 is part of Skiffes Creek and Skiffes Creek Reservoir. Erosion and sediment control measures will need to be designed to protect these sensitive lands from construction activities on Lots P-1, P-2 and P-3. Stormwater runoff from Lots P-1, P-2 and P-3 during and after construction will need to conform to water quality and water quantity design criteria defined by Code.

#### **Offsite Disturbed Area**

No off-site disturbance is anticipated with this project.

#### **Critical Erosion Areas**

Disturbance of steep slopes will be avoided to the extent practicable, other than the work necessary for stormwater BMPs discharge and sanitary sewer connection. Such disturbances will have protective covering applied immediately in order to accelerate stabilization as will constructed slopes 3:1 and steeper.

#### **Demolition**

Demolition will involve clearing and grubbing the portion of Lots P-1, P-2 and P-3 as needed for construction.

#### Utilities

The proposed buildings will be served by underground electric, telephone, sanitary, and gas utilities. The existing overhead utilities along U.S. Route 60 (Pocahontas Trail) will remain as will the existing overhead high voltage electricity transmission line.

#### Proposed Grading and Paving

Lots P-1, P-2 and P-3 will be graded to direct stormwater runoff away from the proposed buildings to perimeter grass lined swales and BMPs.

#### **Stormwater Management Considerations**

The site naturally drains south to north from US Route 60 to Skiffes Creek. This drainage pattern will be maintained to the extent practicable.

C:UsersivalambertAppData\LocalMicro soft\Windows\Temporary Internet FilesiContent.Outlook\9542LJFU2015-01-21 TPP SWM Narrative sar edit.docx

Stormwater Management Narrative



1

The buildings, parking areas, drive aisles and sidewalks will create 8.7± acres of impervious surfaces on Lot P-1. Additionally, 6± acres of woods and cropland will be converted into managed turf and landscaped areas. The stormwater runoff from these areas will need to conform to water quality and water quantity design criteria defined by Code. Multiple areas will be available to accommodate stormwater BMPs. Stormwater runoff from the constructed improvements will be conveyed via grass lined swales to the BMPs for quality improvement and quantity control prior to discharge to a stilling basin upstream of wetlands, thus dissipating the energy from the concentrated flow before discharging to the receiving channel, Skiffes Creek. The point of discharge to Skiffes Creek is located approximately 1,000 feet upstream of Skiffes Creek Reservior. At the point of discharge, the receiving channel is a mild gradient meandering channel, several feet wide, stable condition and within a broad, moderately wooded floodplain. Channel protection criteria will be as required by the minimum stadards published in section 9CAC25-870-66 Water Quantity of the Virginia Stormwater Management Regulations.

Two options are proposed to provide compliance with Code required water quality and water quantity discharge criteria. Exhibit A provides an option using several bioretention basins and an extended detention pond. The bioretention basins are proposed to be located in areas of the site suitable to treat most of the parking area and the building roof. Bioretention basins A, B, and C are located in drainage area #1 which covers most of the front half of the site. Drainage area #1 is 6.3± acres and will require all three basins because of the Code requirement limiting each bioretention cell to 2.5 acres of drainage area. Drainage area #2 is 4.0± acres and receives runoff from the middle of the parking lot and the building roof. Basin D is shown as a single bioretention basin and will need to be designed as two separate cells since the drainage area is larger than 2.5 acres. Drainage area #3 is 2.0 acres and covers the rear of the proposed building and part of the roof. Bioretention basins E and F are sized much larger than required since the contributing drainage area may change depending on roof drainage design. Overflow from all of the bioretention basins will be conveyed to the extended detention basin in the rear of the site via open channels or underground conduits. Exhibit B provides an option using wet ponds. Grass lined channels will convey the runoff from the improved areas wet ponds. A single wet pond near the rear of Lot P-1 is preferable, however, it may necessary to construct supplemental wet ponds around the front parking area in order to achieve the treatment shown in the VRRM Worksheet.

In both of these scenarios, a storm sewer system will convey discharge from the ponds' outlet control structures to a stilling basin located upland of the wetlands, requiring encroachment into the RPA buffer. Encroachment into the RPA buffer will be limited to construction of the BMP discharge structure and stilling basin.

Stormwater Management Narrative

Virginia Runoff Reduction Metho	od New Devel	opment Works	heet - v2.8 - June	2014	
To be used w/ 2011 BMP Standa					
Site Data					
Project Name: Peninsula Pentecosta	l ot P-1 - Exhib				
Date: 1/2015		It A Dioretention			
	data input cells				
	calculation cells				
	constant values				
1. Post-Development Project & L	and Cover In	formation			
Constants					
Annual Rainfall (inches)	43				
Target Rainfall Event (inches)	1.00				
Phosphorus EMC (mg/L)	0.26	1	Nitrogen EMC (mg/L)	1.86	
Target Phosphorus Target Load (lb/acre/yr)	0.41				•
Pj	0.90				
Land Cover (acres)					
	A soils	B Soils	C Soils	D Soils	Totals
Forest/Open Space (acres) undisturbed,					
protected forest/open space or reforested land	0.0000	0.0000	5.2700	0.0000	5.2700
Managed Turf (acres) disturbed, graded for	0.0000	0.0000	40.0000	0.0000	40.0000
yards or other turf to be mowed/managed	0.0000	0.0000	10.8600	0.0000	10.8600
Impervious Cover (acres)	0.0000	0.0000	8.6700	0.0000	8.6700
				Total	24.8000
Rv Coefficients					
	A soils	B Soils	C Soils	D Soils	
Forest/Open Space	0.02	0.03	0.04	0.05	
Managed Turf	0.15	0.20	0.22	0.25	
Impervious Cover	0.95	0.95	0.95	0.95	
· ·					
Land Cover Summary					
Forest/Open Space Cover (acres)	5.2700	7			
Weighted Rv(forest)	0.0400				
% Forest	21%				
Managed Turf Cover (acres)	10.8600				
Weighted Rv(turf)	0.2200				
% Managed Turf	44%				
Impervious Cover (acres)	8.6700				
Rv(impervious)	0.95				
% Impervious	35%				
Total Site Area (acres)	24.8000				
Site Rv	0.44				
Post-Development Treatment Volume (acre-ft)	0.90				
Post-Development Treatment Volume (acte-it)	0.90				
feet)	39,336	j			
Post_Development Load (TP) (lb/yr)	24.72		lopment Load (TN) (lb/yr)	176.81	
Total Load (TP) Reduction Required (lb/yr)	14.55				

Drainage Area A Drainage Area A Land Cover (acres)																			
Forest/Open Space (acres) Managed Turf (acres) Impervious Cover (acres)	A soils B Soils 0.0000 0.0000 0.0000 0.0000	C Solls D Solls 0.0000 0.0000 8.0000 0.0000 8.6700 0.0000	Totals 0.0000 8.0000 8.6700	Land Cover Rv 0.00 0.22 0.95															
Apply Runoff Reduction Practi	ces to Reduce Treatm	Total	16.6700	1	Inage Area A	Post Devel	lopment Treatm	ent Volume (c	3628										
Practice	Unit	Description of Credit	Credit	Credit Area (acres)	Volume from Upstream RR Practice (cf)	Runoff Reduction (cf)	Remaining Runoff Volume (cf)	Phosphorus Efficiency (%	Phosphorus Load from Upstream RR Practices (lbs)	Untreated Phosphorus Load to Practice (Ibs.)	Phosphorus Removed By Practice (lbs.)	Remaining Phosphorus Load (Ibs.)	Downstream Treatment to be Employed	Nitrogen Efficiency (%)	Nitrogen Load from Upstream RR Practices (lbs)	Untreated Nitrogen Load to Practice (lbs.)	Nitrogen Removed By Practice (lbs.)	Remaining Nitrogen Load (Ibs.)	
1. Vegetated Roof 1.a. Vegetated Roof #1 (Spec #5)	acres of green roof	45% runoff volume reduction	0.45	0.0000	0	0	0	0	0.00	0.00	0.00	0.00		1. Green F	0.00	0.00	0.00	0.00	
1.b. Vegetated Roof #2 (Spec #5)	acres of green roof	60% runoff volume reduction	0.60	0.0000	0	0	0	0	0.00	0.00	0.00	0.00		0	0.00	0.00	0.00	0.00	ļ
2. Rooftop Disconnection 2.a. Simple Disconnection to A/B Solis (Spec	impenious acres disconnector	50% runoff volume reduction	0.50	0.0000	0	0	0	0	0.00	0.00	0.00	0.00		2. Impervi	ous Surface Di	sconnection	0.00	0.00	
#1) 2.b. Simple Disconnection to C/D Soils (Spec #1)	impervious acres disconnected	d for treated area 25% runoff volume reduction for treated area	0.50	0.0000	0	0	0	0	0.00	0.00	0.00	0.00		0	0.00	0.00	0.00	0.00	
2.c. To Soil Amended Filter Path as per specifications (existing C/D soils) (Spec #4) 2.d. To Dry Well or French Drain #1	impervious acres disconnected	50% runoff volume reduction for treated area 50% runoff volume reduction	0.50	0.0000	0	0	0	0	0.00	0.00	0.00	0.00		0	0.00	0.00	0.00	0.00	
(Microinfiration #1) (Spec #8) 2.e. To Dry Well or French Drain #2 (Micro- Infibration #2) (Spec #8) 2.f. To Rain Garden #1 (Micro-Bioretention	impervious acres disconnected	5 for treated area 50% runoff volume reduction 5 for treated area	0.50	0.0000	0	0	0	25 25	0.00	0.00	0.00	0.00		15	0.00	0.00	0.00	0.00	
21. To Hoan Garden #1 (Micro-Bioretention #1) (Spec #0) 2.g. To Rain Garden #2 (Micro-Bioretention #2) (Spec #0)	impervious acres disconnected	40% of volume captured 80% runoff volume reduction for treated area	0.40	0.0000	0	0	0	25 50	0.00	0.00	0.00	0.00		40	0.00	0.00	0.00	0.00	ł
2.h. To Rainwater Harvesting (Spec #8)	impervious acres captured	based on tank size and design spreadsheet (See Spec #6)	0.00	0.0000	0	0	0	0	0.00	0.00	0.00	0.00		0	0.00	0.00	0.00	0.00	
2.i. To Stormweter Planter (Urban Bioretention) (Spec #9, Appendix A)	impervious acres disconnecter	40% runoff volume reduction for treated area	0.40	0.0000	0	0	0	25	0.00	0.00	0.00	0.00		40	0.00	0.00	0.00	0.00	ļ
3. Permeable Pavement 3.a. Permeable Pavement #1 (Spec #7)	acres of permeable pavement - acres of "external" (upgradient)	:												3. Permea	ble Pavement				
3.b. Permeable Pavement #2 (Spec #7)	impervious pavement	45% runoff volume reduction 75% runoff volume reduction	0.45	0.0000	0	0	0	25 25	0.00	0.00	0.00	0.00		25	0.00	0.00	0.00	0.00	l
4. Grass Channel	imperviews areas desister		_					_		_			· · · · · · · · · · · · · · · · · · ·	4. Grass (	hannel	1			
4.a. Grass Channel A/B Soils (Spec #3)	impervious acres draining to grass channels turf acres draining to grass channels	20% runoff volume reduction 20% runoff volume reduction	0.20	0.0000	0	0	0	15 15	0.00	0.00	0.00	0.00		20	0.00	0.00	0.00	0.00	<u> </u>
4.b. Grass Channel C/D Soils (Spec #3)	impervious acres draining to grass channels turf acres draining to grass	10% runoff volume reduction	0.10	0.0000	0	0	0	15	0.00	0.00	0.00	0.00		20	0.00	0.00	0.00	0.00	
4.c. Grass Channel with Compost Amended Soils as per specs (see Spec #4)	channels impervious acres draining to grass channels turf acres draining to grass	10% runoff volume reduction 30% runoff volume reduction	0.10	0.0000	0	0	0	15 15	0.00	0.00	0.00	0.00		20	0.00	0.00	0.00	0.00	ĺ
	turt acres draning to grass channels	30% runoff volume reduction	0.30	0.0000	0	0	0	15	0.00	0.00	0.00	0.00		20	0.00	0.00	0.00	0.00	-
5. Dry Swale 5.a. Dry Swale #1 (Spec #10)	impervious acres draining to dr swale	y 40% runoff volume reduction	0.40	0.0000	0	0	0	20	0.00	0.00	0.00	0.00		5. Dry Sw 25	0.00	0.00	0.00	0.00	
	turf acres draining to dry swale impervious acres draining to dr swale	40% runoff volume reduction y 60% runoff volume reduction	0.40	0.0000	0	0	0	20 40	0.00	0.00	0.00	0.00		25	0.00	0.00	0.00	0.00	ł
5.b. Dry Swale #2 (Spec #10)	swate turf acres draining to dry swale		0.60	0.0000	0	0	0	40	0.00	0.00	0.00	0.00		35	0.00	0.00	0.00	0.00	ļ
6. Bioretention 6.a. Bioretention #1 or Urban Bioretention	impervious acres draining to	100	0.40	0.0000	0	0	0	25	0.00	0.00	0.00	0.00		6. Biorete 40	ntion 0.00	0.00	0.00	0.00	
(Spec #9)	bioretention turf acres draining to bioretention impervious acres draining to	40% runoff volume reduction	0.40	0.0000	0	0	0	25	0.00	0.00	0.00	0.00		40	0.00	0.00	0.00	0.00	
6.b. Bioretention #2 (Spec #9)	bioretention turf acres draining to bioretention	80% runoff volume reduction 80% runoff volume reduction	0.80	6.4800 6.0200	0	17877 3846	4469 962	50 50	0.00	14.02 3.02	12.62	0.30	8.a. ED #1	60	0.00	100.33 21.58	92.30 19.86	8.03	
7. Infiltration	impervious acres draining to		_			:	:		:	1	:	:		7. Infiltrat	on				
7.a. infitration #1 (Spec #8)	infitration turf acres draining to infitration	50% runoff volume reduction	0.50	0.0000	0	0	0	25 25	0.00	0.00	0.00	0.00		15 15	0.00	0.00	0.00	0.00	
7.b. infitration #2 (Spec #8)	impervious acres draining to infitration	90% runoff volume reduction	0.90	0.0000	0	0	0	25	0.00	0.00	0.00	0.00		15	0.00	0.00	0.00	0.00	
8. Extended Detention Pond	turf acres draining to infiltration	50% runoff volume reduction	0.90	0.0000	0	0	0	25	0.00	0.00	0.00	0.00		15 8. Extend	0.00	0.00	0.00	0.00	
8.a. ED #1 (Spec #15)	impervious acres draining to ED		0.00	2.1900	4469	0	12021	15	1.40	4.74	0.92	5.22		10	8.03	33.91	4.19	37.74	
8.b. ED #2 (Spec #15)	turf acres draining to ED impervious acres draining to ED	0% runoff volume reduction 15% runoff volume reduction	0.00	0.0000	962 0	0	2543 0	15 15	0.30	0.99	0.19	0.00		10	1.73	7.10	0.88	7.94 0.00	1
	turf acres draining to ED	15% runoff volume reduction	0.15	0.0000	0	0	0	15	0.00	0.00	0.00	0.00	i i i i i i i i i i i i i i i i i i i	10	0.00	0.00	0.00	0.00	1
9. Sheetflow to Filter/Open Space	conserved open space	75% runoff volume reduction for treated area	0.75	0.0000	0	0	0	0	0.00	0.00	0.00	0.00		9. Sheetfi	0.00	tion Area or Fil	ter Strip 0.00	0.00	l
9.a. Sheetflow to Conservation Area with A/B Soils (Spec #2)	turf acres draining to conserved open space impervious acres draining to	d 75% runoff volume reduction for treated area 50% runoff volume reduction for treated area	0.75	0.0000	0	0	0	0	0.00	0.00	0.00	0.00		0	0.00	0.00	0.00	0.00	
9.b. Sheetflow to Conservation Area with C/D Soils (Spec #2)	conserved open space turf acres draining to conserve open space immerviews acres draining to	d 50% runoff reduction volume for treated area	0.50	0.0000	0	0	0	0	0.00	0.00	0.00	0.00		0	0.00	0.00	0.00	0.00	
9.c. Sheetflow to Vegetated Filter Strip in A Solls or Compost Amended B/C/D Solls (Sper #2 & #4)	impervious acres draining to filter strip turf acres draining to filter strip	50% runoff reduction volume	0.50	0.0000	0	0	0	0	0.00	0.00	0.00	0.00		0	0.00	0.00	0.00	0.00	ŀ
		TOTAL IMPERVIOUS COVE TOTAL TURF ARE	R TREATED (ac) A TREATED (ac)	8.6700 8.0000															
		TOTAL P	AREA CHECH	KOK. EMOVAL REQUIRE	ED ON SITE (Ib/yr	14.55	<b>I</b>												
		OSPHORUS REMOVAL FROM					t						NITROGEN REMOVAL P	TOTA ROM RUNOFF RED	RUNOFF REDUC	TION IN D.A. A (cf ES IN D.A. A (by)	21,723 162.92		
Apply Practices that Remove F	Pollutants but Do Not	Reduce Runoff Volum	10																
Practice	Unit	Description of Credit	Credit	Credit Area (acres)	Volume from Upstream RR Practice (cf)	Runoff Reduction (cf)	Remaining Runoff	Phosphorus Efficiency (%	Phosphorus Load from Upstream RR Practices (bs)	Untreated Phosphorus Load to Practice (lbs.)	Phosphorus Removed By Practice (lbs.)	Remaining Phosphorus Load (Ibs.)	Downstream Treatment to be Employed	Nitrogen Efficiency (%)	Nitrogen Load from Upstream RR Practices (lbs)	Untreated Nitrogen Load	Nitrogen Removed By Practice (Ibs.)	Remaining Nitrogen Load	I
Practice 10. Wet Swale (Coastal Plain)	Unit												Considerant Instantic to be Employed	10. Wet S	vale (Coastal P	lain)			·····
10.a. Wet Swale #1 (Spec #11)	swale turf acres draining to wet swale	0% runoff volume reduction	0.00	0.0000	0	0	0	20 20	0.00	0.00	0.00	0.00		25 25	0.00	0.00	0.00	0.00	l
10.b. Wet Swale #2 (Spec #11)	impervious acres draining to we swale	at 0% runoff volume reduction	0.00	0.0000	0	0	0	40	0.00	0.00	0.00	0.00		35	0.00	0.00	0.00	0.00	
10.b. Wet Swale #2 (Spec #11) 11. Filtering Practices	turf acres draining to wet swale		0.00	0.0000	U			40	0.00	0.00	0.00	0.00			0.00 ng Practices	0.00	0.00	0.00	Į
	impervious acres draining to filter	0% runoff volume reduction	0.00	0.0000	0	0	0	60	0.00	0.00	0.00	0.00		30	0.00	0.00	0.00	0.00	
11.a.Filtering Practice #1 (Spec #12)	turf acres draining to filter impervious acres draining to filter	0% runoff volume reduction 0% runoff volume reduction	0.00	0.0000	0	0	0	60 65	0.00	0.00	0.00	0.00		30 45	0.00	0.00	0.00	0.00	
11.b. Filtering Practice #2 (Spec #12)	turf acres draining to filter	0% runoff volume reduction	0.00	0.0000	0	0	0	65	0.00	0.00	0.00	0.00		45	0.00	0.00	0.00	0.00	1
12. Constructed Wetland	impervious acres draining to wetland	0% runoff volume reduction	0.00	0.0000	0	0	0	50	0.00	0.00	0.00	0.00		12. Const 25	0.00	0.00	0.00	0.00	[
12.a.Constructed Wetland #1 (Spec #13)	turf acres draining to wetland impervious acres draining to workland	0% runoff volume reduction	0.00	0.0000	0	0	0	50 75	0.00	0.00	0.00	0.00		25	0.00	0.00	0.00	0.00	
12.b. Constructed Wetland #2 (Spec #13)	wedand	0% runoff volume reduction	0.00	0.0000	0	0	0	75	0.00	0.00	0.00	0.00		55	0.00	0.00	0.00	0.00	l
13. Wet Ponds	impervious acres draining to we	a	0											13. Wet P					
13.a. Wet Pond #1 (Spec #14)	pond turf acres draining to wet pond	0% runoff volume reduction	0.00	0.0000	0	0	0	50 50	0.00	0.00	0.00	0.00		30	0.00	0.00	0.00	0.00	
13.b. Wet Pond #1 (Coastal Plain) (Spec #14)	impervious acres draining to we pond turf acres draining to wet pond	at 0% runoff volume reduction 0% runoff volume reduction	0.00	0.0000	0	0	0	45 45	0.00	0.00	0.00	0.00		20	0.00	0.00	0.00	0.00	ł
A (COMMENTING) (OPEC #14)	turt acres draming to wet pond impervious acres draining to we pond	at 0% runoff volume reduction	0.00	0.0000	0	0	0	75	0.00	0.00	0.00	0.00		40	0.00	0.00	0.00	0.00	

13.c. Wet Pond #2 (Spec #14)	turf acres draining to wet pond	0% runoff volume reduction	0.00	0.0000	0	0	0	75	0.00	0.00	0.00	0.00		40	0.00	0.00	0.00	0.00	
	impervious acres draining to wet pond	0% runoff volume reduction	0.00	0.0000	0	0	0	65	0.00	0.00	0.00	0.00		30	0.00	0.00	0.00	0.00	
13.d. Wet Pond #2 (Coastal Plain) (Spec #14)	turf acres draining to wet pond	0% runoff volume reduction	0.00	0.0000	0	0	0	65	0.00	0.00	0.00	0.00		30	0.00	0.00	0.00	0.00	<b>I</b> ]
14. Manufactured BMP	i	i										1	i i	14. Manufa	ctured BMP				
	impervious acres draining to device	0% runoff volume reduction	0.00	0.0000	0	0	0	0	0.00	0.00	0.00	0.00		0	0.00	0.00	0.00	0.00	
14. Insert Name of Device	turf acres draining to device	0% runoff volume reduction	0.00	0.0000	0	0	0	0	0.00	0.00	0.00	0.00		0	0.00	0.00	0.00	0.00	
		TOTAL IMPERVIOUS COVER																	
			AREA CHECK	OK.															
	PHOSPHORUS	REMOVAL BY PRACTICES		EDUCE RUNOFF															
	SEE WATER QUAI	LITY COMPLIANCE TAB																	
	NITROGEN	REMOVAL BY PRACTICES 1	HAT DO NOT R TOTAL NI	EDUCE RUNOFF 1 TROGEN REMOVA	OLUME IN D.A. A L IN D.A. A (Ib/yr)	0.00 162.92													

Site Results						
	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	AREA CHECK
IMPERVIOUS COVER	8.6700	0.0000	0.0000	0.0000	0.0000	OK.
IMPERVIOUS COVER TREATED	8.6700	0.0000	0.0000	0.0000	0.0000	OK.
TURF AREA	8.0000	0.0000	0.0000	0.0000	0.0000	OK.
TURF AREA TREATED	8.0000	0.0000	0.0000	0.0000	0.0000	OK.
AREA CHECK	OK.	OK.	OK.	OK.	OK.	
Phosphorus						
TOTAL TREATMENT VOLUME (cf)	39,336					
TOTAL PHOSPHORUS LOAD REDUCTION REQUIRED (LB/YEAR)	14.55					
RUNOFF REDUCTION (cf)	21723					
PHOSPHORUS LOAD REDUCTION ACHIEVED (LB/YR)	16.45					
ADJUSTED POST-DEVELOPMENT PHOSPHORUS LOAD (TP) (lb/yr)	8.26					
REMAINING PHOSPHORUS LOAD REDUCTION (LB/YR) NEEDED	ONGRATULATIONS!	YOU EXCEEDED TH	E TARGET REDUCT	ON BY 1.9 LB/YEAR!		
Nitrogen (for information purposes) TOTAL TREATMENT VOLUME (cf)	39,336					
RUNOFF REDUCTION (cf)	21723					
NITROGEN LOAD REDUCTION ACHIEVED (LB/YR)	162.92					
ADJUSTED POST-DEVELOPMENT NITROGEN LOAD (TN) (Ib/yr)	13.89					

			4	0	10		-
Target Rainfall Event (in)	1		1-year storm 0.00	2-year storm	10-year storm		
		4	0.00	0.00	0.00		
Drainage Area A		L.					
Drainage Area (acres)		16.6700					
Runoff Reduction Volume (cf)		21,723					
Drainage Area B							
Drainage Area (acres)		0.0000					
Runoff Reduction Volume (cf)		0					
Drainage Area C							-
Drainage Area (acres)		0.0000					
Runoff Reduction Volume (cf)		0					
Drainage Area D		0.0000					
Drainage Area (acres) Runoff Reduction Volume (cf)		0.0000					
Drainage Area E							
Drainage Area (acres)		0.0000					
Runoff Reduction Volume (cf)		0					
Based on the use of Runoff Reduction	n practices in the sele	cted drainage areas,	the spreadsheet calc	ulates an adjusted R	V <sub>Developed</sub> and adjuste	d Curve Number.	
Drainage Area A			A soils 0.0000	B Soils	C Soils	D Soils	-
Forest/Open Space undisturbed, p space or reforested I		Area (acres) CN	30	0.0000	0.0000 70	0.0000	
Managed Turf disturbed, graded for y		Area (acres)	0.0000	0.0000	8.0000	0.0000	
mowed/managed		ĊN	39	61	74	80	
		Area (acres)	0.0000	0.0000	8.6700	0.0000	
Impervious Cover		CN	98	98	98	98 Weighted CN	S
						86	3 1.63
			1-year storm	2-year storm	10-year storm		
	RV <sub>Developed</sub> (in) with	no Runoff Reduction	0.00	0.00	0.00		
	RV <sub>Developed</sub> (in) w	ith Runoff Reduction	-0.36	-0.36	-0.36		
		Adjusted CN	#N/A	#N/A	#N/A		
Drainage Area B			A soils	B Soils	C Soils	D Soils	
Forest/Open Space undisturbed, p		Area (acres)	0.0000	0.0000	0.0000	0.0000	
space or reforested I		CN	30	55	70	77	
Managed Turf disturbed, graded for y		Area (acres)	0.0000	0.0000	0.0000	0.0000	
mowed/managed		CN	39	61	74	80	_
Impervious Cover		Area (acres) CN	0.0000 98	0.0000 98	0.0000	0.0000	
		0.1			00	Weighted CN	S
						0	1000.00
	RV- (in) with	no Runoff Reduction	1-year storm 0.00	2-year storm 0.00	10-year storm 0.00		
	RV <sub>Developed</sub> (in) w	ith Runoff Reduction	0.00	0.00	0.00		
		Adjusted CN	100	100	100		
							_
Drainage Area C Forest/Open Space undisturbed, p		Area (acres)	A soils 0.0000	B Soils 0.0000	C Soils 0.0000	D Soils 0.0000	
space or reforested l		CN	30	55	70	77	
Managed Turf disturbed, graded for y	ards or other turf to be	Area (acres)	0.0000	0.0000	0.0000	0.0000	
mowed/managed		CN	39	61	74	80	
Impervious Cover		Area (acres) CN	0.0000	0.0000	0.0000	0.0000	
						Weighted CN	S
						0	1000.00
	I		1-year storm	2-year storm	10-year storm		
			0.00	0.00	0.00		
	RV <sub>Developed</sub> (in) with	no Runoff Reduction			0.55		1
	RV <sub>Developed</sub> (in) with RV <sub>Developed</sub> (in) w	ith Runoff Reduction	0.00	0.00	0.00		
	RV <sub>Developed</sub> (in) with RV <sub>Developed</sub> (in) w	no Runoff Reduction ith Runoff Reduction Adjusted CN			0.00 <b>100</b>		
Drainage Area D	RV <sub>Developed</sub> (in) w	ith Runoff Reduction	0.00	0.00		D Soils	
Forest/Open Space undisturbed, p	RV <sub>Developed</sub> (in) w	Adjusted CN Adjusted CN Area (acres)	0.00 100 A soils 0.0000	0.00 100 B Soils 0.0000	100 C Soils 0.0000	0.0000	
Forest/Open Space undisturbed, pi space or reforested I	RV <sub>Developed</sub> (in) w	ith Runoff Reduction Adjusted CN Area (acres) CN	0.00 100 A soils 0.0000 30	0.00 100 B Soils 0.0000 55	100 C Soils 0.0000 70	0.0000 77	
Forest/Open Space undisturbed, p space or reforested I Managed Turf disturbed, graded for y	RV <sub>Developed</sub> (in) w	ith Runoff Reduction Adjusted CN Area (acres) CN Area (acres)	0.00 100 A soils 0.0000 30 0.0000	0.00 100 B Soils 0.0000 55 0.0000	100 C Soils 0.0000 70 0.0000	0.0000 77 0.0000	
Forest/Open Space undisturbed, pi space or reforested I	RV <sub>Developed</sub> (in) w	ith Runoff Reduction Adjusted CN Area (acres) CN Area (acres) CN	0.00 100 A soils 0.0000 30	0.00 100 B Soils 0.0000 55	100 C Soils 0.0000 70	0.0000 77	
Forest/Open Space undisturbed, p space or reforested I Managed Turf disturbed, graded for y	RV <sub>Developed</sub> (in) w rotected forest/open and ards or other turf to be	ith Runoff Reduction Adjusted CN Area (acres) CN Area (acres)	0.00 100 A soils 0.0000 30 0.0000 39	0.00 100 B Soils 0.0000 55 0.0000 61	100 C Soils 0.0000 70 0.0000 74	0.0000 77 0.0000 80 0.0000 98	
Forest/Open Space undisturbed, p space or reforested I Managed Turf disturbed, graded for y mowed/managed	RV <sub>Developed</sub> (in) w rotected forest/open and ards or other turf to be	ith Runoff Reduction Adjusted CN Area (acres) CN Area (acres) CN Area (acres) Area (acres)	0.00 100 A soils 0.0000 30 0.0000 39 0.0000	0.00 100 B Soils 0.0000 55 0.0000 61 0.0000	100 C Soils 0.0000 70 0.0000 74 0.0000	0.0000 77 0.0000 80 0.0000 98 Weighted CN	S
Forest/Open Space undisturbed, p space or reforested I Managed Turf disturbed, graded for y mowed/managed	RV <sub>Developed</sub> (in) w rotected forest/open and ards or other turf to be	ith Runoff Reduction Adjusted CN Area (acres) CN Area (acres) CN Area (acres) Area (acres)	0.00 100 A soils 0.0000 30 0.0000 39 0.0000 98	0.00 100 B Soils 0.0000 61 0.0000 98	100 C Soils 0.0000 70 0.0000 74 0.0000 98	0.0000 77 0.0000 80 0.0000 98	S 1000.00
Forest/Open Space undisturbed, p space or reforested I Managed Turf disturbed, graded for y mowed/managed	RV <sub>Developed</sub> (in) w rotected forest/open and ards or other turf to be	ith Runoff Reduction Adjusted CN Area (acres) CN Area (acres) CN Area (acres) CN CN	0.00 100 A soils 0.0000 30 0.0000 39 0.0000 98 1-year storm	0.00 100 B Soils 0.0000 55 0.0000 61 0.0000 98 2-year storm	100 C Soils 0.0000 70 0.0000 74 0.0000 98 10-year storm	0.0000 77 0.0000 80 0.0000 98 Weighted CN	
Forest/Open Space undisturbed, p space or reforested I Managed Turf disturbed, graded for y mowed/managed	RV <sub>Developed</sub> (in) w otected forest/open and ards or other turf to be RV <sub>Developed</sub> (in) with	ith Runoff Reduction Adjusted CN Area (acres) CN Area (acres) CN Area (acres) CN CN Area (acres) CN no Runoff Reduction	0.00 100 A soils 0.0000 30 0.0000 39 0.0000 98 1-year storm 0.00	0.00 100 B Soils 0.0000 55 0.0000 61 0.0000 98 2-year storm 0.00	100 C Soils 0.0000 70 0.0000 74 0.0000 98 10-year storm 0.00	0.0000 77 0.0000 80 0.0000 98 Weighted CN	
Forest/Open Space undisturbed, p space or reforested I Managed Turf disturbed, graded for y mowed/managed	RV <sub>Developed</sub> (in) w otected forest/open and ards or other turf to be RV <sub>Developed</sub> (in) with	ith Runoff Reduction Adjusted CN Area (acres) CN Area (acres) CN Area (acres) CN CN	0.00 100 A soils 0.0000 30 0.0000 39 0.0000 98 1-year storm	0.00 100 B Soils 0.0000 55 0.0000 61 0.0000 98 2-year storm	100 C Soils 0.0000 70 0.0000 74 0.0000 98 10-year storm	0.0000 77 0.0000 80 0.0000 98 Weighted CN	
Forest/Open Space undisturbed, p space or reforested I Managed Turf disturbed, graded for y mowed/managed Impervious Cover	RV <sub>Developed</sub> (in) w rotected forest/open and ards or other turf to be RV <sub>Developed</sub> (in) with RV <sub>Developed</sub> (in) with	ith Runoff Reduction Adjusted CN CN Area (acres) CN Area (acres) CN Area (acres) CN Area (acres) CN no Runoff Reduction	0.00 100 A soils 0.0000 30 0.0000 39 0.0000 98 1-year storm 0.00 0.00 100	0.00 100 B Soils 0.0000 55 0.0000 61 0.0000 98 2-year storm 0.00 0.00 100	100           C Soils           0.0000           70           0.0000           74           0.0000           98           10-year storm           0.00           0.00           100	0.0000 77 0.0000 80 0.0000 98 Weighted CN 0	
Forest/Open Space undisturbed, p space or reforested I Managed Turf disturbed, graded for y mowed/managed Impervious Cover	RV <sub>Developed</sub> (in) w rotected forest/open and ards or other turf to be RV <sub>Developed</sub> (in) with RV <sub>Developed</sub> (in) w	ith Runoff Reduction Adjusted CN CN Area (acres) CN Area (acres) CN Area (acres) CN Area (acres) CN in Runoff Reduction Adjusted CN	0.00 100 A soils 0.0000 30 0.0000 39 0.0000 98 1-year storm 0.00 0.00 100 A soils	0.00 100 B Soils 0.0000 55 0.0000 61 0.0000 98 2-year storm 0.00 100 B Soils	100 C Soils 0.0000 70 0.0000 98 10-year storm 0.00 0.00 100 C Soils	0.0000 77 0.0000 80 0.0000 98 Weighted CN 0 0	
Forest/Open Space undisturbed, p space or reforested I Managed Turf disturbed, graded for y mowed/managed Impervious Cover	RV <sub>Developed</sub> (in) w otected forest/open and ards or other turf to be RV <sub>Developed</sub> (in) with RV <sub>Developed</sub> (in) w otected forest/open	ith Runoff Reduction Adjusted CN CN Area (acres) CN Area (acres) CN Area (acres) CN Area (acres) CN no Runoff Reduction	0.00 100 A soils 0.0000 30 0.0000 39 0.0000 98 1-year storm 0.00 0.00 100	0.00 100 B Soils 0.0000 55 0.0000 61 0.0000 98 2-year storm 0.00 0.00 100	100           C Soils           0.0000           70           0.0000           74           0.0000           98           10-year storm           0.00           0.00           100	0.0000 77 0.0000 80 0.0000 98 Weighted CN 0	

Managed Turf disturbed, graded for yards or other turf to be	Area (acres)	0.0000	0.0000	0.0000	0.0000	
mowed/managed	CN	39	61	74	80	
	Area (acres)	0.0000	0.0000	0.0000	0.0000	
Impervious Cover	CN	98	98	98	98	
					Weighted CN	S
					0	1000.00
		1-year storm	2-year storm	10-year storm		
RV <sub>Developed</sub> (in) with	no Runoff Reduction	0.00	0.00	0.00		
RV <sub>Developed</sub> (in) w	th Runoff Reduction	0.00	0.00	0.00		
	Adjusted CN	100	100	100		

Runoff Reduction Method New Development Worksheet - v2.8 - June 2014

#### Site Data Summary

Total Rainfall = 43 inches

Site Land Cover Summary

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest (acres)	0.0000	0.0000	5.2700	0.0000	5.2700	21.25
Turf (acres)	0.0000	0.0000	10.8600	0.0000	10.8600	43.79
Impervious (acres)	0.0000	0.0000	8.6700	0.0000	8.6700	34.96
					24,8000	100.00

Site Rv	0.44
Post Development Treatment Volume (ft3)	39336
Post Development TP Load (lb/yr)	24.72
Post Development TN Load (lb/yr)	176.81
Total TP Load Reduction Required (lb/yr)	14.55

Total Runoff Volume Reduction (ft <sup>3</sup> )	21723
Total TP Load Reduction Achieved (lb/yr)	16.45
Total TN Load Reduction Achieved (lb/yr)	162.92
Adjusted Post Development TP Load (lb/yr)	8.26
Remaining Phosphorous Load Reduction (Lb/yr) Required	0.00

#### Drainage Area Summary

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	Total
Forest (acres)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Turf (acres)	8.0000	0.0000	0.0000	0.0000	0.0000	8.0000
Impervious (acres)	8.6700	0.0000	0.0000	0.0000	0.0000	8.6700
						16.6700

#### Drainage Area Compliance Summary

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	Total
TP Load Red. (lb/yr)	16.45	0.00	0.00	0.00	0.00	16.45
TN Load Red. (lb/yr)	162.92	0.00	0.00	0.00	0.00	162.92

# Drainage Area A Summary

Land Cover Summary

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Turf (acres)	0.00	0.00	8.00	0.00	8.00	47.99
Impervious (acres)	0.00	0.00	8.67	0.00	8.67	52.01
					16.67	

## **BMP Selections**

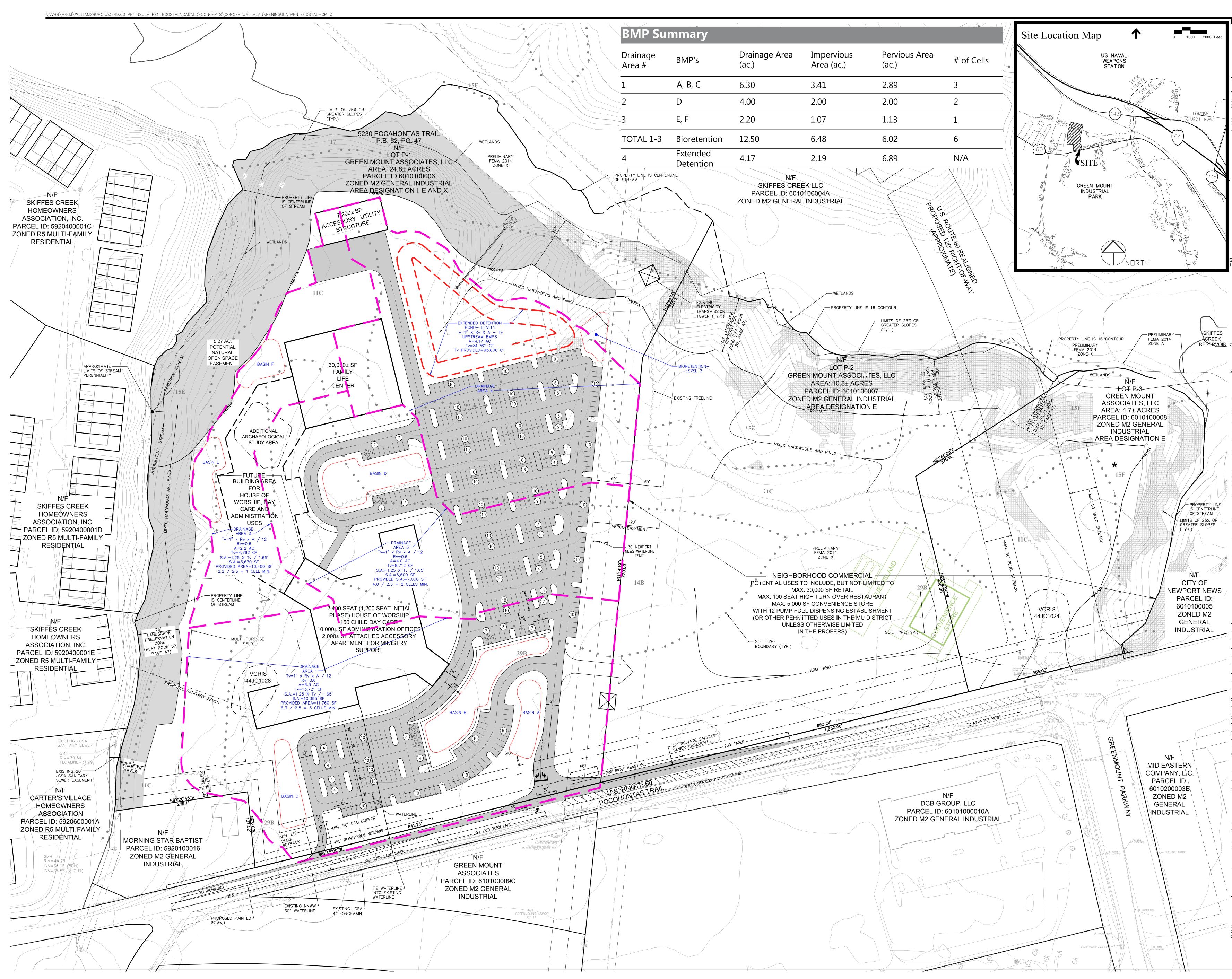
Practice	Credit Area (acres)	Downstream Practice
Total Impervious Cover Treated (acres)	8.67	
Total Turf Area Treated (acres)	8.00	
Total TP Load Reduction Achieved in D.A. A (lb/yr)	16.45	
Total TN Load Reduction Achieved in D.A. A (lb/yr)	162.92	

#### **Channel and Flood Protection**

	Weighted CN	-	Adjusted CN	10-year storm Adjusted CN
Target Rainfall Event (in)		0.00	0.00	0.00
D.A. A CN	86	#N/A	#N/A	#N/A
D.A. B CN	0	100	100	100
D.A. C CN	0	100	100	100
D.A. D CN	0	100	100	100
D.A. E CN	0	100	100	100

# Version 2.8 - June 2014 - 2011 BMP Stnds & Specs

- 1 Fixed summary sheet totals /percentage column fixed
- 2 Corrected nitrogen efficiency percentages
- 3 Corrected the Rv value in column J for managed turf
- 4 Checked and revised runoff reduction credit values assigned





Vanasse Hangen Brustlin, Inc.

Transportation Land Development Environmental Services

351 McLaws Circle, Suite 3 Williamsburg, Virginia 23185 757.220.0500 • FAX 757.220.8544



 $\bigcirc$ 

SENERAL NOTES: . THE PROPERTY IS IDENTIFIED ON THE JAMES CITY COUNTY GEOGRAPHIC INFORMATION SYSTEM MAP SERIES

AS GPIN: 6010100006 AND IS ZONED M2, GENERAL INDUSTRIAL. THE PROPERTY IS FURTHER DESCRIBED AS 9230 POCAHONTAS TRAIL. THE PROPERTY IS IDENTIFIED ON THE JAMES CITY COUNTY GEOGRAPHIC INFORMATION SYSTEM MAP SERIES AS GPIN: 6010100007 AND IS ZONED M2, GENERAL INDUSTRIAL. THE PROPERTY IS FURTHER DESCRIBED AS 9240 POCAHONTAS TRAIL. THE PROPERTY IS IDENTIFIED ON THE JAMES CITY COUNTY GEOGRAPHIC INFORMATION SYSTEM MAP SERIES AS GPIN: 6010100008 AND IS ZONED M2, GENERAL INDUSTRIAL. THE PROPERTY IS FURTHER DESCRIBED AS 9250 POCAHONTAS TRAIL. ; THE PARCELS ARE LOCATED WITHIN THE PRIMARY SERVICE AREA AND OUTSIDE THE 100 YEAR FLOOD PLAIN. THE COMPREHENSIVE PLAN DESIGNATION FOR THESE PARCELS IS MIXED USE.

2. BOUNDARY INFORMATION IS FROM PLAT OF RECORD RECORDED IN PB. 52, PG. 47, TOPOGRAPHIC AND EXISTING FEATURES INFORMATION DEPICTED HEREON IS FROM JAMES CITY COUNTY GEOGRAPHIC INFORMATION SYSTEM MAPPING.

3. POCAHONTAS TRAIL IS CLASSIFIED AS COMMUNITY CHARACTER CORRIDOR ALONG THE FRONTAGE OF THE SUBJECT PROPERTY.

# SUMMARY TABULATION

PROPOSED DEVELOPMENT PROGRAM:
• ADDRESS: P-1 9230 POCAHONTAS TRAIL WILLIAMSBURG,
VA. 23185
• ADDRESS: P-2 9240 POCAHONTAS TRAIL WILLIAMSBURG,
VA. 23185
• ADDRESS: P-3 9250 POCAHONTAS TRAIL WILLIAMSBURG,
VA. 23185
<ul> <li>PARCEL ID: 6010100006(P-1), 6010100007(P-2),</li> </ul>
6010100008(P-3)
<ul> <li>ZONING: M2 GENERAL INDUSTRIAL</li> </ul>
WATERSHED: SKIFFES CREEK
RECEIVING STREAM: SKIFFES CREEK

GROSS SITE AREA:  $40.3\pm$  ACRES (TOTAL PARCEL) DEVELOPABLE AREA (SEC. 24-2):  $27.4\pm$  OR  $1,193,545\pm$  S.F. IMPERVIOUS AREA: MAXIMUM 60% PERVIOUS AREA: MINIMUM 40%

PROPERTY APPEARS TO BE IN ZONE X (AREAS OF 0.2% ANNUAL CHANCE OF FLOOD) FIRM MAP NUMBER 51095C0230C DATED SEPTEMBER 28, 2007

SOILS WITHIN SITE AREA: 11C=CRAVEN-UCHEE COMPLEX-HYDROLOGIC SOIL GROUP C K=0.37 HIGH ERODIBILITY 14B=EMPORIA FINE SANDY LOAM-HYDROLOGIC SOIL GROUP C K=0.28 MODERATE ERODIBILITY 15E=EMPORIA COMPLEX-HYDROLOGIC SOIL GROUP C K=0.28 MODERATE ERODIBILITY 17=JOHNSTON COMPLEX-HYDROLOGIC SOIL GROUP D K=.20 LOW ERODIBILITY

29B=SLAGLE FINE SANDY LOAM-HYDROLOGIC SOIL GROUP C K=0.24 MODERATE ERODIBILITY

60		0	6(	C	120
		SCALE	IN FEE	Т	
					<u> </u>
					_
No.		Revision		Date	Appvd.
Design	<sup>ed by</sup> SAR	Drawn by	VHB	Checked by	PS
CAD c	hecked by		Approved	<sup>by</sup> SAR	
Scale	1''=60'		<sup>Date</sup> Jai	nuary 20, 2	2015
	ninsul urch	a Pe	nteco	ostal	
$\mathbf{U}$	IUIVII				

Pocahontas Trail Williamsburg, Virginia

Not Approved for Construction

Stormwater Management Exhibit A Bioretention Option

Drawing Number CP-1 STEPHEN A. ROMEC Lic. No. 1448-B iect Number 3749 00 PENINSULA PENTECOSTAL-CP\_3.DWG

To be used w/ 2011 BMP Standa	ius and opec	incations			
Site Data					
Project Name: Peninsula Pentecostal	Lot P-1 - Exhib	it B Wet Pond			
Date: 1/2015		1			
	data input cells				
	calculation cells				
	constant values				
1. Post-Development Project & L	and Cover In	formation			
Ormatanta					
Constants					
Annual Rainfall (inches)	43				
Target Rainfall Event (inches)	1.00				
Phosphorus EMC (mg/L)	0.26		Nitrogen EMC (mg/L)	1.86	
Target Phosphorus Target Load (lb/acre/yr)	0.41			1.00	
Pj	0.90				
Land Cover (acres)					
Earant/Open Space (agree) undisturbed	A soils	B Soils	C Soils	D Soils	Totals
Forest/Open Space (acres) undisturbed, protected forest/open space or reforested land	0.0000	0.0000	5.2700	0.0000	5.2700
Managed Turf (acres) disturbed, graded for	0.0000	0.0000	5.2700	0.0000	5.2700
yards or other turf to be mowed/managed	0.0000	0.0000	10.8600	0.0000	10.8600
Impervious Cover (acres)	0.0000	0.0000	8.6700	0.0000	8.6700
				Total	24.8000
Rv Coefficients					
5 1/2 2	A soils	B Soils	C Soils	D Soils	
Forest/Open Space	0.02	0.03	0.04 0.22	0.05 0.25	
Managed Turf	0.95	0.20	0.22	0.25	
Impervious Cover	0.95	0.95	0.95	0.95	
Land Cover Summary					
Forest/Open Space Cover (acres)	5.2700				
Weighted Rv(forest)	0.0400				
% Forest	21%				
Managed Turf Cover (acres)	10.8600				
Weighted Rv(turf)	0.2200				
% Managed Turf	44%				
Impervious Cover (acres)	8.6700	-			
Rv(impervious)	0.95				
% Impervious	35%				
Total Site Area (acres)	24.8000				
Site Rv	0.44				
Post-Development Treatment Volume (acre-ft)	0.90				
Post-Development Treatment Volume (actern)	0.30				
feet)	39,336	i .			
Post_Development Load (TP) (lb/yr)	24.72	Post_Deve	lopment Load (TN) (lb/yr)	176.81	
Total Load (TP) Reduction Required (lb/yr)	14.55				

ainage Area A Land Cover (acres) rest/Open Space (acres) anaged Turf (acres) pervlous Cover (acres)	A soils B Soils 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	C Solis D Solis 0.0000 0.0000 8.0000 0.0000 8.6700 0.0000	Totals 0.0000 8.0000 8.6700	Land Cover Rv 0.00 0.22 0.95															
pply Runoff Reduction Practic	ces to Reduce Treatme	Total	16.6700		Volume from Upstream RR	Runoff	Remaining Runoff	ent Volume (cf) Phosphorus	Phosphorus Load from Upstream RR	Untreated Phosphorus Load to	Phosphorus Removed By	Remaining Phosphorus		1		Nitrogen Load from Upstream RR Practices	Untreated Nitrogen Load	Nitrogen Removed By Practice	Remaining Nitrogen Load
actice Vegetated Roof	Unit	Description of Credit	Credit	(acres)	Practice (cf)	Reduction (cf)	Volume (cf)	Efficiency (%)	Practices (lbs)	Practice (lbs.)	Practice (lbs.)	Load (lbs.)	Downstream Treatment to be Employed		%) 1. Green Ro	(lbs) of	to Practice (lbs.)	(lbs.)	(lbs.)
a. Vegetated Roof #1 (Spec #5)	acres of green roof	45% runoff volume reduction	0.45	0.0000	0	0	0	0	0.00	0.00	0.00	0.00			0	0.00	0.00	0.00	0.00
D. Vegetated Roof #2 (Spec #5) Rooftop Disconnection	acres of green roof	60% runoff volume reduction	0.60	0.0000	0	0	0	0	0.00	0.00	0.00	0.00			0 2 Januar dar	0.00 us Surface Dis	0.00	0.00	0.00
a. Simple Disconnection to A/B Solis (Spec )	impervious acres disconnecte		0.50	0.0000	0	0	0	0	0.00	0.00	0.00	0.00			0	0.00	0.00	0.00	0.00
<ul> <li>Simple Disconnection to C/D Soils (Spec)</li> </ul>	impervious acres disconnecte		0.25	0.0000	0	0	0	0	0.00	0.00	0.00	0.00		-	0	0.00	0.00	0.00	0.00
To Soil Amended Filter Path as per edifications (existing C/D soils) (Spec #4) 1. To Dry Well or French Drain #1	impervious acres disconnecte	50% runoff volume reduction	0.50	0.0000	0	0	0	0	0.00	0.00	0.00	0.00			0	0.00	0.00	0.00	0.00
icroinfilration #1) (Spec #8) t. To Dry Well or French Drain #2 (Micro- iltration #2) (Spec #8)	impervious acres disconnecte impervious acres disconnecte	90% runoff volume reduction	0.50	0.0000	0	0	0	25	0.00	0.00	0.00	0.00		ŀ	15 15	0.00	0.00	0.00	0.00
. To Rain Garden #1 (Micro-Bioretention ) (Spec #9)	impervious acres disconnecte	d 40% of volume captured	0.40	0.0000	0	0	0	25	0.00	0.00	0.00	0.00			40	0.00	0.00	0.00	0.00
J. To Rain Garden #2 (Micro-Bioretention ) (Spec #9)	impervious acres disconnecte	80% runoff volume reduction d for treated area based on tank size and design spreadsheet (See	0.80	0.0000	0	0	0	50	0.00	0.00	0.00	0.00			60	0.00	0.00	0.00	0.00
To Rainwater Harvesting (Spec #6)	impervious acres captured	Spec #6)	0.00	0.0000	0	0	0	0	0.00	0.00	0.00	0.00			0	0.00	0.00	0.00	0.00
retention) (Spec #9, Appendix A)	impervious acres disconnecte	40% runoff volume reduction d for treated area	0.40	0.0000	0	0	0	25	0.00	0.00	0.00	0.00			40	0.00	0.00	0.00	0.00
ermeable Pavement Permeable Pavement #1 (Spec #7)	acres of permeable pavement acres of "external" (upgradien														3. Permeabl	e Pavement			
Permeable Pavement #1 (Spec #7) Permeable Pavement #2 (Spec #7)	impervious pavement	45% runoff volume reduction	0.45	0.0000	0	0	0	25	0.00	0.00	0.00	0.00			25	0.00	0.00	0.00	0.00
irass Channel	acres of permeable pavement	t 75% runoff volume reduction	0.75	0.0000	U	1 0	0	25	0.00	0.00	0.00	0.00	· · · · · · · · · · · · · · · · · · ·		25	0.00	0.00	0.00	0.00
a. Grass Channel A/B Soils (Spec #3)	impervious acres draining to grass channels	20% runoff volume reduction	0.20	0.0000	0	0	0	15	0.00	0.00	0.00	0.00			4. Grass Ch 20	0.00	0.00	0.00	0.00
	turf acres draining to grass channels impervious acres draining to	20% runoff volume reduction	0.20	0.0000	0	0	0	15	0.00	0.00	0.00	0.00			20	0.00	0.00	0.00	0.00
b. Grass Channel C/D Soils (Spec #3)	grass channels turf acres draining to grass	10% runoff volume reduction	0.10	7.5222	0	2594	23346	15	0.00	16.28	3.83	12.45	13.d. Wet Pond #2 (Coastal Plain)		20	0.00	116.46	32.61	83.85
Grass Channel with Compost Amended	channels impervious acres draining to grass channels	10% runoff volume reduction 30% runoff volume reduction	0.10	0.0000	0	462 0	4161 0	15	0.00	2.90	0.68	0.00	ista interneta #2 (ceastal Plain)		20 20	0.00	20.76	5.81 0.00	14.95 0.00
Soils as per specs (see Spec #4)	turf acres draining to grass channels	30% runoff volume reduction	0.30	0.0000	0	0	0	15	0.00	0.00	0.00	0.00			20	0.00	0.00	0.00	0.00
y Swale	impervious acres draining to d	ry													5. Dry Swale		]		
5.a. Dry Swale #1 (Spec #10)	swale turf acres draining to dry swal	40% runoff volume reduction	0.40	0.0000	0	0	0	20	0.00	0.00	0.00	0.00			25 25	0.00	0.00	0.00	0.00
5.b. Dry Swale #2 (Spec #10)	Impervious acres draining to dry swall swale		0.40	0.0000	0	0	0	40	0.00	0.00	0.00	0.00			35	0.00	0.00	0.00	0.00
	turf acres draining to dry swal	e 60% runoff volume reduction	0.60	0.0000	0	0	0	40	0.00	0.00	0.00	0.00			35	0.00	0.00	0.00	0.00
oretention	impervious acres draining to														6. Bioretent				
Bioretention #1 or Urban Bioretention (Spec #9)	bioretention turf acres draining to bioretention	40% runoff volume reduction 40% runoff volume reduction	0.40	0.0000	0	0	0	25 25	0.00	0.00	0.00	0.00			40 40	0.00	0.00	0.00	0.00
6.b. Bioretention #2 (Spec #9)	impervious acres draining to bioretention turf acres draining to		0.80	0.0000	0	0	0	50	0.00	0.00	0.00	0.00			60	0.00	0.00	0.00	0.00
	turf acres draining to bioretention	80% runoff volume reduction	0.80	0.0000	0	0	0	50	0.00	0.00	0.00	0.00			60	0.00	0.00	0.00	0.00
iltration	impervious acres draining to														7. Infiltratio	n			
7.a. Infiltration #1 (Spec #8)	infiltration turf acres draining to infiltratio	50% runoff volume reduction 50% runoff volume reduction	0.50	0.0000	0	0	0	25	0.00	0.00	0.00	0.00			15	0.00	0.00	0.00	0.00
7.b. Infiltration #2 (Spec #8)	impervious acres draining to infiltration	90% runoff volume reduction	0.90	0.0000	0	0	0	25	0.00	0.00	0.00	0.00			15	0.00	0.00	0.00	0.00
	turf acres draining to infiltratio	n 90% runoff volume reduction	0.90	0.0000	0	0	0	25	0.00	0.00	0.00	0.00			15	0.00	0.00	0.00	0.00
ended Detention Pond			0.00					45	0.00	0.00	0.00	0.00			8. Extended	Detention Por	nd 0.00	0.00	0.00
8.a. ED #1 (Spec #15)	Impervious acres draining to E turf acres draining to ED	D 0% runoff volume reduction 0% runoff volume reduction	0.00		0	0	0	15	0.00	0.00	0.00	0.00			10	0.00	0.00	0.00	0.00
8.b. ED #2 (Spec #15)	impervious acres draining to E	D 15% runoff volume reduction	0.15	0.0000	0	0	0	15	0.00	0.00	0.00	0.00			10	0.00	0.00	0.00	0.00
	turf acres draining to ED	15% runoff volume reduction	0.15	0.0000	0	0	0	15	0.00	0.00	0.00	0.00			10	0.00	0.00	0.00	0.00
eetflow to Filter/Open Space	impervious acres draining to conserved open space	75% runoff volume reduction for treated area	0.75	0.0000	0	0	0	0	0.00	0.00	0.00	0.00			9. Sheetflov	v to Conservat	ion Area or Filte	er Strip 0.00	0.00
heetflow to Conservation Area with A/B Solls (Spec #2)	turf acres draining to conserve open space	d 75% runoff volume reduction for treated area	0.75	0.0000	0	0	0	0	0.00	0.00	0.00	0.00			0	0.00	0.00	0.00	0.00
heetflow to Conservation Area with C/D	impervious acres draining to conserved open space turf acres draining to conserve	for treated area	0.50	0.0000	0	0	0	0	0.00	0.00	0.00	0.00			0	0.00	0.00	0.00	0.00
Soils (Spec #2) Sheetflow to Vegetated Filter Strip in A	open space impervious acres draining to filter strip	for treated area 50% runoff volume reduction for treated area	0.50	0.0000	0	0	0	0	0.00	0.00	0.00	0.00			0	0.00	0.00	0.00	0.00
Is or Compost Amended B/C/D Soils (Spec #2 & #4)	turf acres draining to filter stri	50% runoff reduction volume	0.50	0.0000	0	0	0	0	0.00	0.00	0.00	0.00			0	0.00	0.00	0.00	0.00
		TOTAL IMPERVIOUS COVER TOTAL TURF AREA		7.5222 5.7899															
				OK.	D ON SITE (Ibbr)	14 55	r												
	PH	DSPHORUS REMOVAL FROM F	TOTAL F	RUNOFF REDUCTI	ON IN D.A. A (cf)	3,056 4.51							NITROGEN REMOVA	AL FROM RUI	TOTAL R	UNOFF REDUCT	ION IN D.A. A (cf)	3,056 137.22	
	SEE WATER (	QUALITY COMPLIANCE TA	AB FOR SITE	COMPLIANCE	CALCULATION	S												101.22	
ly Practices that Remove Po	ollutants but Do Not F	educe Runoff Volume					r		Dhaanhaana	Uniosatad	1							Managar	
ce		Description 12	Crorite	Credit Area	Volume from Upstream RR Practice (cf)	Runoff Reduction (cf)	Remaining Runoff	Phosphorus	Phosphorus Load from Upstream RR Practices (lbs)	Untreated Phosphorus Load to Practice (lbs.)	Phosphorus Removed By Practice (lbs.)	Remaining Phosphorus	Downstream Texatoriation			Nitrogen Load from Upstream RR Practices (lbe)		Nitrogen Removed By Practice	Remaining Nitrogen Load
et Swale (Coastal Plain)	Unit		Credit	(acres)	Practice (cf)	reduction (cf)	Volume (cf)	Emiciency (%)	Practices (lbs)	Practice (lbs.)	Practice (lbs.)	Load (lbs.)	Downstream Treatment to be Employed		%) 10. Wet Swa	(lbs) ale (Coastal Pla	to Practice (lbs.) ain)	(IDS.)	(lbs.)
	impervious acres draining to w swale	0% runoff volume reduction	0.00	0.0000	0	0	0	20	0.00	0.00	0.00	0.00			25	0.00	0.00	0.00	0.00
10.a. Wet Swale #1 (Spec #11)	turf acres draining to wet swal impervious acres draining to w swale		0.00	0.0000	0	0	0	20 40	0.00	0.00	0.00	0.00			25 35	0.00	0.00	0.00	0.00
10.b. Wet Swale #2 (Spec #11)		e 0% runoff volume reduction	0.00	0.0000	0	0	0	40	0.00	0.00	0.00	0.00		ļ	35	0.00	0.00	0.00	0.00
Itering Practices	imposio	; 													11. Filtering	g Practices			
	impervious acres draining to filter	0% runoff volume reduction	0.00	0.0000	0	0	0	60	0.00	0.00	0.00	0.00		-	30	0.00	0.00	0.00	0.00
.a.Filtering Practice #1 (Spec #12)	turf acres draining to filter impervious acres draining to filter	0% runoff volume reduction 0% runoff volume reduction	0.00	0.0000	0	0	0	60 65	0.00	0.00	0.00	0.00			30 45	0.00	0.00	0.00	0.00
b. Filtering Practice #2 (Spec #12)	turf acres draining to filter	0% runoff volume reduction	0.00	0.0000	0	0	0	65	0.00	0.00	0.00	0.00			45	0.00	0.00	0.00	0.00
nstructed Wetland	impervious acres draining to									<b></b>			·····		12. Constru	cted Wetland			
Constructed Matter 4	wetland	0% runoff volume reduction	0.00	0.0000	0	0	0	50 50	0.00	0.00	0.00	0.00			25 25	0.00	0.00	0.00	0.00
Constructed Wetland #1 (Spec #13)	turf acres draining to wetland impervious acres draining to wetland	0% runoff volume reduction 0% runoff volume reduction	0.00	0.0000	0	0	0	75	0.00	0.00	0.00	0.00			25 55	0.00	0.00	0.00	0.00
Constructed Wetland #2 (Spec #13)	turf acres draining to wetland	0% runoff volume reduction	0.00	0.0000	0	0	0	75	0.00	0.00	0.00	0.00			55	0.00	0.00	0.00	0.00
et Ponds	impervious acres draining to w														13. Wet Pon				
3.a. Wet Pond #1 (Spec #14)	pond turf acres draining to wet pon	0% runoff volume reduction	0.00	0.0000	0	0	0	50 50	0.00	0.00	0.00	0.00			30 30	0.00	0.00	0.00	0.00
	Impervious acres draining to wet pon impervious acres draining to w pond		0.00	0.0000	0	0	0	45	0.00	0.00	0.00	0.00			20	0.00	0.00	0.00	0.00
	turf acres draining to wet pon impervious acres draining to w		0.00	0.0000	0	0	0	45	0.00	0.00	0.00	0.00		-	20	0.00	0.00	0.00	0.00
et Pond #1 (Coastal Plain) (Spec #14)	pond	0% runoff volume reduction	0.00	0.0000	0	0	0	75	0.00	0.00	0.00	0.00			40 40	0.00	0.00	0.00	0.00
	turf acres draining tot -	et	0.00	1.1478	23,346	0	27304	65	12.45	2.48	9.71	5.23			40 30	83.85	17.77	30.49	71.14
13.c. Wet Pond #2 (Spec #14)	turf acres draining to wet pon impervious acres draining to w pond	0% runoff volume reduction		2.2101	4,161	0	5926	65	2.22	1.11	2.16	1.16			30	14.95	7.92	6.86	16.01
13.c. Wet Pond #2 (Spec #14)	impervious acres draining to w pond		0.00																
13.c. Wet Pond #2 (Spec #14) Vet Pond #2 (Coastal Plain) (Spec #14)	impervious acres draining to w pond	d 0% runoff volume reduction												-	14. Manufac	tured BMP			
13.c. Wet Pond #2 (Spec #14) Wet Pond #2 (Coastal Plain) (Spec #14) Janufactured BMP	Impervious acres draining to w pond turf acres draining to wet pon impervious acres draining to device	D% runoff volume reduction	0.00	0.0000	0	0	0	0	0.00	0.00	0.00	0.00			0 0	0.00	0.00	0.00	0.00
13.c. Wet Pond #2 (Spec #14) Wet Pond #2 (Coastal Plain) (Spec #14)	Impervious acres draining to w pond turf acres draining to wet pon impervious acres draining to	0% runoff volume reduction     0% runoff volume reduction     0% runoff volume reduction     TOTAL IMPERVIOUS COVER	0.00 0.00 TREATED (ac)	0.0000	0	0	0	0				0.00			14. Manutao 0 0	0.00		0.00	0.00
13.c. Wet Pond #2 (Spec #14) Yet Pond #2 (Coastal Plain) (Spec #14) anufactured BMP	Impervious acres draining to w pond turf acres draining to wet pon impervious acres draining to device	O% runoff volume reduction O% runoff volume reduction O% runoff volume reduction	0.00 0.00 TREATED (ac)	0.0000 8.6700 8.0000	0	0	0	0							0 0	0.00			
13.c. Wet Pond #2 (Spec #14) Wet Pond #2 (Coastal Plain) (Spec #14) Janufactured BMP	Impervious acres draining to w turf acres draining to wet poro impervious acres draining to device turf acres draining to device	O's runoff volume reduction     O's runoff volume reduction     O's runoff volume reduction     TOTAL IMPERVIOUS COVER     TOTAL TURF AREA     REMOVAL BY PRACTICES TH	0.00 0.00 TREATED (ac) TREATED (ac) AREA CHECK AT DO NOT REE	0.0000 8.6700 8.0000 OK.		0 0 <u>11.87</u> 16.38	0	0							14. Manufad 0 0	0.00			
Wet Pond #2 (Coastal Plain) (Spec #14) fanufactured BMP	Impervious acres draining to we turf acres draining to wet poor impervious acres draining to device turf acres draining to device PHOSPHORUS	O's runoff volume reduction     O's runoff volume reduction     O's runoff volume reduction     TOTAL IMPERVIOUS COVER     TOTAL TURF AREA     REMOVAL BY PRACTICES TH	0.00 0.00 TREATED (ac) AREA CHECK AT DO NOT RED TOTAL PHOSP	0.0000 8.6700 8.0000 OK. DUCE RUNOFF VC PHORUS REMOVAL	DLUME IN D.A. A	16.38	0	0							0 0	0.00			

Site Results						
	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	AREA CHECK
IMPERVIOUS COVER	8.6700	0.0000	0.0000	0.0000	0.0000	OK.
IMPERVIOUS COVER TREATED	8.6700	0.0000	0.0000	0.0000	0.0000	OK.
TURF AREA	8.0000	0.0000	0.0000	0.0000	0.0000	OK.
TURF AREA TREATED	8.0000	0.0000	0.0000	0.0000	0.0000	OK.
AREA CHECK	OK.	OK.	OK.	OK.	OK.	
Phosphorus						
TOTAL TREATMENT VOLUME (cf)	39,336					
TOTAL PHOSPHORUS LOAD REDUCTION REQUIRED (LB/YEAR)	14.55					
RUNOFF REDUCTION (cf)	3056					
PHOSPHORUS LOAD REDUCTION ACHIEVED (LB/YR)	16.38					
ADJUSTED POST-DEVELOPMENT PHOSPHORUS LOAD (TP) (lb/yr)	8.33					
REMAINING PHOSPHORUS LOAD REDUCTION (LB/YR) NEEDED	ONGRATULATIONS!	YOU EXCEEDED TH	E TARGET REDUCT	ION BY 1.8 LB/YEAR!		
Nitrogen (for information purposes) TOTAL TREATMENT VOLUME (cf)	39,336					
RUNOFF REDUCTION (cf) NITROGEN LOAD REDUCTION ACHIEVED (LB/YR)	3056 174.57					
ADJUSTED POST-DEVELOPMENT NITROGEN LOAD (TN) (lb/yr)	2.24					

<b></b>			4	2 waar atarm	10		
Target Rainfall Event (in)			1-year storm	2-year storm	10-year storm		_
		•	3.00	3.00	0.00		
Drainage Area A							
Drainage Area (acres)		16.6700					
Runoff Reduction Volume (cf)		3,056					
Drainage Area B							
Drainage Area (acres)		0.0000					
Runoff Reduction Volume (cf)		0					
Drainage Area C							
Drainage Area (acres)		0.0000					
Runoff Reduction Volume (cf)		0					
<u>Drainage Area D</u> Drainage Area (acres)		0.0000					
Runoff Reduction Volume (cf)		0.0000					
Drainage Area E		0.0000					
Drainage Area (acres) Runoff Reduction Volume (cf)		0.0000					
Runon Reduction Volume (CI)		0					
Based on the use of Runoff Reduction	practices in the sele	cted drainage areas,	the spreadsheet calc	culates an adjusted R	V <sub>Developed</sub> and adjuste	d Curve Number.	
			A acila	D Colle	C Salla	D Call-	
Drainage Area A Forest/Open Space undisturbed, pro	tected forest/open	Area (acres)	A soils 0.0000	B Soils 0.0000	C Soils 0.0000	D Soils 0.0000	
space or reforested la		CN	30	55	70	77	
Managed Turf disturbed, graded for ya		Area (acres)	0.0000	0.0000	8.0000	0.0000	
mowed/managed		ĊN	39	61	74	80	
Improvidence O		Area (acres) CN	0.0000	0.0000	8.6700	0.0000 98	
Impervious Cover		CIN	90	90	98	Weighted CN	S
						86	1.63
			1-year storm	2-year storm	10-year storm		
		no Runoff Reduction	0.00	0.00	0.00		
	RV <sub>Developed</sub> (in) w	ith Runoff Reduction	-0.05	-0.05	-0.05		
		Adjusted CN	#N/A	#N/A	#N/A		
Drainage Area B			A soils	B Soils	C Soils	D Soils	
Forest/Open Space undisturbed, pro	otected forest/open	Area (acres)	0.0000	0.0000	0.0000	0.0000	
space or reforested la		CN	30	55	70	77	
Managed Turf disturbed, graded for ya	rds or other turf to be	Area (acres) CN	0.0000	0.0000	0.0000	0.0000	
mowed/managed		Area (acres)	<u>39</u> 0.0000	61 0.0000	74 0.0000	80 0.0000	
Impervious Cover		CN	98	98	98	98	
						Weighted CN	S
			1	2	10	0	1000.00
	RV <sub>Developed</sub> (in) with	no Runoff Reduction	1-year storm 0.00	2-year storm 0.00	10-year storm 0.00		
	RV <sub>Developed</sub> (in) w	ith Runoff Reduction	0.00	0.00	0.00		
		Adjusted CN	100	100	100		
Drainage Area C			A soils	B Soils	C Soils	D Soils	_
Forest/Open Space undisturbed, pro	otected forest/open	Area (acres)	0.0000	0.0000	0.0000	0.0000	
space or reforested la	nd	CN	30	55	70	77	
Managed Turf disturbed, graded for ya		Area (acres)	0.0000	0.0000	0.0000	0.0000	
mowed/managed		CN	39	61	74	80	
1		Area (acres)	0.0000			0.0000	
Impervious Cover		Area (acres) CN	0.0000 98	0.0000 98	0.0000 98	0.0000 98	
Impervious Cover				0.0000	0.0000	98 Weighted CN	S
Impervious Cover			98	0.0000 98	0.0000 98	98	<b>S</b> 1000.00
Impervious Cover	RV /in\ with	ĊN	98 1-year storm	0.0000 98 2-year storm	0.0000 98 10-year storm	98 Weighted CN	
Impervious Cover	RV <sub>Developed</sub> (in) with	CN no Runoff Reduction	98 1-year storm 0.00	0.0000 98 2-year storm 0.00	0.0000 98 10-year storm 0.00	98 Weighted CN	
Impervious Cover	RV <sub>Developed</sub> (in) with RV <sub>Developed</sub> (in) w	CN no Runoff Reduction ith Runoff Reduction	98 1-year storm	0.0000 98 2-year storm	0.0000 98 10-year storm 0.00 0.00	98 Weighted CN	
	RV <sub>Developed</sub> (in) with RV <sub>Developed</sub> (in) w	CN no Runoff Reduction	98 1-year storm 0.00 0.00 100	0.0000 98 2-year storm 0.00 0.00 100	0.0000 98 10-year storm 0.00 0.00 100	98 Weighted CN 0	
Drainage Area D	RV <sub>Developed</sub> (in) w	CN no Runoff Reduction ith Runoff Reduction Adjusted CN	98 1-year storm 0.00 0.00 100 A soils	0.0000 98 2-year storm 0.00 0.00 100 B Soils	0.0000 98 10-year storm 0.00 0.00 100 C Soils	98 Weighted CN 0 D Soils	
Drainage Area D Forest/Open Space – undisturbed, pro	RV <sub>Developed</sub> (in) w	CN no Runoff Reduction ith Runoff Reduction Adjusted CN Area (acres)	98 1-year storm 0.00 0.00 100 A soils 0.0000	0.0000 98 2-year storm 0.00 0.00 100 B Soils 0.0000	0.0000 98 10-year storm 0.00 0.00 100 C Soils 0.0000	98 Weighted CN 0 D Soils 0.0000	
Drainage Area D Forest/Open Space undisturbed, pro space or reforested la	RV <sub>Developed</sub> (in) w	CN no Runoff Reduction ith Runoff Reduction Adjusted CN Area (acres) CN	98 1-year storm 0.00 0.00 100 A soils 0.0000 30	0.0000 98 2-year storm 0.00 0.00 100 B Soils 0.0000 55	0.0000 98 10-year storm 0.00 0.00 100 C Soils 0.0000 70	98 Weighted CN 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 77	
Drainage Area D Forest/Open Space – undisturbed, pro	RV <sub>Developed</sub> (in) w	CN no Runoff Reduction ith Runoff Reduction Adjusted CN Area (acres)	98 1-year storm 0.00 100 A soils 0.0000 30 0.0000 39	0.0000 98 2-year storm 0.00 0.00 100 B Soils 0.0000 55 0.0000 61	0.0000 98 10-year storm 0.00 0.00 100 C Soils 0.0000 70 0.0000 74	98 Weighted CN 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
Drainage Area D Forest/Open Space – undisturbed, pro space or reforested la Managed Turf – disturbed, graded for ya mowed/managed	RV <sub>Developed</sub> (in) w	CN no Runoff Reduction ith Runoff Reduction Adjusted CN Area (acres) CN Area (acres) CN Area (acres)	98 1-year storm 0.00 0.00 100 A soils 0.0000 30 0.0000 39 0.0000	0.0000 98 2-year storm 0.00 100 B Soils 0.0000 55 0.0000 61 0.0000	0.0000 98 10-year storm 0.00 0.00 100 C Soils 0.0000 70 0.0000 74 0.0000	98 Weighted CN 0 D Soils 0.0000 77 0.0000 80 0.0000	
Drainage Area D Forest/Open Space undisturbed, pro space or reforested la Managed Turf disturbed, graded for ya	RV <sub>Developed</sub> (in) w	CN no Runoff Reduction ith Runoff Reduction Adjusted CN Area (acres) CN Area (acres) CN	98 1-year storm 0.00 100 A soils 0.0000 30 0.0000 39	0.0000 98 2-year storm 0.00 0.00 100 B Soils 0.0000 55 0.0000 61	0.0000 98 10-year storm 0.00 0.00 100 C Soils 0.0000 70 0.0000 74	98 Weighted CN 0 D D D Soils 0.0000 77 0.0000 80 0.0000 98	
Drainage Area D Forest/Open Space – undisturbed, pro space or reforested la Managed Turf – disturbed, graded for ya mowed/managed	RV <sub>Developed</sub> (in) w	CN no Runoff Reduction ith Runoff Reduction Adjusted CN Area (acres) CN Area (acres) CN Area (acres)	98 1-year storm 0.00 0.00 100 A soils 0.0000 30 0.0000 39 0.0000	0.0000 98 2-year storm 0.00 100 B Soils 0.0000 55 0.0000 61 0.0000	0.0000 98 10-year storm 0.00 0.00 100 C Soils 0.0000 70 0.0000 74 0.0000	98 Weighted CN 0 D Soils 0.0000 77 0.0000 80 0.0000 98 Weighted CN	1000.00
Drainage Area D Forest/Open Space undisturbed, pro space or reforested la Managed Turf disturbed, graded for ya mowed/managed	RV <sub>Developed</sub> (in) w	CN no Runoff Reduction ith Runoff Reduction Adjusted CN Area (acres) CN Area (acres) CN Area (acres)	98 1-year storm 0.00 0.00 100 A soils 0.0000 30 0.0000 39 0.0000	0.0000 98 2-year storm 0.00 100 B Soils 0.0000 55 0.0000 61 0.0000	0.0000 98 10-year storm 0.00 0.00 100 C Soils 0.0000 70 0.0000 74 0.0000	98 Weighted CN 0 D D D Soils 0.0000 77 0.0000 80 0.0000 98	1000.00
Drainage Area D Forest/Open Space undisturbed, pro space or reforested la Managed Turf disturbed, graded for ya mowed/managed	RV <sub>Developed</sub> (in) w btected forest/open nd irds or other turf to be RV <sub>Developed</sub> (in) with	CN no Runoff Reduction ith Runoff Reduction Adjusted CN Area (acres) CN Area (acres) CN Area (acres) CN Area (acres) CN Area (acres) CN	98 1-year storm 0.00 100 A soils 0.0000 30 0.0000 39 0.0000 98	0.0000 98 2-year storm 0.00 0.00 100 B Soils 0.0000 55 0.0000 61 0.0000 98	0.0000 98 10-year storm 0.00 0.00 100 C Soils 0.0000 70 0.0000 74 0.0000 98	98 Weighted CN 0 D Soils 0.0000 77 0.0000 80 0.0000 98 Weighted CN	
Drainage Area D Forest/Open Space undisturbed, pro space or reforested la Managed Turf disturbed, graded for ya mowed/managed	RV <sub>Developed</sub> (in) w btected forest/open nd irds or other turf to be RV <sub>Developed</sub> (in) with	CN no Runoff Reduction ith Runoff Reduction Adjusted CN Area (acres) CN Area (acres) CN	98 1-year storm 0.00 0.00 100 A soils 0.0000 30 0.0000 98 1-year storm 0.00 0.00	0.0000 98 2-year storm 0.00 0.00 100 B Soils 0.0000 55 0.0000 61 0.0000 98 2-year storm	0.0000 98 10-year storm 0.00 100 C Soils 0.0000 70 0.0000 74 0.0000 98 10-year storm	98 Weighted CN 0 D Soils 0.0000 77 0.0000 80 0.0000 98 Weighted CN	1000.00
Drainage Area D Forest/Open Space undisturbed, pro space or reforested la Managed Turf disturbed, graded for ya mowed/managed	RV <sub>Developed</sub> (in) w btected forest/open nd irds or other turf to be RV <sub>Developed</sub> (in) with	CN no Runoff Reduction ith Runoff Reduction Adjusted CN Area (acres) CN Area (acres) CN Area (acres) CN Area (acres) CN Area (acres) CN	98 1-year storm 0.00 0.00 100 A soils 0.0000 30 0.0000 39 0.0000 98 1-year storm 0.00	0.0000 98 2-year storm 0.00 0.00 100 B Soils 0.0000 55 0.0000 61 0.0000 98 2-year storm 0.00	0.0000 98 10-year storm 0.00 0.00 100 C Soils 0.0000 70 0.0000 74 0.0000 98 10-year storm 0.00	98 Weighted CN 0 D Soils 0.0000 77 0.0000 80 0.0000 98 Weighted CN	1000.00
Drainage Area D Forest/Open Space – undisturbed, pro space or reforested la Managed Turf – disturbed, graded for ya mowed/managed Impervious Cover	RV <sub>Developed</sub> (in) w btected forest/open nd irds or other turf to be RV <sub>Developed</sub> (in) with	CN no Runoff Reduction ith Runoff Reduction Adjusted CN Area (acres) CN Area (acres) CN	98 1-year storm 0.00 100 A soils 0.0000 30 0.0000 39 0.0000 98 1-year storm 0.00 0.00 100	0.0000 98 2-year storm 0.00 0.00 100 B Soils 0.0000 61 0.0000 98 2-year storm 0.00 0.00 100	0.0000 98 10-year storm 0.00 0.00 100 C Soils 0.0000 70 0.0000 74 0.0000 98 10-year storm 0.00 0.00 100	98 Weighted CN 0 D Soils 0.0000 77 0.0000 80 0.0000 98 Weighted CN 0	1000.00
Drainage Area D Forest/Open Space undisturbed, pro space or reforested la Managed Turf disturbed, graded for ya mowed/managed Impervious Cover	RV <sub>Developed</sub> (in) w otected forest/open nd rds or other turf to be RV <sub>Developed</sub> (in) with RV <sub>Developed</sub> (in) w	CN ino Runoff Reduction ith Runoff Reduction Adjusted CN Area (acres) CN Area (acres) CN Area (acres) CN Area (acres) CN ith Runoff Reduction Adjusted CN	98 1-year storm 0.00 100 A soils 0.0000 30 0.0000 98 1-year storm 0.00 0.00 100 A soils	0.0000 98 2-year storm 0.00 0.00 100 B Soils 0.0000 61 0.0000 61 0.0000 98 2-year storm 0.00 0.00 100 B Soils B Soils	0.0000 98 10-year storm 0.00 0.00 100 C Soils 0.0000 70 0.0000 74 0.0000 98 10-year storm 0.00 0.00 100 C Soils C Soils C Soils	98 Weighted CN 0 D Soils 0.0000 77 0.0000 80 0.0000 98 Weighted CN 0	1000.00
Drainage Area D Forest/Open Space undisturbed, pro space or reforested la Managed Turf disturbed, graded for ya mowed/managed Impervious Cover	RV <sub>Developed</sub> (in) w btected forest/open nd rds or other turf to be RV <sub>Developed</sub> (in) with RV <sub>Developed</sub> (in) w	CN no Runoff Reduction ith Runoff Reduction Adjusted CN Area (acres) CN Area (acres) CN	98 1-year storm 0.00 100 A soils 0.0000 30 0.0000 39 0.0000 98 1-year storm 0.00 0.00 100	0.0000 98 2-year storm 0.00 0.00 100 B Soils 0.0000 61 0.0000 98 2-year storm 0.00 0.00 100	0.0000 98 10-year storm 0.00 0.00 100 C Soils 0.0000 70 0.0000 74 0.0000 98 10-year storm 0.00 0.00 100	98 Weighted CN 0 D Soils 0.0000 77 0.0000 80 0.0000 98 Weighted CN 0	1000.00

Managed Turf disturbed, graded for yards or other turf to be	Area (acres)	0.0000	0.0000	0.0000	0.0000	
mowed/managed	CN	39	61	74	80	
	Area (acres)	0.0000	0.0000	0.0000	0.0000	
Impervious Cover	CN	98	98	98	98	
					Weighted CN	S
					0	1000.00
		1-year storm	2-year storm	10-year storm		
RV <sub>Developed</sub> (in) with	RV <sub>Developed</sub> (in) with no Runoff Reduction			0.00		
RV <sub>Developed</sub> (in) w	th Runoff Reduction	0.00	0.00	0.00		
	Adjusted CN	100	100	100		

Runoff Reduction Method New Development Worksheet - v2.8 - June 2014

#### Site Data Summary

Total Rainfall = 43 inches

Site Land Cover Summary

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest (acres)	0.0000	0.0000	5.2700	0.0000	5.2700	21.25
Turf (acres)	0.0000	0.0000	10.8600	0.0000	10.8600	43.79
Impervious (acres)	0.0000	0.0000	8.6700	0.0000	8.6700	34.96
					24.8000	100.00

Site Rv	0.44
Post Development Treatment Volume (ft3)	39336
Post Development TP Load (lb/yr)	24.72
Post Development TN Load (lb/yr)	176.81
Total TP Load Reduction Required (lb/yr)	14.55

Total Runoff Volume Reduction (ft <sup>3</sup> )	3056
Total TP Load Reduction Achieved (lb/yr)	16.38
Total TN Load Reduction Achieved (lb/yr)	174.57
Adjusted Post Development TP Load (lb/yr)	8.33
Remaining Phosphorous Load Reduction (Lb/yr) Required	0.00

#### Drainage Area Summary

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	Total
Forest (acres)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Turf (acres)	8.0000	0.0000	0.0000	0.0000	0.0000	8.0000
Impervious (acres)	8.6700	0.0000	0.0000	0.0000	0.0000	8.6700
						16.6700

#### Drainage Area Compliance Summary

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	Total
TP Load Red. (lb/yr)	16.38	0.00	0.00	0.00	0.00	16.38
TN Load Red. (lb/yr)	174.57	0.00	0.00	0.00	0.00	174.57

# Drainage Area A Summary

Land Cover Summary

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Turf (acres)	0.00	0.00	8.00	0.00	8.00	47.99
Impervious (acres)	0.00	0.00	8.67	0.00	8.67	52.01
					16.67	

## **BMP Selections**

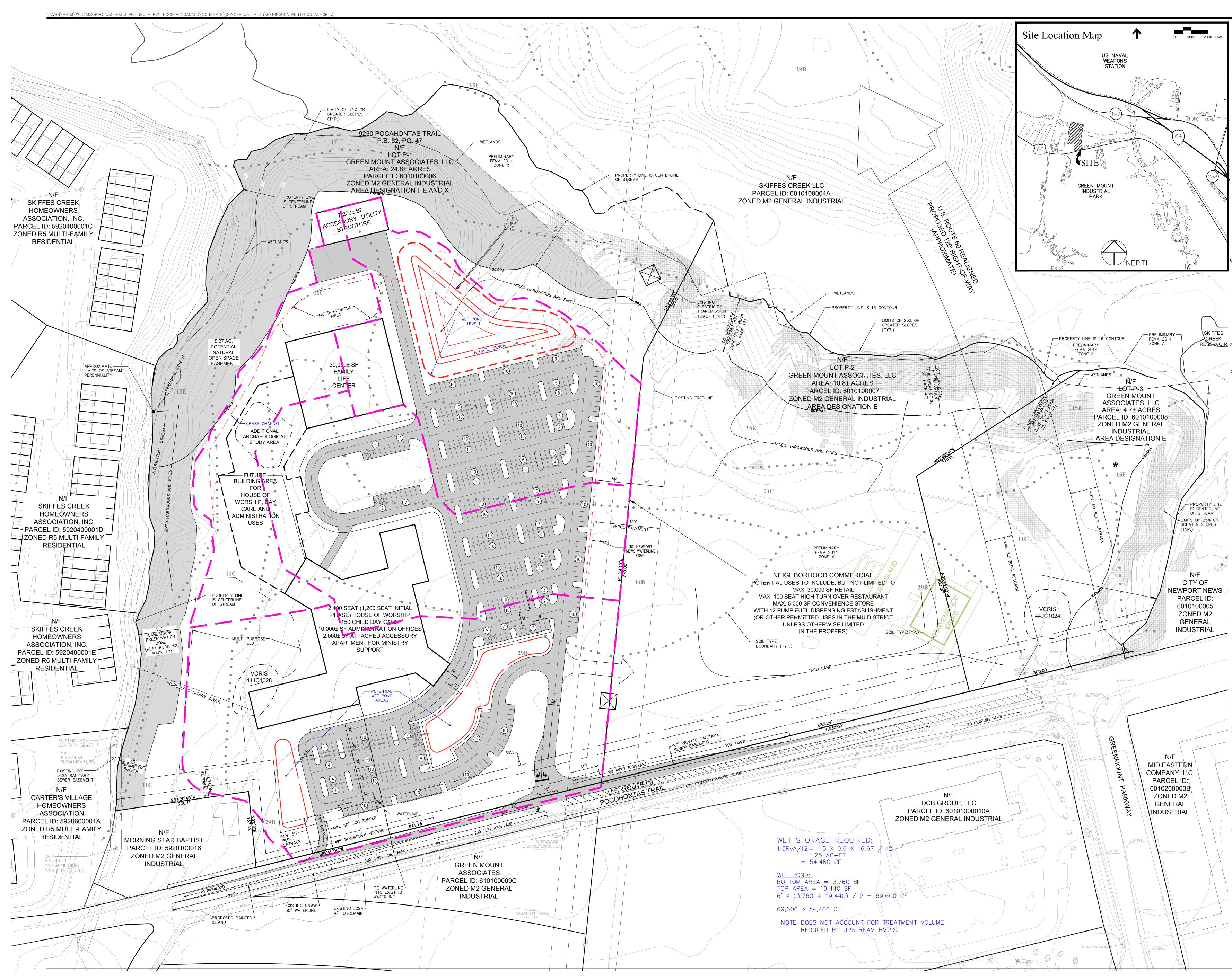
Practice	Credit Area (acres)	Downstream Practice
Total Impervious Cover Treated (acres)	8.67	
Total Turf Area Treated (acres)	8.00	
Total TP Load Reduction Achieved in D.A. A (lb/yr)	16.38	
Total TN Load Reduction Achieved in D.A. A (lb/yr)	174.57	

#### **Channel and Flood Protection**

	Weighted CN	-	Adjusted CN	10-year storm Adjusted CN
Target Rainfall Event (in)		0.00	0.00	0.00
D.A. A CN	86	#N/A	#N/A	#N/A
D.A. B CN	0	100	100	100
D.A. C CN	0	100	100	100
D.A. D CN	0	100	100	100
D.A. E CN	0	100	100	100

# Version 2.8 - June 2014 - 2011 BMP Stnds & Specs

- 1 Fixed summary sheet totals /percentage column fixed
- 2 Corrected nitrogen efficiency percentages
- 3 Corrected the Rv value in column J for managed turf
- 4 Checked and revised runoff reduction credit values assigned





Vanasse Hangen Brustlin, Inc.

Transportation Land Development Environmental Services

351 McLaws Circle, Suite 3 Williamsburg, Virginia 23185 757.220.0500 • FAX 757.220.8544

 $\bigcirc$ 

**CENERAL NOTES:** I. THE PROPERTY IS IDENTIFIED ON THE JAMES CITY COUNTY GEOGRAPHIC INFORMATION SYSTEM MAP SERIES AS GPIN: 6010100006 AND IS ZONED M2, GENERAL INDUSTRIAL. THE PROPERTY IS FURTHER DESCRIBED AS 9230 POCAHONTAS TRAIL. THE PROPERTY IS IDENTIFIED ON THE JAMES CITY COUNTY GEOGRAPHIC INFORMATION SYSTEM MAP SERIES AS GPIN: 6010100007 AND IS ZONED M2, GENERAL INDUSTRIAL. THE PROPERTY IS FURTHER DESCRIBED AS 9240 POCAHONTAS TRAIL. THE PROPERTY IS IDENTIFIED ON THE JAMES CITY COUNTY GEOGRAPHIC INFORMATION SYSTEM MAP SERIES AS GPIN: 6010100008 AND IS ZONED M2, GENERAL INDUSTRIAL. THE PROPERTY IS FURTHER DESCRIBED AS 9250 POCAHONTAS TRAIL. ; THE PARCELS ARE LOCATED WITHIN THE PRIMARY SERVICE AREA AND OUTSIDE THE 100 YEAR FLOOD PLAIN. THE COMPREHENSIVE PLAN DESIGNATION FOR THESE PARCELS IS MIXED USE.

2. BOUNDARY INFORMATION IS FROM PLAT OF RECORD RECORDED IN PB. 52, PG. 47, TOPOGRAPHIC AND EXISTING FEATURES INFORMATION DEPICTED HEREON IS FROM JAMES CITY COUNTY GEOGRAPHIC INFORMATION SYSTEM MAPPING.

3. POCAHONTAS TRAIL IS CLASSIFIED AS COMMUNITY CHARACTER CORRIDOR ALONG THE FRONTAGE OF THE SUBJECT PROPERTY.

# SUMMARY TABULATION

PROPOSED DEVELOPMENT PROGRAM:
• ADDRESS: P-1 9230 POCAHONTAS TRAIL WILLIAMSBURG,
<ul> <li>VA. 23185</li> <li>ADDRESS: P-2 9240 POCAHONTAS TRAIL WILLIAMSBURG, VA. 23185</li> </ul>
<ul> <li>ADDRESS: P-3 9250 POCAHONTAS TRAIL WILLIAMSBURG, VA. 23185</li> </ul>
<ul> <li>PARCEL ID: 6010100006(P-1), 6010100007(P-2), 6010100008(P-3)</li> </ul>
<ul> <li>ZONING: M2 GENERAL INDUSTRIAL</li> <li>WATERSHED: SKIFFES CREEK</li> <li>RECEIVING STREAM: SKIFFES CREEK</li> </ul>

GROSS SITE AREA:  $40.3\pm$  ACRES (TOTAL PARCEL) DEVELOPABLE AREA (SEC. 24-2):  $27.4\pm$  OR 1,193,545 $\pm$  S.F. IMPERVIOUS AREA: MAXIMUM 60% PERVIOUS AREA: MINIMUM 40%

PROPERTY APPEARS TO BE IN ZONE X (AREAS OF 0.2% ANNUAL CHANCE OF FLOOD) FIRM MAP NUMBER 51095C0230C DATED SEPTEMBER 28, 2007

SOILS WITHIN SITE AREA: 11C=CRAVEN-UCHEE COMPLEX-HYDROLOGIC SOIL GROUP C K=0.37 HIGH ERODIBILITY 14B=EMPORIA FINE SANDY LOAM-HYDROLOGIC SOIL GROUP C K=0.28 MODERATE ERODIBILITY 15E=EMPORIA COMPLEX-HYDROLOGIC SOIL GROUP C K=0.28 MODERATE ERODIBILITY 17=JOHNSTON COMPLEX-HYDROLOGIC SOIL GROUP D K=.20 LOW ERODIBILITY

29B=SLAGLE FINE SANDY LOAM-HYDROLOGIC SOIL GROUP C K=0.24 MODERATE ERODIBILITY

60		0	6(	C	120
	S	SCALE	IN FEE	Т	
					+
					-
					<u> </u>
No.		Revision		Date	Appvd.
Design	<sup>ed by</sup> SAR	Drawn by	VHB	Checked by P	°S
CAD c	hecked by	•	Approved I	<sup>by</sup> SAR	
Scale	1"=60'		<sup>Date</sup> Jar	nuary 20, 20	15
	ninsul	a Pe	nteco	ostal	
Cr	nurch				

Pocahontas Trail Williamsburg, Virginia

Not Approved for Construction

Stormwater Management Exhibit B Wet Pond Option

Drawing Number CP-1 STEPHEN A. ROMEC Lic. No. 1448-B Project Number 33749.00

PENINSULA PENTECOSTAL-CP\_3.DWG

# 2-000 6 - 2014



# PLANNING DIVISION FEB 02 2015 RECEIVED

#### **Project Description**

The Peninsula Pentecostals Rezoning of the  $40.3\pm$  acre Greenmount Kirby Tract (Lots P-1, P-2 & P-3) contemplates development of a House of Worship, Day Care, Administration Offices, Ministry Support Apartment, Family Life Center, Accessory/Utility Structure, multi-purpose recreational fields, 480 car parking lot and associated drive aisles and sidewalks on the  $24.8\pm$  acre Lot P-1. The Peninsula Pentecostals Rezoning of the  $40.3\pm$  acre Greenmount Kirby Tract also contemplates a Commercial Mixed Use development on the  $10.8\pm$  acre Lot P-2 and  $4.7\pm$  acre Lot P-3. The  $40.3\pm$  acre Greenmount Kirby Tract (Lots P-1, P-2 & P-3) is located on the northerly side of US Route 60 (Pocahontas Trail) near the corporate boundary between James City County and Newport News.

#### **Existing Site Conditions**

Lot P-1 is 24.8± acres in size, half of which is wooded. The other half is in cropland. Lot P-1 is also encumbered by a high voltage electricity transmission line and appurtenant easement. The easement is maintained in a cleared condition. 15± acres of the Lot P-1 is anticipated to be disturbed as a part of this project. The western boundaries of Lot P-1 is the centerline of a tributary stream to Skiffes Creek. The northern boundary is the centerline of Skiffes Creek. There are wetlands and buffers upland and along the northern and western boundaries. The southern boundary is US Route 60 (Pocahontas Trail) a Community Character Corridor and the eastern boundary is the centerline of the 120' wide easement for the existing high voltage electricity transmission line.

Lot P-2 is 10.8 acres in size,  $4.5\pm$  acres are wooded and  $6.3\pm$  acres are open, in cropland. Lot P-2 is also encumbered by an high voltage electricity transmission line and appurtenant easement. The easement is maintained in a cleared condition.

Lot P-3 is  $4.7\pm$  acres in size,  $3.5\pm$  acres are wooded and  $1.2\pm$  acres are open, in cropland. Part of Lot P-3 has been identified as corridor for the preferred alternative for the Skiffes Creek Connector (US Route 60 Realignment) project.

Lots P-2 and P-3 are bound on the west by Lot P-1, the north and erast by Skiffes Creek and south by US Route 60 (Pocahontas Trail) a Community Character Corridor.

Slopes vary from less than 2% across the cropland areas to 3:1 or steeper along embankments leading down to the streams. Elevations range from 16 to 60 feet above sea level.



# Adjacent Area

Adjacent property to the west, north and east of Lots P-1, P-2 and P-3 is part of Skiffes Creek and Skiffes Creek Reservoir. Erosion and sediment control measures will need to be designed to protect these sensitive lands from construction activities on Lots P-1, P-2 and P-3. Stormwater runoff from Lots P-1, P-2 and P-3 during and after construction will need to conform to water quality and water quantity design criteria defined by Code.

#### **Offsite Disturbed Area**

No off-site disturbance is anticipated with this project.

## **Critical Erosion Areas**

Disturbance of steep slopes will be avoided to the extent practicable, other than the work necessary for stormwater BMPs discharge and sanitary sewer connection. Such disturbances will have protective covering applied immediately in order to accelerate stabilization as will constructed slopes 3:1 and steeper.

#### **Demolition**

Demolition will involve clearing and grubbing the portion of Lots P-1, P-2 and P-3 as needed for construction.

# Utilities

The proposed buildings will be served by underground electric, telephone, sanitary, and gas utilities. The existing overhead utilities along U.S. Route 60 (Pocahontas Trail) will remain as will the existing overhead high voltage electricity transmission line.

#### Proposed Grading and Paving

Lots P-1, P-2 and P-3 will be graded to direct stormwater runoff away from the proposed buildings to perimeter grass lined swales and BMPs.

# **Stormwater Management Considerations**

The site naturally drains south to north from US Route 60 to Skiffes Creek. This drainage pattern will be maintained to the extent practicable.

C:UsersivalambertAppData\LocalMicro soft\Windows\Temporary Internet FilesiContent.Outlook\9542LJFU2015-01-21 TPP SWM Narrative sar edit.docx

Stormwater Management Narrative



1

The buildings, parking areas, drive aisles and sidewalks will create 8.7± acres of impervious surfaces on Lot P-1. Additionally, 6± acres of woods and cropland will be converted into managed turf and landscaped areas. The stormwater runoff from these areas will need to conform to water quality and water quantity design criteria defined by Code. Multiple areas will be available to accommodate stormwater BMPs. Stormwater runoff from the constructed improvements will be conveyed via grass lined swales to the BMPs for quality improvement and quantity control prior to discharge to a stilling basin upstream of wetlands, thus dissipating the energy from the concentrated flow before discharging to the receiving channel, Skiffes Creek. The point of discharge to Skiffes Creek is located approximately 1,000 feet upstream of Skiffes Creek Reservior. At the point of discharge, the receiving channel is a mild gradient meandering channel, several feet wide, stable condition and within a broad, moderately wooded floodplain. Channel protection criteria will be as required by the minimum stadards published in section 9CAC25-870-66 Water Quantity of the Virginia Stormwater Management Regulations.

Two options are proposed to provide compliance with Code required water quality and water quantity discharge criteria. Exhibit A provides an option using several bioretention basins and an extended detention pond. The bioretention basins are proposed to be located in areas of the site suitable to treat most of the parking area and the building roof. Bioretention basins A, B, and C are located in drainage area #1 which covers most of the front half of the site. Drainage area #1 is 6.3± acres and will require all three basins because of the Code requirement limiting each bioretention cell to 2.5 acres of drainage area. Drainage area #2 is 4.0± acres and receives runoff from the middle of the parking lot and the building roof. Basin D is shown as a single bioretention basin and will need to be designed as two separate cells since the drainage area is larger than 2.5 acres. Drainage area #3 is 2.0 acres and covers the rear of the proposed building and part of the roof. Bioretention basins E and F are sized much larger than required since the contributing drainage area may change depending on roof drainage design. Overflow from all of the bioretention basins will be conveyed to the extended detention basin in the rear of the site via open channels or underground conduits. Exhibit B provides an option using wet ponds. Grass lined channels will convey the runoff from the improved areas wet ponds. A single wet pond near the rear of Lot P-1 is preferable, however, it may necessary to construct supplemental wet ponds around the front parking area in order to achieve the treatment shown in the VRRM Worksheet.

In both of these scenarios, a storm sewer system will convey discharge from the ponds' outlet control structures to a stilling basin located upland of the wetlands, requiring encroachment into the RPA buffer. Encroachment into the RPA buffer will be limited to construction of the BMP discharge structure and stilling basin.

Stormwater Management Narrative

Virginia Runoff Reduction Metho	od New Devel	opment Works	heet - v2.8 - June	2014	
To be used w/ 2011 BMP Standa					
Site Data					
Project Name: Peninsula Pentecosta	l ot P-1 - Exhib				
Date: 1/2015		It A Dioretention			
	data input cells				
	calculation cells				
	constant values				
1. Post-Development Project & L	and Cover In	formation			
Constants					
Annual Rainfall (inches)	43				
Target Rainfall Event (inches)	1.00				
Phosphorus EMC (mg/L)	0.26	1	Nitrogen EMC (mg/L)	1.86	
Target Phosphorus Target Load (lb/acre/yr)	0.41				4
Pj	0.90				
Land Cover (acres)					
	A soils	B Soils	C Soils	D Soils	Totals
Forest/Open Space (acres) undisturbed,					
protected forest/open space or reforested land	0.0000	0.0000	5.2700	0.0000	5.2700
Managed Turf (acres) disturbed, graded for	0.0000	0.0000	40.0000	0.0000	40.0000
yards or other turf to be mowed/managed	0.0000	0.0000	10.8600	0.0000	10.8600
Impervious Cover (acres)	0.0000	0.0000	8.6700	0.0000	8.6700
				Total	24.8000
Rv Coefficients					
	A soils	B Soils	C Soils	D Soils	
Forest/Open Space	0.02	0.03	0.04	0.05	
Managed Turf	0.15	0.20	0.22	0.25	
Impervious Cover	0.95	0.95	0.95	0.95	
· ·					
Land Cover Summary					
Forest/Open Space Cover (acres)	5.2700	7			
Weighted Rv(forest)	0.0400				
% Forest	21%				
Managed Turf Cover (acres)	10.8600				
Weighted Rv(turf)	0.2200				
% Managed Turf	44%				
Impervious Cover (acres)	8.6700				
Rv(impervious)	0.95				
% Impervious	35%				
Total Site Area (acres)	24.8000				
Site Rv	0.44				
Post-Development Treatment Volume (acre-ft)	0.90				
Post-Development Treatment Volume (acte-it)	0.90				
feet)	39,336	j			
Post_Development Load (TP) (lb/yr)	24.72		lopment Load (TN) (lb/yr)	176.81	
Total Load (TP) Reduction Required (lb/yr)	14.55				

Drainage Area A Drainage Area A Land Cover (acres)																			
Forest/Open Space (acres) Managed Turf (acres) Impervious Cover (acres)	A soils B Soils 0.0000 0.0000 0.0000 0.0000	C Solls D Solls 0.0000 0.0000 8.0000 0.0000 8.6700 0.0000	Totals 0.0000 8.0000 8.6700	Land Cover Rv 0.00 0.22 0.95															
Apply Runoff Reduction Practi	ces to Reduce Treatm	Total	16.6700	1	Inage Area A	Post Devel	lopment Treatm	ent Volume (c	3628										
Practice	Unit	Description of Credit	Credit	Credit Area (acres)	Volume from Upstream RR Practice (cf)	Runoff Reduction (cf)	Remaining Runoff Volume (cf)	Phosphorus Efficiency (%	Phosphorus Load from Upstream RR Practices (lbs)	Untreated Phosphorus Load to Practice (Ibs.)	Phosphorus Removed By Practice (lbs.)	Remaining Phosphorus Load (Ibs.)	Downstream Treatment to be Employed	Nitrogen Efficiency (%)	Nitrogen Load from Upstream RR Practices (lbs)	Untreated Nitrogen Load to Practice (lbs.)	Nitrogen Removed By Practice (lbs.)	Remaining Nitrogen Load (Ibs.)	
1. Vegetated Roof 1.a. Vegetated Roof #1 (Spec #5)	acres of green roof	45% runoff volume reduction	0.45	0.0000	0	0	0	0	0.00	0.00	0.00	0.00		1. Green F	toof 0.00	0.00	0.00	0.00	
1.b. Vegetated Roof #2 (Spec #5)	acres of green roof	60% runoff volume reduction	0.60	0.0000	0	0	0	0	0.00	0.00	0.00	0.00		0	0.00	0.00	0.00	0.00	ļ
2. Rooftop Disconnection 2.a. Simple Disconnection to A/B Solis (Spec	impenious acres disconnector	50% runoff volume reduction	0.50	0.0000	0	0	0	0	0.00	0.00	0.00	0.00		2. Impervi	ous Surface Di	sconnection	0.00	0.00	
#1) 2.b. Simple Disconnection to C/D Soils (Spec #1)	impervious acres disconnected	d for treated area 25% runoff volume reduction for treated area	0.50	0.0000	0	0	0	0	0.00	0.00	0.00	0.00		0	0.00	0.00	0.00	0.00	
2.c. To Soil Amended Filter Path as per specifications (existing C/D soils) (Spec #4) 2.d. To Dry Well or French Drain #1	impervious acres disconnected	50% runoff volume reduction for treated area 50% runoff volume reduction	0.50	0.0000	0	0	0	0	0.00	0.00	0.00	0.00		0	0.00	0.00	0.00	0.00	
(Microinfiration #1) (Spec #8) 2.e. To Dry Well or French Drain #2 (Micro- Infibration #2) (Spec #8) 2.f. To Rain Garden #1 (Micro-Bioretention	impervious acres disconnected	5 for treated area 50% runoff volume reduction 5 for treated area	0.50	0.0000	0	0	0	25 25	0.00	0.00	0.00	0.00		15	0.00	0.00	0.00	0.00	
21. To Hoan Garden #1 (Micro-Bioretention #1) (Spec #0) 2.g. To Rain Garden #2 (Micro-Bioretention #2) (Spec #0)	impervious acres disconnected	40% of volume captured 80% runoff volume reduction for treated area	0.40	0.0000	0	0	0	25 50	0.00	0.00	0.00	0.00		40	0.00	0.00	0.00	0.00	ł
2.h. To Rainwater Harvesting (Spec #8)	impervious acres captured	based on tank size and design spreadsheet (See Spec #6)	0.00	0.0000	0	0	0	0	0.00	0.00	0.00	0.00		0	0.00	0.00	0.00	0.00	
2.i. To Stormweter Planter (Urban Bioretention) (Spec #9, Appendix A)	impervious acres disconnecter	40% runoff volume reduction for treated area	0.40	0.0000	0	0	0	25	0.00	0.00	0.00	0.00		40	0.00	0.00	0.00	0.00	ļ
3. Permeable Pavement 3.a. Permeable Pavement #1 (Spec #7)	acres of permeable pavement - acres of "external" (upgradient)	:												3. Permea	ble Pavement				
3.b. Permeable Pavement #2 (Spec #7)	impervious pavement	45% runoff volume reduction 75% runoff volume reduction	0.45	0.0000	0	0	0	25 25	0.00	0.00	0.00	0.00		25	0.00	0.00	0.00	0.00	l
4. Grass Channel	imperviews areas desister **		_					_		_			· · · · · · · · · · · · · · · · · · ·	4. Grass (	hannel	1			
4.a. Grass Channel A/B Soils (Spec #3)	impervious acres draining to grass channels turf acres draining to grass channels	20% runoff volume reduction 20% runoff volume reduction	0.20	0.0000	0	0	0	15 15	0.00	0.00	0.00	0.00		20	0.00	0.00	0.00	0.00	<u> </u>
4.b. Grass Channel C/D Soils (Spec #3)	impervious acres draining to grass channels turf acres draining to grass	10% runoff volume reduction	0.10	0.0000	0	0	0	15	0.00	0.00	0.00	0.00		20	0.00	0.00	0.00	0.00	
4.c. Grass Channel with Compost Amended Soils as per specs (see Spec #4)	channels impervious acres draining to grass channels turf acres draining to grass	10% runoff volume reduction 30% runoff volume reduction	0.10	0.0000	0	0	0	15 15	0.00	0.00	0.00	0.00		20	0.00	0.00	0.00	0.00	ĺ
	turt acres draning to grass channels	30% runoff volume reduction	0.30	0.0000	0	0	0	15	0.00	0.00	0.00	0.00		20	0.00	0.00	0.00	0.00	-
5. Dry Swale 5.a. Dry Swale #1 (Spec #10)	impervious acres draining to dr swale	y 40% runoff volume reduction	0.40	0.0000	0	0	0	20	0.00	0.00	0.00	0.00		5. Dry Sw 25	0.00	0.00	0.00	0.00	
	turf acres draining to dry swale impervious acres draining to dr swale	40% runoff volume reduction y 60% runoff volume reduction	0.40	0.0000	0	0	0	20 40	0.00	0.00	0.00	0.00		25	0.00	0.00	0.00	0.00	ł
5.b. Dry Swale #2 (Spec #10)	swate turf acres draining to dry swale		0.60	0.0000	0	0	0	40	0.00	0.00	0.00	0.00		35	0.00	0.00	0.00	0.00	ļ
6. Bioretention 6.a. Bioretention #1 or Urban Bioretention	impervious acres draining to	100	0.40	0.0000	0	0	0	25	0.00	0.00	0.00	0.00		6. Biorete 40	ntion 0.00	0.00	0.00	0.00	
(Spec #9)	bioretention turf acres draining to bioretention impervious acres draining to	40% runoff volume reduction	0.40	0.0000	0	0	0	25	0.00	0.00	0.00	0.00		40	0.00	0.00	0.00	0.00	
6.b. Bioretention #2 (Spec #9)	bioretention turf acres draining to bioretention	80% runoff volume reduction 80% runoff volume reduction	0.80	6.4800 6.0200	0	17877 3846	4469 962	50 50	0.00	14.02 3.02	12.62	0.30	8.a. ED #1	60	0.00	100.33 21.58	92.30 19.86	8.03	
7. Infiltration	impervious acres draining to		_			:	:		:	1	:	:		7. Infiltrat	on				
7.a. infitration #1 (Spec #8)	infitration turf acres draining to infitration	50% runoff volume reduction	0.50	0.0000	0	0	0	25 25	0.00	0.00	0.00	0.00		15 15	0.00	0.00	0.00	0.00	
7.b. infitration #2 (Spec #8)	impervious acres draining to infitration	90% runoff volume reduction	0.90	0.0000	0	0	0	25	0.00	0.00	0.00	0.00		15	0.00	0.00	0.00	0.00	
8. Extended Detention Pond	turf acres draining to infiltration	50% runoff volume reduction	0.90	0.0000	0	0	0	25	0.00	0.00	0.00	0.00		15 8. Extend	0.00	0.00	0.00	0.00	
8.a. ED #1 (Spec #15)	impervious acres draining to ED		0.00	2.1900	4469	0	12021	15	1.40	4.74	0.92	5.22		10	8.03	33.91	4.19	37.74	
8.b. ED #2 (Spec #15)	turf acres draining to ED impervious acres draining to ED	0% runoff volume reduction 15% runoff volume reduction	0.00	0.0000	962 0	0	2543 0	15 15	0.30	0.99	0.19	0.00		10	1.73	7.10	0.88	7.94 0.00	1
	turf acres draining to ED	15% runoff volume reduction	0.15	0.0000	0	0	0	15	0.00	0.00	0.00	0.00	i i i i i i i i i i i i i i i i i i i	10	0.00	0.00	0.00	0.00	1
9. Sheetflow to Filter/Open Space	conserved open space	75% runoff volume reduction for treated area	0.75	0.0000	0	0	0	0	0.00	0.00	0.00	0.00		9. Sheetfi	0.00	tion Area or Fil	ter Strip 0.00	0.00	l
9.a. Sheetflow to Conservation Area with A/B Soils (Spec #2)	turf acres draining to conserved open space impervious acres draining to	d 75% runoff volume reduction for treated area 50% runoff volume reduction for treated area	0.75	0.0000	0	0	0	0	0.00	0.00	0.00	0.00		0	0.00	0.00	0.00	0.00	
9.b. Sheetflow to Conservation Area with C/D Soils (Spec #2)	conserved open space turf acres draining to conserve open space immerviews acres draining to	d 50% runoff reduction volume for treated area	0.50	0.0000	0	0	0	0	0.00	0.00	0.00	0.00		0	0.00	0.00	0.00	0.00	
9.c. Sheetflow to Vegetated Filter Strip in A Solls or Compost Amended B/C/D Solls (Sper #2 & #4)	impervious acres draining to filter strip turf acres draining to filter strip	50% runoff reduction volume	0.50	0.0000	0	0	0	0	0.00	0.00	0.00	0.00		0	0.00	0.00	0.00	0.00	ŀ
		TOTAL IMPERVIOUS COVE TOTAL TURF ARE	R TREATED (ac) A TREATED (ac)	8.6700 8.0000															
		TOTAL P	AREA CHECH	KOK. EMOVAL REQUIRE	ED ON SITE (Ib/yr	14.55	<b>I</b>												
		OSPHORUS REMOVAL FROM					t						NITROGEN REMOVAL P	TOTA ROM RUNOFF RED	RUNOFF REDUC	TION IN D.A. A (cf ES IN D.A. A (by)	21,723 162.92		
Apply Practices that Remove F	Pollutants but Do Not	Reduce Runoff Volum	10																
Practice	Unit	Description of Credit	Credit	Credit Area (acres)	Volume from Upstream RR Practice (cf)	Runoff Reduction (cf)	Remaining Runoff	Phosphorus Efficiency (%	Phosphorus Load from Upstream RR Practices (bs)	Untreated Phosphorus Load to Practice (lbs.)	Phosphorus Removed By Practice (lbs.)	Remaining Phosphorus Load (Ibs.)	Downstream Treatment to be Employed	Nitrogen Efficiency (%)	Nitrogen Load from Upstream RR Practices (lbs)	Untreated Nitrogen Load	Nitrogen Removed By Practice (Ibs.)	Remaining Nitrogen Load	I
Practice 10. Wet Swale (Coastal Plain)	Unit												Considerant Instantic to be Employed	10. Wet S	vale (Coastal P	lain)			·····
10.a. Wet Swale #1 (Spec #11)	swale turf acres draining to wet swale	0% runoff volume reduction	0.00	0.0000	0	0	0	20 20	0.00	0.00	0.00	0.00		25 25	0.00	0.00	0.00	0.00	l
10.b. Wet Swale #2 (Spec #11)	impervious acres draining to we swale	at 0% runoff volume reduction	0.00	0.0000	0	0	0	40	0.00	0.00	0.00	0.00		35	0.00	0.00	0.00	0.00	
10.b. Wet Swale #2 (Spec #11) 11. Filtering Practices	turf acres draining to wet swale		0.00	0.0000	U			40	0.00	0.00	0.00	0.00			0.00 ng Practices	0.00	0.00	0.00	Į
	impervious acres draining to filter	0% runoff volume reduction	0.00	0.0000	0	0	0	60	0.00	0.00	0.00	0.00		30	0.00	0.00	0.00	0.00	
11.a.Filtering Practice #1 (Spec #12)	turf acres draining to filter impervious acres draining to filter	0% runoff volume reduction 0% runoff volume reduction	0.00	0.0000	0	0	0	60 65	0.00	0.00	0.00	0.00		30 45	0.00	0.00	0.00	0.00	
11.b. Filtering Practice #2 (Spec #12)	turf acres draining to filter	0% runoff volume reduction	0.00	0.0000	0	0	0	65	0.00	0.00	0.00	0.00		45	0.00	0.00	0.00	0.00	1
12. Constructed Wetland	impervious acres draining to wetland	0% runoff volume reduction	0.00	0.0000	0	0	0	50	0.00	0.00	0.00	0.00		12. Const 25	0.00	0.00	0.00	0.00	[
12.a.Constructed Wetland #1 (Spec #13)	turf acres draining to wetland impervious acres draining to workland	0% runoff volume reduction	0.00	0.0000	0	0	0	50 75	0.00	0.00	0.00	0.00		25	0.00	0.00	0.00	0.00	
12.b. Constructed Wetland #2 (Spec #13)	wedand	0% runoff volume reduction	0.00	0.0000	0	0	0	75	0.00	0.00	0.00	0.00		55	0.00	0.00	0.00	0.00	l
13. Wet Ponds	impervious acres draining to we	a	0.55											13. Wet P					
13.a. Wet Pond #1 (Spec #14)	pond turf acres draining to wet pond	0% runoff volume reduction	0.00	0.0000	0	0	0	50 50	0.00	0.00	0.00	0.00		30	0.00	0.00	0.00	0.00	
13.b. Wet Pond #1 (Coastal Plain) (Spec #14)	impervious acres draining to we pond turf acres draining to wet pond	d 0% runoff volume reduction 0% runoff volume reduction	0.00	0.0000	0	0	0	45 45	0.00	0.00	0.00	0.00		20	0.00	0.00	0.00	0.00	ł
A (COMMENT FIELD (OPEC #14)	turt acres draming to wet pond impervious acres draining to we pond	at 0% runoff volume reduction	0.00	0.0000	0	0	0	75	0.00	0.00	0.00	0.00		40	0.00	0.00	0.00	0.00	

13.c. Wet Pond #2 (Spec #14)	turf acres draining to wet pond	0% runoff volume reduction	0.00	0.0000	0	0	0	75	0.00	0.00	0.00	0.00		40	0.00	0.00	0.00	0.00	
	impervious acres draining to wet pond	0% runoff volume reduction	0.00	0.0000	0	0	0	65	0.00	0.00	0.00	0.00		30	0.00	0.00	0.00	0.00	
13.d. Wet Pond #2 (Coastal Plain) (Spec #14)	turf acres draining to wet pond	0% runoff volume reduction	0.00	0.0000	0	0	0	65	0.00	0.00	0.00	0.00		30	0.00	0.00	0.00	0.00	<b>I</b> ]
14. Manufactured BMP	i	i										1	i i	14. Manufa	ctured BMP				
	impervious acres draining to device	0% runoff volume reduction	0.00	0.0000	0	0	0	0	0.00	0.00	0.00	0.00		0	0.00	0.00	0.00	0.00	
14. Insert Name of Device	turf acres draining to device	0% runoff volume reduction	0.00	0.0000	0	0	0	0	0.00	0.00	0.00	0.00		0	0.00	0.00	0.00	0.00	
		TOTAL IMPERVIOUS COVER																	
			AREA CHECK	OK.															
	PHOSPHORUS	REMOVAL BY PRACTICES		EDUCE RUNOFF															
	SEE WATER QUAI	LITY COMPLIANCE TAB																	
	NITROGEN	REMOVAL BY PRACTICES 1	HAT DO NOT R TOTAL NI	EDUCE RUNOFF 1 TROGEN REMOVA	OLUME IN D.A. A L IN D.A. A (Ib/yr)	0.00 162.92													

Site Results						
	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	AREA CHECK
IMPERVIOUS COVER	8.6700	0.0000	0.0000	0.0000	0.0000	OK.
IMPERVIOUS COVER TREATED	8.6700	0.0000	0.0000	0.0000	0.0000	OK.
TURF AREA	8.0000	0.0000	0.0000	0.0000	0.0000	OK.
TURF AREA TREATED	8.0000	0.0000	0.0000	0.0000	0.0000	OK.
AREA CHECK	OK.	OK.	OK.	OK.	OK.	
Phosphorus						
TOTAL TREATMENT VOLUME (cf)	39,336					
TOTAL PHOSPHORUS LOAD REDUCTION REQUIRED (LB/YEAR)	14.55					
RUNOFF REDUCTION (cf)	21723					
PHOSPHORUS LOAD REDUCTION ACHIEVED (LB/YR)	16.45					
ADJUSTED POST-DEVELOPMENT PHOSPHORUS LOAD (TP) (lb/yr)	8.26					
REMAINING PHOSPHORUS LOAD REDUCTION (LB/YR) NEEDED	ONGRATULATIONS!	YOU EXCEEDED TH	E TARGET REDUCT	ON BY 1.9 LB/YEAR!		
Nitrogen (for information purposes) TOTAL TREATMENT VOLUME (cf)	39,336					
RUNOFF REDUCTION (cf)	21723					
NITROGEN LOAD REDUCTION ACHIEVED (LB/YR)	162.92					
ADJUSTED POST-DEVELOPMENT NITROGEN LOAD (TN) (Ib/yr)	13.89					

			4	0	10		-
Target Rainfall Event (in)	1		1-year storm 0.00	2-year storm	10-year storm		
		4	0.00	0.00	0.00		
Drainage Area A							
Drainage Area (acres)		16.6700					
Runoff Reduction Volume (cf)		21,723					
Drainage Area B							
Drainage Area (acres)		0.0000					
Runoff Reduction Volume (cf)		0					
Drainage Area C							
Drainage Area (acres)		0.0000					
Runoff Reduction Volume (cf)		0					
Drainage Area D		0.0000					
Drainage Area (acres) Runoff Reduction Volume (cf)		0.0000					
Drainage Area E							
Drainage Area (acres)		0.0000					
Runoff Reduction Volume (cf)		0					
Based on the use of Runoff Reduction	n practices in the sele	cted drainage areas,	the spreadsheet calc	ulates an adjusted R	V <sub>Developed</sub> and adjuste	d Curve Number.	
Drainage Area A			A soils 0.0000	B Soils	C Soils	D Soils	-
Forest/Open Space undisturbed, p space or reforested I		Area (acres) CN	30	0.0000	0.0000 70	0.0000	
Managed Turf disturbed, graded for y		Area (acres)	0.0000	0.0000	8.0000	0.0000	
mowed/managed		ĊN	39	61	74	80	
		Area (acres)	0.0000	0.0000	8.6700	0.0000	
Impervious Cover		CN	98	98	98	98 Weighted CN	S
						86	3 1.63
			1-year storm	2-year storm	10-year storm		
	RV <sub>Developed</sub> (in) with	no Runoff Reduction	0.00	0.00	0.00		
	RV <sub>Developed</sub> (in) w	ith Runoff Reduction	-0.36	-0.36	-0.36		
		Adjusted CN	#N/A	#N/A	#N/A		
Drainage Area B			A soils	B Soils	C Soils	D Soils	
Forest/Open Space undisturbed, p		Area (acres)	0.0000	0.0000	0.0000	0.0000	
space or reforested I		CN	30	55	70	77	
Managed Turf disturbed, graded for y		Area (acres)	0.0000	0.0000	0.0000	0.0000	
mowed/managed		CN	39	61	74	80	_
Impervious Cover		Area (acres) CN	0.0000 98	0.0000 98	0.0000	0.0000	
		0.1			00	Weighted CN	S
						0	1000.00
	RV- (in) with	no Runoff Reduction	1-year storm 0.00	2-year storm 0.00	10-year storm 0.00		
	RV <sub>Developed</sub> (in) w	ith Runoff Reduction	0.00	0.00	0.00		
		Adjusted CN	100	100	100		
							_
Drainage Area C Forest/Open Space undisturbed, p		Area (acres)	A soils 0.0000	B Soils 0.0000	C Soils 0.0000	D Soils 0.0000	
space or reforested l		CN	30	55	70	77	
Managed Turf disturbed, graded for y	ards or other turf to be	Area (acres)	0.0000	0.0000	0.0000	0.0000	
mowed/managed		CN	39	61	74	80	
Impervious Cover		Area (acres) CN	0.0000	0.0000 98	0.0000	0.0000	
						Weighted CN	S
						0	1000.00
	I		1-year storm	2-year storm	10-year storm		
			0.00	0.00	0.00		
	RV <sub>Developed</sub> (in) with	no Runoff Reduction			0.55		1
	RV <sub>Developed</sub> (in) with RV <sub>Developed</sub> (in) w	ith Runoff Reduction	0.00	0.00	0.00		
	RV <sub>Developed</sub> (in) with RV <sub>Developed</sub> (in) w	no Runoff Reduction ith Runoff Reduction Adjusted CN			0.00 <b>100</b>		
Drainage Area D	RV <sub>Developed</sub> (in) w	ith Runoff Reduction	0.00	0.00		D Soils	
Forest/Open Space undisturbed, p	RV <sub>Developed</sub> (in) w	Adjusted CN Adjusted CN Area (acres)	0.00 100 A soils 0.0000	0.00 100 B Soils 0.0000	100 C Soils 0.0000	0.0000	
Forest/Open Space undisturbed, pi space or reforested I	RV <sub>Developed</sub> (in) w	ith Runoff Reduction Adjusted CN Area (acres) CN	0.00 100 A soils 0.0000 30	0.00 100 B Soils 0.0000 55	100 C Soils 0.0000 70	0.0000 77	
Forest/Open Space undisturbed, p space or reforested I Managed Turf disturbed, graded for y	RV <sub>Developed</sub> (in) w	ith Runoff Reduction Adjusted CN Area (acres) CN Area (acres)	0.00 100 A soils 0.0000 30 0.0000	0.00 100 B Soils 0.0000 55 0.0000	100 C Soils 0.0000 70 0.0000	0.0000 77 0.0000	
Forest/Open Space undisturbed, pi space or reforested I	RV <sub>Developed</sub> (in) w	ith Runoff Reduction Adjusted CN Area (acres) CN Area (acres) CN	0.00 100 A soils 0.0000 30	0.00 100 B Soils 0.0000 55	100 C Soils 0.0000 70	0.0000 77	
Forest/Open Space undisturbed, p space or reforested I Managed Turf disturbed, graded for y	RV <sub>Developed</sub> (in) w rotected forest/open and ards or other turf to be	ith Runoff Reduction Adjusted CN Area (acres) CN Area (acres)	0.00 100 A soils 0.0000 30 0.0000 39	0.00 100 B Soils 0.0000 55 0.0000 61	100 C Soils 0.0000 70 0.0000 74	0.0000 77 0.0000 80 0.0000 98	
Forest/Open Space undisturbed, p space or reforested I Managed Turf disturbed, graded for y mowed/managed	RV <sub>Developed</sub> (in) w rotected forest/open and ards or other turf to be	ith Runoff Reduction Adjusted CN Area (acres) CN Area (acres) CN Area (acres) Area (acres)	0.00 100 A soils 0.0000 30 0.0000 39 0.0000	0.00 100 B Soils 0.0000 55 0.0000 61 0.0000	100 C Soils 0.0000 70 0.0000 74 0.0000	0.0000 77 0.0000 80 0.0000 98 Weighted CN	S
Forest/Open Space undisturbed, p space or reforested I Managed Turf disturbed, graded for y mowed/managed	RV <sub>Developed</sub> (in) w rotected forest/open and ards or other turf to be	ith Runoff Reduction Adjusted CN Area (acres) CN Area (acres) CN Area (acres) Area (acres)	0.00 100 A soils 0.0000 30 0.0000 39 0.0000 98	0.00 100 B Soils 0.0000 61 0.0000 98	100 C Soils 0.0000 70 0.0000 74 0.0000 98	0.0000 77 0.0000 80 0.0000 98	S 1000.00
Forest/Open Space undisturbed, p space or reforested I Managed Turf disturbed, graded for y mowed/managed	RV <sub>Developed</sub> (in) w rotected forest/open and ards or other turf to be	ith Runoff Reduction Adjusted CN Area (acres) CN Area (acres) CN Area (acres) CN CN	0.00 100 A soils 0.0000 30 0.0000 39 0.0000 98 1-year storm	0.00 100 B Soils 0.0000 55 0.0000 61 0.0000 98 2-year storm	100 C Soils 0.0000 70 0.0000 74 0.0000 98 10-year storm	0.0000 77 0.0000 80 0.0000 98 Weighted CN	
Forest/Open Space undisturbed, p space or reforested I Managed Turf disturbed, graded for y mowed/managed	RV <sub>Developed</sub> (in) w otected forest/open and ards or other turf to be RV <sub>Developed</sub> (in) with	ith Runoff Reduction Adjusted CN Area (acres) CN Area (acres) CN Area (acres) CN CN Area (acres) CN no Runoff Reduction	0.00 100 A soils 0.0000 30 0.0000 39 0.0000 98 1-year storm 0.00	0.00 100 B Soils 0.0000 55 0.0000 61 0.0000 98 2-year storm 0.00	100 C Soils 0.0000 70 0.0000 74 0.0000 98 10-year storm 0.00	0.0000 77 0.0000 80 0.0000 98 Weighted CN	
Forest/Open Space undisturbed, p space or reforested I Managed Turf disturbed, graded for y mowed/managed	RV <sub>Developed</sub> (in) w otected forest/open and ards or other turf to be RV <sub>Developed</sub> (in) with	ith Runoff Reduction Adjusted CN Area (acres) CN Area (acres) CN Area (acres) CN CN	0.00 100 A soils 0.0000 30 0.0000 39 0.0000 98 1-year storm	0.00 100 B Soils 0.0000 55 0.0000 61 0.0000 98 2-year storm	100 C Soils 0.0000 70 0.0000 74 0.0000 98 10-year storm	0.0000 77 0.0000 80 0.0000 98 Weighted CN	
Forest/Open Space undisturbed, p space or reforested I Managed Turf disturbed, graded for y mowed/managed Impervious Cover	RV <sub>Developed</sub> (in) w rotected forest/open and ards or other turf to be RV <sub>Developed</sub> (in) with RV <sub>Developed</sub> (in) with	ith Runoff Reduction Adjusted CN CN Area (acres) CN Area (acres) CN Area (acres) CN Area (acres) CN no Runoff Reduction	0.00 100 A soils 0.0000 30 0.0000 39 0.0000 98 1-year storm 0.00 0.00 100	0.00 100 B Soils 0.0000 55 0.0000 61 0.0000 98 2-year storm 0.00 0.00 100	100           C Soils           0.0000           70           0.0000           74           0.0000           98           10-year storm           0.00           0.00           100	0.0000 77 0.0000 80 0.0000 98 Weighted CN 0	
Forest/Open Space undisturbed, p space or reforested I Managed Turf disturbed, graded for y mowed/managed Impervious Cover	RV <sub>Developed</sub> (in) w rotected forest/open and ards or other turf to be RV <sub>Developed</sub> (in) with RV <sub>Developed</sub> (in) w	ith Runoff Reduction Adjusted CN CN Area (acres) CN Area (acres) CN Area (acres) CN Area (acres) CN in Runoff Reduction Adjusted CN	0.00 100 A soils 0.0000 30 0.0000 39 0.0000 98 1-year storm 0.00 0.00 100 A soils	0.00 100 B Soils 0.0000 55 0.0000 61 0.0000 98 2-year storm 0.00 100 B Soils	100 C Soils 0.0000 70 0.0000 98 10-year storm 0.00 0.00 100 C Soils	0.0000 77 0.0000 80 0.0000 98 Weighted CN 0 0	
Forest/Open Space undisturbed, p space or reforested I Managed Turf disturbed, graded for y mowed/managed Impervious Cover	RV <sub>Developed</sub> (in) w otected forest/open and ards or other turf to be RV <sub>Developed</sub> (in) with RV <sub>Developed</sub> (in) w otected forest/open	ith Runoff Reduction Adjusted CN CN Area (acres) CN Area (acres) CN Area (acres) CN Area (acres) CN no Runoff Reduction	0.00 100 A soils 0.0000 30 0.0000 39 0.0000 98 1-year storm 0.00 0.00 100	0.00 100 B Soils 0.0000 55 0.0000 61 0.0000 98 2-year storm 0.00 0.00 100	100           C Soils           0.0000           70           0.0000           74           0.0000           98           10-year storm           0.00           0.00           100	0.0000 77 0.0000 80 0.0000 98 Weighted CN 0	

Managed Turf disturbed, graded for yards or other turf to be	Area (acres)	0.0000	0.0000	0.0000	0.0000	
mowed/managed	CN	39	61	74	80	
	Area (acres)	0.0000	0.0000	0.0000	0.0000	
Impervious Cover	CN	98	98	98	98	
					Weighted CN	S
					0	1000.00
		1-year storm	2-year storm	10-year storm		
RV <sub>Developed</sub> (in) with	no Runoff Reduction	0.00	0.00	0.00		
RV <sub>Developed</sub> (in) w	th Runoff Reduction	0.00	0.00	0.00		
	Adjusted CN	100	100	100		

Runoff Reduction Method New Development Worksheet - v2.8 - June 2014

#### Site Data Summary

Total Rainfall = 43 inches

Site Land Cover Summary

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest (acres)	0.0000	0.0000	5.2700	0.0000	5.2700	21.25
Turf (acres)	0.0000	0.0000	10.8600	0.0000	10.8600	43.79
Impervious (acres)	0.0000	0.0000	8.6700	0.0000	8.6700	34.96
					24.8000	100.00

Site Rv	0.44
Post Development Treatment Volume (ft3)	39336
Post Development TP Load (lb/yr)	24.72
Post Development TN Load (lb/yr)	176.81
Total TP Load Reduction Required (lb/yr)	14.55

Total Runoff Volume Reduction (ft <sup>3</sup> )	21723
Total TP Load Reduction Achieved (lb/yr)	16.45
Total TN Load Reduction Achieved (lb/yr)	162.92
Adjusted Post Development TP Load (lb/yr)	8.26
Remaining Phosphorous Load Reduction (Lb/yr) Required	0.00

#### Drainage Area Summary

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	Total
Forest (acres)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Turf (acres)	8.0000	0.0000	0.0000	0.0000	0.0000	8.0000
Impervious (acres)	8.6700	0.0000	0.0000	0.0000	0.0000	8.6700
						16.6700

#### Drainage Area Compliance Summary

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	Total
TP Load Red. (lb/yr)	16.45	0.00	0.00	0.00	0.00	16.45
TN Load Red. (lb/yr)	162.92	0.00	0.00	0.00	0.00	162.92

# Drainage Area A Summary

Land Cover Summary

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Turf (acres)	0.00	0.00	8.00	0.00	8.00	47.99
Impervious (acres)	0.00	0.00	8.67	0.00	8.67	52.01
					16.67	

## **BMP Selections**

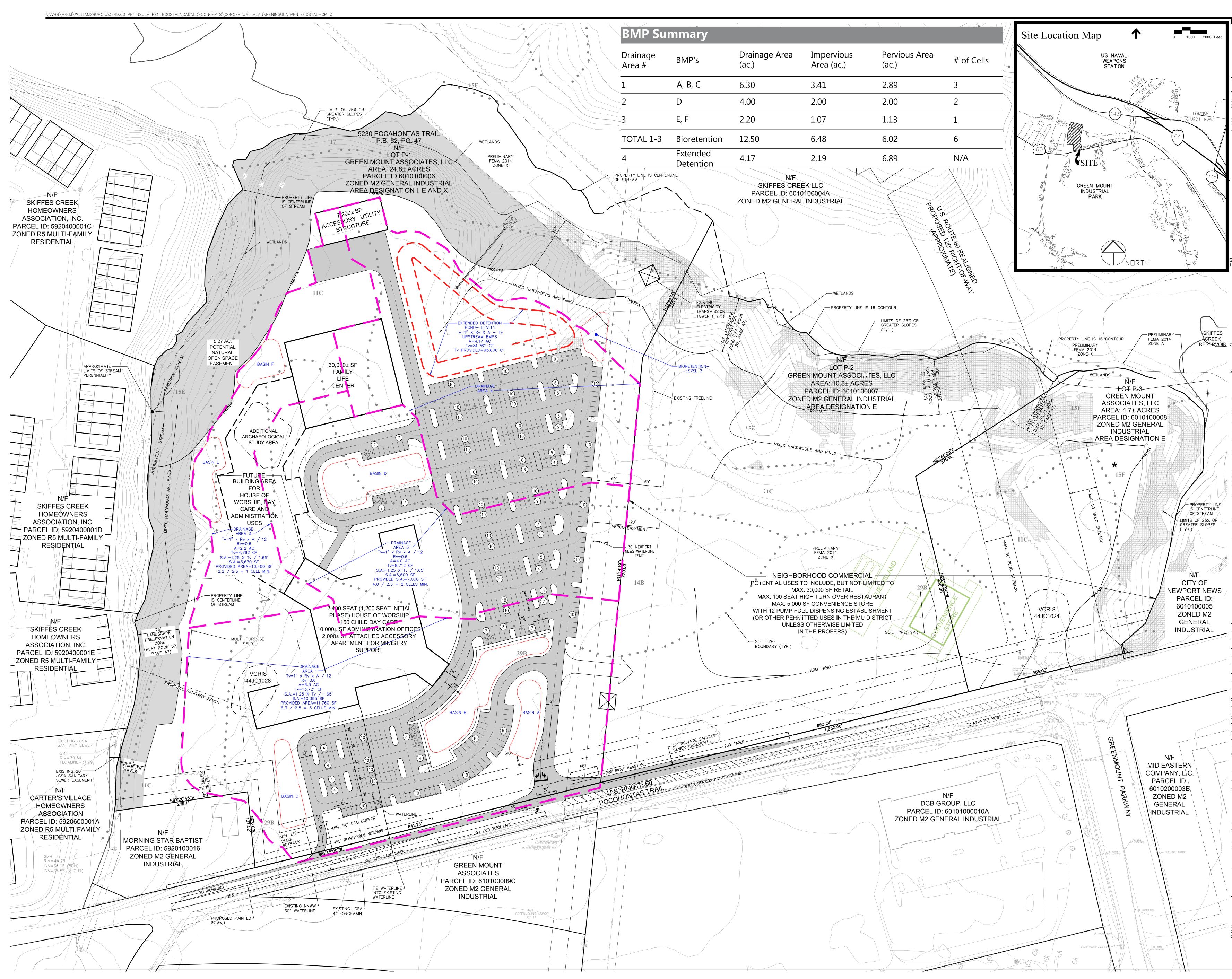
Practice	Credit Area (acres)	Downstream Practice
Total Impervious Cover Treated (acres)	8.67	
Total Turf Area Treated (acres)	8.00	
Total TP Load Reduction Achieved in D.A. A (lb/yr)	16.45	
Total TN Load Reduction Achieved in D.A. A (lb/yr)	162.92	

#### **Channel and Flood Protection**

	Weighted CN	-	Adjusted CN	10-year storm Adjusted CN
Target Rainfall Event (in)		0.00	0.00	0.00
D.A. A CN	86	#N/A	#N/A	#N/A
D.A. B CN	0	100	100	100
D.A. C CN	0	100	100	100
D.A. D CN	0	100	100	100
D.A. E CN	0	100	100	100

# Version 2.8 - June 2014 - 2011 BMP Stnds & Specs

- 1 Fixed summary sheet totals /percentage column fixed
- 2 Corrected nitrogen efficiency percentages
- 3 Corrected the Rv value in column J for managed turf
- 4 Checked and revised runoff reduction credit values assigned





Vanasse Hangen Brustlin, Inc.

Transportation Land Development Environmental Services

351 McLaws Circle, Suite 3 Williamsburg, Virginia 23185 757.220.0500 • FAX 757.220.8544



 $\bigcirc$ 

SENERAL NOTES: . THE PROPERTY IS IDENTIFIED ON THE JAMES CITY COUNTY GEOGRAPHIC INFORMATION SYSTEM MAP SERIES

AS GPIN: 6010100006 AND IS ZONED M2, GENERAL INDUSTRIAL. THE PROPERTY IS FURTHER DESCRIBED AS 9230 POCAHONTAS TRAIL. THE PROPERTY IS IDENTIFIED ON THE JAMES CITY COUNTY GEOGRAPHIC INFORMATION SYSTEM MAP SERIES AS GPIN: 6010100007 AND IS ZONED M2, GENERAL INDUSTRIAL. THE PROPERTY IS FURTHER DESCRIBED AS 9240 POCAHONTAS TRAIL. THE PROPERTY IS IDENTIFIED ON THE JAMES CITY COUNTY GEOGRAPHIC INFORMATION SYSTEM MAP SERIES AS GPIN: 6010100008 AND IS ZONED M2, GENERAL INDUSTRIAL. THE PROPERTY IS FURTHER DESCRIBED AS 9250 POCAHONTAS TRAIL. ; THE PARCELS ARE LOCATED WITHIN THE PRIMARY SERVICE AREA AND OUTSIDE THE 100 YEAR FLOOD PLAIN. THE COMPREHENSIVE PLAN DESIGNATION FOR THESE PARCELS IS MIXED USE.

2. BOUNDARY INFORMATION IS FROM PLAT OF RECORD RECORDED IN PB. 52, PG. 47, TOPOGRAPHIC AND EXISTING FEATURES INFORMATION DEPICTED HEREON IS FROM JAMES CITY COUNTY GEOGRAPHIC INFORMATION SYSTEM MAPPING.

3. POCAHONTAS TRAIL IS CLASSIFIED AS COMMUNITY CHARACTER CORRIDOR ALONG THE FRONTAGE OF THE SUBJECT PROPERTY.

# SUMMARY TABULATION

PROPOSED DEVELOPMENT PROGRAM:
• ADDRESS: P-1 9230 POCAHONTAS TRAIL WILLIAMSBURG,
VA. 23185
• ADDRESS: P-2 9240 POCAHONTAS TRAIL WILLIAMSBURG,
VA. 23185
• ADDRESS: P-3 9250 POCAHONTAS TRAIL WILLIAMSBURG,
VA. 23185
<ul> <li>PARCEL ID: 6010100006(P-1), 6010100007(P-2),</li> </ul>
6010100008(P-3)
<ul> <li>ZONING: M2 GENERAL INDUSTRIAL</li> </ul>
WATERSHED: SKIFFES CREEK
RECEIVING STREAM: SKIFFES CREEK

GROSS SITE AREA:  $40.3\pm$  ACRES (TOTAL PARCEL) DEVELOPABLE AREA (SEC. 24-2):  $27.4\pm$  OR  $1,193,545\pm$  S.F. IMPERVIOUS AREA: MAXIMUM 60% PERVIOUS AREA: MINIMUM 40%

PROPERTY APPEARS TO BE IN ZONE X (AREAS OF 0.2% ANNUAL CHANCE OF FLOOD) FIRM MAP NUMBER 51095C0230C DATED SEPTEMBER 28, 2007

SOILS WITHIN SITE AREA: 11C=CRAVEN-UCHEE COMPLEX-HYDROLOGIC SOIL GROUP C K=0.37 HIGH ERODIBILITY 14B=EMPORIA FINE SANDY LOAM-HYDROLOGIC SOIL GROUP C K=0.28 MODERATE ERODIBILITY 15E=EMPORIA COMPLEX-HYDROLOGIC SOIL GROUP C K=0.28 MODERATE ERODIBILITY 17=JOHNSTON COMPLEX-HYDROLOGIC SOIL GROUP D K=.20 LOW ERODIBILITY

29B=SLAGLE FINE SANDY LOAM-HYDROLOGIC SOIL GROUP C K=0.24 MODERATE ERODIBILITY

60		0	6(	C	120
		SCALE	IN FEE	Т	
					<u> </u>
					_
No.		Revision		Date	Appvd.
Design	<sup>ed by</sup> SAR	Drawn by	VHB	Checked by	PS
CAD c	hecked by		Approved	<sup>by</sup> SAR	
Scale	1''=60'		<sup>Date</sup> Jai	nuary 20, 2	2015
	ninsul urch	a Pe	nteco	ostal	
$\mathbf{U}$	IUIVII				

Pocahontas Trail Williamsburg, Virginia

Not Approved for Construction

Stormwater Management Exhibit A Bioretention Option

Drawing Number CP-1 STEPHEN A. ROMEC Lic. No. 1448-B iect Number 3749 00 PENINSULA PENTECOSTAL-CP\_3.DWG

To be used w/ 2011 BMP Standa	ius and opec	incations			
Site Data					
Project Name: Peninsula Pentecostal	Lot P-1 - Exhib	it B Wet Pond			
Date: 1/2015		1			
	data input cells				
	calculation cells				
	constant values				
1. Post-Development Project & L	and Cover In	formation			
Ormatanta					
Constants					
Annual Rainfall (inches)	43				
Target Rainfall Event (inches)	1.00				
Phosphorus EMC (mg/L)	0.26		Nitrogen EMC (mg/L)	1.86	
Target Phosphorus Target Load (lb/acre/yr)	0.41			1.00	
Pj	0.90				
Land Cover (acres)					
Earant/Open Space (agree) undisturbed	A soils	B Soils	C Soils	D Soils	Totals
Forest/Open Space (acres) undisturbed, protected forest/open space or reforested land	0.0000	0.0000	5.2700	0.0000	5.2700
Managed Turf (acres) disturbed, graded for	0.0000	0.0000	5.2700	0.0000	5.2700
yards or other turf to be mowed/managed	0.0000	0.0000	10.8600	0.0000	10.8600
Impervious Cover (acres)	0.0000	0.0000	8.6700	0.0000	8.6700
				Total	24.8000
Rv Coefficients					
5 1/2 2	A soils	B Soils	C Soils	D Soils	
Forest/Open Space	0.02	0.03	0.04 0.22	0.05 0.25	
Managed Turf	0.95	0.20	0.22	0.25	
Impervious Cover	0.95	0.95	0.95	0.95	
Land Cover Summary					
Forest/Open Space Cover (acres)	5.2700				
Weighted Rv(forest)	0.0400				
% Forest	21%				
Managed Turf Cover (acres)	10.8600				
Weighted Rv(turf)	0.2200				
% Managed Turf	44%				
Impervious Cover (acres)	8.6700	-			
Rv(impervious)	0.95				
% Impervious	35%				
Total Site Area (acres)	24.8000				
Site Rv	0.44				
Post-Development Treatment Volume (acre-ft)	0.90				
Post-Development Treatment Volume (actern)	0.30				
feet)	39,336	i .			
Post_Development Load (TP) (lb/yr)	24.72	Post_Deve	lopment Load (TN) (lb/yr)	176.81	
Total Load (TP) Reduction Required (lb/yr)	14.55				

ainage Area A Land Cover (acres) rest/Open Space (acres) anaged Turf (acres) pervlous Cover (acres)	A soils B Soils 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	C Solis D Solis 0.0000 0.0000 8.0000 0.0000 8.6700 0.0000	Totals 0.0000 8.0000 8.6700	Land Cover Rv 0.00 0.22 0.95															
pply Runoff Reduction Practic	ces to Reduce Treatme	Total	16.6700		Volume from Upstream RR	Runoff	Remaining Runoff	ent Volume (cf) Phosphorus	Phosphorus Load from Upstream RR	Untreated Phosphorus Load to	Phosphorus Removed By	Remaining Phosphorus		1		Nitrogen Load from Upstream RR Practices	Untreated Nitrogen Load	Nitrogen Removed By Practice	Remaining Nitrogen Load
actice Vegetated Roof	Unit	Description of Credit	Credit	(acres)	Practice (cf)	Reduction (cf)	Volume (cf)	Efficiency (%)	Practices (lbs)	Practice (lbs.)	Practice (lbs.)	Load (lbs.)	Downstream Treatment to be Employed		%) 1. Green Ro	(lbs) of	to Practice (lbs.)	(lbs.)	(lbs.)
a. Vegetated Roof #1 (Spec #5)	acres of green roof	45% runoff volume reduction	0.45	0.0000	0	0	0	0	0.00	0.00	0.00	0.00			0	0.00	0.00	0.00	0.00
D. Vegetated Roof #2 (Spec #5) Rooftop Disconnection	acres of green roof	60% runoff volume reduction	0.60	0.0000	0	0	0	0	0.00	0.00	0.00	0.00			0 2 Januar dar	0.00 us Surface Dis	0.00	0.00	0.00
a. Simple Disconnection to A/B Solis (Spec )	impervious acres disconnecte		0.50	0.0000	0	0	0	0	0.00	0.00	0.00	0.00			0	0.00	0.00	0.00	0.00
<ul> <li>Simple Disconnection to C/D Soils (Spec)</li> </ul>	impervious acres disconnecte		0.25	0.0000	0	0	0	0	0.00	0.00	0.00	0.00		-	0	0.00	0.00	0.00	0.00
To Soil Amended Filter Path as per edifications (existing C/D soils) (Spec #4) 1. To Dry Well or French Drain #1	impervious acres disconnecte	50% runoff volume reduction	0.50	0.0000	0	0	0	0	0.00	0.00	0.00	0.00			0	0.00	0.00	0.00	0.00
icroinfilration #1) (Spec #8) t. To Dry Well or French Drain #2 (Micro- iltration #2) (Spec #8)	impervious acres disconnecte impervious acres disconnecte	90% runoff volume reduction	0.50	0.0000	0	0	0	25	0.00	0.00	0.00	0.00		ŀ	15 15	0.00	0.00	0.00	0.00
. To Rain Garden #1 (Micro-Bioretention ) (Spec #9)	impervious acres disconnecte	d 40% of volume captured	0.40	0.0000	0	0	0	25	0.00	0.00	0.00	0.00			40	0.00	0.00	0.00	0.00
J. To Rain Garden #2 (Micro-Bioretention ) (Spec #9)	impervious acres disconnecte	80% runoff volume reduction d for treated area based on tank size and design spreadsheet (See	0.80	0.0000	0	0	0	50	0.00	0.00	0.00	0.00			60	0.00	0.00	0.00	0.00
To Rainwater Harvesting (Spec #6)	impervious acres captured	Spec #6)	0.00	0.0000	0	0	0	0	0.00	0.00	0.00	0.00			0	0.00	0.00	0.00	0.00
retention) (Spec #9, Appendix A)	impervious acres disconnecte	40% runoff volume reduction d for treated area	0.40	0.0000	0	0	0	25	0.00	0.00	0.00	0.00			40	0.00	0.00	0.00	0.00
ermeable Pavement Permeable Pavement #1 (Spec #7)	acres of permeable pavement acres of "external" (upgradien														3. Permeabl	e Pavement			
Permeable Pavement #1 (Spec #7) Permeable Pavement #2 (Spec #7)	impervious pavement	45% runoff volume reduction	0.45	0.0000	0	0	0	25	0.00	0.00	0.00	0.00			25	0.00	0.00	0.00	0.00
irass Channel	acres of permeable pavement	t 75% runoff volume reduction	0.75	0.0000	U	1 0	0	25	0.00	0.00	0.00	0.00	· · · · · · · · · · · · · · · · · · ·		25	0.00	0.00	0.00	0.00
a. Grass Channel A/B Soils (Spec #3)	impervious acres draining to grass channels	20% runoff volume reduction	0.20	0.0000	0	0	0	15	0.00	0.00	0.00	0.00			4. Grass Ch 20	0.00	0.00	0.00	0.00
	turf acres draining to grass channels impervious acres draining to	20% runoff volume reduction	0.20	0.0000	0	0	0	15	0.00	0.00	0.00	0.00			20	0.00	0.00	0.00	0.00
b. Grass Channel C/D Soils (Spec #3)	grass channels turf acres draining to grass	10% runoff volume reduction	0.10	7.5222	0	2594	23346	15	0.00	16.28	3.83	12.45	13.d. Wet Pond #2 (Coastal Plain)		20	0.00	116.46	32.61	83.85
Grass Channel with Compost Amended	channels impervious acres draining to grass channels	10% runoff volume reduction 30% runoff volume reduction	0.10	0.0000	0	462 0	4161 0	15	0.00	2.90	0.68	0.00	ista interneta #2 (ceastal Plain)		20 20	0.00	20.76	5.81 0.00	14.95 0.00
Soils as per specs (see Spec #4)	turf acres draining to grass channels	30% runoff volume reduction	0.30	0.0000	0	0	0	15	0.00	0.00	0.00	0.00			20	0.00	0.00	0.00	0.00
y Swale	impervious acres draining to d	ry													5. Dry Swale		]		
5.a. Dry Swale #1 (Spec #10)	swale turf acres draining to dry swal	40% runoff volume reduction	0.40	0.0000	0	0	0	20	0.00	0.00	0.00	0.00			25 25	0.00	0.00	0.00	0.00
5.b. Dry Swale #2 (Spec #10)	Impervious acres draining to dry swall swale		0.40	0.0000	0	0	0	40	0.00	0.00	0.00	0.00			35	0.00	0.00	0.00	0.00
	turf acres draining to dry swal	e 60% runoff volume reduction	0.60	0.0000	0	0	0	40	0.00	0.00	0.00	0.00			35	0.00	0.00	0.00	0.00
oretention	impervious acres draining to														6. Bioretent				
Bioretention #1 or Urban Bioretention (Spec #9)	bioretention turf acres draining to bioretention	40% runoff volume reduction 40% runoff volume reduction	0.40	0.0000	0	0	0	25 25	0.00	0.00	0.00	0.00			40 40	0.00	0.00	0.00	0.00
6.b. Bioretention #2 (Spec #9)	impervious acres draining to bioretention turf acres draining to		0.80	0.0000	0	0	0	50	0.00	0.00	0.00	0.00			60	0.00	0.00	0.00	0.00
	turf acres draining to bioretention	80% runoff volume reduction	0.80	0.0000	0	0	0	50	0.00	0.00	0.00	0.00			60	0.00	0.00	0.00	0.00
iltration	impervious acres draining to														7. Infiltratio	n			
7.a. Infiltration #1 (Spec #8)	infiltration turf acres draining to infiltratio	50% runoff volume reduction 50% runoff volume reduction	0.50	0.0000	0	0	0	25	0.00	0.00	0.00	0.00			15	0.00	0.00	0.00	0.00
7.b. Infiltration #2 (Spec #8)	impervious acres draining to infiltration	90% runoff volume reduction	0.90	0.0000	0	0	0	25	0.00	0.00	0.00	0.00			15	0.00	0.00	0.00	0.00
	turf acres draining to infiltratio	n 90% runoff volume reduction	0.90	0.0000	0	0	0	25	0.00	0.00	0.00	0.00			15	0.00	0.00	0.00	0.00
ended Detention Pond			0.00					45	0.00	0.00	0.00	0.00			8. Extended	Detention Por	nd 0.00	0.00	0.00
8.a. ED #1 (Spec #15)	Impervious acres draining to E turf acres draining to ED	D 0% runoff volume reduction 0% runoff volume reduction	0.00		0	0	0	15	0.00	0.00	0.00	0.00			10	0.00	0.00	0.00	0.00
8.b. ED #2 (Spec #15)	impervious acres draining to E	D 15% runoff volume reduction	0.15	0.0000	0	0	0	15	0.00	0.00	0.00	0.00			10	0.00	0.00	0.00	0.00
	turf acres draining to ED	15% runoff volume reduction	0.15	0.0000	0	0	0	15	0.00	0.00	0.00	0.00			10	0.00	0.00	0.00	0.00
eetflow to Filter/Open Space	impervious acres draining to conserved open space	75% runoff volume reduction for treated area	0.75	0.0000	0	0	0	0	0.00	0.00	0.00	0.00			9. Sheetflov	v to Conservat	ion Area or Filte	er Strip 0.00	0.00
heetflow to Conservation Area with A/B Solls (Spec #2)	turf acres draining to conserve open space	d 75% runoff volume reduction for treated area	0.75	0.0000	0	0	0	0	0.00	0.00	0.00	0.00			0	0.00	0.00	0.00	0.00
heetflow to Conservation Area with C/D	impervious acres draining to conserved open space turf acres draining to conserve	for treated area	0.50	0.0000	0	0	0	0	0.00	0.00	0.00	0.00			0	0.00	0.00	0.00	0.00
Soils (Spec #2) Sheetflow to Vegetated Filter Strip in A	open space impervious acres draining to filter strip	for treated area 50% runoff volume reduction for treated area	0.50	0.0000	0	0	0	0	0.00	0.00	0.00	0.00			0	0.00	0.00	0.00	0.00
Is or Compost Amended B/C/D Soils (Spec #2 & #4)	turf acres draining to filter stri	50% runoff reduction volume	0.50	0.0000	0	0	0	0	0.00	0.00	0.00	0.00			0	0.00	0.00	0.00	0.00
		TOTAL IMPERVIOUS COVER TOTAL TURF AREA		7.5222 5.7899															
			AREA CHECK	OK.	D ON SITE (Ibbr)	14 55	r												
	PH	DSPHORUS REMOVAL FROM F	TOTAL F	RUNOFF REDUCTI	ON IN D.A. A (cf)	3,056 4.51							NITROGEN REMOV	AL FROM RUI	TOTAL R	UNOFF REDUCT	ION IN D.A. A (cf)	3,056 137.22	
	SEE WATER (	QUALITY COMPLIANCE TA	AB FOR SITE	COMPLIANCE	CALCULATION	S												101.22	
ly Practices that Remove Po	ollutants but Do Not F	educe Runoff Volume					r		Dhaanhaana	Uniosatad	1							Managar	
ce		Description 12	Crorite	Credit Area	Volume from Upstream RR Practice (cf)	Runoff Reduction (cf)	Remaining Runoff	Phosphorus	Phosphorus Load from Upstream RR Practices (lbs)	Untreated Phosphorus Load to Practice (lbs.)	Phosphorus Removed By Practice (lbs.)	Remaining Phosphorus	Downstream Texatoriation			Nitrogen Load from Upstream RR Practices (lbe)		Nitrogen Removed By Practice	Remaining Nitrogen Load
et Swale (Coastal Plain)	Unit		Credit	(acres)	Practice (cf)	reduction (cf)	Volume (cf)	Emiciency (%)	Practices (lbs)	Practice (lbs.)	Practice (lbs.)	Load (lbs.)	Downstream Treatment to be Employed		%) 10. Wet Swa	(Ibs) ale (Coastal Pla	to Practice (lbs.) ain)	(IDS.)	(lbs.)
	impervious acres draining to w swale	0% runoff volume reduction	0.00	0.0000	0	0	0	20	0.00	0.00	0.00	0.00			25	0.00	0.00	0.00	0.00
10.a. Wet Swale #1 (Spec #11)	turf acres draining to wet swal impervious acres draining to w swale		0.00	0.0000	0	0	0	20 40	0.00	0.00	0.00	0.00			25 35	0.00	0.00	0.00	0.00
10.b. Wet Swale #2 (Spec #11)		e 0% runoff volume reduction	0.00	0.0000	0	0	0	40	0.00	0.00	0.00	0.00		ļ	35	0.00	0.00	0.00	0.00
Itering Practices	imposio	; 													11. Filtering	g Practices			
	impervious acres draining to filter	0% runoff volume reduction	0.00	0.0000	0	0	0	60	0.00	0.00	0.00	0.00		-	30	0.00	0.00	0.00	0.00
.a.Filtering Practice #1 (Spec #12)	turf acres draining to filter impervious acres draining to filter	0% runoff volume reduction 0% runoff volume reduction	0.00	0.0000	0	0	0	60 65	0.00	0.00	0.00	0.00			30 45	0.00	0.00	0.00	0.00
b. Filtering Practice #2 (Spec #12)	turf acres draining to filter	0% runoff volume reduction	0.00	0.0000	0	0	0	65	0.00	0.00	0.00	0.00			45	0.00	0.00	0.00	0.00
nstructed Wetland	impervious acres draining to									<b></b>			·····		12. Constru	cted Wetland			
Constructed Matter 4	wetland	0% runoff volume reduction	0.00	0.0000	0	0	0	50 50	0.00	0.00	0.00	0.00			25 25	0.00	0.00	0.00	0.00
Constructed Wetland #1 (Spec #13)	turf acres draining to wetland impervious acres draining to wetland	0% runoff volume reduction 0% runoff volume reduction	0.00	0.0000	0	0	0	75	0.00	0.00	0.00	0.00			25 55	0.00	0.00	0.00	0.00
Constructed Wetland #2 (Spec #13)	turf acres draining to wetland	0% runoff volume reduction	0.00	0.0000	0	0	0	75	0.00	0.00	0.00	0.00			55	0.00	0.00	0.00	0.00
et Ponds	impervious acres draining to w														13. Wet Pon				
3.a. Wet Pond #1 (Spec #14)	pond turf acres draining to wet pon	0% runoff volume reduction	0.00	0.0000	0	0	0	50 50	0.00	0.00	0.00	0.00			30 30	0.00	0.00	0.00	0.00
	Impervious acres draining to wet pon impervious acres draining to w pond		0.00	0.0000	0	0	0	45	0.00	0.00	0.00	0.00			20	0.00	0.00	0.00	0.00
	turf acres draining to wet pon impervious acres draining to w		0.00	0.0000	0	0	0	45	0.00	0.00	0.00	0.00		-	20	0.00	0.00	0.00	0.00
et Pond #1 (Coastal Plain) (Spec #14)	pond	0% runoff volume reduction	0.00	0.0000	0	0	0	75	0.00	0.00	0.00	0.00			40 40	0.00	0.00	0.00	0.00
	turf acres draining tot -	et	0.00	1.1478	23,346	0	27304	65	12.45	2.48	9.71	5.23			40 30	83.85	17.77	30.49	71.14
13.c. Wet Pond #2 (Spec #14)	turf acres draining to wet pon impervious acres draining to w pond	0% runoff volume reduction		2.2101	4,161	0	5926	65	2.22	1.11	2.16	1.16			30	14.95	7.92	6.86	16.01
13.c. Wet Pond #2 (Spec #14)	impervious acres draining to w pond		0.00																
13.c. Wet Pond #2 (Spec #14) Vet Pond #2 (Coastal Plain) (Spec #14)	impervious acres draining to w pond	d 0% runoff volume reduction												-	14. Manufac	tured BMP			
13.c. Wet Pond #2 (Spec #14) Wet Pond #2 (Coastal Plain) (Spec #14) Janufactured BMP	Impervious acres draining to w pond turf acres draining to wet pon impervious acres draining to device	D% runoff volume reduction	0.00	0.0000	0	0	0	0	0.00	0.00	0.00	0.00			0 0	0.00	0.00	0.00	0.00
13.c. Wet Pond #2 (Spec #14) Wet Pond #2 (Coastal Plain) (Spec #14)	Impervious acres draining to w pond turf acres draining to wet pon impervious acres draining to	0% runoff volume reduction     0% runoff volume reduction     0% runoff volume reduction     TOTAL IMPERVIOUS COVER	0.00 0.00 TREATED (ac)	0.0000	0	0	0	0				0.00			14. Manutao 0 0	0.00		0.00	0.00
13.c. Wet Pond #2 (Spec #14) Yet Pond #2 (Coastal Plain) (Spec #14) anufactured BMP	Impervious acres draining to w pond turf acres draining to wet pon impervious acres draining to device	O% runoff volume reduction O% runoff volume reduction O% runoff volume reduction	0.00 0.00 TREATED (ac)	0.0000 8.6700 8.0000	0	0	0	0							0 0	0.00			
13.c. Wet Pond #2 (Spec #14) Wet Pond #2 (Coastal Plain) (Spec #14) Janufactured BMP	Impervious acres draining to w turf acres draining to wet poro impervious acres draining to device turf acres draining to device	O's runoff volume reduction     O's runoff volume reduction     O's runoff volume reduction     TOTAL IMPERVIOUS COVER     TOTAL TURF AREA     REMOVAL BY PRACTICES TH	0.00 0.00 TREATED (ac) TREATED (ac) AREA CHECK AT DO NOT REE	0.0000 8.6700 8.0000 OK.		0 0 <u>11.87</u> 16.38	0	0							14. Manufad 0 0	0.00			
Wet Pond #2 (Coastal Plain) (Spec #14) fanufactured BMP	Impervious acres draining to we turf acres draining to wet poor impervious acres draining to device turf acres draining to device PHOSPHORUS	O's runoff volume reduction     O's runoff volume reduction     O's runoff volume reduction     TOTAL IMPERVIOUS COVER     TOTAL TURF AREA     REMOVAL BY PRACTICES TH	0.00 0.00 TREATED (ac) TREATED (ac) AREA CHECK AT DO NOT REI TOTAL PHOSP	0.0000 8.6700 8.0000 OK. DUCE RUNOFF VC PHORUS REMOVAL	DLUME IN D.A. A	16.38	0	0							0 0	0.00			

Site Results						
	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	AREA CHECK
IMPERVIOUS COVER	8.6700	0.0000	0.0000	0.0000	0.0000	OK.
IMPERVIOUS COVER TREATED	8.6700	0.0000	0.0000	0.0000	0.0000	OK.
TURF AREA	8.0000	0.0000	0.0000	0.0000	0.0000	OK.
TURF AREA TREATED	8.0000	0.0000	0.0000	0.0000	0.0000	OK.
AREA CHECK	OK.	OK.	OK.	OK.	OK.	
Phosphorus						
TOTAL TREATMENT VOLUME (cf)	39,336					
TOTAL PHOSPHORUS LOAD REDUCTION REQUIRED (LB/YEAR)	14.55					
RUNOFF REDUCTION (cf)	3056					
PHOSPHORUS LOAD REDUCTION ACHIEVED (LB/YR)	16.38					
ADJUSTED POST-DEVELOPMENT PHOSPHORUS LOAD (TP) (lb/yr)	8.33					
REMAINING PHOSPHORUS LOAD REDUCTION (LB/YR) NEEDED	ONGRATULATIONS!	YOU EXCEEDED TH	E TARGET REDUCT	ION BY 1.8 LB/YEAR!		
Nitrogen (for information purposes) TOTAL TREATMENT VOLUME (cf)	39,336					
RUNOFF REDUCTION (cf) NITROGEN LOAD REDUCTION ACHIEVED (LB/YR)	3056 174.57					
ADJUSTED POST-DEVELOPMENT NITROGEN LOAD (TN) (lb/yr)	2.24					

<b></b>			4	2 waar atarm	10		
Target Rainfall Event (in)			1-year storm	2-year storm	10-year storm		_
		•	3.00	3.00	0.00		
Drainage Area A							
Drainage Area (acres)		16.6700					
Runoff Reduction Volume (cf)		3,056					
Drainage Area B							
Drainage Area (acres)		0.0000					
Runoff Reduction Volume (cf)		0					
Drainage Area C							
Drainage Area (acres)		0.0000					
Runoff Reduction Volume (cf)		0					
<u>Drainage Area D</u> Drainage Area (acres)		0.0000					
Runoff Reduction Volume (cf)		0.0000					
Drainage Area E		0.0000					
Drainage Area (acres) Runoff Reduction Volume (cf)		0.0000					
Runon Reduction Volume (CI)		0					
Based on the use of Runoff Reduction	practices in the sele	cted drainage areas,	the spreadsheet calc	culates an adjusted R	V <sub>Developed</sub> and adjuste	d Curve Number.	
			A acila	D Colle	C Salla	D Call-	
Drainage Area A Forest/Open Space undisturbed, pro	tected forest/open	Area (acres)	A soils 0.0000	B Soils 0.0000	C Soils 0.0000	D Soils 0.0000	
space or reforested la		CN	30	55	70	77	
Managed Turf disturbed, graded for ya		Area (acres)	0.0000	0.0000	8.0000	0.0000	
mowed/managed		ĊN	39	61	74	80	
Improvidence O		Area (acres) CN	0.0000	0.0000	8.6700	0.0000 98	
Impervious Cover		CIN	90	90	98	Weighted CN	S
						86	1.63
			1-year storm	2-year storm	10-year storm		
		no Runoff Reduction	0.00	0.00	0.00		
	RV <sub>Developed</sub> (in) w	ith Runoff Reduction	-0.05	-0.05	-0.05		
		Adjusted CN	#N/A	#N/A	#N/A		
Drainage Area B			A soils	B Soils	C Soils	D Soils	
Forest/Open Space undisturbed, pro	otected forest/open	Area (acres)	0.0000	0.0000	0.0000	0.0000	
space or reforested la		CN	30	55	70	77	
Managed Turf disturbed, graded for ya	rds or other turf to be	Area (acres) CN	0.0000	0.0000	0.0000	0.0000	
mowed/managed		Area (acres)	<u>39</u> 0.0000	61 0.0000	74 0.0000	80 0.0000	
Impervious Cover		CN	98	98	98	98	
						Weighted CN	S
			1	2	10	0	1000.00
	RV <sub>Developed</sub> (in) with	no Runoff Reduction	1-year storm 0.00	2-year storm 0.00	10-year storm 0.00		
	RV <sub>Developed</sub> (in) w	ith Runoff Reduction	0.00	0.00	0.00		
		Adjusted CN	100	100	100		
Drainage Area C			A soils	B Soils	C Soils	D Soils	_
Forest/Open Space undisturbed, pro	otected forest/open	Area (acres)	0.0000	0.0000	0.0000	0.0000	
space or reforested la	nd	CN	30	55	70	77	
Managed Turf disturbed, graded for ya		Area (acres)	0.0000	0.0000	0.0000	0.0000	
mowed/managed		CN	39	61	74	80	
1		Area (acres)	0.0000			0.0000	
Impervious Cover		Area (acres) CN	0.0000 98	0.0000 98	0.0000 98	0.0000 98	
Impervious Cover				0.0000	0.0000	98 Weighted CN	S
Impervious Cover			98	0.0000 98	0.0000 98	98	<b>S</b> 1000.00
Impervious Cover	RV /in\ with	ĊN	98 1-year storm	0.0000 98 2-year storm	0.0000 98 10-year storm	98 Weighted CN	
Impervious Cover	RV <sub>Developed</sub> (in) with	CN no Runoff Reduction	98 1-year storm 0.00	0.0000 98 2-year storm 0.00	0.0000 98 10-year storm 0.00	98 Weighted CN	
Impervious Cover	RV <sub>Developed</sub> (in) with RV <sub>Developed</sub> (in) w	CN no Runoff Reduction ith Runoff Reduction	98 1-year storm	0.0000 98 2-year storm	0.0000 98 10-year storm 0.00 0.00	98 Weighted CN	
	RV <sub>Developed</sub> (in) with RV <sub>Developed</sub> (in) w	CN no Runoff Reduction	98 1-year storm 0.00 0.00 100	0.0000 98 2-year storm 0.00 0.00 100	0.0000 98 10-year storm 0.00 0.00 100	98 Weighted CN 0	
Drainage Area D	RV <sub>Developed</sub> (in) w	CN no Runoff Reduction ith Runoff Reduction Adjusted CN	98 1-year storm 0.00 0.00 100 A soils	0.0000 98 2-year storm 0.00 0.00 100 B Soils	0.0000 98 10-year storm 0.00 0.00 100 C Soils	98 Weighted CN 0 D Soils	
Drainage Area D Forest/Open Space – undisturbed, pro	RV <sub>Developed</sub> (in) w	CN no Runoff Reduction ith Runoff Reduction Adjusted CN Area (acres)	98 1-year storm 0.00 0.00 100 A soils 0.0000	0.0000 98 2-year storm 0.00 0.00 100 B Soils 0.0000	0.0000 98 10-year storm 0.00 0.00 100 C Soils 0.0000	98 Weighted CN 0 D Soils 0.0000	
Drainage Area D Forest/Open Space undisturbed, pro space or reforested la	RV <sub>Developed</sub> (in) w	CN no Runoff Reduction ith Runoff Reduction Adjusted CN Area (acres) CN	98 1-year storm 0.00 0.00 100 A soils 0.0000 30	0.0000 98 2-year storm 0.00 0.00 100 B Soils 0.0000 55	0.0000 98 10-year storm 0.00 0.00 100 C Soils 0.0000 70	98 Weighted CN 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 77	
Drainage Area D Forest/Open Space – undisturbed, pro	RV <sub>Developed</sub> (in) w	CN no Runoff Reduction ith Runoff Reduction Adjusted CN Area (acres)	98 1-year storm 0.00 100 A soils 0.0000 30 0.0000 39	0.0000 98 2-year storm 0.00 0.00 100 B Soils 0.0000 55 0.0000 61	0.0000 98 10-year storm 0.00 0.00 100 C Soils 0.0000 70 0.0000 74	98 Weighted CN 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
Drainage Area D Forest/Open Space – undisturbed, pro space or reforested la Managed Turf – disturbed, graded for ya mowed/managed	RV <sub>Developed</sub> (in) w	CN no Runoff Reduction ith Runoff Reduction Adjusted CN Area (acres) CN Area (acres) CN Area (acres)	98 1-year storm 0.00 0.00 100 A soils 0.0000 30 0.0000 39 0.0000	0.0000 98 2-year storm 0.00 100 B Soils 0.0000 55 0.0000 61 0.0000	0.0000 98 10-year storm 0.00 0.00 100 C Soils 0.0000 70 0.0000 74 0.0000	98 Weighted CN 0 D Soils 0.0000 77 0.0000 80 0.0000	
Drainage Area D Forest/Open Space undisturbed, pro space or reforested la Managed Turf disturbed, graded for ya	RV <sub>Developed</sub> (in) w	CN no Runoff Reduction ith Runoff Reduction Adjusted CN Area (acres) CN Area (acres) CN	98 1-year storm 0.00 100 A soils 0.0000 30 0.0000 39	0.0000 98 2-year storm 0.00 0.00 100 B Soils 0.0000 55 0.0000 61	0.0000 98 10-year storm 0.00 0.00 100 C Soils 0.0000 70 0.0000 74	98 Weighted CN 0 D Soils 0.0000 77 0.0000 80 0.0000 98	
Drainage Area D Forest/Open Space – undisturbed, pro space or reforested la Managed Turf – disturbed, graded for ya mowed/managed	RV <sub>Developed</sub> (in) w	CN no Runoff Reduction ith Runoff Reduction Adjusted CN Area (acres) CN Area (acres) CN Area (acres)	98 1-year storm 0.00 0.00 100 A soils 0.0000 30 0.0000 39 0.0000	0.0000 98 2-year storm 0.00 100 B Soils 0.0000 55 0.0000 61 0.0000	0.0000 98 10-year storm 0.00 0.00 100 C Soils 0.0000 70 0.0000 74 0.0000	98 Weighted CN 0 D Soils 0.0000 77 0.0000 80 0.0000 98 Weighted CN	1000.00
Drainage Area D Forest/Open Space undisturbed, pro space or reforested la Managed Turf disturbed, graded for ya mowed/managed	RV <sub>Developed</sub> (in) w	CN no Runoff Reduction ith Runoff Reduction Adjusted CN Area (acres) CN Area (acres) CN Area (acres)	98 1-year storm 0.00 0.00 100 A soils 0.0000 30 0.0000 39 0.0000	0.0000 98 2-year storm 0.00 100 B Soils 0.0000 55 0.0000 61 0.0000	0.0000 98 10-year storm 0.00 0.00 100 C Soils 0.0000 70 0.0000 74 0.0000	98 Weighted CN 0 D D D Soils 0.0000 77 0.0000 80 0.0000 98	1000.00
Drainage Area D Forest/Open Space undisturbed, pro space or reforested la Managed Turf disturbed, graded for ya mowed/managed	RV <sub>Developed</sub> (in) w btected forest/open nd irds or other turf to be RV <sub>Developed</sub> (in) with	CN no Runoff Reduction ith Runoff Reduction Adjusted CN Area (acres) CN Area (acres) CN Area (acres) CN Area (acres) CN Area (acres) CN	98 1-year storm 0.00 100 A soils 0.0000 30 0.0000 39 0.0000 98	0.0000 98 2-year storm 0.00 0.00 100 B Soils 0.0000 55 0.0000 61 0.0000 98	0.0000 98 10-year storm 0.00 0.00 100 C Soils 0.0000 70 0.0000 74 0.0000 98	98 Weighted CN 0 D Soils 0.0000 77 0.0000 80 0.0000 98 Weighted CN	
Drainage Area D Forest/Open Space undisturbed, pro space or reforested la Managed Turf disturbed, graded for ya mowed/managed	RV <sub>Developed</sub> (in) w btected forest/open nd irds or other turf to be RV <sub>Developed</sub> (in) with	CN no Runoff Reduction ith Runoff Reduction Adjusted CN Area (acres) CN Area (acres) CN	98 1-year storm 0.00 0.00 100 A soils 0.0000 30 0.0000 98 1-year storm 0.00 0.00	0.0000 98 2-year storm 0.00 0.00 100 B Soils 0.0000 55 0.0000 61 0.0000 98 2-year storm	0.0000 98 10-year storm 0.00 100 C Soils 0.0000 70 0.0000 74 0.0000 98 10-year storm	98 Weighted CN 0 D Soils 0.0000 77 0.0000 80 0.0000 98 Weighted CN	1000.00
Drainage Area D Forest/Open Space undisturbed, pro space or reforested la Managed Turf disturbed, graded for ya mowed/managed	RV <sub>Developed</sub> (in) w btected forest/open nd irds or other turf to be RV <sub>Developed</sub> (in) with	CN no Runoff Reduction ith Runoff Reduction Adjusted CN Area (acres) CN Area (acres) CN Area (acres) CN Area (acres) CN Area (acres) CN	98 1-year storm 0.00 0.00 100 A soils 0.0000 30 0.0000 39 0.0000 98 1-year storm 0.00	0.0000 98 2-year storm 0.00 0.00 100 B Soils 0.0000 55 0.0000 61 0.0000 98 2-year storm 0.00	0.0000 98 10-year storm 0.00 0.00 100 C Soils 0.0000 70 0.0000 74 0.0000 98 10-year storm 0.00	98 Weighted CN 0 D Soils 0.0000 77 0.0000 80 0.0000 98 Weighted CN	1000.00
Drainage Area D Forest/Open Space – undisturbed, pro space or reforested la Managed Turf – disturbed, graded for ya mowed/managed Impervious Cover	RV <sub>Developed</sub> (in) w btected forest/open nd irds or other turf to be RV <sub>Developed</sub> (in) with	CN no Runoff Reduction ith Runoff Reduction Adjusted CN Area (acres) CN Area (acres) CN	98 1-year storm 0.00 100 A soils 0.0000 30 0.0000 39 0.0000 98 1-year storm 0.00 0.00 100	0.0000 98 2-year storm 0.00 0.00 100 B Soils 0.0000 61 0.0000 98 2-year storm 0.00 0.00 100	0.0000 98 10-year storm 0.00 0.00 100 C Soils 0.0000 70 0.0000 74 0.0000 98 10-year storm 0.00 0.00 100	98 Weighted CN 0 D Soils 0.0000 77 0.0000 80 0.0000 98 Weighted CN 0	1000.00
Drainage Area D Forest/Open Space undisturbed, pro space or reforested la Managed Turf disturbed, graded for ya mowed/managed Impervious Cover	RV <sub>Developed</sub> (in) w otected forest/open nd rds or other turf to be RV <sub>Developed</sub> (in) with RV <sub>Developed</sub> (in) w	CN ino Runoff Reduction ith Runoff Reduction Adjusted CN Area (acres) CN Area (acres) CN Area (acres) CN Area (acres) CN ith Runoff Reduction Adjusted CN	98 1-year storm 0.00 100 A soils 0.0000 30 0.0000 98 1-year storm 0.00 0.00 100 A soils	0.0000 98 2-year storm 0.00 0.00 100 B Soils 0.0000 61 0.0000 61 0.0000 98 2-year storm 0.00 0.00 100 B Soils B Soils	0.0000 98 10-year storm 0.00 0.00 100 C Soils 0.0000 70 0.0000 74 0.0000 98 10-year storm 0.00 0.00 100 C Soils C Soils C Soils	98 Weighted CN 0 D Soils 0.0000 77 0.0000 80 0.0000 98 Weighted CN 0	1000.00
Drainage Area D Forest/Open Space undisturbed, pro space or reforested la Managed Turf disturbed, graded for ya mowed/managed Impervious Cover	RV <sub>Developed</sub> (in) w btected forest/open nd rds or other turf to be RV <sub>Developed</sub> (in) with RV <sub>Developed</sub> (in) w	CN no Runoff Reduction ith Runoff Reduction Adjusted CN Area (acres) CN Area (acres) CN	98 1-year storm 0.00 100 A soils 0.0000 30 0.0000 39 0.0000 98 1-year storm 0.00 0.00 100	0.0000 98 2-year storm 0.00 0.00 100 B Soils 0.0000 61 0.0000 98 2-year storm 0.00 0.00 100	0.0000 98 10-year storm 0.00 0.00 100 C Soils 0.0000 70 0.0000 74 0.0000 98 10-year storm 0.00 0.00 100	98 Weighted CN 0 D Soils 0.0000 77 0.0000 80 0.0000 98 Weighted CN 0	1000.00

Managed Turf disturbed, graded for yards or other turf to be	Area (acres)	0.0000	0.0000	0.0000	0.0000	
mowed/managed	CN	39	61	74	80	
Area (acres)		0.0000	0.0000	0.0000	0.0000	
Impervious Cover	CN	98	98	98	98	
					Weighted CN	S
					0	1000.00
		1-year storm	2-year storm	10-year storm		
RV <sub>Developed</sub> (in) with no Runoff Reduction		0.00	0.00	0.00		
RV <sub>Developed</sub> (in) w	RV <sub>Developed</sub> (in) with Runoff Reduction		0.00	0.00		
	Adjusted CN		100	100		

Runoff Reduction Method New Development Worksheet - v2.8 - June 2014

#### Site Data Summary

Total Rainfall = 43 inches

Site Land Cover Summary

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest (acres)	0.0000	0.0000	5.2700	0.0000	5.2700	21.25
Turf (acres)	0.0000	0.0000	10.8600	0.0000	10.8600	43.79
Impervious (acres)	0.0000	0.0000	8.6700	0.0000	8.6700	34.96
					24.8000	100.00

Site Rv	0.44
Post Development Treatment Volume (ft3)	39336
Post Development TP Load (lb/yr)	24.72
Post Development TN Load (lb/yr)	176.81
Total TP Load Reduction Required (lb/yr)	14.55

Total Runoff Volume Reduction (ft <sup>3</sup> )	3056
Total TP Load Reduction Achieved (lb/yr)	16.38
Total TN Load Reduction Achieved (lb/yr)	174.57
Adjusted Post Development TP Load (lb/yr)	8.33
Remaining Phosphorous Load Reduction (Lb/yr) Required	0.00

#### Drainage Area Summary

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	Total
Forest (acres)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Turf (acres)	8.0000	0.0000	0.0000	0.0000	0.0000	8.0000
Impervious (acres)	8.6700	0.0000	0.0000	0.0000	0.0000	8.6700
						16.6700

#### Drainage Area Compliance Summary

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	Total
TP Load Red. (lb/yr)	16.38	0.00	0.00	0.00	0.00	16.38
TN Load Red. (lb/yr)	174.57	0.00	0.00	0.00	0.00	174.57

# Drainage Area A Summary

Land Cover Summary

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Turf (acres)	0.00	0.00	8.00	0.00	8.00	47.99
Impervious (acres)	0.00	0.00	8.67	0.00	8.67	52.01
					16.67	

### **BMP Selections**

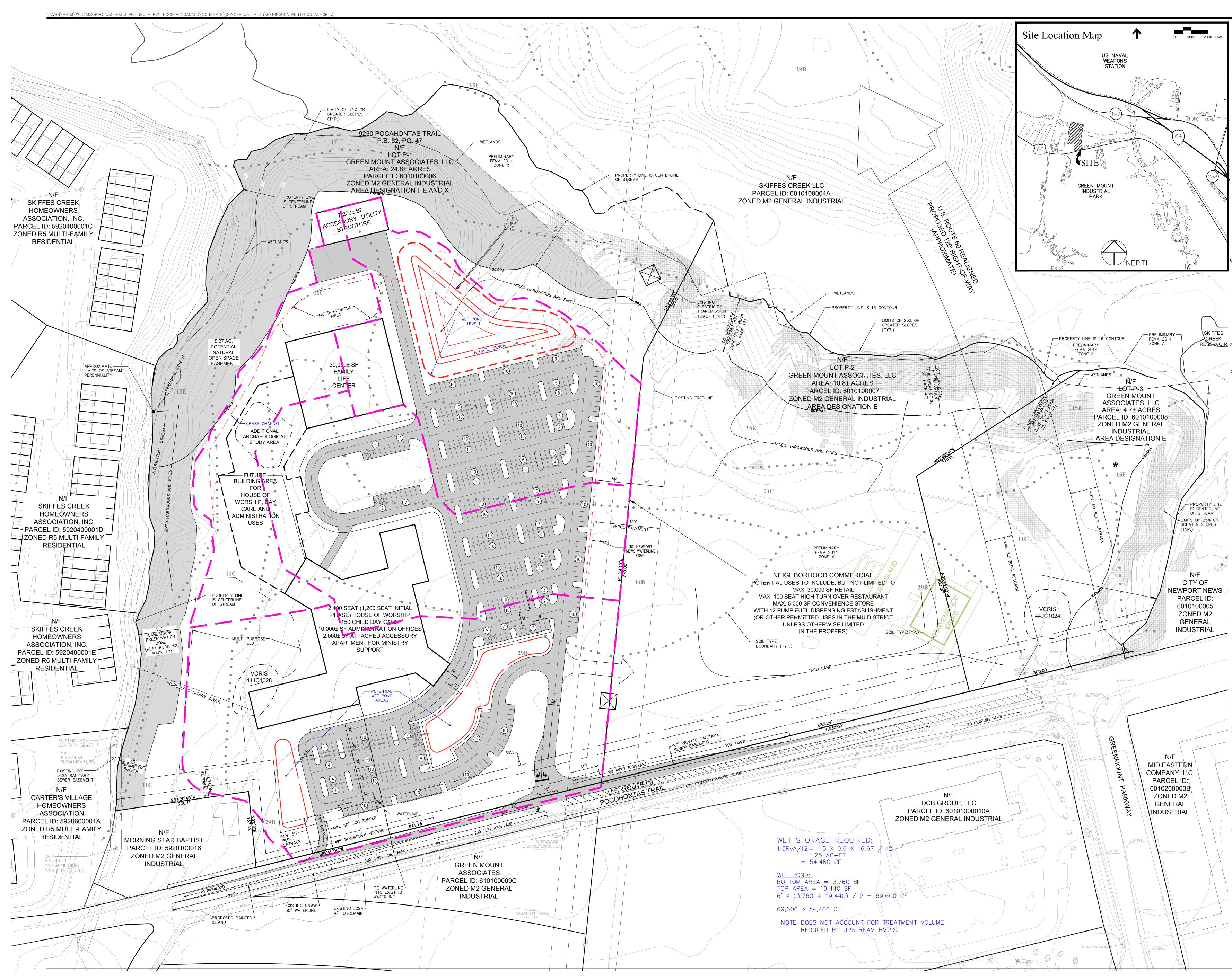
Practice	Credit Area (acres)	Downstream Practice
Total Impervious Cover Treated (acres)	8.67	
Total Turf Area Treated (acres)	8.00	
Total TP Load Reduction Achieved in D.A. A (lb/yr)	16.38	
Total TN Load Reduction Achieved in D.A. A (lb/yr)	174.57	

#### **Channel and Flood Protection**

	Weighted CN	-	Adjusted CN	10-year storm Adjusted CN
Target Rainfall Event (in)		0.00	0.00	0.00
D.A. A CN	86	#N/A	#N/A	#N/A
D.A. B CN	0	100	100	100
D.A. C CN	0	100	100	100
D.A. D CN	0	100	100	100
D.A. E CN	0	100	100	100

### Version 2.8 - June 2014 - 2011 BMP Stnds & Specs

- 1 Fixed summary sheet totals /percentage column fixed
- 2 Corrected nitrogen efficiency percentages
- 3 Corrected the Rv value in column J for managed turf
- 4 Checked and revised runoff reduction credit values assigned





Vanasse Hangen Brustlin, Inc.

Transportation Land Development Environmental Services

351 McLaws Circle, Suite 3 Williamsburg, Virginia 23185 757.220.0500 • FAX 757.220.8544

 $\bigcirc$ 

**CENERAL NOTES:** I. THE PROPERTY IS IDENTIFIED ON THE JAMES CITY COUNTY GEOGRAPHIC INFORMATION SYSTEM MAP SERIES AS GPIN: 6010100006 AND IS ZONED M2, GENERAL INDUSTRIAL. THE PROPERTY IS FURTHER DESCRIBED AS 9230 POCAHONTAS TRAIL. THE PROPERTY IS IDENTIFIED ON THE JAMES CITY COUNTY GEOGRAPHIC INFORMATION SYSTEM MAP SERIES AS GPIN: 6010100007 AND IS ZONED M2, GENERAL INDUSTRIAL. THE PROPERTY IS FURTHER DESCRIBED AS 9240 POCAHONTAS TRAIL. THE PROPERTY IS IDENTIFIED ON THE JAMES CITY COUNTY GEOGRAPHIC INFORMATION SYSTEM MAP SERIES AS GPIN: 6010100008 AND IS ZONED M2, GENERAL INDUSTRIAL. THE PROPERTY IS FURTHER DESCRIBED AS 9250 POCAHONTAS TRAIL. ; THE PARCELS ARE LOCATED WITHIN THE PRIMARY SERVICE AREA AND OUTSIDE THE 100 YEAR FLOOD PLAIN. THE COMPREHENSIVE PLAN DESIGNATION FOR THESE PARCELS IS MIXED USE.

2. BOUNDARY INFORMATION IS FROM PLAT OF RECORD RECORDED IN PB. 52, PG. 47, TOPOGRAPHIC AND EXISTING FEATURES INFORMATION DEPICTED HEREON IS FROM JAMES CITY COUNTY GEOGRAPHIC INFORMATION SYSTEM MAPPING.

3. POCAHONTAS TRAIL IS CLASSIFIED AS COMMUNITY CHARACTER CORRIDOR ALONG THE FRONTAGE OF THE SUBJECT PROPERTY.

# SUMMARY TABULATION

PROPOSED DEVELOPMENT PROGRAM:
• ADDRESS: P-1 9230 POCAHONTAS TRAIL WILLIAMSBURG,
<ul> <li>VA. 23185</li> <li>ADDRESS: P-2 9240 POCAHONTAS TRAIL WILLIAMSBURG, VA. 23185</li> </ul>
<ul> <li>ADDRESS: P-3 9250 POCAHONTAS TRAIL WILLIAMSBURG, VA. 23185</li> </ul>
<ul> <li>PARCEL ID: 6010100006(P-1), 6010100007(P-2), 6010100008(P-3)</li> </ul>
<ul> <li>ZONING: M2 GENERAL INDUSTRIAL</li> <li>WATERSHED: SKIFFES CREEK</li> <li>RECEIVING STREAM: SKIFFES CREEK</li> </ul>

GROSS SITE AREA:  $40.3\pm$  ACRES (TOTAL PARCEL) DEVELOPABLE AREA (SEC. 24-2):  $27.4\pm$  OR 1,193,545 $\pm$  S.F. IMPERVIOUS AREA: MAXIMUM 60% PERVIOUS AREA: MINIMUM 40%

PROPERTY APPEARS TO BE IN ZONE X (AREAS OF 0.2% ANNUAL CHANCE OF FLOOD) FIRM MAP NUMBER 51095C0230C DATED SEPTEMBER 28, 2007

SOILS WITHIN SITE AREA: 11C=CRAVEN-UCHEE COMPLEX-HYDROLOGIC SOIL GROUP C K=0.37 HIGH ERODIBILITY 14B=EMPORIA FINE SANDY LOAM-HYDROLOGIC SOIL GROUP C K=0.28 MODERATE ERODIBILITY 15E=EMPORIA COMPLEX-HYDROLOGIC SOIL GROUP C K=0.28 MODERATE ERODIBILITY 17=JOHNSTON COMPLEX-HYDROLOGIC SOIL GROUP D K=.20 LOW ERODIBILITY

29B=SLAGLE FINE SANDY LOAM-HYDROLOGIC SOIL GROUP C K=0.24 MODERATE ERODIBILITY

60		0	6(	C	120
	S	SCALE	IN FEE	Т	
					+
					-
					<u> </u>
No.		Revision		Date	Appvd.
Design	<sup>ed by</sup> SAR	Drawn by	VHB	Checked by P	°S
CAD c	hecked by	•	Approved I	<sup>by</sup> SAR	
Scale	<u> </u>				
Pe	Project Title Peninsula Pentecostal				
Church					

Pocahontas Trail Williamsburg, Virginia

Not Approved for Construction

Stormwater Management Exhibit B Wet Pond Option

Drawing Number CP-1 STEPHEN A. ROMEC Lic. No. 1448-B Project Number 33749.00

PENINSULA PENTECOSTAL-CP\_3.DWG

### Construction Phasing Schedule

The initial phase of development of the Property would entail the development of the primary public assembly building for a 1,200 person seating capacity, the Family Life Center (indoor recreation center), the accessory/utility building and associated parking and infrastructure on Lot P-1. The timing of development of the neighborhood commercial elements of the project on Lot P-2 and P-3 is tied to market demand and to Rt. 60 corridor improvements proposed by VDOT. Accordingly, the development of this element of the project could occur as a part of Phase 2 or Phase 3. Expansion of the public assembly building to a seating capacity of 1,800 persons (within the foot print shown on the revised Master Plan) will be a part of Phase 2 of the project. Expansion of the public assembly building to a seating capacity of 2,400 persons (within the foot print shown on the revised Master Plan) and construction of the additional administration and day care area as shown on the Master Plan as Future Building Area will be a part of Phase 3 of the project.

At this time it is anticipated that parking, stormwater, and utility infrastructure sufficient to accommodate the full build-out of Lot P-1 as shown on the Master Plan will be installed in connection with Phase 1 of the development. It is possible that, when formal engineering and design is commenced, portions of such infrastructure necessary to accommodate Phase 2 and Phase 3 of the development will proposed to be completed in connection with subsequent phases, the logistics of which will be addressed in the site plan submission for Phase 1 to ensure the feasibility of such approach. Finally, the infrastructure for Lot P-1 will be designed to facilitate the feasibility of development of Lot P-2 and Lot P-3.

Skiffes Creek, LLC 473 Wolf Drive Newport News, Virginia 23601 Phone; 757-596-1660 Fax: 757-596-9421

Ellen Cook-Senior Planner James City County Development Management 101-A Mounts Bay Road Williamsburg, Virginia 23185

Ref: Rezoning-005-2014 Peninsula Pentecostals Kirby Tract March 4, 2015

Dear Ms. Cook,

I'm writing you to share our concerns with the proposed rezoning of the Kirby Tract 40.3 Acres M-2 Industrial, to MU Mixed Use. Skiffes Creek, LLC owns the adjacent 103 acre parcel which is zoned M-2 Industrial. Our property shares the entire northern boundary with the Kirby Tract.

We all understand the importance of Industrial Zones with their significant source of revenue, job creation, tax base and supporting industries. Hampton Roads has a very limited amount of Industrial land and if this proposal is approved, James City County will lose 40.3 acres of M-2 industrial and a significant tax base.

The proposed master plan included a church with 2,400 seats, a day care center with 150 children, a family life center, etc. These uses are not consistent with any industrial usages and will significantly impact the potential future of our adjacent 103 acres of Heavy Industrial Land. Also with the presence of thousands of family members and their children utilizing the proposed site, the entire character of the surrounding Industrial Areas will be in jeopardy.

Furthermore, we are also concerned this rezoning will affect the routing of the future Skiffes Creek Connector, the Resource Protection Area and Dominion Power's high voltage transmission lines.

We opposed rezoning this property to MU and the non-industrial uses.

Sincerely,

Dwight S. Wolf

Manager Skiffes Creek, LLC

# AGENDA ITEM NO. I.1.

# **ITEM SUMMARY**

DATE:	4/28/2015
TO:	The Board of Supervisors of James City County
FROM:	Russell C. Seymour, Director, Office of Economic Development
SUBJECT:	Approval of Williamsburg Landing, Inc. Revenue and Refunding Bonds through Other Jurisdictions

# **ATTACHMENTS:**

	Description	Туре
D	Memo	Cover Memo
D	Approval of Williamsburg Landing, Inc. Revenue and Refunding Bonds through Other Jurisdictions Resolution	Resolution
D	Approved EDA Resolution	Backup Material
B	Williamsburg Landing Fiscal Impact Statement	Backup Material

# **REVIEWERS:**

Department	Reviewer	Action	Date
Economic Development	Seymour, Russell	Approved	4/9/2015 - 12:34 PM
Publication Management	Brockmann, Grace	Approved	4/9/2015 - 1:28 PM
Board Secretary	Fellows, Teresa	Approved	4/13/2015 - 9:33 AM
Board Secretary	Kinsman, Adam	Approved	4/20/2015 - 2:17 PM
Board Secretary	Fellows, Teresa	Approved	4/20/2015 - 2:30 PM

## **MEMORANDUM**

DATE:	April 28, 2015
TO:	The Board of Supervisors
FROM:	Russell C. Seymour, Director of Economic Development
SUBJECT:	Approval of Williamsburg Landing, Inc. Revenue and Refunding Bonds through Other Jurisdictions

The Board of Supervisors has been requested to approve the issuance of Revenue and Refunding Bonds on behalf of Williamsburg Landing, Inc. The bonds will be issued through: a) the Joint Industrial Development Authority of Northampton County and its Incorporated Towns (the "Northampton Authority") of its Revenue and Refunding Bond in a principal amount not to exceed \$10,000,000; and b) the Industrial Development Authority of Mathews County, Virginia (the "Mathews Authority") of its Revenue and Refunding Bond in a principal amount not to exceed \$10,000,000; and b) the Industrial Development Authority of Mathews County, Virginia (the "Mathews Authority") of its Revenue and Refunding Bond in a principal amount not to exceed \$10,000,000 (collectively, the "Bonds"), to collectively assist Williamsburg Landing, Inc. The EDA approved this action at its April 9, 2015 meeting.

Williamsburg Landing is located in James City County and is a continuing care retirement community. Williamsburg Landing has been in business since 1985.

Staff recommends approval of the issuance of revenue and refunding bonds through other jurisdictions on behalf of Williamsburg Landing, Inc.

RCS/nb WLndgBondsApproval-mem

# RESOLUTION OF THE BOARD OF SUPERVISORS OF THE COUNTY OF JAMES CITY, VIRGINIA, TO CONCUR AND APPROVE OF THE ISSUANCE OF REVENUE AND REFUNDING BONDS BY CERTAIN QUALIFIED ISSUERS OF OTHER JURISDICTIONS FOR THE BENEFIT OF WILLIAMSBURG LANDING, INC.

- WHEREAS, the Board of Supervisors of the County of James City, Virginia (the "Board"), has been advised that there has been described to the Economic Development Authority of James City County, Virginia (the "Authority"), the plan of Williamsburg Landing, Inc. (the "Company"), whose principal place of business is located in the County of James City, Virginia (the "County") at 5700 Williamsburg Landing Drive, Williamsburg, Virginia 23185, for the issuance by (a) the Joint Industrial Development Authority of Northampton County and its Incorporated Towns (the "Northampton Authority") of its Revenue and Refunding Bond in a principal amount not to exceed \$10,000,000 (the "Series 2015A Bond"), and (b) the Industrial Development Authority of Mathews County, Virginia (the "Mathews Authority") of its Revenue and Refunding Bond in a principal amount not to exceed \$10,000,000 (the "Series 2015B Bond") (collectively, the "Bonds"), to collectively assist the Company in the (i) refunding of a portion of the Authority's Residential Care Facility First Mortgage Revenue and Refunding Bonds (Williamsburg Landing, Inc.), Series 2005, and/or a portion of the Economic Development Authority of the City of Williamsburg, Virginia, Revenue Bond (Williamsburg Landing Project), Series 2007, (ii) financing of certain preliminary and pre-development expenditures relating to an expansion of the Company's retirement community facilities (the "Project"), and (iii) financing of certain costs of issuance of the Bonds; and
- WHEREAS, the Board has been advised that (a) the Northampton Authority held a public hearing with respect to the Series 2015A Bond on February 24, 2015, and adopted an inducement resolution (the "Northampton Authority Resolution") with respect to the Series 2015A Bond on that date, and the Northampton County Board of Supervisors approved the Northampton Authority's issuance of the Series 2015A Bond at its meeting held on March 10, 2015, and (b) the Mathews Authority held a public hearing with respect to the Series 2015B Bond on March 3, 2015, and adopted an inducement resolution (the "Mathews Authority Resolution") with respect to the Series 2015B Bond on that date, and the Series 2015B Bond on March 3, 2015, and adopted an inducement resolution (the "Mathews Authority Resolution") with respect to the Series 2015B Bond on that date, and the Mathews County Board of Supervisors approved the Mathews Authority's issuance of the Series 2015B Bond at its meeting held on March 24, 2015, all in accordance with the requirements of the Industrial Development and Revenue Bond Act, Chapter 49, Title 15.2 of the Code of Virginia of 1950, as amended (the "Act") and the Internal Revenue Code of 1986, as amended (the "Code"); and
- WHEREAS, because the Project is located entirely within the boundaries of the County, (i) Section 15.2-4905 of the Act requires that the Board concur with the adoption of the Northampton Authority Resolution and the Mathews Authority Resolution as a condition precedent to the issuance of the Bonds, and (ii) the Code requires that the highest elected governmental officials of the County approve the issuance of the Bonds as a condition precedent to the treatment of the interest on the Bonds as exempt from federal income taxation; and

- WHEREAS, the Board has been advised that the Authority held a public hearing with respect to the Bonds at its meeting on April 9, 2015, and that after such hearing the Authority adopted a resolution recommending that the Board approve and concur with the issuance of the Bonds by the Northampton Authority and the Mathews Authority; and
- WHEREAS, a reasonably detailed summary of the comments expressed at the Authority's public hearing with respect to the Bonds, a statement in the form prescribed by Section 15.2-4907 of the Act, and a copy of the Authority's resolution recommending that the Board approve and concur with the issuance of the Bonds, have been filed with the Board.

NOW, THEREFORE, BE IT RESOLVED by the Board of Supervisors of James City County, Virginia:

- 1. The foregoing recitals are hereby incorporated in, and deemed a part of, this Resolution.
- 2. The Board approves and concurs with the issuance of the Bonds by the Northampton Authority and the Mathews Authority to the extent required by the Code and the Act.
- 3. The approval of and concurrence with the issuance of the Bonds, as required by the Code and the Act, does not constitute an endorsement to any prospective owners of the Bonds of the creditworthiness of the Company or the ability of the Company to repay the Bonds. Neither the Authority nor the County shall be obligated to pay the Bonds or the interest thereon or other costs incident thereto, and neither the faith or credit nor the taxing power of the County shall be pledged thereto.
- 4. This Resolution shall take effect immediately upon its adoption.

The undersigned hereby certifies that the above Resolution was duly adopted by an affirmative vote of a quorum of the members of the Board of Supervisors of the County of James City, Virginia, at a regular meeting duly called and held on April 28, 2015, and that such Resolution is in full force and effect on the date hereof.

	Michael J. Hipple Chairman, Board of Supervisors			
ATTEST:		VOTE <u>AYE</u>	S <u>NAY</u>	ABSTAIN
	JONES MCGLENNON			
Bryan J. Hill Clerk to the Board	ONIZUK KENNEDY HIPPLE			

Adopted by the Board of Supervisors of James City County, Virginia, this 28th day of April, 2015.

# RESOLUTION OF THE ECONOMIC DEVELOPMENT AUTHORITY OF JAMES CITY COUNTY, VIRGINIA, TO CONCUR AND APPROVE OF THE ISSUANCE OF REVENUE AND REFUNDING BONDS BY CERTAIN QUALIFIED SMALL ISSUERS OF OTHER JURISDICTIONS FOR THE BENEFIT OF WILLIAMSBURG LANDING, INC.

WHEREAS, there has been described to the Economic Development Authority of James City County, Virginia (the "Authority") the plan of Williamsburg Landing, Inc. (the "Company"), whose principal place of business is located in James City County, Virginia (the "County"), at 5700 Williamsburg Landing Drive, Williamsburg, Virginia 23185, for the issuance by (a) the Joint Industrial Development Authority of Northampton County and its Incorporated Towns (the "Northampton Authority") of its Revenue and Refunding Bond in a principal amount not to exceed \$10,000,000 (the "Series 2015A Bond"), and (b) the Industrial Development Authority of Mathews County, Virginia (the "Mathews Authority") of its Revenue and Refunding Bond in a principal amount not to exceed \$10,000,000 (the "Series 2015B Bond") (collectively, the "Bonds"), to collectively assist the Company in the (i) refunding of a portion of the Authority's Residential Care Facility First Mortgage Revenue and Refunding Bonds (Williamsburg Landing, Inc.), Series 2005, and/or a portion of the Economic Development Authority of the City of Williamsburg, Virginia, Revenue Bond (Williamsburg Landing Project), Series 2007, (ii) financing certain preliminary and pre-development expenditures relating to an expansion of the Company's retirement community facilities, and (iii) financing of certain costs of issuance of the Bonds (collectively, the "Plan of Finance");

WHEREAS, the Company, in its appearance before the Authority, has (a) described the expected debt service cost savings relating to the issuance of the Bonds as "qualified tax-exempt obligations" by the Northampton Authority and the Mathews Authority, each of which is expected to be a "qualified small issuer" as defined in Section 265(b)(3) of the Internal Revenue Code of 1986, as amended (the "Code"), for calendar year 2015, (b) described the benefits to be derived by residents of the County from the issuance of the Bonds as "qualified tax-exempt obligations" under Section 265(b)(3) of the Code, and (c) requested that the Authority recommend to the Board of Supervisors of the County (the "Board") that it concur with the issuance of the Bonds by the Northampton Authority and the Mathews Authority in accordance with Section 15.2-4905 of the Industrial Development and Revenue Bond Act, Chapter 49, Title 15.2 of the Code of Virginia of 1950, as amended (the "Act"); and

WHEREAS, a public hearing with respect to the foregoing was properly noticed pursuant to the Act and the Code, and was held by the Authority on the date hereof prior to the adoption of this Resolution.

NOW, THEREFORE, BE IT RESOLVED BY THE ECONOMIC DEVELOPMENT AUTHORITY OF JAMES CITY COUNTY, VIRGINIA:

1. It is hereby found and determined that the issuance of the Bonds and the use of the proceeds thereof in the manner described above will serve the purposes of the Act.

2. To assist the Company in the Plan of Finance, the Authority hereby recommends to the Board that it concur with the issuance of the Bonds by the Northampton Authority and the Mathews Authority in accordance with the Act and approve the issuance of the Bonds as required by the Code. The Authority hereby directs the Chairman or Vice Chairman of the Authority, either of whom may act, to submit to the Board a fiscal impact statement in the form prescribed by Section 15.2-4907 of the Act, a reasonably detailed summary of the comments expressed at the public hearing held at this meeting as required by Section 15.2-4906 of the Act, and a copy of this Resolution.

3. All costs and expenses in connection with the Plan of Finance described herein, including the fees and expenses of the Authority and the fees and expenses of Bond Counsel, counsel for the Authority, counsel for the Company and counsel for each purchaser of the Bonds, shall be paid from the proceeds of the Bonds to the extent permitted by law or from funds provided by the Company. If for any reason the Bonds is not issued, it is understood that all such fees and expenses shall be paid by the Company and that the Authority shall have no responsibility therefor.

4. The Authority's officers shall perform such other actions as may be required to implement its undertakings as set forth above, including, without limitation, that the Chairman, Vice Chairman, Secretary and Assistant Secretary of the Authority, any of whom may act, are authorized and directed to execute and deliver any documents or certificates reasonably required by Bond Counsel or the purchasers of the Bonds in connection with the Plan of Finance.

5. The Authority, including its directors, officers, employees, agents and counsel, shall not be liable and hereby disclaims all liability to any person for any damages, direct or consequential, resulting from the failure of the Northampton Authority or the Mathews Authority to issue the Bonds or for any other reason.

6. The Authority's or the Board's concurrence with the issuance of the Bonds does not constitute an endorsement to a prospective owner of the Bonds of the creditworthiness of the Company or the ability of the Company to repay the Bonds. Neither the Authority nor the County shall be obligated to pay the Bonds or the interest thereon or other costs incident thereto, and neither the faith or credit nor the taxing power of the County shall be pledged thereto.

7. This Resolution shall take effect immediately upon its adoption.

\*

The undersigned hereby certifies that the above Resolution was duly adopted by the directors of the Economic Development Authority of James City County, Virginia at a meeting duly called and held on April 9, 2015, and that such Resolution is in full force and effect on the date hereof.

Dated: april 9, 2015

Secretary, Economic Development Authority of James City County, Virginia

# FISCAL IMPACT STATEMENT

Nam Faci	e of Appi lity:	licant: Williamsburg Landing, Inc. Revenue and Refunding Bonds (Bank Qualified)	
1.	Max	imum amount of financing sought	\$ 10,000,000
2.		nated taxable value of the facility's real property to be tructed in the locality	\$ N/A
3.	Estin	nated real property tax per year using present tax rates	\$ N/A
4.	Estin tax ra	nated personal property tax per year using present ates	\$ N/A
5.	Estin tax ra	nated merchants capital tax per year using present ates	\$ N/A
6.	(a)	Estimated dollar value per year of goods that will be purchased from Virginia companies within the locality	\$ N/A
	(b)	Estimated dollar value per year of goods that will be purchased from non-Virginia companies within the locality	\$ N/A
	(c)	Estimated dollar value per year of services that will be purchased from Virginia companies within the locality	\$ N/A
	(d)	Estimated dollar value per year of services that will be purchased from non-Virginia companies within the locality	\$ N/A
7.	Estim	nated number of regular employees on year round basis	<u>344</u>
8.	Aver	age annual salary per employee	<u>\$ 30,644</u>

Dated: April 9, 2015

WILLIAMSBURG LANDING, INC.

By: vere Authorized Representative

ECONOMIC DEVELOPMENT AUTHORITY OF JAMES CITY COUNTY, VIRGINIA

Carse By:

Vice Chair

13857052v1

# AGENDA ITEM NO. I.2.

# **ITEM SUMMARY**

DATE:	4/28/2015
TO:	Board of Supervisors
FROM:	Suzanne R. Mellen, Director, Financial and Management Services
SUBJECT:	Appropriation Resolution FY 2016 Budget

# **ATTACHMENTS:**

	Description	Туре
D	Memorandum	Cover Memo
D	Resolution - Tax Rate	Resolution
D	Resolution - Appropriation	Resolution
D	Eratta Sheet	Exhibit

# **REVIEWERS:**

Department	Reviewer	Action	Date
Financial Management	Mellen, Sue	Approved	4/16/2015 - 10:15 AM
Publication Management	Burcham, Nan	Approved	4/16/2015 - 11:14 AM
Board Secretary	Kinsman, Adam	Approved	4/16/2015 - 12:45 PM
Board Secretary	Kinsman, Adam	Approved	4/21/2015 - 2:36 PM
Board Secretary	Fellows, Teresa	Approved	4/21/2015 - 2:37 PM

### **MEMORANDUM**

DATE: April 28, 2015

TO: The Board of Supervisors

FROM: Suzanne R. Mellen, Director, Financial and Management Services

SUBJECT: FY2016 James City County Real Estate Tax Increase and Budget Appropriation

Attached are two resolutions for Board consideration. The first is to set the Real Estate Tax rate for FY2016. The second resolution is to appropriate the budget based on the tax rate set.

Changes to the proposed FY2016 budget include:

Revenues:

Increase in Personal Property Taxes: \$260,000

The Personal Property book was finalized the week of April 20, 2015. These assessments came in higher than anticipated allowing for an increase in revenue projections.

Increase in Public Service Revenues: \$75,000

Public Service Revenues are based on the Real Estate rate as of January 1. This adjustment is made for the second half of the year billing.

Increase in Recordation Taxes: \$25,000

March and April collections indicate support for increasing FY2016 collections.

Increase in Fines and Forfeitures: \$20,000

The Code of Virginia allows an assessment of an additional sum not in excess of \$5 as part of the costs in each criminal or traffic case in the district or circuit courts for electronic summons system. An ordinance will be brought before the Board in May for implementation July 1.

Increase in Recreation Fees \$100,000

Any increase in a variety of Park and Recreation fees that have not been raised since FY2013 will increase revenue estimates by \$100,000.

Expenditures:

WJCC Schools Reduction \$500,000

Reduce the school contribution to reflect half of the replacement bus allotment and authorize the remaining replacement buses to be purchased from the school's FY2015 year-end surplus.

FY2016 James City County Real Estate Tax Increase and Budget Appropriation April 28, 2015 Page 2

#### General Services Reduction \$188,000

Fund the facility condition/space study from anticipated FY2015 surplus. Fund VDOT increased mowing from anticipated FY2015 Tourism Fund surplus.

Economic Development Reduction	\$52,000
Fund the road study from anticipated FY2015 s	surplus.
Court Services Reduction	\$5,800

The Commonwealth has changed their video conferencing from telephone lines to the internet. This will save the County \$5,800 per year.

Contingency Reduction \$40,200

These changes result in the real estate tax rate changing from the proposed 85.2 cent per \$100 valuation of assessment to 84 cent. Overall real estate revenue estimate changes from \$94,170,000 to \$92,904,000.

The attached errata sheet details these changes.

SRM/tlc FY16ResofApprop-mem

Attachments

## <u>RESOLUTION</u>

### ADOPT FY 2016 REAL PROPERTY TAX LEVY

- WHEREAS, the FY 2016 budget is balanced; and
- WHEREAS, in accordance with Sections 15.2-2503, 15.2-2506, 22.1-93, and 58.1-3007 of the Code of Virginia, 1950, as amended, public hearings regarding the FY 2016 budget and real estate tax levy were advertised and held on April 14, 2015, during which time public comments were received and considered.
- NOW, THEREFORE, BE IT RESOLVED that the Board of Supervisors of James City County, Virginia, does hereby adopt the rate of \$0.84 per \$100 of assessed value as the FY 2016 Real Property Tax Levy.

	Michael J. Hipple Chairman, Board of Supervisors			
ATTEST:		VOTE <u>AYE</u>		<u>ABSTAIN</u>
	JONES MCGLENNON			
Bryan J. Hill Clerk to the Board	ONIZUK KENNEDY HIPPLE			

Adopted by the Board of Supervisors of James City County, Virginia, this 28th day of April, 2015.

AdoptFY16RPropTax-res

### **RESOLUTION**

#### **RESOLUTION OF APPROPRIATION**

- WHEREAS, the County Administrator has prepared a Proposed Budget for the fiscal years beginning July 1, 2015, and ending June 30, 2016, and a five-year Capital Improvements Program, four years of which are for information and fiscal planning purposes only; and
- WHEREAS, it is now necessary to appropriate funds to carry out the activities proposed therein for the fiscal year beginning July 1, 2015, and ending June 30, 2016, and to set tax rates on real estate, tangible personal property, and machinery and tools, to provide certain revenue in support of those appropriations.
- NOW, THEREFORE, BE IT RESOLVED, by the Board of Supervisors of James City County, Virginia, that:
  - 1. The following amounts are hereby appropriated in the FY 2016 General Fund for the offices and activities in the amounts as shown below:

FY 2016

#### **GENERAL FUND REVENUES**

	112010
General Property Taxes	\$122,976,950
Other Local Taxes	21,790,000
Licenses, Permits and Fees	8,585,000
Fines and Forfeitures	320,000
Revenue from Use of Money and Property	125,000
Revenue from the Commonwealth	27,177,500
Revenue from the Federal Government	7,500
Charges for Current Services	5,798,750
Miscellaneous Revenues	183,300
Total Revenues	<u>\$186,964,000</u>
GENERAL FUND EXPENDITURES	
GENERAL FUND EXPENDITURES	FY 2016
	112010
General Administration	\$3,254,423
Court Services	3,644,492
Public Safety	24,389,454
Financial Administration	6,992,388
Development Management	3,629,402
General Services	9,592,667
Citizen and Community Services	5,873,340
Contributions - Outside Agencies	760,969
Nondepartmental	167,224
WJCC Schools	82,948,507
Contribution - School Debt Service	18,000,000
Library and Arts Center	4,421,282
Other Regional Entities	3,767,589

Health Services	1,855,362
Contributions - Other Funds	17,666,901
Total Expenditures	<u>\$186,964,000</u>

The appropriation for education includes \$82,917,697 as a local contribution to the Williamsburg-James City County Schools operations.

Year End Fund Balance	\$1,878,000
Contribution to Capital Projects	\$1,878,000

2. That the tax rates be set for the amounts shown below and revenues appropriated in the following classifications:

### TAX RATES

Real Estate on each \$100 assessed	\$0.84
Tangible Personal Property on each \$100 assessed value	\$4.00
Machinery and tools on each \$100 assessed value	\$4.00
Boats, weighing 5 tons or more, on each \$100 assessed value	\$1.00
Boats, weighing less than 5 tons, on each \$100 assessed value	\$3.50

3. That the following amounts are hereby appropriated in other budgets in FY 2016 for the activities in the amounts as shown below:

### CAPITAL PROJECTS BUDGET

Revenues:

Transfer from the General Fund Prior Year General Fund Debt Financing Short Term Financing Proffer Income State Stormwater Grants	2,372,000 1,878,000 25,500,000 (4,500,000) 160,000 1,083,317
Additional Pennies	5,558,000
Total Capital Projects Fund Revenues Expenditures:	<u>\$32,051,317</u>
Schools General Services Public Safety Parks and Recreation	\$24,106,000 6,785,317 775,000 <u>385,000</u>
Total Capital Projects Fund Expenditures	<u>\$32,051,317</u>

# DEBT SERVICE BUDGET

# Revenues:

General Fund - Schools General Fund - Other Build America Bonds	\$18,000,000 5,600,000 204,331
Total Debt Service Fund Revenues	<u>\$23,804,331</u>
Current Year Expenditures:	<u>\$23,804,331</u>
Total Debt Service Fund Disbursements	<u>\$23,804,331</u>
VIRGINIA PUBLIC ASSISTANCE FUND	
Revenues:	
From Federal/State General Fund Other Grant	\$3,817,877 1,451,094 465,665 <u>7,189</u>
Total Virginia Public Assistance Fund Revenues & Fund Balance	<u>\$5,741,825</u>
Expenditures:	
Administration and Assistance	<u>\$5,741,825</u>
Total Virginia Public Assistance Fund Expenditures	<u>\$5,741,825</u>
COMMUNITY DEVELOPMENT FUND	
Revenues:	
General Fund Grants Program Income Revolving Loan Fund Other	\$651,615 1,442,210 80,000 200,000 129,623
Total Community Development Fund Revenues & Fund Balance	<u>\$2,503,448</u>
Expenditures:	
Administration and Programs	<u>\$2,503,448</u>
Total Community Development Fund Expenditures	<u>\$2,503,448</u>

# COLONIAL COMMUNITY CORRECTIONS FUND

# Revenues:

From Federal/State General Fund Supervision Fees Grants Other	\$824,040 49,192 60,539 124,227 <u>87,453</u>
Total Colonial Community Corrections Fund Revenues	<u>\$1,145,451</u>
Expenditures:	
Administration and Programs	<u>\$1,145,451</u>
Total Colonial Community Corrections Fund Expenditures	<u>\$1,145,451</u>
SPECIAL PROJECTS/GRANTS FUND	
Revenues:	
Comprehensive Services Act (CSA) CSA Local Match - General Fund CSA School Share Emergency Management Performance Grant Virginia Fire Programs Fund Emergency Medical Services Four-for-Life Program Total Special Projects/Grants Fund Revenues <u>Expenditures</u> : Comprehensive Services Act Emergency Management Performance Grant	\$319,300 365,000 112,000 39,978 239,000 <u>61,000</u> <u>\$1,136,278</u> \$796,300 39,978
Virginia Fire Programs Fund Emergency Medical Services Four-for-Life Program	239,000 <u>61,000</u>
Total Special Projects/Grants Fund Expenditures	<u>\$1,136,278</u>
TOURISM INVESTMENT FUND	
Revenues:	
Additional \$2 per Night Room Tax General Fund – from Room Tax Revenues	\$825,000 <u>1,500,000</u>
Total Tourism Investment Fund Revenues	<u>\$2,325,000</u>

**Expenditures**:

Tourism Activities	\$2,325,000
Total Tourism Investment Fund Expenditures	<u>\$2,325,000</u>

- 4. The County Administrator be authorized to transfer funds and personnel from time to time within and between the offices and activities delineated in this Resolution as he may deem in the best interest of the County in order to carry out the work of the County as approved by the Board of Supervisors during the coming fiscal year.
- 5. The County Administrator be authorized to transfer up to \$10,000 per occurrence from the contingency balance to one or more appropriation categories. No more than one transfer may be made for the same item causing the need for a transfer, unless the total amount to be transferred for the item does not exceed \$10,000. Total transfers for the year are not to exceed \$100,000.
- 6. The County Administrator be authorized to increase appropriations for nonbudgeted revenue that may occur during the fiscal year as follows:
  - a) Insurance recoveries received for damage to any County property, including vehicles, for which County funds have been expended to make repairs; and
  - b) Refunds or reimbursements made to the County for which the County has expended funds directly related to that refund or reimbursement.
- 7. The County Administrator be authorized to administer the County's Personnel Policy and Pay Plan as previously adopted by the Board of Supervisors.
- 8. The County Administrator be authorized to transfer funds to and from the Personnel Contingency account and divisional personnel line items in order to capture turnover savings at a divisional level.
- 9. All outstanding encumbrances in all County funds at June 30, 2015, shall be an amendment to the FY 2016 budget, and appropriated to the FY 2016 budget to the same department and account for which they were encumbered in the previous year.
- 10. The County Administrator be authorized to make expenditures from the Donation Trust Fund for the specified reasons for which the fund was established. In no case shall the expenditure exceed the available balance in the fund as verified by the Treasurer.

	Michael J. Hipple Chairman, Board of Supervisors						
ATTEST:		ABSTAIN					
	JONES MCGLENNON	<u>AYE</u>	<u>NAY</u>				
Bryan J. Hill Clerk to the Board	ONIZUK KENNEDY HIPPLE						

Adopted by the Board of Supervisors of James City County, Virginia, this 28th day of April, 2015.

FY16ResofApprop1-res

		General Fund						
		FY 2016 Proposed Budget Adjustmen Balances	ts		[	Difference		Tax Rate
		\$ 186,964,0	00 \$	186,964,000	\$		\$	0.840
Initiative	Department/Division	Description		Revenues	Ex	penditures		
		Beginning Balance	\$		\$1	178,730,000	\$	0.77
		Tax Rate Increase	\$	7,754,000			\$	0.070
		Recordation Taxes	Ş	25,000				
		Public Service Revenues	Ş	75,000				
		Esummons Personal Property growth	\$ \$ \$	20,000 260,000				
		Recreation Fees	ې \$	100,000				
Fiscal Health	Transfer to Debt Service	Debt Service Reserve			\$	1,500,000	ć	0.014
Schools	Schools	Replacement School Buses			\$	500,000		0.014
Schools	Transfer to CIP	•						0.005
	Transfer to CIP	Clare Byrd Baker Refurb			\$ \$	1,840,000		0.017
Schools		Roof replacements				360,000		0.003
	Stormwater	Personnel drainage -Admin/Coordinator			\$	70,000 25,000		0.001
	Stormwater	1/2 Capital Projects Coordinator (Drainage) for 1/2 yes	ar		\$	,		
	Stormwater	HOA assessments			\$	59,000		0.001
	Stormwater	Grants to HOA			\$	98,000	•	0.001
	Stormwater	Non-HOA repairs			\$	80,000	•	0.001
	Stormwater	1/2 Capital Projects Coordinator (Stormwater) for 1/2	year		\$	25,000	•	0.000
	Stormwater	Part Time Admin support			\$	15,000		0.000
	Stormwater	Operating Cost/Risk Management			\$	100,000		0.001
	Stormwater	Storm Water Capital Management Plan			\$	250,000	•	0.002
	Transfer to CIP	CIP TMDL Chesapeake Action Plan			\$	1,158,000	\$	0.011
County								
	Grounds Maintenance	VDOT Increased Mowing			\$	-	\$	-
County								
Appearance	General Services	Facility condition/space study			\$	-	\$	-
County								
	Transfer to CIP	Station 1 fuel island			\$	340,000	\$	0.003
County								
Appearance	Transfer to CIP	Courthouse Roof Replacement			\$	450,000	\$	0.004
County								
Appearance	Transfer to CIP	Building F Video replacements			\$	322,000	\$	0.003
County								
Appearance	Transfer to CIP	JCC Rec Center rehab			\$	335,000	\$	0.003
County								
Appearance	Transfer to CIP	SCBA Replacements			\$	138,000	\$	0.001
County								
Appearance	Transfer to CIP	Building/Energy Improvements			\$	276,000	\$	0.003
County								
Appearance	Transfer to CIP	HVAC/Electrical Improvements			\$	339,000	\$	0.003
Economic								
Developmen		The second se			~		~	
t	Economic Development	Transportation Study			\$	-	\$	-
		Court Services			\$	(5,800)		(0)
		Contingency			\$	(40,200)	\$	(0)

	Capital Improv 016 Proposed		ents
	Balances		Difference
\$	32,051,217	\$ 32,051,217	
<b>Description</b> Beginning Baland	ce	\$ <u>Revenues</u> 32,051,217	Expenditures \$ 32,051,217

FY 201	Virginia Pub 6 Proposed			ents	
	Balances			C	Difference
\$	5,741,825	\$	5,741,825	\$	-
<b>Description</b>		<u> </u>	Revenues	<u>Ex</u>	penditures
Beginning Balance		\$	5,741,825	\$	5,741,825

Community Development FY 2016 Proposed Budget Adjustments						
	Balances Difference					
\$	2,503,448	\$	2,503,448	\$	-	
<b>Description</b>		<u> </u>	<u>Revenues</u>	<u>Ex</u>	<u>penditures</u>	
Beginning Balance	е	\$	2,503,448	\$	2,503,448	

Colonial Community Corrections FY 2016 Proposed Budget Adjustments					
Balances					Difference
\$	1,145,451	\$	1,145,451	\$	-
Description		<u>F</u>	Revenues	<u>Ex</u>	<u>penditures</u>
Beginning Balance	C T	\$	1,145,451	\$	1,145,451

Special Projects and Grants FY 2016 Proposed Budget Adjustments						
	Balances Difference				Difference	
\$	1,136,278	\$	1,136,278	\$	-	
Description		<u> </u>	Revenues	<u>Ex</u>	penditures	
Beginning Balance		\$	1,136,278	\$	1,136,278	

Tourism Investment FY 2016 Proposed Budget Adjustments						
	Balances Difference					
\$	2,325,000	\$	2,325,000	\$	-	
<b>Description</b>		<u> </u>	Revenues	<u>Ex</u>	penditures	
Beginning Balance		\$	2,325,000	\$	2,325,000	

Debt Service FY 2016 Proposed Budget Adjustments						
Balances Differe				Difference		
\$	23,792,529	\$	23,792,529	\$	-	
Description			<u>Revenues</u>	<u>E</u> x	xpenditures	
Beginning Balance		\$	23,792,529	\$	23,792,529	

# AGENDA ITEM NO. K.1.

# **ITEM SUMMARY**

DATE:	4/28/2015
TO:	The Board of Supervisors
FROM:	Bryan J. Hill, County Administrator
SUBJECT:	County Administrator's Report

Please see the attached memorandum.

# **ATTACHMENTS:**

Description

🗅 Memo

# **REVIEWERS:**

Department Board Secretary Reviewer Fellows, Teresa Action Approved

Type

Cover Memo

Date 4/20/2015 - 9:46 AM

# M E M O R A N D U M

DATE: April 28, 2015

TO: The Board of Supervisors

FROM: Bryan J. Hill, County Administrator

SUBJECT: County Administrator's Report

The following is a summary of activities that took place April 8, 2015 through April 21, 2015:

### April 9, 2015 (Thursday)

- Economic Development Authority Meeting
- Met with James Bourey, Newport News City Manager
- Attended Community Meeting: Mary Jones, Supervisor

### April 10, 2015 (Friday)

- Met with Sue Mellen, Director of Financial and Management Services
- Met with Allie Kotula, Deputy County Attorney, and Patrick Page, Director of Information Resources Management

### April 13, 2015 (Monday)

- Met with Sue Mellen, Director of Financial and Management Services
- Met with Michael Hipple, Board of Supervisors Chairman
- Attended Community Meeting: James Kennedy, Supervisor

### April 14, 2015 (Tuesday)

- Attended American Revolution Museum at Yorktown
- Met with Steve Constantino, W-JCC Superintendent, and Sue Mellen, Director of Financial and Management Services
- Met with Doug Powell, JCSA Manager, and Michael Vergakis, JCSA Chief Civil Engineer
- Met with Sue Mellen, Director of Financial and Management Services

County Administrator's Report April 28, 2015 Page 2

### April 15, 2015 (Wednesday)

- Met with Diana Hutchens, Director of Community Services
- Board of Supervisors Budget Work Session

### April 16, 2015 (Thursday)

- Attended Hampton Roads Planning District Commission, Hampton Roads Transportation Planning Organization and Hampton Roads Transportation Accountability Commission with Supervisor Mary Jones and Board of Supervisors Chairman Michael Hipple
- Attended Community Meeting: Michael Hipple, Board of Supervisors Chairman

### April 17, 2015 (Friday)

- Coffee with County Administrator, staff event
- Met with Tal Luton, Fire Chief
- Attended Quarterly General Services Employee Recognition event
- Met with John Horne, Director of General Services

### April 19, 2015 (Saturday)

- Met with Carl Lum, Busch Gardens Park Director
- Met with Brad Rinehimer, Chief of Police

### April 20, 2015 (Monday)

- Historic Triangle Collaborative meeting
- Met with Brad Rinehimer, Chief of Police
- Met with Sue Mellen, Director of Financial and Management Services
- Board of Supervisors Budget Work Session

BJH/nb CAReport042815-mem

# AGENDA ITEM NO. N.1.

# **ITEM SUMMARY**

DATE:	4/28/2015
TO:	The Board of Supervisors
FROM:	Teresa J. Fellows, Secretary to the Board
SUBJECT:	Adjourn until 6:30 p.m. on May 12, 2015 for the Regular Meeting

# **REVIEWERS:**

Department	Reviewer	Action	Date
Board Secretary	Fellows, Teresa	Approved	4/13/2015 - 9:38 AM