

A G E N D A
JAMES CITY COUNTY PLANNING COMMISSION
REGULAR MEETING
County Government Center Board Room
101 Mounts Bay Road, Williamsburg VA 23185
December 7, 2022
6:00 PM

A. CALL TO ORDER

B. ROLL CALL

C. PUBLIC COMMENT

D. REPORTS OF THE COMMISSION

E. CONSENT AGENDA

1. Minutes of the November 2, 2022, Regular Meeting

F. PUBLIC HEARINGS

1. AFD-22-0015. 999 Jolly Pond Road Cranston's Pond AFD Addition
2. SUP-22-0018. 5477 Mooretown Road Williamsburg Place Pavilion & Farley Center Additions
3. SUP-22-0021. 8401 Hicks Island Road Tourist Home
4. Z-22-0003. 8005 & 8009 Hankins Industrial Park Road

G. PLANNING COMMISSION CONSIDERATIONS

H. PLANNING DIRECTOR'S REPORT

1. Planning Director's Report - December 2022

I. PLANNING COMMISSION DISCUSSION AND REQUESTS

J. ADJOURNMENT

ITEM SUMMARY

DATE: 12/7/2022

TO: The Planning Commission

FROM: Paul D. Holt, III, Secretary

SUBJECT: Minutes of the November 2, 2022, Regular Meeting

ATTACHMENTS:

	Description	Type
	Minutes of the November 2, 2022, Regular Meeting	Minutes

REVIEWERS:

Department	Reviewer	Action	Date
Planning Commission	Holt, Paul	Approved	11/29/2022 - 3:55 PM
Planning Commission	Holt, Paul	Approved	11/29/2022 - 3:55 PM
Publication Management	Daniel, Martha	Approved	11/29/2022 - 4:05 PM
Planning Commission	Holt, Paul	Approved	11/29/2022 - 8:11 PM

MINUTES
JAMES CITY COUNTY PLANNING COMMISSION
REGULAR MEETING
County Government Center Board Room
101 Mounts Bay Road, Williamsburg VA 23185
November 2, 2022
6:00 PM

A. CALL TO ORDER

Mr. O'Connor called the meeting to order at 6:00 p.m.

B. ROLL CALL

Planning Commissioners Present:

Tim O'Connor
Rich Krapf
Jack Haldeman
Frank Polster
Rob Rose
Barbara Null
Stephen Rodgers

Staff Present:

Paul Holt, Director of Community Development and Planning
Liz Parman, Deputy County Attorney
Josh Crump, Principal Planner
Thomas Wyson, Senior Planner
Terry Costello, Principal Planner
Paxton Condon, Deputy Zoning Administrator

C. PUBLIC COMMENT

Mr. O'Connor opened Public Comment.

As no one wished to speak, Mr. O'Connor closed Public Comment.

D. REPORTS OF THE COMMISSION

The Policy Committee and the Development Review Committee did not meet in October, and therefore there were no reports.

E. CONSENT AGENDA

1. Minutes of the October 5, 2022, Regular Meeting

Ms. Null made a motion to approve the Consent Agenda.

Mr. Krapf and Dr. Rob Rose stated that they would abstain from voting on the Minutes of the October meeting as they were not present at that meeting.

On a voice vote, the Commission voted to approve the Consent Agenda. (5-2-0)

F. PUBLIC HEARINGS

1. AFD-22-0017. 7294 Richmond Road Hill Pleasant Farm AFD Withdrawal

A motion to Approve was made by Frank Polster, the motion result was Passed.

AYES: 5 NAYS: 2 ABSTAIN: 0 ABSENT: 0

Ayes: Haldeman, Krapf, Polster, Rodgers, Rose

Nays: Null, O'Connor

This application was presented and reviewed in tandem with SUP-22-0015. 7294 & 7296 Richmond Rd. Pivot Energy Solar Project. Discussion is combined and recorded with Special Use Permit (SUP) application.

Mr. Polster made a motion to recommend approval of the application

On a roll call vote, the Commission voted to recommend approval of AFD-22-0017. 7294 Richmond Road Hill Pleasant Farm AFD Withdrawal. (5-2)

2. SUP-22-0015. 7294 & 7296 Richmond Rd. Pivot Energy Solar Project

A motion to Approve was made by Frank Polster, the motion result was Passed.

AYES: 5 NAYS: 2 ABSTAIN: 0 ABSENT: 0

Ayes: Haldeman, Krapf, Polster, Rodgers, Rose

Nays: Null, O'Connor

A motion to Approve was made by Frank Polster, the motion result was Passed.

AYES: 5 NAYS: 2 ABSTAIN: 0 ABSENT: 0

Ayes: Haldeman, Krapf, Polster, Rodgers, Rose

Nays: Null, O'Connor

Mr. Thomas Wysong, Senior Planner, stated that Mr. Buzz Becker of Pivot Energy, Inc. has applied for an SUP to construct a solar farm on an approximately 64.9-acre portion of parcels located at 7294 and 7296 Richmond Road. Mr. Wysong stated that the parcels are zoned A-1, General Agricultural and designated Economic Opportunity (EO) on the 2045 Comprehensive Land Use Map and located outside the Primary Service Area (PSA).

Mr. Wysong stated that the property located at 7296 Richmond Road is not located within an Agricultural and Forestal District (AFD); however, the property located at 7294 Richmond Road is currently within the Hill Pleasant Farm AFD. Mr. Wysong stated that as part of the 2022 AFD renewal process, the owner withdrew 42 acres of that property from the AFD. Mr. Wysong further stated that after the renewal period closed, the applicant recognized the need to withdraw an additional 10 acres from the AFD for stormwater facilities and this withdrawal proposal does require Board approval because it occurred after the renewal period closed.

Mr. Wysong stated that withdrawal requests outside of the renewal period are considered per the criteria listed in the Board of Supervisor's Policy governing the withdrawal of properties from AFDs. The criteria are:

- The request is caused by a change in circumstances that could not have been anticipated at the time application was made for inclusion in the district. (This has historically been interpreted as death of a property owner.)
- The request would serve a public purpose, as opposed to the proprietary interest of the landowner that could not otherwise be realized upon expiration of the AFD. (Staff

interprets a public purpose as using the land for a public facility such as a school or fire station.)

- The request would not cause damage or disruption to the existing district. (The AFD would continue to meet the minimum acreage requirements if this withdrawal is approved.)
- If the request for withdrawal is in conjunction with a proposal to convert the land use of a property to a different use than is currently in place on the property, the new land use would be in conformance with the Comprehensive Plan.

Mr. Wysong stated that Solar Farms are not specifically identified as a compatible land use in the EO Zoning District, but they may serve as a transitional land use until market forces determine a more intense economic use.

Mr. Wysong stated that staff finds that this application would not cause a disruption to the AFD and that the proposed land use would be a transitional use within the EO Zoning District; however, staff finds that this proposal is not caused by an unforeseen change in circumstances and that the request would not serve a public purpose. Mr. Wysong stated that since it does not meet all the criteria of the Board's withdrawal policy, staff recommends denial of this withdrawal request to the Board of Supervisors.

Mr. Wysong stated that at its October 20, 2022, meeting, the AFD Advisory Committee unanimously recommended approval of this withdrawal request by a vote of 7-0.

Mr. Wysong stated that the proposed solar farm facility will consist of ground-mounted arrays of solar panels mounted on single-axis trackers to orient the arrays toward the direction of the sun. Mr. Wysong stated that all new utilities will be placed underground and the solar farm will connect to existing overhead utility lines on the property. Mr. Wysong stated that the lease will be for 21 years with an option to extend for an additional 10 years.

Mr. Wysong stated that staff has proposed conditions to mitigate impacts from this proposal. Mr. Wysong further stated that these proposed conditions will require access to the facility during construction to be from the existing easement along the railroad connecting to Peach Street. Mr. Wysong stated that once the site construction is complete, normal sized vehicles can access the site from Richmond Road, but oversized vehicles will still be required to utilize the Peach Street entrance. Mr. Wysong stated that construction activities such as pile driving, clearing, and grading have limited hours per the SUP conditions. Mr. Wysong stated that a 50-foot vegetated buffer is shown along the perimeter of the development, with the buffer being increased to 75 feet along areas nearest to Richmond Road.

Mr. Wysong stated that the 2045 Comprehensive Plan Land Use Map designates the property EO. Mr. Wysong stated that the Comprehensive Plan does not specifically identify solar farm as a compatible use in EO; therefore, staff has reviewed this application as a transitional use given the limited lease of the property.

Mr. Wysong stated that according to Virginia Code Section 15.2-2232, unless a utility facility is shown on the adopted Comprehensive Plan or other master plans for the County, the local Planning Commission and a governing body shall review the facility to determine whether the location, character, and extent of the project is substantially in accord with the adopted Comprehensive Plan.

Mr. Wysong stated that staff recommends the Planning Commission find this application consistent with the 2045 Comprehensive Plan and recommend approval of the SUP to the Board of Supervisors subject to the proposed conditions and approval of the withdrawal

request from the AFD.

Mr. O'Connor opened the floor for questions from the Commission.

Mr. Krapf requested more information on the reason for requesting the additional 10 acres.

Mr. Wysong stated that during staff review, it was determined that more acreage was needed for the stormwater facilities and a small expansion to the footprint of the solar arrays.

Mr. Krapf inquired if this could be considered a circumstance beyond the applicant's control that would meet one of the withdrawal criteria.

Mr. Wysong stated that staff did not interpret it as meeting the criteria.

Mr. Krapf inquired about the access to the site during construction and the impact of the existing utility lines on the access.

Mr. Holt stated that in the interim, as follow up on the stormwater management piece, there has been updated guidance from the state on calculating impervious cover for solar farms. Mr. Holt stated that the panels are now considered impervious cover which increases the amount of area needed for treatment of stormwater. Mr. Holt further stated that there is also a cap on the amount of forested land that can be credited to stormwater management. Mr. Holt stated that this accounts for the withdrawal of the additional land from the AFD.

Mr. Wysong provided an overview of the construction access road to the property.

Mr. Krapf inquired if any road improvements would be required.

Mr. Wysong stated that there is a condition that the applicant would have to do an existing conditions assessment and calculate what the repairs would be. Mr. Wysong stated that those repairs would need to be completed after construction once the site is finished.

Mr. Krapf inquired if this would include the overhead utilities.

Mr. Wysong confirmed.

Mr. Holt stated that Peach Street and Peninsula Street are in the VDOT secondary system for maintenance. Mr. Holt stated that on the other side of the railroad tracks, it becomes a shared easement. Mr. Holt stated that much of the private easement may need to be improved.

Ms. Null stated that this is her concern as well. Ms. Null inquired if the site could be accessed from Rochambeau Drive or from Route 60. Ms. Null noted that there could be huge impacts to the CSX operations if a vehicle was stuck on the track crossing.

Mr. Holt stated that access from Rochambeau Drive for this site is distinctly different from the other solar farm to the south because the route passes a number of residential units on one end and is encumbered by environmentally sensitive land at the other end.

Mr. Krapf inquired about a bond to ensure appropriate decommissioning of the panels at the end of their life.

Mr. Wysong stated that there is a condition for a surety bond to decommission the panels and remediate the site in the event the applicant is no longer in business.

Mr. Polster stated that part of the condition for the surety bond is to reevaluate it periodically

to ensure it will cover any increase in costs over the years.

Mr. O'Connor opened the Public Hearing.

Mr. Buzz Becker, Director of Project Development, Pivot Energy, Inc., made a presentation to the Commission in support of the application.

Mr. Polster inquired about the use of the property between the buffer and the boundary line with the adjacent property owner.

Mr. Becker stated that the property owner will be reimbursed for that property so that it can be open space; most likely a meadow with pollinating plants.

Mr. Polster inquired about the ground cover under the solar panels.

Mr. Becker stated that the plan is for a native pollinator seed mix with up to quarterly mowing or maintenance.

Mr. Polster inquired about the size of the largest vehicles bringing in equipment.

Mr. Becker stated that the solar panels would be delivered on a tractor trailer. Mr. Becker further stated that the vast majority of the vehicles would not be that large.

Mr. Polster inquired about whether the tractor trailer would have difficulty crossing the railroad tracks and navigating the turn.

Mr. Becker stated that it would not be a problem.

Mr. Polster inquired about the buffering along the road adjacent to the neighboring property.

Mr. Becker stated that they are working with the adjacent property owner to establish a satisfactory mix of plantings.

Dr. Rose inquired about the subscription service for low-to-moderate-income customers.

Mr. Becker stated that they have a manager of subscriptions that reaches out to the community to find potential subscribers.

Dr. Rose inquired if the subscriber opportunity was limited to residents near the solar farm.

Mr. Becker stated that it was not limited by proximity.

Mr. Rodgers inquired if the project could move forward without the additional 10 acres.

Mr. Nick Robertson, Kimley-Horn and Associates, Inc., stated that without the additional acreage, it would be necessary to reduce the number of panels or not go forward with the project. Mr. Robertson stated that a reduction in the panels may affect support from Dominion Energy.

Mr. Polster inquired if staff did the stormwater calculations.

Mr. Roberson stated that Kimley-Horn did the calculations.

Mr. Polster inquired if the Stormwater Division supported those calculations.

Mr. Robertson stated that staff supported the calculations.

Mr. Polster inquired if there were any alternative.

Mr. Roberson stated that there is no alternative except reducing the number of panels which the applicant cannot do.

Mr. O'Connor inquired if any other portion of the property could be used for stormwater management.

Mr. Robertson stated that the location of the retention ponds is determined by topography; the ponds must be placed where water will drain. Mr. Robertson stated that it would not be possible to move sufficient panels to another area or be detrimental to the adjacent property owner.

Mr. Polster inquired if he is correct that the calculations for impervious cover are based on the amount of water coming off the panels and where it drains to which is why the retention ponds must be located where they are.

Mr. Becker confirmed that this is correct.

Mr. Gary Campbell, 230 Peach Street, addressed the Commission in support of the application.

As no one further wished to speak, Mr. O'Connor closed the Public Hearing.

Mr. O'Connor opened the floor for discussion by the Commission.

Mr. Jack Haldeman stated that he plans to support the application. Mr. Haldeman stated that he finds that the AFD withdrawal does meet the criteria for a change in circumstance and further it also meets the criteria of being for a public purpose. Mr. Haldeman stated that this does meet a goal of the Comprehensive Plan as well as stated and federal goals to decarbonize energy production.

Mr. Rich Krapf stated that he also finds that the criteria for AFD withdrawal are met. Mr. Krapf stated that he believes the applicant would have removed the acreage during the renewal period if the stormwater information had been available at that time. Mr. Krapf stated that he would like to recommend that Condition No. 5 be amended to include that Item B read: The majority of evergreen shrubs and trees should be native species. Mr. Krapf further stated that he would recommend that Condition No. 6 be amended to read: Site ground cover that includes native pollinators and native grasses. Mr. Krapf further stated that he is in favor of solar and other power; however, he is concerned about the impact on the EO zone.

Mr. O'Connor stated that he has concerns about this use of the property in the EO zone. Mr. O'Connor stated that he did not support the other neighboring solar farm and does not intend to support this application.

Mr. Polster made a motion to recommend approval of the application with conditions as proposed by staff and with the recommended amendments.

On a roll call vote, the Commission voted to recommend approval of SUP-22-0015. 7294 & 7296 Richmond Rd. Pivot Energy Solar Project. (5-2)

Mr. Polster made a motion to adopt the resolution finding the project to be in substantial accord with the Comprehensive Plan.

On a roll call vote, the Commission voted to find the application in substantial accord with the Comprehensive Plan. (5-2)

3. SUP-20-0010. Hertzler Clearing and Grading

A motion to Approve was made by Frank Polster, the motion result was Failed.

AYES: 3 NAYS: 4 ABSTAIN: 0 ABSENT: 0

Ayes: Krapf, O'Connor, Polster

Nays: Haldeman, Null, Rodgers, Rose

Mr. Josh Crump, Principal Planner, stated that Ms. Mary Hertzler has applied for an SUP to allow the operation of a contractor's office, warehouse, and the manufacturing of wood products at 9537 Barnes Road. Mr. Crump stated that the property is zoned A-1, General Agricultural, is designated Rural Lands on the Comprehensive Plan Land Use Map, and is located outside the PSA. Mr. Crump noted that the business is currently operating on the property and this application has been submitted to bring the use into conformance with the Zoning Ordinance.

Mr. Crump stated that in 2020, the Zoning Division met with the property owner after receiving a complaint regarding the operation of the business. Mr. Crump stated that staff discussed the activities and violations occurring and that an SUP would be needed to bring the use into conformance. Mr. Crump noted that the applicant stated that the business has been operating from the property for approximately 20 years.

Mr. Crump further stated that in the year 2000, an SUP application was submitted for the operation of a contractor's office, warehouse, storage and repair of heavy equipment, and the manufacture and sale of wood products. Mr. Crump stated that the application was considered by the Planning Commission and recommended for approval and was then considered by the Board of Supervisors where it was ultimately denied.

Mr. Crump stated that since this time, the area utilized for the business operation has increased without the appropriate approvals or permitting from the County. Impacts to the Resource Protection Area (RPA) include land disturbance and clearing of trees, the construction of a pond, and the construction of a driveway onto a neighboring property. Mr. Crump stated that the construction of the pond and driveway have also impacted existing wetlands. Mr. Crump stated that these existing site conditions are shown on the master plan.

Mr. Crump further stated that staff has reviewed the application to address the impacts of the business. Mr. Crump stated that the Stormwater and Resource Protection Division has reviewed the application regarding stormwater management design for the current business operations. Mr. Crump noted that the proposed SUP conditions would require impacts to the RPA and wetlands be remediated, proof of appropriate permits for impacts to the wetlands, and that the stormwater management design be sufficient for all development on the property.

Mr. Crump stated that additional proposed conditions include, but are not limited, to restricting the hours of operation of certain activities from 8 a.m. to 5 p.m. to reduce potential noise impacts, prohibiting sales on the property, prohibiting signage associated with the business, restricting vehicular access to the business to only come from Barnes Road, providing buffering and screening the business from Barnes Road and adjoining properties, various fire safety measures, limiting the height of light poles, and prohibiting any light trespass onto adjoining properties.

Mr. Crump stated that if the SUP were to be approved, a site plan would be required for the

business and would need to show all existing improvements being brought into full conformance with the master plan, conditions, Zoning Ordinance, and other applicable regulations. Mr. Crump further stated that the proposed conditions would require that the site plan be submitted within 12 months of the date of approval of the SUP and receive final site plan approval within 24 months of the date of approval of the SUP. Mr. Crump stated that the proposed conditions would also require that County staff inspect the property within six months of the date of approval of the SUP to verify existing site conditions and within 36 months of the date of approval of the SUP to verify that all improvements shown on the site plan are completed and that the site is fully in compliance with the SUP and the site plan.

Mr. Crump stated that staff finds that the proposal is compatible with surrounding zoning and development and consistent with the 2045 Comprehensive Plan and recommends that the Planning Commission recommend approval of this application, subject to the proposed conditions.

Mr. O'Connor opened the floor for questions from the Commission.

Ms. Null requested confirmation that the pond was installed without the necessary permits; a previous SUP request in 2000 was denied; and the business has been operating for 22 years without an SUP.

Mr. Crump confirmed.

Ms. Null inquired if any complaints had been received during that time.

Mr. Crump stated that staff received complaints in 2001, 2002, 2004, 2011, and 2019.

Ms. Null noted that another complaint had been received in the last week also.

Ms. Null inquired about the complaint received in 2019.

Mr. Crump stated that staff met with the property owner in 2019 to discuss remediation and that the current SUP application was submitted in 2020.

Ms. Null commented that the business has been operating for 22 years without any permits.

Mr. Haldeman inquired about the future of the business and the property if this application is denied.

Mr. Crump stated that all business activities would cease, and the property would need to be brought into compliance with the Zoning Ordinance and the Chesapeake Bay Ordinance. Mr. Crump further stated that it would require removing all business equipment, logs, debris, and provide RPA mitigation. Mr. Crump stated that staff would work with the County Attorney's Office to achieve compliance.

Mr. Krapf inquired if the SUP condition for staff being allowed to inspect the property could be broadened to allow staff more latitude to access the property in the event of further complaints.

Mr. Holt stated that he would not recommend changing the SUP Conditions at this time. Mr. Holt further stated that as proposed, the SUP Conditions allow staff to enter the property to verify existing conditions and later to confirm that all of the improvements have been made and are consistent with the master plan and the site plan. Mr. Holt further stated that once the final site conditions are verified, it would be like any other property where, should a complaint be received, staff would first look to work with the property owner which usually resolves the

situation. Mr. Holt stated that in the few instances where there the property owner is not responsive, staff can work with the County Attorney's Office to find other options.

Mr. O'Connor inquired if the mixed mulch and soil stockpile should have silt fences.

Mr. Holt stated that staff would review this during the site plan process; however, it would not be a requirement for stockpiles in active use.

Mr. O'Connor noted that the stockpile is adjacent to the pond. Mr. O'Connor inquired whether the stockpile activities could be inspected periodically to ensure that the stockpile is in good shape and compliant with Erosion and Sediment Control (E&S) regulations.

Mr. Holt stated that should the property move to site plan review, all of the E&S requirements and remediation will be factored in.

Dr. Rose inquired about the owner of the neighboring property where the driveway was constructed.

Mr. Crump stated that the property is also owned by the applicant.

Dr. Rose inquired if approving the SUP would give the County more opportunity to ensure that the conditions are continuously met.

Mr. Crump stated that there would be an inspection of existing conditions and staff would work with the applicant during the site plan review to ensure that all remediation was completed and regulations met. Mr. Crump stated that once the site plan was approved, staff would inspect the property to ensure that everything is constructed and in compliance with the site plan and existing regulations and requirements.

Mr. Holt stated that approval of the SUP does not convey extra authority to staff to access the property; however, should there be complaints, it is easier for staff to determine if the operation is in conflict with the SUP, the master plan, and the site plan.

Dr. Rose inquired whether the business would be allowed to operate another 20 years without permits and approvals.

Mr. Holt stated that if the SUP is denied, the existing conditions would have to be brought into compliance with the Zoning Ordinance and the Chesapeake Bay Act. Mr. Holt stated that following the previous SUP denial, the violations were abated; however, at some point the activities commenced again. Mr. Holt stated that in this instance there would be follow up to ensure that the property was in compliance and the environmental impacts were remediated.

Mr. Rodgers inquired about the historical information on the property and the Board of Supervisors' rationale for denying the SUP.

Mr. Crump stated that there appeared to be a lot of public comment against the application; however, the minutes do not provide detail on the rationale of the Board of Supervisors.

Mr. Holt noted that the minutes were more action-oriented minutes and did not provide robust details of the discussion.

Mr. Rodgers inquired why the County did not pursue action against the property sooner.

Mr. Holt stated that the County's long-standing practice is to respond on a complaint basis.

Ms. Null noted that there were several complaints over the years and inquired why no action was taken sooner.

Mr. Holt stated that the County did receive complaints in the past. Mr. Holt noted that without the ability to access the property, the typical inspection is legally limited to what can be seen from a public right-of-way. Mr. Holt stated that there are forested conditions on the site and it is not always easy to observe the day-to-day operations. Mr. Holt stated that his thought is that these complaints were investigated but there was not enough evidence available through the permitted investigative options.

Ms. Null stated that her concern is that approving this application may lead to other businesses operating without the appropriate approvals.

Mr. Haldeman inquired if this application is substantially similar to the one submitted in 2000.

Mr. Crump stated that to his knowledge it is very similar.

Mr. O'Connor opened the Public Hearing.

Mr. Krapf, Mr. Haldeman, and Mr. Polster stated that they each had spoken with the applicant's representative regarding the application.

Mr. Vernon Geddy, Geddy, Harris, Franck, & Hickman, LLP, made a presentation to the Commission in support of the application.

Mr. Polster inquired if the Hertzlers were aware of the work done on the proposed master plan.

Mr. Chase Grogg, Landtech Resources, Inc. (LRI), stated that the Hertzlers contracted with LRI to provide the topographic and boundary survey of the property. Mr. Grogg stated that the Hertzlers also contracted with Roth Environmental Consultants to get the wetlands delineated and confirmed by the Army Corps of Engineers. Mr. Grogg further stated that The United States Army Corps of Engineers had been on site and found no wetlands violations.

Mr. Polster inquired if this pond would be subject to the County's review of Best Management Practices every five years.

Mr. Grogg stated that the pond would be subject to review and further, that it would have a maintenance plan.

Mr. Polster inquired if the mulch and soil stockpiles would require any type of concrete storage facility.

Mr. Grogg stated that the concrete facilities could be helpful and that they could consider them during the site plan review.

Mr. Holt noted that the concrete barriers are mostly necessary when dealing with a final product where its integrity needs to be preserved.

Mr. Polster stated that his question stemmed from the possibility of the manure leaching out and impacting the pond

Mr. Joshua Mayes, 135 Racefield Drive, addressed the Commission in opposition to the application.

As no one further wished to speak, Mr. O'Connor closed the Public Hearing.

Mr. O'Connor opened the floor for discussion.

Mr. O'Connor inquired if there would be improvements on Barnes Road associated with the development of the Hazelwood property.

Mr. Holt stated that the conditions for the Hazelwood property specifically state that there shall not be any improvements to Barnes Road.

Mr. Haldeman inquired if the property owner has been paying taxes on the property assessed as a business or assessed as undeveloped property.

Mr. Holt stated that staff would follow up with real estate assessment.

Mr. Polster stated that the Traffic Impact Analysis for the Hazelwood property discussed modifications to the traffic signal at Barnes Road.

Mr. Krapf inquired if the prior SUP denial meant that none of the existing operations should be on the site.

Mr. Crump responded that the prior SUP was to bring the property into conformance with the Zoning Ordinance and that all uses were denied.

Mr. Krapf made a recommendation to amend SUP Condition 9A to read: Existing vegetation in the buffer areas shall be retained and supplemented as necessary with additional plantings, a majority of which shall be native species to meet the requirements of Section 24-96 of the County Code.

Mr. Krapf stated that the Planning Commission role is not one of enforcement but determining if the use is appropriate for the property and conforms with the Zoning Ordinance and the Comprehensive Plan. Mr. Krapf stated that if the SUP is approved, the recommended conditions will bring the use into conformance. Mr. Krapf further stated that no matter how poorly the process was managed for 20 years, this would become a legally conforming business. Mr. Krapf stated that there have been other cases where businesses have been operating without the proper approvals and they have been brought into compliance. Mr. Krapf noted that this is no different although it is on a larger scale.

Dr. Rose stated that it is apparent that there have been ongoing impacts to the area and that those impacts to the community will continue regardless of whether the activities come up to code.

Mr. Polster stated that he believes the applicant is making a good faith effort to bring the property into compliance. Mr. Polster noted that the majority of adjacent properties are owned by the applicant and serve as a buffer to other property owners. Mr. Polster further stated that this is a business which should benefit the County with revenue from business taxes. Mr. Polster stated that the property owner is trying to do the right thing and they should be given the opportunity to make the necessary improvements. Mr. Polster stated that he intends to support the application.

Ms. Null stated that many of the complaints were related to excessive noise outside of normal hours. Ms. Null inquired about who would be responsible for enforcing the hours of operation.

Mr. Polster stated that the County would be able to fall back on the SUP conditions where there is a complaint.

Mr. O'Connor stated that he feels that approving the application would essentially be rewarding bad behavior; however, the Commission is neither a punitive body nor an enforcement body. Mr. O'Connor stated that the Commission's job is to work with the application that was submitted from a land use perspective. Mr. O'Connor stated that he views this application as meeting the Comprehensive Plan goal of encouraging and preserving an agricultural and forestal economy in rural lands. Mr. O'Connor stated that there have been concern about truck traffic for other similar uses and those applicants came into compliance with the SUP conditions. Mr. O'Connor further stated that it is important to look at what would come out of approving the application. Mr. O'Connor stated that ultimately there would be a site that is compliant and good for the wetlands with thriving business that is a different economic use for rural lands.

Mr. Polster made a motion to recommend approval of the application with the amended SUP Condition 9A.

On a roll call vote, the motion to recommend approval of SUP-20-0010. Hertzler Clearing and Grading did not carry (3-4).

4. SUP-22-0019. 4090 Ironbound Road Detached Accessory Dwelling

A motion to Approve was made by Jack Haldeman, the motion result was Passed.

AYES: 7 NAYS: 0 ABSTAIN: 0 ABSENT: 0

Ayes: Haldeman, Krapf, Null, O'Connor, Polster, Rodgers, Rose

Ms. Paxton Condon, Deputy Zoning Administrator, stated that Mr. Hoa Huynh has applied for an SUP to allow a detached accessory apartment at 4090 Ironbound Road. Ms. Condon stated that the applicant proposes to convert part of an existing detached garage into a detached accessory apartment. Ms. Condon stated that the property is zoned R-2, General Residential, and is designated Low Density Residential on the 2045 Comprehensive Plan Land Use Map.

Ms. Condon further stated that the single-family dwelling on the property is currently occupied by the applicant and building permits have been submitted for the proposed alterations and are under review. Ms. Condon stated that the existing structure is 896 square feet, and the proposed accessory apartment will be 394 square feet. Ms. Condon stated that the remaining portion of the structure will continue to be used as a garage.

Ms. Condon stated that the R-2 Zoning District allows detached accessory apartments as a specially permitted use in accordance with Section 24-32(b) of the James City County Code. Ms. Condon stated that staff has reviewed the proposed design and finds that all requirements have been met.

Ms. Condon further stated that staff also finds this proposal to be compatible with surrounding development and consistent with the 2045 Comprehensive Plan. Ms. Condon stated that staff recommends that the Planning Commission recommend approval of this application to the Board of Supervisors, subject to the proposed conditions.

Mr. O'Connor opened the Public Hearing.

Ms. Noel Mahler, 4090 Ironbound Road, applicant's representative, addressed the Commission in support of the application.

As no one further wished to speak, Mr. O'Connor closed the Public Hearing.

Mr. Haldeman made a motion to recommend approval of the application.

On a roll call vote, the Commission voted to recommend approval of SUP-22-0019. 4090 Ironbound Road Detached Accessory Dwelling. (7-0)

G. PLANNING COMMISSION CONSIDERATIONS

There were no items for consideration.

H. PLANNING DIRECTOR'S REPORT

1. Planning Director's Report - November 2022

Mr. Holt stated that he did not have anything to add to the information that was provided in the Agenda materials.

Dr. Rose noted that there are some issues with parking for the Frothy Moon Brewery.

Mr. Holt stated that there was an approved shared parking plan with the adjacent business. Mr. Holt stated that Parks and Recreation is actively monitoring the situation and working with the business owner to reach a better solution. Mr. Holt stated that the grassy area is slated for plantings with trees and shrubs which should take care of that situation. Mr. Holt stated that the business owner has been very responsive to preventing parking in the VDOT right-of-way.

Mr. O'Connor inquired if there was anything to report from the public input gathered regarding Route 199 and Jamestown Road.

Mr. Holt stated that VDOT is currently distilling the information and will provide a report sometime in the next several months.

Mr. Haldeman noted that the traffic projections for Route 199 for the next 20 years indicate that the road will not meet demand. Mr. Haldeman further stated that the land use planning for the City of Williamsburg and the County did not account well enough for infrastructure.

Mr. Rodgers inquired about notifications sent to residents about legislative cases.

Mr. Holt stated that immediately adjoining property owners receive a letter. Mr. Holt further stated that Public Hearing signs are posted at the subject properties. Mr. Holt stated that the hearing is advertised in the *Virginia Gazette*, and the Agenda materials are posted on the Agendas page.

I. PLANNING COMMISSION DISCUSSION AND REQUESTS

Mr. Polster stated that with solar farm approvals, he would like to see maintenance and plantings plan added to the site plan review process. Mr. Polster stated that this might also apply to cases where buffers were required.

Mr. Holt stated that this could be incorporated in the series of Ordinance amendments to align the Zoning and Subdivision Ordinances with the 2045 Comprehensive Plan. Mr. Holt further stated that staff could manage these consistency and conditions recommendations over the short term and then consider them with desired improvements to the Landscape Ordinance.

Mr. Holt stated that the ordinance amendments would then apply to both legislative and by-right applications.

Mr. Polster further stated that he would recommend that monitoring and periodic review be included in the requirements as appropriate.

Mr. Holt stated that expectations for maintenance is difficult to be included in early discussion. Mr. Holt stated that this aspect should be tailored to the individual situation when final plans are presented. Mr. Holt further stated staff does have the ability to provide very basic suggestions and examples that can be developed by the applicant.

Mr. Krapf stated that he concurs with incorporating these requirements in plan review. Mr. Krapf stated that this should be part of the culture that native plants are used.

Mr. O'Connor stated that Mr. Haldeman has Board of Supervisors coverage for November.

Mr. O'Connor stated that he would be out of town in December and that Mr. Polster would chair the December 7, 2022, meeting.

Mr. O'Connor expressed appreciation to the Commissioners for their diligence and consideration of the applications.

J. ADJOURNMENT

Ms. Null made a motion to adjourn.

The meeting was adjourned at approximately 8:24 p.m.

Paul D. Holt, III, Secretary

Tim O'Connor, Chairman

ITEM SUMMARY

DATE: 12/7/2022

TO: The Planning Commission

FROM: John Risinger, Senior Planner

SUBJECT: AFD-22-0015. 999 Jolly Pond Road Cranston's Pond AFD Addition

ATTACHMENTS:

	Description	Type
☐	Staff Report	Staff Report
☐	1. Proposed Conditions	Backup Material
☐	2. Location Map	Backup Material
☐	3. Cranston's Pond AFD 2022 Renewal Ordinance and Staff Report	Backup Material
☐	4. State Code § 15.2-4305 Regarding AFD Application Criteria	Backup Material
☐	5. Forest Management Plan	Backup Material

REVIEWERS:

Department	Reviewer	Action	Date
Planning Commission	Holt, Paul	Approved	11/22/2022 - 5:33 PM
Planning Commission	Holt, Paul	Approved	11/22/2022 - 5:34 PM
Publication Management	Daniel, Martha	Approved	11/23/2022 - 6:56 AM
Planning Commission	Holt, Paul	Approved	11/23/2022 - 8:58 AM

**AGRICULTURAL AND FORESTAL DISTRICT-22-0015. 999 Jolly Pond Road Cranston's Pond AFD Addition
Staff Report for the December 7, 2022, Planning Commission Meeting**

SUMMARY FACTS

Applicant: Mr. Hunter Taylor

Landowner(s): Mr. Hunter Y. Taylor, Trustee and Ms. Kelly R., Trustee

Proposal: Addition of a $\pm$ 169.15-acre parcel to the Cranston's Pond Agricultural and Forestal District (AFD)

Location: 999 Jolly Pond Road

Tax Map/Parcel No.: 3010100001A

Project Acreage: $\pm$ 169.15 acres

Zoning: A-1, General Agricultural

Comprehensive Plan: Rural Lands

Primary Service Area: Outside

Staff Contact: John Risinger, Senior Planner

PUBLIC HEARING DATES

AFD Advisory Committee: October 20, 2022, 4:00 p.m.

Planning Commission: December 7, 2022, 6:00 p.m.

Board of Supervisors: January 10, 2023, 5:00 p.m. (Tentative)

FACTORS FAVORABLE

1. Staff finds that this addition to the Cranston's Pond AFD would not adversely affect surrounding development and is consistent with the core of the District.
2. Staff finds the proposal consistent with the 2045 Comprehensive Plan Land Use Action 6.1.1.
3. Impacts: This proposal is not anticipated to generate any impacts that require mitigation.

FACTORS UNFAVORABLE

As this proposal is not anticipated to generate any impacts that require mitigation, staff finds no unfavorable factors.

SUMMARY STAFF RECOMMENDATION

Staff recommends that the Planning Commission recommend approval of the proposed addition to the Board of Supervisors (BOS), subject to the proposed conditions, consistent with other properties in the District.

AFD ADVISORY COMMITTEE RECOMMENDATION

At its October 20, 2022, meeting, the AFD Advisory Committee voted 7-0 to recommend approval of the application to the Planning Commission and BOS.

PROJECT DESCRIPTION

- Mr. Hunter Taylor has applied to enroll $\pm$ 169.15 acres of land located at 999 Jolly Pond Road into the Cranston's Pond AFD. A single-family dwelling was constructed on the property in 2022; however, the property remains largely undeveloped. A 30-acre

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.

**AGRICULTURAL AND FORESTAL DISTRICT-22-0015. 999 Jolly Pond Road Cranston's Pond AFD Addition
Staff Report for the December 7, 2022, Planning Commission Meeting**

portion of the property was timbered in the spring and summer of 2022.

- The subject parcel is located within one mile from the core parcels in the Cranston's Pond AFD which is consistent with the criteria listed in the *Code of Virginia* (see Attachment No. 3).
- A forest management plan has been prepared by a forestry consulting firm to guide future timbering activities on the property (see Attachment No. 4).
- Per the United States Department of Agriculture's *Soil Survey of James City and York Counties and the City of Williamsburg Virginia*, the parcel consists of the following soils:

Soil Type	Erosion Hazard	Equipment Limitation	Seedling Mortality	Windthrow Hazard
8B, Caroline fine sandy loam, 2-6% slopes	Slight	Slight	Slight	Slight
10B, Craven fine sandy loam, 2-6% slopes	Slight	Moderate	Slight	Slight
11B, Craven-Uchee complex, 2-6% slopes	Slight	Moderate	Slight/Moderate	Slight
11C, Craven-Uchee complex, 6-10% slopes	Slight	Moderate	Slight/Moderate	Slight
14B, Emporia fine sandy loam, 2-6% slopes	Slight	Slight	Slight	Slight

Soil Type	Erosion Hazard	Equipment Limitation	Seedling Mortality	Windthrow Hazard
14C, Emporia fine sandy loam, 6-10% slopes	Slight	Slight	Slight	Slight
15E, Emporia complex, 15-25% slopes	Slight	Moderate	Slight	Slight
15F, Emporia complex, 25-50% slopes	Moderate	Severe	Slight	Slight
17, Johnston complex	Slight	Severe	Severe	Moderate
34B, Uchee loamy fine sand, 2-6% slopes	Slight	Moderate	Moderate	Slight

DISTRICT HISTORY

- The Cranston's Pond AFD was created in 1986 for a term of four years and originally consisted of 12 parcels totaling $\pm$ 1,172 acres.
- The District was renewed in four-year intervals in 1990, 1994, 1998, 2002, 2006, 2010, 2014, 2018, and 2022 with various additions and withdrawals taking place during those periods.
- The District currently consists of $\pm$ 774.31 acres. Should this addition be approved, the District would consist of $\pm$ 943.46 acres.

SURROUNDING ZONING AND DEVELOPMENT

Adjacent properties to the north, west, and south are zoned A-1, General Agricultural, and designated Rural Lands on the 2045 Comprehensive Plan Land Use Map. There are no residential parcels directly adjacent. Parcels to the east are zoned PL, Public Lands, and

**AGRICULTURAL AND FORESTAL DISTRICT-22-0015. 999 Jolly Pond Road Cranston's Pond AFD Addition
Staff Report for the December 7, 2022, Planning Commission Meeting**

designated Federal, State, or County Land on the 2045 Comprehensive Plan Land Use Map.

COMPREHENSIVE PLAN

The subject parcel is designated Rural Lands on the 2045 Comprehensive Plan Land Use Map. Appropriate uses in Rural Lands include traditional agricultural and forestal activities. Land Use Action 6.1.1 of the 2045 Comprehensive Plan states that the County shall “support both the use value assessment and AFD programs to the maximum degree allowed by the *Code of Virginia*. Explore extending the terms of the County’s Districts.” Staff finds this application to be consistent with both the Rural Lands designation and Land Use Action 6.1.1.

PUBLIC IMPACTS

This proposal is not anticipated to generate any impacts that require mitigation.

STAFF RECOMMENDATION

Staff finds that the proposed addition meets all state and local requirements for inclusion in the Cranston’s Pond AFD. Staff recommends that the Planning Commission recommend approval of the proposed addition to the BOS, subject to the proposed conditions, consistent with other properties in the District.

JR/md
AFD22-15_999JPd-CPd

Attachments:

1. Proposed Conditions
2. Location Map

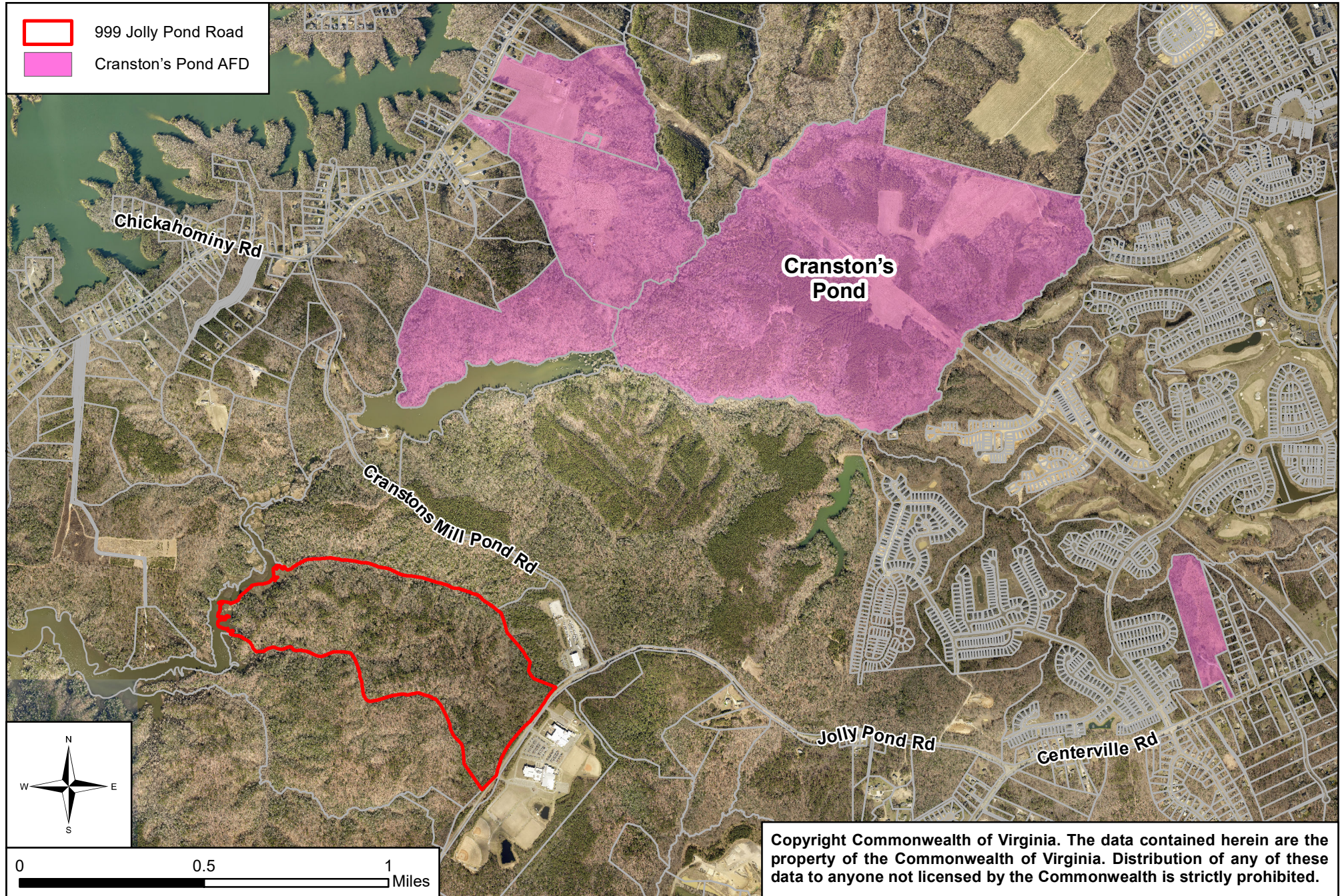
3. Cranston’s Pond AFD 2022 Renewal Ordinance and Staff Report
4. State Code § 15.2-4305 Regarding AFD Application Criteria
5. Forest Management Plan

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.

Proposed Conditions:

1. The subdivision of land is limited to 25 acres or more, except where the Board of Supervisors authorizes smaller lots to be created for residential use by members of the owner's immediate family, as defined in the James City County Subdivision Ordinance. Parcels of up to five acres, including necessary access roads, may be subdivided for the siting of Wireless Communications Facilities (WCFs), provided: a) The subdivision does not result in the total acreage of the District to drop below 200 acres; and b) the subdivision does not result in a remnant parcel of less than 25 acres.
2. Land within the District may be withdrawn from the District in accordance with the Board of Supervisor's Policy Governing the Withdrawal of Properties from Agricultural and Forestal Districts, adopted September 28, 2010.
3. No Special Use Permit (SUP) shall be issued except for agricultural, forestal, or other activities and uses consistent with the Act, which are not in conflict with the policies of this District. The Board of Supervisors, at its discretion, may issue SUPs for WCFs on properties in the District that are in accordance with the County's policies and Ordinances regulating such facilities.

JCC AFD-22-0015, 999 Jolly Pond Road Cranston's Pond AFD Addition



ADOPTED

SEP 13 2022

ORDINANCE NO. 168A-14

Board of Supervisors
James City County, VA

AGRICULTURAL AND FORESTAL DISTRICT-22-0006

CRANSTON'S POND 2022 RENEWAL

WHEREAS, James City County has completed a review of the Cranston's Pond Agricultural and Forestal District (the "District"); and

WHEREAS, in accordance with Section 15.2-4311 of the Code of Virginia, 1950, as amended (the "Virginia Code"), property owners have been notified, public notices have been filed, public hearings have been advertised, and public hearings have been held on the continuation of the District; and

WHEREAS, the Agricultural and Forestal District (AFD) Advisory Committee at its meeting on July 21, 2022, voted 6-0 to recommend renewal of the District; and

WHEREAS, the Planning Commission following its public hearing on August 3, 2022, concurred with the recommendation of staff and the AFD Advisory Committee and voted 7-0 to recommend renewal of the District with the conditions listed below.

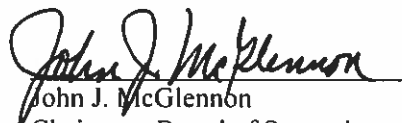
NOW, THEREFORE, BE IT ORDAINED by the Board of Supervisors of James City County, Virginia, that:

1. The Cranston's Pond Agricultural and Forestal District (the "District") is hereby continued to October 31, 2026, in accordance with the provisions of the Virginia Agricultural and Forestal District Act, Virginia Code Section 15.2-4300 et. seq. (the "Act").
2. That the District shall include the following parcels, provided, however, that all land within 25 feet of road rights-of-way is excluded from the District:

<u>Owner</u>	<u>Parcel No.</u>	<u>Acres</u>
Hidden Acres Farm, Inc.	2330100001	416.50
Bertrand E. Geddy Jr. Trustee	2230100026	167.50
Edward K. English Estate	2240100001A	101.67
Peyton J. Harcum	2220100087	62.56
Otto C. & Thelma Ripley	3120100003B	21.01
Susanna Y. English	2210100056	5.07
	Total:	<u>774.31</u>

3. That pursuant to Sections 15.2-4309 of the Act, the Board of Supervisors requires that any parcel in the District shall not, without the prior approval of the Board of Supervisors, be developed to any more intensive use, other than uses resulting in more intensive agricultural or forestal production. Specifically, the following restrictions shall apply:

- a. The subdivision of land is limited to 25 acres or more, except where the Board of Supervisors authorizes smaller lots to be created for residential use by members of the owner's immediate family, as defined in the James City County Subdivision Ordinance. Parcels of up to five acres, including necessary access roads, may be subdivided for the siting of Wireless Communications Facilities (WCFs), provided: a) the subdivision does not result in the total acreage of the District to drop below 200 acres; and b) the subdivision does not result in a remnant parcel of less than 25 acres.
- b. Land within the District may be withdrawn from the District in accordance with the Board of Supervisors' Policy Governing the Withdrawal of Properties from Agricultural and Forestal Districts, adopted September 28, 2010.
- c. No Special Use Permit (SUP) shall be issued except for agricultural, forestal, or other activities and uses consistent with the Act, which are not in conflict with the policies of this District. The Board of Supervisors, at its discretion, may issue SUPs for WCFs on properties in the District that are in accordance with the County's policies and Ordinances regulating such facilities.


John J. McGlennon
Chairman, Board of Supervisors

ATTEST:


Teresa J. Saeed
Deputy Clerk to the Board

	VOTES			
	<u>AYE</u>	<u>NAY</u>	<u>ABSTAIN</u>	<u>ABSENT</u>
ICENHOUR	☒	☐	☐	☐
HIPPLE	☒	☐	☐	☐
LARSON	☒	☐	☐	☐
SADLER	☒	☐	☐	☐
MCGLENNON	☒	☐	☐	☐

Adopted by the Board of Supervisors of James City County, Virginia, this 13th day of September, 2022.

AFD22-6CrnstnPdRen-res

AGRICULTURAL AND FORESTAL DISTRICT-22-0006. Cranston's Pond Renewal

Staff Report for the September 13, 2022, Board of Supervisors Meeting

SUMMARY FACTS

<u>LAND OWNERS</u>	<u>PARCEL ID</u>	<u>ACRES</u>
Susanna Y. English	2210100056	5.07
J. Payten Harcum	2220100087	62.56
Bertrand E. Geddy, Jr., Trustee	2230100026	167.50
Hidden Acres Farm, Inc.	2330100001	416.50
Susanna L. English	2240100001A	101.67
Sandra J. Ripley and Shirley J. Sulenski-Hughes	3120100003B	21.01
TOTAL ACRES		774.31

Zoning:	A-1, General Agricultural R-8, Rural Residential
Comprehensive Plan:	Rural Lands Low-Density Residential
Primary Service Area (PSA):	Inside and Outside
Staff Contact:	Terry Costello, Senior Planner

PUBLIC HEARING DATES

Agricultural and Forestal District (AFD) Advisory Committee:	July 21, 2022, 4:00 p.m.
Planning Commission:	Aug. 3, 2022, 6:00 p.m.
Board of Supervisors:	Sept. 13, 2022, 5:00 p.m.

STAFF RECOMMENDATION

Approval, subject to the proposed conditions.

AGRICULTURAL AND FORESTAL DISTRICT ADVISORY COMMITTEE RECOMMENDATION:

At its July 21, 2022, meeting, the Agricultural and Forestal District (AFD) Advisory Committee voted 6-0 to recommend the continuation of the District to the Planning Commission and Board of Supervisors.

PLANNING COMMISSION RECOMMENDATION

At its August 3, 2022, meeting, the Planning Commission voted 7-0 for the continuation of the District to the Board of Supervisors including the following recommendations:

- For staff to review the end-to-end survey process prior to the next renewal cycle;
- For staff to consider other avenues inclusive of AFD tax credits, including but not limited to carbon sequestration, to reimburse AFD landowners;
- For staff to forward the Commissioner of the Revenue's "Tax Benefits Associated With Inclusion in an AFD for FY 2022" to the Board of Supervisors.

DISTRICT HISTORY

- The Cranston's Pond AFD was created in 1986 for a term of four years and originally consisted of 12 parcels totaling ± 1,172 acres.
- The District was renewed at four-year intervals again in 1990, 1994, 1998, 2002, 2006, 2010, 2014, and 2018. Various additions and withdrawals occurred throughout these years.

AGRICULTURAL AND FORESTAL DISTRICT-22-0006. Cranston's Pond Renewal

Staff Report for the September 13, 2022, Board of Supervisors Meeting

DISTRICT DESCRIPTION

The District consists primarily of forested land. Records indicate that approximately 75% of the District is used for forestry with some agricultural use and the remainder is in marsh land. Most of the District is located outside of the PSA and is designated Rural Lands by the Comprehensive Plan. The Ripley parcel is located inside the PSA and is designated Low Density Residential.

Total acreage includes all the land in the above properties with the exception of all land within 25 feet of rights-of-way. This area has been excluded to allow for possible road and/or drainage improvements.

ADDITION/WITHDRAWAL REQUESTS

None.

CONDITIONS

If continued, the Districts are proposed to be re-established for another four-year term, with edits to Condition No. 3 that reflects updates from the Virginia State Code and clarifying language (See Attachment No. 1).

SURROUNDING ZONING AND DEVELOPMENT

The majority of the District is located southeast of Chickahominy Road and Little Creek Dam Road. The area surrounding the main body of the District is largely wooded, and zoned A-1, General Agricultural and R-8, Rural Residential, with Cranston's Mill Pond forming the southeast border. The Ripley parcel is surrounded by the Colonial Heritage and James Shire Settlement subdivisions, which are zoned MU, Mixed-Use and A-1, General Agricultural, respectively.

COMPREHENSIVE PLAN

The Comprehensive Plan designates these parcels as Rural Lands and Low Density Residential. Land Use Action 6.1.1 of the adopted Comprehensive Plan states the County shall "support both the use value assessment and Agricultural and Forestal (AFD) programs to the maximum degree allowed by the *Code of Virginia*."

STAFF RECOMMENDATION

Staff finds the Cranston's Pond AFD compatible with surrounding development and consistent with the recommendations of the adopted Comprehensive Plan and Zoning Ordinance. Staff recommends that the Board of Supervisors approve the renewal of this AFD for a period of four years, subject to the conditions listed in the District Ordinance (See Attachment No. 1).

TC/md
AFD22-6CrnstnPdRen

Attachments:

1. Ordinance
2. Location Map

§ 15.2-4305. Application for creation of district in one or more localities; size and location of parcels

On or before November 1 of each year or any other annual date selected by the locality, any owner or owners of land may submit an application to the locality for the creation of a district or addition of land to an existing district within the locality. Each district shall have a core of no less than 200 acres in one parcel or in contiguous parcels. A parcel not part of the core may be included in a district (i) if the nearest boundary of the parcel is within one mile of the boundary of the core, (ii) if it is contiguous to a parcel in the district the nearest boundary of which is within one mile of the boundary of the core, or (iii) if the local governing body finds, in consultation with the advisory committee or planning commission, that the parcel not part of the core or within one mile of the boundary of the core contains agriculturally and forestally significant land. No land shall be included in any district without the signature on the application, or the written approval of all owners thereof. A district may be located in more than one locality, provided that (i) separate application is made to each locality involved, (ii) each local governing body approves the district, and (iii) the district meets the size requirements of this section. In the event that one of the local governing bodies disapproves the creation of a district within its boundaries, the creation of the district within the adjacent localities' boundaries shall not be affected, provided that the district otherwise meets the requirements set out in this chapter. In no event shall the act of creating a single district located in two localities pursuant to this subsection be construed to create two districts.

1977, c. 681, § 15.1-1511; 1979, c. 377; 1981, c. 546; 1984, c. 20; 1985, c. 13; 1987, c. 552; 1993, cc. 745, 761; 1997, c. 587; 1998, c. 833; 2011, cc. 344, 355.

The chapters of the acts of assembly referenced in the historical citation at the end of this section(s) may not constitute a comprehensive list of such chapters and may exclude chapters whose provisions have expired.



TIMBER MARKETING & MANAGEMENT INC.

Professional Forestry Consultants

P.O. Box 396

Chesterfield, VA 23832

Ph (804) 796-9622

Fax (804) 796-9693

www.tmmva.com

October 11, 2022

Mr. & Mrs. Hunter Taylor
999 Jolly Pond Road
Williamsburg VA 23185

Tax Parcel ID No 301010000 1A
999 Jolly Pond Road

Dear Mr. & Mrs. Taylor:

At your request I have prepared a Forest Management Plan for your property that fronts on Jolly Pond Road in James City County, Virginia and which contains 169.15 +/- acres by survey of which we have attached a copy to this report.

If you have any questions, please feel free to give me a call.

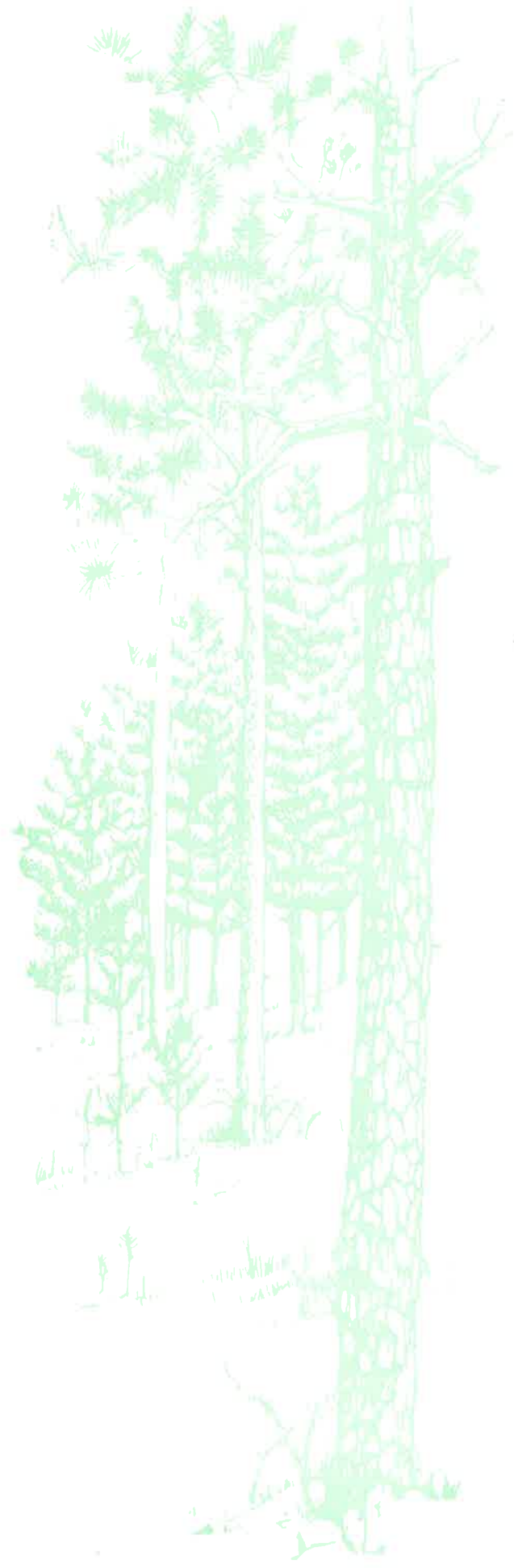
Sincerely,

Timber Marketing & Management, Inc.

Stephen P. Lindberg, President

804-796-9622 (office)

804-512-3578 (mobile)



TIMBER MARKETING & MANAGEMENT INC.



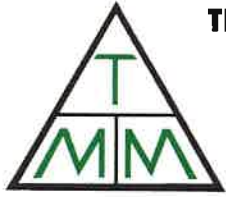
Professional Forestry Consultants

**FOREST MANAGEMENT PLAN
TAYLOR PROPERTY
JAMES CITY COUNTY VA**

169.15 +/- ACRES

October 11, 2022

*Submitted by:
Stephen P. Lindberg, President
Timber Marketing & Management, Inc.
Professional Forestry Consultants
Chesterfield, Virginia*



TIMBER MARKETING & MANAGEMENT INC.

Professional Forestry Consultants

P.O. Box 396

Chesterfield, VA 23832

Ph (804) 796-9622

Fax (804) 796-9693

www.tmmva.com

FOREST MANAGEMENT REPORT

**HUNTER & KELLY TAYLOR
JAMES CITY COUNTY, VIRGINIA
999 Jolly Pond Road
Williamsburg VA 23185**

169.15 +/- acres

**Tax Parcel No 301010000 1A
Owned by Hunter & Kelly Taylor**

James City County's Agricultural & Forestal District Program

October 11, 2022

**Acreage Breakdown
169.15 +/- acres**

Open House Site	2.00 +/- acres
Swamp / Creek	9.80 +/- acres
Cutover Land	30.00 +/- acres
Timberland	127.35 +/- acres

TIMBER DESCRIPTION

Block A

Timber Type: Recently clearcut spring and summer of 2022
Acres: 30 +/- acres
Species: Prior to the clear cut harvest the species were: Loblolly Pine, Virginia Pine, Mixed Upland Hardwood Species
Size & Use Group: 8" to 22" D.B.H. Predominantly sawtimber with scattered pulpwood in the understory.
Topography: Relatively flat to gently sloping
Access: Adequate along and from Jolly Pond Road
Recent Harvest: This block was recently clear cut harvested with the exception of scattered hardwood trees which were retained to provide hard mast for wildlife.
Future Management: In talking with the owners their intentions are to keep 20 +/- acres open and the remaining 10 +/- acres will be allowed to regenerate naturally. This natural edge or thicket of regeneration will be greatly beneficial for wildlife as it will provide both succulent browse, bedding and brooding areas as well as escape cover.

Block B

Timber Type: Intermediate Aged to Mature Loblolly Pine
Acres: 13 +/- acres consisting of 2 areas as shown on the attached map.
Species: Loblolly Pine and scattered Upland Hardwood Species.
Size & Use Group: 8" to 22" D.B.H. Predominantly sawtimber with scattered pulpwood in the understory.
Stocking Level: Moderately well stocked with 50 to 70 sawtimber size trees per acre and additional pulpwood size trees as well.
Topography: Relatively flat to gently sloping
Access: Adequate along Jolly Pond Road and interior woods roads connecting to Jolly Pond Road.
Recent Harvest: No harvesting in the last 45 +/- years.
Future Management: This timber could be harvested at any time or allowed to grow until the trees are approximately 60 years old if you wish to maintain a mature pine component on your property.

Block C

Timber Type: Mature Upland Hardwoods and scattered Loblolly and Virginia Pine
Acres: 114.35 +/- acres
Species: Red Oak, White Oak, Tulip Poplar, American Beech, Loblolly Pine, Virginia Pine and near the drains and creeks Green Ash, Sweet Gum, Red Maple and Bald Cypress.
Size & Use Group: Sawtimber 12" to 34" D.B.H. and Pulpwood 7" to 12" D.B.H.
Stocking Level: Well stocked ranging from 30 to 45 sawtimber size trees per acre with a significant amount of pulpwood trees in the understory. Approximate total number of trees per acre are 100 +/- .
Age: 70 to 115 +/- years.
Topography: Significantly sloping with slopes up to 45%. Average slope between 8% to 18%.
Access: Adequate along Jolly Pond Road and interior woods roads connecting to Jolly Pond Road.
Recent Harvest: Apparently some trees were removed approximately 40 to 45 years ago. A good quality harvesting job took place leaving a moderately well stocked stand of quality trees that have developed into a good quality stand of sawtimber.
Future Management: Due to the location of the property being near major creeks that drain into the Chickahominy River and eventually to the James River, the significant sloping topography and the fact that the property is in the area encompassed as being in the Chesapeake Bay Preservation Watershed. It is strongly recommended that only a selective harvest take place within this block. This harvest could be done any time within the next 20 to 25 years as the trees that presently make up the stand will continue to slow in their growth rate and overcrowding will escalate over time. A selective harvest will help to alleviate crowding and help maintain a healthy overstory as well as openings to allow for natural regeneration of various hardwood species.

Swamp & Creek Blocks

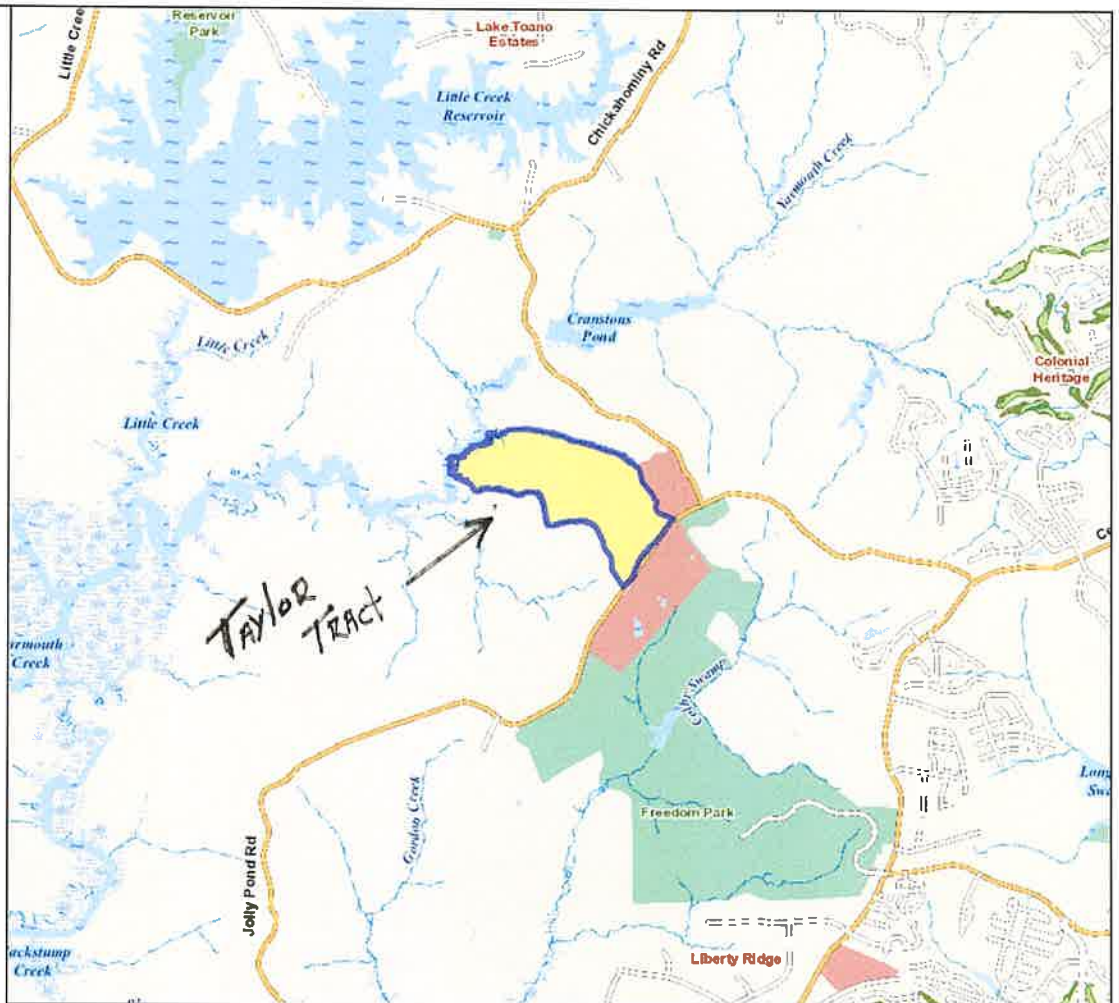
Acres: 9.8 +/- acres
Description: The areas that make up this type lie along the Northern and Western boundaries of the property. Generally these areas support either no timber and are true swamp with open water or support wetland species where the trees are true wetland species and mostly non-merchantable. Any harvesting on the property should not include any of the timber within these wetlands.

APPENDIX

- 1) Aerial and topographic maps prepared by Timber Marketing & Management, Inc.
- 2) Timber Cruise Report and Various Maps prepared by Broadleaf Forestry for previous owners (Goffigan)



Legend

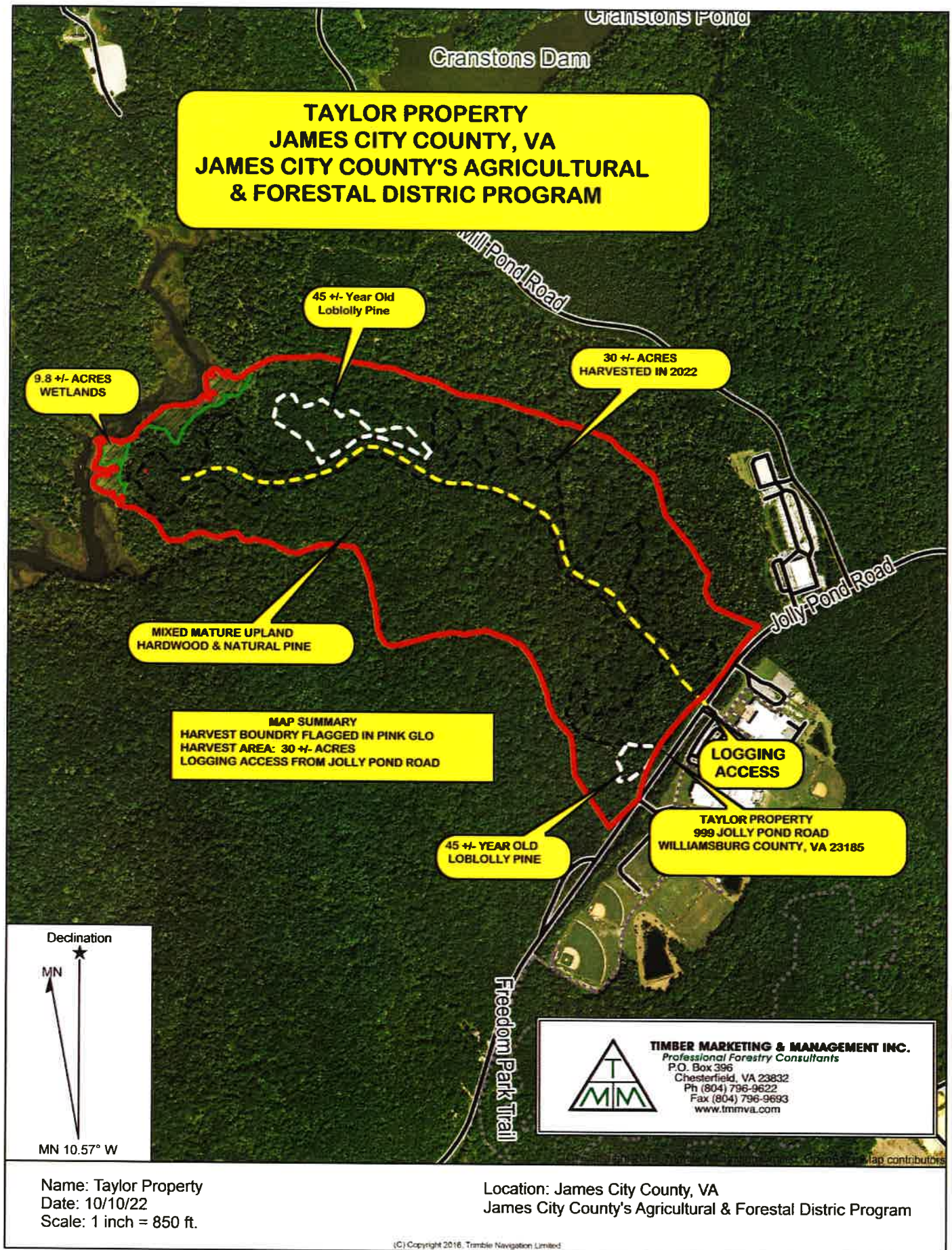


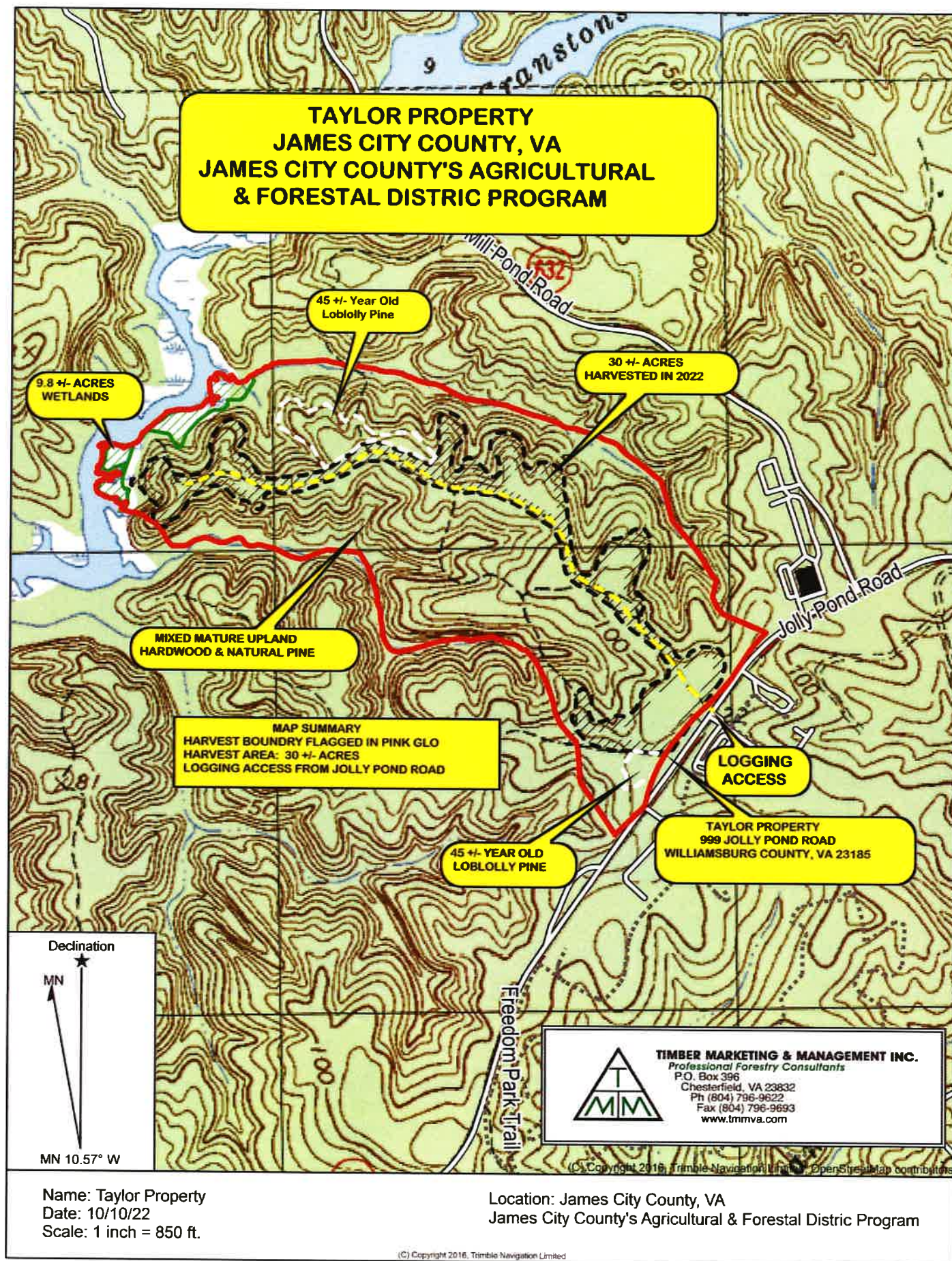
Feet
0 800 1600 2400 3200
1:36,112 / 1"=3,009 Feet

Title: Parcels

Date: 10/6/2022

DISCLAIMER: This drawing is neither a legally recorded map nor a survey and is not intended to be used as such. The information displayed is a compilation of records, information, and data obtained from various sources, and James City County is not responsible for its accuracy or how current it may be.





Timber Cruise Executive Summary

Tract: Goffigan
Stand: 1
Cruised Acres: 148.8
Owner: Goffigan's Group, LLC
Location: James City County, VA
Cruise Method: Fixed Radius Plot
Cruise Grid: 2 chain x 7 chain
Plot Size: 0.10
Plots: 110
Cruiser: Broadleaf KRH
Average total statistical standard error: 8.6%
Date: August 15, 2019

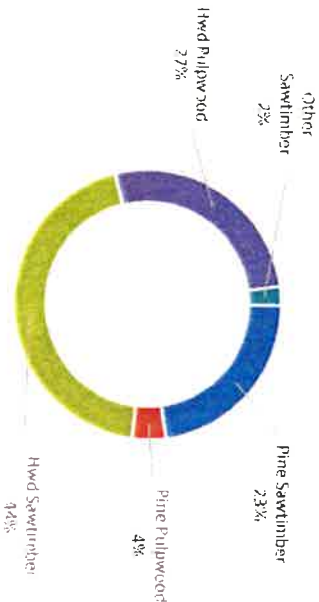
BROADLEAF
FORESTRY COMPANY LLC

4198 Cox Rd, Ste 200 Glen Allen, VA 23060 (757) 754-7720

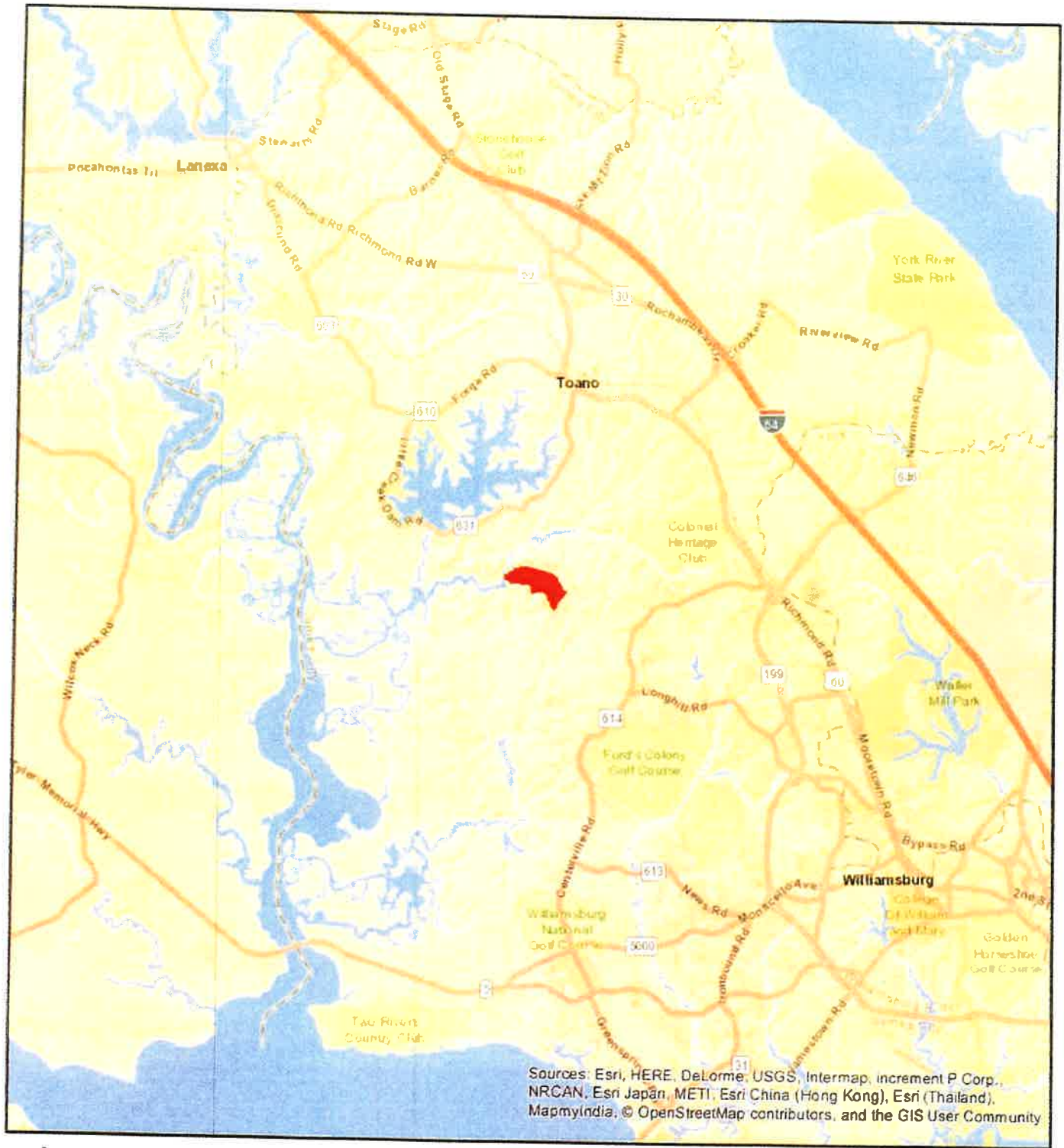
Brian C Reinhardt
Brian C Reinhardt, RF

Product Species	Total			Per Acre			Avg. Tree			Stumpage	
	Trees	Tons	MBF	BA	Trees	Tons	BF	Tons/Tree	BF/Tree	Avg DBH	Price Amount
Pulpwood - Pine	1,068.7	424.8	-	3.3	7.2	2.9	-	0.4	-	9.2	\$ 9.50 \$ 4,036
Pine Sawtimber - Loblolly	2,272.6	2,269.3	437.478	20.3	15.3	15.3	2,940	1.0	193	15.6	\$ 21.00 \$ 47,656
Pine Sawtimber - Virginia	162.3	104.0	20.395	1.4	1.1	0.7	137	0.7	124	15.2	\$ 9.50 \$ 988
Pulpwood - Hardwood	6,357.8	2,813.5	-	23.9	42.7	18.9	-	0.4	-	10.1	\$ 3.00 \$ 8,441
Hwd Sawtimber - Misc.	67.6	56.5	10.552	0.6	0.5	0.4	71	0.8	156	15.4	\$ 175.00 \$ 1,847
Hwd Sawtimber - White Oak	1,068.7	1,506.1	283.755	16.8	7.2	10.1	1,907	1.4	266	20.7	\$ 300.00 \$ 85,127
Hwd Sawtimber - Red Oak	608.7	1,006.0	189.854	10.2	4.1	6.8	1,276	1.7	312	21.4	\$ 225.00 \$ 42,717
Hwd Sawtimber - Yellow Poplar	1,352.7	1,448.0	326.585	15.9	9.1	9.7	2,195	1.1	241	17.9	\$ 210.00 \$ 68,579
Hwd Sawtimber - Maple	13.5	5.9	1.143	0.1	0.1	0.0	8	0.4	85	14.0	\$ 175.00 \$ 200
Hwd Sawtimber - Ash	27.1	23.1	5.289	0.4	0.2	0.2	36	0.9	195	19.0	\$ 175.00 \$ 926
Hwd Sawtimber - Gum	121.7	142.9	26.587	1.4	0.8	1.0	179	1.2	218	17.9	\$ 175.00 \$ 4,653
Hwd Sawtimber - Beech	270.5	311.7	66.256	4.6	1.8	2.1	445	1.2	245	21.6	\$ 175.00 \$ 11,595
Hwd Sawtimber - Hickory	135.3	148.2	27.149	1.7	0.9	1.0	182	1.1	201	18.6	\$ 175.00 \$ 4,751
Other Sawtimber - Cypress	175.9	243.3	51.425	2.1	1.2	1.6	346	1.4	292	18.0	\$ 21.61 \$ 5,258
Grand Total	13,703.1	10,503.3	1,446.449	102.6	92.1	70.6	9,721				\$ 286,771
Per-Acre Totals	92.1	70.6	9.721								\$ 1,927

Tons by Species-Product



Data contained in this report is not guaranteed or warranted. In no event shall Broadleaf Forestry Company, LLC, its members, employees, representatives, agents nor shall the owner be liable for damages or other pecuniary loss that may arise from the use of this data.



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Legend

■ Goffigan Tract

Location Map

Tract: Goffigan
Owner: Goffigan's Group LLC

James City County, VA

August 15, 2019

0 1 2 Miles

Summary by Class, Group, Product and Dbh

Sampling Method:	Plot
BAF / Plot Size:	0.1
# Plots/points:	110
Stand Acres:	148.8
Cruiser:	Broadleaf KRH
Template:	GENERIC

Tract Name:	Goffigan
Stand ID:	1
Location:	James City County, VA
Date Cruised:	8/15/2019
Sawlog Vol Units:	Int-4

So Yellow Pine → Pine

	Stand Total					Per Acre					Avg. Tree		Avg. Heights		
	DBH	Trees	PW Tons	Saw Tons	MBF	BA	Trees	PW Tons	Saw Tons	BF	Tons/Tree	BF/Tree	Hs	Hp	Hm
Pulpwood	6	108.2	14.0			0.14	0.7	0.09			0.129			31.5	31.5
	8	514.0	141.2			1.21	3.5	0.95			0.275			41.3	41.3
	10	338.2	162.1			1.24	2.3	1.09			0.479			47.9	47.9
	12	40.6	30.5			0.21	0.3	0.21			0.752			53.8	53.8
	14	54.1	57.9			0.39	0.4	0.39			1.070			56.5	56.5
	16	13.5	19.1			0.13	0.1	0.13			1.412			56.5	56.5
Pulpwood Total		1,068.7	424.8			3.32	7.2	2.85			0.397			43.8	43.8

	Stand Total					Per Acre					Avg. Tree		Avg. Heights		
	DBH	Trees	PW Tons	Saw Tons	MBF	BA	Trees	PW Tons	Saw Tons	BF	Tons/Tree	BF/Tree	Hs	Hp	Hm
Sawtimber	10	446.4	0.0	130.8	20.1	1.64	3.0	0.00	0.88	134.85	0.293	44.949	24.0	24.0	24.0
	12	270.5	0.0	124.9	21.2	1.43	1.8	0.00	0.84	142.48	0.462	78.362	26.9	26.9	26.9
	14	527.6	0.0	387.1	69.9	3.79	3.5	0.00	2.60	469.52	0.734	132.429	33.1	33.1	33.1
	16	351.7	0.0	393.5	74.4	3.30	2.4	0.00	2.64	499.73	1.119	211.424	40.5	40.5	40.5
	18	365.2	0.0	517.4	101.8	4.34	2.5	0.00	3.48	684.46	1.417	278.853	40.5	40.5	40.5
	20	148.8	0.0	286.3	58.0	2.18	1.0	0.00	1.92	390.12	1.924	390.120	45.6	45.6	45.6
	22	81.2	0.0	169.0	35.3	1.44	0.5	0.00	1.14	237.00	2.082	434.503	39.2	39.2	39.2
	24	27.1	0.0	74.0	15.7	0.57	0.2	0.00	0.50	105.83	2.737	582.038	44.5	44.5	44.5
	26	27.1	0.0	68.2	14.8	0.67	0.2	0.00	0.46	99.34	2.522	546.369	32.5	32.5	32.5
	28	13.5	0.0	47.1	10.4	0.39	0.1	0.00	0.32	69.60	3.483	765.635	40.5	40.5	40.5
	32	13.5	0.0	70.9	15.9	0.51	0.1	0.00	0.48	107.12	5.241	1178.289	48.5	48.5	48.5
Sawtimber Total		2,272.6	0.0	2,269.3	437.5	20.25	15.3	0.00	15.25	2940.04	0.999	192.503	34.2	34.2	34.2

Stand Total					Per Acre					Avg. Tree		Avg. Heights		
DBH	Trees	PW Tons	Saw Tons	MBF	BA	Trees	PW Tons	Saw Tons	BF	Tons/Tree	BF/Tree	Hs	Hp	Hm
Merch Group Total	3,341.2	424.8	2,269.3	437.5	23.57	22.5	2.85	15.25	2940.04	0.806	130.933	34.2	37.3	37.3
All Group Total	3,341.2	424.8	2,269.3	437.5	23.57	22.5	2.85	15.25	2940.04	0.806	130.933	34.2	37.3	37.3

Mixed Pine → Pine

	Stand Total					Per Acre					Avg. Tree		Avg. Heights		
	DBH	Trees	PW Tons	Saw Tons	MBF	BA	Trees	PW Tons	Saw Tons	BF	Tons/Tree	BF/Tree	Hs	Hp	Hm
Chip-N-Saw	12	40.6	0.0	17.7	3.0	0.21	0.3	0.00	0.12	20.26	0.436	74.275	24.5	24.5	24.5
Chip-N-Saw Total		40.6	0.0	17.7	3.0	0.21	0.3	0.00	0.12	20.26	0.436	74.275	24.5	24.5	24.5

	Stand Total					Per Acre					Avg. Tree		Avg. Heights		
	DBH	Trees	PW Tons	Saw Tons	MBF	BA	Trees	PW Tons	Saw Tons	BF	Tons/Tree	BF/Tree	Hs	Hp	Hm
Sawtimber	14	27.1	0.0	13.9	2.6	0.19	0.2	0.00	0.09	17.29	0.515	95.102	20.5	20.5	20.5
	16	54.1	0.0	39.2	7.5	0.51	0.4	0.00	0.26	50.70	0.724	139.422	22.5	22.5	22.5
	22	13.5	0.0	19.8	4.1	0.24	0.1	0.00	0.13	27.87	1.463	306.549	24.5	24.5	24.5
Sawtimber Total		94.7	0.0	72.9	14.3	0.94	0.6	0.00	0.49	95.86	0.770	150.634	22.2	22.2	22.2

Stand Total					Per Acre					Avg. Tree		Avg. Heights		
DBH	Trees	PW Tons	Saw Tons	MBF	BA	Trees	PW Tons	Saw Tons	BF	Tons/Tree	BF/Tree	Hs	Hp	Hm
Merch Group Total	135.3	0.0	90.6	17.3	1.16	0.9	0.00	0.61	116.11	0.669	127.726	22.9	22.9	22.9
All Group Total	135.3	0.0	90.6	17.3	1.16	0.9	0.00	0.61	116.11	0.669	127.726	22.9	22.9	22.9

Pine → Pine

	Stand Total					Per Acre					Avg. Tree		Avg. Heights		
	DBH	Trees	PW Tons	Saw Tons	MBF	BA	Trees	PW Tons	Saw Tons	BF	Tons/Tree	BF/Tree	Ht	Hp	Hm
Merch Class Total		3,476.5	424.8	2,359.9	454.8	24.73	23.4	2.85	15.86	3056.15	0.801	130.808	33.6	36.7	36.7
All Class Total		3,476.5	424.8	2,359.9	454.8	24.73	23.4	2.85	15.86	3056.15	0.801	130.808	33.6	36.7	36.7

Hardwood → Hardwood

	Stand Total					Per Acre					Avg. Tree		Avg. Heights		
	DBH	Trees	PW Tons	Saw Tons	MBF	BA	Trees	PW Tons	Saw Tons	BF	Tons/Tree	BF/Tree	Hs	Hp	Hm
Pulpwood	6	1,501.5	154.7			1.98	10.1	1.04			0.103			22.8	22.8
	8	1,785.6	403.4			4.19	12.0	2.71			0.226			30.7	30.7
	10	1,582.7	655.3			5.80	10.6	4.40			0.414			38.1	38.1
	12	581.7	395.9			3.07	3.9	2.66			0.681			45.9	45.9
	14	459.9	429.4			3.30	3.1	2.89			0.934			45.9	45.9
	16	162.3	201.7			1.52	1.1	1.36			1.243			46.5	46.5
	18	94.7	148.9			1.12	0.6	1.00			1.573			46.2	46.2
	20	148.8	297.1			2.18	1.0	2.00			1.997			47.8	47.8
	22	40.6	99.7			0.72	0.3	0.67			2.457			48.5	48.5
		6,357.8	2,786.1			23.89	42.7	18.72			0.438			34.3	34.3

	Stand Total					Per Acre					Avg. Tree		Avg. Heights		
	DBH	Trees	PW Tons	Saw Tons	MBF	BA	Trees	PW Tons	Saw Tons	BF	Tons/Tree	BF/Tree	Hs	Hp	Hm
Sawtimber	14	54.1	0.0	44.1	8.0	0.39	0.4	0.00	0.30	53.52	0.815	147.166	38.5	38.5	38.5
	20	13.5	0.0	12.4	2.6	0.20	0.1	0.00	0.08	17.40	0.914	191.388	16.5	16.5	16.5

Sawtimber Total		67.6	0.0	56.5	10.6	0.59	0.5	0.00	0.38	70.91	0.835	156.011	34.1	34.1	34.1
	DBH	Trees	PW Tons	Saw Tons	MBF	BA	Trees	PW Tons	Saw Tons	BF	Tons/Tree	BF/Tree	Hs	Hp	Hm
Merch Group Total		6,425.5	2,786.1	56.5	10.6	24.48	43.2	18.72	0.38	70.91	0.442	1.642	34.1	34.3	34.3
All Group Total		6,425.5	2,786.1	56.5	10.6	24.48	43.2	18.72	0.38	70.91	0.442	1.642	34.1	34.3	34.3

White Oak → Hardwood

	Stand Total					Per Acre					Avg. Tree		Avg. Heights		
	DBH	Trees	PW Tons	Saw Tons	MBF	BA	Trees	PW Tons	Saw Tons	BF	Tons/Tree	BF/Tree	Hs	Hp	Hm
Pulpwood	18	13.5	27.4			0.16	0.1	0.18			2.027				
Pulpwood Total		13.5	27.4			0.16	0.1	0.18			2.027			56.5	56.5

	DBH	Trees	PW Tons	Saw Tons	MBF	BA	Trees	PW Tons	Saw Tons	BF	Tons/Tree	BF/Tree	Hs	Hp	Hm
Sawtimber	14	230.0	0.0	120.1	20.2	1.65	1.5	0.00	0.81	135.43	0.522	87.631	17.4	17.4	17.4
	16	81.2	0.0	59.3	10.4	0.76	0.5	0.00	0.40	69.63	0.731	127.660	19.2	19.2	19.2
	18	162.3	0.0	176.2	31.6	1.93	1.1	0.00	1.18	212.67	1.086	194.949	23.8	23.8	23.8
	20	175.9	0.0	243.7	45.0	2.58	1.2	0.00	1.64	302.48	1.386	255.948	25.1	25.1	25.1
	22	202.9	0.0	340.3	64.3	3.60	1.4	0.00	2.29	432.03	1.677	316.820	25.0	25.0	25.0
	24	81.2	0.0	146.5	28.2	1.71	0.5	0.00	0.98	189.72	1.805	347.828	21.8	21.8	21.8
	26	54.1	0.0	125.1	24.4	1.34	0.4	0.00	0.84	164.10	2.311	451.275	24.5	24.5	24.5
	30	27.1	0.0	83.7	16.7	0.89	0.2	0.00	0.56	112.19	3.094	617.048	24.5	24.5	24.5
	32	13.5	0.0	58.8	11.9	0.51	0.1	0.00	0.40	79.86	4.347	878.512	32.5	32.5	32.5
	34	27.1	0.0	107.5	21.8	1.15	0.2	0.00	0.72	146.69	3.974	806.778	24.5	24.5	24.5
	36	13.5	0.0	44.9	9.2	0.64	0.1	0.00	0.30	62.15	3.320	683.617	16.5	16.5	16.5
Sawtimber Total		1,068.7	0.0	1,506.1	283.8	16.76	7.2	0.00	10.12	1906.96	1.409	265.526	22.5	22.5	22.5

	DBH	Trees	PW Tons	Saw Tons	MBF	BA	Trees	PW Tons	Saw Tons	BF	Tons/Tree	BF/Tree	Hs	Hp	Hm
Merch Group Total		1,082.2	27.4	1,506.1	283.8	16.92	7.3	0.18	10.12	1906.96	1.417	262.207	22.5	22.9	22.9
All Group Total		1,082.2	27.4	1,506.1	283.8	16.92	7.3	0.18	10.12	1906.96	1.417	262.207	22.5	22.9	22.9

Red Oak → Hardwood

	Stand Total					Per Acre					Avg. Tree		Avg. Heights		
	DBH	Trees	PW Tons	Saw Tons	MBF	BA	Trees	PW Tons	Saw Tons	BF	Tons/Tree	BF/Tree	Hs	Hp	Hm
Sawtimber	14	54.1	0.0	29.5	4.9	0.39	0.4	0.00	0.20	33.14	0.545	91.134	18.5	18.5	18.5
	16	40.6	0.0	35.7	6.2	0.38	0.3	0.00	0.24	41.49	0.880	152.118	24.5	24.5	24.5
	18	94.7	0.0	111.8	20.0	1.12	0.6	0.00	0.75	134.51	1.182	211.376	26.8	26.8	26.8
	20	148.8	0.0	221.8	40.8	2.18	1.0	0.00	1.49	274.45	1.491	274.447	27.4	27.4	27.4
	22	94.7	0.0	167.0	31.5	1.68	0.6	0.00	1.12	211.87	1.764	332.936	26.8	26.8	26.8
	24	54.1	0.0	119.0	22.9	1.14	0.4	0.00	0.80	153.84	2.200	423.061	28.5	28.5	28.5
	26	94.7	0.0	209.7	41.0	2.35	0.6	0.00	1.41	275.83	2.214	433.444	23.4	23.4	23.4
	28	13.5	0.0	45.0	8.9	0.39	0.1	0.00	0.30	59.79	3.326	657.733	32.5	32.5	32.5
	34	13.5	0.0	66.4	13.5	0.57	0.1	0.00	0.45	90.98	4.909	1000.800	32.5	32.5	32.5
Sawtimber Total		608.7	0.0	1,006.0	189.9	10.21	4.1	0.00	6.76	1275.90	1.653	311.886	25.9	25.9	25.9

	DBH	Trees	PW Tons	Saw Tons	MBF	BA	Trees	PW Tons	Saw Tons	BF	Tons/Tree	BF/Tree	Hs	Hp	Hm
Merch Group Total		608.7	0.0	1,006.0	189.9	10.21	4.1	0.00	6.76	1275.90	1.653	311.886	25.9	25.9	25.9
All Group Total		608.7	0.0	1,006.0	189.9	10.21	4.1	0.00	6.76	1275.90	1.653	311.886	25.9	25.9	25.9

Poplar → Hardwood

	Stand Total					Per Acre					Avg. Tree		Avg. Heights		
	DBH	Trees	PW Tons	Saw Tons	MBF	BA	Trees	PW Tons	Saw Tons	BF	Tons/Tree	BF/Tree	Hs	Hp	Hm
Sawtimber	12	67.6	0.0	20.0	3.9	0.36	0.5	0.00	0.13	26.51	0.295	58.313	16.5	16.5	16.5
	14	311.1	0.0	171.9	35.3	2.24	2.1	0.00	1.15	237.32	0.552	113.503	25.9	25.9	25.9
	16	432.9	0.0	351.2	75.5	4.06	2.9	0.00	2.36	507.26	0.811	174.372	30.3	30.3	30.3
	18	189.4	0.0	234.3	52.0	2.25	1.3	0.00	1.57	349.42	1.237	274.545	38.8	38.8	38.8
	20	162.3	0.0	232.3	53.2	2.38	1.1	0.00	1.56	357.80	1.431	327.979	35.8	35.8	35.8
	22	81.2	0.0	143.8	33.8	1.44	0.5	0.00	0.97	227.16	1.772	416.460	36.5	36.5	36.5
	24	27.1	0.0	52.6	12.6	0.57	0.2	0.00	0.35	84.70	1.943	465.858	32.5	32.5	32.5
	26	27.1	0.0	72.9	17.8	0.67	0.2	0.00	0.49	119.31	2.695	656.201	40.5	40.5	40.5
	28	13.5	0.0	48.7	12.0	0.39	0.1	0.00	0.33	80.79	3.599	888.714	48.5	48.5	48.5
	30	13.5	0.0	41.3	10.3	0.45	0.1	0.00	0.28	69.47	3.056	764.156	32.5	32.5	32.5
	32	13.5	0.0	47.0	11.9	0.51	0.1	0.00	0.32	79.86	3.478	878.512	32.5	32.5	32.5
	34	13.5	0.0	32.0	8.2	0.57	0.1	0.00	0.22	55.05	2.369	605.603	16.5	16.5	16.5
Sawtimber Total		1,352.7	0.0	1,448.0	326.6	15.88	9.1	0.00	9.73	2194.66	1.070	241.413	31.1	31.1	31.1

	DBH	Trees	PW Tons	Saw Tons	MBF	BA	Trees	PW Tons	Saw Tons	BF	Tons/Tree	BF/Tree	Hs	Hp	Hm
Merch Group Total		1,352.7	0.0	1,448.0	326.6	15.88	9.1	0.00	9.73	2194.66	1.070	241.413	31.1	31.1	31.1
All Group Total		1,352.7	0.0	1,448.0	326.6	15.88	9.1	0.00	9.73	2194.66	1.070	241.413	31.1	31.1	31.1

Maple → Hardwood

	Stand Total					Per Acre					Avg. Tree		Avg. Heights		
	DBH	Trees	PW Tons	Saw Tons	MBF	BA	Trees	PW Tons	Saw Tons	BF	Tons/Tree	BF/Tree	Hs	Hp	Hm
Sawtimber	14	13.5	0.0	5.9	1.1	0.10	0.1	0.00	0.04	7.68	0.433	84.517	16.5	16.5	16.5
Sawtimber Total		13.5	0.0	5.9	1.1	0.10	0.1	0.00	0.04	7.68	0.433	84.517	16.5	16.5	16.5

	DBH	Trees	PW Tons	Saw Tons	MBF	BA	Trees	PW Tons	Saw Tons	BF	Tons/Tree	BF/Tree	Hs	Hp	Hm
Merch Group Total		13.5	0.0	5.9	1.1	0.10	0.1	0.00	0.04	7.68	0.433	84.517	16.5	16.5	16.5
All Group Total		13.5	0.0	5.9	1.1	0.10	0.1	0.00	0.04	7.68	0.433	84.517	16.5	16.5	16.5

Ash → Hardwood

	Stand Total					Per Acre					Avg. Tree		Avg. Heights		
	DBH	Trees	PW Tons	Saw Tons	MBF	BA	Trees	PW Tons	Saw Tons	BF	Tons/Tree	BF/Tree	Hs	Hp	Hm
Sawtimber	18	13.5	0.0	12.1	2.7	0.16	0.1	0.00	0.08	18.14	0.891	199.572	24.5	24.5	24.5
	20	13.5	0.0	11.1	2.6	0.20	0.1	0.00	0.07	17.40	0.820	191.388	16.5	16.5	16.5
Sawtimber Total		27.1	0.0	23.1	5.3	0.36	0.2	0.00	0.16	35.54	0.855	195.480	20.5	20.5	20.5
Merch Group Total		27.1	0.0	23.1	5.3	0.36	0.2	0.00	0.16	35.54	0.855	195.480	20.5	20.5	20.5
All Group Total		27.1	0.0	23.1	5.3	0.36	0.2	0.00	0.16	35.54	0.855	195.480	20.5	20.5	20.5

Gum → Hardwood

	Stand Total					Per Acre					Avg. Tree		Avg. Heights		
	DBH	Trees	PW Tons	Saw Tons	MBF	BA	Trees	PW Tons	Saw Tons	BF	Tons/Tree	BF/Tree	Hs	Hp	Hm
Sawtimber	14	13.5	0.0	6.6	1.1	0.10	0.1	0.00	0.04	7.68	0.487	84.517	16.5	16.5	16.5
	16	40.6	0.0	34.3	6.1	0.38	0.3	0.00	0.23	41.21	0.846	151.111	24.5	24.5	24.5
	18	27.1	0.0	32.0	5.9	0.32	0.2	0.00	0.21	39.70	1.182	218.367	28.5	28.5	28.5
	20	27.1	0.0	43.2	8.2	0.40	0.2	0.00	0.29	54.98	1.596	302.408	32.5	32.5	32.5
	22	13.5	0.0	26.9	5.2	0.24	0.1	0.00	0.18	35.10	1.987	386.061	32.5	32.5	32.5
Sawtimber Total		121.7	0.0	142.9	26.6	1.44	0.8	0.00	0.96	178.68	1.174	218.385	27.2	27.2	27.2
Merch Group Total		121.7	0.0	142.9	26.6	1.44	0.8	0.00	0.96	178.68	1.174	218.385	27.2	27.2	27.2
All Group Total		121.7	0.0	142.9	26.6	1.44	0.8	0.00	0.96	178.68	1.174	218.385	27.2	27.2	27.2

Beech → Hardwood

	Stand Total					Per Acre					Avg. Tree		Avg. Heights		
	DBH	Trees	PW Tons	Saw Tons	MBF	BA	Trees	PW Tons	Saw Tons	BF	Tons/Tree	BF/Tree	Hs	Hp	Hm
Sawtimber	16	40.6	0.0	23.7	4.7	0.38	0.3	0.00	0.16	31.48	0.585	115.431	16.5	16.5	16.5
	20	81.2	0.0	86.5	18.0	1.19	0.5	0.00	0.58	120.93	1.066	221.712	20.5	20.5	20.5
	22	67.6	0.0	85.1	18.1	1.20	0.5	0.00	0.57	121.47	1.258	267.237	19.7	19.7	19.7
	24	54.1	0.0	71.2	15.5	1.14	0.4	0.00	0.48	104.07	1.317	286.185	16.5	16.5	16.5
	26	13.5	0.0	20.9	4.6	0.34	0.1	0.00	0.14	30.97	1.545	340.649	16.5	16.5	16.5
	28	13.5	0.0	24.2	5.4	0.39	0.1	0.00	0.16	36.35	1.792	399.822	16.5	16.5	16.5
Sawtimber Total		270.5	0.0	311.7	66.3	4.64	1.8	0.00	2.09	445.27	1.152	244.898	18.5	18.5	18.5
Merch Group Total		270.5	0.0	311.7	66.3	4.64	1.8	0.00	2.09	445.27	1.152	244.898	18.5	18.5	18.5
All Group Total		270.5	0.0	311.7	66.3	4.64	1.8	0.00	2.09	445.27	1.152	244.898	18.5	18.5	18.5

Hickory → Hardwood

	Stand Total					Per Acre					Avg. Tree		Avg. Heights		
	DBH	Trees	PW Tons	Saw Tons	MBF	BA	Trees	PW Tons	Saw Tons	BF	Tons/Tree	BF/Tree	Hs	Hp	Hm
Sawtimber	14	27.1	0.0	13.6	2.3	0.19	0.2	0.00	0.09	15.37	0.502	84.517	16.5	16.5	16.5
	16	27.1	0.0	23.8	4.1	0.25	0.2	0.00	0.16	27.66	0.880	152.118	24.5	24.5	24.5
	18	54.1	0.0	52.6	9.5	0.64	0.4	0.00	0.35	63.75	0.972	175.313	20.5	20.5	20.5
	24	13.5	0.0	26.8	5.1	0.29	0.1	0.00	0.18	34.53	1.980	379.864	24.5	24.5	24.5
	26	13.5	0.0	31.4	6.1	0.34	0.1	0.00	0.21	41.15	2.324	452.604	24.5	24.5	24.5
Sawtimber Total		135.3	0.0	148.2	27.1	1.71	0.9	0.00	1.00	182.45	1.096	200.699	21.3	21.3	21.3
Merch Group Total		135.3	0.0	148.2	27.1	1.71	0.9	0.00	1.00	182.45	1.096	200.699	21.3	21.3	21.3
All Group Total		135.3	0.0	148.2	27.1	1.71	0.9	0.00	1.00	182.45	1.096	200.699	21.3	21.3	21.3

Hardwood → Hardwood

	Stand Total					Per Acre					Avg. Tree		Avg. Heights		
	DBH	Trees	PW Tons	Saw Tons	MBF	BA	Trees	PW Tons	Saw Tons	BF	Tons/Tree	BF/Tree	Hs	Hp	Hm
Merch Class Total		10,037.2	2,813.5	4,648.4	937.2	75.73	67.5	18.91	31.24	6298.06	0.743	93.367	26.2	31.4	31.4
All Class Total		10,037.2	2,813.5	4,648.4	937.2	75.73	67.5	18.91	31.24	6298.06	0.743	93.367	26.2	31.4	31.4

Soft Pine → Softwood

	Stand Total					Per Acre					Avg. Tree		Avg. Heights		
	DBH	Trees	PW Tons	Saw Tons	MBF	BA	Trees	PW Tons	Saw Tons	BF	Tons/Tree	BF/Tree	Hs	Hp	Hm
Sawtimber	14	13.5	0.0	4.9	1.1	0.10	0.1	0.00	0.03	7.44	0.360	81.868	16.5	16.5	16.5
	16	13.5	0.0	8.6	2.0	0.13	0.1	0.00	0.06	13.51	0.636	148.593	24.5	24.5	24.5
Sawtimber Total		27.1	0.0	13.5	3.1	0.22	0.2	0.00	0.09	20.95	0.498	115.231	20.5	20.5	20.5

	DBH	Trees	PW Tons	Saw Tons	MBF	BA	Trees	PW Tons	Saw Tons	BF	Tons/Tree	BF/Tree	Hs	Hp	Hm
Merch Group Total		27.1	0.0	13.5	3.1	0.22	0.2	0.00	0.09	20.95	0.498	115.231	20.5	20.5	20.5
All Group Total		27.1	0.0	13.5	3.1	0.22	0.2	0.00	0.09	20.95	0.498	115.231	20.5	20.5	20.5

Cypress --> Softwood

	Stand Total					Per Acre					Avg. Tree		Avg. Heights		
	DBH	Trees	PW Tons	Saw Tons	MBF	BA	Trees	PW Tons	Saw Tons	BF	Tons/Tree	BF/Tree	Hs	Hp	Hm
Sawtimber	14	27.1	0.0	15.2	3.0	0.19	0.2	0.00	0.10	19.95	0.562	109.703	24.5	24.5	24.5
	16	40.6	0.0	36.5	7.4	0.38	0.2	0.00	0.75	89.77	0.900	182.507	32.5	32.5	32.5
	18	40.6	0.0	62.8	13.1	0.48	0.3	0.00	0.42	87.95	1.547	322.496	48.5	48.5	48.5
	20	54.1	0.0	97.2	21.0	0.79	0.4	0.00	0.65	141.06	1.797	387.914	44.5	44.5	44.5
	22	13.5	0.0	31.5	7.0	0.24	0.1	0.00	0.21	46.87	2.331	515.517	48.5	48.5	48.5
Sawtimber Total		175.9	0.0	243.3	51.4	2.09	1.2	0.00	1.64	345.60	1.384	292.430	39.9	39.9	39.9

	DBH	Trees	PW Tons	Saw Tons	MBF	BA	Trees	PW Tons	Saw Tons	BF	Tons/Tree	BF/Tree	Hs	Hp	Hm
Merch Group Total		175.9	0.0	243.3	51.4	2.09	1.2	0.00	1.64	345.60	1.384	292.430	39.9	39.9	39.9
All Group Total		175.9	0.0	243.3	51.4	2.09	1.2	0.00	1.64	345.60	1.384	292.430	39.9	39.9	39.9

Softwood --> Softwood

	Stand Total					Per Acre					Avg. Tree		Avg. Heights		
	DBH	Trees	PW Tons	Saw Tons	MBF	BA	Trees	PW Tons	Saw Tons	BF	Tons/Tree	BF/Tree	Hs	Hp	Hm
Merch Class Total		202.9	0.0	256.8	54.5	2.31	1.4	0.00	1.73	366.55	1.265	268.803	37.3	37.3	37.3
All Class Total		202.9	0.0	256.8	54.5	2.31	1.4	0.00	1.73	366.55	1.265	268.803	37.3	37.3	37.3

All Species Groups --> All Secondary groups

	Stand Total					Per Acre					Avg. Tree		Avg. Heights		
	DBH	Trees	PW Tons	Saw Tons	MBF	BA	Trees	PW Tons	Saw Tons	BF	Tons/Tree	BF/Tree	Hs	Hp	Hm
Merch Grand Total		13,716.7	3,238.3	7,265.0	1,446.4	102.77	92.2	21.76	48.82	9720.76	0.766	105.452	29.4	32.8	32.8
All Grand Total		13,716.7	3,238.3	7,265.0	1,446.4	102.77	92.2	21.76	48.82	9720.76	0.766	105.452	29.4	32.8	32.8

Log Distribution Summary by Group, Product and DBH

Sampling Method: Plot
BAF / Plot Size: 0.1
Plots/points: 110
Stand Acres: 148.8

Tract Name: Goffigan
Stand ID: 1
Location: James City County, VA
Date Cruised: 8/15/2019

So Yellow Pine

Sawtimber	Tons/MBF		5.19		Cu Ft/MBF		153.10		Cu Ft/Ft		0.87		Avg Hs		33.7		Weight-Volume Units		Int-4	
	Total Tract - Number of Trees													Total Tract Volumes						
	DBH	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	Total	Tons	BF	Cu Ft			
10	0	203	108	95	41	0	0	0	0	0	0	0	446	130.8	20.1	38.6				
12	0	68	68	122	14	0	0	0	0	0	0	0	271	124.9	21.2	36.9				
14	0	54	81	189	176	27	0	0	0	0	0	0	528	387.1	69.9	114.3				
16	0	0	14	68	176	95	0	0	0	0	0	0	352	393.5	74.4	116.1				
18	0	14	14	68	149	108	14	0	0	0	0	0	365	517.4	101.8	152.7				
20	0	0	0	0	54	95	0	0	0	0	0	0	149	286.3	58.0	84.5				
22	0	0	0	27	41	14	0	0	0	0	0	0	81	169.0	35.3	49.9				
24	0	0	0	0	14	14	0	0	0	0	0	0	27	74.0	15.7	21.9				
26	0	0	14	0	14	0	0	0	0	0	0	0	27	68.2	14.8	20.1				
28	0	0	0	0	14	0	0	0	0	0	0	0	14	47.1	10.4	13.9				
30	0	0	0	0	0	14	0	0	0	0	0	0	14	70.9	15.9	20.9				
Avg./ Totals	0	338	298	568	690	365	14	0	0	0	0	0	2,273	2,269.3	437.5	669.8				

All Products	Tons/MBF		5.19		Cu Ft/MBF		153.10		Cu Ft/Ft		0.87		Avg Hs		33.7		Weight-Volume Units		Int-4	
	Total Tract - Number of Trees													Total Tract Volumes						
	DBH	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	Total	Tons	BF	Cu Ft			
10	0	203	108	95	41	0	0	0	0	0	0	0	446	130.8	20.1	38.6				
12	0	68	68	122	14	0	0	0	0	0	0	0	271	124.9	21.2	36.9				
14	0	54	81	189	176	27	0	0	0	0	0	0	528	387.1	69.9	114.3				
16	0	0	14	68	176	95	0	0	0	0	0	0	352	393.5	74.4	116.1				
18	0	14	14	68	149	108	14	0	0	0	0	0	365	517.4	101.8	152.7				
20	0	0	0	0	54	95	0	0	0	0	0	0	149	286.3	58.0	84.5				
22	0	0	0	27	41	14	0	0	0	0	0	0	81	169.0	35.3	49.9				
24	0	0	0	0	14	14	0	0	0	0	0	0	27	74.0	15.7	21.9				
26	0	0	14	0	14	0	0	0	0	0	0	0	27	68.2	14.8	20.1				
28	0	0	0	0	14	0	0	0	0	0	0	0	14	47.1	10.4	13.9				
30	0	0	0	0	0	14	0	0	0	0	0	0	14	70.9	15.9	20.9				
Avg. / Totals	0	338	298	568	690	365	14	0	0	0	0	0	2,273	2,269.3	437.5	669.8				

Mixed Pine

Chip-N-Saw	Tons/MBF		5.86		Cu Ft/MBF		173.05		Cu Ft/Ft		0.54		Avg Hs		24.0		Weight-Volume Units		Int-4	
	Total Tract - Number of Trees																			
	DBH	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	Total	Total Tract Volumes					
	12	0	0	41	0	0	0	0	0	0	0	0	0	41	Tons	BF	Cu Ft			
Avg./ Totals	0	0	41	0	0	0	0	0	0	0	0	0	41	17.7	3.0	5.2				

Sawtimber	Tons/MBF		5.11		Cu Ft/MBF		150.82		Cu Ft/Ft		1.05		Avg Hs		21.7		Weight-Volume Units		Int-4	
	Total Tract - Number of Trees																			
	DBH	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	Total	Total Tract Volumes					
	14	0	14	14	0	0	0	0	0	0	0	0	0	27	Tons	BF	Cu Ft			
	16	0	14	41	0	0	0	0	0	0	0	0	0	54	13.9	2.6	4.1			
22	0	0	14	0	0	0	0	0	0	0	0	0	14	39.2	7.5	11.6				
Avg. / Totals	0	27	68	0	0	0	0	0	0	0	0	0	95	19.8	4.1	5.8				

All Products	Tons/MBF		5.24		Cu Ft/MBF		154.70		Cu Ft/Ft		0.88		Avg Hs		22.4		Weight-Volume Units		Int-4	
	Total Tract - Number of Trees																			
	DBH	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	Total	Total Tract Volumes					
															Tons	BF	Cu Ft			
	12	0	0	41	0	0	0	0	0	0	0	0	0	41	17.7	3.0	5.2			
14	0	14	14	0	0	0	0	0	0	0	0	0	27	13.9	2.6	4.1				
16	0	14	41	0	0	0	0	0	0	0	0	0	54	39.2	7.5	11.6				
22	0	0	14	0	0	0	0	0	0	0	0	0	14	19.8	4.1	5.8				
Avg./ Totals	0	27	108	0	0	0	0	0	0	0	0	0	135	90.6	17.3	26.7				

Soft Pine

Sawtimber	Tons/MBF 4.32		Cu Ft/MBF 155.21		Cu Ft/Ft 0.89		Avg Hs 20.0		Weight-Volume Units Int-4								
	Total Tract - Number of Trees												Total Tract Volumes				
	DBH	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	Total	Tons	BF	Cu Ft
	14	0	14	0	0	0	0	0	0	0	0	0	0	14	4.9	1.1	1.7
	16	0	0	14	0	0	0	0	0	0	0	0	0	14	8.6	2.0	3.1
Avg./ Totals	0	14	14	0	0	0	0	0	0	0	0	0	27	13.5	3.1	4.8	

All Products	Tons/MBF 4.32		Cu Ft/MBF 155.21		Cu Ft/Ft 0.89		Avg Hs 20.0		Weight-Volume Units Int-4								
	Total Tract - Number of Trees												Total Tract Volumes				
	DBH	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	Total	Tons	BF	Cu Ft
	14	0	14	0	0	0	0	0	0	0	0	0	0	14	4.9	1.1	1.7
	16	0	0	14	0	0	0	0	0	0	0	0	0	14	8.6	2.0	3.1
Avg./ Totals	0	14	14	0	0	0	0	0	0	0	0	0	27	13.5	3.1	4.8	

Hardwood

Sawtimber	Tons/MBF 5.35		Cu Ft/MBF 159.65		Cu Ft/Ft 0.74		Avg Hs 33.6		Weight-Volume Units Int-4	
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	Total Tract - Number of Trees													Total Tract Volumes			
	DBH	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	Total	Tons	BF	Cu Ft
	14	0	14	0	0	14	27	0	0	0	0	0	0	54	44.1	8.0	13.2
	20	0	14	0	0	0	0	0	0	0	0	0	0	14	12.4	2.6	3.7
Avg./ Totals		0	27	0	0	14	27	0	0	0	0	0	0	68	56.5	10.6	16.8

All Products	Tons/MBF		5.35		Cu Ft/MBF		159.65		Cu Ft/Ft		0.74		Avg Hs		33.6		Weight-Volume Units		Int-4	
	Total Tract - Number of Trees																	Total Tract Volumes		
	DBH	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	Total	Tons	BF	Cu Ft			
	14	0	14	0	0	14	27	0	0	0	0	0	0	54	44.1	8.0	13.2			
	20	0	14	0	0	0	0	0	0	0	0	0	14	12.4	2.6	3.7				
Avg./ Totals		0	27	0	0	14	27	0	0	0	0	0	68	56.5	10.6	16.8				

White Oak

Sawtimber	Tons/MBF		5.31		Cu Ft/MBF		141.32		Cu Ft/Ft		1.71		Avg Hs		22.0		Weight-Volume Units		Int-4	
	Total Tract - Number of Trees													Total Tract Volumes						
DBH	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	Total	Tons	BF	Cu Ft				
14	0	203	27	0	0	0	0	0	0	0	0	0	230	120.1	20.2	32.0				
16	0	54	27	0	0	0	0	0	0	0	0	0	81	59.3	10.4	15.8				
18	0	41	95	27	0	0	0	0	0	0	0	0	162	176.2	31.6	46.9				
20	0	68	41	54	14	0	0	0	0	0	0	0	176	243.7	45.0	64.9				
22	0	68	54	81	0	0	0	0	0	0	0	0	203	340.3	64.3	90.6				
24	0	41	27	14	0	0	0	0	0	0	0	0	81	146.5	28.2	39.0				
26	0	14	27	14	0	0	0	0	0	0	0	0	54	125.1	24.4	33.3				
30	0	14	54	14	0	0	0	0	0	0	0	0	81	294.9	59.7	78.5				
Avg./ Totals	0	501	352	203	14	0	0	0	0	0	0	0	1,069	1,506.1	283.8	401.0				

All Products	Tons/MBF		5.31		Cu Ft/MBF		141.32		Cu Ft/Ft		1.71		Avg Hs		22.0		Weight-Volume Units		Int-4	
	Total Tract - Number of Trees														Total Tract Volumes					
	DBH	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	Total	Tons	BF	Cu Ft			
	14	0	203	27	0	0	0	0	0	0	0	0	0	230	120.1	20.2	32.0			
	16	0	54	27	0	0	0	0	0	0	0	0	0	81	59.3	10.4	15.8			
	18	0	41	95	27	0	0	0	0	0	0	0	0	162	176.2	31.6	46.9			
	20	0	68	41	54	14	0	0	0	0	0	0	0	176	243.7	45.0	64.9			
	22	0	68	54	81	0	0	0	0	0	0	0	0	203	340.3	64.3	90.6			
	24	0	41	27	14	0	0	0	0	0	0	0	0	81	146.5	28.2	39.0			
	26	0	14	27	14	0	0	0	0	0	0	0	0	54	125.1	24.4	33.3			
30	0	14	54	14	0	0	0	0	0	0	0	0	81	294.9	59.7	78.5				
Avg. / Totals		0	501	352	203	14	0	0	0	0	0	0	0	1,069	1,506.1	283.8	401.0			

Red Oak

Sawtimber	Tons/MBF	5.30		Cu Ft/MBF		141.07		Cu Ft/Ft		1.73		Avg Hs		25.4		Weight-Volume Units		Int-4	
	Total Tract - Number of Trees														Total Tract Volumes				
	DBH	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	Total	Tons	BF	Cu Ft		
	14	0	41	14	0	0	0	0	0	0	0	0	0	54	29.5	4.9	7.9		
	16	0	0	41	0	0	0	0	0	0	0	0	0	41	35.7	6.2	9.5		
	18	0	14	54	14	14	0	0	0	0	0	0	0	95	111.8	20.0	29.8		
	20	0	0	95	54	0	0	0	0	0	0	0	0	149	221.8	40.8	59.1		
	22	0	27	14	54	0	0	0	0	0	0	0	0	95	167.0	31.5	44.5		
	24	0	14	0	41	0	0	0	0	0	0	0	0	54	119.0	22.9	31.7		
	26	0	54	14	14	14	0	0	0	0	0	0	0	95	209.7	41.0	55.8		
28	0	0	0	14	0	0	0	0	0	0	0	0	14	45.0	8.9	12.0			
30	0	0	0	14	0	0	0	0	0	0	0	0	14	66.4	13.5	17.7			
Avg./ Totals	0	149	230	203	27	0	0	0	0	0	0	0	609	1,006.0	189.9	267.8			

All Products	Tons/MBF		5.30		Cu Ft/MBF		141.07		Cu Ft/Ft		1.73		Avg Hs		25.4		Weight-Volume Units		Int-4	
	Total Tract - Number of Trees														Total Tract Volumes					
	DBH	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	Total	Tons	BF	Cu Ft			
	14	0	41	14	0	0	0	0	0	0	0	0	0	54	29.5	4.9	7.9			
	16	0	0	41	0	0	0	0	0	0	0	0	0	41	35.7	6.2	9.5			
	18	0	14	54	14	14	0	0	0	0	0	0	0	95	111.8	20.0	29.8			
	20	0	0	95	54	0	0	0	0	0	0	0	0	149	221.8	40.8	59.1			
	22	0	27	14	54	0	0	0	0	0	0	0	0	95	167.0	31.5	44.5			
	24	0	14	0	41	0	0	0	0	0	0	0	0	54	119.0	22.9	31.7			
	26	0	54	14	14	14	0	0	0	0	0	0	0	95	209.7	41.0	55.8			
28	0	0	0	14	0	0	0	0	0	0	0	0	14	45.0	8.9	12.0				
30	0	0	0	14	0	0	0	0	0	0	0	0	14	66.4	13.5	17.7				
Avg./ Totals	0	149	230	203	27	0	0	0	0	0	0	0	609	1,006.0	189.9	267.8				

Poplar

Sawtimber	Tons/MBF	4.43		Cu Ft/MBF	147.56		Cu Ft/Ft	1.16		Avg Hs	30.6		Weight-Volume Units	Int-4			
		Total Tract - Number of Trees												Total Tract Volumes			
	DBH	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	Total	Tons	BF	Cu Ft
	12	0	68	0	0	0	0	0	0	0	0	0	0	68	20.0	3.9	6.6
	14	0	108	95	81	0	27	0	0	0	0	0	0	311	171.9	35.3	57.2
	16	0	95	81	122	122	14	0	0	0	0	0	0	433	351.2	75.5	116.9
	18	0	14	0	68	41	68	0	0	0	0	0	0	189	234.3	52.0	78.0
	20	0	41	14	14	27	68	0	0	0	0	0	0	162	232.3	53.2	77.3
	22	0	14	0	14	41	14	0	0	0	0	0	0	81	143.8	33.8	47.9
	24	0	0	14	0	14	0	0	0	0	0	0	0	27	52.6	12.6	17.5
26	0	0	0	14	0	14	0	0	0	0	0	0	27	72.9	17.8	24.3	
28	0	0	0	0	0	14	0	0	0	0	0	0	14	48.7	12.0	16.2	
30	0	14	0	27	0	0	0	0	0	0	0	0	41	120.4	30.4	40.1	
Avg./ Totals	0	352	203	338	243	216	0	0	0	0	0	0	1,353	1,448.0	326.6	481.9	

All Products	Tons/MBF 4.43 Cu Ft/MBF 147.56 Cu Ft/Ft 1.16 Avg Hs 30.6 Weight-Volume Units Int-4													
	Total Tract - Number of Trees													
DBH	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	Total	Total Tract Volumes
12	0	68	0	0	0	0	0	0	0	0	0	0	68	Tons BF Cu Ft
14	0	108	95	81	0	27	0	0	0	0	0	0	311	20.0 3.9 6.6
16	0	95	81	122	14	0	0	0	0	0	0	0	433	171.9 35.3 57.2
18	0	14	0	68	41	68	0	0	0	0	0	0	189	351.2 75.5 116.9
20	0	41	14	14	27	68	0	0	0	0	0	0	162	234.3 52.0 78.0
22	0	14	0	14	41	14	0	0	0	0	0	0	81	232.3 53.2 77.3
24	0	0	14	0	14	0	0	0	0	0	0	0	27	143.8 33.8 47.9
26	0	0	0	14	0	14	0	0	0	0	0	0	27	52.6 12.6 17.5
28	0	0	0	0	0	14	0	0	0	0	0	0	27	72.9 17.8 24.3
30	0	14	0	0	0	0	0	0	0	0	0	0	14	48.7 12.0 16.2
Avg./ Totals	0	352	203	338	243	216	0	0	0	0	0	0	41	120.4 30.4 40.1
Maple														
Sawtimber	Tons/MBF 5.12 Cu Ft/MBF 158.19 Cu Ft/Ft 0.84 Avg Hs 16.0 Weight-Volume Units Int-4													
	Total Tract - Number of Trees													
DBH	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	Total	Total Tract Volumes
14	0	14	0	0	0	0	0	0	0	0	0	0	14	Tons BF Cu Ft
Avg./ Totals	0	14	0	0	0	0	0	0	0	0	0	0	14	5.9 1.1 1.8
All Products	Tons/MBF 5.12 Cu Ft/MBF 158.19 Cu Ft/Ft 0.84 Avg Hs 16.0 Weight-Volume Units Int-4													
	Total Tract - Number of Trees													
DBH	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	Total	Total Tract Volumes
14	0	14	0	0	0	0	0	0	0	0	0	0	14	Tons BF Cu Ft
Avg./ Totals	0	14	0	0	0	0	0	0	0	0	0	0	14	5.9 1.1 1.8
Ash														
Sawtimber	Tons/MBF 4.38 Cu Ft/MBF 145.64 Cu Ft/Ft 1.42 Avg Hs 20.0 Weight-Volume Units Int-4													
	Total Tract - Number of Trees													
DBH	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	Total	Total Tract Volumes
18	0	0	14	0	0	0	0	0	0	0	0	0	14	Tons BF Cu Ft
20	0	14	0	0	0	0	0	0	0	0	0	0	14	12.1 2.7 4.0
Avg./ Totals	0	14	14	0	0	0	0	0	0	0	0	0	27	11.1 2.6 3.7
All Products	Tons/MBF 4.38 Cu Ft/MBF 145.64 Cu Ft/Ft 1.42 Avg Hs 20.0 Weight-Volume Units Int-4													
	Total Tract - Number of Trees													
DBH	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	Total	Total Tract Volumes
18	0	0	14	0	0	0	0	0	0	0	0	0	14	Tons BF Cu Ft
20	0	14	0	0	0	0	0	0	0	0	0	0	14	12.1 2.7 4.0
Avg./ Totals	0	14	14	0	0	0	0	0	0	0	0	0	27	11.1 2.6 3.7
Gum														
Sawtimber	Tons/MBF 5.38 Cu Ft/MBF 147.68 Cu Ft/Ft 1.21 Avg Hs 26.7 Weight-Volume Units Int-4													
	Total Tract - Number of Trees													
DBH	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	Total	Total Tract Volumes
14	0	14	0	0	0	0	0	0	0	0	0	0	14	Tons BF Cu Ft
16	0	14	14	14	0	0	0	0	0	0	0	0	41	6.6 1.1 1.8
18	0	14	0	14	0	0	0	0	0	0	0	0	27	34.3 6.1 9.4
20	0	14	0	0	14	0	0	0	0	0	0	0	27	32.0 5.9 8.8
22	0	0	0	14	0	0	0	0	0	0	0	0	14	43.2 8.2 11.9
Avg./ Totals	0	54	14	27	14	14	0	0	0	0	0	0	122	26.9 5.2 7.4
All Products	Tons/MBF 5.38 Cu Ft/MBF 147.68 Cu Ft/Ft 1.21 Avg Hs 26.7 Weight-Volume Units Int-4													
	Total Tract - Number of Trees													
DBH	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	Total	Total Tract Volumes
14	0	14	0	0	0	0	0	0	0	0	0	0	14	Tons BF Cu Ft
16	0	14	14	14	0	0	0	0	0	0	0	0	41	6.6 1.1 1.8
18	0	14	0	0	14	0	0	0	0	0	0	0	27	34.3 6.1 9.4
20	0	14	0	0	0	14	0	0	0	0	0	0	27	32.0 5.9 8.8
22	0	0	0	14	0	0	0	0	0	0	0	0	14	43.2 8.2 11.9
Avg./ Totals	0	54	14	27	14	14	0	0	0	0	0	0	122	26.9 5.2 7.4
Beech														
Sawtimber	Tons/MBF 4.70 Cu Ft/MBF 140.39 Cu Ft/Ft 1.91 Avg Hs 18.0 Weight-Volume Units Int-4													
	Total Tract - Number of Trees													
DBH	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	Total	Total Tract Volumes
16	0	41	0	0	0	0	0	0	0	0	0	0	41	Tons BF Cu Ft
20	0	54	14	14	0	0	0	0	0	0	0	0	81	23.7 4.7 7.1
22	0	41	27	0	0	0	0	0	0	0	0	0	68	85.5 18.0 25.8
24	0	54	0	0	0	0	0	0	0	0	0	0	54	85.1 18.1 25.4
26	0	14	0	0	0	0	0	0	0	0	0	0	14	71.2 15.5 21.3
28	0	14	0	0	0	0	0	0	0	0	0	0	14	20.9 4.6 6.2
Avg./ Totals	0	216	41	14	0	0	0	0	0	0	0	0	271	24.2 5.4 7.2
All Products	Tons/MBF 4.70 Cu Ft/MBF 140.39 Cu Ft/Ft 1.91 Avg Hs 18.0 Weight-Volume Units Int-4													
	Total Tract - Number of Trees													
DBH	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	Total	Total Tract Volumes
16	0	41	0	0	0	0	0	0	0	0	0	0	41	Tons BF Cu Ft
	0	54	14	14	0	0	0	0	0	0	0	0	41	23.7 4.7 7.1

20	0	54	14	14	0	0	0	0	0	0	0	0	0	0	81	86.5	18.0	25.8
22	0	41	27	0	0	0	0	0	0	0	0	0	0	0	68	85.1	18.1	25.4
24	0	54	0	0	0	0	0	0	0	0	0	0	0	0	54	71.2	15.5	21.3
26	0	14	0	0	0	0	0	0	0	0	0	0	0	0	14	20.9	4.6	6.2
28	0	14	0	0	0	0	0	0	0	0	0	0	0	0	14	24.2	5.4	7.2
Avg./ Totals		0	216	41	14	0	0	0	0	0	0	0	0	0	271	311.7	66.3	93.0

Hickory

Sawtimber	Tons/MBF 5.46		Cu Ft/MBF 145.35				Cu Ft/Ft 1.40			Avg Hs 20.8		Weight-Volume Units Int-4					
	Total Tract - Number of Trees													Total Tract Volumes			
	DBH	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	Total	Tons	BF	Cu Ft
	14	0	27	0	0	0	0	0	0	0	0	0	0	27	13.6	2.3	3.6
	16	0	0	27	0	0	0	0	0	0	0	0	0	27	23.8	4.1	6.3
	18	0	27	27	0	0	0	0	0	0	0	0	0	54	52.6	9.5	14.0
	24	0	0	14	0	0	0	0	0	0	0	0	0	14	26.8	5.1	7.1
26	0	0	14	0	0	0	0	0	0	0	0	0	14	31.4	6.1	8.4	
Avg./ Totals		0	54	81	0	0	0	0	0	0	0	0	0	135	148.2	27.1	39.5

All Products	Tons/MBF		5.46		Cu Ft/MBF		145.35		Cu Ft/Ft		1.40		Avg Hs		20.8		Weight-Volume Units		Int-4	
	Total Tract - Number of Trees														Total Tract Volumes					
	DBH	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	Total	Tons	BF	Cu Ft			
	14	0	27	0	0	0	0	0	0	0	0	0	0	27	13.6	2.3	3.6			
	16	0	0	27	0	0	0	0	0	0	0	0	0	27	23.8	4.1	6.3			
	18	0	27	27	0	0	0	0	0	0	0	0	0	54	52.6	9.5	14.0			
	24	0	0	14	0	0	0	0	0	0	0	0	0	14	26.8	5.1	7.1			
26		0	0	14	0	0	0	0	0	0	0	0	0	14	31.4	6.1	8.4			
Avg./Totals		0	54	81	0	0	0	0	0	0	0	0	0	135	148.2	27.1	39.5			

Cypress

Sawtimber	Tons/MBF		4.73		Cu Ft/MBF		148.86		Cu Ft/Ft		1.11		Avg Hs		39.4		Weight-Volume Units		Int-4	
	Total Tract - Number of Trees														Total Tract Volumes					
	DBH	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	Total	Tons	BF	Cu Ft			
	14	0	14	0	14	0	0	0	0	0	0	0	0	27	15.2	3.0	4.8			
	16	0	14	0	0	27	0	0	0	0	0	0	0	41	36.5	7.4	11.5			
	18	0	0	0	0	0	41	0	0	0	0	0	0	41	62.8	13.1	19.8			
	20	0	0	0	14	0	41	0	0	0	0	0	0	54	97.2	21.0	30.6			
22	0	0	0	0	0	14	0	0	0	0	0	0	14	31.5	7.0	9.9				
Avg./ Totals		0	27	0	27	27	95	0	0	0	0	0	0	176	243.3	51.4	76.6			

All Products	Tons/MBF		4.73		Cu Ft/MBF		148.86		Cu Ft/Ft		1.11		Avg Hs		39.4		Weight-Volume Units		Int-4			
	Total Tract - Number of Trees																		Total Tract Volumes			
	DBH	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	Total	Tons	BF	Cu Ft					
	14	0	14	0	14	0	0	0	0	0	0	0	0	27	15.2	3.0	4.8					
	16	0	14	0	0	27	0	0	0	0	0	0	0	41	36.5	7.4	11.5					
	18	0	0	0	0	0	41	0	0	0	0	0	0	41	62.8	13.1	19.8					
	20	0	0	0	14	0	41	0	0	0	0	0	0	54	97.2	21.0	30.6					
22	0	0	0	0	0	14	0	0	0	0	0	0	14	31.5	7.0	9.9						
Avg./ Totals		0	27	0	27	27	95	0	0	0	0	0	0	176	243.3	51.4	76.6					

All Species Groups

Small Sawtimber	Tons/MBF		5.86		Cu Ft/MBF		173.05		Cu Ft/Ft		0.54		Avg Hs		24.0		Weight-Volume Units		Int-4	
	Total Tract - Number of Trees														Total Tract Volumes					
	DBH	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	Total	Tons	BF	Cu Ft			
	12	0	0	41	0	0	0	0	0	0	0	0	0	41	17.7	3.0	5.2			
Avg./ Totals		0	0	41	0	0	0	0	0	0	0	0	0	41	17.7	3.0	5.2			

Large Sawtimber	Tons/MBF		5.02		Cu Ft/MBF		146.98		Cu Ft/Ft		1.18		Avg Hs		28.9		Weight-Volume Units		Int-4	
	Total Tract - Number of Trees														Total Tract Volumes					
	DBH	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	Total	Tons	BF	Cu Ft			
	10	0	203	108	95	41	0	0	0	0	0	0	0	446	130.8	20.1	38.6			
	12	0	135	68	122	14	0	0	0	0	0	0	0	338	144.9	25.1	43.5			
	14	0	514	230	284	189	81	0	0	0	0	0	0	1,299	812.8	149.4	242.3			
	16	0	230	257	203	325	108	0	0	0	0	0	0	1,123	1,005.9	198.3	307.3			
	18	0	122	203	176	216	216	14	0	0	0	0	0	947	1,199.1	236.7	353.9			
	20	0	203	162	149	95	216	0	0	0	0	0	0	825	1,234.5	249.5	361.4			
	22	0	149	108	189	81	41	0	0	0	0	0	0	568	983.4	199.3	281.3			
	24	0	108	54	54	27	14	0	0	0	0	0	0	257	490.2	100.1	138.4			
	26	0	81	68	41	27	14	0	0	0	0	0	0	230	528.2	108.7	148.1			
	28	0	14	0	14	14	14	0	0	0	0	0	0	54	165.0	36.7	49.3			
	30	0	27	54	54	0	14	0	0	0	0	0	0	149	552.6	119.5	157.2			
Avg./ Totals		0	1,786	1,312	1,380	1,028	717	14	0	0	0	0	0	6,236	7,247.4	1,443.4	2,121.5			

All Products	Tons/MBF		5.02		Cu Ft/MBF		147.03		Cu Ft/Ft		1.17		Avg Hs		28.9		Weight-Volume Units		Int-4	
	Total Tract - Number of Trees														Total Tract Volumes					
	DBH	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	Total	Tons	BF	Cu Ft			
	10	0	203	108	95	41	0	0	0	0	0	0	0	446	130.8	20.1	38.6			
	12	0	135	108	122	14	0	0	0	0	0	0	0	379	162.6	28.2	48.7			
	14	0	514	230	284	189	81	0	0	0	0	0	0	1,299	812.8	149.4	242.3			
	16	0	230	257	203	325	108	0	0	0	0	0	0	1,123	1,005.9	198.3	307.3			
	18	0	122	203	176	216	216	14	0	0	0	0	0	947	1,199.1	236.7	353.9			
	20	0	203	162	149	95	216	0	0	0	0	0	0	825	1,234.5	249.5	361.4			
	22	0	149	108	189	81	41	0	0	0	0	0	0	568	983.4	199.3	281.3			
	24	0	108	54	54	27	14	0	0	0	0	0	0	257	490.2	100.1	138.4			

	26	0	81	68	41	27	14	0	0	0	0	0	0	230	528.2	108.7	148.1
	28	0	14	0	14	14	14	0	0	0	0	0	0	54	165.0	36.7	49.3
	30	0	27	54	54	0	14	0	0	0	0	0	0	149	552.6	119.5	157.2
Avg./ Totals		0	1,786	1,353	1,380	1,028	717	14	0	0	0	0	0	6,277	7,265.0	1,446.4	2,126.7

Statistics By Group and Product

Sampling Method:	Plot
BAF / Plot Size:	0.1
# Plots/points:	110
Stand Acres:	148.8
Stats Basis:	Tons per Acre

Tract Name:	Goffigan
Stand ID:	1
Location:	James City County, VA
Date Cruised:	8/15/2019
Student's T-Value:	1.98

So Yellow Pine		95.00%						Plots needed To be within 10.00%
Total Volume Stats:	Lower Bound	Mean Vol Var	Upper Bound	Percent SE	Std. Dev.	Std. Error (SE)	CV	
Standing Pulpwood	1.6	2.9	4.1	42.2	6.4	0.6	223.4	1,920
All Pulpwood	1.6	2.9	4.1	42.2	6.4	0.6	223.4	1,920
Sawtimber	11.5	15.3	19.0	24.5	19.8	1.9	129.7	649
All St	11.5	15.3	19.0	24.5	19.8	1.9	129.7	649
All St + Pw	13.7	18.1	22.5	24.3	23.3	2.2	128.6	638
Cl + Sm + Pw + St	13.7	18.1	22.5	24.3	23.3	2.2	128.6	638

Mixed Pine	95.00%							Plots needed To be within 10.00%
Total Volume Stats:	Lower Bound	Mean Vol Var	Upper Bound	Percent SE	Std. Dev.	Std. Error (SE)	CV	
Chip-N-Saw	-0.1	0.1	0.3	147.2	0.9	0.1	778.9	23,316
Sawtimber	0.1	0.5	0.9	83.2	2.2	0.2	440.1	7,444
All St	0.2	0.6	1.0	72.1	2.3	0.2	381.3	5,589
All St + Pw	0.2	0.6	1.0	72.1	2.3	0.2	381.3	5,589
Cl + Sm + Pw + St	0.2	0.6	1.0	72.1	2.3	0.2	381.3	5,589

Soft Pine		95.00%						Plots needed To be within 10.00%
Total Volume Stats:	Lower Bound	Mean Vol Var	Upper Bound	Percent SE	Std. Dev.	Std. Error (SE)	CV	
Sawtimber	0.0	0.1	0.2	144.9	0.7	0.1	766.6	
All St	0.0	0.1	0.2	144.9	0.7	0.1	766.6	
All St + Pw	0.0	0.1	0.2	144.9	0.7	0.1	766.6	
Cl + Sm + Pw + St	0.0	0.1	0.2	144.9	0.7	0.1	766.6	

Hardwood		95.00%							Plots needed To be within 10.00%
Total Volume Stats:	Lower Bound	Mean Vol Var	Upper Bound	Percent SE	Std. Dev.	Std. Error (SE)	CV		
Standing Pulpwood	16.0	18.7	21.5	14.7	14.6	1.4	78.0	236	
All Pulpwood	16.0	18.7	21.5	14.7	14.6	1.4	78.0	236	
Sawtimber	0.0	0.4	0.7	89.5	1.8	0.2	473.7	8,626	
All St	0.0	0.4	0.7	89.5	1.8	0.2	473.7	8,626	
All St + Pw	16.3	19.1	21.9	14.7	14.9	1.4	78.0	236	
Cl + Sm + Pw + St	16.3	19.1	21.9	14.7	14.9	1.4	78.0	236	

White Oak		95.00%						Plots needed To be within 10.00%
Total Volume Stats:	Lower Bound	Mean Vol Var	Upper Bound	Percent SE	Std. Dev.	Std. Error (SE)	CV	
Standing Pulpwood	-0.2	0.2	0.5	198.2	1.9	0.2	1,048.8	42,277
All Pulpwood	-0.2	0.2	0.5	198.2	1.9	0.2	1,048.8	42,277
Sawtimber	7.1	10.1	13.1	29.9	16.0	1.5	158.0	962
All St	7.1	10.1	13.1	29.9	16.0	1.5	158.0	962
All St + Pw	7.3	10.3	13.4	29.5	16.1	1.5	156.3	942
Cl + Sm + Pw + St	7.3	10.3	13.4	29.5	16.1	1.5	156.3	942

Red Oak		95.00%							Plots needed To be within 10.00%
Total Volume Stats:	Lower Bound	Mean Vol Var	Upper Bound	Percent SE	Std. Dev.	Std. Error (SE)	CV		
Sawtimber	4.2	6.8	9.3	37.7	13.5	1.3	199.5	1,532	
All St	4.2	6.8	9.3	37.7	13.5	1.3	199.5	1,532	
All St + Pw	4.2	6.8	9.3	37.7	13.5	1.3	199.5	1,532	
Cl + Sm + Pw + St	4.2	6.8	9.3	37.7	13.5	1.3	199.5	1,532	

Poplar		95.00%							Plots needed To be within 10.00%
Total Volume Stats:	Lower Bound	Mean Vol Var	Upper Bound	Percent SE	Std. Dev.	Std. Error (SE)	CV		
Sawtimber	6.4	9.7	13.0	33.7	17.4	1.7	178.5	1,227	
All St	6.4	9.7	13.0	33.7	17.4	1.7	178.5	1,227	
All St + Pw	6.4	9.7	13.0	33.7	17.4	1.7	178.5	1,227	
Cl + Sm + Pw + St	6.4	9.7	13.0	33.7	17.4	1.7	178.5	1,227	

Maple		95.00%						Plots needed To be within 10.00%
Total Volume Stats:		Mean						
	Lower Bound	Vol Var	Upper Bound	Percent SE	Std. Dev.	Std. Error (SE)	CV	

Sawtimber	0.0	0.0	0.1	198.2	0.4	0.0	1,048.8	42,277
All St	0.0	0.0	0.1	198.2	0.4	0.0	1,048.8	42,277
All St + Pw	0.0	0.0	0.1	198.2	0.4	0.0	1,048.8	42,277
Cl + Sm + Pw + St	0.0	0.0	0.1	198.2	0.4	0.0	1,048.8	42,277

Ash	95.00%							Plots needed
Total Volume Stats:	Lower Bound	Mean Vol Var	Upper Bound	Percent SE	Std. Dev.	Std. Error (SE)	CV	To be within 10.00%
Sawtimber	-0.2	0.2	0.5	198.2	1.6	0.2	1,048.8	42,277
All St	-0.2	0.2	0.5	198.2	1.6	0.2	1,048.8	42,277
All St + Pw	-0.2	0.2	0.5	198.2	1.6	0.2	1,048.8	42,277
Cl + Sm + Pw + St	-0.2	0.2	0.5	198.2	1.6	0.2	1,048.8	42,277

Gum	95.00%							Plots needed
Total Volume Stats:	Lower Bound	Mean Vol Var	Upper Bound	Percent SE	Std. Dev.	Std. Error (SE)	CV	To be within 10.00%
Sawtimber	0.2	1.0	1.7	75.0	3.8	0.4	396.6	6,046
All St	0.2	1.0	1.7	75.0	3.8	0.4	396.6	6,046
All St + Pw	0.2	1.0	1.7	75.0	3.8	0.4	396.6	6,046
Cl + Sm + Pw + St	0.2	1.0	1.7	75.0	3.8	0.4	396.6	6,046

Beech	95.00%							Plots needed
Total Volume Stats:	Lower Bound	Mean Vol Var	Upper Bound	Percent SE	Std. Dev.	Std. Error (SE)	CV	To be within 10.00%
Sawtimber	0.8	2.1	3.4	63.1	7.0	0.7	333.8	4,285
All St	0.8	2.1	3.4	63.1	7.0	0.7	333.8	4,285
All St + Pw	0.8	2.1	3.4	63.1	7.0	0.7	333.8	4,285
Cl + Sm + Pw + St	0.8	2.1	3.4	63.1	7.0	0.7	333.8	4,285

Hickory	95.00%							Plots needed
Total Volume Stats:	Lower Bound	Mean Vol Var	Upper Bound	Percent SE	Std. Dev.	Std. Error (SE)	CV	To be within 10.00%
Sawtimber	0.3	1.0	1.7	71.0	3.7	0.4	375.7	5,426
All St	0.3	1.0	1.7	71.0	3.7	0.4	375.7	5,426
All St + Pw	0.3	1.0	1.7	71.0	3.7	0.4	375.7	5,426
Cl + Sm + Pw + St	0.3	1.0	1.7	71.0	3.7	0.4	375.7	5,426

Cypress	95.00%							Plots needed
Total Volume Stats:	Lower Bound	Mean Vol Var	Upper Bound	Percent SE	Std. Dev.	Std. Error (SE)	CV	To be within 10.00%
Sawtimber	-0.7	1.6	4.0	144.5	12.5	1.2	764.6	22,468
All St	-0.7	1.6	4.0	144.5	12.5	1.2	764.6	22,468
All St + Pw	-0.7	1.6	4.0	144.5	12.5	1.2	764.6	22,468
Cl + Sm + Pw + St	-0.7	1.6	4.0	144.5	12.5	1.2	764.6	22,468

All Groups	95.00%							Plots needed
Total Volume Stats:	Lower Bound	Mean Vol Var	Upper Bound	Percent SE	Std. Dev.	Std. Error (SE)	CV	To be within 10.00%
Standing Pulpwood	18.9	21.8	24.6	13.0	14.9	1.4	68.6	183
All Pulpwood	18.9	21.8	24.6	13.0	14.9	1.4	68.6	183
Chip-N-Saw	-0.1	0.1	0.3	147.2	0.9	0.1	778.9	23,316
Sawtimber	43.1	48.7	54.4	11.6	29.9	2.9	61.4	147
All St	43.2	48.8	54.5	11.5	29.8	2.8	61.1	146
All St + Pw	64.5	70.6	76.7	8.6	32.1	3.1	45.5	82
Cl + Sm + Pw + St	64.5	70.6	76.7	8.6	32.1	3.1	45.5	82

Yarnoukh

DATE 15 NOVEMBER 1999

51700000

ASSESSMENT OF IMPROVEMENTS

Improvements

Year Built: 2022
Stories: 1

Approximate Square Footage		Rooms	Construction
Finished (Above Grade):	3237	Total: 10	Foundation: Full Crawl
Basement:	No Data	Bedrooms: 5	Exterior: Cement fiber siding
Attached Garage:	600	Full Baths: 4	Central A/C: Y
Detached Garage:	No Data	Half Baths: 1	Out Buildings: OMP OMP-R
Enclosed Porch:	No Data		
Open Porch:	456		
Deck:	No Data		

Property Tax Information

Balance Due: \$5,697.95
Calculated as of : 10/06/2022

Year	Install #	Type	Due Date	Tax Amount	Tax Billed*	Penalty Billed	Interest Billed	Tax Paid	Penalty Paid	Interest Paid	Date Paid	Balance Due
2022	1	Tax	12/5/2022	\$5,697.95	\$5,697.95	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	No Data	\$5,697.95
2021	2	Tax	6/6/2022	\$3,938.76	\$3,938.76	\$0.00	\$0.00	\$3,938.76	\$0.00	\$0.00	5/18/2022	\$0.00
2021	1	Tax	12/6/2021	\$3,938.76	\$3,938.76	\$0.00	\$0.00	\$3,938.76	\$0.00	\$0.00	12/1/2021	\$0.00
2020	2	Tax	6/7/2021	\$3,938.76	\$3,938.76	\$0.00	\$0.00	\$3,938.76	\$0.00	\$0.00	5/14/2021	\$0.00
2020	1	Tax	12/7/2020	\$3,938.76	\$3,938.76	\$0.00	\$0.00	\$3,938.76	\$0.00	\$0.00	12/7/2020	\$0.00
2019	2	Tax	6/5/2020	\$3,938.76	\$3,938.76	\$10.00	\$0.33	\$3,938.76	\$10.00	\$0.33	8/26/2020	\$0.00
2019	1	Tax	12/5/2019	\$3,938.76	\$3,938.76	\$0.00	\$0.00	\$3,938.76	\$0.00	\$0.00	12/4/2019	\$0.00
2018	2	Tax	6/5/2019	\$3,938.76	\$3,938.76	\$0.00	\$0.00	\$3,938.76	\$0.00	\$0.00	6/4/2019	\$0.00
2018	1	Tax	12/6/2018	\$3,938.76	\$3,938.76	\$0.00	\$0.00	\$3,938.76	\$0.00	\$0.00	12/6/2018	\$0.00
2017	2	Tax	6/5/2018	\$3,938.76	\$3,938.76	\$0.00	\$0.00	\$3,938.76	\$0.00	\$0.00	6/5/2018	\$0.00
2017	1	Tax	12/5/2017	\$3,938.76	\$3,938.76	\$0.00	\$0.00	\$3,938.76	\$0.00	\$0.00	12/5/2017	\$0.00
2016	2	Tax	6/5/2017	\$3,938.76	\$3,938.76	\$0.00	\$0.00	\$3,938.76	\$0.00	\$0.00	6/5/2017	\$0.00
2016	1	Tax	12/5/2016	\$3,938.76	\$3,938.76	\$0.00	\$0.00	\$3,938.76	\$0.00	\$0.00	11/28/2016	\$0.00
2015	2	Tax	6/6/2016	\$3,938.76	\$3,938.76	\$0.00	\$0.00	\$3,938.76	\$0.00	\$0.00	6/6/2016	\$0.00
2015	1	Tax	12/7/2015	\$3,938.76	\$3,938.76	\$0.00	\$0.00	\$3,938.76	\$0.00	\$0.00	12/7/2015	\$0.00

*The Tax Billed amount is based on the assessment of the property multiplied by the current tax rate, less any tax relief and/or exemption if applicable

Real estate taxes are assessed on Fiscal Year (July-June) and billed (in arrears) in two installments due December 5th and June 5th of each year.

Taxes due December 5th relate to July through December.

Taxes due June 5th relate to January through June.

DISCLAIMER: This data is provided without warranty of any kind, either expressed or implied, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. Any person, firm or corporation which uses this map or any of the enclosed information assumes all risk for the inaccuracy thereof, as James City expressly disclaims any liability for loss or damage arising from the use of said information by any third party.

NOTES



TIMBER MARKETING & MANAGEMENT INC.

Professional Forestry Consultants

P.O. Box 396

Chesterfield, VA 23832

Ph (804) 796-9622

Fax (804) 796-9693

www.tmmva.com

ITEM SUMMARY

DATE: 12/7/2022

TO: The Planning Commission

FROM: Ben Loppacker, Planner

SUBJECT: SUP-22-0018. 5477 Mooretown Road Williamsburg Place Pavilion & Farley Center Additions

ATTACHMENTS:

	Description	Type
▣	0. Staff Report	Staff Report
▣	1. Conditions	Backup Material
▣	2. Location Map	Backup Material
▣	3. Community Impact Statement	Backup Material
▣	4. Master Plan	Backup Material
▣	5. Illustrative Plan	Backup Material
▣	6. Colored Building Renderings	Backup Material

REVIEWERS:

Department	Reviewer	Action	Date
Planning Commission	Holt, Paul	Approved	11/30/2022 - 8:07 AM
Planning Commission	Holt, Paul	Approved	11/30/2022 - 8:07 AM
Publication Management	Pobiak, Amanda	Approved	11/30/2022 - 8:59 AM
Planning Commission	ComSecretary, Planning	Approved	11/30/2022 - 1:13 PM

SPECIAL USE PERMIT-22-0018. 5477 Mooretown Road Williamsburg Place Pavilion & Farley Center Additions
Staff Report for the December 7, 2022, Planning Commission Public Hearing

SUMMARY FACTS

Applicants: Mr. Greg Stevens and Ms. Samantha Steketee, The Pavilion at Williamsburg Place, Inc.

Landowner: Diamond Healthcare of Williamsburg, Inc.

Proposal: A request to allow an expansion of the existing facility, specifically to include 41 new inpatient psychiatric beds, 10 new intermediate care substance abuse beds, and 28 new outpatient domiciliary beds; to remove four previously approved residential visitor units; and to add new office space for staff and to expand the indoor and outdoor dining and kitchen facilities

Location: 5477 Mooretown Road

Tax Map/Parcel No.: 3330100011B

Property Acreage: +/- 7.75 acres

Zoning: M-1, Limited Business/Industrial

Comprehensive Plan: Limited Industry

Primary Service Area: (PSA) Inside

Staff Contact: Ben Loppacker, Planner

PUBLIC HEARING DATES

Planning Commission: December 7, 2022, 6:00 p.m.

Board of Supervisors: January 10, 2023, 5:00 p.m. (Tentative)

FACTORS FAVORABLE

1. The proposal is for an expansion of uses already being conducted on the site and which is operating consistent with previously approved Special Use Permits (SUPs).
2. Staff finds the proposal consistent with the *Our County, Our Shared Future: James City County 2045 Comprehensive Plan*.
3. Impacts: See Impact Analysis on Pages 3-5.
4. Staff finds the proposed conditions mitigate any impacts.

FACTORS UNFAVORABLE

1. There will be a small increase in traffic on Mooretown Road.
2. Impacts: See Impact Analysis on Pages 3-5.

SUMMARY STAFF RECOMMENDATION

Staff recommends that the Planning Commission recommend approval of this application to the Board of Supervisors, subject to the attached conditions.

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.

SPECIAL USE PERMIT-22-0018. 5477 Mooretown Road Williamsburg Place Pavilion & Farley Center Additions
Staff Report for the December 7, 2022, Planning Commission Public Hearing

PROJECT DESCRIPTION

Mr. Greg Stevens and Ms. Samantha Steketee have applied for an SUP on behalf of Diamond Healthcare of Williamsburg, Inc., to expand the existing psychiatric and rehabilitation facility located at 5477 Mooretown Road. An SUP is required for this use (i.e., Nursing Facilities) in the M-1, Limited Business/Industrial District.

If approved, the expansion to the facility would include 41 new inpatient psychiatric treatment beds, 10 new intermediate care substance abuse beds, 28 new outpatient domiciliary beds, new office space for the facilities staff, and an expansion to the existing indoor and outdoor dining and kitchen facilities. This expansion would result in the facility having a total of 98 inpatient psychiatric beds, 40 intermediate care substance abuse beds, and 76 outpatient domiciliary beds. According to the applicants, the expansion addresses the increasing demand for the need for mental health care and services in the community in large part to the ongoing effects of the COVID-19 pandemic.

PLANNING AND ZONING HISTORY

- On February 6, 1989, the Board approved SUP-44-88, allowing for the establishment and operation of a 40-bed intermediate care substance abuse treatment facility and transitional domiciliary facility.
- On October 5, 1992, the Board approved SUP-22-92 allowing the establishment and operation of a 12-bed psychiatric unit and accessory outpatient facilities.

- On February 8, 2005, the Board approved SUP-32-04, allowing the establishment/continued operation of a 40-bed intermediate care substance abuse treatment facility and transitional domiciliary facility, a 12-bed psychiatric unit, a 48-bed outpatient unit, and a four-bed residential unit for visitors.
- On May 4, 2009, the Board approved SUP-0026-2008, allowing the establishment/continued operation of a 25-bed acute psychiatric facility, a 30-bed intermediate care substance abuse treatment facility and transitional domiciliary facility, a 12-bed psychiatric unit, a 48-bed outpatient unit, and a four-bed residential unit for visitors.
- On November 9, 2010, the Board approved SUP-0020-2010, allowing an additional 17 psychiatric beds.

SURROUNDING ZONING AND DEVELOPMENT

The parcel is zoned M-1, Limited Business/Industrial and designated as Limited Industry on the 2045 Comprehensive Plan Land Use Map. As noted above, the facility is already in operation at this location.

The site is bordered by the CSX railroad tracks and Richmond Road to the west. Other M-1 zoned properties are adjacent to the site to the north and south, including a church, a light industrial/office building, and a mini-storage facility. The James City County-York County Line follows Mooretown Road to the east of the site, with the properties in York County zoned Limited Industrial and Resource Conservation District and are currently undeveloped.

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.

SPECIAL USE PERMIT-22-0018. 5477 Mooretown Road Williamsburg Place Pavilion & Farley Center Additions
Staff Report for the December 7, 2022, Planning Commission Public Hearing

Impacts/Potentially Unfavorable Conditions	Status <i>(No Mitigation Required/Mitigated/Not Fully Mitigated)</i>	Considerations/Proposed Mitigation of Potentially Unfavorable Conditions
<u>Public Transportation: Vehicular</u>	<u>Mitigated</u>	• With the existing and proposed new beds, the facility is projected to generate 42.8 AM peak hour trips and 70.62 PM peak hour trips. A full traffic study was not required since the facility will not exceed 100 peak hour trips. • Access into the facility is off Mooretown Road via one main entrance and one service entrance. The main entrance currently does not have either right- or left-turn lanes. • Per the Virginia Department of Transportation comments, Condition No. 11 requires a turn lane warrant analysis to be completed during the site plan stage.
<u>Public Transportation: Bicycle/Pedestrian</u>	<u>No Mitigation Required</u>	• Per the Adopted Regional Bikeways Map and Pedestrian Accommodations Master Plan, neither a bike lane nor pedestrian accommodations are required along this section of Mooretown Road.
<u>Public Safety</u>	<u>No Mitigation Required</u>	• Fire Station 4 on Olde Towne Road serves this area of the County, approximately 1.7 miles from the Facility.
<u>Public Schools</u>	<u>No Mitigation Required</u>	• N/A since no residential dwelling units are proposed.
<u>Public Parks and Recreation</u>	<u>No Mitigation Required</u>	• N/A since no residential dwelling units are proposed.
<u>Public Libraries and Cultural Centers</u>	<u>No Mitigation Required</u>	• Staff finds that this project does not generate impacts that require mitigation.
<u>Groundwater and Drinking Water Resources</u>	<u>Mitigated</u>	• Per Condition No. 2, updated water conservation standards shall be approved by James City Service Authority prior to final site plan approval.

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.

SPECIAL USE PERMIT-22-0018. 5477 Mooretown Road Williamsburg Place Pavilion & Farley Center Additions
Staff Report for the December 7, 2022, Planning Commission Public Hearing

Impacts/Potentially Unfavorable Conditions	Status <i>(No Mitigation Required/Mitigated/Not Fully Mitigated)</i>	Considerations/Proposed Mitigation of Potentially Unfavorable Conditions
<u>Watersheds, Streams, and Reservoirs</u>	<u>Mitigated</u>	• This property is located within the Powhatan Creek watershed. • This property and several other nearby properties are served by an existing regional stormwater Best Management Practice (BMP) (dry pond) located at the southern boundary of the property. There is also an existing bioretention facility on the property. • Should this SUP be approved, this project will need to demonstrate full compliance with environmental regulations at the development plan stage. • To mitigate possible impacts, staff has proposed SUP Condition Nos. 5, 6, 7, 8, and 9. These conditions address: ○ Restrictions on the purchase of off-site nutrient credits toward needed water quality requirements. ○ Specifications regarding the location of structural stormwater management facilities. ○ Upgrading the existing bioretention facility if this Project uses this facility for stormwater quality or quantity requirements. ○ Upgrading the regional dry pond BMP if this Project uses this facility for stormwater quality and/or quantity requirements. ○ The requirement for Special Stormwater Criteria measures.
<u>Cultural/Historic</u>	<u>Mitigated</u>	• The property falls outside of areas of high sensitivity; therefore, a Phase IA archaeological analysis is not required pursuant to Section 24-23(f) of the Zoning Ordinance.
<u>Nearby and Surrounding Properties</u>	<u>No Mitigation Required</u>	• The proposed uses already existing on the Property, and no new impacts are anticipated on adjacent properties.
<u>Community Character</u>	<u>Mitigated</u>	• Mooretown Road is not a designated Community Character Corridor. • A vegetated buffer to screen the project from Mooretown Road is specified in Condition No. 4.

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.

SPECIAL USE PERMIT-22-0018. 5477 Mooretown Road Williamsburg Place Pavilion & Farley Center Additions
Staff Report for the December 7, 2022, Planning Commission Public Hearing

Impacts/Potentially Unfavorable Conditions	Status <i>(No Mitigation Required/Mitigated/Not Fully Mitigated)</i>	Considerations/Proposed Mitigation of Potentially Unfavorable Conditions
<u>Covenants and Restrictions</u>	<u>No Mitigation Required</u>	• The applicants have verified that they are not aware of any covenants or restrictions on the property that prohibit the proposed use.

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.

SPECIAL USE PERMIT-22-0018. 5477 Mooretown Road Williamsburg Place Pavilion & Farley Center Additions
Staff Report for the December 7, 2022, Planning Commission Public Hearing

2045 COMPREHENSIVE PLAN

The project site is designated Limited Industry on the 2045 Comprehensive Plan Land Use Map. The properties to the north and south are designated Limited Industry. The properties directly west across the CSX railroad tracks and Route 60 are designated Neighborhood Commercial and Community Commercial. The property line is just west of the York County border, which runs along Mooretown Road.

The land use designation, Limited Industry, includes areas located within the PSA that are suitable for warehousing, office, service industries, light manufacturing plants, and public facilities that have moderate impacts on the surrounding area.

Uses proposed in areas designated Limited Industry usually require access to arterial roads or major collector streets, public water and sewer, nearby police, and fire protection, small to moderate sized sites, environmental features such as soils and topography suitable for intense development, and adequate buffers for nearby residential development.

Williamsburg Place has been an existing business within James City County since 1989. While treatment facilities are not directly addressed by the Limited Industry description, staff acknowledges that they have some similar characteristics and impacts to other limited industrial uses. As such, staff believes that the expansion to include the additional 79 beds is consistent with the Limited Industry designation.

As noted earlier, the parcels surrounding Williamsburg Place in James City County are mostly designated Limited Industry and zoned for limited industrial use, while properties in York County, east of the site, are zoned Limited Industry and Resource Conservation District. Staff sees the expansion as compatible with adjacent uses and complimentary to the Sentara Williamsburg Regional Hospital located

further north on Mooretown Road. Additionally, the use is not anticipated to generate dust, noise, odor, or other adverse effects, and staff finds that the use will be sufficiently buffered.

Finally, staff finds that the proposed use is not expected to have a significant impact on existing County services. Staff also finds that the increased impacts to traffic on Mooretown Road, which is classified as a major collector road, would be minimal.

Overall, staff finds the proposal to be consistent with recommendations of the adopted Comprehensive Plan.

PROPOSED SUP CONDITIONS

Proposed conditions are provided as Attachment No. 1.

STAFF RECOMMENDATION

Staff finds the proposal to be compatible with existing uses on the site, as well as with surrounding development and consistent with recommendations of the adopted Comprehensive Plan. Staff recommends that the Planning Commission recommend approval of this application to the Board of Supervisors, subject to the attached conditions.

BL/ap
SUP22-18_5477MretwnRd

Attachments:

1. Proposed SUP Conditions
2. Location Map
3. Community Impact Statement
4. Master Plan
5. Illustrative Overall Plan
6. Building Elevations

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.

SUP-22-0018_5477 Mooretown Road Williamsburg Place Pavilion & Farley Center Additions

PROPOSED CONDITIONS:

1. Master Plan: This SUP shall permit the establishment and/or continued operation of a 98-bed inpatient psychiatric treatment services facility, a 40-bed intermediate care substance abuse treatment facility and transitional domiciliary facility and a 76-bed domiciliary outpatient unit (the “Project”) on approximately 7.75 acres located at 5477 Mooretown Road and further identified as James City County Real Estate Tax Map Parcel No. 3330100011B (the “Property”). All final development plans shall be consistent with the master plan entitled “Master Plan for Williamsburg Place Pavilion & Farley Center Additions” dated November 10, 2022 (the “Master Plan”), as determined by the Director of Planning, with any deviations considered per Section 24-12 (a)(2) of the Zoning Ordinance, as amended.
2. Water Conservation: The Applicant shall be responsible for amending the existing water conservation standards to be submitted to and approved by the James City Service Authority. The standards shall address such water conservation measures as limitations on the installation and use of approved landscaping design and materials to promote water conservation and minimize the use of public water resources. The water conservation standards shall be approved by the James City Service Authority prior to final site plan approval.
3. Architectural Review: Prior to final site plan approval, the Director of Planning shall review and approve the final architectural design of the buildings. Such buildings shall be generally consistent, as determined by the Director of Planning, with the architectural elevations titled (Colored Building Elevations for Williamsburg Place Pavilion and Farley Center Additions) dated 8/24/22 and drawn by Guernsey Tingle Architects, with any deviations considered per Section 24-12 (a)(2) of the Zoning Ordinance, as amended.
4. Landscaping: A landscaping plan shall be approved by the Director of Planning prior to final site plan approval for this project. The landscaping plan shall include enhanced landscaping 10 feet in width along the first 200 feet along both sides of the main entrance and 10 feet in width along the first 100 feet on both sides of the service entrance to help screen service activities from Mooretown Road. Enhanced landscaping shall be defined so that the required number of plants and trees equals, at a minimum, 125 percent of the requirements of the James City County Landscape Ordinance. A minimum of 50 percent of the trees within the landscape buffers shall be evergreen.
5. Turn Lane Analysis: Prior to final site plan approval, a turn lane warrant analysis shall be conducted. All improvements warranted by the analysis and approved by the Director of Planning and the Virginia Department of Transportation shall be shown on the approved site plan and installed or guaranteed in a form approved by the County Attorney prior to the issuance of a Certificate of Occupancy.

6. Virginia Runoff Reduction Method: The purchase of offsite nutrient credits toward needed water quality associated with the Project shall not be allowed. The use of forested open space toward needed water quality associated with the Project will not be allowed.
7. Buffer areas as Stormwater Management Facilities: The location of structural stormwater management facilities within landscape buffers shall not be allowed.
8. Bioretention Facility: If this Project uses the existing bioretention facility for stormwater quality and/or quantity, the facility shall be upgraded to a Level 2 facility in accordance with the current DEQ design guidelines (Part IIB Technical Criteria).
9. Dry Pond Facility (YR012): If this Project uses existing Dry Pond YR012 for stormwater quality and/or quantity, the facility shall be upgraded in accordance with current DEQ design guidelines (Part IIB Technical Criteria).
10. Special Stormwater Criteria Measures: Special Stormwater Criteria (SSC) measures shall be required for the Project. Specific SSC measures may be deemed unsuitable for the type of development as determined by the Director of Stormwater and Resource Protection or designee.
11. Declaration of Covenants Inspection Maintenance Agreement: An updated DOC-IM shall be executed for facility YR012 such that joint responsibility for the longer-term maintenance is clarified by the joint users.
12. Runoff to CSX Property: There shall be no net increase in runoff to the CSX railroad right-of-way. No impervious area shall drain to the CSX property. This shall be demonstrated on the plan of development and shall be approved by the Director of Stormwater and Resource Protection.
13. Commencement: Construction on this Project shall commence within 36 months from the date of approval of this SUP or this permit shall be void. Construction shall be defined as obtaining building permits and an approved footing inspection and/or foundation inspection.
14. Severance Clause: This SUP is not severable. Invalidation of any word, phrase, clause, sentence, or paragraph shall invalidate the remainder.

JCC SUP-22-0018

5477 Mooretown Road



Williamsburg Place
Pavilion & Farley Center Additions

Community Impact Statement

August 24, 2022

Revised October 24, 2022

Revised November 10, 2022

Revised November 22, 2022

I. Introduction and Background

The Pavilion at Williamsburg Place, Inc., (the “Applicant”) is seeking approval from the James City County Board of Supervisors (the “Board”) of a Special Use Permit (the “2022 SUP”) on approximately 7.75 acres of land identified as James City County Parcel ID 3330100011B (the “Property”), and further identified as 5477-5483 Mooretown Road. The Property is currently zoned M-1, Limited Business/Industrial District (“M-1”) and is located within the Powhatan Election District. The proposed 2022 SUP is in conformance with the James City County 2045 Comprehensive Plan (the “Comprehensive Plan”), which designates this parcel as Limited Industry. For reference, a vicinity map is enclosed as **Exhibit A**.

The 2022 SUP will allow the existing psychiatric and rehabilitation facilities to expand their footprints in order to help serve a greater number of those experiencing psychiatric and/or substance use disorders. The expansion would (i) increase the number of inpatient psychiatric treatment beds by 41, intermediate care substance abuse beds by ten, outpatient domiciliary beds by 28, (ii) remove the four previously approved residential units, (iii) add a small expansion to the first floor and a second story addition to an already approved wellness building to provide additional administrative office spaces, and (iv) expand the indoor and outdoor dining and kitchen facilities.

With the need for care greater than ever due in large part to the ongoing effects of the COVID-19 pandemic, the approval of this 2022 SUP will allow the Applicant to help the Board address the increasing demand for these essential services in its community.

II. Existing Conditions

As depicted on the enclosed illustrative overall improvements plan (**Exhibit B**), the Property is located east of Richmond Road, west of Mooretown Road, and north of Airport Road with access to the Property provided via Mooretown Road. More specifically, the Property is bounded by 5493 Mooretown Road (Parcel ID # 333010011D) and 5485 Mooretown Road (Parcel ID # 3330100011C) to the north; Mooretown Road to the east, 5424 Airport Road (Parcel ID # 3330100011A) and 5406 Airport Road (Parcel ID # 3330100011E) to the south; and a CSX Railroad to the west.

Development on the Property today consist of an approximately 69,385 square foot psychiatric and rehabilitation campus and associated infrastructure, including asphalt roadways and parking areas, concrete sidewalks, building structures, stormwater management infrastructure, and underground utilities. Elevations range from 100± to 111±, with existing slopes on site from 0 to 25± percent.

The Master Plan enclosed as **Exhibit C** contains detailed information on preliminary wetlands, buffers, soils, and slopes. A pre-development Property analysis reveals the following results:

Total SUP Area: 7.75 acres

RPA Wetland Areas: 0.00 acres

Non-RPA Wetland Areas: 0.00 acres

Areas of 25% or Greater Natural Slopes: 0.00 acres

Total Non-Developable SUP Area: 0.00 acres

Net Developable SUP Area: 7.75 acres

III. Prior Legislative and Administrative Approvals

Over the last three decades James City County (the “County”) has granted several legislative and administrative approvals that permit and govern the M-1 uses established on the Property today, as follows:

On February 6, 1989, the Board approved Special Use Permit 44-88 (“SUP-44-88”). SUP-44-88 allowed the establishment and operation of a 40-bed intermediate care substance abuse (alcohol) treatment facility and transitional domiciliary facility, which is now known as The Farley Center; and,

On October 5, 1992, the Board approved Special Use Permit 22-92 (“SUP-22-92”). SUP-22-92 allowed the establishment and operation of a 12-bed psychiatric unit and accessory outpatient facilities.

The development of the above-referenced legislative approvals were subsequently approved administratively by the County on Site Plan Numbers SP-98-89, SP-0122-90, and SP-124-95.

While the legislative and administrative applications noted above established The Farley Center and The Pavilion, various expansions and alterations have been made over time pursuant to the following:

On February 8, 2005, the Board approved Special Use Permit 32-04 (SUP-32-04), to allow the establishment and/or continued operation of a 40-bed intermediate care substance abuse treatment facility and transitional domiciliary facility, a 12-bed psychiatric unit, a 48-bed outpatient unit and a four-bed residential unit for visitors;

On May 4, 2009, the Board approved Special Use Permit 0026-2008 (SUP-0026-2008) to allow the establishment and/or continued operation of a 25-bed acute psychiatric facility, a 30-bed intermediate care substance abuse treatment facility and transitional domiciliary facility, a 15-bed psychiatric unit, a 48-bed outpatient unit and a four-bed residential unit for visitors; and,

On November 9, 2010, the Board approved Special Use Permit 0020-2010 (SUP-0020-2010) to allow the establishment and/or continued operation of (i) a 57-bed inpatient psychiatric treatment services facility, (ii) a 30-bed intermediate care substance abuse treatment facility and transitional domiciliary facility, (iii) and a 48-bed domiciliary outpatient unit with four-bed residential unit for visitors.

The development of the various permitted expansion and alternations noted above were subsequently approved administratively by the County on Site Plan Numbers SP-137-05, SP-97-07, SP-0028-2010, SP-0021-2017, S-020-06, SP-19-0090, and SP-0115.

IV. 2022 SUP

As noted above, the 2022 SUP seeks to expand and improve the existing psychiatric and rehabilitation facilities on the Property by increasing the maximum number of beds, which will be accommodated within the existing buildings on campus and in new building additions, as detailed below:

- The bulk of the additional 41 psychiatric beds will be housed within a new wing being added onto the existing Pavilion building a new domiciliary building (32 beds) and the remaining beds will be located within the existing building (nine beds);
- The additional ten intermediate care substance abuse beds will be provided within an addition to the existing Farley Center building; and,
- Eight of the 28 outpatient domiciliary outpatient beds will be provided within the two existing Farley Center domiciliary buildings with the balance of the beds being provided within a new domiciliary building (20 beds).
- In addition to expanding the number of beds, the Applicant seeks to improve the campus by (i) enclosing an existing outdoor dining terrace and landscaping located off of the existing Pavilion building in order to increase the size of the kitchen and dining facility therein; (ii) creating a new outdoor dining terrace which will be located off the newly-expanded kitchen and dining facility; (iii) creating a new courtyard off the new wing at the Pavilion; (iv) removing the roof structure from one existing covered porch; (v) enclosing one existing covered porch; (vi) adding a small expansion to the first floor and a second story addition to an already approved wellness building to accommodate additional administrative offices; and (vii) providing the associated infrastructure improvements to the internal roadways, parking spaces, stormwater management, and internal underground utilities.

Once implemented, the 2022 SUP will permit the establishment and/or continued operation of a maximum (i) 98-bed inpatient psychiatric treatment services facility, (ii) 40-bed intermediate care substance abuse treatment facility and transition domiciliary facility, (iii) and a 76-bed domiciliary outpatient unit.

More detailed information pertaining to the bed expansion and improvements outlined above may be found in **Exhibit B**.

V. 2022 SUP Impact Analysis

a) **Public Facilities and Services**: Below is a detailed analysis of the planning considerations and impacts that the 2022 SUP would have on the public facilities and services provided by the County.

- **Historic & Archeological**. Based on an analysis conducted as part of the approved SUP-0026-2008, the Property falls outside of areas of high sensitivity; therefore, an

archeological analysis is not required pursuant to Section 24-23(f) of the Zoning Ordinance.

- Public Water & Sewer Facilities. The Property is currently serviced by James City Service Authority (“JCSA”) through a three-inch water meter that serves the Property. This existing domestic service line ties into an existing eight-inch water main located along Mooretown Road. Moreover, there are existing fire service lines that provide fire protection to the existing and future buildings on the Property.

The existing domestic water and fire service infrastructure will be used to serve all of the proposed 2022 SUP improvements, with the exception of the new domiciliary building which appear to warrant new domestic water and fire service infrastructure that will tie into the existing infrastructure. A detailed water distribution analysis will need to be conducted in order to determine if further upgrades to the existing domestic water and fire service infrastructure, including the existing three-inch water meter, are required to accommodate the additional demand.

As part of the approved SUP-0026-2008, the revised Water Conservation Standards incorporated an underground irrigation tank in order to provide stormwater runoff supply for an irrigation system on the Property. Based on the new wing being added to the existing Pavilion building, this existing underground irrigation tank and system will be removed, and the Water Conservation Standards will be revised accordingly.

Public sanitary sewer service is currently provided by JCSA through the existing gravity sanitary sewer mains located within an existing drainage and utility easement on the western side of the Property. There are also existing sanitary sewer lateral systems that serve the existing buildings on the Property and tie into these existing sanitary sewer mains.

The sanitary sewer lateral system that serves the existing domiciliary building will need to be modified in order to accommodate the placement of the new Pavilion wing. The new domiciliary building will warrant new sanitary sewer lateral infrastructure that will tie into the existing sanitary sewer lateral system. In addition, the kitchen and dining expansion may warrant upgrades to the existing grease interceptor. A detailed sanitary sewer flow analysis may need to be conducted in order to determine if upgrades to the existing sanitary sewer infrastructure are required to accommodate the additional demand.

- Fire Protection and Emergency Services. There are currently five fire stations providing fire protection services and Emergency Medical Services (EMS) to the County. Fire Station 4, which is located at 5312 Olde Towne Road, is the closest fire station to the Property. Should an emergency event occur that requires fire and life safety support, response times to the Property from Fire Station 4 are within appropriate limits.
- Solid Waste. The solid waste that is generated from the various additions and improvements associated with the expansion of the existing psychiatric and rehabilitation

facility will be adequately collected onsite and properly hauled offsite when the appropriate disposal service is necessary.

- Utility Service Providers. There are adequate utility services and capacity available along Mooretown Road, including electric, telecommunications, natural gas, and public water to support the 2022 SUP improvements. Public sanitary sewer service is available on the Property, contained within an existing drainage and utility easement along its western side. The Property will utilize such utilities for the proposed development.
- Schools. The expansion and improvements proposed with the 2022 SUP will have no impact on the school system since the use does not generate any school-aged children.
- Parks and Recreation. Given the nature of the uses on the Property, all outdoor and indoor recreational needs are provided within the campus and/or facility and therefore, the use will have no impact on existing park and recreational facilities within the County.

b) **Environmental:** Below is a detailed analysis of the environmental impacts the 2022 SUP would have on the environment.

- Wetlands & Resource Protection Areas. There are no wetlands or Resource Protection Areas located on the Property.
- Endangered Species. Based on its location, the expansion and improvements to the Property has a low probability of causing endangered species concerns. Based on the analysis conducted as part of the approved SUP-0026-2008, this Property does not contain the habitat to support endangered species, and, therefore, no endangered species assessment will need to be performed.
- Soils. The United States Department of Agriculture (USDA) Natural Resource Conservation Services (NRCS) Web Soil Survey highlights the 19B, Kempsville-Emporia Fine Sandy Loam soil type as being located within the 2022 SUP development envelopes. Note that the specific locations of this soil type are shown on the enclosed Master Plan.

c) **Stormwater:** Below is a detailed analysis of the stormwater management ("SWM") impacts the 2022 SUP may have:

- Existing Stormwater Management. The properties at 5424 Airport Road (Parcel ID #3330100011A), 5477 Mooretown Road (Parcel ID #3330100011B), 5485 Mooretown Road (Parcel ID #3330100011C), 5493 Mooretown Road (Parcel ID #3330100011D), and 5406 Airport Road (Parcel ID #3330100011E) are all served by an existing Regional Stormwater Best Management Practice (BMP) that was originally built in the late 1980's. Modifications and improvements to this existing Regional Stormwater BMP (Dry Pond) were implemented and approved by the County in 2001 in order to bring the stormwater management facility into conformance with the old Part II C technical criteria. This

existing Regional Stormwater BMP (Dry Pond) is located along the southern boundary of the Property.

There is an existing bioretention located on the Property that was designed per the old Part II C technical criteria to treat the additional impervious area as part of SUP-0026-2008 for stormwater quality purposes. This bioretention discharges into the existing storm sewer system, which outfalls into the Regional Stormwater BMP (Dry Pond).

Based on the Commonwealth of Virginia Department of Environmental Quality (DEQ) Water Division Guidance Memo No. 14-2014, “any land-disturbing activities served by an existing on-site or off-site stormwater management facility, including a regional (watershed-wide) stormwater management facility, designed and implemented in accordance with the old Part II C technical criteria remain subject to the old Part II C technical criteria for two (2) additional general permit cycles. If the land-use assumptions upon which the stormwater management facility was designed and implemented change (e.g., an unanticipated increase in impervious cover), then the existing stormwater management facility should be modified to comply with the new Part II B technical criteria or the project should be designed in accordance with the new Part II B technical criteria.” Since the Property is served by the existing bioretention and Regional Stormwater BMP (Dry Pond) and the land-use assumptions upon which these stormwater management facilities were designed are not proposed to be revised, the old Part II C technical criteria applies, and the Property shall be considered “grandfathered” by the Virginia Stormwater Management Program (VSMP) Authority.

- Stormwater Quality. Based on the current Virginia Stormwater Management Regulations, the Virginia Runoff Reduction Method (VRRM) as set forth by the Virginia DEQ governs the stormwater quality requirements for both new and re-development projects. Since the existing Property is developed, the proposed Property is classified as a “Re-Development” project. Following the stormwater quality analysis procedures for a re-development, the required pollutant load reduction can be calculated to ensure the proposed 2022 SUP development does not have a negative impact on downstream waterways. This pollutant load reduction is measured in Total Phosphorus (TP), a chemical that DEQ has determined that drives all other pollutant levels. Essentially, if the TP load is reduced, so are all other pollutants.

Although the new Part II B technical criteria do not apply to the Property, a VRRM Spreadsheet, Post-Development VRRM Drainage Area Map, and Post-Development VRRM Curve Number Calculations are included as **Exhibit D** and detail the Property soil data and required TP load reduction in order to confirm stormwater quality compliance. The TP load reduction required for the proposed 2022 SUP is 3.13 lb/yr. Based on the utilization of the existing bioretention and Regional Stormwater BMP (Dry Pond) for the Property, the TP load reduction achieved is 3.86 lb/yr, exceeding the requirement by 0.73 lb/yr.

- Stormwater Quantity. Stormwater quantity control is required to ensure that the post-development stormwater runoff from the Property is controlled to a point that is either at or below the existing condition in terms of flow rates. This stormwater quantity flow rate can be reduced by storing the increased stormwater runoff in a BMP for a period of time before releasing it back into the downstream waterway. The existing Regional Stormwater BMP (Dry Pond) was originally designed to adequately meet the stormwater quantity control requirements for the Property, as long as the Property does not exceed a 60% impervious cover threshold. Based on the Master Plan, the proposed 2022 SUP does not exceed this 60% impervious cover threshold. Therefore, this existing Regional Stormwater BMP (Dry Pond) adequately stores the increased stormwater runoff and reduces the runoff flow rate to the downstream waterway.
 - Special Stormwater Criteria. Since a portion of the 2022 SUP is located within the Powhatan Creek Watershed, a total of one (1) Special Stormwater Criteria (SSC) measure shall be required.
 - Storm Sewer System. The stormwater runoff from the 2022 SUP development will be conveyed via sheet flow, shallow concentrated flow, and channel flow to either the existing bioretention or the existing drop inlets placed at strategic low points. Both the existing bioretention and the existing drop inlets shall ultimately convey stormwater runoff via the existing drainage pipe infrastructure into the existing Regional Stormwater BMP (Dry Pond), which shall control the outfall of stormwater runoff.
- d) **Traffic:** Based on the 11th Edition of the Institute of Transportation Engineers (ITE) Trip Generation Manual, the 2022 SUP most closely resembles a Nursing Home (620) with the following parameters: Weekday, A.M. Peak Hour of Generator and Weekday, P.M. Peak Hour of Generator. As noted in **Exhibit G** within the Turn Lane Warrant Report conducted by DRW Consultants, LLC on November 7, 2022, the Average Vehicle Trip Ends for the Weekday, A.M. Peak Hour of Generator is 30, and the Average Vehicle Trip Ends for the Weekday, P.M. Peak Hour of Generator is 30. Since each of these Average Vehicle Trip Ends is less than 100 peak-hour trip ends, a traffic study is not required for this 2022 SUP application.
- e) **Parking:** Based on Section 24-59.(b) of the Zoning Ordinance, a minimum of one space per employee on the largest shift and one space per every four beds of off-street parking is required for the Property. Generating the need for 151 parking spaces, which will be met by the existing 181 parking spaces developed on the Property.
- f) **Fiscal:** A fiscal impact study is not required for the 2022 SUP application since it does not include residential dwelling units as noted in Section 24-23(h) of the Zoning Ordinance.

VI. Waivers and Modifications

To the best of the Applicant's knowledge, the Property will comply with all applicable Ordinances, regulations and adopted standards.

VII. Building Elevations and Color Samples

The Applicant has included as **Exhibit E**, building elevation renderings. The existing color story will be carried through the proposed building expansions and additions, of which the Applicant has included photos for color reference as **Exhibit F**.

VIII. Conclusion

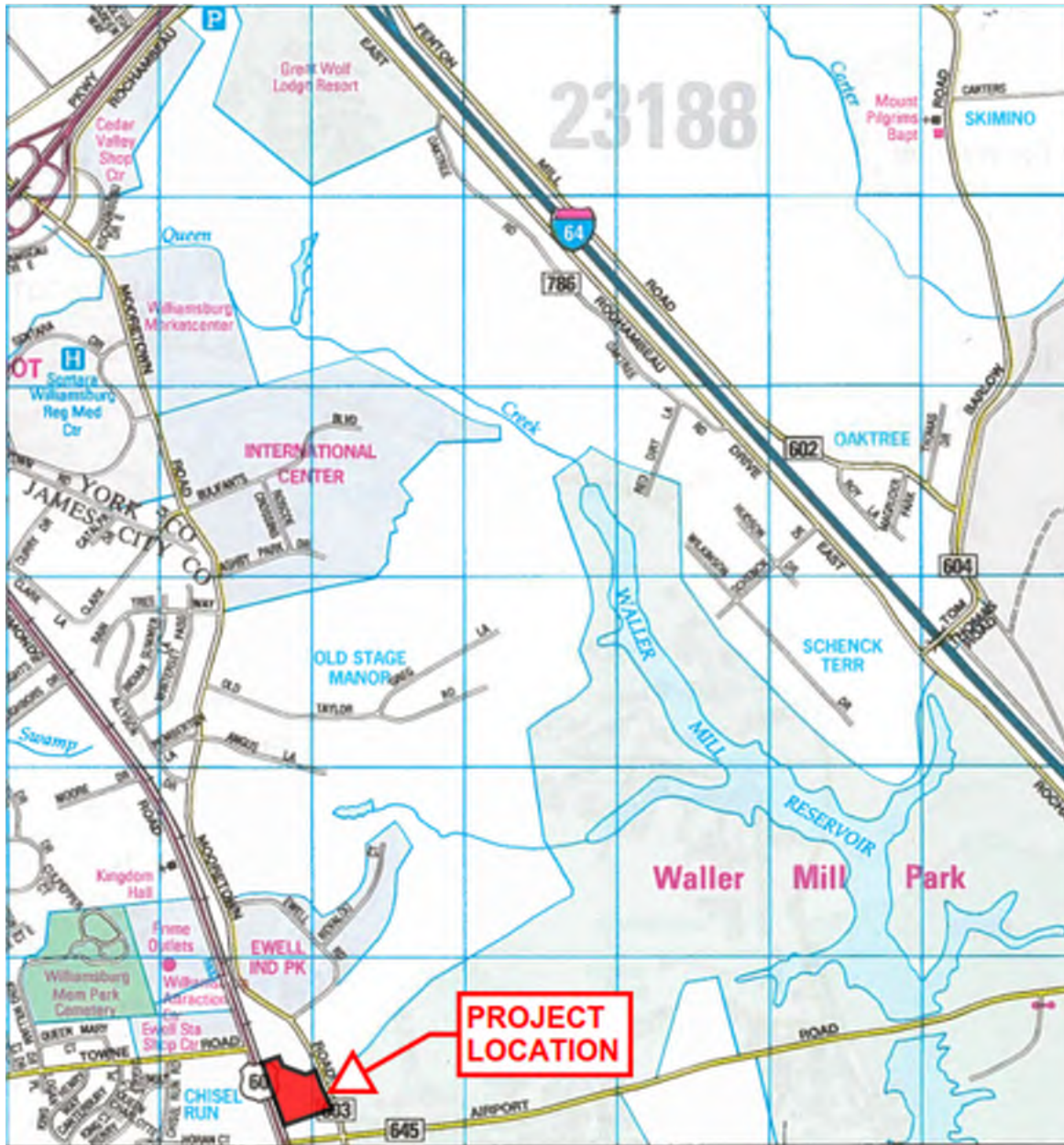
The proposed special use permit will allow the Applicant to thoughtfully and meaningfully expand its existing facilities in order to help those dealing with psychiatric and substance use disorders in the County. Said another way, by providing additional beds the Applicant is able to aide more of those experiencing mental health crises, something that the ongoing COVID-19 pandemic has only exacerbated. The Applicant's proposal meets the intent of the Comprehensive Plan guidance for the Property and will not negatively impact the County's public facilities or services, environment, stormwater, traffic, fiscal.

For these reasons, the Applicant respectfully request the County's support for this special use permit add a small expansion to the first floor and a second story addition to an already approved wellness building.

Exhibit A

Vicinity Map

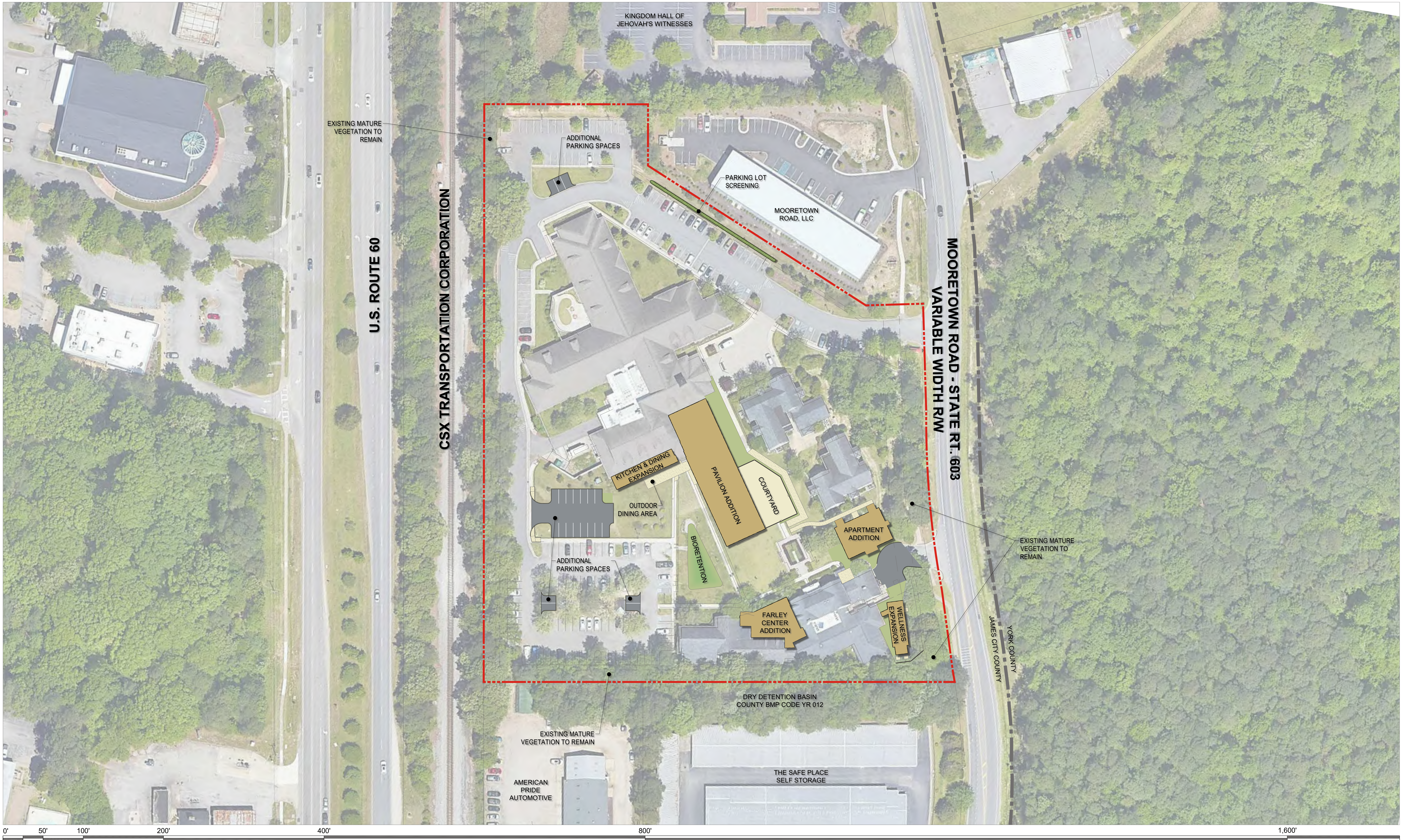
VICINITY MAP
for
5477 Mooretown Road
James City County, Virginia



APPROXIMATE SCALE: 1"=2000'

Exhibit B

“Illustrative Overall Improvements Plan for Williamsburg Place” dated August 24, 2022, revised through November 11, 2022 and prepared by AES Consulting Engineers



ORIGINAL DATE: AUGUST 24, 2022 REVISED: NOVEMBER 11, 2022
SCALE: 1"=50'

SHEET 1 of 1

ILLUSTRATIVE OVERALL IMPROVEMENTS PLAN
WILLIAMSBURG PLACE
JAMES CITY COUNTY, VIRGINIA
(AES PROJECT #: W10772-00 - AES PROJECT CONTACT: T. RYAN STEPHENSON, P.E.)
JAMES CITY COUNTY CASE NO.: SUP-22-0018



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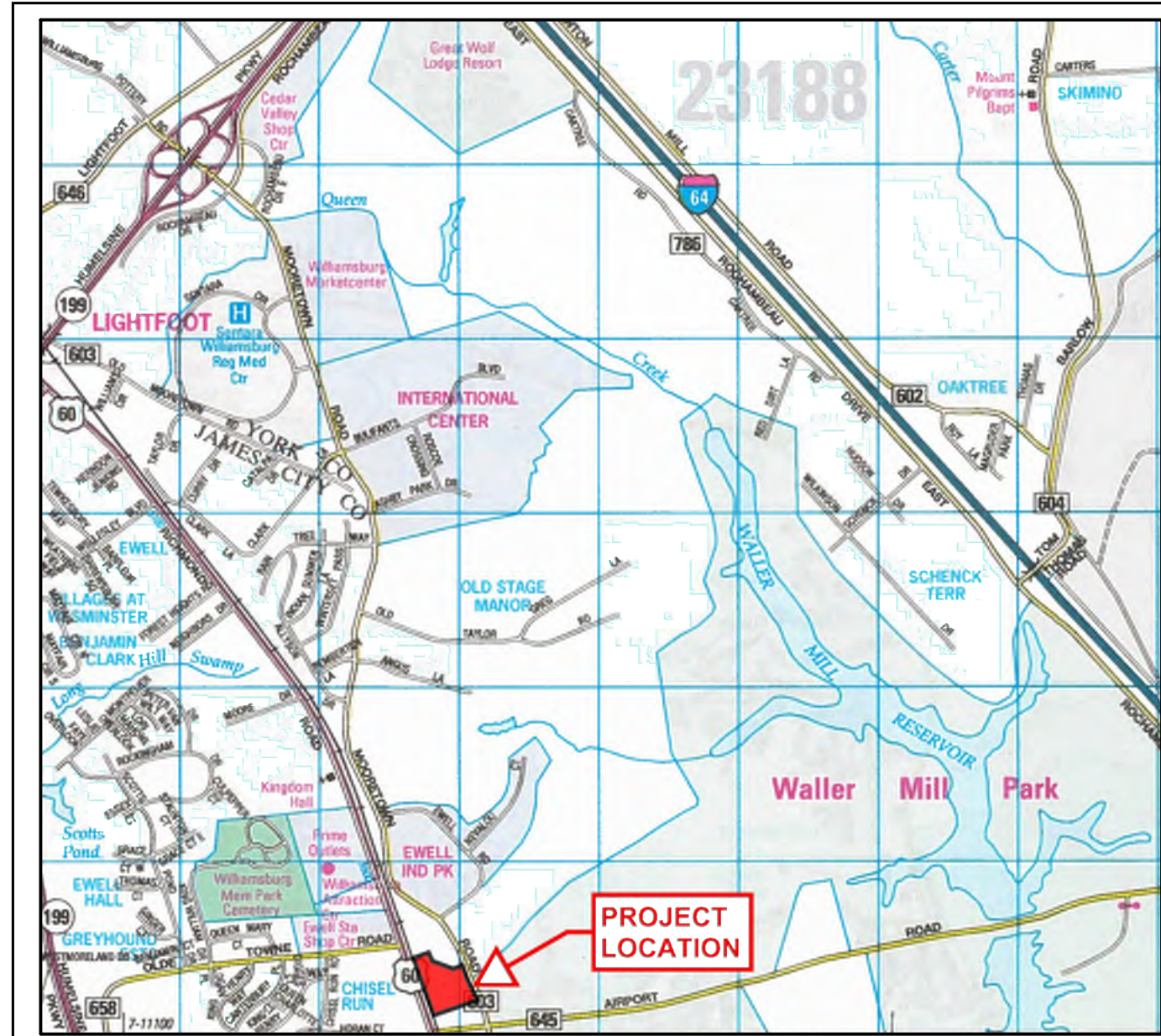
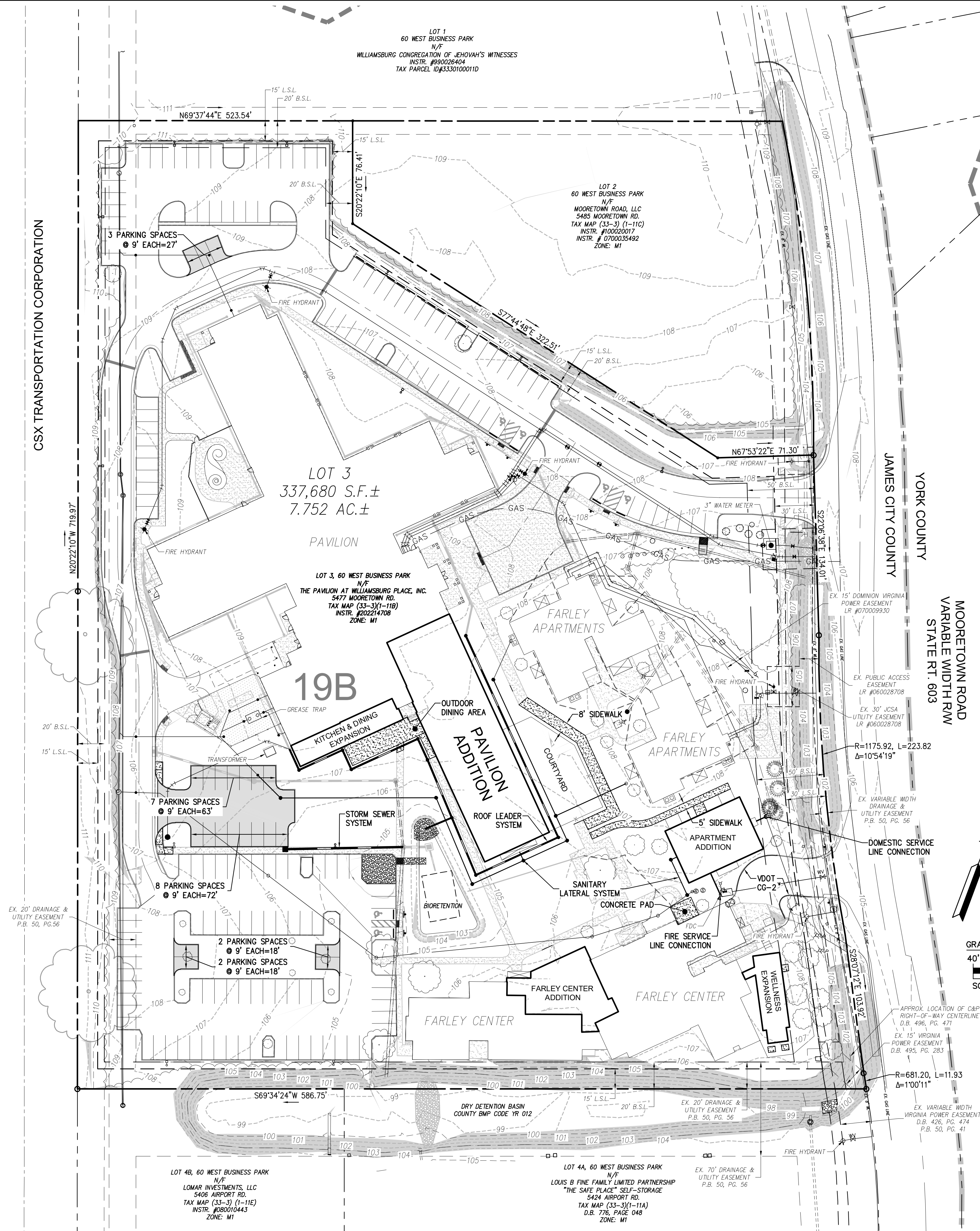
Hampton Roads | Central Virginia | Middle Peninsula

Exhibit C

Master Plan entitled “Master Plan for Williamsburg Place Pavilion and Farley Center Additions” dated August 24, 2022, revised through November 11, 2022 and prepared by AES Consulting Engineers

U.S. ROUTE 60

CSX TRANSPORTATION CORPORATION



VICINITY MAP
(APPROXIMATE SCALE: 1"=2000')
MAP COPYRIGHT © KAPPA MAP GROUP LLC, (386) 873-3011. USED WITH PERMISSION - PERMITTED USE NUMBER BJE051082.

- NOTES:
1. THIS PROPERTY IS LOCATED WITHIN THE QUEEN CREEK AND POWHATAN CREEK WATERSHEDS.
 2. THERE ARE NO RARE, THREATENED OR ENDANGERED SPECIES OF PLANTS OR ANIMALS PRESENT ON SITE.
 3. PRESERVATION OF EXISTING TREES ON SITE SHALL BE DETERMINED DURING THE DESIGN STAGE OF DEVELOPMENT.
 4. EXISTING VEGETATION SHALL BE PRESERVED TO THE GREATEST EXTENT POSSIBLE.

SPECIAL STORMWATER CRITERIA (SSC) NOTE:
1. BASED ON THE LOCATION WITHIN THE POWHATAN CREEK WATERSHED AND ANTICIPATED DISTURBED AREA FOR THIS PROJECT, A TOTAL OF ONE (1) SSC MEASURE SHALL BE REQUIRED.

SITE TABULATIONS			
SUP SITE AREA	= 337,680 S.F.± (7.75 AC.±)	(100.00%)	
TOTAL NUMBER OF BEDS	= 214 BEDS		
TOTAL BUILDING AREA			
THE PAVILION	= 50,000 S.F.± (1.14 AC.±)	(14.81%)	
THE FARLEY APARTMENTS	= 12,500 S.F.± (0.29 AC.±)	(3.70%)	
THE FARLEY CENTER	= 20,000 S.F.± (0.46 AC.±)	(5.92%)	
TOTAL	= 82,500 S.F.± (1.89 AC.±)	(24.43%)	
MAXIMUM ALLOWABLE IMPERVIOUS COVER ON SITE (PER SP-0028-2010)	= 60% OF PARCEL AREA		
	= 202,608 S.F.± (4.65 AC.±)	(60.00%)	
EXISTING IMPERVIOUS COVER ON SITE (PER SP-0028-2010)	= 175,098 S.F.± (4.02 AC.±)	(51.85%)	
PROPOSED MAXIMUM IMPERVIOUS COVER ON SITE	= 202,608 S.F.± (4.65 AC.±)	(60.00%)	
EXISTING OPEN SPACE AREA ON SITE (PER SP-0028-2010)	= 162,582 S.F.± (3.73 AC.±)	(48.15%)	
PROPOSED MINIMUM OPEN SPACE AREA ON SITE	= 135,072 S.F.± (3.10 AC.±)	(40.00%)	

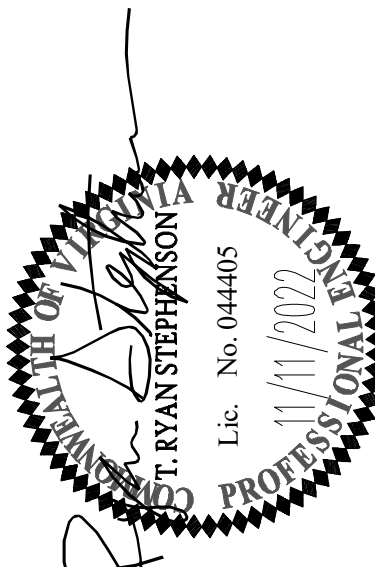
PARKING TABULATIONS	
REQUIRED PARKING SPACES:	SPACES
1 SPACE PER EMPLOYEE ON THE LARGEST SHIFT	= 97
1 SPACE PER EVERY FOUR BEDS	= 54
TOTAL REQUIRED	= 151
PROVIDED PARKING SPACES = 181 SPACES (INCLUDING 6 HC SPACES)	

EXISTING TOPOGRAPHIC INFORMATION AND PLANAMETRIC INFORMATION ARE FROM A COMBINATION OF SURVEY AND PREVIOUS DESIGN PROVIDED BY AES CONSULTING ENGINEERS.

LEGEND		LEGEND	
	DENOTES 25% OR GREATER MANMADE SLOPES		SOILS BOUNDARY
			SOILS TYPE

SOILS TABLE					
SOIL NUMBER	SOIL NAME	HYDROLOGIC SOIL GROUP	TYPICAL SLOPES	EROSION FACTOR (K)	EROSION FACTOR (T)
19B	KEMPSVILLE-EMPORIA FINE SANDY LOAMS	A/B	2-6%	0.28	5
INFORMATION TAKEN FROM THE UNITED STATES DEPARTMENT OF AGRICULTURE NATIONAL RESOURCES CONSERVATION SERVICE: SOIL SURVEY AREA: JAMES CITY AND YORK COUNTIES AND THE CITY OF WILLIAMSBURG, VIRGINIA SURVEY AREA DATA: VERSION 19, SEP 16, 2021					
SOIL SUSCEPTIBILITY TO EROSION CLASSIFICATION (K) 0.23 AND LOWER - LOW ERODIBILITY 0.23 TO 0.36 - MODERATE ERODIBILITY 0.36 AND UP - HIGH ERODIBILITY					
THE MAP SHOWN IS A "BEST FIT MODEL" OF THE SCS MAPS WITH EXISTING BASE INFORMATION.					

Rev.	Date	Description	Revised By	TRIS
2	11/11/2022	REVISED PER 2ND JCC SUP SUBMITTAL COMMENTS		TRIS
1	10/24/2022	REVISED PER 1ST JCC SUP SUBMITTAL COMMENTS		TRIS



THIS PLAN HAS NOT RECEIVED FINAL APPROVAL AND IS NOT APPROVED FOR CONSTRUCTION.

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AES
CONSULTING ENGINEERS
Hampton Roads | Central Virginia | Middle Peninsula

MASTER PLAN FOR
WILLIAMSBURG PLACE
PAVILION AND FARLEY CENTER ADDITIONS
POWHATAN DISTRICT | JAMES CITY COUNTY | VIRGINIA

Project Contacts:	TRIS
Project Number:	W10772-00
Scale:	1"=40'
Date:	08/24/2022
Sheet Title:	MASTER PLAN
Sheet Number:	MP1.0

Exhibit D

VRRM Spreadsheet

Post-Development VRRM Drainage Area Map

Post-Development VRRM Curve Number Calculations

DEQ Virginia Runoff Reduction Method Re-Development Compliance Spreadsheet - Version 3.0

○ 2011 BMP Standards and Specifications

◎ 2013 Draft BMP Standards and Specifications

Project Name:

SUP, Williamsburg Place, Pavilion & Farley Center Additions

Date:

11/11/2022

Linear Development Project?

No

data input cells

constant values

calculation cells

final results

Site Information

Post-Development Project (Treatment Volume and Loads)

Enter Total Disturbed Area (acres) →

7.75

Check:

BMP Design Specifications List: 2013 Draft Stds & Specs

Linear project?

No

Land cover areas entered correctly?

✓

Total disturbed area entered?

✓

Maximum reduction required:

20%

The site's net increase in impervious cover (acres) is:

0.63

Post-Development TP Load Reduction for Site (lb/yr):

3.13

Pre-ReDevelopment Land Cover (acres)

A Soils

B Soils

C Soils

D Soils

Totals

Forest/Open Space (acres) – undisturbed forest/open space

0.00

0.00

0.00

0.00

0.00

Managed Turf (acres) – disturbed, graded for yards or other turf to be mowed/managed

0.00

3.73

0.00

0.00

3.73

Impervious Cover (acres)

0.00

4.02

0.00

0.00

4.02

7.75

Post-Development Land Cover (acres)

A Soils

B Soils

C Soils

D Soils

Totals

Forest/Open Space (acres) – undisturbed, protected forest/open space or reforested land

0.00

0.00

0.00

0.00

0.00

Managed Turf (acres) – disturbed, graded for yards or other turf to be mowed/managed

0.00

3.10

0.00

0.00

3.10

Impervious Cover (acres)

0.00

4.65

0.00

0.00

4.65

Area Check

OK.

OK.

OK.

OK.

7.75

Constants

Runoff Coefficients (Rv)

A Soils

B Soils

C Soils

D Soils

Annual Rainfall (inches)

43

Forest/Open Space

0.02

0.03

0.04

0.05

Target Rainfall Event (inches)

1.00

Managed Turf

0.15

0.20

0.22

0.25

Total Phosphorus (TP) EMC (mg/L)

0.76

Impervious Cover

0.95

0.95

0.95

0.95

Total Nitrogen (TN) EMC (mg/L)

1.86

Target TP Load (lb/acre/yr)

0.41

Pj (unitless correction factor)

0.90

LAND COVER SUMMARY -- PRE-REDEVELOPMENT

Land Cover Summary-Pre

Pre-ReDevelopment

Listed

Adjusted*

Forest/Open Space Cover (acres)

0.00

0.00

Weighted Rv(forest)

0.00

0.00

% Forest

0%

0%

Managed Turf Cover (acres)

3.73

3.10

Weighted Rv(turf)

0.20

0.20

% Managed Turf

48%

44%

Impervious Cover (acres)

4.02

4.02

Rv(impervious)

0.95

0.95

% Impervious

52%

56%

Total Site Area (acres)

7.75

7.12

Site Rv

0.59

0.62

LAND COVER SUMMARY -- POST DEVELOPMENT

Land Cover Summary-Post(Final)

Post ReDev. & New Impervious

Forest/Open Space Cover (acres)

0.00

Weighted Rv(forest)

0.00

% Forest

0%

Managed Turf Cover (acres)

3.10

Weighted Rv (turf)

0.20

% Managed Turf

40%

Impervious Cover (acres)

4.65

Rv(impervious)

0.95

% Impervious

60%

Final Site Area (acres)

7.75

Final Post Dev Site Rv

0.65

Land Cover Summary-Post

Post-ReDevelopment

Forest/Open Space Cover (acres)

0.00

Weighted Rv(forest)

0.00

% Forest

0%

Managed Turf Cover (acres)

3.10

Weighted Rv (turf)

0.20

% Managed Turf

44%

ReDev. Impervious Cover (acres)

4.02

Rv(impervious)

0.95

% Impervious

56%

Total ReDev. Site Area (acres)

7.12

ReDev Site Rv

0.62

Land Cover Summary-Post

Post-Development New Impervious

New Impervious Cover (acres)

0.63

Rv(impervious)

0.95

Treatment Volume and Nutrient Load

Pre-ReDevelopment Treatment Volume (acre-ft)

0.3804

0.3699

Final Post-Development Treatment Volume (acre-ft)

0.4198

Post-ReDevelopment Treatment Volume (acre-ft)

0.3699

Post-Development Treatment Volume (acre-ft)

0.0499

Pre-ReDevelopment Treatment Volume (cubic feet)

16,571

16,114

Final Post-Development Treatment Volume (cubic feet)

18,286

Post-ReDevelopment Treatment Volume (cubic feet)

16,114

Post-Development Treatment Volume (cubic feet)

2,173

Pre-ReDevelopment TP Load (lb/yr)

10.41

10.12

Final Post-Development TP Load (lb/yr)

11.49

Post-ReDevelopment Load (TP) (lb/yr)*

10.12

Post-Development TP Load (lb/yr)

1.37

Pre-ReDevelopment TP Load per acre (lb/acre/yr)

1.34

1.42

Final Post-Development TP Load per acre (lb/acre/yr)

1.48

Post-ReDevelopment TP Load per acre (lb/acre/yr)

1.42

Baseline TP Load (lb/yr)

0.41 lbs/acre/yr applied to pre-redevelopment area excluding pervious land proposed for new impervious cover.

2.92

Max. Reduction Required (Below Pre-ReDevelopment Load)

20%

* Adjusted Land Cover Summary:
Pre ReDevelopment land cover minus pervious land cover (forest/open space or managed turf) acreage proposed for new impervious cover.

Adjusted total acreage is consistent with Post-ReDevelopment acreage (minus acreage of new impervious cover).

Column I shows load reduction requirement for new impervious cover (based on new development load limit, 0.41 lb/acre/year).

TP Load Reduction Required for Redeveloped Area (lb/yr)

2.02

TP Load Reduction Required for New Impervious Area (lb/yr)

1.11

Post-Development Requirement for Site Area

TP Load Reduction Required (lb/yr)

3.13

Nitrogen Loads (Informational Purposes Only)

Pre-ReDevelopment TN Load (lb/yr)

74.48

Final Post-Development TN Load (Post-ReDevelopment & New Impervious) (lb/yr)

82.19

Drainage Area A

Drainage Area A Land Cover (acres)

	A Soils	B Soils	C Soils	D Soils	Totals	Land Cover Rv
Forest/Open Space (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Managed Turf (acres)	0.00	3.10	0.00	3.10	0.20	
Impervious Cover (acres)	0.00	4.65	0.00	0.00	4.65	0.95
Total					7.75	

Total Phosphorus Available for Removal in D.A. A (lb/yr)

11.49

Post Development Treatment Volume in D.A. A (ft³)

18,286

Stormwater Best Management Practices (RR = Runoff Reduction)

-Select from dropdown lists-

Practice	Runoff Reduction Credit (%)	Managed Turf Credit Area (acres)	Impervious Cover Credit Area (acres)	Volume from Upstream Practice (ft ³)	Runoff Reduction (ft ³)	Remaining Runoff Volume (ft ³)	Total BMP Treatment Volume (ft ³)	Phosphorus Removal Efficiency (%)	Phosphorus Load from Upstream Practices (lb)	Untreated Phosphorus Load to Practice (lb)	Phosphorus Removed By Practice (lb)	Remaining Phosphorus Load (lb)	Downstream Practice to be Employed
1. Vegetated Roof (RR)													
1.a. Vegetated Roof #1 (Spec #5)	45				0	0	0	0		0.00	0.00	0.00	
1.b. Vegetated Roof #2 (Spec #5)	60				0	0	0	0		0.00	0.00	0.00	
2. Rooftop Disconnection (RR)													
2.a. Simple Disconnection to A/B Soils (Spec #1)	50			0	0	0	0	0	0.00	0.00	0.00	0.00	
2.b. Simple Disconnection to C/D Soils (Spec #3)	25			0	0	0	0	0	0.00	0.00	0.00	0.00	
2.c. To Soil Amended Filter Path as per specifications (levelling C/D soils) (Spec #4)	50			0	0	0	0	0	0.00	0.00	0.00	0.00	
2.d. To Dry Well or French Drain #1, Micro-Infiltration #1 (Spec #8)	50			0	0	0	0	25	0.00	0.00	0.00	0.00	
2.e. To Dry Well or French Drain #2, Micro-Infiltration #2 (Spec #8)	90			0	0	0	0	25	0.00	0.00	0.00	0.00	
2.f. To Rain Garden #1, Micro-Biorentention #1 (Spec #9)	40			0	0	0	0	25	0.00	0.00	0.00	0.00	
2.g. To Rain Garden #2, Micro-Biorentention #2 (Spec #9)	80			0	0	0	0	50	0.00	0.00	0.00	0.00	
2.h. To Rainwater Harvesting (Spec #6)	0			0	0	0	0	0	0.00	0.00	0.00	0.00	
2.i. Stormwater Planter, Urban Biorentention (Spec #9, Appendix A)	40			0	0	0	0	25	0.00	0.00	0.00	0.00	
3. Permeable Pavement (RR)													
3.a. Permeable Pavement #1 (Spec #7)	45			0	0	0	0	25	0.00	0.00	0.00	0.00	
3.b. Permeable Pavement #2 (Spec #7)	75				0	0	0	25		0.00	0.00	0.00	
4. Grass Channel (RR)													
4.a. Grass Channel A/B Soils (Spec #3)	20			0	0	0	0	15	0.00	0.00	0.00	0.00	
4.b. Grass Channel C/D Soils (Spec #3)	10			0	0	0	0	15	0.00	0.00	0.00	0.00	
4.c. Grass Channel with Compost Amended Soils as per specs (see Spec #4)	20			0	0	0	0	15	0.00	0.00	0.00	0.00	
5. Dry Swale (RR)													
5.a. Dry Swale #1 (Spec #10)	40			0	0	0	0	20	0.00	0.00	0.00	0.00	
5.b. Dry Swale #2 (Spec #10)	60			0	0	0	0	40	0.00	0.00	0.00	0.00	
6. Biorentention (RR)													
6.a. Biorentention #1 or Micro-Biorentention #1 or Urban Biorentention (Spec #9)	40	0.80	1.95	0	2,922	4,383	7,305	25	0.00	4.58	2.52	2.06	8.a. ED #1
6.b. Biorentention #2 or Micro-Biorentention #2 (Spec #9)	80			0	0	0	0	50	0.00	0.00	0.00	0.00	
7. Infiltration (RR)													
7.a. Infiltration #1 (Spec #8)	50			0	0	0	0	25	0.00	0.00	0.00	0.00	
7.b. Infiltration #2 (Spec #8)	90			0	0	0	0	25	0.00	0.00	0.00	0.00	
8. Extended Detention Pond (RR)													
8.a. ED #1 (Spec #15)	0	2.30	2.70	4,383	0	15,364	15,364	15	2.06	6.89	1.34	7.61	
8.b. ED #2 (Spec #15)	15			0	0	0	0	15	0.00	0.00	0.00	0.00	
9. Sheetflow to Filter/Open Space (RR)													
9.a. Sheetflow to Conservation Area, A/B Soils (Spec #2)	75			0	0	0	0	0	0.00	0.00	0.00	0.00	
9.b. Sheetflow to Conservation Area, C/D Soils (Spec #2)	50			0	0	0	0	0	0.00	0.00	0.00	0.00	
9.c. Sheetflow to Vegetated Filter Strip, A Soils or Compost Amended B/C/D Soils (Spec #2 & #6)	50			0	0	0	0	0	0.00	0.00	0.00	0.00	

TOTAL IMPERVIOUS COVER TREATED (ac) 4.65 AREA CHECK: OK.
TOTAL MANAGED TURF AREA TREATED (ac) 3.10 AREA CHECK: OK.
TOTAL RUNOFF REDUCTION IN D.A. A (ft³) 2,922TOTAL PHOSPHORUS AVAILABLE FOR REMOVAL IN D.A. A (lb/yr) 11.49
TOTAL PHOSPHORUS REMOVED WITH RUNOFF REDUCTION PRACTICES IN D.A. A (lb/yr) 3.86
TOTAL PHOSPHORUS REMAINING AFTER APPLYING RUNOFF REDUCTION PRACTICES IN D.A. A (lb/yr) 7.62

SEE WATER QUALITY COMPLIANCE TAB FOR SITE COMPLIANCE CALCULATIONS

Nitrogen Removal Efficiency (%)	Nitrogen Load from Upstream Practices (lb)	Untreated Nitrogen Load to Practice (lb)	Nitrogen Removed By Practice (lb)	Remaining Nitrogen Load (lb)
1. Vegetated Roof (RR)				
0		0.00	0.00	0.00
0		0.00	0.00	0.00

2. Rooftop Disconnection (RR)				
0	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00

3. Permeable Pavement (RR)				
25	0.00	0.00	0.00	0.00
25		0.00	0.00	0.00

4. Grass Channel (RR)				
20	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00

5. Dry Swale (RR)				
25	0.00	0.00	0.00	0.00
35	0.00	0.00	0.00	0.00

6. Biorentention (RR)				
40	0.00	32.80	20.99	11.81
60	0.00	0.00	0.00	0.00

7. Infiltration (RR)				
15	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00

8. Extended Detention Pond (RR)				
10	11.81	49.30	6.11	55.00
10	0.00	0.00	0.00	0.00

9. Sheetflow to Filter/Open Space (RR)				
0	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00

TOTAL RUNOFF REDUCTION IN D.A. A (ft³) 2,922
NITROGEN REMOVED WITH RUNOFF REDUCTION PRACTICES IN D.A. A (lb/yr) 27.10

SEE WATER QUALITY COMPLIANCE TAB FOR SITE CALCULATIONS (Information Only)

10. Wet Swale (no RR)													
10.a. Wet Swale #1 (Spec #11)	0			0	0	0	0	20	0.00	0.00	0.00	0.00	
10.b. Wet Swale #2 (Spec #11)	0			0	0	0	0	40	0.00	0.00	0.00	0.00	
11. Filtering Practices (no RR)													
11.a. Filtering Practice #1 (Spec #12)	0			0	0	0	0	60	0.00	0.00	0.00	0.00	
11.b. Filtering Practice #2 (Spec #12)	0			0	0	0	0	65	0.00	0.00	0.00	0.00	
12. Constructed Wetland (no RR)													
12.a. Constructed Wetland #1 (Spec #13)	0			0	0	0	0	50	0.00	0.00	0.00	0.00	
12.b. Constructed Wetland #2 (Spec #13)	0			0	0	0	0	75	0.00	0.00	0.00	0.00	
13. Wet Ponds (no RR)													
13.a. Wet Pond #1 (Spec #14)	0			0	0	0	0	50	0.00	0.00	0.00	0.00	
13.b. Wet Pond #1 (Coastal Plain) (Spec #14)	0			0	0	0	0	45	0.00	0.00	0.00	0.00	
13.c. Wet Pond #2 (Spec #14)	0			0	0	0	0	75	0.00	0.00	0.00	0.00	
13.d. Wet Pond #2 (Coastal Plain) (Spec #14)	0			0	0	0	0	65	0.00	0.00	0.00	0.00	
14. Manufactured Treatment Devices (no RR)													
14.a. Manufactured Treatment Device-Hydrodynamic	0			0	0	0	0	20	0.00	0.00	0.00	0.00	
14.b. Manufactured Treatment Device-Filtering	0			0	0	0	0	20	0.00	0.00	0.00	0.00	
14.c. Manufactured Treatment Device-Generic	0			0	0	0	0	20	0.00	0.00	0.00	0.00	

10. Wet Swale (Coastal Plain) (no RR)				
25	0.00	0.00	0.00	0.00
35	0.00	0.00	0.00	0.00
11. Filtering Practices (no RR)				
30	0.00	0.00	0.00	0.00
45	0.00	0.00	0.00	0.00
12. Constructed Wetland (no RR)				
25	0.00	0.00	0.00	0.00
55	0.00	0.00	0.00	0.00
13. Wet Ponds (no RR)				
30	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00
14. Manufactured BMP (no RR)				
0	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00

TOTAL IMPERVIOUS COVER TREATED (ac)	4.65	AREA CHECK: OK.
TOTAL MANAGED TURF AREA TREATED (ac)	3.10	AREA CHECK: OK.
TOTAL PHOSPHORUS REMOVAL REQUIRED ON SITE (lb/yr)	3.13	
TOTAL PHOSPHORUS AVAILABLE FOR REMOVAL IN D.A. A (lb/yr)	11.49	
TOTAL PHOSPHORUS REMOVED WITHOUT RUNOFF REDUCTION PRACTICES IN D.A. A (lb/yr)	0.00	
TOTAL PHOSPHORUS REMOVED WITH RUNOFF REDUCTION PRACTICES IN D.A. A (lb/yr)	3.86	
TOTAL PHOSPHORUS LOAD REDUCTION ACHIEVED IN D.A. A (lb/yr)	3.86	
TOTAL PHOSPHORUS REMAINING AFTER APPLYING BMP LOAD REDUCTIONS IN D.A. A (lb/yr)	7.62	
SEE WATER QUALITY COMPLIANCE TAB FOR SITE COMPLIANCE CALCULATIONS		
NITROGEN REMOVED WITH RUNOFF REDUCTION PRACTICES IN D.A. A (lb/yr)	27.10	
NITROGEN REMOVED WITHOUT RUNOFF REDUCTION PRACTICES IN D.A. A (lb/yr)	0.00	
TOTAL NITROGEN REMOVED IN D.A. A (lb/yr)	27.10	

Drainage Area B

Drainage Area A Land Cover (acres)

	A Soils	B Soils	C Soils	D Soils	Totals	Land Cover Rv
Forest/Open Space (acres)					0.00	0.00
Managed Turf (acres)					0.00	0.00
Impervious Cover (acres)					0.00	0.00
Total					0.00	

Total Phosphorus Available for Removal in D.A. B (lb/yr)	0.00
Post Development Treatment Volume in D.A. B (ft ³)	0

Stormwater Best Management Practices (RR = Runoff Reduction)

-Select from dropdown lists-

Practice	Runoff Reduction Credit (%)	Managed Turf Credit Area (acres)	Impervious Cover Credit Area (acres)	Volume from Upstream Practice (ft ³)	Runoff Reduction (ft ³)	Remaining Runoff Volume (ft ³)	Total BMP Treatment Volume (ft ³)	Phosphorus Removal Efficiency (%)	Phosphorus Load from Upstream Practices (lb)	Untreated Phosphorus Load to Practice (lb)	Phosphorus Removed By Practice (lb)	Remaining Phosphorus Load (lb)	Downstream Practice to be Employed
1. Vegetated Roof (RR)													
1.a. Vegetated Roof #1 (Spec #5)	45				0	0	0	0		0.00	0.00	0.00	
1.b. Vegetated Roof #2 (Spec #5)	60				0	0	0	0		0.00	0.00	0.00	
2. Rooftop Disconnection (RR)													
2.a. Simple Disconnection to A/B Soils (Spec #1)	50			0	0	0	0	0	0.00	0.00	0.00	0.00	
2.b. Simple Disconnection to C/D Soils (Spec #1)	25			0	0	0	0	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)	50			0	0	0	0	0	0.00	0.00	0.00	0.00	
2.d. To Dry Well or French Drain #1, Micro-Infiltration #1 (Spec #6)	50			0	0	0	0	25	0.00	0.00	0.00	0.00	
2.e. To Dry Well or French Drain #2, Micro-Infiltration #2 (Spec #6)	90			0	0	0	0	25	0.00	0.00	0.00	0.00	
2.f. To Rain Garden #1, Micro-Bioretentation #1 (Spec #9)	40			0	0	0	0	25	0.00	0.00	0.00	0.00	
2.g. To Rain Garden #2, Micro-Bioretentation #2 (Spec #9)	80			0	0	0	0	50	0.00	0.00	0.00	0.00	
2.h. To Rainwater Harvesting (Spec #6)	0			0	0	0	0	0	0.00	0.00	0.00	0.00	
2.i. To Stormwater Planter, Urban Bioretention (Spec #9, Appendix A)	40			0	0	0	0	25	0.00	0.00	0.00	0.00	
3. Permeable Pavement (RR)													
3.a. Permeable Pavement #1 (Spec #7)	45			0	0	0	0	25	0.00	0.00	0.00	0.00	
3.b. Permeable Pavement #2 (Spec #7)	75				0	0	0	25		0.00	0.00	0.00	
4. Grass Channel (RR)													
4.a. Grass Channel A/B Soils (Spec #3)	20			0	0	0	0	15	0.00	0.00	0.00	0.00	
4.b. Grass Channel C/D Soils (Spec #3)	10			0	0	0	0	15	0.00	0.00	0.00	0.00	
4.c. Grass Channel with Compost Amended Soils as per specs (see Spec #4)	20			0	0	0	0	15	0.00	0.00	0.00	0.00	
5. Dry Swale (RR)													
5.a. Dry Swale #1 (Spec #10)	40			0	0	0	0	20	0.00	0.00	0.00	0.00	
5.b. Dry Swale #2 (Spec #10)	60			0	0	0	0	40	0.00	0.00	0.00	0.00	
6. Bioretention (RR)													
6.a. Bioretention #1 or Micro-Bioretentation #1 or Urban Bioretention (Spec #9)	40			0	0	0	0	25	0.00	0.00	0.00	0.00	
6.b. Bioretention #2 or Micro-Bioretentation #2 (Spec #9)	80			0	0	0	0	50	0.00	0.00	0.00	0.00	
7. Infiltration (RR)													
7.a. Infiltration #1 (Spec #8)	50			0	0	0	0	25	0.00	0.00	0.00	0.00	
7.b. Infiltration #2 (Spec #8)	90			0	0	0	0	25	0.00	0.00	0.00	0.00	
8. Extended Detention Pond (RR)													
8.a. ED #1 (Spec #15)	0			0	0	0	0	15	0.00	0.00	0.00	0.00	
8.b. ED #2 (Spec #15)	15			0	0	0	0	15	0.00	0.00	0.00	0.00	
9. Sheetflow to Filter/Open Space (RR)													
9.a. Sheetflow to Conservation Area, A/B Soils (Spec #2)	75			0	0	0	0	0	0.00	0.00	0.00	0.00	
9.b. Sheetflow to Conservation Area, C/D Soils (Spec #2)	50			0	0	0	0	0	0.00	0.00	0.00	0.00	
9.c. Sheetflow to Vegetated Filter Strip, A Soils or Compost Amended B/C/D Soils (Spec #2 & #4)	50			0	0	0	0	0	0.00	0.00	0.00	0.00	

TOTAL IMPERVIOUS COVER TREATED (sq)	0.00	AREA CHECK: OK.
TOTAL TURF AREA TREATED (sq)	0.00	AREA CHECK: OK.
TOTAL RUNOFF REDUCTION IN D.A. B (ft ³)	0	

TOTAL PHOSPHORUS AVAILABLE FOR REMOVAL IN D.A. B (lb/yr)	0.00
TOTAL PHOSPHORUS REMOVED WITH RUNOFF REDUCTION PRACTICES IN D.A. B (lb/yr)	0.00
TOTAL PHOSPHORUS REMAINING AFTER APPLYING RUNOFF REDUCTION PRACTICES IN D.A. B (lb/yr)	0.00

SEE WATER QUALITY COMPLIANCE TAB FOR SITE COMPLIANCE CALCULATIONS

Nitrogen Removal Efficiency (%)	Nitrogen Load from Upstream Practices (lbs)	Untreated Nitrogen Load to Practice (lbs)	Nitrogen Removed By Practice (lbs)	Remaining Nitrogen Load (lbs)
1. Vegetated Roof (RR)				
0		0.00	0.00	0.00
0		0.00	0.00	0.00

2. Rooftop Disconnection (RR)				
0	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00

3. Permeable Pavement (RR)				
25		0.00	0.00	0.00
75		0.00	0.00	0.00

4. Grass Channel (RR)				
20	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00

5. Dry Swale (RR)				
25	0.00	0.00	0.00	0.00
35	0.00	0.00	0.00	0.00

6. Bioretention (RR)				
40	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00

7. Infiltration (RR)				
15	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00

8. Extended Detention Pond (RR)				
10	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00

9. Sheetflow to Filter/Open Space (RR)				
0	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00

TOTAL RUNOFF REDUCTION IN D.A. B (ft ³)	0
NITROGEN REMOVED WITH RUNOFF REDUCTION PRACTICES IN D.A. B (lb/yr)	0.00

SEE WATER QUALITY COMPLIANCE TAB FOR SITE CALCULATIONS (Information Only)

10. Wet Swale (no RR)													
10.a. Wet Swale #1 (Spec #11)	0			0	0	0	0	20	0.00	0.00	0.00	0.00	
10.b. Wet Swale #2 (Spec #11)	0			0	0	0	0	40	0.00	0.00	0.00	0.00	
11. Filtering Practices (no RR)													
11.a. Filtering Practice #1 (Spec #12)	0			0	0	0	0	60	0.00	0.00	0.00	0.00	
11.b. Filtering Practice #2 (Spec #12)	0			0	0	0	0	65	0.00	0.00	0.00	0.00	
12. Constructed Wetland (no RR)													
12.a. Constructed Wetland #1 (Spec #13)	0			0	0	0	0	50	0.00	0.00	0.00	0.00	
12.b. Constructed Wetland #2 (Spec #13)	0			0	0	0	0	75	0.00	0.00	0.00	0.00	
13. Wet Ponds (no RR)													
13.a. Wet Pond #1 (Spec #14)	0			0	0	0	0	90	0.00	0.00	0.00	0.00	
13.b. Wet Pond #1 (Coastal Plain) (Spec #14)	0			0	0	0	0	45	0.00	0.00	0.00	0.00	
13.c. Wet Pond #2 (Spec #14)	0			0	0	0	0	75	0.00	0.00	0.00	0.00	
13.d. Wet Pond #2 (Coastal Plain) (Spec #14)	0			0	0	0	0	65	0.00	0.00	0.00	0.00	
14. Manufactured Treatment Devices (no RR)													
14.a. Manufactured Treatment Device- Hydrodynamic	0			0	0	0	0	20	0.00	0.00	0.00	0.00	
14.b. Manufactured Treatment Device-Filtering	0			0	0	0	0	20	0.00	0.00	0.00	0.00	
14.c. Manufactured Treatment Device-Generic	0			0	0	0	0	20	0.00	0.00	0.00	0.00	

10. Wet Swale (Coastal Plain) (no RR)				
25	0.00	0.00	0.00	0.00
35	0.00	0.00	0.00	0.00
11. Filtering Practices (no RR)				
30	0.00	0.00	0.00	0.00
45	0.00	0.00	0.00	0.00
12. Constructed Wetland (no RR)				
25	0.00	0.00	0.00	0.00
55	0.00	0.00	0.00	0.00
13. Wet Ponds (no RR)				
30	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00
14. Manufactured BMP (no RR)				
0	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00

TOTAL IMPERVIOUS COVER TREATED (ac)	0.00	AREA CHECK: OK.
TOTAL MANAGED TURF AREA TREATED (ac)	0.00	AREA CHECK: OK.
TOTAL PHOSPHORUS REMOVAL REQUIRED ON SITE (lb/yr)	3.13	
TOTAL PHOSPHORUS AVAILABLE FOR REMOVAL IN D.A. B (lb/yr)	0.00	
TOTAL PHOSPHORUS REMOVED WITHOUT RUNOFF REDUCTION PRACTICES IN D.A. B (lb/yr)	0.00	
TOTAL PHOSPHORUS REMOVED WITH RUNOFF REDUCTION PRACTICES IN D.A. B (lb/yr)	0.00	
TOTAL PHOSPHORUS LOAD REDUCTION ACHIEVED IN D.A. B (lb/yr)	0.00	
TOTAL PHOSPHORUS REMAINING AFTER APPLYING BMP LOAD REDUCTIONS IN D.A. B (lb/yr)	0.00	
SEE WATER QUALITY COMPLIANCE TAB FOR SITE COMPLIANCE CALCULATIONS		
NITROGEN REMOVED WITH RUNOFF REDUCTION PRACTICES IN D.A. B (lb/yr)	0.00	
NITROGEN REMOVED WITHOUT RUNOFF REDUCTION PRACTICES IN D.A. B (lb/yr)	0.00	
TOTAL NITROGEN REMOVED IN D.A. B (lb/yr)	0.00	

Drainage Area C

Drainage Area A Land Cover (acres)

	A Soils	B Soils	C Soils	D Soils	Totals	Land Cover Rv
Forest/Open Space (acres)					0.00	0.00
Managed Turf (acres)					0.00	0.00
Impervious Cover (acres)					0.00	0.00
					0.00	

Total Phosphorus Available for Removal in D.A. C (lb/yr)	0.00
Post Development Treatment Volume in D.A. C (ft ³)	0

Stormwater Best Management Practices (RR = Runoff Reduction)

-Select from dropdown lists-

Practice	Runoff Reduction Credit (%)	Managed Turf Credit Area (acres)	Impervious Cover Credit Area (acres)	Volume from Upstream Practice (ft ³)	Runoff Reduction (ft ³)	Remaining Runoff Volume (ft ³)	Total BMP Treatment Volume (ft ³)	Phosphorus Removal Efficiency (%)	Phosphorus Load from Upstream Practices (lb)	Untreated Phosphorus Load to Practice (lb)	Phosphorus Removed By Practice (lb)	Remaining Phosphorus Load (lb)	Downstream Practice to be Employed
1. Vegetated Roof (RR)													
1.a. Vegetated Roof #1 (Spec #5)	45				0	0	0	0		0.00	0.00	0.00	
1.b. Vegetated Roof #2 (Spec #5)	60				0	0	0	0		0.00	0.00	0.00	
2. Rooftop Disconnection (RR)													
2.a. Simple Disconnection to A/B Soils (Spec #1)	50			0	0	0	0	0	0.00	0.00	0.00	0.00	
2.b. Simple Disconnection to C/D Soils (Spec #1)	25			0	0	0	0	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)	50			0	0	0	0	0	0.00	0.00	0.00	0.00	
2.d. To Dry Well or French Drain #1, Micro-Infiltration #1 (Spec #6)	50			0	0	0	0	25	0.00	0.00	0.00	0.00	
2.e. To Dry Well or French Drain #2, Micro-Infiltration #2 (Spec #6)	90			0	0	0	0	25	0.00	0.00	0.00	0.00	
2.f. To Rain Garden #1, Micro-Bioretentation #1 (Spec #9)	40			0	0	0	0	25	0.00	0.00	0.00	0.00	
2.g. To Rain Garden #2, Micro-Bioretentation #2 (Spec #9)	80			0	0	0	0	50	0.00	0.00	0.00	0.00	
2.h. To Rainwater Harvesting (Spec #6)	0			0	0	0	0	0	0.00	0.00	0.00	0.00	
2.i. To Stormwater Planter, Urban Bioretention (Spec #9, Appendix A)	40			0	0	0	0	25	0.00	0.00	0.00	0.00	
3. Permeable Pavement (RR)													
3.a. Permeable Pavement #1 (Spec #7)	45			0	0	0	0	25	0.00	0.00	0.00	0.00	
3.b. Permeable Pavement #2 (Spec #7)	75				0	0	0	25		0.00	0.00	0.00	
4. Grass Channel (RR)													
4.a. Grass Channel A/B Soils (Spec #3)	20			0	0	0	0	15	0.00	0.00	0.00	0.00	
4.b. Grass Channel C/D Soils (Spec #3)	10			0	0	0	0	15	0.00	0.00	0.00	0.00	
4.c. Grass Channel with Compost Amended Soils as per specs (see Spec #4)	20			0	0	0	0	15	0.00	0.00	0.00	0.00	
5. Dry Swale (RR)													
5.a. Dry Swale #1 (Spec #10)	40			0	0	0	0	20	0.00	0.00	0.00	0.00	
5.b. Dry Swale #2 (Spec #10)	60			0	0	0	0	40	0.00	0.00	0.00	0.00	
6. Bioretention (RR)													
6.a. Bioretention #1 or Micro-Bioretentation #1 or Urban Bioretention (Spec #9)	40			0	0	0	0	25	0.00	0.00	0.00	0.00	
6.b. Bioretention #2 or Micro-Bioretentation #2 (Spec #9)	80			0	0	0	0	50	0.00	0.00	0.00	0.00	
7. Infiltration (RR)													
7.a. Infiltration #1 (Spec #8)	50			0	0	0	0	25	0.00	0.00	0.00	0.00	
7.b. Infiltration #2 (Spec #8)	90			0	0	0	0	25	0.00	0.00	0.00	0.00	
8. Extended Detention Pond (RR)													
8.a. ED #1 (Spec #15)	0			0	0	0	0	15	0.00	0.00	0.00	0.00	
8.b. ED #2 (Spec #15)	15			0	0	0	0	15	0.00	0.00	0.00	0.00	
9. Sheetflow to Filter/Open Space (RR)													
9.a. Sheetflow to Conservation Area, A/B Soils (Spec #2)	75			0	0	0	0	0	0.00	0.00	0.00	0.00	
9.b. Sheetflow to Conservation Area, C/D Soils (Spec #2)	50			0	0	0	0	0	0.00	0.00	0.00	0.00	
9.c. Sheetflow to Vegetated Filter Strip, A Soils or Compost Amended B/C/D Soils (Spec #2 & #4)	50			0	0	0	0	0	0.00	0.00	0.00	0.00	

TOTAL IMPERVIOUS COVER TREATED (sq ft) 0.00 AREA CHECK: OK.
TOTAL MANAGED TURF AREA TREATED (sq ft) 0.00 AREA CHECK: OK.
TOTAL RUNOFF REDUCTION IN D.A. C (ft³) 0

TOTAL PHOSPHORUS AVAILABLE FOR REMOVAL IN D.A. C (lb/yr) 0.00
TOTAL PHOSPHORUS REMOVED WITH RUNOFF REDUCTION PRACTICES IN D.A. C (lb/yr) 0.00
TOTAL PHOSPHORUS REMAINING AFTER APPLYING RUNOFF REDUCTION PRACTICES IN D.A. C (lb/yr) 0.00

SEE WATER QUALITY COMPLIANCE TAB FOR SITE COMPLIANCE CALCULATIONS

Nitrogen Removal Efficiency (%)	Nitrogen Load from Upstream Practices (lbs)	Untreated Nitrogen Load to Practice (lbs)	Nitrogen Removed By Practice (lbs)	Remaining Nitrogen Load (lbs)
1. Vegetated Roof (RR)				
0		0.00	0.00	0.00
0		0.00	0.00	0.00

2. Rooftop Disconnection (RR)				
0	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00

3. Permeable Pavement (RR)				
25		0.00	0.00	0.00
75		0.00	0.00	0.00

4. Grass Channel (RR)				
20	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00

5. Dry Swale (RR)				
25	0.00	0.00	0.00	0.00
35	0.00	0.00	0.00	0.00

6. Bioretention (RR)				
40	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00

7. Infiltration (RR)				
15	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00

8. Extended Detention Pond (RR)				
10	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00

9. Sheetflow to Filter/Open Space (RR)				
0	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00

TOTAL RUNOFF REDUCTION IN D.A. C (ft³) 0
NITROGEN REMOVED WITH RUNOFF REDUCTION PRACTICES IN D.A. C (lb/yr) 0.00

SEE WATER QUALITY COMPLIANCE TAB FOR SITE CALCULATIONS (Information Only)

10. Wet Swale (no RR)													
10.a. Wet Swale #1 (Spec #11)	0			0	0	0	0	20	0.00	0.00	0.00	0.00	
10.b. Wet Swale #2 (Spec #11)	0			0	0	0	0	40	0.00	0.00	0.00	0.00	
11. Filtering Practices (no RR)													
11.a. Filtering Practice #1 (Spec #12)	0			0	0	0	0	60	0.00	0.00	0.00	0.00	
11.b. Filtering Practice #2 (Spec #12)	0			0	0	0	0	65	0.00	0.00	0.00	0.00	
12. Constructed Wetland (no RR)													
12.a. Constructed Wetland #1 (Spec #13)	0			0	0	0	0	50	0.00	0.00	0.00	0.00	
12.b. Constructed Wetland #2 (Spec #13)	0			0	0	0	0	75	0.00	0.00	0.00	0.00	
13. Wet Ponds (no RR)													
13.a. Wet Pond #1 (Spec #14)	0			0	0	0	0	90	0.00	0.00	0.00	0.00	
13.b. Wet Pond #1 (Coastal Plain) (Spec #14)	0			0	0	0	0	45	0.00	0.00	0.00	0.00	
13.c. Wet Pond #2 (Spec #14)	0			0	0	0	0	75	0.00	0.00	0.00	0.00	
13.d. Wet Pond #2 (Coastal Plain) (Spec #14)	0			0	0	0	0	65	0.00	0.00	0.00	0.00	
14. Manufactured Treatment Devices (no RR)													
14.a. Manufactured Treatment Device-Hydrodynamic	0			0	0	0	0	20	0.00	0.00	0.00	0.00	
14.b. Manufactured Treatment Device-Filtering	0			0	0	0	0	20	0.00	0.00	0.00	0.00	
14.c. Manufactured Treatment Device-Generic	0			0	0	0	0	20	0.00	0.00	0.00	0.00	

10. Wet Swale (Coastal Plain) (no RR)				
25	0.00	0.00	0.00	0.00
35	0.00	0.00	0.00	0.00
11. Filtering Practices (no RR)				
30	0.00	0.00	0.00	0.00
45	0.00	0.00	0.00	0.00
12. Constructed Wetland (no RR)				
25	0.00	0.00	0.00	0.00
55	0.00	0.00	0.00	0.00
13. Wet Ponds (no RR)				
30	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00
14. Manufactured BMP (no RR)				
0	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00

TOTAL IMPERVIOUS COVER TREATED (ac)	0.00	AREA CHECK: OK.
TOTAL MANAGED TURF AREA TREATED (ac)	0.00	AREA CHECK: OK.
TOTAL PHOSPHORUS REMOVAL REQUIRED ON SITE (lb/yr)	3.13	
TOTAL PHOSPHORUS AVAILABLE FOR REMOVAL IN D.A. C (lb/yr)	0.00	
TOTAL PHOSPHORUS REMOVED WITHOUT RUNOFF REDUCTION PRACTICES IN D.A. C (lb/yr)	0.00	
TOTAL PHOSPHORUS REMOVED WITH RUNOFF REDUCTION PRACTICES IN D.A. C (lb/yr)	0.00	
TOTAL PHOSPHORUS LOAD REDUCTION ACHIEVED IN D.A. C (lb/yr)	0.00	
TOTAL PHOSPHORUS REMAINING AFTER APPLYING BMP LOAD REDUCTIONS IN D.A. C (lb/yr)	0.00	
SEE WATER QUALITY COMPLIANCE TAB FOR SITE COMPLIANCE CALCULATIONS		
NITROGEN REMOVED WITH RUNOFF REDUCTION PRACTICES IN D.A. C (lb/yr)	0.00	
NITROGEN REMOVED WITHOUT RUNOFF REDUCTION PRACTICES IN D.A. C (lb/yr)	0.00	
TOTAL NITROGEN REMOVED IN D.A. C (lb/yr)	0.00	

Drainage Area D

Drainage Area A Land Cover (acres)

	A Soils	B Soils	C Soils	D Soils	Totals	Land Cover Rv
Forest/Open Space (acres)					0.00	0.00
Managed Turf (acres)					0.00	0.00
Impervious Cover (acres)					0.00	0.00
Total					0.00	

Total Phosphorus Available for Removal in D.A. D (lb/yr)	0.00
Post Development Treatment Volume in D.A. D (ft ³)	0

Stormwater Best Management Practices (RR = Runoff Reduction)

-Select from dropdown lists-

Practice	Runoff Reduction Credit (%)	Managed Turf Credit Area (acres)	Impervious Cover Credit Area (acres)	Volume from Upstream Practice (ft ³)	Runoff Reduction (ft ³)	Remaining Runoff Volume (ft ³)	Total BMP Treatment Volume (ft ³)	Phosphorus Removal Efficiency (%)	Phosphorus Load from Upstream Practices (lb)	Untreated Phosphorus Load to Practice (lb)	Phosphorus Removed By Practice (lb)	Remaining Phosphorus Load (lb)	Downstream Practice to be Employed
1. Vegetated Roof (RR)													
1.a. Vegetated Roof #1 (Spec #5)	45				0	0	0	0		0.00	0.00	0.00	
1.b. Vegetated Roof #2 (Spec #5)	60				0	0	0	0		0.00	0.00	0.00	
2. Rooftop Disconnection (RR)													
2.a. Simple Disconnection to A/B Soils (Spec #1)	50			0	0	0	0	0	0.00	0.00	0.00	0.00	
2.b. Simple Disconnection to C/D Soils (Spec #1)	25			0	0	0	0	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)	50			0	0	0	0	0	0.00	0.00	0.00	0.00	
2.d. To Dry Well or French Drain #1, Micro-Infiltration #1 (Spec #6)	50			0	0	0	0	25	0.00	0.00	0.00	0.00	
2.e. To Dry Well or French Drain #2, Micro-Infiltration #2 (Spec #6)	90			0	0	0	0	25	0.00	0.00	0.00	0.00	
2.f. To Rain Garden #1, Micro-Bioretentation #1 (Spec #9)	40			0	0	0	0	25	0.00	0.00	0.00	0.00	
2.g. To Rain Garden #2, Micro-Bioretentation #2 (Spec #9)	80			0	0	0	0	50	0.00	0.00	0.00	0.00	
2.h. To Rainwater Harvesting (Spec #6)	0			0	0	0	0	0	0.00	0.00	0.00	0.00	
2.i. To Stormwater Planter, Urban Bioretention (Spec #9, Appendix A)	40			0	0	0	0	25	0.00	0.00	0.00	0.00	
3. Permeable Pavement (RR)													
3.a. Permeable Pavement #1 (Spec #7)	45			0	0	0	0	25		0.00	0.00	0.00	
3.b. Permeable Pavement #2 (Spec #7)	75				0	0	0	25		0.00	0.00	0.00	
4. Grass Channel (RR)													
4.a. Grass Channel A/B Soils (Spec #3)	20			0	0	0	0	15	0.00	0.00	0.00	0.00	
4.b. Grass Channel C/D Soils (Spec #3)	10			0	0	0	0	15	0.00	0.00	0.00	0.00	
4.c. Grass Channel with Compost Amended Soils as per specs (see Spec #4)	20			0	0	0	0	15	0.00	0.00	0.00	0.00	
5. Dry Swale (RR)													
5.a. Dry Swale #1 (Spec #10)	40			0	0	0	0	20	0.00	0.00	0.00	0.00	
5.b. Dry Swale #2 (Spec #10)	60			0	0	0	0	40	0.00	0.00	0.00	0.00	
6. Bioretention (RR)													
6.a. Bioretention #1 or Micro-Bioretentation #1 or Urban Bioretention (Spec #9)	40			0	0	0	0	25	0.00	0.00	0.00	0.00	
6.b. Bioretention #2 or Micro-Bioretentation #2 (Spec #9)	80			0	0	0	0	50	0.00	0.00	0.00	0.00	
7. Infiltration (RR)													
7.a. Infiltration #1 (Spec #8)	50			0	0	0	0	25	0.00	0.00	0.00	0.00	
7.b. Infiltration #2 (Spec #8)	90			0	0	0	0	25	0.00	0.00	0.00	0.00	
8. Extended Detention Pond (RR)													
8.a. ED #1 (Spec #15)	0			0	0	0	0	15	0.00	0.00	0.00	0.00	
8.b. ED #2 (Spec #15)	15			0	0	0	0	15	0.00	0.00	0.00	0.00	
9. Sheetflow to Filter/Open Space (RR)													
9.a. Sheetflow to Conservation Area, A/B Soils (Spec #2)	75			0	0	0	0	0	0.00	0.00	0.00	0.00	
9.b. Sheetflow to Conservation Area, C/D Soils (Spec #2)	50			0	0	0	0	0	0.00	0.00	0.00	0.00	
9.c. Sheetflow to Vegetated Filter Strip, A Soils or Compost Amended B/C/D Soils (Spec #2 & #4)	50			0	0	0	0	0	0.00	0.00	0.00	0.00	

TOTAL IMPERVIOUS COVER TREATED (sq)	0.00	AREA CHECK: OK.
TOTAL MANAGED TURF AREA TREATED (sq)	0.00	AREA CHECK: OK.
TOTAL RUNOFF REDUCTION IN D.A. D (ft ³)	0	

TOTAL PHOSPHORUS AVAILABLE FOR REMOVAL IN D.A. D (lb/yr)	0.00
TOTAL PHOSPHORUS REMOVED WITH RUNOFF REDUCTION PRACTICES IN D.A. D (lb/yr)	0.00
TOTAL PHOSPHORUS REMAINING AFTER APPLYING RUNOFF REDUCTION PRACTICES IN D.A. D (lb/yr)	0.00

SEE WATER QUALITY COMPLIANCE TAB FOR SITE COMPLIANCE CALCULATIONS

Nitrogen Removal Efficiency (%)	Nitrogen Load from Upstream Practices (lbs)	Untreated Nitrogen Load to Practice (lbs)	Nitrogen Removed By Practice (lbs)	Remaining Nitrogen Load (lbs)
1. Vegetated Roof (RR)				
0		0.00	0.00	0.00
0		0.00	0.00	0.00

2. Rooftop Disconnection (RR)				
0	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00

3. Permeable Pavement (RR)				
25		0.00	0.00	0.00
75		0.00	0.00	0.00

4. Grass Channel (RR)				
20	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00

5. Dry Swale (RR)				
25	0.00	0.00	0.00	0.00
35	0.00	0.00	0.00	0.00

6. Bioretention (RR)				
40	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00

7. Infiltration (RR)				
15	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00

8. Extended Detention Pond (RR)				
10	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00

9. Sheetflow to Filter/Open Space (RR)				
0	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00

TOTAL RUNOFF REDUCTION IN D.A. D (ft ³)	0
NITROGEN REMOVED WITH RUNOFF REDUCTION PRACTICES IN D.A. D (lb/yr)	0.00

SEE WATER QUALITY COMPLIANCE TAB FOR SITE CALCULATIONS (Information Only)

10. Wet Swale (no RR)													
10.a. Wet Swale #1 (Spec #11)	0			0	0	0	0	20	0.00	0.00	0.00	0.00	
10.b. Wet Swale #2 (Spec #11)	0			0	0	0	0	40	0.00	0.00	0.00	0.00	
11. Filtering Practices (no RR)													
11.a. Filtering Practice #1 (Spec #12)	0			0	0	0	0	60	0.00	0.00	0.00	0.00	
11.b. Filtering Practice #2 (Spec #12)	0			0	0	0	0	65	0.00	0.00	0.00	0.00	
12. Constructed Wetland (no RR)													
12.a. Constructed Wetland #1 (Spec #13)	0			0	0	0	0	50	0.00	0.00	0.00	0.00	
12.b. Constructed Wetland #2 (Spec #13)	0			0	0	0	0	75	0.00	0.00	0.00	0.00	
13. Wet Ponds (no RR)													
13.a. Wet Pond #1 (Spec #14)	0			0	0	0	0	90	0.00	0.00	0.00	0.00	
13.b. Wet Pond #1 (Coastal Plain) (Spec #14)	0			0	0	0	0	45	0.00	0.00	0.00	0.00	
13.c. Wet Pond #2 (Spec #14)	0			0	0	0	0	75	0.00	0.00	0.00	0.00	
13.d. Wet Pond #2 (Coastal Plain) (Spec #14)	0			0	0	0	0	65	0.00	0.00	0.00	0.00	
14. Manufactured Treatment Devices (no RR)													
14.a. Manufactured Treatment Device- Hydrodynamic	0			0	0	0	0	20	0.00	0.00	0.00	0.00	
14.b. Manufactured Treatment Device-Filtering	0			0	0	0	0	20	0.00	0.00	0.00	0.00	
14.c. Manufactured Treatment Device-Generic	0			0	0	0	0	20	0.00	0.00	0.00	0.00	

10. Wet Swale (Coastal Plain) (no RR)				
25	0.00	0.00	0.00	0.00
35	0.00	0.00	0.00	0.00
11. Filtering Practices (no RR)				
30	0.00	0.00	0.00	0.00
45	0.00	0.00	0.00	0.00
12. Constructed Wetland (no RR)				
25	0.00	0.00	0.00	0.00
55	0.00	0.00	0.00	0.00
13. Wet Ponds (no RR)				
30	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00
14. Manufactured BMP (no RR)				
0	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00

TOTAL IMPERVIOUS COVER TREATED (ac)	0.00	AREA CHECK: OK.
TOTAL MANAGED TURF AREA TREATED (ac)	0.00	AREA CHECK: OK.
TOTAL PHOSPHORUS REMOVAL REQUIRED ON SITE (lb/yr)	3.13	
TOTAL PHOSPHORUS AVAILABLE FOR REMOVAL IN D.A. D (lb/yr)	0.00	
TOTAL PHOSPHORUS REMOVED WITHOUT RUNOFF REDUCTION PRACTICES IN D.A. D (lb/yr)	0.00	
TOTAL PHOSPHORUS LOAD REDUCTION ACHIEVED IN D.A. D (lb/yr)	0.00	
TOTAL PHOSPHORUS REMAINING AFTER APPLYING BMP LOAD REDUCTIONS IN D.A. D (lb/yr)	0.00	
SEE WATER QUALITY COMPLIANCE TAB FOR SITE COMPLIANCE CALCULATIONS		
NITROGEN REMOVED WITH RUNOFF REDUCTION PRACTICES IN D.A. D (lb/yr)	0.00	
NITROGEN REMOVED WITHOUT RUNOFF REDUCTION PRACTICES IN D.A. D (lb/yr)	0.00	
TOTAL NITROGEN REMOVED IN D.A. D (lb/yr)	0.00	

Drainage Area E

Drainage Area A Land Cover (acres)

	A Soils	B Soils	C Soils	D Soils	Totals	Land Cover Rv
Forest/Open Space (acres)					0.00	0.00
Managed Turf (acres)					0.00	0.00
Impervious Cover (acres)					0.00	0.00
Total					0.00	

Total Phosphorus Available for Removal in D.A. E (lb/yr) 0.00
Post Development Treatment Volume in D.A. E (ft³) 0

Stormwater Best Management Practices (RR = Runoff Reduction)

-Select from dropdown lists-

Practice	Runoff Reduction Credit (%)	Managed Turf Credit Area (acres)	Impervious Cover Credit Area (acres)	Volume from Upstream Practice (ft ³)	Runoff Reduction (ft ³)	Remaining Runoff Volume (ft ³)	Total BMP Treatment Volume (ft ³)	Phosphorus Removal Efficiency (%)	Phosphorus Load from Upstream Practices (lb)	Untreated Phosphorus Load to Practice (lb)	Phosphorus Removed By Practice (lb)	Remaining Phosphorus Load (lb)	Downstream Practice to be Employed
1. Vegetated Roof (RR)													
1.a. Vegetated Roof #1 (Spec #5)	45				0	0	0	0		0.00	0.00	0.00	
1.b. Vegetated Roof #2 (Spec #5)	60				0	0	0	0		0.00	0.00	0.00	
2. Rooftop Disconnection (RR)													
2.a. Simple Disconnection to A/B Soils (Spec #1)	50			0	0	0	0	0	0.00	0.00	0.00	0.00	
2.b. Simple Disconnection to C/D Soils (Spec #1)	25			0	0	0	0	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)	50			0	0	0	0	0	0.00	0.00	0.00	0.00	
2.d. To Dry Well or French Drain #1, Micro-Infiltration #1 (Spec #6)	50			0	0	0	0	25	0.00	0.00	0.00	0.00	
2.e. To Dry Well or French Drain #2, Micro-Infiltration #2 (Spec #6)	90			0	0	0	0	25	0.00	0.00	0.00	0.00	
2.f. To Rain Garden #1, Micro-Bioretentation #1 (Spec #9)	40			0	0	0	0	25	0.00	0.00	0.00	0.00	
2.g. To Rain Garden #2, Micro-Bioretentation #2 (Spec #9)	80			0	0	0	0	50	0.00	0.00	0.00	0.00	
2.h. To Rainwater Harvesting (Spec #6)	0			0	0	0	0	0	0.00	0.00	0.00	0.00	
2.i. To Stormwater Planter, Urban Bioretention (Spec #9, Appendix A)	40			0	0	0	0	25	0.00	0.00	0.00	0.00	
3. Permeable Pavement (RR)													
3.a. Permeable Pavement #1 (Spec #7)	45			0	0	0	0	25	0.00	0.00	0.00	0.00	
3.b. Permeable Pavement #2 (Spec #7)	75				0	0	0	25		0.00	0.00	0.00	
4. Grass Channel (RR)													
4.a. Grass Channel A/B Soils (Spec #3)	20			0	0	0	0	15	0.00	0.00	0.00	0.00	
4.b. Grass Channel C/D Soils (Spec #3)	10			0	0	0	0	15	0.00	0.00	0.00	0.00	
4.c. Grass Channel with Compost Amended Soils as per specs (see Spec #4)	20			0	0	0	0	15	0.00	0.00	0.00	0.00	
5. Dry Swale (RR)													
5.a. Dry Swale #1 (Spec #10)	40			0	0	0	0	20	0.00	0.00	0.00	0.00	
5.b. Dry Swale #2 (Spec #10)	60			0	0	0	0	40	0.00	0.00	0.00	0.00	
6. Bioretention (RR)													
6.a. Bioretention #1 or Micro-Bioretentation #1 or Urban Bioretention (Spec #9)	40			0	0	0	0	25	0.00	0.00	0.00	0.00	
6.b. Bioretention #2 or Micro-Bioretentation #2 (Spec #9)	80			0	0	0	0	50	0.00	0.00	0.00	0.00	
7. Infiltration (RR)													
7.a. Infiltration #1 (Spec #8)	50			0	0	0	0	25	0.00	0.00	0.00	0.00	
7.b. Infiltration #2 (Spec #8)	90			0	0	0	0	25	0.00	0.00	0.00	0.00	
8. Extended Detention Pond (RR)													
8.a. ED #1 (Spec #15)	0			0	0	0	0	15	0.00	0.00	0.00	0.00	
8.b. ED #2 (Spec #15)	15			0	0	0	0	15	0.00	0.00	0.00	0.00	
9. Sheetflow to Filter/Open Space (RR)													
9.a. Sheetflow to Conservation Area, A/B Soils (Spec #2)	75			0	0	0	0	0	0.00	0.00	0.00	0.00	
9.b. Sheetflow to Conservation Area, C/D Soils (Spec #2)	50			0	0	0	0	0	0.00	0.00	0.00	0.00	
9.c. Sheetflow to Vegetated Filter Strip, A Soils or Compost Amended B/C/D Soils (Spec #2 & #4)	50			0	0	0	0	0	0.00	0.00	0.00	0.00	

TOTAL IMPERVIOUS COVER TREATED (sq) 0.00 AREA CHECK: OK.
TOTAL MANAGED TURF AREA TREATED (sq) 0.00 AREA CHECK: OK.
TOTAL RUNOFF REDUCTION IN D.A. E (ft³) 0

TOTAL PHOSPHORUS AVAILABLE FOR REMOVAL IN D.A. E (lb/yr) 0.00
TOTAL PHOSPHORUS REMOVED WITH RUNOFF REDUCTION PRACTICES IN D.A. E (lb/yr) 0.00
TOTAL PHOSPHORUS REMAINING AFTER APPLYING RUNOFF REDUCTION PRACTICES IN D.A. E (lb/yr) 0.00

SEE WATER QUALITY COMPLIANCE TAB FOR SITE COMPLIANCE CALCULATIONS

Nitrogen Removal Efficiency (%)	Nitrogen Load from Upstream Practices (lbs)	Untreated Nitrogen Load to Practice (lbs)	Nitrogen Removed By Practice (lbs)	Remaining Nitrogen Load (lbs)
1. Vegetated Roof (RR)				
0		0.00	0.00	0.00
0		0.00	0.00	0.00

2. Rooftop Disconnection (RR)				
0	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00

3. Permeable Pavement (RR)				
25		0.00	0.00	0.00
75		0.00	0.00	0.00

4. Grass Channel (RR)				
20	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00

5. Dry Swale (RR)				
25	0.00	0.00	0.00	0.00
35	0.00	0.00	0.00	0.00

6. Bioretention (RR)				
40	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00

7. Infiltration (RR)				
15	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00

8. Extended Detention Pond (RR)				
10	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00

9. Sheetflow to Filter/Open Space (RR)				
0	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00

TOTAL RUNOFF REDUCTION IN D.A. E (ft³) 0
NITROGEN REMOVED WITH RUNOFF REDUCTION PRACTICES IN D.A. E (lb/yr) 0.00

SEE WATER QUALITY COMPLIANCE TAB FOR SITE CALCULATIONS (Information Only)

10. Wet Swale (no RR)													
10.a. Wet Swale #1 (Spec #11)	0			0	0	0	0	20	0.00	0.00	0.00	0.00	
10.b. Wet Swale #2 (Spec #11)	0			0	0	0	0	40	0.00	0.00	0.00	0.00	
11. Filtering Practices (no RR)													
11.a. Filtering Practice #1 (Spec #12)	0			0	0	0	0	60	0.00	0.00	0.00	0.00	
11.b. Filtering Practice #2 (Spec #12)	0			0	0	0	0	65	0.00	0.00	0.00	0.00	
12. Constructed Wetland (no RR)													
12.a. Constructed Wetland #1 (Spec #13)	0			0	0	0	0	50	0.00	0.00	0.00	0.00	
12.b. Constructed Wetland #2 (Spec #13)	0			0	0	0	0	75	0.00	0.00	0.00	0.00	
13. Wet Ponds (no RR)													
13.a. Wet Pond #1 (Spec #14)	0			0	0	0	0	90	0.00	0.00	0.00	0.00	
13.b. Wet Pond #1 (Coastal Plain) (Spec #14)	0			0	0	0	0	45	0.00	0.00	0.00	0.00	
13.c. Wet Pond #2 (Spec #14)	0			0	0	0	0	75	0.00	0.00	0.00	0.00	
13.d. Wet Pond #2 (Coastal Plain) (Spec #14)	0			0	0	0	0	65	0.00	0.00	0.00	0.00	
14. Manufactured Treatment Devices (no RR)													
14.a. Manufactured Treatment Device-Hydrodynamic	0			0	0	0	0	20	0.00	0.00	0.00	0.00	
14.b. Manufactured Treatment Device-Filtering	0			0	0	0	0	20	0.00	0.00	0.00	0.00	
14.c. Manufactured Treatment Device-Generic	0			0	0	0	0	20	0.00	0.00	0.00	0.00	

10. Wet Swale (Coastal Plain) (no RR)				
25	0.00	0.00	0.00	0.00
35	0.00	0.00	0.00	0.00
11. Filtering Practices (no RR)				
30	0.00	0.00	0.00	0.00
45	0.00	0.00	0.00	0.00
12. Constructed Wetland (no RR)				
25	0.00	0.00	0.00	0.00
55	0.00	0.00	0.00	0.00
13. Wet Ponds (no RR)				
30	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00
14. Manufactured BMP (no RR)				
0	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00

TOTAL IMPERVIOUS COVER TREATED (ac)	0.00	AREA CHECK: OK.
TOTAL MANAGED TURF AREA TREATED (ac)	0.00	AREA CHECK: OK.
TOTAL PHOSPHORUS REMOVAL REQUIRED ON SITE (lb/yr)	3.13	
TOTAL PHOSPHORUS AVAILABLE FOR REMOVAL IN D.A. E (lb/yr)	0.00	
TOTAL PHOSPHORUS REMOVED WITHOUT RUNOFF REDUCTION PRACTICES IN D.A. E (lb/yr)	0.00	
TOTAL PHOSPHORUS REMOVED WITH RUNOFF REDUCTION PRACTICES IN D.A. E (lb/yr)	0.00	
TOTAL PHOSPHORUS LOAD REDUCTION ACHIEVED IN D.A. E (lb/yr)	0.00	
TOTAL PHOSPHORUS REMAINING AFTER APPLYING BMP LOAD REDUCTIONS IN D.A. E (lb/yr)	0.00	
SEE WATER QUALITY COMPLIANCE TAB FOR SITE COMPLIANCE CALCULATIONS		
NITROGEN REMOVED WITH RUNOFF REDUCTION PRACTICES IN D.A. E (lb/yr)	0.00	
NITROGEN REMOVED WITHOUT RUNOFF REDUCTION PRACTICES IN D.A. E (lb/yr)	0.00	
TOTAL NITROGEN REMOVED IN D.A. E (lb/yr)	0.00	

Site Results (Water Quality Compliance)

Area Checks	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	AREA CHECK
FOREST/OPEN SPACE (ac)	0.00	0.00	0.00	0.00	0.00	OK
IMPERVIOUS COVER (ac)	4.65	0.00	0.00	0.00	0.00	OK
IMPERVIOUS COVER TREATED (ac)	4.65	0.00	0.00	0.00	0.00	OK
MANAGED TURF AREA (ac)	3.10	0.00	0.00	0.00	0.00	OK
MANAGED TURF AREA TREATED (ac)	3.10	0.00	0.00	0.00	0.00	OK
AREA CHECK	OK	OK	OK	OK	OK	
Site Treatment Volume (ft³)	18,286					
Runoff Reduction Volume and TP By Drainage Area						
	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	TOTAL
RUNOFF REDUCTION VOLUME ACHIEVED (ft³)	2,922	0	0	0	0	2,922
TP LOAD AVAILABLE FOR REMOVAL (lb/yr)	11.49	0.00	0.00	0.00	0.00	11.49
TP LOAD REDUCTION ACHIEVED (lb/yr)	3.86	0.00	0.00	0.00	0.00	3.86
TP LOAD REMAINING (lb/yr)	7.62	0.00	0.00	0.00	0.00	7.62
NITROGEN LOAD REDUCTION ACHIEVED (lb/yr)	27.10	0.00	0.00	0.00	0.00	27.10
Total Phosphorus						
FINAL POST-DEVELOPMENT TP LOAD (lb/yr)	11.49					
TP LOAD REDUCTION REQUIRED (lb/yr)	3.13					
TP LOAD REDUCTION ACHIEVED (lb/yr)	3.86					
TP LOAD REMAINING (lb/yr)	7.62					
REMAINING TP LOAD REDUCTION REQUIRED (lb/yr):	0.00	**				
** TARGET TP REDUCTION EXCEEDED BY 0.73 LB/YEAR **						
Total Nitrogen (For Information Purposes)						
POST-DEVELOPMENT LOAD (lb/yr)	82.19					
NITROGEN LOAD REDUCTION ACHIEVED (lb/yr)	27.10					
REMAINING POST-DEVELOPMENT NITROGEN LOAD (lb/yr)	55.09					

Runoff Volume and Curve Number Calculations

Enter design storm rainfall depths (in):

1-year storm 2-year storm 10-year storm

2.93 3.57 5.50

Use NOAA Atlas 14 (<http://hdsc.nws.noaa.gov/hdsc/pdfr/>)

*Notes (see below):

[1] The curve numbers and runoff volumes computed in this spreadsheet for each drainage area are limited in their applicability for determining and demonstrating compliance with water quantity requirements. See VRRM User's Guide and Documentation for additional information.

[2] Runoff Volume (RV) for pre- and post-development drainage areas must be in volumetric units (e.g., acre-feet or cubic feet) when using the Energy Balance Equation. Runoff measured in watershed-inches and shown in the spreadsheet as RV(watershed-inch) can only be used in the Energy Balance Equation when the pre- and post-development drainage areas are equal. Otherwise RV(watershed-inch) must be multiplied by the drainage area.

[3] Adjusted CNs are based on runoff reduction volumes as calculated in D.A. tabs. An alternative CN adjustment calculation for Vegetated Roofs is included in BMP specification No. 5.

Drainage Area Curve Numbers and Runoff Depths*

Curve numbers (CN, CNadj) and runoff depths (RV_{Developed}) are computed with and without reduction practices.

Drainage Area A		A Soils	B Soils	C Soils	D Soils	Total Area (acres):
Forest/Open Space – undisturbed, protected forest/open space or reforested land	Area (acres)	0.00	0.00	0.00	0.00	7.75
	CN	30	55	70	77	Runoff Reduction Volume (ft ³): 2,922
Managed Turf – disturbed, graded for yards or other turf to be mowed/managed	Area (acres)	0.00	3.10	0.00	0.00	
	CN	39	61	74	80	
Impervious Cover	Area (acres)	0.00	4.65	0.00	0.00	
	CN	98	98	98	98	
					CN _(D,A,A)	
					83	
		1-year storm	2-year storm	10-year storm		
RV _{Developed} (watershed-inch) with no Runoff Reduction*		1.39	1.92	3.63		
RV _{Developed} (watershed-inch) with Runoff Reduction*		1.79	1.81	3.53		
	Adjusted CN*	81	82	82		

*See Notes above

Drainage Area B		A Soils	B Soils	C Soils	D Soils	Total Area (acres):
Forest/Open Space – undisturbed, protected forest/open space or reforested land	Area (acres)	0.00	0.00	0.00	0.00	0.00
	CN	30	55	70	77	Runoff Reduction Volume (ft ³): 0
Managed Turf – disturbed, graded for yards or other turf to be mowed/managed	Area (acres)	0.00	0.00	0.00	0.00	
	CN	39	61	74	80	
Impervious Cover	Area (acres)	0.00	0.00	0.00	0.00	
	CN	98	98	98	98	
					CN _(D,A,B)	
					0	
		1-year storm	2-year storm	10-year storm		
RV _{Developed} (watershed-inch) with no Runoff Reduction*		0.00	0.00	0.00		
RV _{Developed} (watershed-inch) with Runoff Reduction*		0.00	0.00	0.00		
	Adjusted CN*	0	0	0		

*See Notes above

Drainage Area C		A Soils	B Soils	C Soils	D Soils	Total Area (acres):
Forest/Open Space – undisturbed, protected forest/open space or reforested land	Area (acres)	0.00	0.00	0.00	0.00	0.00
	CN	30	55	70	77	Runoff Reduction Volume (ft ³): 0
Managed Turf – disturbed, graded for yards or other turf to be mowed/managed	Area (acres)	0.00	0.00	0.00	0.00	
	CN	39	61	74	80	
Impervious Cover	Area (acres)	0.00	0.00	0.00	0.00	
	CN	98	98	98	98	
					CN _(D,A,C)	
					0	
		1-year storm	2-year storm	10-year storm		
RV _{Developed} (watershed-inch) with no Runoff Reduction*		0.00	0.00	0.00		
RV _{Developed} (watershed-inch) with Runoff Reduction*		0.00	0.00	0.00		
	Adjusted CN*	0	0	0		

*See Notes above

Drainage Area D		A Soils	B Soils	C Soils	D Soils	Total Area (acres):
Forest/Open Space – undisturbed, protected forest/open space or reforested land	Area (acres)	0.00	0.00	0.00	0.00	0.00
	CN	30	55	70	77	Runoff Reduction Volume (ft ³): 0
Managed Turf – disturbed, graded for yards or other turf to be mowed/managed	Area (acres)	0.00	0.00	0.00	0.00	
	CN	39	61	74	80	
Impervious Cover	Area (acres)	0.00	0.00	0.00	0.00	
	CN	98	98	98	98	
					CN _(D,A,D)	
					0	
		1-year storm	2-year storm	10-year storm		
RV _{Developed} (watershed-inch) with no Runoff Reduction*		0.00	0.00	0.00		
RV _{Developed} (watershed-inch) with Runoff Reduction*		0.00	0.00	0.00		
	Adjusted CN*	0	0	0		

*See Notes above

Drainage Area E		A Soils	B Soils	C Soils	D Soils	Total Area (acres):
Forest/Open Space – undisturbed, protected forest/open space or reforested land	Area (acres)	0.00	0.00	0.00	0.00	0.00
	CN	30	55	70	77	Runoff Reduction Volume (ft ³): 0
Managed Turf – disturbed, graded for yards or other turf to be mowed/managed	Area (acres)	0.00	0.00	0.00	0.00	
	CN	39	61	74	80	
Impervious Cover	Area (acres)	0.00	0.00	0.00	0.00	
	CN	98	98	98	98	
					CN _(D,A,E)	
					0	
		1-year storm	2-year storm	10-year storm		
RV _{Developed} (watershed-inch) with no Runoff Reduction*		0.00	0.00	0.00		
RV _{Developed} (watershed-inch) with Runoff Reduction*		0.00	0.00	0.00		
	Adjusted CN*	0	0	0		

*See Notes above

DEQ Virginia Runoff Reduction Method Re-Development Compliance Spreadsheet - Version 3.0

BMP Design Specifications List: 2013 Draft Stds & Specs

Site Summary

Project Title: SUP, Williamsburg Place, Pavilion & Farley Center Additions

Date: 44876

Total Rainfall (in):	43
Total Disturbed Acreage:	7.75

Site Land Cover Summary

Pre-ReDevelopment Land Cover (acres)

	A soils	B Soils	C Soils	D Soils	Totals	% of Total
Forest/Open (acres)	0.00	0.00	0.00	0.00	0.00	0
Managed Turf (acres)	0.00	3.73	0.00	0.00	3.73	48
Impervious Cover (acres)	0.00	4.02	0.00	0.00	4.02	52
					7.75	100

Post-ReDevelopment Land Cover (acres)

	A soils	B Soils	C Soils	D Soils	Totals	% of Total
Forest/Open (acres)	0.00	0.00	0.00	0.00	0.00	0
Managed Turf (acres)	0.00	3.10	0.00	0.00	3.10	40
Impervious Cover (acres)	0.00	4.65	0.00	0.00	4.65	60
					7.75	100

Site Tv and Land Cover Nutrient Loads

	Final Post-Development (Post-ReDevelopment & New Impervious)	Post- ReDevelopment	Post- Development (New Impervious)	Adjusted Pre- ReDevelopment
Site Rv	0.65	0.62	0.95	0.62
Treatment Volume (ft ³)	18,286	16,114	2,173	16,114
TP Load (lb/yr)	11.49	10.12	1.37	10.12

Pre- ReDevelopment TP Load per acre (lb/acre/yr)	Final Post-Development TP Load per acre (lb/acre/yr)	Post-ReDevelopment TP Load per acre (lb/acre/yr)
1.42	1.48	1.42

Total TP Load Reduction Required (lb/yr)	3.13	2.02	1.11
--	------	------	------

	Final Post-Development Load (Post-ReDevelopment & New Impervious)	Pre- ReDevelopment
TN Load (lb/yr)	82.19	74.48

Site Compliance Summary

Maximum % Reduction Required Below Pre-ReDevelopment Load	20%
--	-----

Total Runoff Volume Reduction (ft ³)	2,922
Total TP Load Reduction Achieved (lb/yr)	3.86
Total TN Load Reduction Achieved (lb/yr)	27.10
Remaining Post Development TP Load (lb/yr)	7.62
Remaining TP Load Reduction (lb/yr) Required	0.00

** TARGET TP REDUCTION EXCEEDED BY 0.73 LB/YEAR **

Drainage Area Summary

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	Total
Forest/Open (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Managed Turf (acres)	3.10	0.00	0.00	0.00	0.00	3.10
Impervious Cover (acres)	4.65	0.00	0.00	0.00	0.00	4.65
Total Area (acres)	7.75	0.00	0.00	0.00	0.00	7.75

Drainage Area Compliance Summary

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	Total
TP Load Reduced (lb/yr)	3.86	0.00	0.00	0.00	0.00	3.86
TN Load Reduced (lb/yr)	27.10	0.00	0.00	0.00	0.00	27.10

Runoff Volume and CN Calculations

	1-year storm	2-year storm	10-year storm
Target Rainfall Event (in)	2.93	3.57	5.50

Drainage Areas	RV & CN	Drainage Area A	Drainage Area B	Drainage Area C	Drainage Area D	Drainage Area E
CN		83	0	0	0	0
RR (ft ³)		2,922	0	0	0	0
1-year return period	RV wo RR (ws-in)	1.39	0.00	0.00	0.00	0.00
	RV w RR (ws-in)	1.29	0.00	0.00	0.00	0.00
	CN adjusted	81	0	0	0	0
2-year return period	RV wo RR (ws-in)	1.92	0.00	0.00	0.00	0.00
	RV w RR (ws-in)	1.81	0.00	0.00	0.00	0.00
	CN adjusted	82	0	0	0	0
10-year return period	RV wo RR (ws-in)	3.63	0.00	0.00	0.00	0.00
	RV w RR (ws-in)	3.53	0.00	0.00	0.00	0.00
	CN adjusted	82	0	0	0	0

Version 2.8 - June 2014 - 2011 BMP Stds & 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

Version 3.0 - 2011 and draft 2013 BMP Stds & Specs*General*

- 1 Added error checks and user prompts to Site tab, DA tabs, and Runoff Volume and CN tab for data input errors.
- 2 Various format changes throughout the spreadsheet.
- 3 Combined 2011 and 2013 BMP spreadsheets into one spreadsheet with a user selection option included in Site tab.
- 4 User input cell color changed from cyan blue to green; calculation cells changed from mid-grey to light grey; and added final result cell in indigo.

Site tab

- 5 Locked annual rainfall of 43 inches for use throughout Virginia since regulatory site based TP load limit is based on this value.
- 6 Corrected error in formula for total phosphorus load reduction requirement. Previous formula was inconsistent with 9VAC25-870-63 A.2 and under certain circumstances provided erroneous TP load reduction requirement for development on prior developed lands.
- 7 Added button and shortcut (Ctrl+Shift+R) to clear user inputs from all worksheets.
- 8 Added shortcut (Ctrl+Shift+D) to clear land cover data from Site tab.
- 9 Added TP Baseline Load for adjusted pre-redevelopment portion (cell C58).
- 10 Added note (triggered to appear when applicable) below "Land Cover Summary for Redevelopment" - indicating that reduction below baseline TP load (<0.41 lbs/acre) not required as per 9VAC25-870-63.
- 11 Added error messages when data input areas incomplete or not entered correctly.
- 12 Conditional formatting (Summary sections grayed out) when input information incomplete or incorrect.
- 13 Added Pre-redevelopment and Post-development load in lbs/acre/yr (row 57) for additional comparison purposes
- 14 Corrected error in excel formula for new impervious cover Rv.
- 15 Corrected errors in excel formula for total site area and Rv's in redevelopment portion: error appeared when soil types change between pre-redevelopment and post-development with no net increases in impervious increase.
- 16 Added section for Final Post-Development to Land Cover Summaries to show combination of redevelopment portion and new net impervious cover portion.
- 17 Added informational section in blue (columns B to F, rows 12-14) and input/error guide (columns H to K, rows 12-14) to indicate to users upfront when new net impervious cover is being triggered, when 10 or 20% reductions are being utilized, and when data entry is completed correctly.
- 18 Added data entry instruction when user inputs blank (row 8).
- 19 Added option for linear development projects (row 6, and cells D64-G64)
- 20 Removed "protected" from pre-redevelopment land cover type forest/open space since this is only required in post-development. (08/22/2017)
- 21 Added error notification to side error notes if total disturbed acreage entered is greater than post-development area entered. (08/22/2017)

D.A. tabs

- 22 Added MTDs: Hydrodynamic, Filtering, Generic.
- 23 Added "Total BMP Treatment Volume (ft³)" column.
- 24 Rearranged previous Turf and Impervious input rows to adjacent cells in same row so each practice now located on 1 row only.
- 25 Consolidated BMP Practice heading and added (RR or no RR label) to each practice to identify those with and without Runoff Reduction.
- 26 Added " Total Phosphorus Available for Removal in D.A. _ (lbs)".
- 27 Added button to clear BMP credit areas entered for each practice.
- 28 Added user prompts to assist with user-input Rainwater Harvesting runoff reduction credit, and MTDs.
- 29 Renamed Credit and Phosphorus/Nitrogen Efficiency column headers to Runoff Removal Credit and Phosphorus/Nitrogen Removal Efficiency for clarity.
- 30 Removed "RR" from Column headings referring to runoff volume and TP load from upstream practices (which may be RR or non-RR practices).
- 31 Renamed "10. Wet Swale (Coastal Plain)" to "10. Wet Swale" in BMP heading in order to improve clarity. The practice is well suited for but not limited to the Coastal Plain.
- 32 Renamed "14. Manufactured BMPs" section heading to "14. Manufactured Treatment Device"s for consistency with Virginia BMP Clearinghouse.
- 33 Added "Micro-Bioretenention #1" and "Micro-Bioretenention #2" to Bioretention headings (6.a and 6.b on tab, respectively) from Spec 9.
- 34 Replaced zero values from all data entry cells with blank cells, blocked out calculation and data entry cells where input or calculations are not applicable.

Water Quality Compliance tab

- 35 Optimized and reorganized for improved information output.
- 36 Added "Runoff Reduction Volume and TP By Drainage Area".
- 37 Added section for linear development projects (rows 21-26)

Runoff Volume and CN tab

- 38 Reorganized and renamed Channel and Flood Protection tab to Runoff Volume and CN to more accurately reflect information provided.
- 39 Added user notes regarding limitations of Runoff Volume and CN tab for water quantity calculations.
- 40 Renamed $CN_{weighted}$ to $CN_{(D.A. X)}$ for the CNs based on soils and land cover types for each drainage area

Summary tab

- 41 Added "Print Preview" button.
- 42 Fixed runtime error in Summary tab update macro.
- 43 Added "BMP Treatment Volume", "TP Load from Upstream practice", "TP Removed" and "TP remaining" columns to Summary tab.
- 44 Optimized macro efficiency and eliminated screen updating/flashing during macros.
- 45 Corrected Summary tab macro -Turf missing routine missing "<>".
- 46 Added additional pre and post site data onto Summary tab.
- 47 Added Error Summary Table to Summary tab (appears only if errors on Site tab or Drainage Area tabs are present)
- 48 Expanded and improved Runoff Coefficient and CN calculation section.
- 49 Added summary information for linear projects, only populates if applicable.
- 50 Macro glitch with MS Excel 2016 corrected. (08/22/2017)
- 51 Added Project Title and Date from Site tab. (8/22/2017)



SUP-22-0018

Williamsburg Place

Project: **Pavilion and Farley Center Additions**

Project No.: **W10772-00**

Subject: **Curve Numbers**

Date: **November 11, 2022**

Calculated By: **BTC**

Runoff Curve Numbers used in the following calculations were taken from Table 5-5 of the Virginia Erosion and Sediment Control Handbook

Subject Area: Post-Development VRRM SITE DA

Hydrologic Soil Group	Cover Description	CN	Area	CN x Area
HSG A	Woods Cover - Good Condition	30	0.00	
HSG A	Grass Cover - Good Condition	39	0.00	
HSG A	Impervious Cover	98	0.00	
HSG B	Woods Cover - Good Condition	55	0.00	
HSG B	Grass Cover - Good Condition	61	3.10	189.10
HSG B	Impervious Cover	98	4.65	455.7
HSG C	Woods Cover - Good Condition	70	0.00	
HSG C	Grass Cover - Good Condition	74	0.00	
HSG C	Impervious Cover	98	0.00	
HSG D	Woods Cover - Good Condition	77	0.00	
HSG D	Grass Cover - Good Condition	80	0.00	
HSG D	Impervious Cover	98	0.00	
Totals =			7.75	644.8

$$\text{CN (weighted)} = \frac{\text{total product}}{\text{total area}} = \frac{644.8}{7.75} = 83.2$$

Use CN = **83**

Subject Area: Post-Development VRRM DA 'A' to Existing Bioretention

Hydrologic Soil Group	Cover Description	CN	Area	CN x Area
HSG A	Woods Cover - Good Condition	30	0.00	
HSG A	Grass Cover - Good Condition	39	0.00	
HSG A	Impervious Cover	98	0.00	
HSG B	Woods Cover - Good Condition	55	0.00	
HSG B	Grass Cover - Good Condition	61	0.80	48.80
HSG B	Impervious Cover	98	1.95	191.1
HSG C	Woods Cover - Good Condition	70	0.00	
HSG C	Grass Cover - Good Condition	74	0.00	
HSG C	Impervious Cover	98	0.00	
HSG D	Woods Cover - Good Condition	77	0.00	
HSG D	Grass Cover - Good Condition	80	0.00	
HSG D	Impervious Cover	98	0.00	
Totals =			2.75	239.9

$$\text{CN (weighted)} = \frac{\text{total product}}{\text{total area}} = \frac{239.9}{2.75} = 87.2$$

Use CN = **87**

Subject Area: Post-Development VRRM DA 'A' to Existing Extended Detention

Hydrologic Soil Group	Cover Description	CN	Area	CN x Area
HSG A	Woods Cover - Good Condition	30	0.00	
HSG A	Grass Cover - Good Condition	39	0.00	
HSG A	Impervious Cover	98	0.00	
HSG B	Woods Cover - Good Condition	55	0.00	
HSG B	Grass Cover - Good Condition	61	2.30	140.30
HSG B	Impervious Cover	98	2.70	264.6
HSG C	Woods Cover - Good Condition	70	0.00	
HSG C	Grass Cover - Good Condition	74	0.00	
HSG C	Impervious Cover	98	0.00	
HSG D	Woods Cover - Good Condition	77	0.00	
HSG D	Grass Cover - Good Condition	80	0.00	
HSG D	Impervious Cover	98	0.00	

Totals = 5.00 404.9

$$\text{CN (weighted)} = \frac{\text{total product}}{\text{total area}} = \frac{404.9}{5} = 81.0$$

Use CN =

81

Exhibit E

Building Elevations

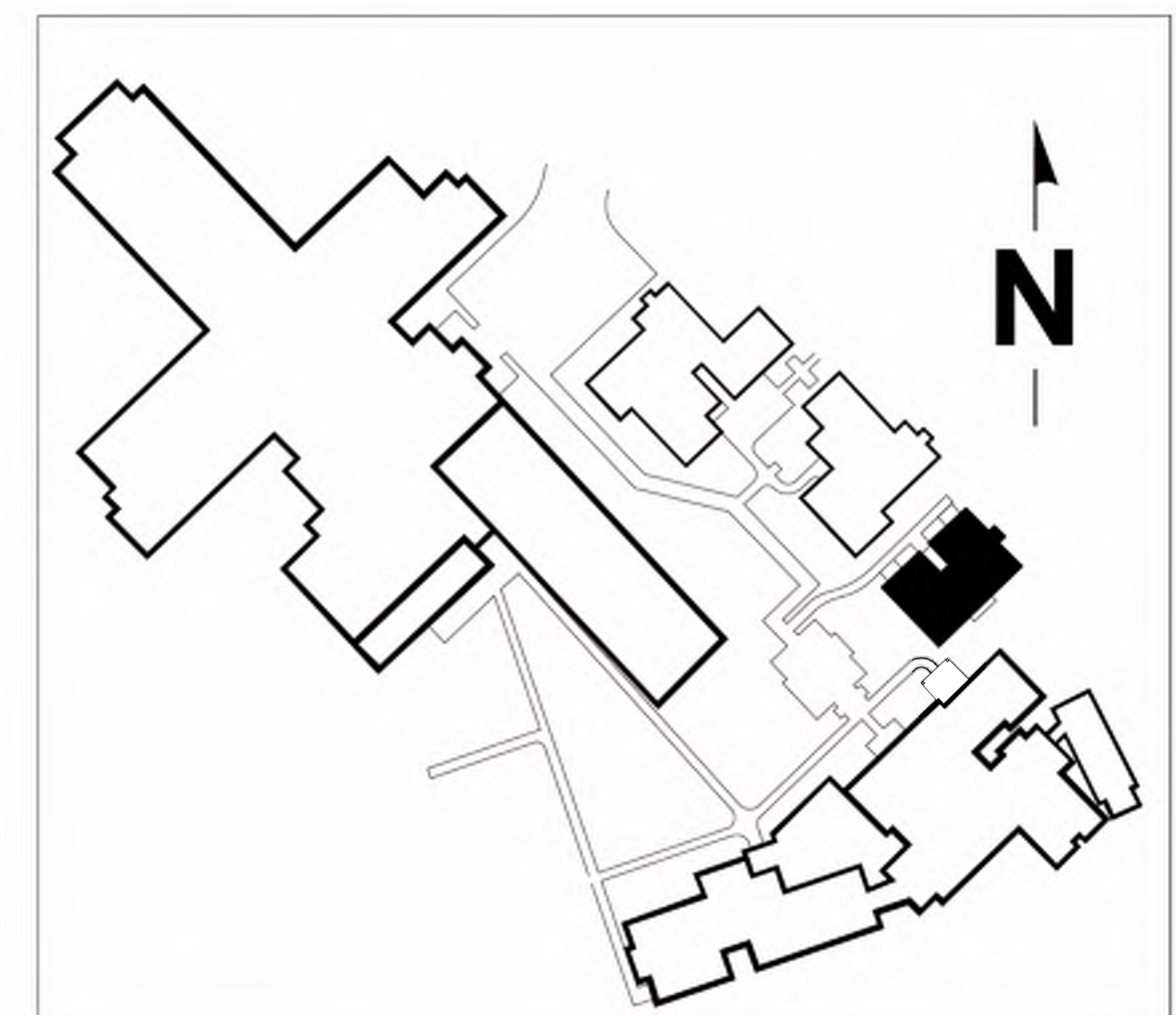


1 APARTMENT ADDITION - NORTH ELEVATION
A-201 1/4" = 1'-0"



2 APARTMENT ADDITION - EAST ELEVATION
A-201 1/4" = 1'-0"

NEW ADDITION
EXISTING



1/4" = 1' - 0" 0 1' 5' 10' 15'

**COLORED BUILDING
ELEVATIONS FOR
WILLIAMSBURG PLACE
PAVILION AND FARLEY CENTER ADDITIONS**

REVISION SCHEDULE		
#	DESCRIPTION	DATE INITIALS

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NOT FOR
CONSTRUCTION

Date: 08/24/22
Drawn: EAQ Checked: SLK
Project: 222003

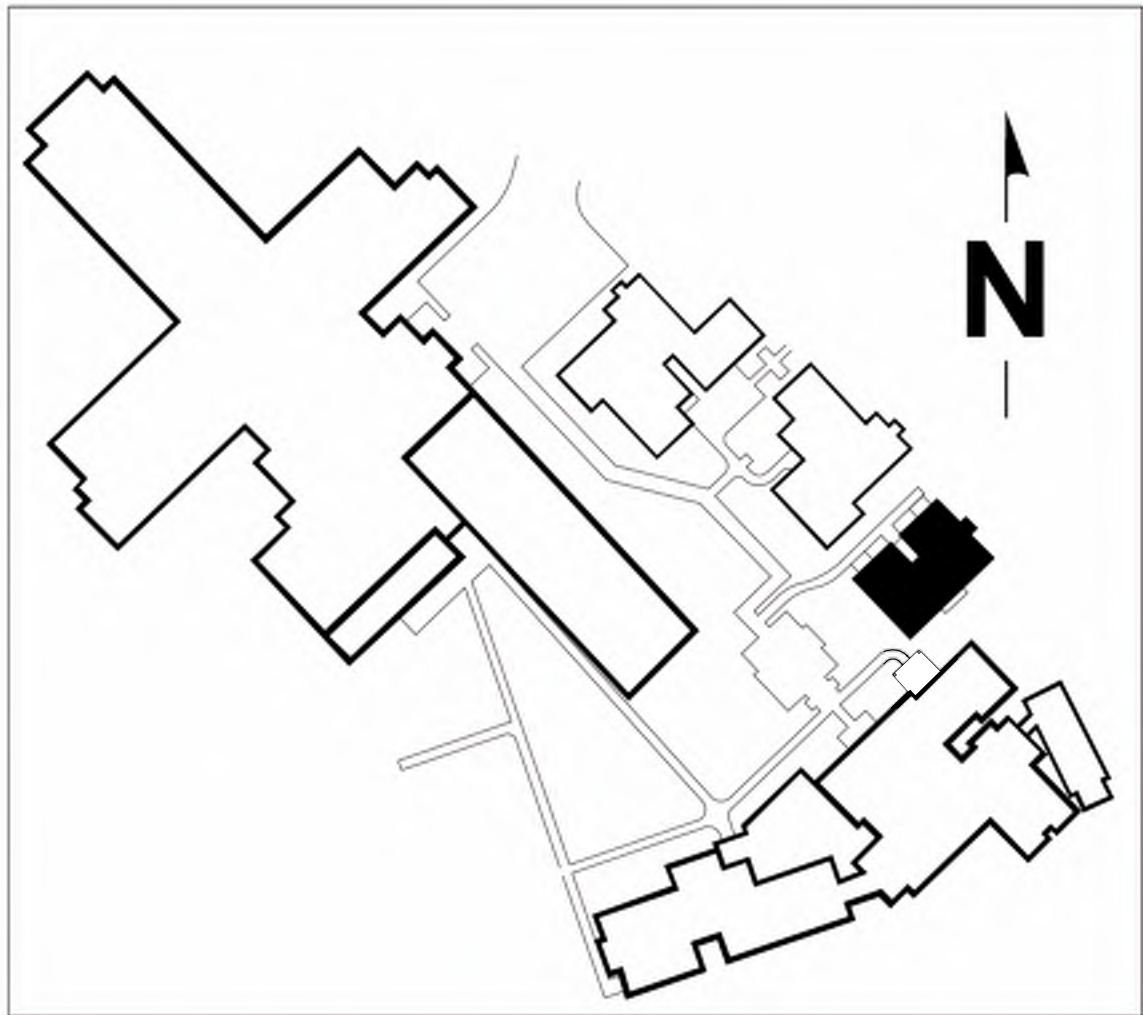


1
A-202
APARTMENT ADDITION - SOUTH ELEVATION
1/4" = 1'-0"



2
A-202
APARTMENT ADDITION - WEST ELEVATION
1/4" = 1'-0"

NEW ADDITION
EXISTING



1/4" = 1' - 0" 0 1' 5' 10' 15'

**COLORED BUILDING
ELEVATIONS FOR
WILLIAMSBURG PLACE
PAVILION AND FARLEY CENTER ADDITIONS**

REVISION SCHEDULE			INITIALS
#	DESCRIPTION	DATE	

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**NOT FOR
CONSTRUCTION**

Date: 08/24/22
Drawn: EAQ Checked: SLK
Project: 222003

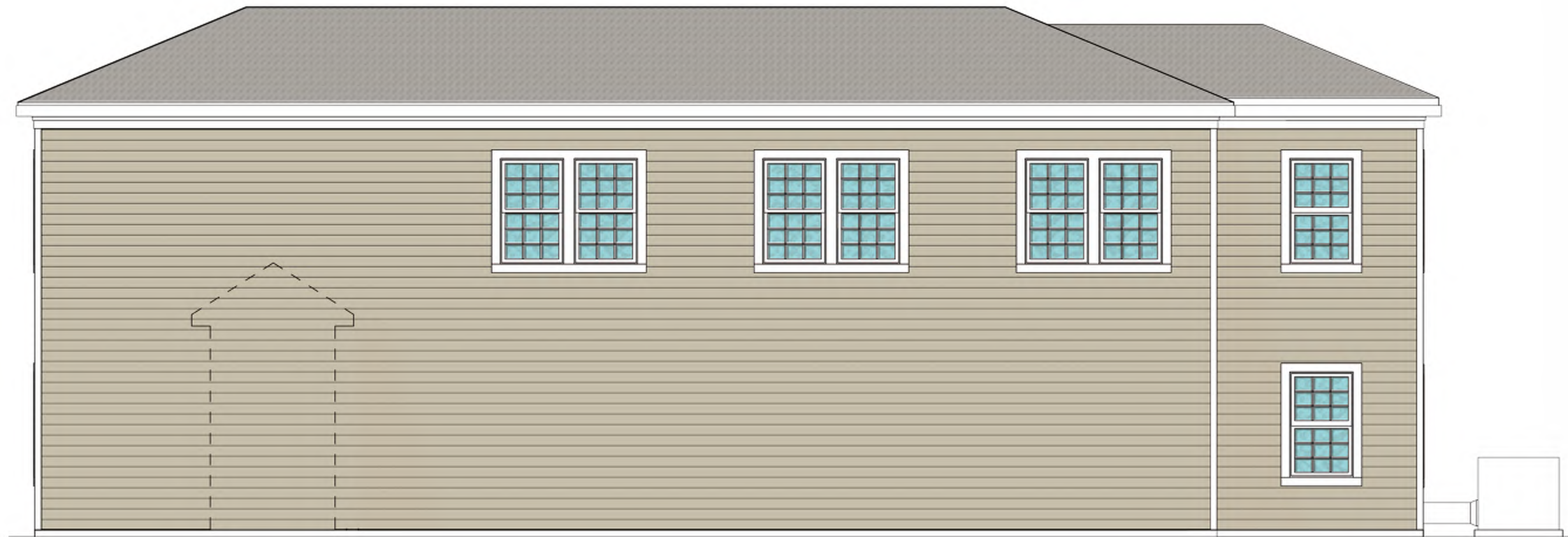
A-202



1 WELLNESS CENTER - NORTH ELEVATION
A-201 1/4" = 1'-0"



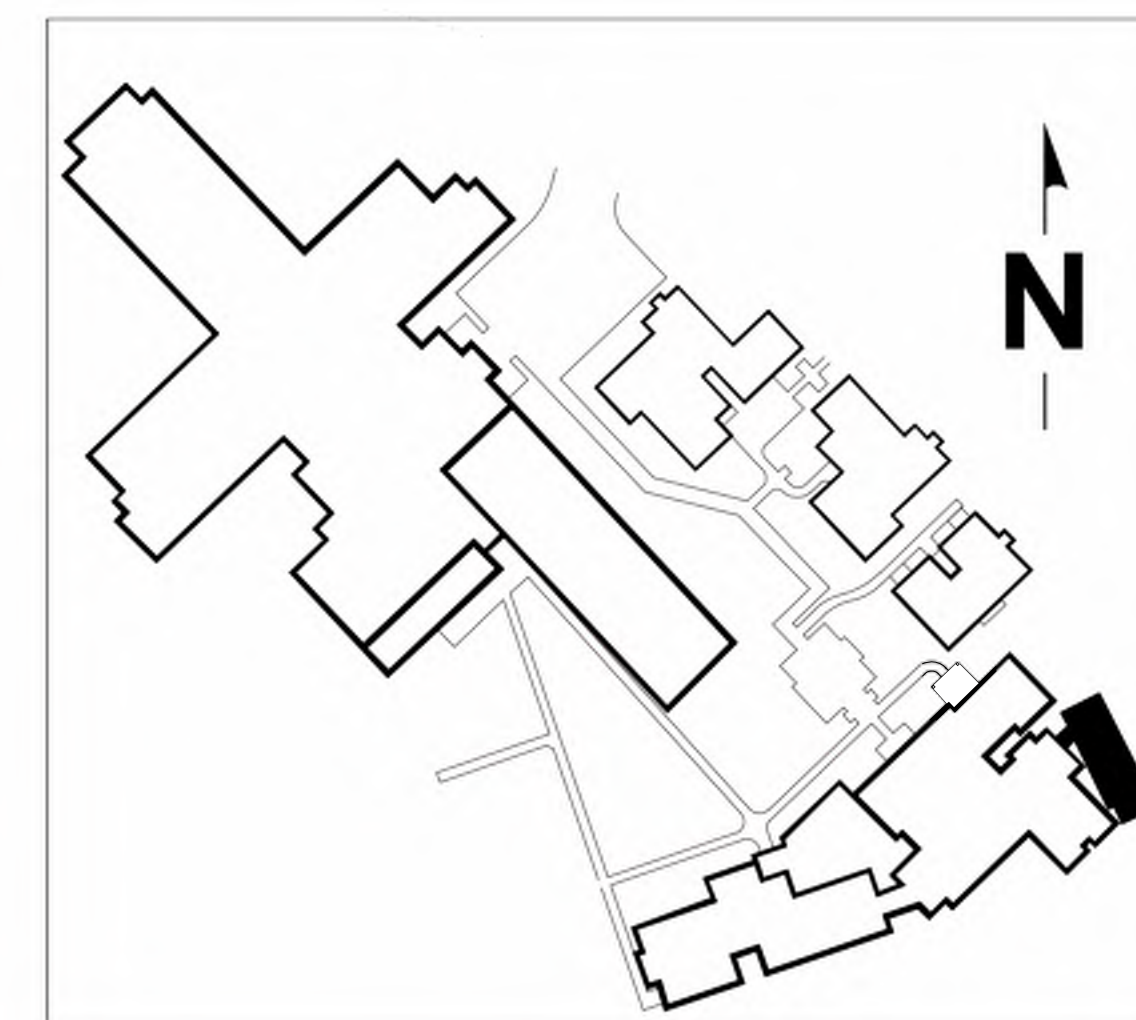
2 WELLNESS CENTER - EAST ELEVATION
A-201 1/4" = 1'-0"



3 WELLNESS CENTER - WEST ELEVATION
A-201 1/4" = 1'-0"



4 WELLNESS CENTER - SOUTH ELEVATION
A-201 1/4" = 1'-0"



NEW ADDITION
EXISTING

1/4" = 1' - 0" 0 1' 5' 10' 15'

**COLORED BUILDING
ELEVATIONS FOR
WILLIAMSBURG PLACE
PAVILION AND FARLEY CENTER ADDITIONS**

REVISION SCHEDULE	DESCRIPTION	DATE	INITIALS
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

NOT FOR
CONSTRUCTION

Date: 08/24/22
Drawn: EAQ Checked: SLK
Project: 222003

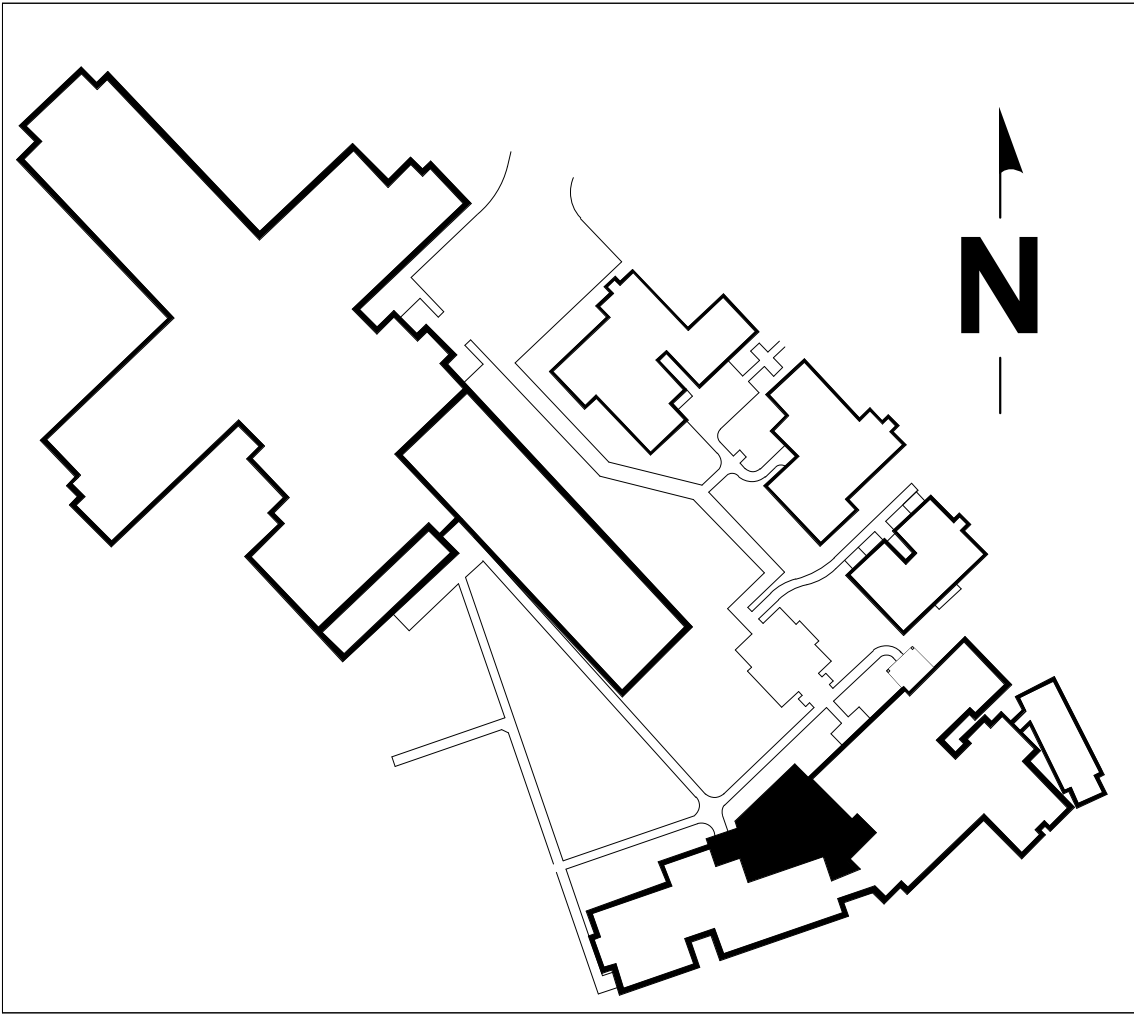
A-201



1 FARLEY CENTER ADDITION - ELEVATION
A-202 1/4" = 1'-0"

NEW ADDITION

EXISTING



1/4" = 1' - 0" 0 1' 5' 10' 15'

GT

GuernseyTingle

757-220-0020 Williamsburg, VA
guernseytingle.com

COLORED BUILDING
ELEVATIONS FOR
WILLIAMSBURG PLACE
PAVILION AND FARLEY CENTER ADDITIONS

REVISION SCHEDULE			
#	DESCRIPTION	DATE	INITIALS
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NOT FOR
CONSTRUCTION

Date: 10/24/22
Drawn: EAQ Checked: SLK
Project: 222003

A-202



1 PAVILION ADDITION - NORTH ELEVATION

A-201 1/8" = 1'-0"



2 PAVILION ADDITION - SOUTH ELEVATION

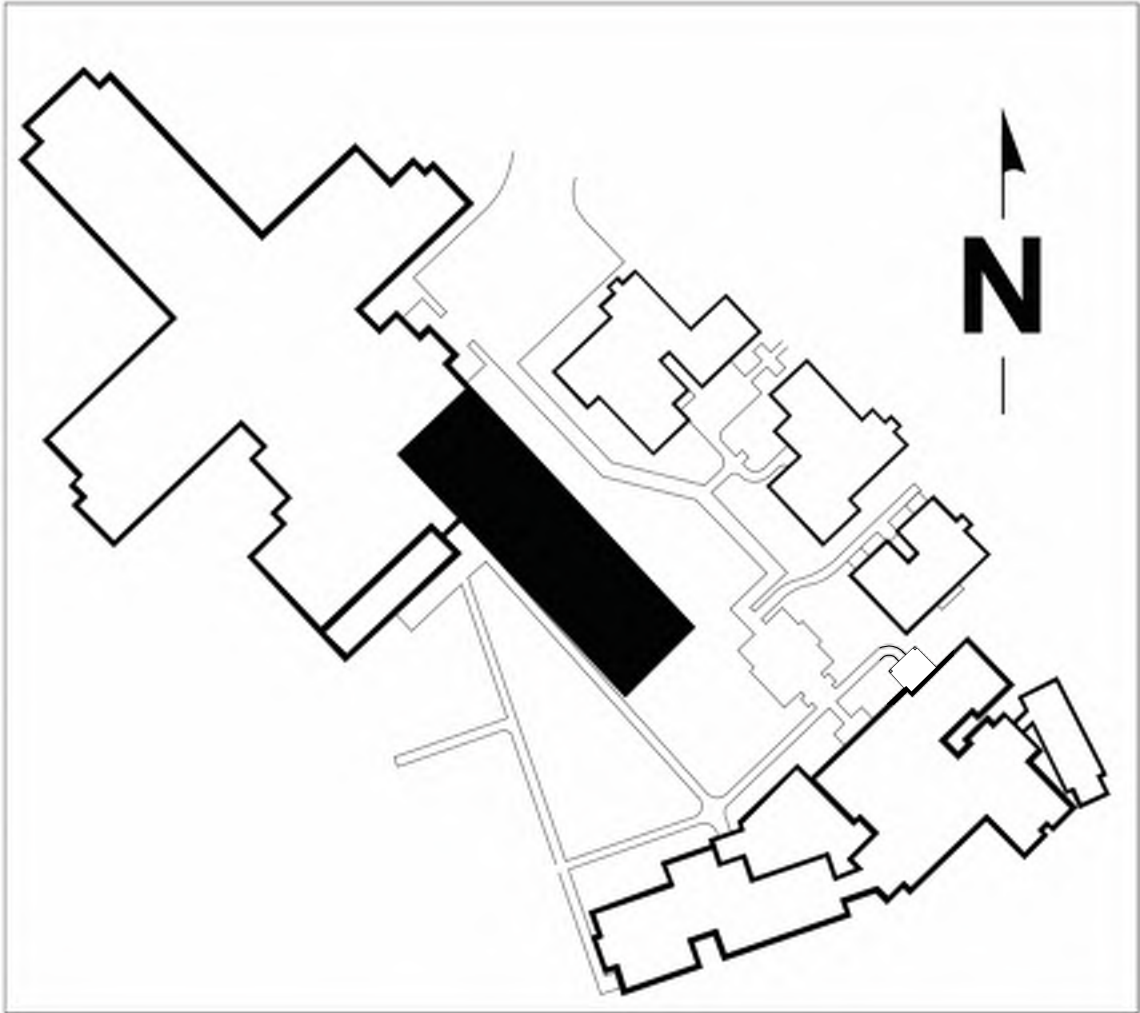
A-201 1/8" = 1'-0"



3 PAVILION ADDITION - EAST ELEVATION

A-201 1/8" = 1'-0"

NEW ADDITION
EXISTING



1/8" = 1' - 0" 0 5' 10' 15' 30'

**COLORED BUILDING
ELEVATIONS FOR
WILLIAMSBURG PLACE
PAVILION AND FARLEY CENTER ADDITIONS**

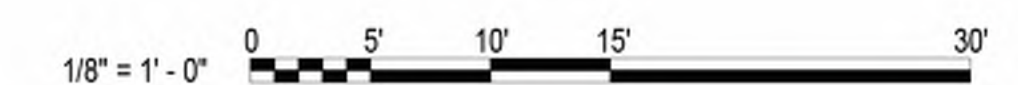
REVISION SCHEDULE			INITIALS
#	DESCRIPTION	DATE	

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NOT FOR
CONSTRUCTION

Date: 08/24/22
Drawn: EAQ Checked: SLK
Project: 222002

A-201

[illegible]

NOT FOR
CONSTRUCTION

Date: 08/24/22
 Drawn: EAQ Checked: SLK
 Project: 222002

A-201

Exhibit F

Representative Building Color References



1 FARLEY CENTER - REMOVE COVERED PORCH ROOF



2 FARLEY CENTER ADDITION
A-203

[illegible]



1 EXISTING FARLEY APARTMENTS

COLOR SAMPLES FOR
WILLIAMSBURG PLACE

FLAVIOLIN AND TARGET CENTER ADDITIONS

[illegible]

NOT FOR
CONSTRUCTION

Date: 08/24/22
 Drawn: EAQ Checked: SLK
 Project: 222003

A-203



1 EXISTING PAVILION BUILDING

COLOR SAMPLES FOR WILLIAMSBURG PLACE

PAVILION AND FARLEY CENTER ADDITIONS

[illegible]

NOT FOR
CONSTRUCTION

Date:	08/24/22
Drawn:	EAQ Checked: SLK
Project:	222002

Exhibit G

Traffic Count Report
Turn Lane Warrant Report



TO: Ryan Stephenson, P. E.
FROM: Dexter R. Williams, P. E.
SUBJECT: Turn Lane Warrant For Williamsburg Place 214 Bed Nursing Home
DATE: November 7, 2022

Enclosed please find:

- Exhibit A: AM and PM peak hour counts at Mooretown Road/Williamsburg Place
- Exhibit B: AM and PM peak hour forecast:
 - Top row: Counts
 - Second row: growth factor 1.02 applied to counts for background traffic
 - Third row:: Trip assignments for new 214 bed nursing home
 - Fourth row:: Total traffic for turn lane warrants
- Exhibit C: Trip generation for 214 beds
- Exhibit D: AM peak hour left turn lane warrant for total traffic: no left turn lane warranted
- Exhibit E: PM peak hour left turn lane warrant for total traffic: no left turn lane warranted
- Exhibit F: AM and PM peak hour right turn lane warrant for total traffic: right turn radius only warranted

AM PEAK HOUR

Date: Wed, 10/19/22

COUNTS CONDUCTED BY DRW CONSULTANTS, LLC & AES

LOCATION:

CUMULATIVE 15 MINUTE COUNTS

TIME	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	Total
		A	B	E	F		C		D				
7:00 to 7:15		34	3	9	56		0		1				103
7:15 to 7:30		88	6	16	107		1		2				220
7:30 to 7:45		146	7	19	164		2		11				349
7:45 to 8:00		202	10	28	234		2		15				491
8:00 to 8:15		274	15	37	298		2		16				642
8:15 to 8:30		322	19	42	361		4		17				765
8:30 to 8:45		396	22	50	427		6		17				918
8:45 to 9:00		448	24	55	483		6		18				1034

Count Sheet

15 MINUTE INTERVAL COUNTS

TIME	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	Total
7:00 to 7:15	0	34	3	9	56	0	0	0	1	0	0	0	103
7:15 to 7:30	0	54	3	7	51	0	1	0	1	0	0	0	117
7:30 to 7:45	0	58	1	3	57	0	1	0	9	0	0	0	129
7:45 to 8:00	0	56	3	9	70	0	0	0	4	0	0	0	142
8:00 to 8:15	0	72	5	9	64	0	0	0	1	0	0	0	151
8:15 to 8:30	0	48	4	5	63	0	2	0	1	0	0	0	123
8:30 to 8:45	0	74	3	8	66	0	2	0	0	0	0	0	153
8:45 to 9:00	0	52	2	5	56	0	0	0	1	0	0	0	116

HOURLY INTERVAL

TIME	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	Total
7:00 to 8:00	0	202	10	28	234	0	2	0	15	0	0	0	491
7:15 to 8:15	0	240	12	28	242	0	2	0	15	0	0	0	539
7:30 to 8:30	0	234	13	26	254	0	3	0	15	0	0	0	545
7:45 to 8:45	0	250	15	31	263	0	4	0	6	0	0	0	569
8:00 to 9:00	0	246	14	27	249	0	4	0	3	0	0	0	543

PEAK HOUR TURNING MOVEMENT VOLUMES

TIME	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	Total
7:45 to 8:45	0	250	15	31	263	0	4	0	6	0	0	0	569

PEAK HOUR FACTOR BY APPROACH

	EB	WB	NB	SB
7:00 to 7:15	37	65	1	0
7:15 to 7:30	57	58	2	0
7:30 to 7:45	59	60	10	0
7:45 to 8:00	59	79	4	0
8:00 to 8:15	77	73	1	0
8:15 to 8:30	52	68	3	0
8:30 to 8:45	77	74	2	0
8:45 to 9:00	54	61	1	0
PHF	0.86	0.93	0.63	#####

Exhibit A1

PM PEAK HOUR

Date:

COUNTS CONDUCTED BY DRW CONSULTANTS, LLC & AES

LOCATION:

CUMULATIVE 15 MINUTE COUNTS

TIME	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	Total
		A	B	E	F		C		D				
4:00 to 4:15		87	0	2	91		1		5				186
4:15 to 4:30		187	1	4	173		3		9				377
4:30 to 4:45		311	3	4	264		6		19				607
4:45 to 5:00		406	3	4	353		9		26				801
5:00 to 5:15		515	3	5	426		9		31				989
5:15 to 5:30		612	3	6	525		11		41				1198
5:30 to 5:45		713	3	7	605		11		42				1381
5:45 to 6:00		781	4	8	674		13		43				1523

Count Sheet

15 MINUTE INTERVAL COUNTS

TIME	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	Total
4:00 to 4:15	0	87	0	2	91	0	1	0	5	0	0	0	186
4:15 to 4:30	0	100	1	2	82	0	2	0	4	0	0	0	191
4:30 to 4:45	0	124	2	0	91	0	3	0	10	0	0	0	230
4:45 to 5:00	0	95	0	0	89	0	3	0	7	0	0	0	194
5:00 to 5:15	0	109	0	1	73	0	0	0	5	0	0	0	188
5:15 to 5:30	0	97	0	1	99	0	2	0	10	0	0	0	209
5:30 to 5:45	0	101	0	1	80	0	0	0	1	0	0	0	183
5:45 to 6:00	0	68	1	1	69	0	2	0	1	0	0	0	142

HOURLY INTERVAL

TIME	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	Total
4:00 to 5:00	0	406	3	4	353	0	9	0	26	0	0	0	801
4:15 to 5:15	0	428	3	3	335	0	8	0	26	0	0	0	803
4:30 to 5:30	0	425	2	2	352	0	8	0	32	0	0	0	821
4:45 to 5:45	0	402	0	3	341	0	5	0	23	0	0	0	774
5:00 to 6:00	0	375	1	4	321	0	4	0	17	0	0	0	722

PEAK HOUR TURNING MOVEMENT VOLUMES

TIME	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	Total
4:30 to 5:30	0	425	2	2	352	0	8	0	32	0	0	0	821

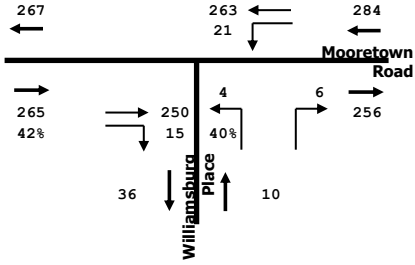
PEAK HOUR FACTOR BY APPROACH

	EB	WB	NB	SB
4:00 to 4:15	87	93	6	0
4:15 to 4:30	101	84	6	0
4:30 to 4:45	126	91	13	0
4:45 to 5:00	95	89	10	0
5:00 to 5:15	109	74	5	0
5:15 to 5:30	97	100	12	0
5:30 to 5:45	101	81	1	0
5:45 to 6:00	69	70	3	0
PHF	0.85	0.89	0.77	#####

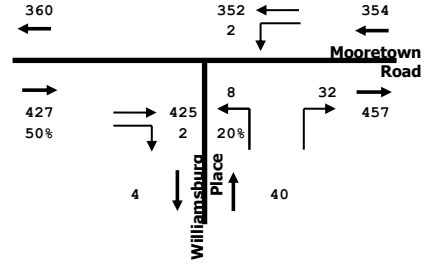
Exhibit A2

Counts

AM Peak Hour



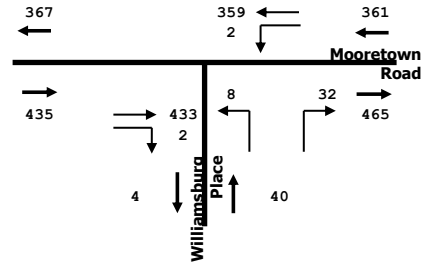
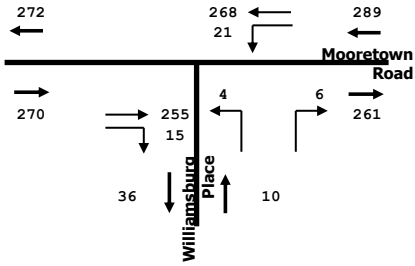
PM Peak Hour



TO RT. 199

GROWTH FACTOR: 1.02

Background



Site Traffic

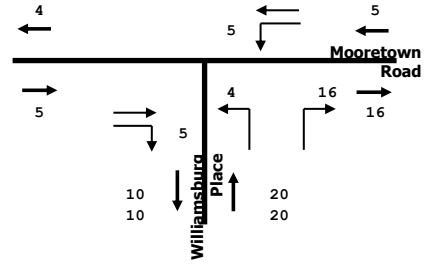
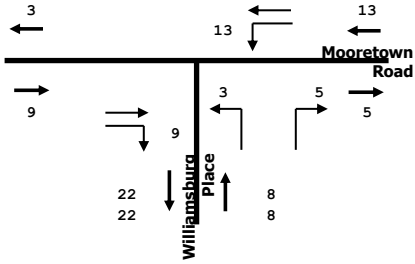
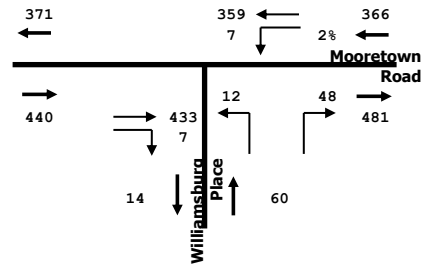
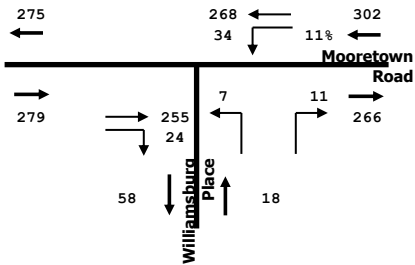


Exhibit Reference

Total Traffic



WILLIAMSBURG PLACE FORECAST

DRW Consultants, LLC
804-794-7312

Exhibit B

TABLE 1		LAND USE CODE	SQ.FT., OTHER UNITS	WEEKDAY TRIP GENERATION						
				AM PEAK HOUR			PM PEAK HOUR			DAILY
VALUE	LAND USE			Enter	Exit	Total	Enter	Exit	Total	
rate/adj. st.	Nursing Home	620	214 beds	22	8	30	10	20	30	655

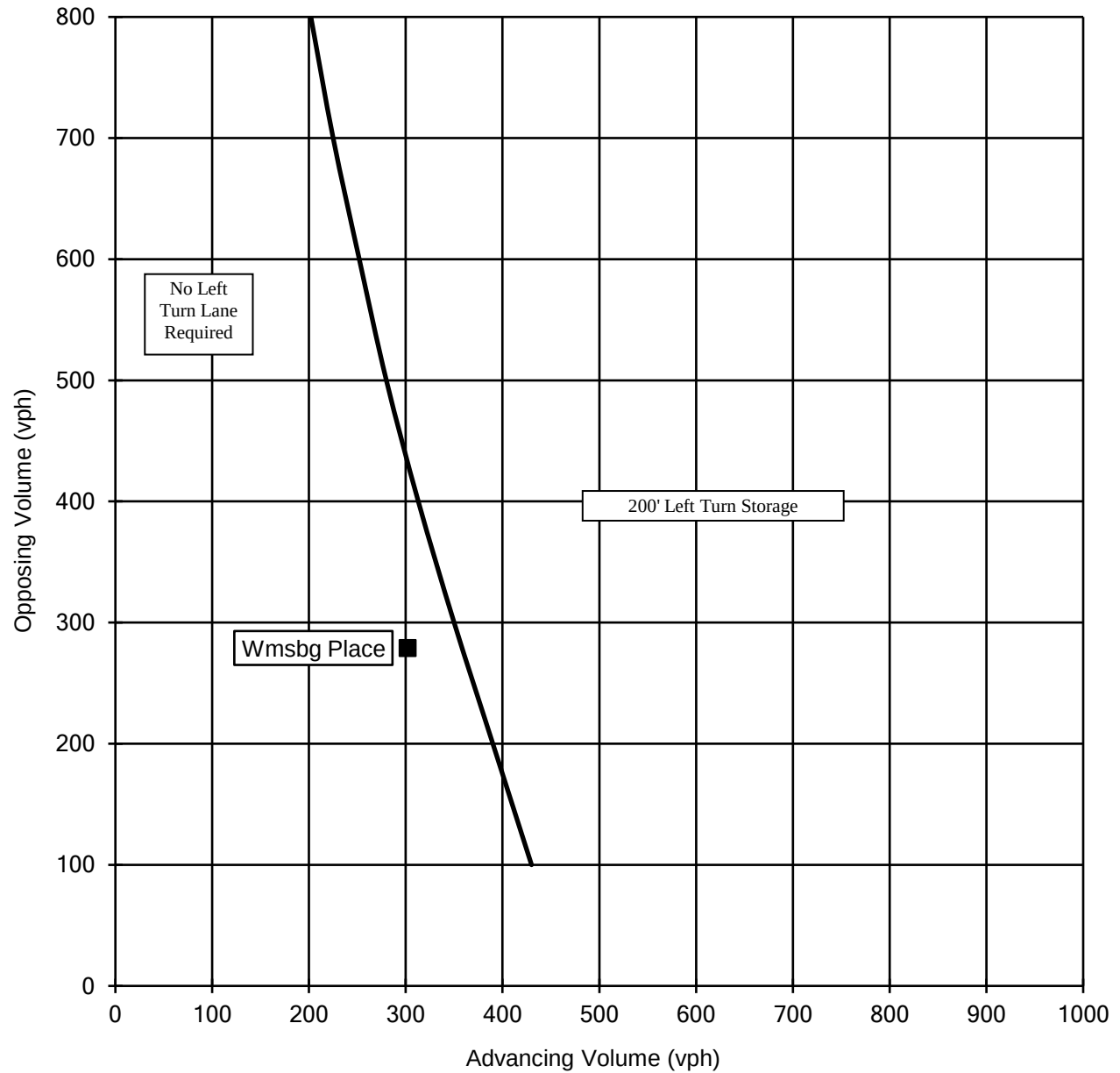
Trip generation rates from [Trip Generation Manual, 11th Edition](#) (TGM11) by the Institute of Transportation Engineers (ITE)

WILLIAMBURG PLACE
214 NURSING HOME BEDS

DRW Consultants, LLC
804-794-7312

Exhibit C

LEFT TURN LANE WARRANT
40 mph Design Speed
% Left Turns = 15%



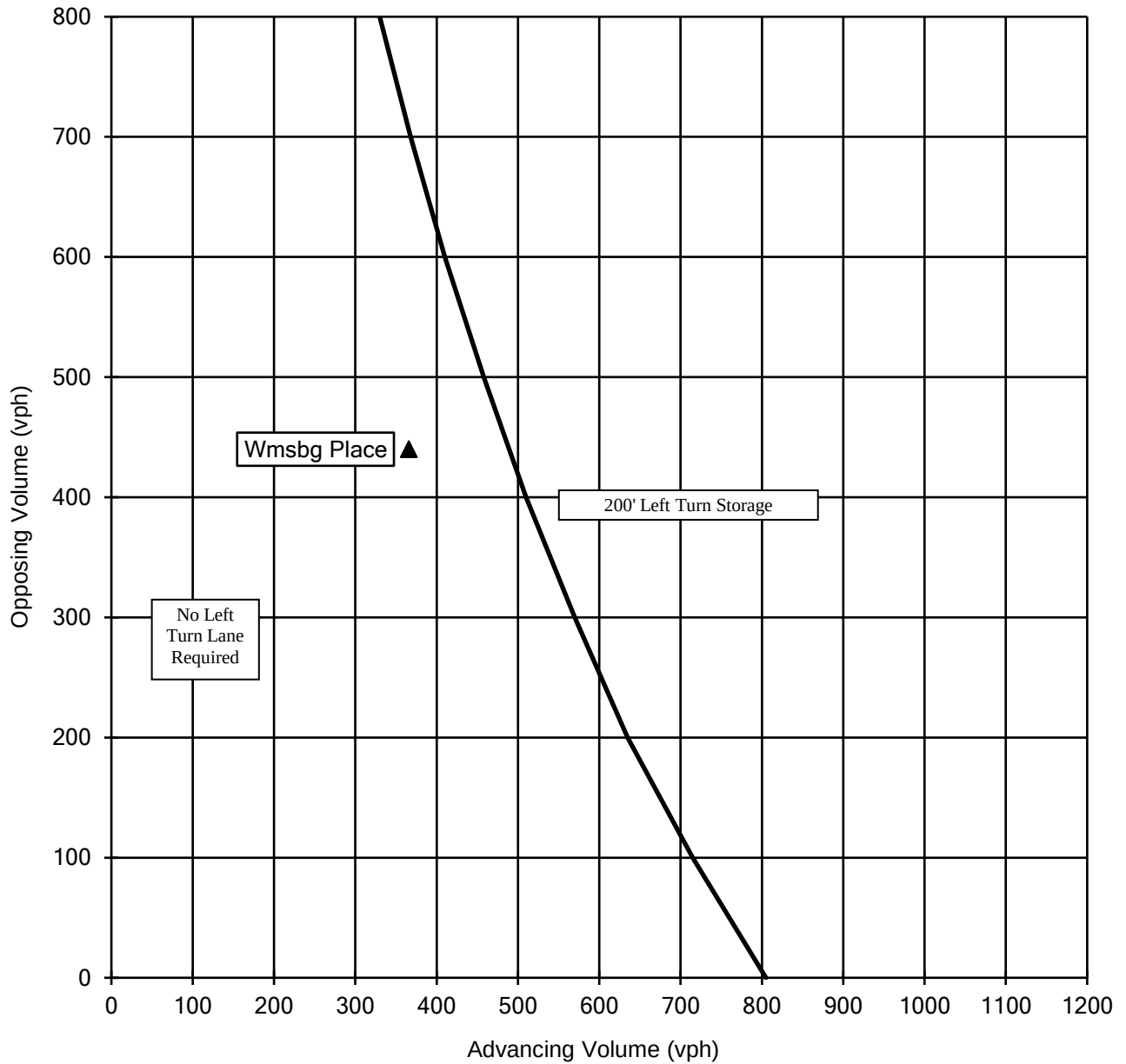
Source: Interpolated from VDOT Road Design Manual, Appendix F, derived from Highway Research Record Number 211

VDOT LEFT TURN LANE WARRANT
 WILLIAMSBURG PLACE AM PEAK HOUR

DRW Consultants, LLC
 804-794-7312

Exhibit D

LEFT TURN LANE WARRANT
40 mph Design Speed
% Left Turns = 5%



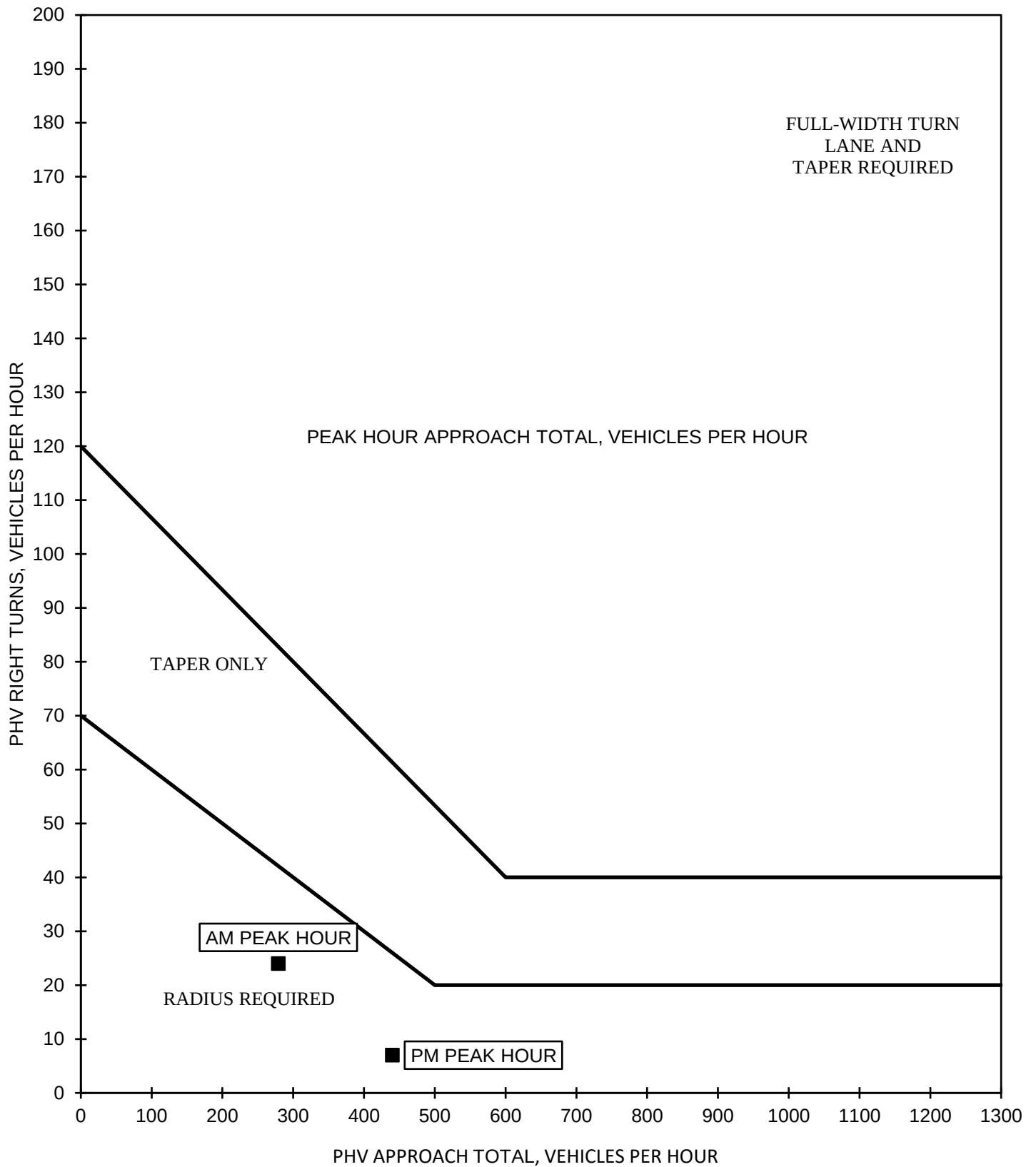
Source: Interpolated from VDOT Road Design Manual, Appendix F, derived from Highway Research Record Number 211.

VDOT LEFT TURN LANE WARRANTS
 WILLIAMSBURG PLACE PM PEAK HOUR

DRW Consultants, LLC
 804-794-7312

Exhibit E

Guidelines for Right Turn Treatments 2 - Lane Highway



Source: VDOT Road Design Manual, Appendix F

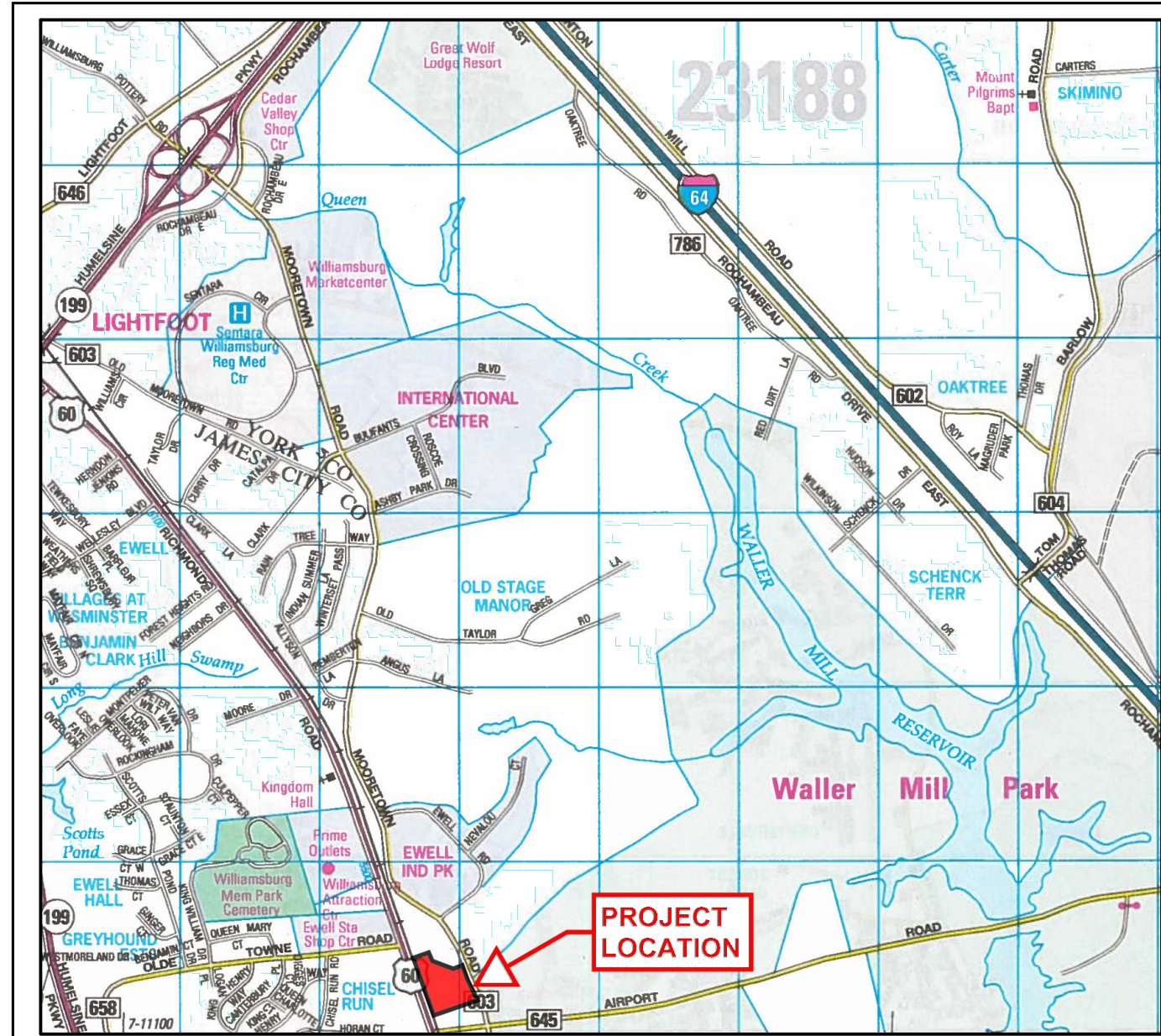
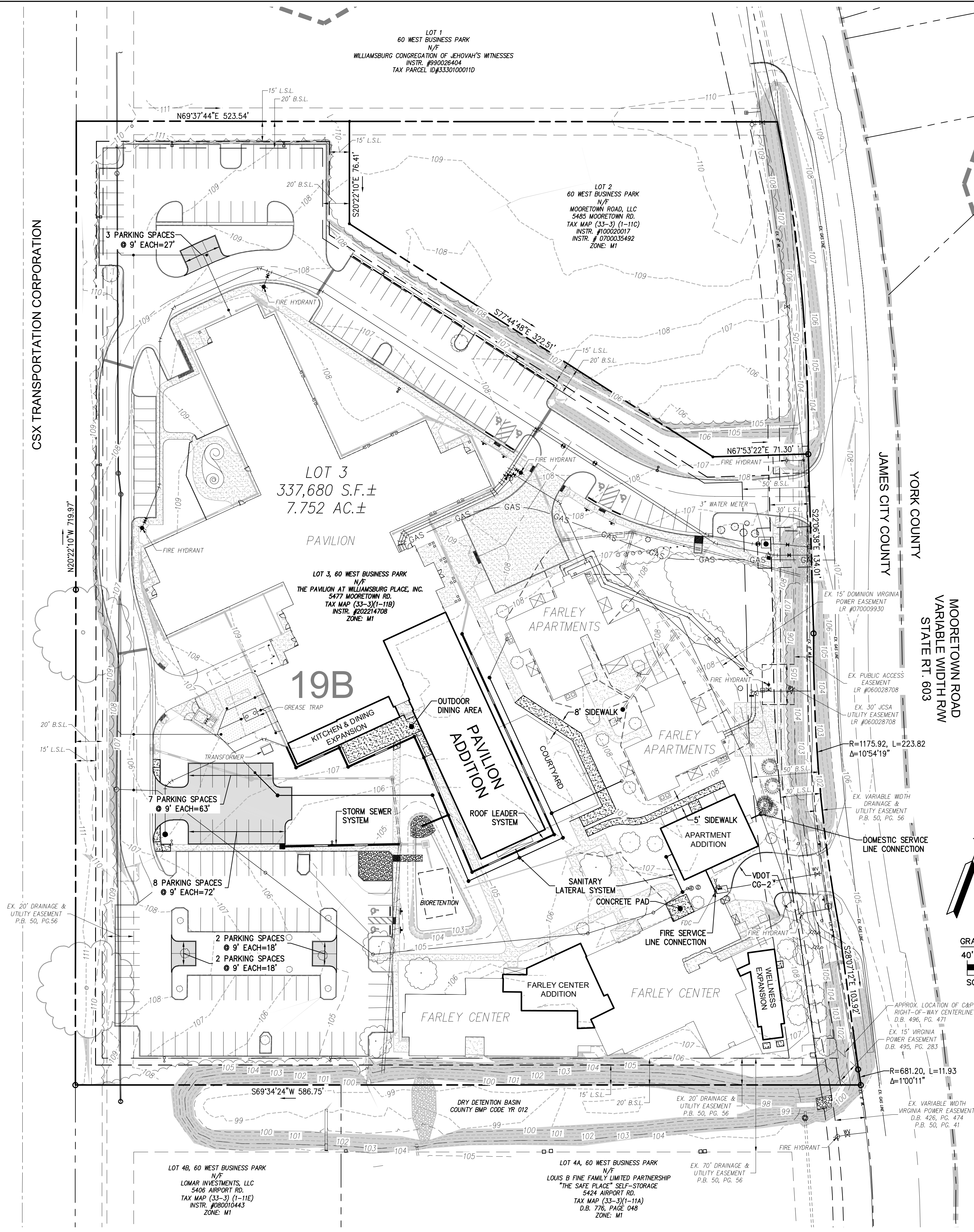
VDOT RIGHT TURN LANE WARRANT
WILLIAMSBURG PLACE

DRW Consultants, LLC
804-794-7312

Exhibit F

U.S. ROUTE 60

CSX TRANSPORTATION CORPORATION



VICINITY MAP
(APPROXIMATE SCALE: 1"=2000')
MAP COPYRIGHT © KAPPA MAP GROUP LLC, (386) 873-3011. USED WITH
PERMISSION - PERMITTED USE NUMBER BJE051082.

- NOTES:
1. THIS PROPERTY IS LOCATED WITHIN THE QUEEN CREEK AND POWHATAN CREEK WATERSHEDS.
 2. THERE ARE NO RARE, THREATENED OR ENDANGERED SPECIES OF PLANTS OR ANIMALS PRESENT ON SITE.
 3. PRESERVATION OF EXISTING TREES ON SITE SHALL BE DETERMINED DURING THE DESIGN STAGE OF DEVELOPMENT.
 4. EXISTING VEGETATION SHALL BE PRESERVED TO THE GREATEST EXTENT POSSIBLE.

SPECIAL STORMWATER CRITERIA (SSC) NOTE:
1. BASED ON THE LOCATION WITHIN THE POWHATAN CREEK WATERSHED AND ANTICIPATED DISTURBED AREA FOR THIS PROJECT, A TOTAL OF ONE (1) SSC MEASURE SHALL BE REQUIRED.

SITE TABULATIONS			
SUP SITE AREA	= 337,680 S.F.± (7.75 AC.±)	(100.00%)	
TOTAL NUMBER OF BEDS	= 214 BEDS		
TOTAL BUILDING AREA			
THE PAVILION	= 50,000 S.F.± (1.14 AC.±)	(14.81%)	
THE FARLEY APARTMENTS	= 12,500 S.F.± (0.29 AC.±)	(3.70%)	
THE FARLEY CENTER	= 20,000 S.F.± (0.46 AC.±)	(5.92%)	
TOTAL	= 82,500 S.F.± (1.89 AC.±)	(24.43%)	
MAXIMUM ALLOWABLE IMPERVIOUS COVER ON SITE (PER SP-0028-2010)	= 60% OF PARCEL AREA	(4.65 AC.±)	(60.00%)
EXISTING IMPERVIOUS COVER ON SITE (PER SP-0028-2010)	= 175,098 S.F.± (4.02 AC.±)	(51.85%)	
PROPOSED MAXIMUM IMPERVIOUS COVER ON SITE	= 202,608 S.F.± (4.65 AC.±)	(60.00%)	
EXISTING OPEN SPACE AREA ON SITE (PER SP-0028-2010)	= 162,582 S.F.± (3.73 AC.±)	(48.15%)	
PROPOSED MINIMUM OPEN SPACE AREA ON SITE	= 135,072 S.F.± (3.10 AC.±)	(40.00%)	

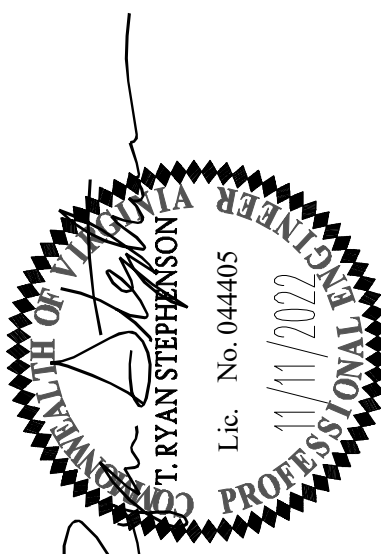
PARKING TABULATIONS	
REQUIRED PARKING SPACES:	SPACES
1 SPACE PER EMPLOYEE ON THE LARGEST SHIFT	= 97
1 SPACE PER EVERY FOUR BEDS	= 54
TOTAL REQUIRED	= 151
PROVIDED PARKING SPACES = 181 SPACES (INCLUDING 6 HC SPACES)	

EXISTING TOPOGRAPHIC INFORMATION AND
PLANAMETRIC INFORMATION ARE FROM A
COMBINATION OF SURVEY AND PREVIOUS DESIGN
PROVIDED BY AES CONSULTING ENGINEERS.

LEGEND		LEGEND	
	DENOTES 25% OR GREATER MANMADE SLOPES		SOILS BOUNDARY
			SOILS TYPE

SOILS TABLE					
SOIL NUMBER	SOIL NAME	HYDROLOGIC SOIL GROUP	TYPICAL SLOPES	EROSION FACTOR (K)	EROSION FACTOR (T)
19B	KEMPSVILLE-EMPORIA FINE SANDY LOAMS	A/B	2-6%	0.28	5
INFORMATION TAKEN FROM THE UNITED STATES DEPARTMENT OF AGRICULTURE NATIONAL RESOURCES CONSERVATION SERVICE: SOIL SURVEY AREA: JAMES CITY AND YORK COUNTIES AND THE CITY OF WILLIAMSBURG, VIRGINIA SURVEY AREA DATA: VERSION 19, SEP 16, 2021					
SOIL SUSCEPTIBILITY TO EROSION CLASSIFICATION (K) 0.23 AND LOWER - LOW ERODIBILITY 0.23 TO 0.36 - MODERATE ERODIBILITY 0.36 AND UP - HIGH ERODIBILITY					
THE MAP SHOWN IS A "BEST FIT MODEL" OF THE SCS MAPS WITH EXISTING BASE INFORMATION.					

Rev.	Date	Description	Revised By	TRIS
2	11/11/2022	REVISED PER 2ND JCC SUP SUBMITTAL COMMENTS		TRIS
1	10/24/2022	REVISED PER 1ST JCC SUP SUBMITTAL COMMENTS		TRIS



THIS PLAN HAS
NOT RECEIVED
FINAL APPROVAL
AND IS NOT
APPROVED FOR
CONSTRUCTION.

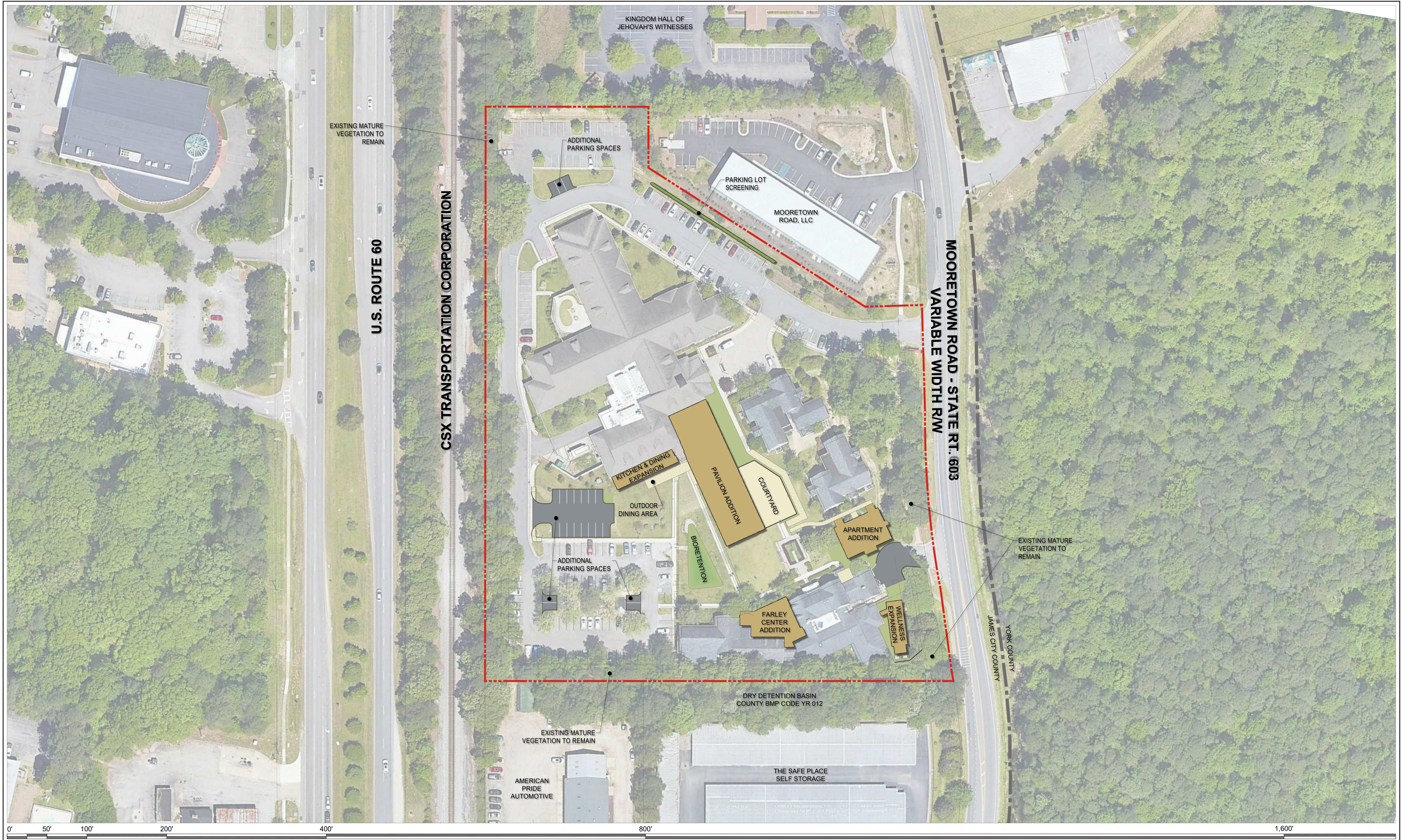
5248 Old Town Road, Suite 1
Williamsburg, Virginia 23188
Phone: (757) 255-0040
www.aesva.com

AES
CONSULTING ENGINEERS
Hampton Roads | Central Virginia | Middle Peninsula

MASTER PLAN
FOR
WILLIAMSBURG PLACE
PAVILION AND FARLEY CENTER ADDITIONS

POWHATAN DISTRICT | JAMES CITY COUNTY | VIRGINIA

Project Contacts:	TRIS
Project Number:	W10772-00
Scale:	1"=40'
Date:	08/24/2022
Sheet Title:	MASTER PLAN
Sheet Number:	MP1.0



ORIGINAL DATE: AUGUST 24, 2022 REVISED: NOVEMBER 11, 2022
SCALE: 1"=50'

SHEET 1 of 1

ILLUSTRATIVE OVERALL IMPROVEMENTS PLAN WILLIAMSBURG PLACE

JAMES CITY COUNTY, VIRGINIA

(AES PROJECT #: W10772-00 - AES PROJECT CONTACT: T. RYAN STEPHENSON, P.E.)
JAMES CITY COUNTY CASE NO.: SUP-22-0018



Hampton Roads | Central Virginia | Middle Peninsula

5248 Old Towne Road, Suite 1
Williamsburg, Virginia 23186
Phone: (757) 253-0040
Fax: (757) 220-8994
www.aesva.com

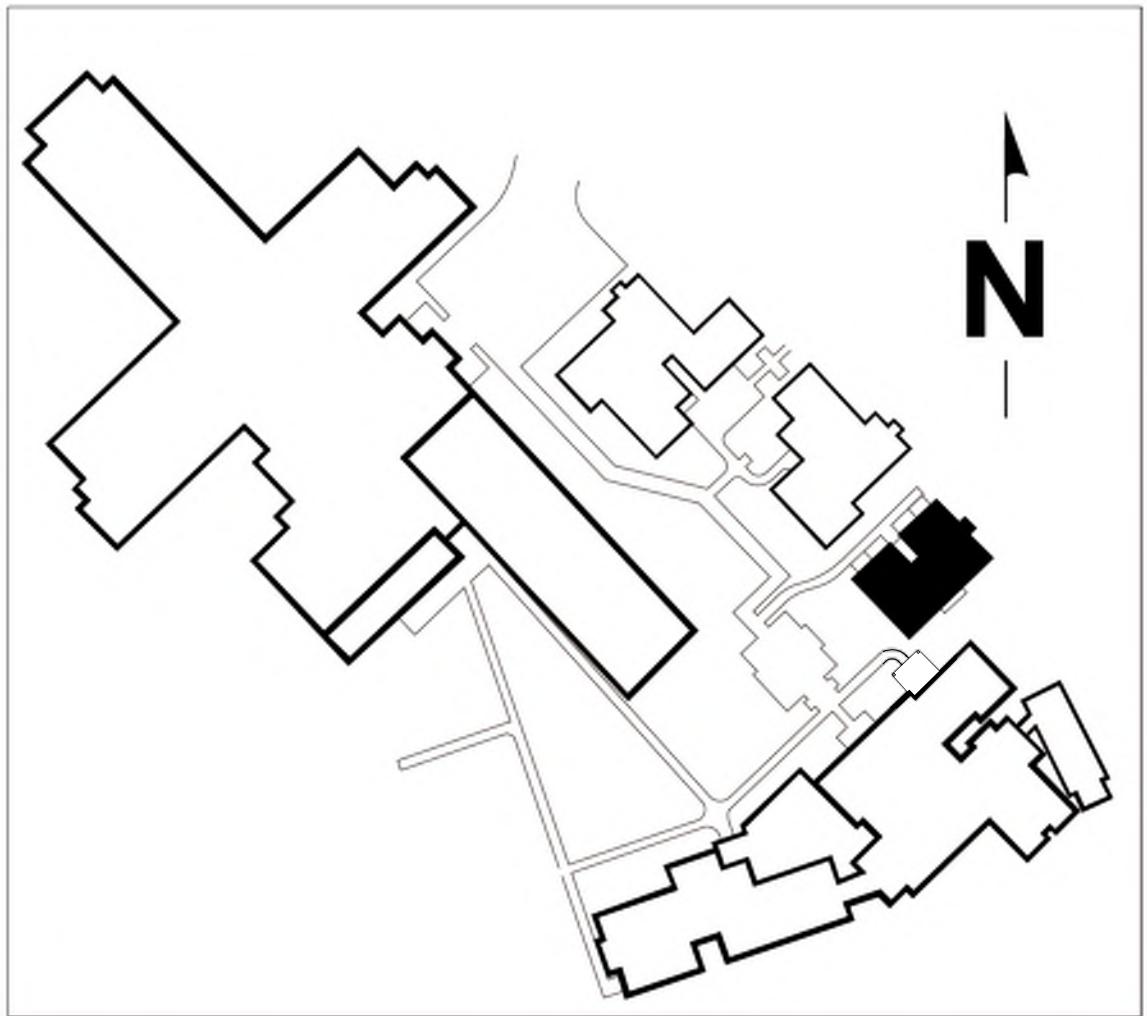


1 APARTMENT ADDITION - NORTH ELEVATION
A-201 1/4" = 1'-0"



2 APARTMENT ADDITION - EAST ELEVATION
A-201 1/4" = 1'-0"

NEW ADDITION
EXISTING



1/4" = 1' - 0" 0 1' 5' 10' 15'

REVISION SCHEDULE		
#	DESCRIPTION	DATE INITIALS

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Date: 08/24/22
Drawn: EAQ Checked: SLK
Project: 222003

A-201

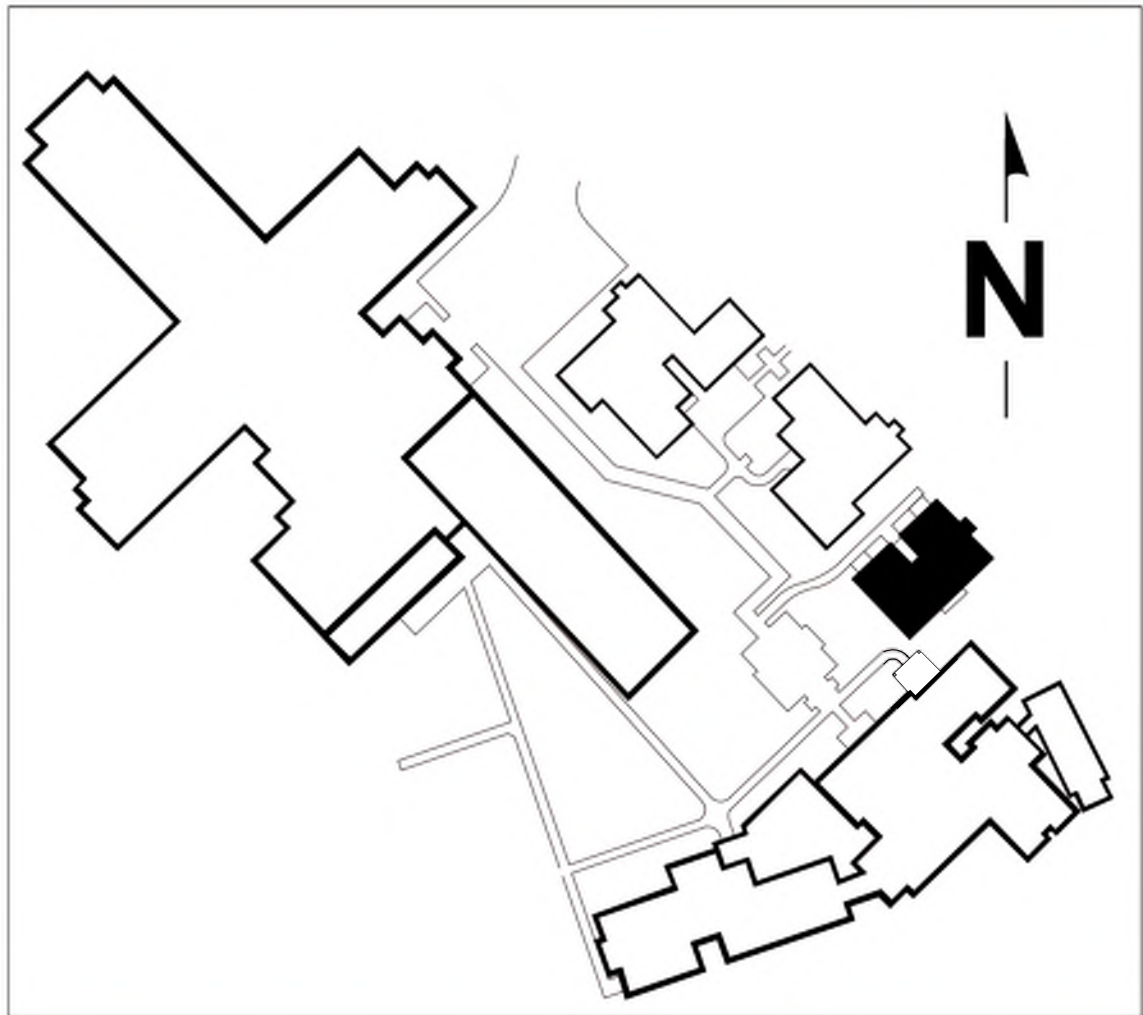


1
A-202
APARTMENT ADDITION - SOUTH ELEVATION
1/4" = 1'-0"



2
A-202
APARTMENT ADDITION - WEST ELEVATION
1/4" = 1'-0"

NEW ADDITION
EXISTING



1/4" = 1'-0" 0 1' 5' 10' 15'

**COLORED BUILDING
ELEVATIONS FOR
WILLIAMSBURG PLACE
PAVILION AND FARLEY CENTER ADDITIONS**

REVISION SCHEDULE			INITIALS
#	DESCRIPTION	DATE	

NOT FOR
CONSTRUCTION

Date: 08/24/22
Drawn: EAQ Checked: SLK
Project: 222003

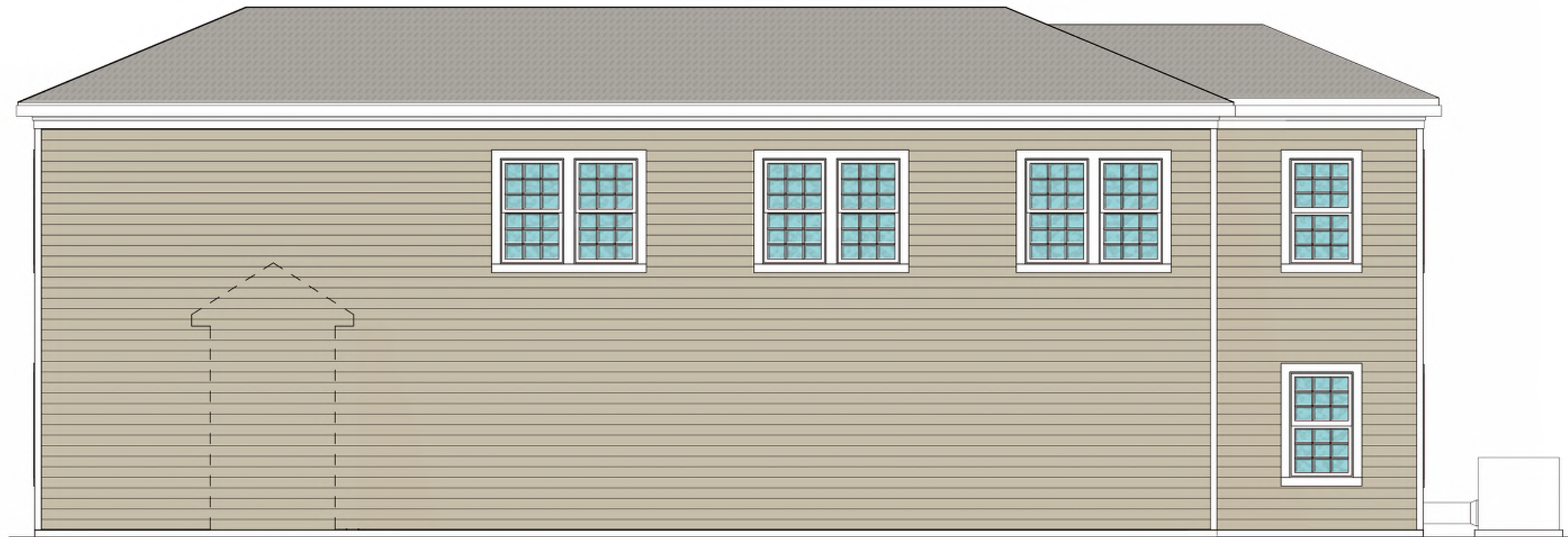
A-202



1 WELLNESS CENTER - NORTH ELEVATION
1/4" = 1'-0"



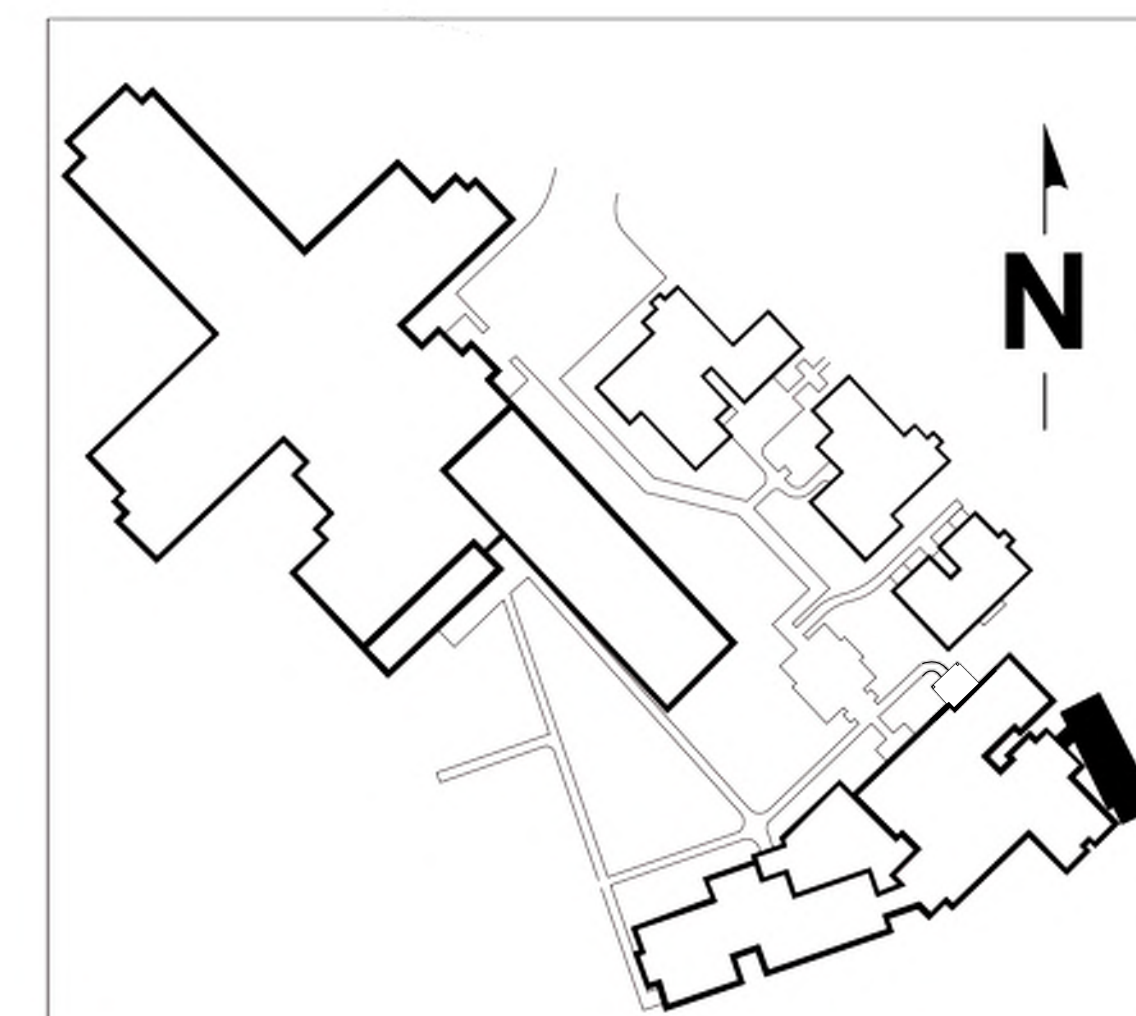
2 WELLNESS CENTER - EAST ELEVATION
1/4" = 1'-0"



3 WELLNESS CENTER - WEST ELEVATION
1/4" = 1'-0"



4 WELLNESS CENTER - SOUTH ELEVATION
1/4" = 1'-0"



NEW ADDITION
EXISTING

1/4" = 1'-0" 0 1' 5' 10' 15'

**COLORED BUILDING
ELEVATIONS FOR
WILLIAMSBURG PLACE
PAVILION AND FARLEY CENTER ADDITIONS**

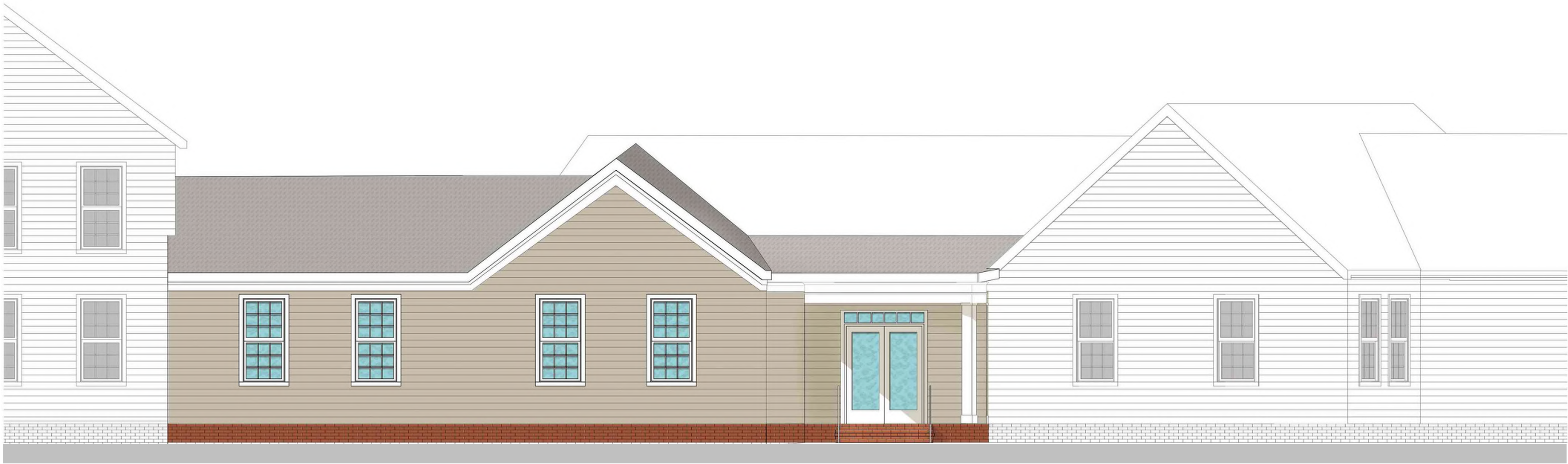
#	REVISION SCHEDULE	DESCRIPTION	DATE	INITIALS

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Drawn: EAQ Checked: SLK
Project: 222003

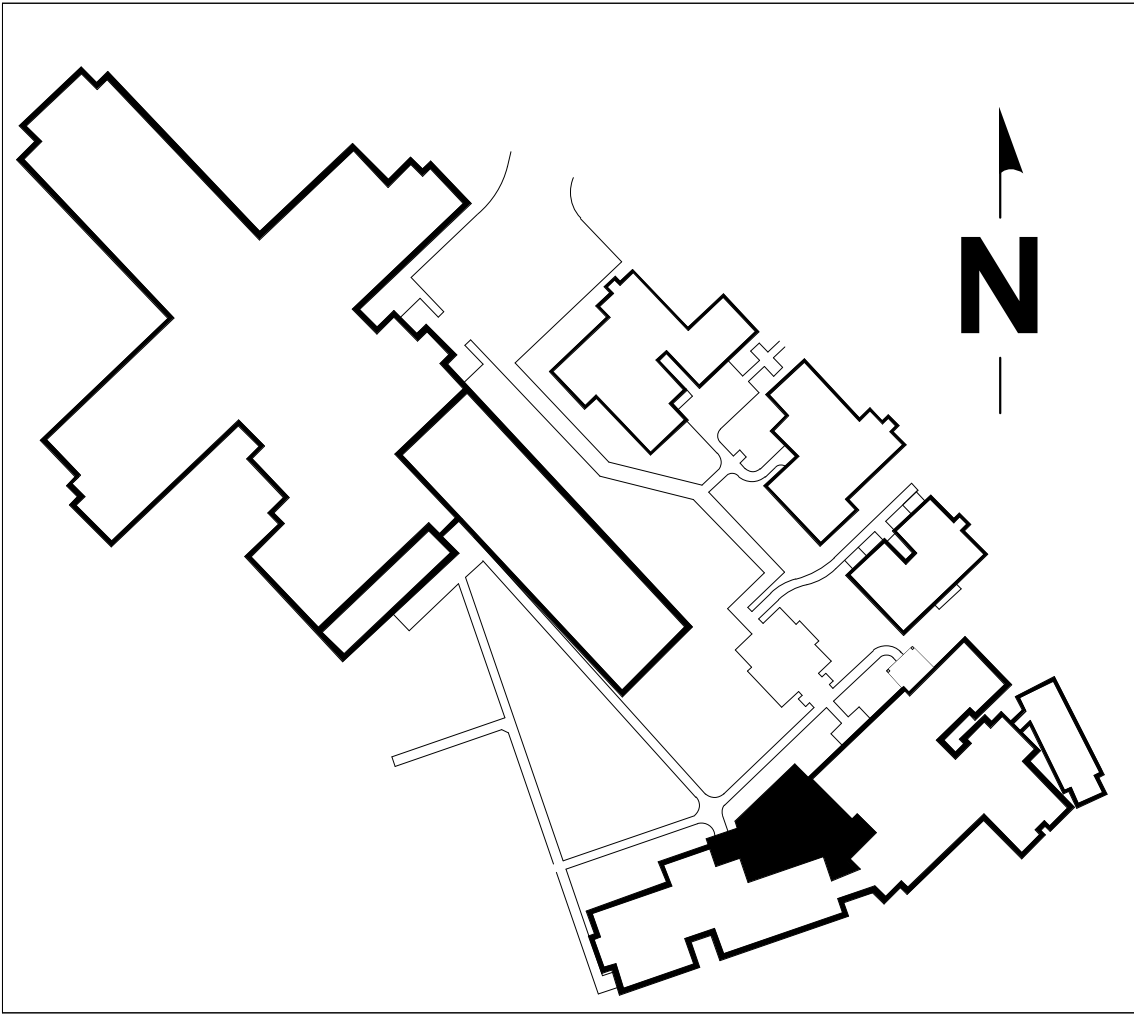
A-201



1 FARLEY CENTER ADDITION - ELEVATION
A-202 1/4" = 1'-0"

NEW ADDITION

EXISTING



1/4" = 1' - 0" 0 1' 5' 10' 15'

GuernseyTingle

757-220-0020 Williamsburg, VA
guernseytingle.com

COLORED BUILDING
ELEVATIONS FOR
WILLIAMSBURG PLACE
PAVILION AND FARLEY CENTER ADDITIONS

REVISION SCHEDULE			
#	DESCRIPTION	DATE	INITIALS
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NOT FOR
CONSTRUCTION

Date: 10/24/22
Drawn: EAQ Checked: SLK
Project: 222003

A-202



1 PAVILION ADDITION - NORTH ELEVATION
A-201 1/8" = 1'-0"

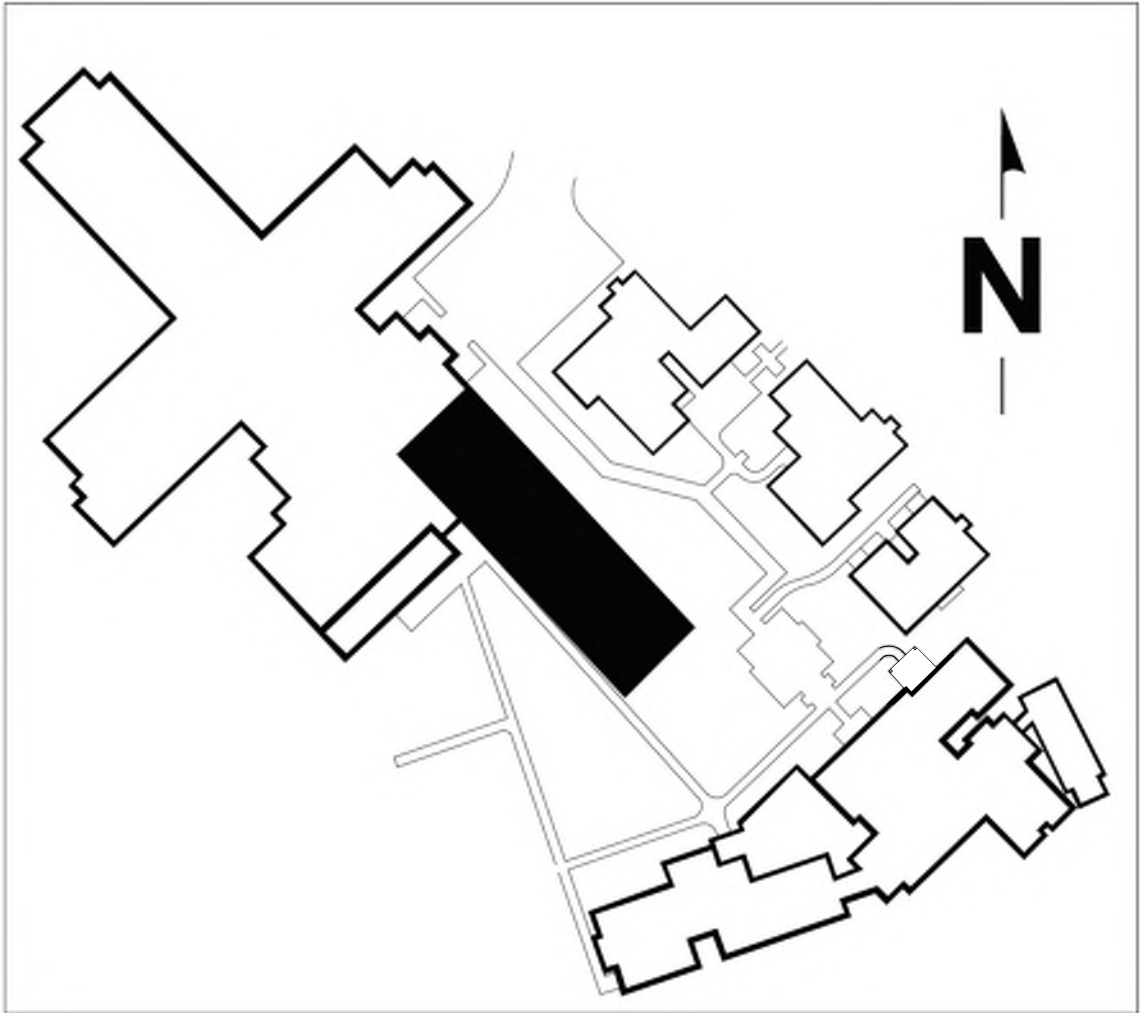


2 PAVILION ADDITION - SOUTH ELEVATION
A-201 1/8" = 1'-0"



3 PAVILION ADDITION - EAST ELEVATION
A-201 1/8" = 1'-0"

NEW ADDITION
EXISTING



1/8" = 1' - 0" 0 5' 10' 15' 30'

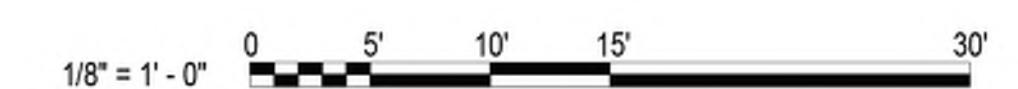
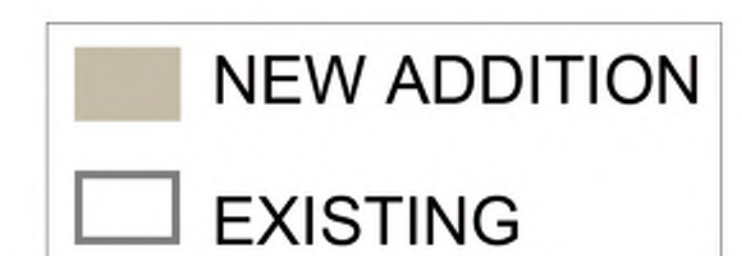
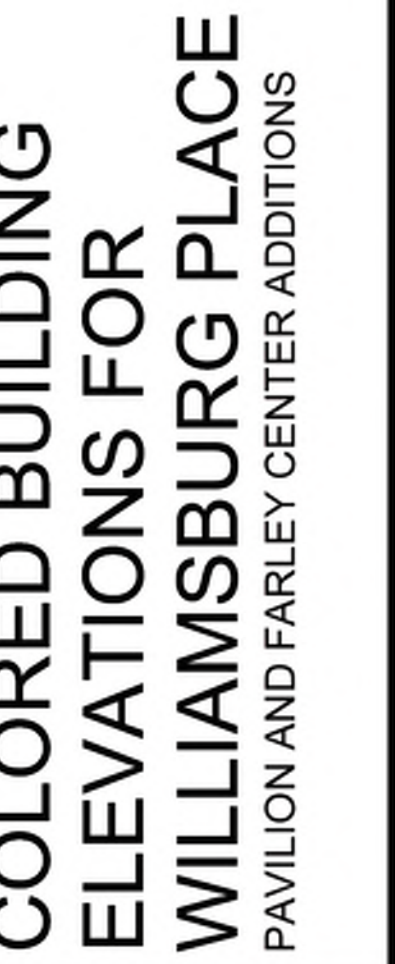
**COLORED BUILDING
ELEVATIONS FOR
WILLIAMSBURG PLACE
PAVILION AND FARLEY CENTER ADDITIONS**

REVISION SCHEDULE		
#	DESCRIPTION	DATE INITIALS

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CONSTRUCTION

Date: 08/24/22
Drawn: EAQ Checked: SLK
Project: 222002

[illegible]

NOT FOR
CONSTRUCTION

Date: 08/24/22
 Drawn: EAQ Checked: SLK
 Project: 222002

A-201

ITEM SUMMARY

DATE: 12/7/2022

TO: The Planning Commission

FROM: Terry Costello, Senior Planner

SUBJECT: SUP-22-0021. 8401 Hicks Island Road Tourist Home

ATTACHMENTS:

	Description	Type
☐	Staff Report	Staff Report
☐	Proposed SUP Conditions	Backup Material
☐	Location Map	Exhibit
☐	General Location Map	Exhibit
☐	Master Plan	Exhibit
☐	Exhibit of 8401 Hicks Island Road	Exhibit
☐	Applicant Narrative	Backup Material

REVIEWERS:

Department	Reviewer	Action	Date
Planning Commission	Holt, Paul	Approved	11/29/2022 - 8:19 AM
Planning Commission	Holt, Paul	Approved	11/29/2022 - 8:20 AM
Publication Management	Pobiak, Amanda	Approved	11/29/2022 - 8:59 AM
Planning Commission	Holt, Paul	Approved	11/29/2022 - 9:01 AM

**SPECIAL USE PERMIT-22-0021. 8401 Hicks Island Road Tourist Home
Staff Report for the December 7, 2022, Planning Commission Public Hearing**

SUMMARY FACTS

Applicant: Mr. Stuart Evans, Evans Construction, Inc.

Landowner: Chris Adickes

Proposal: To allow for a tourist home rental of an entire four-bedroom home. The owner lives on a different property nearby

Location: 8401 Hicks Island Road

Tax Map/Parcel No.: 0910100024A

Property Acreage: $\pm$ 7.7 acres

Zoning: A-1, General Agricultural

Comprehensive Plan: Rural Lands

Primary Service Area: Outside

Staff Contact: Terry Costello, Senior Planner

PUBLIC HEARING DATES

Planning Commission: December 7, 2022, 6:00 p.m.

Board of Supervisors: January 10, 5:00 p.m. (tentative)

FACTORS FAVORABLE

1. There is adequate off-street parking.
2. The applicant has acknowledged that should this application be approved; he will obtain the proper licensing and inspections through the County and will be subject to appropriate use-based taxes.
3. Lot sizes in the A-1, General Agricultural District are larger than in other more densely populated residential areas. The size of the lot, the location along the water, and the existing vegetation provide screening and buffering to most adjacent properties.
4. Impacts: See Impact Analysis on Pages 3-4.

FACTORS UNFAVORABLE

1. Staff finds the proposal is not fully consistent with the short-term rental recommendations of the *Our County, Our Shared Future: James City County 2045 Comprehensive Plan*.
2. Impacts: See Impact Analysis on Pages 3-4.

SUMMARY STAFF RECOMMENDATION

Per the impacts analysis noted below, staff finds the proposed use will not negatively impact surrounding property or development nor is it expected to negatively impact Levels of Service (LOS) for roads or other public services. While staff believes that this location is generally considered appropriate for this use, staff finds the proposal not fully consistent with the Comprehensive Plan recommendations for short-term rentals. Staff, therefore, cannot recommend approval of this application. Should the Planning Commission wish to recommend approval, staff has included proposed conditions for consideration (Attachment No. 1).

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.

**SPECIAL USE PERMIT-22-0021. 8401 Hicks Island Road Tourist Home
Staff Report for the December 7, 2022, Planning Commission Public Hearing**

PROJECT DESCRIPTION

Mr. Stuart Evans of Evans Construction, Inc. has applied for a Special Use Permit (SUP) to allow for a short-term rental of an existing four-bedroom house as a tourist home. The house is located on a neighboring property to the owner's primary residence. The proposal includes no changes to the size or footprint of the house.

The Zoning Ordinance defines a tourist home as "a dwelling where lodging or lodging and meals are provided for compensation for up to five rooms which are open to transients." The proposed conditions limit the number of bedrooms available for rental to a maximum of five bedrooms.

The property has an existing driveway that takes access from a private road. The road is owned in several pieces by the various abutting parcel owners (see Attachment No. 5). There is an existing parking area that is sufficient to accommodate guests. The four-bedroom home is on private well water and a private sewer system. In previous tourist home applications, staff calculated the number of occupants to be two people per bedroom. Therefore, proposed Condition No. 3 states that the maximum number of occupants per contract, including children, is eight.

PLANNING AND ZONING HISTORY

- There have been no legislative cases associated with the residence that was built in 2010.
- Information was discovered that the Property was being listed as a short-term rental. A notice of violation was sent to the owner in August 2022. The owner has since removed the listing and applied for an SUP to operate a tourist home (short-term rental).

- A complaint was also filed with the Stormwater and Resource Protection Division concerning work occurring within the wetlands and Resource Protection Area. Staff determined that there are several violations to Chapter 23, Chesapeake Bay Preservation Ordinance and Chapter 8 of the County Code, Erosion and Sediment Control Ordinance. Staff is currently working with the applicant and the owner of the Property to remedy the violations.

SURROUNDING ZONING AND DEVELOPMENT

- The property is not located within any major or minor subdivision. The properties surrounding this parcel to the north, south, and east are all zoned A-1, General Agricultural. The property's west side is along Diascund Creek and the properties across the water are in New Kent County.

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.

SPECIAL USE PERMIT-22-0021. 8401 Hicks Island Road Tourist Home
Staff Report for the December 7, 2022, Planning Commission Public Hearing

Impacts/Potentially Unfavorable Conditions	Status <i>(No Mitigation Required/Mitigated/Not Fully Mitigated)</i>	Considerations/Proposed Mitigation of Potentially Unfavorable Conditions
<u>Public Transportation: Vehicular</u>	<u>No Mitigation Required</u>	- The proposal is not anticipated to generate traffic exceeding a typical residential use. - The subject property is located on a private road owned in several pieces by various abutting parcel owners. The public right-of-way ends at the intersection of the private road and Hicks Island Road.
<u>Public Transportation: Bicycle/Pedestrian</u>	<u>No Mitigation Required</u>	- Pedestrian/bicycle accommodations are not shown on the adopted Pedestrian/Bicycle Accommodations Master Plan.
<u>Public Safety</u>	<u>No Mitigation Required</u>	- Fire Station 1 on Forge Road serves this area of the County and is approximately 7 miles from the proposed tourist home. - Staff finds this project does not generate impacts that require mitigation to the County's Fire Department facilities or services.
<u>Public Schools</u>	<u>No Mitigation Required</u>	- N/A since no residential dwelling units are proposed.
<u>Public Parks and Recreation</u>	<u>No Mitigation Required</u>	- N/A since no residential dwelling units are proposed.
<u>Public Libraries and Cultural Centers</u>	<u>No Mitigation Required</u>	- Staff finds this project does not generate impacts that require mitigation.
<u>Groundwater and Drinking Water Resources</u>	<u>No Mitigation Required</u>	- The property is served by a private well and private septic system. - The proposal does not generate impacts that require mitigation to groundwater or drinking water resources.

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.

SPECIAL USE PERMIT-22-0021. 8401 Hicks Island Road Tourist Home
Staff Report for the December 7, 2022, Planning Commission Public Hearing

Impacts/Potentially Unfavorable Conditions	Status <i>(No Mitigation Required/Mitigated/Not Fully Mitigated)</i>	Considerations/Proposed Mitigation of Potentially Unfavorable Conditions
<u>Watersheds, Streams, and Reservoirs</u> Project is located in the Diascund Creek Watershed.	<u>Mitigated</u>	- The Stormwater and Resource Protection Division has reviewed this application and had no objections. No new impervious surface is proposed as part of this SUP request. Should exterior site improvements be made in the future, those improvements would be subject to additional environmental review at that time.
<u>Cultural/Historic</u>	<u>No Mitigation Required</u>	- The subject property has been previously disturbed and has no known cultural resources on-site.
<u>Nearby and Surrounding Properties</u>	<u>Mitigated</u>	- Traffic is anticipated to be typical of a residential home, the subject property must adhere to the County's Noise Ordinance, and the proposed SUP conditions will restrict commercial signage and exterior lighting. Future expansions of the use would require an SUP amendment.
<u>Community Character</u>	<u>No Mitigation Required</u>	- Neither the private road nor Hicks Island Road is a Community Character Corridor, and this parcel is not located within a Community Character Area.
<u>Covenants and Restrictions</u>	<u>No Mitigation Required</u>	- The applicant has verified that he is not aware of any covenants or restrictions on the property that prohibit the proposed use.

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.

SPECIAL USE PERMIT-22-0021. 8401 Hicks Island Road Tourist Home
Staff Report for the December 7, 2022, Planning Commission Public Hearing

2045 COMPREHENSIVE PLAN

The site is designated Rural Lands on the 2045 Comprehensive Plan Land Use Map. All surrounding properties are designated Rural Lands.

Per the adopted Comprehensive Plan, appropriate primary uses includes traditional agricultural and forestal activities, but also innovative agriculture, horticulture, silviculture, specialty or niche farming, commercial and noncommercial equine opportunities, agri-tourism, rural-based public or commercial recreation, rural-support businesses and certain public or semi-public and institutional uses that require a spacious site and are compatible with the natural and rural surroundings. Staff finds this use to generally fit within these categories as nearby lodging options which could support agri-tourism and eco-tourism uses in Rural Lands.

Per the adopted Comprehensive Plan language, uses in Rural Lands should reflect and enhance the rural character of the County. Particular attention should be given to locating structures and uses outside of sensitive areas, and maintaining existing topography, vegetation, trees and tree lines to the maximum extent possible, especially along roads and uses. As mentioned earlier in this staff report, the property owner has cleared trees and vegetation within sensitive areas. These activities are a violation of:

1. James City County Code (“County Code”) Chapter 23, Chesapeake Bay Preservation Ordinance.
2. County Code Chapter 8, Article I, Erosion and Sediment Control Ordinance.
3. County Code Chapter 8, Article II, Stormwater Management Ordinance.

However, none of these violations are related to the proposed short-term rental use.

Per the impact analysis noted above, staff finds the proposed use will not negatively impact surrounding property or development nor is it expected to negatively impact LOS for roads or other public services.

Specific to short-term rentals, the adopted Comprehensive Plan states that, if located within a residential context, short-term rentals should serve to complement the residential character of the area rather than altering its nature. Therefore, while every location can be considered uniquely, short-term rentals are most appropriately located subject to the following development standards:

- Be located on lands designated Rural Lands, Neighborhood Commercial, Community Commercial, Mixed Use, or Economic Opportunity.

This property is designated Rural Lands on the adopted 2045 Comprehensive Plan Land Use Map.

- Be located on the edge or corner of an existing platted subdivision, rather than internal to it.

This parcel is not located within an existing platted subdivision.

- Be located on a major road.

This property fronts on a private road owned in several pieces by the various abutting owners. Access to the private road is taken from Hicks Island Road which is a local road.

- Be operated in a manner such that the property owner will continue to live and reside on the property during the rental.

The owner of the property currently lives on a neighboring property.

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.

**SPECIAL USE PERMIT-22-0021. 8401 Hicks Island Road Tourist Home
Staff Report for the December 7, 2022, Planning Commission Public Hearing**

STAFF RECOMMENDATION

Per the impacts analysis noted above, staff finds the proposed use will not negatively impact surrounding property or development nor is it expected to negatively impact LOS for roads or other public services. While staff believes that this location may be considered appropriate for this use, staff finds the proposal not fully consistent with the Comprehensive Plan recommendations for short-term rentals. Staff, therefore, cannot recommend approval of this application. Should the Planning Commission wish to recommend approval, staff has included proposed conditions for consideration (Attachment No. 1).

TC/ap
SUP22-21_8401HicksIslTH

Attachments:

1. Proposed SUP Conditions
2. Location Map
3. General Location Map
4. Master Plan
5. Exhibit of 8401 Hicks Island Road
6. Applicant Narrative

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.

Conditions:

1. Master Plan. This SUP shall permit a tourist home on property located at 84401 Hicks Island Road and further identified as James City County Real Estate Tax Map Parcel No. 0910100024A (the "Property"). The use and layout of the Property shall be generally as shown on the document entitled "JCC SUP-22-0021, 8401 Hicks Island Road Tourist Home" and date stamped October 6, 2022 (the "Master Plan"), with any deviations considered per Section 24-23(a)(2) of the Zoning Ordinance, as amended. This condition does not restrict improvements typical of a residential property as determined by the Director of Planning.
2. Commencement. Evidence of a business license and updated Certificate of Occupancy shall be provided to the Director of Planning within twelve (12) months from the issuance of the SUP, or this SUP shall automatically be void.
3. Number of Rental Room Occupants. There shall be no more than four (4) bedrooms available for rent to visitors and no more than eight (8) rental occupants total at any one time.
4. Contracts per Rental Period. There shall not, during any period of time, be simultaneous rentals of the Property under separate contracts.
5. Signage. No signage related to the use of the tourist home shall be permitted on the Property.
6. Parking. Off-site parking for this use shall be prohibited. No oversized commercial vehicles associated with rental occupants of the tourist home, such as, but not limited to, buses, commercial trucks, and trailers shall be allowed to park on the Property.
7. Severance Clause. This SUP is not severable. Invalidation of any word, phrase, clause, sentence, or paragraph shall invalidate the remainder.

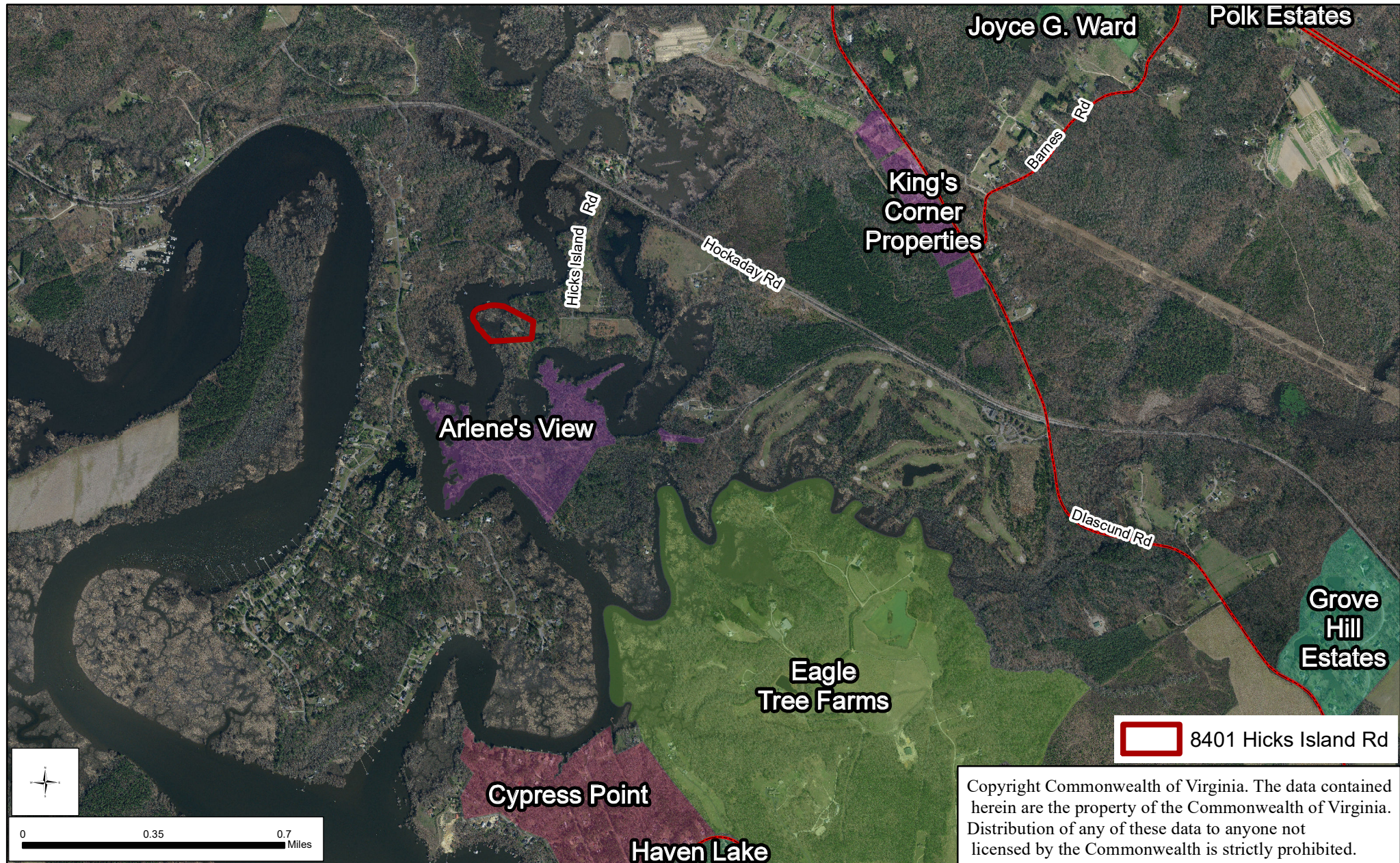
JCC SUP-22-0021

8401 Hicks Island Rd Tourist Home



JCC SUP-22-0021

8401 Hicks Island Rd Tourist Home



JCC SUP-22-0021

8401 Hicks Island Road Tourist Home



Property Information

0910100024A
Chris Adickes
8401 Hicks Island Rd
Lanexa, VA 23089
Zoning: A1 General Agricultural
2045 Comp Plan: Rural Lands
Legal Acreage: 7.7

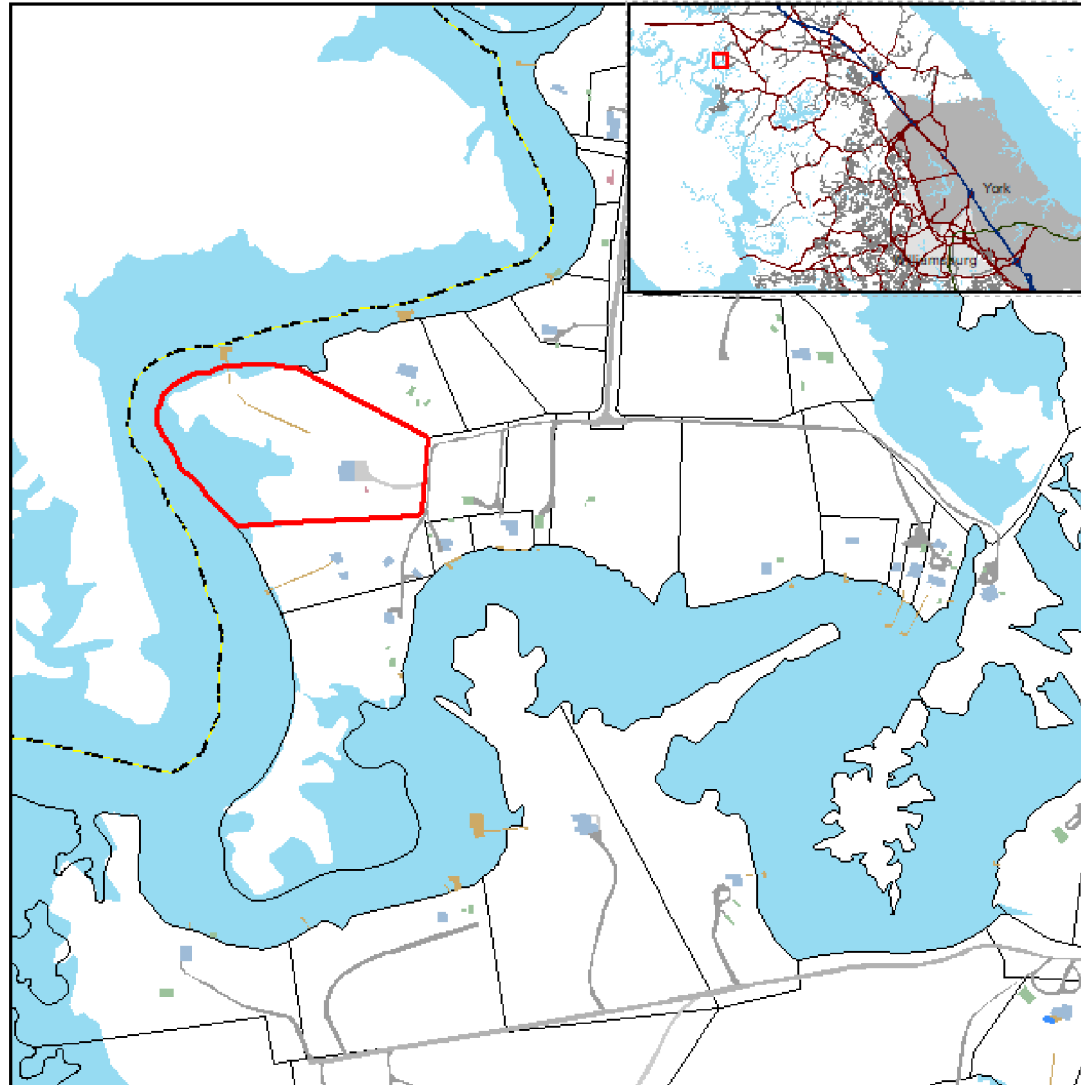
General Notes

1. Site is not served by public water and sewer.
2. Property is partially located in the FEMA Flood Zone AE.
3. Property contains Resource Protected Area.
4. Property does have an existing driveway.

Sheet Index

1. Cover Page
2. Location Map
3. Additional Information
4. Concept Plan

October 6, 2022



Adjacent Properties

0910100024
Paulanne H. Thacker & Wells Fargo
Bank Trustees c/o Suntrust Bank
8451 Hicks Island Rd.
Lanexa, VA 23089
A1 General Agricultural

0910100025A
Donald West
8414 Hicks Island Rd.
Lanexa, VA 23089
A1 General Agricultural

0910100026
Chris Adickes
8400 Hicks Island Rd.
Lanexa, VA 23089
A1 General Agricultural

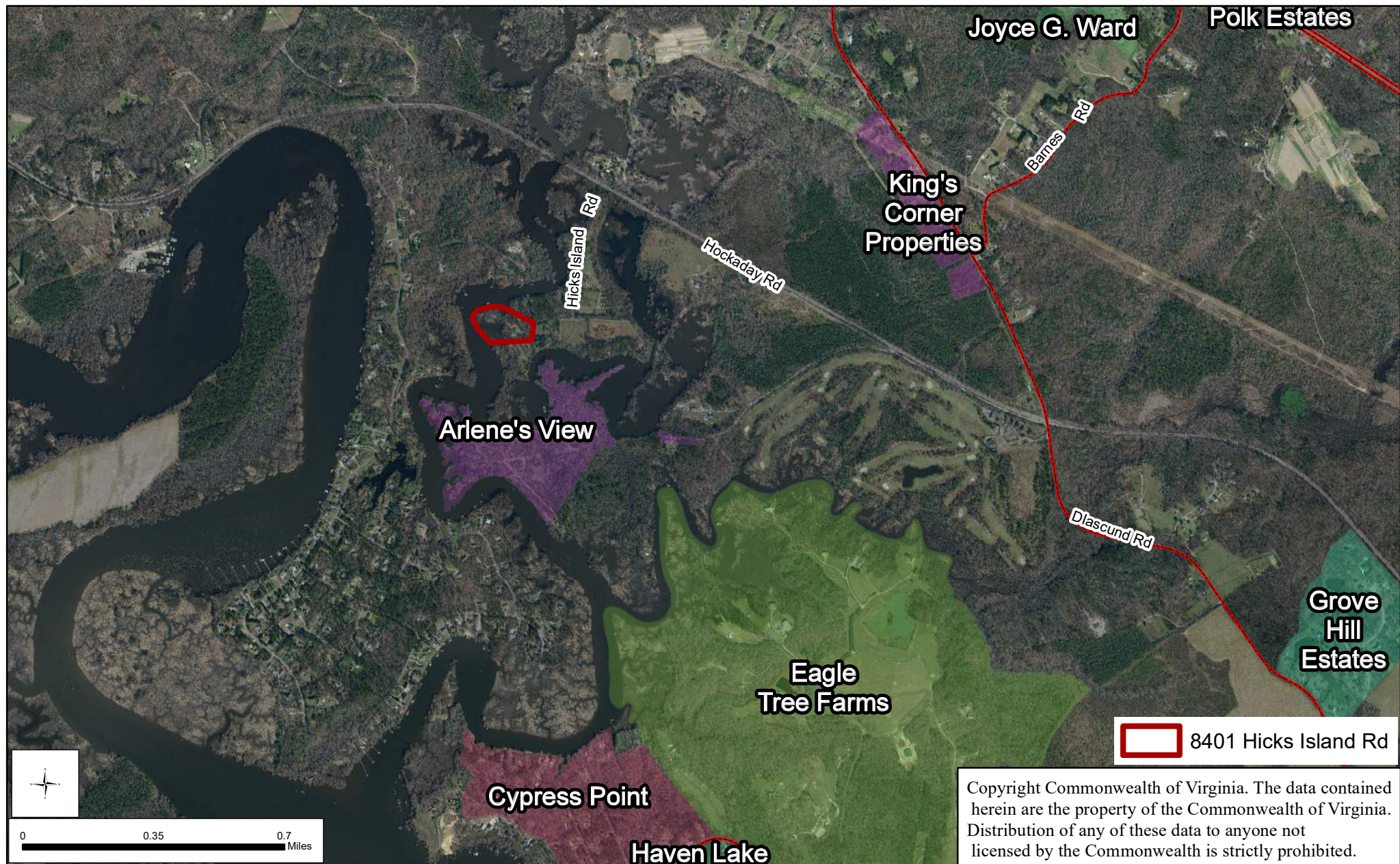
PLANNING DIVISION

Oct 06 2022

RECEIVED

JCC SUP-22-0021

8401 Hicks Island Rd Tourist Home



JCC SUP-22-0021
8401 Hicks Island Road Tourist Home



GENERAL NOTES

1. THIS PLAT WAS PRODUCED WITHOUT THE BENEFIT OF A TITLE REPORT AND REFLECTS ONLY THOSE ENCUMBRANCES, EASEMENTS AND SETBACKS AS SHOWN IN INST #080002397.
2. THIS FIRM MADE NO ATTEMPT TO LOCATE UNDERGROUND UTILITIES.
3. PARCEL LIES IN F.I.R.M. ZONE "X" & ZONE "AE" (ELEV 7) ACCORDING TO COMMUNITY PANEL #51095C0019D, DATED DECEMBER 16, 2015.

SITE INFORMATION

8401 HICKS ISLAND ROAD
JAMES CITY COUNTY, VIRGINIA
PARCEL ID: 0910100024A
TOTAL AREA: 20,709 S.F. / 0.475 AC.
ZONING DISTRICT: A1 GENERAL AGRICULTURE

8400 HICKS ISLAND ROAD
JAMES CITY COUNTY, VIRGINIA
PARCEL ID: 0910100026
TOTAL AREA: 181,645 S.F. / 4.17 AC.
ZONING DISTRICT: A1 GENERAL AGRICULTURE

8390 HICKS ISLAND ROAD
JAMES CITY COUNTY, VIRGINIA
PARCEL ID: 0910100027
TOTAL AREA: 454,330 S.F. / 10.43 AC.
ZONING DISTRICT: A1 GENERAL AGRICULTURE

BUILDING NOTES

1. #8401, TWO STORY FRAME W/ WOOD DECK AND RAMP; FFE:12.68
2. #8400, ONE STORY FRAME W/SCREEN PORCH AND DECK
3. #8400, ONE STORY FRAME W/ SCREEN PORCH AND DECK
4. #8400, ONE STORY CONC. BLOCK W/COVERED PORCH
5. #8400, ONE STORY FRAME-UNDER CONSTRUCTION
6. #8390, ONE STORY FRAME-UNDER CONSTRUCTION
7. #8390, ONE STORY FRAME WITH WOOD DECK AND RAMP

DIASCUND CREEK

DIASCUND CREEK

DIASCUND CREEK

VA STATE PLANE COORDINATE SYSTEM
(NAD 83)(VIRGINIA SOUTH ZONE)

MEAN LOW WATER IS
PROPERTY LINE
PER INST.#080002397

PIN:0910100027
±454,330 S.F.
±10.43 AC.
N/F
ADICKES, CHRIS
INST.#210014222 (DEED)
INST.#040017950 (PLAT)

EDGE OF WETLANDS/MARSH
SHOWN PER INSTR.
#080002398 & 040017950

PIN:0910100026
±181,645 S.F.
±4.17 AC.
N/F
ADICKES, CHRIS
INST.#210014222(DEED)
INST.#040017950(PLAT)

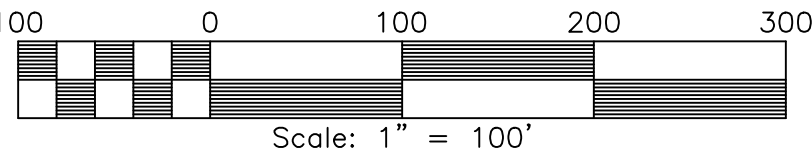
PARCEL 3
±335,261 S.F.
±7.7 AC.
N/F
ADICKES, CHRIS
INST.#210000033 (DEED)
INST.#080002397 (PLAT)

MEAN LOW WATER IS
PROPERTY LINE
PER INST.#080002397

LEGEND

- WATER SPIGOT
■ WATER METER
⊙ SEWER CLEAN OUT
⊕ CABLE PEDESTAL
□ TELEPHONE PEDESTAL
⊞ HVAC UNIT
⌵ UTILITY POLE
— OHP — OVERHEAD UTILITY
○ SANITARY SEWER MANHOLE
IRF = IRON ROD FOUND
/ GUY WIRE
⊙ WELL
■ HOT TUB

LINE	BEARING	DISTANCE
L1	S 04°56'01" W	233.60'
L2	S 45°26'05" W	18.80'



DIASCUND CREEK

HICKS ISLAND ROAD
(50' R/W)

N/F
ROGERS, STEVEN L &
DIANNA B
PIN: 0910100028
INST.#200000133 (DEED)
INST.#100000203 (PLAT)

N/F
WEST,DONALD
PIN: 0910100025A
INST.#980022831 (DEED)
P.B.86 PG.23 (PLAT)

N/F
THACKER, PAULANNE H
PIN: 0910100024
INST.#140007700 (DEED)
INST.#080002397 (PLAT)

50' INGRESS / EGRESS
EASEMENT FOR R/W
PER P.B.86 PG.23



DATE: 8/3/2022
DRAWN BY: AEQ
PROJECT No. 22-212
FILE NAME: 22-212.DWG
REFERENCES:
INST.#080002397
INST.#040017950

EXHIBIT OF
PIN:0910100024A, PIN:0910100026,
& PIN:0910100027
FOR
EVANS CONSTRUCTION, INC.

JAMES CITY COUNTY

VIRGINIA

NO.	DATE	REVISION / COMMENT / NOTE

LRI
LANDTECH
RESOURCES, INC.
ENGINEERING & SURVEYING CONSULTANTS
205 Bulifants Blvd., Suite E, Williamsburg, VA 23188
Ph: (757) 565-1677 Fax: (757) 565-0782
web: landtechresources.com

SUP-22-0021

SUP-22-0021, 8401 Hicks Island Rd, Tourist Home

0910100024A

Legal Acreage: 7.7

Owner: Chris Adickes

Zoning: A1 General Agricultural

Subdivision: Acreage Lots – Powhatan

Comprehensive Plan 2045 Designation: Rural Lands

PSA: Outside

Details from applicant:

At this time the current application is for the main house only #1 on the attached file. The reasoning behind this is it is a unincumbered parcel with only one dwelling. We do plan to apply for the other 2-7 under a separate SUP Application. These dwellings will be part of a much larger project. Our plan is to mirror a wonderful project we have seen in Waco, TX (<https://www.liveoaklake.com>). See the attached documents. Our goal is to restore Hicks Island to the beautiful oasis that it once was and very well can be in James City County. Please let us know how to move the #1 house further as we prepare the documents necessary for the remainder of the project.

The proposed use is for a short-term rental located at 8401 Hicks Island Road. Under section 24-2 of the James City County Zoning Ordinance. We are respectfully applying for the Special Use defined as a "tourist home" "any individual (s) or group of same individuals who, for a period of fewer than 30 consecutive days, either at his own expense or at the expense of another, obtain accommodations"

LIVE OAK LAKE

Cedar Brook

Forest Edge

Maintenance Area

Waters Edge Commons

Shadow Bend

Lakeside East

White Rock

Lakeside South

Lakeside North



ITEM SUMMARY

DATE: 12/7/2022

TO: The Planning Commission

FROM: Terry Costello, Senior Planner

SUBJECT: Z-22-0003. 8005 & 8009 Hankins Industrial Park Road

ATTACHMENTS:

	Description	Type
☐	Staff Report	Staff Report
☐	Location Map	Exhibit
☐	Applicant Narrative	Backup Material

REVIEWERS:

Department	Reviewer	Action	Date
Planning Commission	Holt, Paul	Approved	11/29/2022 - 8:09 AM
Planning Commission	Holt, Paul	Approved	11/29/2022 - 8:10 AM
Publication Management	Daniel, Martha	Approved	11/29/2022 - 8:16 AM
Planning Commission	Holt, Paul	Approved	11/29/2022 - 8:20 AM

**Rezoning-22-0003. 8005 and 8009 Hankins Industrial Park Road
Staff Report for the December 7, 2022, Planning Commission Public Hearing**

SUMMARY FACTS

Applicant:	Mr. Bruce Daniels of Daniels Welding & Tires, Inc.
Landowner:	Mr. Bruce Daniels
Proposal:	To rezone two parcels of land totaling $\pm$ 3.01 acres from M-2, General Industrial to M-1, Limited Business/Industrial
Locations:	8005 and 8009 Hankins Industrial Park Road
Tax Map/Parcel Nos.:	1240100016B and 1240100016C
Project Acreages:	$\pm$ 1.00 acres (8005 Hankins Industrial Park Road) and $\pm$ 2.01 acres (8009 Hankins Industrial Park Road)
Zoning:	M-2, General Industrial
Comprehensive Plan:	General Industry
Primary Service Area (PSA):	Inside
Staff Contact:	Terry Costello, Senior Planner

PUBLIC HEARING DATES

Planning Commission:	December 7, 2022, 6:00 p.m.
Board of Supervisors:	January 10, 2023, 5:00 p.m. (tentative)

FACTORS FAVORABLE

1. Staff finds the proposal consistent with the adopted 2045 Comprehensive Plan.
2. Staff finds the proposal is consistent with surrounding zoning and development.
3. Staff finds this rezoning would not result in any anticipated negative impacts that would need to be mitigated (see Impact Analysis on Pages 3-4).
4. Impacts: See Impact Analysis on Pages 3-4.

FACTORS UNFAVORABLE

1. Impacts: See Impact Analysis on Pages 3-4.

SUMMARY STAFF RECOMMENDATION

Staff recommends that the Planning Commission recommend approval to the Board of Supervisors.

PROJECT DESCRIPTION

Mr. Bruce Daniels of Daniels Welding & Tires, Inc. has applied to rezone two parcels for a total of approximately 3.01 acres from M-2, General Industrial to M-1, Limited Business/Industrial. The proposal is to allow for vehicle repair and service, including tire, transmission, glass, body and fender, and other automotive product sales, new and/or rebuilt (with major repair limited to a fully enclosed building and screened from adjacent properties by landscaping and fencing with a maximum height of 12 feet).

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.

**Rezoning-22-0003. 8005 and 8009 Hankins Industrial Park Road
Staff Report for the December 7, 2022, Planning Commission Public Hearing**

The proposal is to allow for the continued use of two local businesses that perform vehicle repair and service. Vehicle service and repair is not a permitted nor specially permitted use in the M-2, General Industrial Zoning District. However, it is a permitted use in the M-1, Limited Business/Industrial Zoning District.

PLANNING AND ZONING HISTORY

- There were two Special Use Permits (SUPs): SUP-38-89 and SUP-48-89 that were approved for both properties for construction of an industrial site with the RP, Reservoir Protection Overlay District. However, this District no longer exists.

SURROUNDING ZONING AND DEVELOPMENT

- Properties directly to the north of the site are zoned M-2, General Industrial and A-1, General Agricultural. The A-1 zoned properties on Industrial Boulevard contain single-family residences. A utility company and contractor/construction type businesses occupy the M-2 properties. These areas are designated General Industry on the 2045 Comprehensive Plan.
- Properties to the east are zoned M-2, General Industrial. Wright Sign Service, Smithfield Foods, and a storage facility occupy these sites. These areas are designated General Industry on the 2045 Comprehensive Plan.
- Properties to the south and west are zoned M-2, General Industrial and M-1, Limited Business/Industrial. Contractor/construction type businesses occupy these sites, as well as Owens-Brockway Glass Facility. These areas are designated General Industry on the 2045 Comprehensive Plan.

- All immediate properties surrounding these two parcels are part of Hankins Industrial Park.

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.

Rezoning-22-0003. 8005 and 8009 Hankins Industrial Park Road
Staff Report for the December 7, 2022, Planning Commission Public Hearing

Impacts/Potentially Unfavorable Conditions	Status <i>(No Mitigation Required/Mitigated/Not Fully Mitigated)</i>	Considerations/Proposed Mitigation of Potentially Unfavorable Conditions
<u>Public Transportation: Vehicular</u>	<u>No Mitigation Required</u>	- The proposal to rezone this property includes no new associated development and is not anticipated to generate any new traffic impacts.
<u>Public Transportation: Bicycle/Pedestrian</u>	<u>No Mitigation Required</u>	- Pedestrian/bicycle accommodations are not shown on the adopted Pedestrian/Bicycle Accommodations Master Plan.
<u>Public Safety</u>	<u>No Mitigation Required</u>	- Fire Station 1 on Forge Road serves this area of the County and is approximately 0.7 miles from the properties. - Staff finds this project does not generate impacts that require mitigation to the County's Fire Department facilities or services.
<u>Public Schools</u>	<u>No Mitigation Required</u>	- N/A since no residential dwelling units are proposed.
<u>Public Parks and Recreation</u>	<u>No Mitigation Required</u>	- N/A since no residential dwelling units are proposed.
<u>Public Libraries and Cultural Centers</u>	<u>No Mitigation Required</u>	- Staff finds this project does not generate impacts that require mitigation.
<u>Watersheds, Streams, and Reservoirs</u> Project is located in the Ware Creek Watershed.	<u>No Mitigation Required</u>	- The Stormwater and Resource Protection Division has reviewed this application and had no objections. No new impervious surface is proposed as part of this SUP request. Should exterior site improvements be made in the future, those improvements would be subject to additional environmental review at that time.
<u>Cultural/Historic</u>	<u>No Mitigation Required</u>	- The subject property has been previously disturbed and has no known cultural resources on-site.
<u>Nearby and Surrounding Properties</u>	<u>No Mitigation Required</u>	- These parcels are surrounded by commercial and industrial parcels and are located in Hankins Industrial Park. - Staff finds this proposal compatible with the character of the existing surrounding development, which is generally commercial and industrial in nature.
<u>Community Character</u>	<u>No Mitigation Required</u>	- Hankins Industrial Park Road is not located along a Community Character Corridor, and these parcels are not located within a Community Character Area.

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.

Rezoning-22-0003. 8005 and 8009 Hankins Industrial Park Road
Staff Report for the December 7, 2022, Planning Commission Public Hearing

Impacts/Potentially Unfavorable Conditions	Status <i>(No Mitigation Required/Mitigated/Not Fully Mitigated)</i>	Considerations/Proposed Mitigation of Potentially Unfavorable Conditions
<u>Covenants and Restrictions</u>	<u>No Mitigation Required</u>	- The applicant has verified that he is not aware of any covenants or restrictions on the property that prohibit the proposed use.

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Rezoning-22-0003. 8005 and 8009 Hankins Industrial Park Road
Staff Report for the December 7, 2022, Planning Commission Public Hearing

2045 COMPREHENSIVE PLAN

- The site is designated General Industry on the 2045 Comprehensive Plan Land Use Map.
- General Industry describes areas within the PSA that are suitable for industrial uses which, because of their potential for creating dust, noise, odor, and other adverse environmental effects, require buffering from adjoining uses, particularly residential uses.
- General Industry uses usually require access to interstate and arterial highways, public water and sewer; adequate supply of electric power and other energy sources; access to a sufficient labor supply; and moderate to large sized sites with natural features such as soils, topography, and buffering suitable for intense development.
- Primary uses include uses that maximize the industrial opportunities of an area. Typical uses can be found in the M-1, General Industrial section of the Zoning Ordinance. Secondary uses in General Industry areas may include office uses and a limited amount of commercial development generally intended to support the needs of employees and other persons associated with an industrial development.
- Staff finds the proposed industrial use to be compatible with the surrounding industrial uses. This application would support the retention of local small businesses in keeping with the intent of the Economic Development section of the Comprehensive Plan.

STAFF RECOMMENDATION

Staff finds that the proposal is compatible with surrounding zoning and development and consistent with the 2045 Comprehensive Plan.

Staff also finds this rezoning would not result in any anticipated negative impacts that would need to be mitigated (see Impact Analysis on Pages 3-4).

Staff therefore recommends that the Planning Commission recommend approval of the proposed rezoning.

TC/md
RZ22-3_8005-9HnksInd

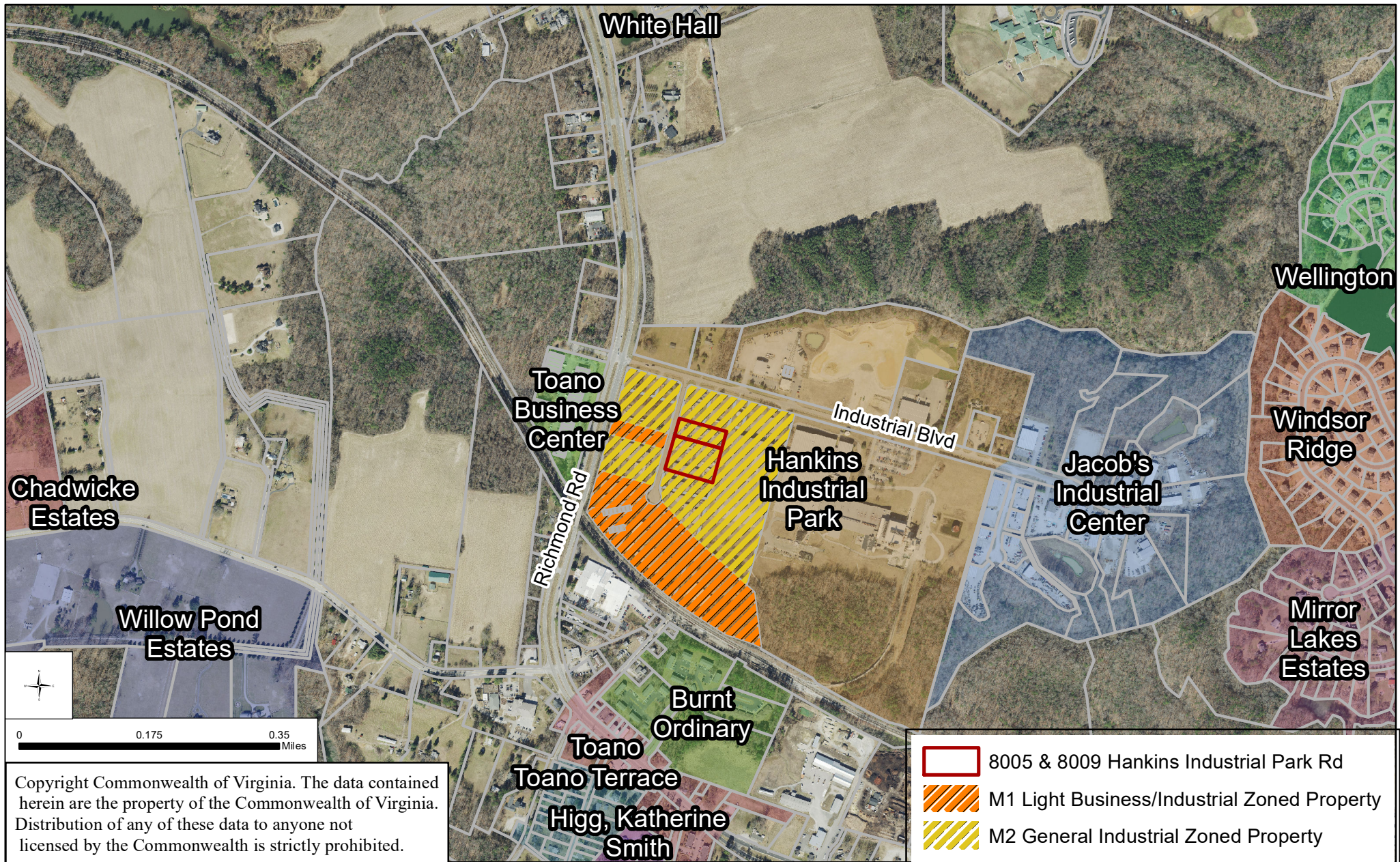
Attachments:

1. Location Map
2. Master Plan
3. Applicant Narrative

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.

JCC SUP-22-0003

8005 & 8009 Hankins Industrial Park Rd



We are requesting to rezone the property at 8005 and 8009 Hankins Industrial Park from M-2 to M-1.

The primary uses of these properties will be:

- Retail sale of tires
- General automotive repair
- Welding and fabrication

We think M-1 zoning fits these uses better than M-2 and creates a situation of business continuity.

Thank you,
Teresa Hintz for Bruce Daniels

ITEM SUMMARY

DATE: 12/7/2022

TO: The Planning Commission

FROM: Paul D. Holt, III, Director of Community Development and Planning

SUBJECT: Planning Director's Report - December 2022

ATTACHMENTS:

	Description	Type
☐	Memorandum	Cover Memo
☐	Spreadsheet Listing New Cases Received	Exhibit

REVIEWERS:

Department	Reviewer	Action	Date
Planning Commission	Holt, Paul	Approved	11/29/2022 - 8:11 PM
Planning Commission	Holt, Paul	Approved	11/29/2022 - 8:11 PM
Publication Management	Pobiak, Amanda	Approved	11/30/2022 - 8:08 AM
Planning Commission	ComSecretary, Planning	Approved	11/30/2022 - 1:13 PM

PLANNING DIRECTOR'S REPORT

December 2022

This report summarizes the status of selected Department of Community Development activities during the past month.

➤ Planning

- **Monthly Case Report:** For a list of all cases received in the last month, please see the attached document.
- **Board Action Results:**
 - **November 8, 2022**
 - SUP-22-0010. 9201 and 9225 Pocahontas Trail - The Grease Outlet (Approved 5-0)
 - SUP-22-0016. 141 Blow Flats Rd. Battery Storage (Approved 5-0)
- The Stormwater and Resource Protection Division will be working on updates to three Watershed Management Plans (WMP) for Powhatan, Yarmouth and Diascund Creeks over the next few years. Work on the Powhatan Creek WMP is already underway with initial assessments of current conditions in the watershed. In addition, a survey will be released in December to ask for the public's feedback regarding potential areas of concern in the watershed and regarding the goals that were included in the 2001 Powhatan Creek WMP.

New Cases for December

Plan Type	Plan Number	Case Title	Address	Plan District	Plan Description	Plan Assigned To
Conceptual Plan	C-22-0071	2878 Monticello Avenue Short Term Rental	2878 MONTICELLO AVE Williamsburg, VA 23188	Berkeley	Proposing to use the house on site as a short term rental option.	Paxton Condon
	C-22-0072	10127 Sycamore Landing Road Right-of-Way Vacation	10127 SYCAMORE LANDING RD Williamsburg, VA 23188	Stonehouse	Request to vacate a right-of-way.	Thomas Wysong
	C-22-0073	1709 Endeavor Drive Fire Hydrant Relocation Request	1709 ENDEAVOR DR Williamsburg, VA 23185	Roberts	Request for two fire hydrants to be moved about 15 feet back.	Taylor Orne
	C-22-0074	4700 Monticello Avenue Ruby Tuesday Renovations	4700 MONTICELLO AVE 3831200002G Williamsburg, VA 23188	Jamestown	Proposed exterior changes to the building.	Thomas Wysong
	C-22-0076	Small Utility Solar Facility	8659 RICHMOND RD Toano, VA 23168	Powhatan	Small Utility Solar Facility.	Suzanne Yeats
	C-22-0078	4097 Rochambeau Drive Event Venue	4097 ROCHAMBEAU DR Williamsburg, VA 23188	Stonehouse	Proposed event venue with a maximum capacity of 300 people that will operate mainly on Saturday and Sunday.	John Risinger
	C-22-0081	Grove Neighborhood Stormwater Improvements to alleviate flooding and improve water quality	119 CHURCH ST Williamsburg, VA 23185	Roberts	Grove Neighborhood Stormwater Improvements to alleviate flooding and improve water quality.	Josh Crump
	C-22-0082	Tewning Road BMP Retrofit	117 TEWNING RD Williamsburg, VA 23188	Jamestown	50% Plans for Tewning Road BMP Retrofit.	Josh Crump
Subdivision Plat	S-22-0033	1245 Stewarts Rd Minor Subdivision Lots 1-5	1245 STEWARTS RD Lanexa, VA 23089	Powhatan	Minor subdivision of 1245 Stewarts Road into 5 lots.	Thomas Wysong
	S-22-0034	1245 Stewarts Rd Subdivision Lot 5	1245 STEWARTS RD Lanexa, VA 23089	Powhatan	Subdivision of Lot 5 from S-22-0033.	Thomas Wysong
Site Plan	SP-22-0096	Powhatan Resort Accessibility Modifications	3601 IRONBOUND RD Williamsburg, VA 23188	Berkeley	Accessibility modifications to parking areas and sidewalks.	Ben Loppacker
	SP-22-0099	129 Industrial Boulevard wireless Communication Facility SP Amend.	129 INDUSTRIAL BLVD Toano, VA 23168	Stonehouse	Modification to existing facility.	Terry Costello
	SP-22-0100	112 Laurel Lane, Laurel Lane Elementary School Outdoor Garden	112 LAUREL LN Williamsburg, VA 23185	Roberts	Site Plan amendment for an approximately 735 square foot mulch and gravel school garden with flower beds and a 12'x12'x17' triangular sun shade.	Thomas Wysong
	SP-22-0101	New Town Section 6, Block 18 Townhomes	4385 NEW TOWN AVE Williamsburg, VA 23188	Jamestown	14 townhome units, private roadway, and associated utilities.	Suzanne Yeats
	SP-22-0102	Freedom Park Storage Shed	5537 CENTERVILLE RD Williamsburg, VA 23188	Powhatan	10 x 16 storage shed to be dropped and secured to ground onsite at Freedom Park directly west of the main Interpretive Center.	Josh Crump
	SP-22-0103	One-Story Golf Cart Storage Facility	9700 MILL POND RUN Toano, VA 23168	Stonehouse	One-Story Golf Cart Storage Facility.	Suzanne Yeats

Special Use Permit	SUP-22-0025	7504 Richmond Road Starbucks	7504 RICHMOND RD Williamsburg, VA 23188	Stonehouse	7504 Richmond Road Starbucks.	Thomas Wysong
	SUP-22-0026	8290 Richmond Road Hankins-Dunn Residential Development	8290 RICHMOND RD Toano, VA 23168	Stonehouse	Special Use Permit to go along with submitted Rezoning Application to increase Density for R2 Cluster to 2.7 units per acre.	Terry Costello
Rezoning	Z-22-0004	8290 Richmond Road Hankins-Dunn Rezoning	8290 RICHMOND RD Toano, VA 23168	Stonehouse	HHHunt is proposing to develop a community on approximately 222 acres near Anderson's Corner in James City County. Current plans illustrate a mix of residential building types and open space connected by a series of interconnecting streets and alleys and further served by a 4-lane divided highways, Route 60. The proposed project is located adjacent to Hickory Neck Episcopal Church and the White Hall subdivisions (also developed by HHHunt). The intent of the developer is to provide pedestrian connectivity and shared amenities between these developments.	Terry Costello
	Z-22-0005	122 Moore Drive Rezoning	122 MOORE DR Williamsburg, VA 23188	Powhatan	Request to rezone the property from R-2, General Residential to R-5, Multi-Family Residential .	José Ribeiro
Zoning Verification Letter	ZVL-22-0022	Zoning Verification for the Manor Club at Fords Colony	101 ST ANDREWS DR Williamsburg, VA 23188	Powhatan	Request for Zoning Verification Letter to include: Current Zoning of Property; Is the property in any special/restrictive or overlay district; was this a PUD, if so, can we get a copy of the PUD?; Is the Use "Timeshare" permitted by right, approved via special/conditional permitting or grandfathered?; are there any open/unresolved Zoning Code violations and/or complaints.	Taylor Orne