Agenda
Board of Supervisors
Isle of Wight County
October 20, 2022

1. Call to Order (5:00 P.M.)
2. Approval of Agenda
3. Closed Meeting
4. Reconvene Open Meeting at 6:00 P.M.
5. Invocation - Chairman Jefferson
6. Citizens' Comments
7. Consent Agenda
   A. Budget Amendment - Animal Friendly License Plate Program

      Resolution to Amend the FY2022-23 Grant Fund Budget and Appropriate Funds from the Virginia Department of Motor Vehicles Animal Friendly License Plate Program ($1,050)
   B. Budget Amendment - DMV Alcohol Enforcement Grant

      Resolution to Amend the FY2022-23 Grant Fund Budget and Appropriate Funding from the Virginia Department of Motor Vehicles Alcohol Enforcement Program ($13,850)
   C. Budget Amendment - DMV Selective Enforcement Grant

      Resolution to Amend the FY2022-23 Grant Fund Budget and Appropriate Funding from the Virginia Department of Motor Vehicles Speed Enforcement Program ($14,250)
   D. Budget Amendment - Insurance Proceeds

      Resolution to Budget and Appropriate Insurance Proceeds from VaCorp Insurance for Repairs of County Vehicles

($2,829)

E. Budget Amendment - School-Based Health Workforce Grant

   Resolution to Amend the Budget and Appropriate School-Based Health Workforce Grant Funds ($80,000)

F. Budget Amendment - School Resource Officers

   Resolution to Amend the Budget and Appropriate Funding for School Resource Officers ($267,743)

G. Budget Amendment - Schools Security Projects

   Resolution to Assign Fund Balance for School Security and Public Safety Equipment ($1,120,000)

H. Budget Amendment - Utilities Relief Funding

   Resolution to Amend the Budget and Appropriate CARES Act Utility Relief Program Funding ($4,126)

I. Budget Amendment - Virginia Criminal Justice Foundation

   Resolution to Amend the Budget and Appropriate Grant Funds from the Virginia Criminal Justice Foundation ($4,000)

J. Minutes

   . September 1, 2022 Work Session Minutes
   . September 15, 2022 Regular Meeting Minutes

8. Regional and Inter-Governmental Reports

   A. Regional Reports

9. Appointments

   A. Appointments List

10. Special Presentations / Appearances

   A. 2022 Community Cares Award

      Presentation of the United Way of South Hampton Roads' 2022 Community Cares Award

   B. Fire Prevention Week

Resolution to Designate October 9-15, 2022 as Fire Prevention Week

11. County Attorney's Report
12. Public Hearings
    A. Auto Auction Salvage Yard Conditional Zoning Request

       Application of Advanced Construction Development, LLC, Applicant, and Locust Grove Partners, LP and H&B Railroad Company, Inc., Property Owners, for a Change and Amendment to Existing Zoning to Conditional-Limited Industrial (C-LI) to Allow an Auction Establishment and a Scrap and Salvage Service on Approximately 5 Acres of Property Located on the North Side of the Western Terminus of IWIP Road (Rte. 1032) Together with Approximately 70 Acres of Property Located at 17094 Benns Church Boulevard (Rte. 10)
    B. Enterprise Zone Expansion

       Resolution to Expand the County's Enterprise Zone
    C. Fee Schedule for Heritage Park

       Discussion of Fee Schedule for Heritage Park
13. County Administrator's Report
    A. Board of Supervisors' Retreat

       Discussion of Holding a Strategic Planning Retreat/Tour
    B. Matters for the Board's Information
14. Unfinished / Old Business
    A. WaWa Convenience Store and Gasoline Station Conditional Use Permit Request

       Application of Remus Brustur of Frontier Development, Applicant, and the William G. Yeoman, III, Trust, Property Owner, for a Conditional Use Permit (CUP-8-21) for a Wawa

Convenience Store and Gas Station on 5.69 Acres Located on the Southwest Corner of Turner Drive (Rte. 644) and Benns Church Boulevard (Rte. 10)

B. Phase II - Route 10 Waterline

Approval of Apparent Low Bid for Phase II - Route 10 Waterline

C. 2023 Legislative Priorities

Adoption of the 2023 Legislative Priorities List

D. Budget Amendment - Fair Canopy Improvements

Resolution to Amend the Budget and Appropriate Fair Fund Contribution ($70,478)

E. Nike Missile

Discussion of the Nike AJAX Missile at Nike Park

15. New Business

A. Heritage Apartments Height Exception Amendment Request

Request of KS Carrollton, LLC, Property Owner, to Amend the Conditions of Approval of a Height Exception for the Heritage Apartments Located at 23321 Sugar Hill Road in Order to Allow Required Trees to be a Minimum of Ten Feet at Planting Instead of Twelve Feet at Planting

B. Conditional Zoning Amendment for Archer's Meade (ZA-3-22)

Conditional Zoning Amendment Request to Amend Proffered Conditions for the Archer's Meade Mixed-Use Planned Development Conditional Zoning Approval for the Development of 63 Single-Family Residential Units and Commercial Uses with Proffered Conditions on Approximately 24.33 Acres Located on the East Side of Carrollton Boulevard (Route 17)

C. Title VI of the Civil Rights Act of 1964

Resolution to Adopt a Title VI Program

D. VACo Voting Credentials

   Motion to Designate the County's Voting Delegate and Alternate Delegate Authorized to Vote at the VACo Annual Business Meeting

E. Land Use Options for Energy

   Discussion of Land Use Options for Energy Production

F. Workforce Housing and Equity within Development Service Districts

   Discussion of Workforce Housing and Equity within Development Service Districts

G. Sugar Hill Road/Route 17 Intersection

   Discussion of Options for Consideration at the Intersection of Sugar Hill Road and Route 17

16. Adjournment

ISSUE:

Resolution to Amend the FY2022-23 Grant Fund Budget and Appropriate Funds from the Virginia Department of Motor Vehicles Animal Friendly License Plate Program ($1,050)

BACKGROUND:

The Virginia Department of Motor Vehicles sells Animal Friendly license plates as a part of its special license plate program. A portion of the revenue is set aside to support the sterilization programs for dogs and cats.

BUDGETARY IMPACT:

Increase the FY 2022-23 Grant Fund Operating Budget by $1,050.

RECOMMENDATION:

Adopt a resolution to accept and appropriate Animal Friendly License Plate funds.

ATTACHMENTS:

Description	Type	Upload Date
Resolution	Resolution	10/18/2022

RESOLUTION TO AMEND THE FY 2022-23 GRANT FUND BUDGET AND APPROPRIATE FUNDING FROM THE VIRGINIA DEPARTMENT OF MOTOR VEHICLES

WHEREAS, the Board of the County of Isle of Wight, Virginia desires to accept and appropriate funding from the Virginia Department of Motor Vehicles who sell Animal Friendly license plates as part of its special license plate program and sets aside a portion of the revenues derived from said sales for distribution to support sterilization programs for dogs and cats; and,

WHEREAS, the Board of Supervisors desires to amend the FY 2022-23 Grant Fund Budget by $1,050 to support sterilization programs for dogs and cats.

NOW, THEREFORE BE IT AND IT IS HEREBY RESOLVED by the Board of Supervisors of the County of Isle of Wight, Virginia that $1,050 or so much as shall be received from the Virginia Department of Motor Vehicles be appropriated to the Grant Fund Operating Budget to support sterilization programs for dogs and cats.

BE IT FURTHER RESOLVED that the County Administrator of the County of Isle of Wight, Virginia is authorized to make the appropriate accounting adjustments in the budget and to do all things necessary to give this resolution effect.

Adopted this 17th day of November 2022.

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Rudolph Jefferson, Chairman

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Carey Mills Storm, Clerk

Approved as to form:

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Robert W. Jones, Jr., County Attorney

ISSUE:

Resolution to Amend the FY2022-23 Grant Fund Budget and Appropriate Funding from the Virginia Department of Motor Vehicles Alcohol Enforcement Program ($13,850)

BACKGROUND:

Isle of Wight Sheriff's Office has been awarded grant funding for FY 2022-23 in the amount of $13,850 for the performance of alcohol selective enforcement.

BUDGETARY IMPACT:

No cash match is required, but the Sheriff's Office will provide an in-kind match to receive the grant.

RECOMMENDATION:

Adopt a resolution to amend the budget and appropriate grant funds.

ATTACHMENTS:

Description	Type	Upload Date
Resolution	Resolution	10/17/2022

RESOLUTION TO AMEND THE FY 2022-2023 GRANT FUND BUDGET AND APPROPRIATE FUNDING FROM THE VIRGINIA DEPARTMENT OF MOTOR VEHICLES ALCOHOL ENFORCEMENT PROGRAM

WHEREAS, the County of Isle of Wight, Virginia has received a grant from the Commonwealth of Virginia Department of Motor Vehicles for the Alcohol Enforcement Program; and,

WHEREAS, grant funds in the amount of $13,850 from the Commonwealth of Virginia Department of Motor Vehicles need to be budgeted to the FY 2022-2023 Grant Fund budget of Isle of Wight County and appropriated for the purpose of conducting an alcohol enforcement program.

NOW, THEREFORE BE IT AND IT IS HEREBY RESOLVED by the Board of Supervisors of the County of Isle of Wight, Virginia that the FY 2022-2023 budget be amended and grant funds in the amount of $13,850, or so much as shall be received from the Commonwealth of Virginia Department of Motor Vehicles, be appropriated for the alcohol enforcement program.

BE IT FURTHER RESOLVED that the County Administrator of the County of Isle of Wight, Virginia is authorized to make the appropriate accounting adjustments in the budget and to do all things necessary to give this resolution effect.

Adopted this 20th day of October 2022.

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Rudolph Jefferson, Chairman

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Carey Mills Storm, Clerk

Approved as to form:

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Robert W. Jones Jr., County Attorney

ISSUE:

Resolution to Amend the FY2022-23 Grant Fund Budget and Appropriate Funding from the Virginia Department of Motor Vehicles Speed Enforcement Program ($14,250)

BACKGROUND:

Isle of Wight Sheriff's Office has been awarded grant funding for FY 2022-23 in the amount of $14,250 for the performance of speed enforcement.

BUDGETARY IMPACT:

No cash match is required, but the Sheriff's Office will provide an in-kind match to receive the grant.

RECOMMENDATION:

Adopt a resolution to amend the budget and appropriate grant funds.

ATTACHMENTS:

Description	Type	Upload Date
Resolution	Resolution	10/17/2022

RESOLUTION TO AMEND THE FY 2022-2023 GRANT FUND BUDGET AND APPROPRIATE FUNDING FROM THE VIRGINIA DEPARTMENT OF MOTOR VEHICLES SPEED ENFORCEMENT PROGRAM

WHEREAS, the County of Isle of Wight, Virginia has received a grant from the Commonwealth of Virginia Department of Motor Vehicles; and,

WHEREAS, grant funds in the amount of $14,250 from the Commonwealth of Virginia Department of Motor Vehicles need to be budgeted to the FY 2022-2023 Grant Fund budget of Isle of Wight County and funds appropriated for the purpose of conducting speed enforcement under the selective enforcement program.

NOW, THEREFORE BE IT AND IT IS HEREBY RESOLVED by the Board of Supervisors of the County of Isle of Wight, Virginia that the FY2022-2023 budget be amended and grant funds in the amount of $14,250, or so much as shall be received from the Virginia Department of Motor Vehicles, be appropriated to fund the speed enforcement program.

BE IT FURTHER RESOLVED that the County Administrator of Isle of Wight, Virginia is authorized to make the appropriate accounting adjustments in the budget and to do all things necessary to give this resolution effect.

Adopted this 20th day of October 2022.

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Rudolph Jefferson, Chairman

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Carey Mills Storm, Clerk

Approved as to form:

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Robert W. Jones Jr., County Attorney

ISSUE:

Resolution to Budget and Appropriate Insurance Proceeds from VaCorp Insurance for Repairs of County Vehicles ($2,829)

BACKGROUND:

The County has received insurance proceeds for repairs of County property in the amounts of $2,829 from VaCorp Insurance. The insurance proceeds need to be budgeted and appropriated to the General Fund budgets for FY 2022-23.

The department has requested that these insurance proceeds received be budgeted to the line item that will allow the repair of County vehicles. Any additional budget amount required would be done through the Department's existing available budget.

BUDGETARY IMPACT:

Adoption of the resolution will increase the FY 2022-23 General Fund budget ($2,829).

RECOMMENDATION:

Adopt the resolution to budget and appropriate insurance proceeds and authorize department budget line item to be increase by the insurance proceeds amount to repair County property.

ATTACHMENTS:

Description	Type	Upload Date
Resolution	Resolution	10/6/2022

RESOLUTION TO AMEND THE FY 2022-23 OPERATING BUDGET & APPROPRIATE FUNDING FOR REPAIR OF COUNTY PROPERTY FROM INSURANCE PROCEEDS

WHEREAS, the County has received insurance proceeds from VaCorp Insurance for damaged County vehicles; and,

WHEREAS, the Board of Supervisors desires to amend the FY 2022-2023 General Fund budget in the amount of $2,829 for repair of damaged County vehicles; and,

WHEREAS, the Board of Supervisors needs to appropriate insurance proceeds in the amount of $2,829 to the General Fund for repair of damaged County vehicles.

NOW, THEREFORE, BE IT RESOLVED by the Board of Supervisors of Isle of Wight County, Virginia, that the FY 2022-23 budget is hereby amended and the funds appropriated in the amount of $2,829.

BE IT FURTHER RESOLVED that the County Administrator of Isle of Wight County, Virginia is authorized to make the appropriate accounting adjustments and to do all things necessary to give this resolution effect.

Adopted this 20th day of October 2022.

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Rudolph Jefferson, Chairman

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Carey Mills Storm, Clerk

Approved as to Form:

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Robert W. Jones Jr., County Attorney

ISSUE:

Resolution to Amend the Budget and Appropriate School-Based Health Workforce Grant Funds ($80,000)

BACKGROUND:

At its regular meeting on October 13, 2022, the School Board adopted a motion to request the Board of Supervisors appropriate $80,000 from the School-Based Health Workforce Grant to the Administrative, Attendance, and Health Category in the Schools budget.

BUDGETARY IMPACT:

Adoption of the resolution will increase the revenues and expenditures of the Administrative, Attendance, and Health category within the Schools' budget.

RECOMMENDATION:

Adopt a resolution to amend the budget and appropriate School-Based Health Workforce Grant funds.

ATTACHMENTS:

Description	Type	Upload Date
Resolution	Resolution	10/18/2022

RESOLUTION TO AMEND THE FY 2022-23 BUDGET AND APPROPRIATE FUNDS FROM THE VIRGINIA DEPARTMENT OF EDUCATION SCHOOL-BASED HEALTH WORKFORCE GRANT

WHEREAS, Isle of Wight County Schools have received funding in the amount of $80,000 from the Virginia Department of Education School-Based Health Workforce Grant; and,

WHEREAS, the Board of Supervisors wishes to amend the FY 2022-23 budget and appropriate funding from the Virginia Department of Education School-Based Health Workforce Grant to the Administrative, Attendance, and Health Category in the Schools FY2022-23 budget.

NOW, THEREFORE, BE IT RESOLVED by the Board of Supervisors of Isle of Wight County, Virginia, that the FY 2022-23 budget is hereby amended and funds in the amount of $80,000 from the Virginia Department of Education School-Based Health Workforce Grant be appropriated to the Administrative, Attendance, and Health budget category within the Isle of Wight County Schools FY2022-23 budget.

BE IT FURTHER RESOLVED that the County Administrator of Isle of Wight County, Virginia is authorized to make the appropriate accounting adjustments and to do all things necessary to give this resolution effect.

Adopted this 20th day of October, 2022.

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Rudolph Jefferson, Chairman

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Carey Mills Storm, Clerk

Approved as to Form:

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Robert W. Jones Jr., County Attorney

ISSUE:

Resolution to Amend the Budget and Appropriate Funding for School Resource Officers ($267,743)

BACKGROUND:

The Isle of Wight County Sheriff's Office has applied for and awarded a DCJS grant that will provide funding for four School Resource Officers (SRO) in the amount of $267,743. This grant will supplement salaries and fringe benefits for four SRO deputies for 9 months in FY23 (10/1/22 through 6/30/23) with no match requirement. Grant funding is provided to the County on a reimbursement basis.

This grant covers a 45-month period, 9 months each year for a total of 5 years. Continuation of the grant requires reapplication each year.

The Department of Criminal Justice Services (DCJS) has awarded the Isle of Wight County Sheriff's Office Two Hundred Sixty-Seven Thousand Seven Hundred Forty-three dollars ($267,743) under the FY2022-23 School Resource Officer (SRO) Grant Program and Fund. Grant funds will be provided by the Virginia Department of Criminal Justice Services (DCJS) on a reimbursement basis. There is no match requirement by the County.

The funds will be used to supplement salaries for SROs for four Isle of Wight County Elementary Schools.

BUDGETARY IMPACT:

There is no match requirement for the FY23. The county will provide uniforms, equipment, and vehicles. The Sheriff's Office will absorb all uniforms other than ballistic vest, and equipment other than radios.

RECOMMENDATION:

Adopt a resolution to amend the budget and appropriate funding for School Resource Officers.

ATTACHMENTS:

Description	Type	Upload Date
Resolution	Resolution	10/18/2022

RESOLUTION TO AMEND THE FY 2022-2023 OPERATING BUDGET AND APPROPRIATE FUNDING FOR SCHOOL RESOURCE OFFICER GRANT PROGRAM

WHEREAS, Isle of Wight County Sheriff's Office has received an award of $267,743 from the Virginia Department of Criminal Justice Services (DCJS) under the FY23-3 SRO-SRO Grant Program and Fund; and,

WHEREAS, this grant will supplement salaries and fringe benefits for four School Resource Officer (SRO) deputies for 9 months (10/1/22 through 6/30/23); and,

WHEREAS, the Board of Supervisors of the County of Isle of Wight, Virginia needs to amend the FY 2022-2023 Grant Fund Budget in the amount of $267,743 from the Virginia Department of Criminal Justice Services; and,

WHEREAS, the Board of Supervisors needs to appropriate $267,743 to the FY 2022-2023 Grant Fund Budget.

NOW, THEREFORE, BE IT RESOLVED by the Board of Supervisors of Isle of Wight County, Virginia, that the FY 2022-2023 Grant Fund Budget is hereby amended and funds appropriated in the amount of $267,743 for four SRO positions.

BE IT FURTHER RESOLVED that the County Administrator of Isle of Wight County is authorized to make the appropriate accounting adjustments and to do all things necessary to give this resolution effect.

Adopted this 20th day of October, 2022.

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Rudolph Jefferson, Chairman

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Carey Mills Storm, Clerk

Approved as to form:

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Robert W. Jones Jr., County Attorney

ISSUE:

Resolution to Assign Fund Balance for School Security and Public Safety Equipment ($1,120,000)

BACKGROUND:

The Isle of Wight County Schools reverted unused funds to Isle of Wight County from the FY2021-2022 School Operating Budget appropriation. The Board of Supervisors desires to assign those funds for school security to include $900,000 for security vestibules and $220,000 for the Sheriff's Office to increase the number of available fleet vehicles and School Resource Officer (SRO) equipment.

BUDGETARY IMPACT:

Assigned funds in a prior year are automatically budgeted in the following budget year as approved in the annual budget ordinance. These funds will increase the FY2023 budget by $1,120,000.

"All restricted or assigned fund balance project or program balances standing on the books of the County at the close of business for the fiscal year ending June 30, 2022 in the amount of $50,000,000 or less that have not been expended or lawfully obligated or encumbered are hereby reappropriated to be used to fund the purposes, programs, or projects for which the funds were appropriated."

RECOMMENDATION:

Adopt a resolution to assign Fund Balance for School security and Public Safety equipment.

ATTACHMENTS:

Description	Type	Upload Date
Resolution	Resolution	10/18/2022

RESOLUTION TO ASSIGN FUND BALANCE
FOR SCHOOL SECURITY

WHEREAS, the Isle of Wight County Schools reverted unused funds to Isle of Wight County from the FY2021-2022 School Operating Budget appropriation; and,

WHEREAS, the Board of Supervisors desires to assign funds in the amount of $1,120,000 to school security to include $900,000 for security vestibules and $220,000 for Sheriff's Office fleet vehicles and SRO equipment.

NOW, THEREFORE, BE IT AND IT IS HEREBY RESOLVED by the Board of Supervisors of the County of Isle of Wight, Virginia that funds in the amount of $1,120,000 be assigned for school security to include $900,000 for security vestibules and $220,000 for Sheriff's Office fleet vehicles and SRO equipment.

BE IT FURTHER RESOLVED that the County Administrator of Isle of Wight County, Virginia is authorized to make the appropriate accounting adjustments and to do all things necessary to give this resolution effect.

Adopted this 20th day of October, 2022.

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Rudolph Jefferson, Chairman

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Carey Mills Storm, Clerk

Approved as to form:

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Robert W. Jones, Jr., County Attorney

ISSUE:

Resolution to Amend the Budget and Appropriate CARES Act Utility Relief Program Funding ($4,126)

BACKGROUND:

The County has been awarded funding in the amount of $4,126 from the Virginia Department of Housing and Community Development COVID-19 Utility Relief Program to assist with municipal utility customer relief for all eligible water and wastewater customers of Isle of Wight County and the Towns of Smithfield and Windsor.

The funding will be used to assist water and wastewater utility customers.

BUDGETARY IMPACT:

The grant will increase the operating budget by the grant amount received.

RECOMMENDATION:

Adopt a resolution to accept and appropriate grant funding.

ATTACHMENTS:

Description	Type	Upload Date
Resolution	Resolution	10/3/2022
Correspondence from DHCD	Backup Material	10/3/2022

RESOLUTION TO AMEND THE FY2022-23 BUDGET AND APPROPRIATE FUNDING FROM THE VIRGINIA DHCD COVID-19 ARPA SLFRF MUNICIPAL UTILITY ASSISTANCE PROGRAM

WHEREAS, the Covid-19 American Recovery Plan Act (ARPA) State and Local Fiscal Recovery Funds (SLFRF) provides assistance to residential municipal utility customers; and,

WHEREAS, the Virginia Department of Housing and Community Development (DHCD) has awarded funding through the Covid-19 Municipal Utility Relief Program in the amount of $4,126 to Isle of Wight County utility customers for Utility Relief; and,

WHEREAS, the Board of Supervisors needs to amend the FY2022-23 Grant Budget and appropriate total funding in the amount of $4,126 for utility assistance associated with COVID-19 to be applied to County utility accounts.

NOW, THEREFORE, BE IT AND IT IS HEREBY RESOLVED by the Board of Supervisors of Isle of Wight County, Virginia that the FY 2022-23 Budget is hereby amended, and funds appropriated in the amount of $4,126 for Utility Relief.

BE IT FURTHER RESOLVED that the County Administrator of Isle of Wight County, Virginia is authorized to make the appropriate accounting adjustments and to do all things necessary to give this resolution effect.

Adopted this 20th day of October, 2022.

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Rudolph Jefferson, Chairman

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Carey Mills Storm, Clerk

Approved as to form:

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Robert W. Jones, Jr., County Attorney

Glenn Youngkin
Governor

Caren Merrick
Secretary of
Commerce and Trade

COMMONWEALTH of VIRGINIA

DEPARTMENT OF
HOUSING AND COMMUNITY DEVELOPMENT

Bryan W. Horn
Director

August 17, 2022

VIA EMAIL
Stephanie Humphries
Chief Financial Officer
Isle of Wight Public Utilities

Re: Second Round Award Letter and Required Certification for COVID-19 ARPA SLFRF Municipal Utility Assistance Program

Dear Stephanie Humphries:

On behalf of Governor Youngkin, I am pleased to inform you that Isle of Wight Public Utilities has been awarded a second round of federal State and Local Fiscal Recovery Funds (SLFRF) through the American Recovery Plan Act (ARPA) for the COVID-19 ARPA SLFRF Municipal Utility Assistance Program. Your award is $4,126.45, which is based on your response to the Virginia Department of Housing and Community Development's (DHCD) Municipal Utility Assistance Program Redistribution Survey and in accordance with the Appropriation Act. This funding is being provided under CFDA 21.027 – Coronavirus State and Local Fiscal Recovery Funds (SLFRF).

Additional details concerning this program including guidance, requirements, and pre-qualification analysis were provided in your first letter, so please refer to those documents as a reference in addition to the supplemental correspondence that has been issued during the administration of this program. As a reminder, your award shall be used to directly assist residential municipal utility customers of Isle of Wight Public Utilities with arrearages greater than 60 days for the time period between March 12, 2020, and August 31, 2021.

Similar to the first round of funding distributions and based upon guidance provided by the Virginia Department of Accounts (DOA), you must return the attached certification and certification addendum in partnership with your partner fiscal agent, County of Isle of Wight, to receive the funds from DOA. Once your partner fiscal agent receives the funds, they will then forward funds to the municipal utility. Please email your completed certification and certification addendum to utility@dhcd.virginia.gov by August 31, 2022. Funds that are not obligated on or before October 31, 2022, must be returned to the Commonwealth of Virginia no later than November 30, 2022.

Once the project is complete, DOA will follow up regarding project outcomes and compliance. It is incumbent on Isle of Wight Public Utilities and the partnering city or county to ensure project expenses are properly documented and verified in case of audit.

For questions contact DHCD staff member Chase Sawyer at utility@dhcd.virginia.gov.

Sincerely,

Bryan Horn
Director, Virginia Department of Housing and Community Development

CC: Lewis R. McCabe, Comptroller, Department of Accounts
Randy Keaton, County Administrator, Isle of Wight County
Encl: COVID-19 ARPA SLFRF Municipal Utility Assistance Program: Required Certification

ISSUE:

Resolution to Amend the Budget and Appropriate Grant Funds from the Virginia Criminal Justice Foundation ($4,000)

BACKGROUND:

The Board of Directors of the Virginia Criminal Justice Foundation has voted to allocate training awards of up to $4,000. The award must be used for out-of-state training for prosecutors, and the elected Commonwealth's Attorney.

Funds will be distributed to reimburse documented travel, lodging, and meals at the state per diem rates, using the GOA travel calculator.

BUDGETARY IMPACT:

Adoption of the attached resolution will increase the Grant Fund Budget by $4,000.

RECOMMENDATION:

Adopt a resolution to amend the budget and appropriate funding from the Virginia Criminal Justice Foundation.

ATTACHMENTS:

Description	Type	Upload Date
Resolution	Resolution	10/18/2022

RESOLUTION TO AMEND THE FY 2022-23 GRANT FUND BUDGET AND APPROPRIATE FUNDING FROM THE VIRGINIA CRIMINAL JUSTICE FOUNDATION

WHEREAS, the Board of Supervisors of the County of Isle of Wight, Virginia recommends acceptance of funding from the Virginia Criminal Justice Foundation; and,

WHEREAS, the Board of Supervisors of the County of Isle of Wight, Virginia recommends an amendment to the FY 2022-23 Grant Fund Budget of $4,000 for out-of-state training for prosecutors, and the elected Commonwealth's Attorney; and,

WHEREAS, the Board of Supervisors needs to appropriate $4,000 for out-of-state training for prosecutors, and the elected Commonwealth's Attorney.

NOW, THEREFORE, BE IT RESOLVED by the Board of Supervisors of Isle of Wight County, Virginia, that the FY 2022-23 Grant Fund Budget is hereby amended and funds appropriated in the amount of $4,000 for out-of-state training for prosecutors, and the elected Commonwealth's Attorney.

BE IT FURTHER RESOLVED that the County Administrator of Isle of Wight County, Virginia is authorized to make the appropriate accounting adjustments and to do all things necessary to give this resolution effect.

Adopted this 20th day of October, 2022.

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Rudolph Jefferson, Chairman

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Carey Mills Storm, Clerk

Approved as to form:

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Robert W. Jones Jr., County Attorney

ISSUE:

. September 1, 2022 Work Session Minutes
. September 15, 2022 Regular Meeting Minutes

BACKGROUND:

The above-noted minutes are offered for review and adoption by the Board.

BUDGETARY IMPACT:

None

RECOMMENDATION:

Adopt the following sets of minutes:

. September 1, 2022 Work Session Minutes
. September 15, 2022 Regular Meeting Minutes

ATTACHMENTS:

Description	Type	Upload Date
September 1, 2022 Work Session Minutes	Cover Memo	9/26/2022
September 15, 2022 Work Session Minutes	Cover Memo	9/30/2022

WORK SESSION OF THE ISLE OF WIGHT COUNTY BOARD OF SUPERVISORS HELD IN THE ROBERT C. CLAUD, SR. BOARD ROOM OF THE ISLE OF WIGHT COUNTY COURTHOUSE LOCATED AT 17090 MONUMENT CIRCLE, ISLE OF WIGHT, VIRGINIA ON THURSDAY, THE FIRST DAY OF SEPTEMBER IN THE YEAR TWO THOUSAND AND TWENTY-TWO

BOARD MEMBERS PRESENT:
Rudolph Jefferson, District 3, Chairman
William M. McCarty, District 2, Vice-Chairman
Richard L. Grice, District 1
Don G. Rosie, II, District 5
Joel C. Acree, District 4

STAFF MEMBERS PRESENT:
Randy R. Keaton, County Administrator
Donald T. Robertson, Assistant County Administrator
Robert W. Jones, Jr., County Attorney
Carey Mills Storm, Clerk

CALL TO ORDER

Chairman Jefferson called the work session to order at 6:00 p.m.

INVOCATION

Sheriff Clarke delivered the invocation and led the Pledge of Allegiance.

APPROVAL OF AGENDA

Supervisor McCarty moved that the agenda be adopted as amended with the addition of a closed meeting at the end of the meeting concerning a discussion regarding the appointment of specific appointees to the County Planning Commission. The motion passed unanimously (5-0) with Supervisors McCarty, Acree, Rosie, Grice and Jefferson voting in favor of the motion and no Supervisor voting against the motion.

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Sgt. Eric Bertran and Investigator Sean Lacy with the Sheriff's Office addressed the Board regarding the donation of a bloodhound to the Sheriff's Office by Operation Underground Railroad. The dog would be trained in detecting pornographic or human trafficking crimes on electronic storage devices. The Board was informed that while the dog is free, the following stipulations must be met: Five-year training commitment; annual recertification in Indiana with the County responsible for the cost of a hotel room, the flight, per diem and a rental vehicle; and, identification of how the dog is being utilized. The dog will be used by other localities and when not being utilized in the detection of electronic storage devices, can also be used as a therapy and comfort dog.

The following resolution was adopted unanimously on motion of Supervisor McCarty:

RESOLUTION TO ACCEPT AN ELECTRONIC STORAGE DETECTION K-9 AND ASSIGN IT TO THE SHERIFF'S OFFICE

WHEREAS, Operation Underground Railroad (O.U.R.) is a non-profit organization that works in collaboration with law enforcement agencies to protect children from sex trafficking and sexual exploitation; and,

WHEREAS, the Isle of Wight County Sheriff desires to collaborate with O.U.R. in an effort to protect children; and,

WHEREAS, the O.U.R. has donated an Electronic Storage Detection (ESD) K-9 to the Isle of Wight County Sheriff's Office.

NOW, THEREFORE, BE IT RESOLVED, that the Board of Supervisors of Isle of Wight County, Virginia accepts an Electronic Storage Detection (ESD) K-9 from Operation Underground Railroad and assigns it to the Sheriff's Office for use in protecting children from sex trafficking and sexual exploitation.

COUNTY FAIR:

David Smith, Director of Parks and Recreation, provided an update on activities and events associated with the upcoming County Fair. He further reported on the new

buildings at the fairgrounds. Operational procedures and policies will be brought back to the Board along with recommended fees for rental of the buildings.

County Administrator Keaton advised that informational signs advising that the buildings can be rented will be posted on the buildings and a recommended fee schedule will be in the Board's September 15, 2022 meeting agenda for consideration.

FORESTRY

Scott Bachman, Senior Area Forester, Virginia Department of Forestry, provided an update on timber harvesting and water quality; wildland fire management; and, private forest land management.

NORTHGATE DRIVE (PARKING)

Jamie Oliver, Transportation Manager, provided an update on citizens' concerns with enclosed trailers, recreational vehicles and trucks parking on and creating visibility issues on Northgate Drive. In 2016 VDOT conducted a parking safety study and determined that the street met all the criteria to allow on-street parking and on-street parking was not restricted at that time. VDOT recently reviewed the most recent complaints and determined that there were no engineering requirements for restricting it. Citizens have advised that they do not want parking restricted on the street, but rather that only cars be allowed to park on the roadway and only certain segments restricted. VDOT has advised staff that if the County wishes to pursue no parking, it will be required to enforce it utilizing the Sheriff's office. Staff has conversed with the Town of Smithfield who advises that parking is regulated through the Town's Police Department that, when there is a parking violation, they use the license plate to look up the registration and give up to three verbal warnings to the owner of the vehicle and offer up to three written citations before proceeding with towing of the vehicle. Because all HOA members do not share the same opinion, direction from the Board is being sought.

County Attorney Jones advised the Board that the County does not have the authority to restrict parking except what is allowed by the General Assembly. Some of the northern Virginia counties do have that authority and the way to go about getting a no-parking sign is, if there is a HOA, the request has to come from the

HOA in the form of a resolution and if no HOA, it must be in the form of a petition containing 51% of the people who live on the affected road. He recommended that the Board adopt an ordinance that addresses how the County will handle ongoing petitions.

The Board was requested to forward all emails to County Administrator Keaton and send out the link for this discussion to provide some clarity on the matter.

TURNER DRIVE SAFETY STUDY

Ms. Oliver drew the Board's attention to the traffic safety study of Turner Drive between Smithfield Middle School and Scotts Factory Road which includes a summary of existing conditions and crash data over the last several years. VDOT has conducted two safety studies and installed a lot of signage on this road and staff offered to keep an eye on any safety funds that might become available over the next several years.

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The Board took a short break. Upon returning to open session, Chairman Jefferson called for discussion on grant positions within the Sheriff's Department.

Sheriff Clarke notified the Board that the Department of Criminal Justice Services is offering State grants to provide funding for School Resource Officers. Dr. Cramer, the new School Superintendent, has expressed his interest in having these positions in the County's elementary schools. In addition to the four law enforcement positions being requested, four vehicles are also needed. These four new positions will cost the County $313,024 annually which includes the cost of the four vehicles.

Supervisor McCarty requested the Sheriff to meet with County Administrator Keaton and Chief Financial Officer Stephanie Humphries to discuss the various options available should the Sheriff not receive grant funds for all four school resource officers.

Supervisor Rosie moved that Sheriff Clark be authorized to apply for grant funds for four law enforcement positions. The motion passed unanimously (5-0) with

Supervisors McCarty, Acree, Rosie, Grice and Jefferson voting in favor of the motion and no Supervisor voting against the motion.

JOINT MEETING W/PLANNING COMMISSION (SOLAR)

The consensus of the Board was to jointly meet with the Planning Commission on October 14, 2022 from 2:00 p.m. until 4:00 p.m. in the Board Room. Supervisor Acree will not be present. An agenda outline is to be developed and provided to the Board. A resolution regarding the special meeting will be prepared for adoption at the Board's September 15, 2022 meeting by County Attorney Jones.

JOINT MEETING W/SCHOOL BOARD

The consensus of the Board was to jointly meet with the School Board on September 21, 2022 at 5:00 p.m. Sheriff Clarke was requested to attend. Location is to be determined. A resolution regarding the special meeting will be prepared for adoption at the Board's September 15, 2022 meeting by County Attorney Jones.

CLOSED MEETING

Pursuant to Section 2.2-3711(A) of the *Code of Virginia*, Supervisor McCarty moved to enter the closed meeting for the limited purpose of a discussion regarding the appointment of specific appointees to the County Planning Commission, pursuant to subsection 1.

The motion was unanimously adopted (5-0).

Upon motion of Supervisor McCarty and all voting in favor (5-0), the Board reconvened into open meeting.

County Attorney Jones reminded the Board that in accordance with Section 2-10(G) of the Board's Rules & Procedure, all those who participated in the closed meeting are reminded that all matters discussed in closed meeting are to remain confidential, as provided under the Virginia Freedom of Information Act, and that such matters as were discussed in closed meeting should not be acted upon or discussed in public by any participant unless and until a public, formal action of the Board of Supervisors is taken on that particular subject matter.

Upon motion of Supervisor Acree and all voting in favor (5-0), the following Resolution was adopted:

CERTIFICATION OF CLOSED MEETING

WHEREAS, the Board of Supervisors has convened a closed meeting on this date pursuant to an affirmative recorded vote and in accordance with the provisions of the Virginia Freedom of Information Act; and,

WHEREAS, Section 2.2-3712(D) of the Code of Virginia requires a certification by this Board of Supervisors that such closed meeting was conducted in conformity with Virginia law.

NOW, THEREFORE, BE IT RESOLVED that the Board of Supervisors hereby certifies that, to the best of each member's knowledge, (i) only public business matters lawfully exempted from open meeting requirements by Virginia law were discussed in the closed meeting to which this certification resolution applies, and (ii) only such public business matters as were identified in the motion convening the closed meeting were heard, discussed or considered by the Board of Supervisors.

VOTE

AYES: Acree, Grice, Jefferson, McCarty. Rosie

NAYS: 0

ABSENT DURING VOTE: 0

ABSENT DURING MEETING: 0

Supervisor McCarty moved to appoint Cynthia Taylor to fill the unexpired term of Ed Hulick representing the Newport District/District 2 on the Planning Commission. The motion passed unanimously (5-0) with Supervisors McCarty, Acree, Rosie, Grice and Jefferson voting in favor of the motion and no Supervisor voting against the motion.

Supervisor Grice moved to appoint Matthew R. Smith to fill the unexpired term of Thomas Duerig representing the Smithfield District/District 1 on the Planning Commission. The motion passed unanimously (5-0) with Supervisors McCarty, Acree, Rosie, Grice and Jefferson voting in favor of the motion and no Supervisor voting against the motion.

Supervisor Grice moved to appoint Raynard Gibbs to fill the unexpired term of Cynthia Taylor representing the Smithfield District/District 1 on the Planning Commission. The motion passed unanimously (5-0) with Supervisors McCarty, Acree, Rosie, Grice and Jefferson voting in favor of the motion and no Supervisor voting against the motion.

ADJOURNMENT

At 8:45 p.m., Chairman Jefferson declared the work session adjourned.

_____
Rudolph Jefferson, Chairman

_____
Carey Mills Storm, Clerk

REGULAR MEETING OF THE ISLE OF WIGHT COUNTY BOARD OF SUPERVISORS HELD IN THE ROBERT C. CLAUD, SR. BOARD ROOM OF THE ISLE OF WIGHT COUNTY COURTHOUSE LOCATED AT 17090 MONUMENT CIRCLE, ISLE OF WIGHT, VIRGINIA ON THURSDAY, THE FIFTEENTH DAY OF SEPTEMBER IN THE YEAR TWO THOUSAND AND TWENTY-TWO

BOARD MEMBERS PRESENT: Rudolph Jefferson, District 3, Chairman
William M. McCarty, District 2, Vice-Chairman
Richard L. Grice, District 1
Don G. Rosie, II, District 5
Joel C. Acree, District 4

STAFF MEMBERS PRESENT: Randy R. Keaton, County Administrator
Donald T. Robertson, Assistant County Administrator
Robert W. Jones, Jr., County Attorney
Carey Mills Storm, Clerk

CALL TO ORDER

Chairman Jefferson called the regular meeting to order at 5:00 p.m.

APPROVAL OF AGENDA

Vice-Chairman McCarty made a motion to adopt the agenda as presented. The motion passed unanimously (5-0) with Supervisors McCarty, Acree, Rosie, Grice and Jefferson voting in favor of the motion and no Supervisor voting against the motion.

CLOSED MEETING

Pursuant to Section 2.2-3711(A) of the *Code of Virginia*, Supervisor McCarty moved to enter a closed meeting for the limited purpose of:

(1) A discussion regarding the appointment of specific appointees to County boards, committee or authorities as set forth in the agenda, pursuant to subsection 1

(2) Consultation with legal counsel regarding actual or threatened litigation regarding Chesapeake Bay Preservation Area, Drainage Outfalls, Transportation, and M&T tax where such consultation would adversely affect the negotiating or litigation posture of this public body pursuant to subsection 7.

(3) A discussion regarding the lease of publicly held property in the Town of Smithfield, namely, tax map parcel or portion of tax map parcel 21A-01-184, where discussion in an open meeting would adversely affect the bargaining position or negotiating strategy of the Board, pursuant to subsection 3.

(4) Consultation with legal counsel employed by the Board regarding specific legal matters, namely the Board's to make donations, requiring the provision of legal advice by such counsel, pursuant to subsection 8.

The motion was unanimously adopted (5-0).

At 6:00 p.m., upon motion of Supervisor McCarty and all voting in favor (5-0), the Board reconvened into open meeting.

County Attorney Jones reminded the Board that in accordance with Section 2-10(G) of the Board's Rules & Procedure, all those who participated in the closed meeting are reminded that all matters discussed in closed meeting are to remain confidential, as provided under the Virginia Freedom of Information Act, and that such matters as were discussed in closed meeting should not be acted upon or discussed in public by any participant unless and until a public, formal action of the Board of Supervisors is taken on that particular subject matter.

Upon motion of Supervisor McCarty and all voting in favor (5-0), the following Resolution was adopted:

CERTIFICATION OF CLOSED MEETING

WHEREAS, the Board of Supervisors has convened a closed meeting on this date pursuant to an affirmative recorded vote and in accordance with the provisions of the Virginia Freedom of Information Act; and,

WHEREAS, Section 2.2-3712(D) of the Code of Virginia requires a certification by this Board of Supervisors that such closed meeting was conducted in conformity with Virginia law.

NOW, THEREFORE, BE IT RESOLVED that the Board of Supervisors hereby certifies that, to the best of each member's knowledge, (i) only public business matters lawfully exempted from open meeting requirements by Virginia law were discussed in the closed meeting to which this certification resolution applies, and (ii) only such public business matters as were identified in the motion convening the closed meeting were heard, discussed or considered by the Board of Supervisors.

VOTE

AYES: Acree, Grice, Jefferson, McCarty. Rosie

NAYS: 0

ABSENT DURING VOTE: 0

ABSENT DURING MEETING: 0

INVOCATION

Supervisor McCarty delivered the invocation and led the Pledge of Allegiance.

CITIZENS' COMMENTS

No one signed up to speak.

CONSENT AGENDA

Supervisor McCarty moved that the following Consent Agenda be adopted:

RESOLUTION TO AMEND THE FY 2022-23 OPERATING BUDGET AND APPROPRIATE FUNDING FOR REPAIR OF COUNTY PROPERTY FROM INSURANCE PROCEEDS

WHEREAS**,** the County of Isle of Wight, Virginia has received insurance proceeds from VaCorp Insurance for damaged County vehicles and property; and,

WHEREAS**,** the Board of Supervisors desires to amend the FY 2022-2023 Public Utility Fund budget in the amount of $7,475 for repair of damaged County property and to the FY 2022-23 General Fund budget in the amount of $15,384 for repair of damaged County vehicles; and,

WHEREAS, the Board of Supervisors needs to appropriate insurance proceeds in the amount of $7475 to the Public Utility Fund for repair of damaged County property and insurance proceeds in the amount of $15,384 to the General Fund for repair of damaged County vehicles.

NOW, THEREFORE, BE IT RESOLVED by the Board of Supervisors of the County of Isle of Wight, Virginia, that the FY 2022-23 budget is hereby amended and funds appropriated in the amount of $22,859.

BE IT FURTHER RESOLVED that the County Administrator of Isle of Wight County, Virginia is authorized to make the appropriate accounting adjustments and to do all things necessary to give this resolution effect.

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RESOLUTION OF THE BOARD OF SUPERVISORS OF THE COUNTY OF ISLE OF WIGHT, VIRGINIA, APPROVING THE FINANCING OF EQUIPMENT AND THE EXECUTION AND DELIVERY OF CERTAIN DOCUMENTS PREPARED IN CONNECTION THEREWITH

The Board of Supervisors of the County of Isle of Wight, Virginia (the "Board") has determined it is in the best interest of the County of Isle of Wight, a body politic of the Commonwealth of Virginia (the "County") to undertake the financing of various vehicles (the “Project”), and the Finance Director has now presented a proposal for the financing of such Project.

Truist Financial Corporation has indicated its willingness to provide financing for the Project in accordance with its proposal dated August 24, 2022. The amount financed shall not exceed $533,000.00, the annual interest rate (in the absence of default or change in tax status) shall not exceed 3.30%, and the financing term shall not exceed five years from closing.

THEREFORE, BE IT RESOLVED BY THE BOARD OF SUPERVISORS OF THE COUNTY OF ISLE OF WIGHT, VIRGINIA:

1. The recitals above are found and determined to be a part of this resolution.

2. All financing contracts and all related documents for the closing of the financing (the "Financing Documents") shall be consistent with the foregoing terms. The County Administrator and/or Finance Director of the County are hereby authorized and directed to execute and deliver any Financing Documents, and to take all such further action as they may consider necessary or desirable, to carry out the financing of the Project as contemplated by the proposal and this resolution.

3. The County Administrator is hereby authorized and directed to hold executed copies of the Financing Documents until the conditions for the delivery of the Financing Documents have been completed to such officer's satisfaction. The County Administrator is authorized to approve changes to any Financing Documents previously signed by County officers or employees, provided that such changes shall not substantially alter the intent of such documents or certificates from the intent expressed in the forms executed by such officers. The Financing Documents shall be in such final forms as the County Administrator shall approve, with the County Administrator's release of any Financing Document for delivery constituting conclusive evidence of such officer's final approval of the Document's final form.

4. The County shall not take or omit to take any action the taking or omission of which shall cause its interest payments on this financing to be includable in the gross income for federal income tax purposes of the registered owners of the interest payment obligations.

5. To the extent necessary, the County intends that the adoption of this resolution will be a declaration of the County's official intent under Treas. Reg. §1.150-2 (the "Reimbursement Regulations") promulgated under the Internal Revenue Code of 1986, as amended, to reimburse expenditures for the Project. The County intends that funds that have been advanced, or that may be advanced, from the County's general fund, or any other County fund related to the Project, for Project costs may be reimbursed from the financing proceeds.

6. All prior actions of County officers in furtherance of the purposes of this resolution are hereby ratified, approved and confirmed. All other resolutions (or parts thereof) in conflict with this resolution are hereby repealed, to the extent of the conflict.

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Minutes

. July 21, 2022 Work Session and Regular Minutes
. August 4, 2022 Work Session Minutes
. August 18, 2022 Regular Meeting Minutes

The motion passed unanimously (5-0) with Supervisors McCarty, Acree, Rosie, Grice and Jefferson voting in favor of the motion and no Supervisor voting against the motion.

REGIONAL AND OTHER REPORTS

Supervisor Rosie reported on items discussed at the most recent meeting of the Hampton Roads Military & Federal Facilities Alliance.

County Attorney Jones updated the Board on a court proceeding involving Michael Vines who sought $19,575 in restitution which had been reduced to $13,075 with the provision that the County's portion would be further reduced by whatever recovery was made through his VACorp risk management policy. He added that VACorp recently paid $10,870 of that fee leaving the County responsible for owing only $2,180 to Mr. Vines.

APPOINTMENTS

There were no appointments offered for consideration.

PUBLIC HEARINGS

A. Aston Manor Estates Park Vacation

Chairman Jefferson opened the public hearing and called for persons to speak in favor of or in opposition to the request for vacation of the park.

Sandy Robinson, Zoning Coordinator, provided an overview of the application.

Sean Howard, agent representing the applicant and the builder, advised that the owners intend to sell the lot and the developer intends to build a residential home.

Kenneth Bunch of Old Myrtle Road spoke against the vacation of the park. He distributed pictures of the lot and advised that in 1975 all new subdivisions were required to have a park designated. He stated that the park has been maintained since its creation and he is in favor of leaving the lot as a park and not a residential lot.

Seven persons stood in favor of denying the request for vacation of the park.

William H. Holland of Old Myrtle Road spoke in favor of the lot remaining a park.

Charles Smith of Old Myrtle Road spoke in favor of the lot remaining a park.

Chairman Jefferson closed the public hearing and called for comments from the Board.

Supervisor Acree moved to deny the application. The motion passed unanimously (5-0) with Supervisors McCarty, Acree, Rosie, Grice and Jefferson voting in favor of the motion and no Supervisor voting against the motion.

B. Ordinance to Amend and Reenact the Isle of Wight County Code by Amending and Reenacting Appendix D, Agricultural Districts, Section D-1, District Establishment

County Attorney Jones advised that the Moonlight Agricultural Forestal District is set to expire on September 20, 2022 and is being offered for renewal, to include an additional ten-year period.

Chairman Jefferson opened the public hearing and called for persons to speak in favor of or in opposition to the Ordinance amendment.

No one appeared and spoke.

Chairman Jefferson closed the public hearing and called for comments by the Board.

Supervisor McCarty moved that the following Ordinance be adopted:

AN ORDINANCE TO AMEND AND REENACT
THE ISLE OF WIGHT COUNTY CODE
BY AMENDING AND REENACTING
APPENDIX D. AGRICULTURAL DISTRICTS.

SECTION D-1. DISTRICT ESTABLISHMENT.

WHEREAS, the Board of Supervisors of Isle of Wight County, Virginia, has deemed it to be in the best interest of Isle of Wight County to continue its support for the conservation and protection of its agricultural and forestal lands; and

WHEREAS, Section 15.2-4300 *et seq.* of the Code of Virginia (1950, as amended) provides localities with the legal authority to establish and maintain agricultural and forestal districts under which Isle of Wight County has enacted Appendix D of the Isle of Wight County Code; and

WHEREAS, Section 15.2-4311 of the Code of Virginia (1950, as amended) requires that a review of said district(s) be made every four to ten years; and

WHEREAS, the Moonlight agricultural/forestal district is set to expire September 20, 2022.

WHEREAS, a review of the Moonlight agricultural/forestal district has determined that no changes need to be made to said district at this time.

NOW, THEREFORE, BE IT ORDAINED by the Isle of Wight County Board of Supervisors that Appendix D, Agricultural Districts, Section D-1 of the Isle of Wight County Code be amended and reenacted as follows:

APPENDIX D.

AGRICULTURAL DISTRICTS.

Sec. D-1. District establishment.

The County of Isle of Wight, Virginia, finds that the conservation and protection of Its agricultural and forestal lands for the production of food and agricultural and forestal products is vital to the public interest and upon the advice of the agricultural and forestal districts advisory committee and the planning commission, and after the conduct of a public hearing, and with the concurrence of the landowners, the board of supervisors of Isle of Wight County does hereby promulgate the existence of the Longview agricultural district, the Knoxville agricultural district and the Courthouse agricultural district initially created and established by separate ordinances in accordance with the provisions of the Code of Virginia (1950, as amended), as follows:

A. Longview agricultural district established on June 21, 1979 for a period of eight (8) years, and subsequently renewed, effective June 21, 1987 for a period of eight (8) years, renewed effective June 21, 1995 for a period often (10) years, renewed effective June 21, 2005 for a period of ten (10) years, and renewed June 21, 2015 for a ten (10) year period to expire on June 21, 2025; and

B. Knoxville agricultural district established on April 21, 1983 for a period of eight (8) years, and subsequently renewed, effective April 21, 1991 for a period often (10) years, renewed effective April 21, 2001 for a period of ten

(10) years, and renewed effective April 21, 2011 for a period of ten (10) years, and renewed September 16, 2021 (effective April 21, 2021) to expire on April 21, 2031; and

C. Courthouse agricultural district established on September 15, 1988 for a period of eight (8) years, and subsequently renewed, effective October 17, 1996 for a period of ten (10) years, renewed effective October 17, 2006 for a period of ten (10) years, and renewed September 15, 2016 for a period of ten (10) years to expire on September 15, 2026.

D. Moonlight agricultural/forestal district established on September 20, 2012 for a period of ten (10) years to expire on September 20, 2022, and renewed September 15, 2022 for a ten (10) year period to expire on September 15, 2032. (Ord. No. 2011-17-C, 9-1-11; Ord. No. 2012-9-C, 9-20-12; 6-18-15; 9-15-16; 9-16-21; 9-15-22.)

The motion passed unanimously (5-0) with Supervisors McCarty, Acree, Rosie, Grice and Jefferson voting in favor of the motion and no Supervisor voting against the motion.

COUNTY ADMINISTRATOR'S REPORT

Chris Morello, Director of Economic Development, addressed the Board regarding a proposal to expand the County's Enterprise Zone through the Department of Housing & Community Development.

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County Administrator Keaton addressed the Board regarding a proposed fee schedule for the new facilities built at Heritage Park last fall.

Staff was requested to do the following: Add language under Additional Services and Fees which states "at an hourly rate for additional set up assistance"; exclude until staff has a better feel for it address the pavilions and ancillary services and fees, but leave the section on the Fairgrounds as a whole off of the schedule until such time as staff can come back with more detail on the program; and place on the October meeting agenda for public hearing.

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Assistant County Administrator Robertson reported on how Zencity has been utilized to date to capture data on items that are of interest to the County and to conduct online surveys.

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Matters for the Board's information were covered by County Administrator Keaton related to the County Fair; Seafood Fest; earnings from the tractor pull; report on sales tax; and that the Board's CIP Committee members need to meet with the School's CIP Committee members next month.

Members of the Board and senior administrative staff were asked to attend the Fair critique meeting held by the volunteers and that some sort of recognition be presented to the volunteers.

UNFINISHED/OLD BUSINESS

Following a short break, Chairman Jefferson called for consideration of the request for a Conditional Use Permit for the WaWa Convenience Store and Gasoline Station.

At the request of the applicant, Supervisor McCarty moved to table the request until the Board's October meeting. The motion passed unanimously (5-0) with Supervisors McCarty, Acree, Rosie, Grice and Jefferson voting in favor of the motion and no Supervisor voting against the motion.

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Assistant County Administrator Robertson presented the County's revised legislative priorities for the 2023 session of the General Assembly. He was requested to add the following issues to the County's list of priorities: Comp Board for the Sheriff; Constitutional Amendment; and Additional Sales Tax.

Mr. Robertson is to provide the Board with proposed language regarding advertising costs.

//

Responsive to advisement from County Attorney Jones that the next meeting of the Planning Commission will occur on October 14, 2022, Supervisor McCarty moved that the Board set a special work session with the Planning Commission on October 14, 2022 from 2:00 p.m. until 4:00 p.m. in the Robert C. Claud, Sr. Board Room for the purpose of discussing solar farms. The motion passed unanimously (5-0) with Supervisors McCarty, Acree, Rosie, Grice and Jefferson voting in favor of the motion and no Supervisor voting against the motion.

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Responsive to advisement from County Attorney Jones that the School Board has agreed to meet jointly with the Board on September 21, 2022 at 5:00 p.m. in the Westside Elementary School auditorium, Supervisor McCarty moved that the Board meet jointly with the School Board on September 21, 2022 at 5:00 p.m. at Westside Elementary School auditorium for the purpose of publicly discussing finances and conducting a closed meeting on school security. The motion passed unanimously (5-0) with Supervisors McCarty, Acree, Rosie, Grice and Jefferson voting in favor of the motion and no Supervisor voting against the motion.

NEW BUSINESS

Will Drewery, Emergency Management Coordinator, presented a Resolution to Establish a Community Emergency Response Team Program for the Board's consideration.

Supervisor McCarty moved that the following Resolution be adopted:

RESOLUTION TO ESTABLISH A COMMUNITY EMERGERNCY RESPONSE TEAM (CERT)

WHEREAS, the Board of Supervisors recognizes the need for enhanced emergency response resources in the wake of recent, unprecedented, natural disasters in the county and the likelihood that such events will increasingly occur; and,

WHEREAS, first responders to such natural disasters, and other emergencies, have to address often overwhelming circumstances in emergency situations; and,

WHEREAS, the Federal government has established the Community Emergency Response Team (CERT) program under its Citizen Corps, a subsidiary of the USA Freedom Corps created by Executive Order 13254 in 2002; and,

WHEREAS, the Board of Supervisors has the authority to establish a CERT that can be trained to help first responders and address various needs in the event of an emergency; and,

WHEREAS, the Federal government offers resources to assist in the establishment and maintenance of a CERT team, including Federal grants through the Department of Homeland Security which fund materials for training and certification of CERT team members; and,

WHEREAS, Isle of Wight County has an Emergency Management Coordinator designated to establish and oversee a CERT team.

NOW, THEREFORE, BE IT RESOLVED, that the Board of Supervisors of Isle of Wight County, Virginia tasks the County's Emergency Management Coordinator to establish and oversee a Community Emergency Response Team.

The motion passed unanimously (5-0) with Supervisors McCarty, Acree, Rosie, Grice and Jefferson voting in favor of the motion and no Supervisor voting against the motion.

ADJOURNMENT

At 8:30 p.m., Chairman Jefferson declared the meeting adjourned.

_____
Rudolph Jefferson, Chairman

_____
Carey Mills Storm, Clerk

BACKGROUND:

The Board of Supervisors has previously directed that an opportunity be provided for monthly status briefings from Board members who serve as representatives on various regional committees and authorities on behalf of the County.

BUDGETARY IMPACT:

None

RECOMMENDATION:

Receive the report.

ATTACHMENTS:

Description	Type	Upload Date
2022 Regional Reports	Backup Material	7/19/2022

2022 BOARD MEMBER REGIONAL REPRESENTATIVE

(Appointed by Board Vote)

Organization	Member	Term Expires
Eastern Virginia Regional Industrial Facility Authority	Grice	No Set Term
Hampton Roads Alliance	Grice	No Set Term
Hampton Roads Military Federal Facilities Alliance	Rosie	No Set Term
Hampton Roads Planning District Commission	Acree	No Set Term
	Keaton	No Set Term
Hampton Roads Transportation Accountability Commission	McCarty	No Set Term
Hampton Roads Transportation Planning Organization	McCarty	No Set Term
	Keaton	No Set Term
Hampton Roads Workforce Council	Grice	No Set Term
Southeastern Public Service Authority	Keaton	December 2025
	Etheridge/Alternate	December 2025
Western Tidewater Community Transportation Collaborative	Grice	No Set Term
Western Tidewater Regional Jail Authority	Jefferson	No Set Term
	McCarty	No Set Term
	Keaton	No Set Term
Western Tidewater Water Authority	Grice	June 2022
	Acree	June 2022
	Jones/Alternate	June 2022

BACKGROUND:

Board members will consider and make appointments of individuals to various local and region organizations as noted on the Appointments Page.

BUDGETARY IMPACT:

None

RECOMMENDATION:

Appoint individuals to various local and region organizations as noted on the Appointments Page.

ATTACHMENTS:

Description	Type	Upload Date
Appointments Page	Cover Memo	10/17/2022
Fair Committee Member List	Cover Memo	10/17/2022

BOARDS/COMMISSIONS/COMMITTEES

Boards/Commissions/Committee	Appointees	Contact	District	Expiration	
Board of Building Appeals	Gary Terwillinger	357-9955	Smithfield/District 1	November	2022
Commission on Aging	Maggie Richards - Resigned	371-9010	Windsor/District 4	December	2023
Commission on Aging	Shirley McGee - Resigned	356-0342	Smithfield/District 1	January	2022
Commission on Aging	Replacement for Brenda Reynolds who no longer resides in District 2		Newport/District 2		
Commission on Aging	Jane March - Resigned	242-3807	Carrsville/District 5	November	2021
Commission on Aging	Glenie Jones - Resigned		Carrsville/District 5	March	2023
Fair Executive Committee	See Attached List of Appointees			December	2022

FAIR EXECUTIVE COMMITTEE

	TWO-YEAR TERM APPOINTED	EXPIRES
CHAIRMAN (2020) Danny Byrum 24545 Miller Lane Carrollton VA 23314 635-5725 (cell) 238-3334 (Home) dannybyrum3@gmail.com	12/01/20	12/22
VICE-CHAIRMAN (2020) Michelle Billups Post Office Box 9 Zuni, Virginia 23898 646-0780 onthegomichelle@gmail.com	01/01/21	12/22
SECOND VICE-CHAIRMAN (2020) Robert Claud 5370 Duck Town Road Zuni, Virginia 23898 618-4050 runningcloud59@yahoo.com	12/01/20	12/22
TREASURER (2020) Debbie Braswell 8496 Winston Drive Zuni VA 23898 593-5236 debboo50@gmail.com	12/01/20	12/22

FAIR EXECUTIVE COMMITTEE

SECRETARY (2020)

Kim Garrett
22078 Garrison Drive
Windsor, Virginia 23487
647-7628 (cell)
doodlebugdd@gmail.com

12/01/20 12/1/2022

Send letter of appointment to:
Director of Parks & Recreation

COMMITTEES/2

ISSUE:

Presentation of the United Way of South Hampton Roads' 2022 Community Cares Award

BACKGROUND:

The United Way of South Hampton Roads Team has chosen Isle of Wight County for the 2022 Community Cares Award in recognition of its partnership and dedication to the annual campaign, and its leadership and contributions during the pandemic. Representatives of the United Way of South Hampton Roads will be in attendance at the Board's meeting on Thursday to present the award to the County.

BUDGETARY IMPACT:

None.

RECOMMENDATION:

Receive a presentation from United Way of South Hampton Roads.

ISSUE:

Resolution to Designate October 9-15, 2022 as Fire Prevention Week

BACKGROUND:

October 9-15, 2022, is designated as “Fire Prevention Week” for the purpose of educating and training citizens to take the necessary steps to improve fire safety. The Board may wish to recognize Fire Prevention Week.

BUDGETARY IMPACT:

None.

RECOMMENDATION:

Adopt a resolution to designate October 9-15, 2022 as Fire Prevention Week.

ATTACHMENTS:

Description	Type	Upload Date
Resolution	Resolution	10/17/2022

RESOLUTION TO DESIGNATE OCTOBER 9-15, 2022 AS FIRE PREVENTION WEEK

WHEREAS, Isle of Wight County is committed to ensuring the safety and security of all those who live, work, visit, and play in the County; and,

WHEREAS, the members of County's seven volunteer fire and emergency medical services agencies and the career fire and rescue staff of Isle of Wight County are dedicated to reducing the occurrence of death, injuries, and property damage through the identification of risks, education of citizens, and response to emergency incidents; and,

WHEREAS, fire is a serious public safety concern both locally and nationally, and homes are the locations where people are at greatest risk from fire; and,

WHEREAS, County residents who are responsive to public education measures are better able to take personal steps to increase their safety from fire, especially in their homes; and,

WHEREAS, each year during the second full week in October, fire departments and other emergency services professionals across the country work to educate everyone about simple but important actions they can take to keep themselves and those around them safe from home fires.

NOW THEREFORE BE IT RESOLVED by the Board of Supervisors of Isle of Wight County, Virginia that October 9-15, 2022, is designated as "Fire Prevention Week" in Isle of Wight County.

BE IT FURTHER RESOLVED that the Board of Supervisors of Isle of Wight County extends its appreciation to the men and women of the County's Fire and Rescue agencies for the tireless work they do to keep residents safe throughout the year.

Adopted this 20th day of October, 2022.

_____

Rudolph Jefferson, Chairman

_____

Carey Mills Storm, Clerk

Approved as to form:

_____

Robert W. Jones, Jr., County Attorney

ISSUE:

Application of Advanced Construction Development, LLC, Applicant, and Locust Grove Partners, LP and H&B Railroad Company, Inc., Property Owners, for a Change and Amendment to Existing Zoning to Conditional-Limited Industrial (C-LI) to Allow an Auction Establishment and a Scrap and Salvage Service on Approximately 5 Acres of Property Located on the North Side of the Western Terminus of IWIP Road (Rte. 1032) Together with Approximately 70 Acres of Property Located at 17094 Benns Church Boulevard (Rte. 10)

BACKGROUND:

Application (ZA-4-21) of Advanced Construction Development, LLC, applicant, and Locust Grove Partners, LP and H&B Railroad Company, Inc. property owners, for a change and amendment to existing zoning to Conditional-Limited Industrial (C-LI) to allow an auction establishment and a scrap and salvage service on approximately 5 acres of property with tax map number 42-06-015 located on the north side of the western terminus of IWIP Road (Rte. 1032) together with approximately 70 acres of property with tax map number 42-01-006 located at 17094 Benns Church Boulevard (Rte. 10)

The project is proposed to be located on two adjacent properties located on the north side of the western terminus of IWIP Road (Rte. 1032) as well as a portion of the farm located at 17094 Benns Church Boulevard (Rte. 10). The parcel on IWIP road is bounded by IWIP Road to the south, by farmland to the north, by a vacant wooded parcel to the west, and by a warehouse and vehicle storage yard in the IWIP industrial park.

The second parcel 42-01-006 is bounded to the south by the IWIP Road parcel in the IWIP industrial park, tax map number 42-06-015, to the east by Benns Church Boulevard (Rte. 10), and to the north and west by agricultural and forest uses and a borrow pit. Only a portion of this property is proposed to be used for the salvage yard and will consist mostly of currently open farmland.

The subject properties are identified as Tax Map Parcel 42-06-015 (located on IWIP Road) and a portion of Tax Parcel 42-01-006.

The property on IWIP Road with tax parcel number 42-06-015 is part of the Isle of Wight Industrial Park and is zoned Conditional-Limited Industrial for the uses

permitted in the Limited Industrial Zoning District, including:

- Blacksmith shop;
- Welding and machine shops;
- Retail food stores;
- Auto and home appliance services;
- Office buildings;
- Service stations;
- Lumber and building supply, including cabinet manufacturers, plumbing, electrical, and
- Machinery sales and service.

According to County records, the parcel was created in July 2002 as part of the planned industrial park. The current use of the property is equipment storage for the property owner, H&B Railroad Company, Inc.

Approximately 70 acres of the adjacent site located on tax parcel number 42-01-006 is also included in the application which is shown on the attached concept plan. The property has historically been used for farming and silvicultural uses. There is both an overhead powerline easement and thirty foot wide gas line easement that traverses the proposed project site. There are two existing livestock buildings located within the project area which will be demolished as part of the proposed improvements.

The Planning Commission held a public hearing on the application at their August 23, 2022, regular meeting. Following the public hearing, the Planning Commission voted to continue their discussion on the application at their next regular meeting. The Planning Commission requested additional information on the following specific items:

- The applicant's fire suppression plan, including prevention, mitigation, detection, and response plan for both conventional and electric vehicles;
- Whether other localities with the applicant's other facilities have experienced any issues; and
- What types of environmental oversight is required for these facilities, including soil testing. How is any low-level leakage of contaminates detected and how are they addressed? Is there a decommissioning plan documenting and committing to a cleanup response?

Following the Planning Commission meeting, staff met with the applicants on September 6, 2022. In response to the fire suppression concern, the applicant agreed to add a note to the concept plan that a dry hydrant would be installed and

access to the wet pond in the rear of the would be provided. A separate storage area specifically for electrical vehicles would be created near the wet pond.

As for environmental permitting, the applicant stated that no special state or federal permits other than stormwater permits are required for these type of facilities. To date, the applicant has not provided a response as to whether there will be period soil testing or whether there is a decommissioning agreement in place.

Staff did reach out to the City of Suffolk as well as York County where there are two existing Insurance Auto Auction facilities. The issue pointed out with the Suffolk site was lack of fire hydrants, while the main issue in York County was parking of inoperable vehicles on a public street which was previously pointed out by Commissioner Sienkiewicz. Staff also contacted the Virginia Department of Environmental Quality, and agency staff stated that permits would be only be need if there was a vehicle washing or maintenance facility on site.

A full analysis of the application's consistency with County Plans and Ordinances is included in the attached Planning Commission staff report.

BUDGETARY IMPACT:

None.

RECOMMENDATION:

The Planning Commission recommended approval of the application with a recommendation that the applicant provide additional information to the Board of Supervisors on the fire mitigation plan for electrical vehicle storage by a vote of ten in favor and zero voting against the motion.

Based on the strengths of the application, staff also recommends approval of the project with the proffered conditions.

ATTACHMENTS:

Description	Type	Upload Date
August 23, 2022 Planning Commission Staff Report	Backup Material	10/10/2022
ZA-04-21 Application	Backup Material	8/17/2022
ZA-04-21 Proffer Statement	Backup Material	8/17/2022
Community Impact Statement	Backup Material	8/17/2022

Concept Plan	Backup Material	8/17/2022
Screening Perspective Rendering	Backup Material	8/17/2022
Other IAAI Location Pictures	Backup Material	8/17/2022
Distance Map Graphic	Backup Material	8/17/2022
Traffic Impact Analysis	Backup Material	8/17/2022
Preliminary Site Analysis	Backup Material	8/17/2022
Water Quality Impact Assessment	Backup Material	8/17/2022
42-01-006 Corps Wetland Confirmation	Backup Material	8/17/2022
42-06-015 Plat with RPA	Backup Material	8/17/2022
DCR Cat Pond Comment Letter	Backup Material	8/17/2022
Stormwater and Runoff Prevention Plan	Backup Material	8/17/2022
Phase I CRS Addendum May 2022	Backup Material	8/17/2022
Phase I Cultural Resources Survey 2021	Backup Material	8/17/2022
Property Location Map	Backup Material	8/17/2022
Future Land Use Map	Backup Material	8/17/2022
Property Zoning Map	Backup Material	8/17/2022
ZA-4-21 Auto Auction PC Resolution	Backup Material	8/17/2022
Revised concept plan	Backup Material	9/20/2022
Letter from Applicant sent 9/22/22	Backup Material	9/23/2022
BOS Ordinance	Backup Material	10/17/2022

PLANNING REPORT

APPLICATION:

Application (ZA-4-21) of Advanced Construction Development, LLC, applicant, and Locust Grove Partners, LP and H&B Railroad Company, Inc. property owners, for a change and amendment to existing zoning to Conditional-Limited Industrial (C-LI) to allow an auction establishment and a scrap and salvage service on approximately 5 acres of property with tax map number 42-06-015 located on the north side of the western terminus of IWIP Road (Rte. 1032) together with approximately 70 acres of property with tax map number 42-01-006 located at 17094 Benns Church Boulevard (Rte. 10)

ELECTION DISTRICT:

D4

LOCATION:

The project is proposed to be located on two adjacent properties located on the north side of the western terminus of IWIP Road (Rte. 1032) as well as a portion of the farm located at 17094 Benns Church Boulevard (Rte. 10). The parcel on IWIP road is bounded by IWIP Road to the south, by farmland to the north, by a vacant wooded parcel to the west, and by a warehouse and vehicle storage yard in the IWIP industrial park.

The second parcel 42-01-006 is bounded to the south by the IWIP Road parcel in the IWIP industrial park, tax map number 42-06-015, to the east by Benns Church Boulevard (Rte. 10), and to the north and west by agricultural and forest uses and a borrow pit. Only a portion of this property is proposed to be used for the salvage yard and will consist mostly of currently open farmland.

BACKGROUND:

The subject properties are identified as Tax Map Parcel 42-06-015 (located on IWIP Road) and a portion of Tax Parcel 42-01-006.

The property on IWIP Road with tax parcel number 42-06-015 is part of the Isle of Wight Industrial Park and is zoned Conditional-Limited Industrial for the uses permitted in the Limited Industrial Zoning District, including:

- Blacksmith shop;
- Welding and machine shops;
- Retail food stores;
- Auto and home appliance services;
- Office buildings;

- Service stations;
- Lumber and building supply, including cabinet manufacturers, plumbing, electrical, and
- Machinery sales and service.

According to County records, the parcel was created in July 2002 as part of the planned industrial park. The current use of the property is equipment storage for the property owner, H&B Railroad Company, Inc.

Approximately 70 acres of the adjacent site located on tax parcel number 42-01-006 is also included in the application which is shown on the attached concept plan. The property has historically been used for farming and silvicultural uses. There is both an overhead powerline easement and thirty foot wide gas line easement that traverses the proposed project site. There are two existing livestock buildings located within the project area which will be demolished as part of the proposed improvements.

DESCRIPTION:

The applicant, Advanced Construction Development, LLC, requests conditional rezoning of the two subject parcels to establish the proposed commercial use of "Auction Establishment" as defined in Section 3-6000 and the industrial use of "Scrap and Salvage Service" as defined in Section 3-7000 of the Zoning Ordinance to establish a business known as Insurance Auto Auctions (IAAI) that receives, inspects, temporarily stores, and auctions automobiles via the internet.

The applicant describes IAAI is a remarketer of vehicles made available for sale by insurance companies, dealerships, rental companies and fleet leasing companies, many of which were involved in collisions, floods, or recovered from thefts and as a result of repossessions. IAAI contracts with such companies to receive and re-market the vehicles, which are then delivered to the site on commercial vehicle carriers. Before IAAI takes possession of the vehicles, any concerns with petroleum or other fluids are addressed. They are delivered to the site on commercial vehicle carriers.

Upon arrival, the vehicles are inspected in an effort to prevent any possible contaminant leaks. Any leaks discovered during such inspection shall be contained prior to placement of the vehicle in the storage area. As the potential environmental damage of draining and fluid recovery processes is greater than the potential exposure from a release from a stationary vehicle, IAAI does not dismantle vehicles, drain fluids, or sell vehicle parts.

The vehicles are photographed and are properly stored in an organized manner on the yard while awaiting sale. All vehicles are sold remotely via internet auction to registered buyers. Although the general public will not be allowed to come to the site for any vehicle sales, some registered buyers may visit the site on the day prior to the auction to view vehicles.

Each vehicle is sold as a single unit (meaning not dismantled nor sold in parts). There shall be no dismantling, servicing or maintenance of vehicles on the grounds of this facility. No parts shall be offered for sale from vehicles stored at this facility. All vehicles sold from this facility will be sold in the same condition in which they arrived at the time of delivery to the site.

Following the sale, vehicles are retrieved by buyers, via commercial vehicle carriers contracted by such buyers. IAAI does offer some delivery services at present and intends to expand delivery services in the future, although such delivery service would not change the aggregate total deliveries to or from the site. A full description of the business is included in the community impact statement narrative attached to this report.

Economic Impacts:

Improvements to the site will consist of an office and storage yard located on parcel 42-01-006. The anticipated $9 million in site improvements include an office building, employee and customer parking, storage yard, and storm drainage system. The business will create thirty full-time, on-site jobs, including managerial positions.

Public Services and Facilities:

The proposed development will utilize both private well and wastewater system. According to Emergency Services, fire suppression needs, including a dry hydrant and access to the wet pond on site, may be addressed at site plan review. No additional public service needs are anticipated.

Traffic Impacts:

Traffic will access the site from IWIP Road. No access is proposed from Route 10. According to the traffic impact analysis (TIA), the anticipated daily traffic is 190 vehicle trips per day. Out of the 190 trips, it is anticipated that fifty of those will be trucks delivering and picking up cars. Most of the traffic will be using Route 10 between IWIP and Brewers Neck. Based on the TIA, existing turn lanes are sufficient to meet the projected needs, and no significant negative impacts to the surrounding roadway network are anticipated. No new road improvements are recommended. A copy of the TIA is attached to this report.

Environmental Features:

Environmental Features:

The US Army Corps of Engineers has confirmed 2.28 acres of forested nontidal wetlands and 0.56 acres of scrub shrub nontidal wetlands on tax parcel number 42-01-006. The recorded plat for 42-06-015 shows the limits of previously delineated Resource Protection Area (RPA) buffer a copy of which is attached to this report. The concept plan also includes the location of the wetlands on the proposed site as well as RPA buffer areas.

According to the Department of Conservation and Recreation, the project site lies with the Cat Ponds Conservation Site. Conservation sites are recommended preservation areas based on the presence of significant natural resources, such as the coastal plain seasonal pond habitat in this site. The site is also home to the rare lance-leaved rose gentian that is a state rare perennial herb that inhabits such areas. An advisory letter from DCR is attached to this staff report for your review along with a map of the conservation site boundary. The letter recommends avoidance of these areas, but if avoidance is not possible, that ground disturbing activities be limited east of the farm road along the western boundary of the site and avoidance of forested areas.

The applicant's concept plan does show no development past the existing gravel road and clearing of 2.33 acres of woodland outside of the RPA buffer areas.

Stormwater/Drainage Management:

Potential pollutant sources exist at IAAI that may adversely impact storm water runoff. Storm water may carry pollutants to storm ditches, drains, and eventually, bodies of water, such as streams, rivers, lakes, or oceans. A full description of IAA's contaminant prevention plan is attached to this staff report. In summary, IAAI exercises the following practices to minimize soil and water contaminants:

- Visual inspections of vehicles brought to the branch to assess integrity of vehicle fluid systems and identify the need for repair or remedy of vehicle hydraulic/mechanical systems that could leak significant materials on the property.
- Visual inspections of travel aisles in the storage yard for evidence of releases of significant materials and identifying the cause of the release when possible.
- Removal of the miscellaneous debris (i.e., loose vehicle parts that may have inadvertently fallen off of the host vehicle), as necessary, to prevent possible damage to site vehicles.
- Regular maintenance of site vehicles and equipment to prevent de minimis releases.
- Careful handling of vehicles, to minimize the potential for damage to vehicle systems, which may in turn cause a release.
- Proper handling, storage and inventory of significant materials, when necessary in the storage yard and within the branch garage or warehouse.
- Orderly storage and inventory of stored vehicles.
- Prompt, routine removal of de minimis releases.
- Continued training of IAA personnel regarding good housekeeping practices.

Any future development on the site will be required to meet current stormwater management regulations prior to final site plan approval.

Historical Resources:

According to the County's records, this site lies within a high probability area for archeological resources. As result, the applicant performed a Phase I Cultural Resources Survey in July 2021 for the original site area for tax map numbers 42-01-006 and 42-06-008.

The results of the July 2021 study identified 30 isolated finds, no previously-identified archaeological resources, two new archaeological resources, one previously-identified architectural resource, and no new architectural resources. The study does not recommend further work for any of the sites, as they are not eligible for listing on the National Register of Historic Places.

In May 2022, the applicant provided a Phase I Cultural Resources Survey for tax map number 42-06-015. The

survey identified no isolated finds, one new archeological site, and no new architectural resources. The report recommends no additional work, since none of the finds are potentially eligible for listing.

The study has been shared with both the Isle of Wight County Museum and the Department of Historic Resources for their archives. The proposed project is approximately 570 feet from Locust Grove, the closest historic architectural resource, located at 17076 Benns Church Boulevard, built around 1857.

Adjacent Land Use Impacts:

Adjacent properties include other industrial uses and agricultural and silvicultural uses. To the west of the project site, the adjacent properties with tax map numbers 41-01-052 and 42-01-007D are in a conservation easement.

Visual Impacts:

The project site lies mostly in a vacant farm field on tax parcel 42-01-006. Although the property has road frontage on Route 10, the project site will be approximately 450 feet from the road at its closest point. The project also lies approximately 570 feet from the nearest historic property, Locust Grove. Visibility will be further limited by required screening in accordance with the Ordinance and a minimum required setback for all industrial uses of 100 feet in the LI zoning district. An illustrative distance map and screen buffer perspective rendering is attached for your reference.

The property also lies in the Newport Development Service Overlay (NDSO) District and will have to meet nonresidential design criteria, including that for screening and fencing. The attached concept plan is for illustrative purposes only, and any final site plan will need to meet current ordinance requirements. For example, the metal fence as shown on on the conceptual plan will not be permitted per Section 6-2020.A.7 of the NDSO requirements.

COMPREHENSIVE LAND USE PLAN:

The recommended future land use designation for both properties is Planned Industrial (PI) and Environmental Conservation (EC) along the wetland and stream areas. The PI land use consists of some light industrial and all heavy industrial and manufacturing uses as well as warehousing, distribution, and uses which may negatively impact surrounding development. Preservation of environmental features still occurs, and development is connected to residential uses with vehicular and pedestrian access but should be buffered.

The EC land use is identified for the protection of a variety of sensitive environmental features found in the County and serves to create natural connections for wildlife, protect commercial and recreational fisheries, and to provide breaks in and between developments. Specific locations of Environmental Conservation areas should be determined with site specific delineations during the plan of development review process.

Both sites were included in the Newport Development Service District (DSD) with the adoption of the County's Comprehensive Plan in 2020. DSDs are a specific area identified for development to occur. Outside of the DSD boundaries all land is intended to stay in rural and agricultural uses and environmental protection.

The proposed commercial and industrial uses are consistent with the future recommend land use designations.

ORDINANCE REVIEW:

The proposed zoning district designation is Conditional-Limited Industrial subject to the attached proffered conditions. An auction establishment is permitted by right in the LI zoning district while a scrap and salvage yard is permitted with a conditional use permit which may be approved during a conditional rezoning application. In addition, the site also lies in the NDSO and CBPA overlay districts which require enhanced design criteria for new

development.

If the Board of Supervisors approves the change in zoning, the project will need to undergo subdivision, site plan, and building permit review. The project will be required to demonstrate any necessary state and federal permits as well.

The proffered conditions are as follows:

1. Each vehicle shall be sold as a single unit (meaning not dismantled nor sold in parts). There shall be no dismantling, servicing or maintenance of vehicles on the grounds of this facility. No parts shall be offered for sale from vehicles stored at this facility. All vehicles sold from this facility shall be sold in the same condition in which they arrived at the time of delivery to the site.
2. Upon arrival, the vehicles shall be inspected to prevent any possible contaminant leaks. Any leaks discovered during such inspection shall be contained prior to placement of the vehicle in the storage area. IAA shall not dismantle vehicles, drain fluids, or sell vehicle parts.
3. Normal operating hours shall not exceed from 6:00 am until 10:00 pm daily; except that in the case of regional catastrophes, such as a hurricane or widespread flooding, in which case(s) the facility may accept vehicle deliveries outside normal operating hours. The drop zone shall be segregated from the remainder of the yard by interior fencing.

AGENCY REVIEW:

Staff distributed the application to the following departments and agencies for their review and comment:

- Emergency Services
- Economic Development
- General Services
- Transportation Project Manager
- Environmental Planner
- Virginia Department of Transportation
- Virginia Department of Conservation and Recreation
- Isle of Wight County Museum
- Virginia Department of Historic Resources
- Sheriff's Office

As of August 22, 2022, there remains one outstanding concern in regard to water supply to the site for fire suppression. EMS is currently investigating all available options to the site. An update will be provided, once it is available.

STAFF CONCLUSIONS:

Strengths:

1. The proposed uses are consistent with the future recommended land use designation in the Comprehensive Plan.
2. The proposed business will create additional job opportunities and tax revenues to meet future public service and facility needs in the County.

Weaknesses:

1. The project lies within the Cat Pond Conservation Area, however, the applicant has proposed no impacts to wetland areas and minimize their impact to existing wooded areas according to their concept plan, although this is not explicitly stated in their proffers.

STAFF RECOMMENDATION:

Based on the strengths of the application, staff recommends approval of the project with the proffered conditions.

ATTACHMENTS:

Description	Type	Upload Date
ZA-04-21 Application	Backup Material	8/17/2022
ZA-04-21 Proffer Statement	Backup Material	8/17/2022
Community Impact Statement	Backup Material	8/17/2022
Concept Plan	Backup Material	8/17/2022
Screening Perspective Rendering	Backup Material	8/17/2022
Other IAAI Location Pictures	Backup Material	8/17/2022
Distance Map Graphic	Backup Material	8/17/2022
Traffic Impact Analysis	Backup Material	8/17/2022
Preliminary Site Analysis	Backup Material	8/17/2022
Water Quality Impact Assessment	Backup Material	8/17/2022
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42-06-015 Plat with RPA	Backup Material	8/17/2022
DCR Cat Pond Comment Letter	Backup Material	8/17/2022
Stormwater and Runoff Prevention Plan	Backup Material	8/17/2022
Phase I CRS Addendum May 2022	Backup Material	8/17/2022
Phase I Cultural Resources Survey 2021	Backup Material	8/17/2022
Property Location Map	Backup Material	8/17/2022
Future Land Use Map	Backup Material	8/17/2022
Property Zoning Map	Backup Material	8/17/2022
ZA-4-21 Auto Auction PC Resolution	Backup Material	8/17/2022

Mullis #23438
ZA-04-21

ISLE OF WIGHT
COUNTY, VIRGINIA
DEPARTMENT OF PLANNING AND ZONING

*AMENDED

APPLICATION FOR REZONING/CONDITIONAL ZONING AMENDMENT

This application should be used to petition for a change to the Official Zoning Map or for an amendment of zoning conditions. The following application requirements are consistent with the procedures set forth in Section 1-1015, *Amendments*, of the Isle of Wight County Zoning Ordinance, as amended.

[ ] Rezoning

[X] Conditional Rezoning (Are voluntary proffered conditions attached?): X Yes _____ No

Request to change the subject property(s) from the RAC & C-LI to the C-LI zoning district.

Proposed Use or Activity: Auto Auction and Auto Storage Yard, as defined in Section 3-7000 as "Scrap and salvage service."

[X] Amendment to Conditional Zoning

Request to change conditional zoning as follows (Attach current and proposed conditions): _____
As to 42-01-015, have its conditional use amended to allow Scrap and salvage service. See below.

B. PROJECT DESCRIPTION:

Project Name: Isle of Wight Auto Auction

Property Address (if any): Isle of Wight Industial Park Road, Smithfield

Election District: Windsor

Comprehensive Plan Designation: Planned Industrial & Environmental Conservation

The rezoning will apply to 74.79+/- acres out of 314.64 total acres

Tax Parcel Identification # 42-06-015 Number of Acres to be Rezoned: 5.07+/-

Requesting Zoning District Change from: C-LI to have its conditional use amended to ~~allow Scrap~~ and salvage service.

Tax Parcel Identification # 42-01-006 Number of Acres to be Rezoned: 69.73+/-

Requesting Zoning District Change from: RAC to C-LI

Tax Parcel Identification #_____ Number of Acres to be Rezoned: _____

Requesting Zoning District Change from: _____ to _____

Proposed Utilities (check all that apply): Public Water_____ Private Well _____

Public Sewer_____ Private Septic _____

C. **APPLICATION INFORMATION:**

Applicant(s) Name(s): Advanced Construction Development, LLC

Address: 10444 Greenbriar Place, Suite A

City, State, Zip Code: Oklahoma City, Oklahoma 73159

Phone No.: (405) 691-4949 Email: sfulkerson@fulkersonlawoffice.com Fax No.: (405) 691-4595

Property Owner(s) Name(s): H & B Railroad Company Inc. and Locust Grove Partners LP

Address: PO Box 571

City, State, Zip Code: Carrollton, VA 23314

Phone No.: _____ Email: _____ Fax No.: _____

S. Fulkerson OM 8-1-2022

Applicant Signature **Date**

Locust Grove Partners, LP

Owner Signature *if different* **Date**

Second Owner signature: H & B Railroad Company Inc. _____ Date: _____

NOTICE: THE ATTACHED CHECKLIST MUST BE COMPLETED, CERTIFIED, AND SUBMITTED OR THE APPLICATION WILL BE CONSIDERED INCOMPLETE.

Remit Application to: Isle of Wight County Central Permitting, 17140 Monument Circle, Suite 100
P. O. Box 80, Isle of Wight, Virginia 23397

FOR OFFICE USE ONLY: AMENDED APPLICATION

Complete Application Received On: 8/3/2022 Fees Paid: _____

Tax Query: [X] Current [ ] Delinquent Distribution Date: FOR PC PUBLIC HEARING ON 8/23/2022

Posted/Date to Post: _____

AGENCIES REFERRALS:

_____ Department of Conservation & Recreation
_____ Economic Development
_____ Emergency Services
_____ General Services
_____ Environmental Planner
_____ Health Department
_____ Transportation Manager
_____ Commission of Revenue
_____ Other _____

_____ Inspections
_____ Sheriff's Office
_____ Town of Smithfield
_____ Town of Windsor
_____ VDOT
_____ Schools
_____ Budget & Finance
_____ County Attorney

Verified By: Amy M. Bing Date: 8/3/2022

C. **APPLICATION INFORMATION:**

Applicant(s) Name(s): Advanced Construction Development, LLC

Address: 10444 Greenbriar Place, Suite A

City, State, Zip Code: Oklahoma City, Oklahoma 73159

Phone No.: (405) 691-4949 Email: sfulkerson@fulkersonlawoffice.com Fax No.: (405) 691-4595

Property Owner(s) Name(s): H & B Railroad Company Inc. and Locust Grove Partners LP

Address: PO Box 571

City, State, Zip Code: Carrollton, VA 23314

Phone No.:_____ Email:_____ Fax No.:_____

Robert P Sykes 8/2/2022

~~Applicant Signature~~ Date

Locust Grove Partners, LP

Owner Signature *if different* **Date**

Second Owner signature: H & B Railroad Company Inc._____ Date: _____

NOTICE: THE ATTACHED CHECKLIST MUST BE COMPLETED, CERTIFIED, AND SUBMITTED OR THE APPLICATION WILL BE CONSIDERED INCOMPLETE.

Remit Application to: Isle of Wight County Central Permitting, 17140 Monument Circle, Suite 100
P. O. Box 80, Isle of Wight, Virginia 23397

FOR OFFICE USE ONLY:

Complete Application Received On:_____ Fees Paid: _____

Tax Query: [ ] Current [ ] Delinquent Distribution Date: _____

Posted/Date to Post: _____

AGENCIES REFERRALS:

_____ Department of Conservation & Recreation
_____ Economic Development
_____ Emergency Services
_____ General Services
_____ Environmental Planner
_____ Health Department
_____ Transportation Manager
_____ Commission of Revenue
_____ Other _____

_____ Inspections
_____ Sheriff's Office
_____ Town of Smithfield
_____ Town of Windsor
_____ VDOT
_____ Schools
_____ Budget & Finance
_____ County Attorney

Verified By:_____ Date: _____

C. **APPLICATION INFORMATION:**

Applicant(s) Name(s): Advanced Construction Development, LLC

Address: 10444 Greenbriar Place, Suite A

City, State, Zip Code: Oklahoma City, Oklahoma 73159

Phone No.: (405) 691-4949 Email: sfulkerson@fulkersonlawoffice.com Fax No.: (405) 691-4595

Property Owner(s) Name(s): H & B Railroad Company Inc. and Locust Grove Partners LP

Address: PO Box 571

City, State, Zip Code: Carrollton, VA 23314

Phone No.:_____ Email:_____ Fax No.:_____

_____

Applicant Signature **Date**

Locust Grove Partners, LP

_____

Owner Signature *if different* **Date**

Second Owner signature: H & B Railroad Company Inc. _____ Date: 8/1/2022

NOTICE: THE ATTACHED CHECKLIST MUST BE COMPLETED, CERTIFIED, AND SUBMITTED OR THE APPLICATION WILL BE CONSIDERED INCOMPLETE.

Remit Application to: Isle of Wight County Central Permitting, 17140 Monument Circle, Suite 100
P. O. Box 80, Isle of Wight, Virginia 23397

FOR OFFICE USE ONLY:

Complete Application Received On:_____ Fees Paid: _____

Tax Query: [ ] Current [ ] Delinquent Distribution Date: _____

Posted/Date to Post: _____

AGENCIES REFERRALS:

_____ Department of Conservation & Recreation
_____ Economic Development
_____ Emergency Services
_____ General Services
_____ Environmental Planner
_____ Health Department
_____ Transportation Manager
_____ Commission of Revenue
_____ Other _____

_____ Inspections
_____ Sheriff's Office
_____ Town of Smithfield
_____ Town of Windsor
_____ VDOT
_____ Schools
_____ Budget & Finance
_____ County Attorney

Verified By:_____ Date: _____

COUNTY OF ISLE OF WIGHT
DISCLOSURE OF REAL ESTATE HOLDINGS

Applicant Advanced Construction Development, LLC

Address 10444 Greenbriar Place, Suite A
Street

Oklahoma City — Oklahoma — 73159
City — State — Zip

REAL ESTATE HOLDINGS TO BE AFFECTED

Location or Address	Description
No other holdings affected.	

OTHER OWNERS OF AFFECTED REAL ESTATE
(Not Required for Corporation whose stock is traded on a national or local stock exchange or having more than 500 shareholders.)

Name of Individuals Corporation/Partnership Business Association	Address
Locust Grove Partners, LP	17076 Benns Church Blvd., Smithfield, VA 23430
H & B Railroad Company Inc	P O Box 571, Carrollton, VA 23314

Does any member of the Isle of Wight County Planning Commission or governing body have any interest in such property, either individually, by ownership of stock in a corporation owning such land, partnership, as the beneficiary of a trust, or the settlor of a revocable trust, or whether a member of the immediate household of any member of the Planning Commission or governing body has any such interest? Yes X No
If yes, names of members:

I do solemnly swear that the foregoing statement(s) and attachments(s), if any, are complete, correct, and true.

Applicant: Advanced Construction Development, LLC Applicant: [signature] Date: 8-1-2022
Printed or Typed Name — Signature

State of Oklahoma
County of Cleveland

Subscribed and sworn to before me Angela Scheets, A Notary Public in and for the County of Cleveland, State of Oklahoma, this 1st day of August, 2022.

Angela Scheets #14001679
Notary Public

ANGELA SCHEETS NOTARY PUBLIC # 14001679 EXP. 02/21/26 STATE OF OKLAHOMA

My Commission Expires 02-21-2026

SIGNATURE PAGE

Applicant: Advanced Construction Development, LLC
Printed or Typed Name

Applicant: _____ Date: 8-1-2022
Signature

State of Oklahoma
County of Cleveland

Subscribed and sworn to before me Angela Scheets, A Notary Public in and for the County of Cleveland, State of Oklahoma, this 1st day of August, 2022.

Angela Scheets # 14001679
Notary Public

My Commission Expires 02-21-2026

ANGELA SCHEETS NOTARY PUBLIC # 14001679 EXP. 02/21/26 STATE OF OKLAHOMA

Owner: Locust Grove Partners, LP
Printed or Typed Name

Owner: _____ Date: _____
Signature

Commonwealth of Virginia
County of Isle of Wight

Subscribed and sworn to before me _____,
A Notary Public in and for the County of Isle of Wight,
Commonwealth of Virginia, this _____ day of _____, 2022.

_____
Notary Public

My Commission Expires _____

Owner: H & B Railroad Company Inc
Printed or Typed Name

Owner: _____ Date: _____
Signature

Commonwealth of Virginia
County/City of _____

Subscribed and sworn to before me _____,
A Notary Public in and for the County/City of _____,
Commonwealth of Virginia, thisday of _____, 2022.

_____
Notary Public

My Commission Expires _____

SIGNATURE PAGE

Applicant: Advanced Construction Development, LLC
Printed or Typed Name
Applicant:_____ Date:_____
Signature

State of Oklahoma
County of Cleveland

Subscribed and sworn to before me_____,A Notary Public in and for the County of Cleveland, State of Oklahoma, this _____ day of _____, 2022.

_____
Notary Public
My Commission Expires_____

Owner: Locust Grove Partners, LP
Printed or Typed Name
Owner: Robert P. Taylor Date: 8/2/2022
Signature

Commonwealth of Virginia
County of Isle of Wight

Subscribed and sworn to before me Robert P. Taylor,
A Notary Public in and for the County of Isle of Wight,
Commonwealth of Virginia, this 2nd day of August 2022.

Angela Y. Hunt
Notary Public
My Commission Expires March 31, 2026

ANGELA Y HUNT
NOTARY PUBLIC
REG. # 7991468
COMMONWEALTH OF VIRGINIA
MY COMMISSION EXPIRES MARCH 31, 2026

Owner: H & B Railroad Company Inc
Printed or Typed Name
Owner:_____ Date:_____
Signature

Commonwealth of Virginia
County/City of _____

Subscribed and sworn to before me_____,
A Notary Public in and for the County/City of _____,
Commonwealth of Virginia, thisday of _____, 2022.

_____
Notary Public
My Commission Expires_____

SIGNATURE PAGE

Applicant: Advanced Construction Development, LLC
Printed or Typed Name

Applicant: _____ Date: _____
Signature

State of Oklahoma
County of Cleveland

Subscribed and sworn to before me _____, A Notary Public in and for the County of Cleveland, State of Oklahoma, this _____ day of _____, 2022.

_____
Notary Public

My Commission Expires _____

Owner: Locust Grove Partners, LP
Printed or Typed Name

Owner: _____ Date: _____
Signature

Commonwealth of Virginia
County of Isle of Wight

Subscribed and sworn to before me _____,
A Notary Public in and for the County of Isle of Wight,
Commonwealth of Virginia, this _____ day of _____, 2022.

_____
Notary Public

My Commission Expires _____

Owner: H & B Railroad Company Inc
Daniel B. Mann, President
Printed or Typed Name

Owner: _____, President Date: 8/1/2022
Signature

Commonwealth of Virginia
County/City of Chesapeake

Subscribed and sworn to before me Kaelani R. Garcia,
A Notary Public in and for the County/City of Chesapeake
Commonwealth of Virginia this day of August 1st, 2022.

_____
Notary Public

My Commission Expires 02/29/2024

KAELANI RENEE GARCIA
COMMONWEALTH OF VIRGINIA
REGISTRATION NO. 7864872
MY COMM. EXPIRES 02/29/2024
NOTARY PUBLIC

8 of 8.

AMENDED PROFFER STATEMENT

The Applicant, Advanced Construction Development, LLC, requests (i) parcel Tax Map No: 42-06-015 have its conditional zoning amended to allow the following proposed use: Auto Auction and Auto Storage Yard, as defined in Isle of Wight Code of Ordinances, Appendix B, Article III, Section 3-7000, as "Scrap and Salvage Service," and (ii) a conditional rezoning for a portion of parcel Tax Map No: 42-01-006 also for the same proposed use labeled "Scrap and Salvage Service."

These Amended Proffer Statements ("Proffers") supersede any and all prior proposed proffers.

These Proffers are made as of the 2 of August, 2022 by Advanced Construction Development, LLC ("Applicant"), developer of Tax Map Number 42-06-015, and a portion of 42-01-006 for an approximate aggregate total of 74.79 acres of land which is referred to herein as the "Subject Property." Applicant has filed a rezoning application with the Isle of Wight County Planning and Zoning Department requesting (i) the conditional zoning of parcel Tax Map No: 42-06-015 be amended to allow "Scrap and Salvage Service," and (ii) a conditional rezoning for a portion of parcel Tax Map No: 42-01-006 from Rural Agricultural Conservation (RAC) to Conditional – Limited Industrial (C-LI). Applicant voluntarily proffers that the development of the Subject Property proposed for rezoning under this application shall be in strict accordance with the conditions set forth below.

These Proffers are the only conditions offered on this rezoning, and any prior proffers on the Subject Property are hereby superseded by these proffers and any and all previous proffers on the Subject Property are hereby void and of no further force and effect.

All improvements, land, easements, dedications, gifts, proffers and other conveyances to the County shall be in fee simple, without cloud of title or encumbrance of any kind.

1. Each vehicle shall be sold as a single unit (meaning not dismantled nor sold in parts). There shall be no dismantling, servicing or maintenance of vehicles on the grounds of this facility. No parts shall be offered for sale from vehicles stored at this facility. All vehicles sold from this facility shall be sold in the same condition in which they arrived at the time of delivery to the site.

2. Upon arrival, the vehicles shall be inspected to prevent any possible contaminant leaks. Any leaks discovered during such inspection shall be contained prior to placement of the vehicle in the storage area. IAAI shall not dismantle vehicles, drain fluids, or sell vehicle parts.

3. Normal operating hours shall not exceed from 6:00 am until 10:00 pm daily; except that in the case of regional catastrophes, such as a hurricane or widespread flooding, in which case(s) the facility may accept vehicle deliveries outside normal operating hours. The drop zone shall be segregated from the remainder of the yard by interior fencing.

[The remainder of this page left blank intentionally]

Applicant: Advanced Construction Development, LLC

Applicant: _____ Date: 8-1-2022
Signature

State of Oklahoma: County of Cleveland
Subscribed and sworn to before me Angela Scheets,
A Notary Public in and for the County of Cleveland, State of Oklahoma,
this 1st day of August, 2022.

ANGELA SCHEETS NOTARY PUBLIC # 14001679 EXP. 02/21/26 STATE OF OKLAHOMA

_____ My Commission Expires: 02-21-2026
Notary Public

(Owners' signatures follow in separate pages.)

Applicant: Advanced Construction Development, LLC

Applicant: _____ Date: _____
Signature

State of Oklahoma: County of Cleveland
Subscribed and sworn to before me _____,
A Notary Public in and for the County of Cleveland, State of Oklahoma,
this _____ day of August, 2022.

_____ My Commission Expires: _____
Notary Public Notary Registration Number: _____

Owner: Locust Grove Partners, LP

Owner: _____ Date: 8/2/2022
Signature

COMMONWEALTH OF VIRGINIA
COUNTY/CITY OF Isle of Wight, to wit:

The foregoing instrument was acknowledged before me this 2nd day of August, 2022 by Robert P. Taylor.

Angela Y. Hunt Notary Registration Number: 7991468
Notary Public My commission expires: March 31, 2026

ANGELA Y HUNT
NOTARY PUBLIC
REG. # 7991468
COMMONWEALTH OF VIRGINIA
MY COMMISSION EXPIRES MARCH 31. 2026

Owner: H & B Railroad Company Inc.

Owner: _____ Date: _____
Signature

COMMONWEALTH OF VIRGINIA
COUNTY/CITY OF _____, to wit:

The foregoing instrument was acknowledged before me this ___ day of August, 2022 by _____.

_____ Notary Registration Number: _____
Notary Public My commission expires: _____

Applicant: Advanced Construction Development, LLC

Applicant: _____ Date: _____
Signature

State of Oklahoma: County of Cleveland
Subscribed and sworn to before me _____,
A Notary Public in and for the County of Cleveland, State of Oklahoma,
this _____ day of August, 2022.

_____ My Commission Expires: _____
Notary Public Notary Registration Number: _____

Owner: Locust Grove Partners, LP

Owner: _____ Date: _____
Signature

COMMONWEALTH OF VIRGINIA
COUNTY/CITY OF _____, to wit:

The foregoing instrument was acknowledged before me this ___ day of August, 2022 by _____.

_____ Notary Registration Number: _____
Notary Public My commission expires: _____

Owner: H & B Railroad Company Inc.

Owner: _____ Date: 8/1/2022
Signature

COMMONWEALTH OF VIRGINIA
COUNTY/CITY OF CHESAPEAKE, to wit:

The foregoing instrument was acknowledged before me this 1ST day of August, 2022 by DANIEL MOORE, PRESIDENT OF H&B RAILROAD COMPANY INC.

_____ Notary Registration Number: 7864872
Notary Public My commission expires: 02/29/2024

KAELANI RENEE GARCIA
NOTARY PUBLIC
COMMONWEALTH OF VIRGINIA
REGISTRATION NO. 7864872
MY COMM. EXPIRES 02/29/2024

AMENDED COMMUNITY IMPACT STATEMENT
and PROJECT NARRATIVE
8/1/2022

INTRODUCTION

The Applicant, Advanced Construction Development, LLC, requests conditional rezoning of two parcels, 42-06-015 and a portion of 42-01-006, for the purpose of a proposed use, "Scrap and Salvage Service", as defined in the Isle of Wight County Ordinance Sec. 3-7000 for a development called IAA, Inc. ("IAAI") that receives, inspects, temporarily stores, and auctions automobiles via the internet. The process is as follows:

- IAAI is a remarketer of vehicles made available for sale by insurance companies, dealerships, rental companies and fleet leasing companies, many of which were involved in collisions, floods, or recovered from thefts and as a result of repossessions;

- IAAI contracts with such companies to receive and re-market the vehicles, which are then delivered to the site on commercial vehicle carriers;

- Before IAAI takes possession of the vehicles, any concerns with petroleum or other fluids are addressed. They are delivered to the site on commercial vehicle carriers;

- Upon arrival, the vehicles are inspected in an effort to prevent any possible contaminant leaks. Any leaks discovered during such inspection shall be contained prior to placement of the vehicle in the storage area. As the potential environmental damage of draining and fluid recovery processes is greater than the potential exposure from a release from a stationary vehicle, IAAI does not dismantle vehicles, drain fluids, or sell vehicle parts;

- The vehicles are photographed and are properly stored in an organized manner on the yard while awaiting sale;

- All vehicles are sold remotely via internet auction to registered buyers; the general public will not be allowed to come to the site for any vehicle sales; however, some registered buyers may visit the site on the day prior to the auction to view vehicles;

- Each vehicle is sold as a single unit (meaning not dismantled nor sold in parts). There shall be no dismantling, servicing or maintenance of vehicles on the grounds of this facility. No parts shall be offered for sale from vehicles stored at this facility. All vehicles sold from this facility will be sold in the same condition in which they arrived at the time of delivery to the site; and

- Following the sale, vehicles are retrieved by buyers, via commercial vehicle carriers contracted by such buyers. IAAI does offer some delivery services at present and intends to expand delivery services in the future, although such delivery service would not change the aggregate total deliveries to or from the site.

IAAI runs world-class operations, and has expanded its business, adding over 100 facilities in the last 10 years. Currently IAAI employs nearly 4,200 people, and has over 200 facilities throughout the U.S., Canada and the United Kingdom.

It is the environmental policy of IAAI to comply with all applicable laws, regulations, permits, and orders. IAAI has Best Management Practices ("BMPs"), attached hereto as Exhibit C, to proactively conduct operations at its branches in an environmentally responsible manner. BMPs are tailored to each branch based on site-specific considerations such as site conditions, improvements located on and equipment used at the branch, branch operations, and state and local environmental laws and requirements at the given time. IAAI's operational statement regarding BMPs anticipated for the Subject Property in connection with fluid management have been provided to the Isle of Wight County under separate cover. IAAI carries a pollution liability policy, which covers all of its locations throughout the U.S. and Canada. This policy shall cover the Subject Property and, if required by law, shall name the Isle of Wight County as an additional insured.

NARRATIVE DESCRIPTION OF THE PROPERTY

The 42-06-015 Subject Property

Parcel 42-06-015 has 5.07 acres,[1] is currently zoned LI, and fronts IWIP Road (the "42-06-015 Subject Property"). On the west, south and east are parcels being used industrially, and on the north, agriculturally.

The 42-01-006 Subject Property

With 256.3 acres, Parcel 42-01-006, currently zoned RAC, is comprised of five (5) separate lots, four (4) of which are east of Benns Church Blvd (Virginia State Route 10), and are not part of this rezoning application.

The portion of Parcel 42-01-006 that is the subject of this rezoning application lies west of Benns Church Blvd, and consists of 69.73 acres (the "42-01-006 Subject Property," and together with the 42-06-015 Subject Property, the "Subject Properties.") To the east, southwest and west of this parcel are forested lands, the north is agricultural and the southeast is industrial.

Boundary Line Adjustment

As the rezoning application is approved, the Applicant will request a boundary line adjustment, so that the newly rezoned portion of Parcel 42-01-006 will be fused with Parcel 42-06-015, leaving the latter as the sole parcel with the new zoning consisting of 74.79 acres.

The remainder of Parcel 42-01-006 (outside of the proposed project), consisting of 186.57 acres, will retain its current RAC zoning.

[1] All acreage references are approximate.

The Subject Properties.

The County has designated the parcels comprising the Subject Properties for future industrial development by land planning designation. The Applicant is requesting a rezoning of the Subject Properties to C-LI, Conditional-Limited Industrial. The aggregate acreage of the Subject Properties to be rezoned is approximately 74.79 acres. See Figure 2, Preliminary Concept Plan.

VISUAL IMPACT ANALYSIS

The fence around the proposed development shall be of a construction that is harmonious with the surrounding landscape. Pursuant to current ordinance, a six foot (6 ft) tall metal fence shall be constructed along the proposed property boundary with the existing commerce park and a six foot (6 ft) tall wood or vinyl fence shall be constructed along the east side of the proposed project that is visible from the southbound land of Route 10. A ten-foot (10 ft) landscape buffer (per zoning ordinance) will shield the use from detrimental impacts to the rural landscape as seen from Route 10 on the east and north sides. Please see the Preliminary Concept Plan and color rendering titled SCREENING BUFFER PERSPECTIVE as well as the photo of the northbound view attached hereto.

FISCAL IMPACT ANALYSIS

1. Introduction

The purpose of this report is to describe estimates of the fiscal revenues and expenditures that a proposed automobile storage and auction will generate for Isle of Wight County. Fiscal impacts are those that directly affect a county's budget.

The proposed auto auction business involves receiving, inspecting and selling, in an internet auction format, vehicles that have been damaged in accidents, floods, or recovered after being stolen.

This business is expected to generate little additional need for public services such as emergency medical services, police and fire protection. In turn, the construction and operation of the business will generate significant additional tax revenue for the County. A significant portion of the forecasted contribution from this business will be derived from a real estate tax increase.

All dollar figures in this report are expressed in 2020 dollars, without adjusting for projected inflation. Employment estimates are used, but no attribution is made as to the residence location of any employees. The fiscal impacts flow primarily from the construction efforts and the additional tax revenues.

2. Net New Capital/Construction Investment

The owner of the subject property will invest in (a) office remodeling and (b) site improvements required to operate the business. The estimated net investment amounts are as follows:

(a) Office building (including landscaping and parking lot)		$ 1,200,000
(b) Site Improvements:		
Fencing	$ 350,000	
Landscaping	125,000	
Stormwater	800,000	
Earthwork	900,000	
Soil stabilization	1,200,000	
Rock base	3,300,000	
Asphalt millings/sealed	1,125,000	
Subtotal		7,800,000
Total		$ 9,000,000

The total estimated new capital investment is around $9 million, excluding land purchase price and other costs and expenses.

3. Increased tax revenue

As of 7/26/22, the Subject Properties (as defined in the Narrative) have a Total Assessed Value of $736,900.00, which at a tax rate of $0.85 per $100 of assessed value, generates a yearly $6,263.65 in tax revenue for the County.

The post-construction tax assessed value can be estimated using the purchase price of the Subject Properties and the estimated construction costs. Based on such inputs, the forecasted tax assessed value would be $15 million. Such value would be taxed at the rate of $0.85 per $100 of assessed value, generating a yearly $127,500.00 in tax revenue for the County. This would be a net increase of over $120,000 in real estate tax revenues.

4. Increased employment

It is anticipated that the business will require 30 full-time, on-site jobs, including managerial positions.

5. County Business License

Isle of Wight County will collect $0.20 per $100 in gross revenues.

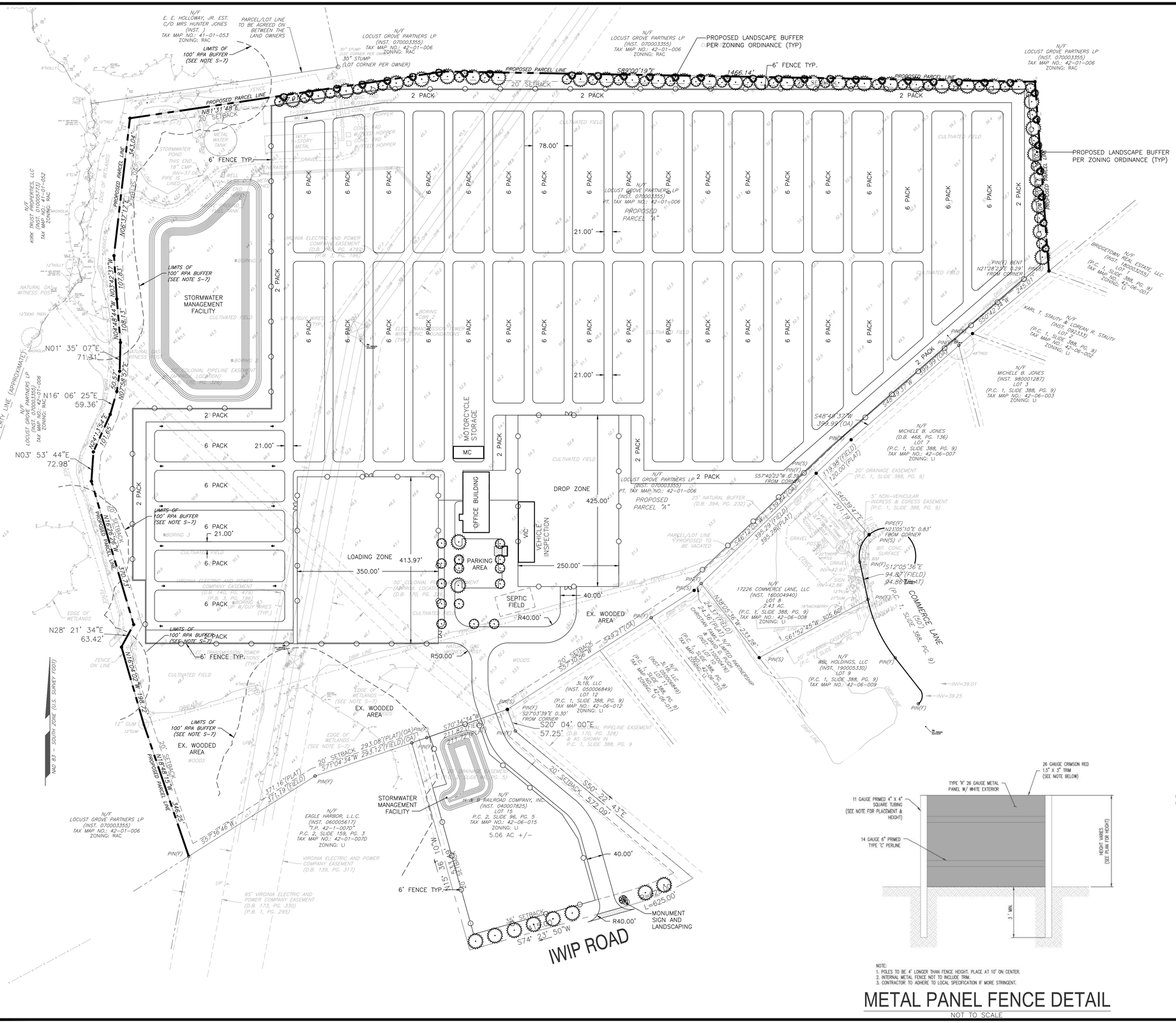
IAAI (NYSE: IAA), the proposed operator of the project, reports employing nearly 4,000 people and running over 200 facilities throughout the U.S., Canada and the United Kingdom. IAAI considers the sales per location, and the expected sales per new location, to be confidential, and individual site sales information is not disclosed.

6. County Equipment Tax

The estimated value of the machinery and tools to be used in this business are:

Three (3) Volvo L-90 H frontend loaders	$ 775,000
Infrared camera and other systems	125,000
Miscellaneous equipment	50,000
Office computers and information	200,000
Subtotal	$ 1,150,000

Isle of Wight County is expected to collect $4.50 per $100 on 40% of the equipment value.



VICINITY MAP

1" = 2,000'

SITE ANALYSIS

PROPOSED DEVELOPMENT AREA: 74.79± AC

PARCEL:	42-06-015
PARCEL AREA:	5.06± AC
EXISTING ZONING:	LI
PROPSOED ZONING:	LI

PARCEL:	42-01-006 (PORTION OF)
PARCEL AREA:	69.73± AC
EXISTING ZONING:	RAC
PROPSOED ZONING:	LI

SETBACKS:	REQUIRED
FRONT:	35'
SIDE(R/W):	35'
SIDE:	20'
REAR:	20'

GENERAL NOTES

1. THE SITE IS DESIGNED IN ACCORDANCE WITH THE INDUSTRIAL (LI) ZONING REQUIREMENTS OF THE IOW COUNTY ZONING ORDINANCE.
2. A PORTION OF THE PROPOSED DEVELOPMENT REQUIRES REZONING OF THE PROPERTY FROM RAC TO LI.
3. DEVELOPMENT SERVICES GROUP ASSUMES THAT THE REQUIRED STORMWATER QUANTITY AND QUALITY IMPROVEMENTS WILL BE ACHIEVED WITH THE USE OF A ON-SITE STORMWATER DETENTION FACILITY AND THAT ADEQUATE STORMWATER INFRASTRUCTURE IS AVAILABLE WITHIN THE PUBLIC RIGHT OF WAY.
4. ALL PROPERTY AND RIGHT-OF-WAY ARE BASED OFF OF INFORMATION PROVIDED BY THE DEVELOPER AND SHOULD BE VIEWED AS APPROXIMATE.
5. THE PROPOSED ENTRANCES ARE CONCEPTUAL.DEVELOPMENT SERVICES GROUP RECOMMENDS FURTHER INVESTIGATION INTO TRAFFIC REQUIREMENTS.
6. THE SEPTIC FIELD IS APPROXIMATE. DEVELOPMENT SERVICES GROUP RECOMMENDS FURTHER INVESTIGATION.
7. THE DOMESTIC WATER SUPPLY SHALL BE PROVIDED BY THE EXISTING WATER SERVICE WITHIN THE INDUSTRIAL PARK.
8. SURVEY INFORMATION FOR PARCEL 42-06-006 WAS PROVIDED BY KBJW.
9. THE PROPOSED IMPROVEMENTS SHALL NOT EXCEED 60% LOT COVERAGE IN ACCORDANCE WITH THE ZONING ORDINANCE.

NOTE:
1. POLES TO BE 4' LONGER THAN FENCE HEIGHT. PLACE AT 10' ON CENTER.
2. INTERNAL METAL FENCE NOT TO INCLUDE TRIM.
3. CONTRACTOR TO ADHERE TO LOCAL SPECIFICATION IF MORE STRINGENT.

METAL PANEL FENCE DETAIL

NOT TO SCALE

GRAPHIC SCALE

120 60 0 120 240

scale feet

HORIZONTAL SCALE: 1"=120'

REV.	DESCRIPTION	DATE
1	REVISED PER OWNER COMMENTS	3/10/22
2	REVISED PER COUNTY COMMENTS	7/5/22
3		
4		
5		
6		
7		
8		
9		
10		
11		

DESIGNED BY: EFT
DRAWN BY: EFT
REVIEWED BY:

1210 PROGRESSIVE DRIVE
SUITE 201
CHESAPEAKE, VA 23320
757-908-2372
WWW.DSGINCORPORATED.COM

DSG DEVELOPMENT SERVICES GROUP INC.

PROJECT NAME/LOCATION ID: SMITHFIELD IAAI

SHEET TITLE: CONCEPT PLAN

PROJECT ID: 2008.01

PROJECT LOCATION: PARCEL 42-06-006 AND 42-06-015 SMITHFIELD, VA 23430

CL-4.1

SHEET NUMBER

FILE NAME: P:\2008-Advanced Construction\2008.01-Smithfield IAAI\Cad\xref\base-berms church IAAI opt.dwg LAYOUT NAME: Concept PLOTTED: Friday, July 29, 2022 - 6:52pm

SCREENING BUFFER PERSPECTIVE

ADVANCED CONSTRUCTION AUTOMOBILE AUCTION
1726 COMMERCE LANE
ISLE OF WIGHT COUNTY, VA

LANDARCH STUDIO, LLC
G.I. JOSEPH VAUGHN
CLARB CERTIFIED
LANDSCAPE ARCHITECT
480 CLOUD VIEW CT
PROSPER TX 75078
972-827-5677

IAA Locations
Insurance Auto Auctions
MAIN ENTRANCE

St. Louis, MO

St. Louis, MO

Los Angeles - South, CA

Miami North, FL

Tampa North, FL

Chicago North, IL

Lafayette, LA

New Orleans East, LA

Baltimore, MD

Long Island, NY

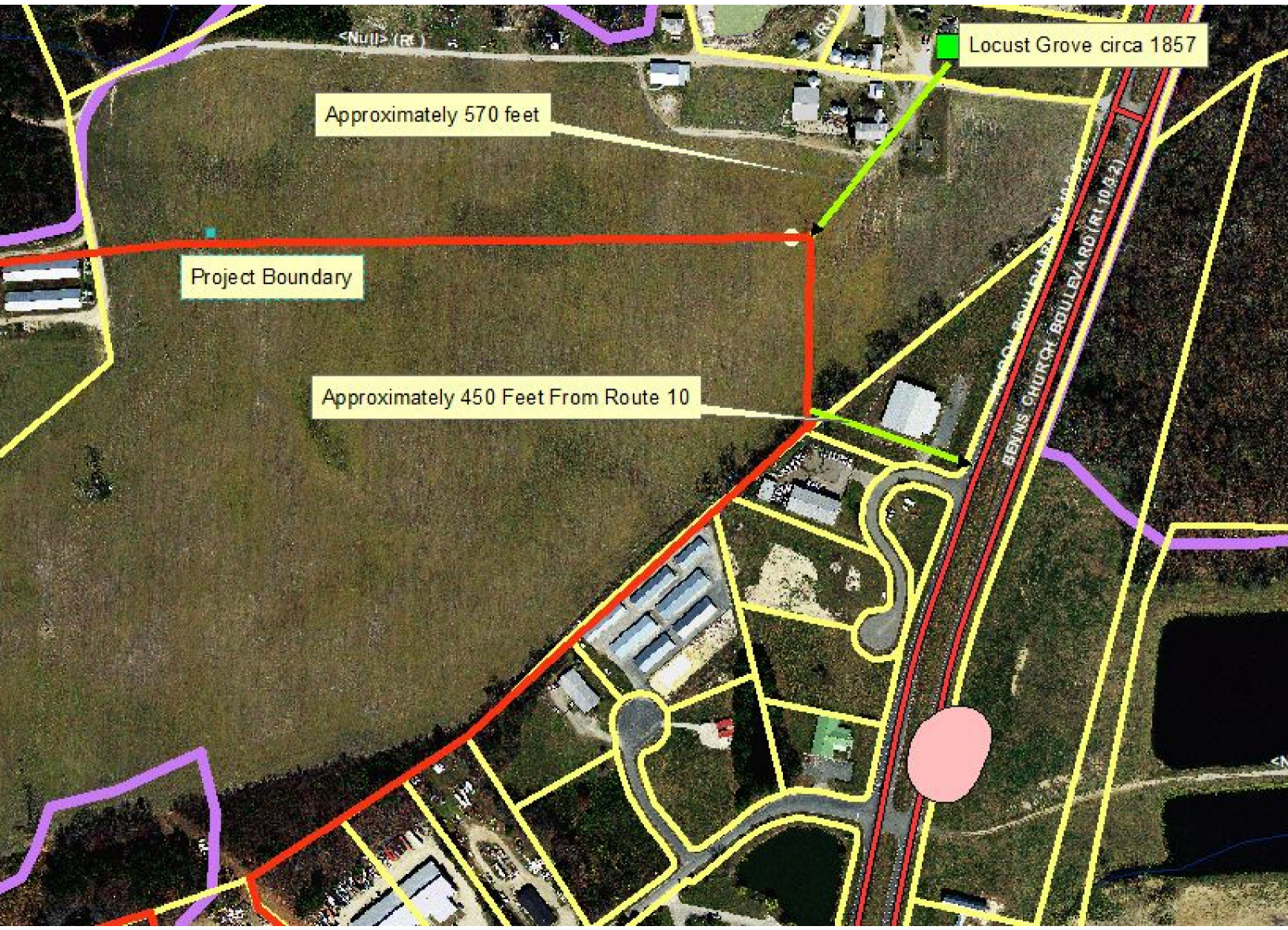
Calverton, NY

Englishtown, NJ

Knoxville , TN

Houston South, TX

Canvey Island, UK


Locust Grove circa 1857
Approximately 570 feet
Project Boundary
Approximately 450 Feet From Route 10

RAMEY KEMP ASSOCIATES
Moving forward.

T 804 217 8560

4343 Cox Road
Glen Allen, VA 23060

November 16, 2020

Ms. Jamie Oliver
Transportation Manager
Isle of Wight County
PO Box 80
Isle of Wight, Virginia 23397
Phone: (757) 365-1653

Reference: **Benn's Church Auto Auction** – Traffic Impact Analysis (TIA)
Isle of Wight County, Virginia

Dear Ms. Oliver,

Ramey Kemp & Associates, Inc. (RKA) has performed a Traffic Impact Analysis (TIA) for the proposed auto auction site that is approximately 75 acres, of which approximately 13 acres will be utilized for daily business operations. The site is located at the end of Commerce Lane, west of Route 10 (Benn's Church Boulevard), and the proposed access plan includes maintaining the existing connection to Commerce Lane. It should be noted that the proposed auto auction is not open to the public and the auctions are held electronically.

If approved, the proposed site is expected to be built in 2021. Figure 1 shows the site location and study intersections, and Figure 2 shows the conceptual site plan.

The purpose of this letter report is to provide the following:

- Trip generation calculations
- Evaluation of turn lane warrants for the study intersections
- Capacity and queueing analysis of the study intersections

Existing Roadway Conditions

Route 10 (Benn's Church Boulevard) is a four-lane divided Principal Arterial with an average daily traffic (ADT) volume of approximately 11,000 vehicles per day (vpd), and a posted speed limit of 55 miles per hour (mph) in the vicinity of the site.

Isle of Wight Industrial Park Road (IWIP Road) is a local roadway with an ADT volume of approximately 260 vpd and an assumed speed limit of 25 mph.

Figure 3 shows the existing lane configuration.

Existing Traffic Volumes
VDOT provided AM and PM peak hour traffic counts for the intersection of Benn's Church Boulevard at Benn's Grant Boulevard. The counts were conducted in August 2017 and were grown by an annual rate of 2.0% for three years to estimate the 2020 existing volumes.

The AM peak hour (7:00 to 9:00 AM) and PM peak hour (4:00 to 6:00 PM) turning movement volumes for the following intersections were conducted by Peggy Malone & Associates during the week of September 28:

- Benn's Church Boulevard at Brewer's Neck Boulevard
- Brewer's Neck Boulevard at Benn's Grant Boulevard / Queen Anne's Court

The turning movement counts, at the intersection of Benn's Church Boulevard at Isle of Wight Industrial Park Road, were conducted during the week of August 17.

Note that the Benn's Church Boulevard at Benn's Grant Boulevard traffic counts were used to balance all other intersection volumes. This was done to account for COVID-19 traffic volume reductions.

The traffic count data are enclosed, and the existing 2020 volumes are shown in Figure 4.

Background Traffic Growth
Based on historical ADT's and discussion with the County and VDOT, the 2020 peak hour traffic volumes were grown by an annual rate of 2.0% for one year to estimate the 2021 peak hour traffic volumes. The no-build 2021 volumes are shown in Figure 5.

Trip Generation
The trip generation potential of the proposed site during a typical weekday, AM peak hour, and PM peak hour was estimated based on traffic count data collected at a similar sized site in Suffolk, Virginia. The counts were conducted the week of August 17th and the traffic count data is enclosed. Table 1 summarizes the trip generation calculations of the proposed auto auction.

Table 1
Auto Auction – Trip Generation – Typical Weekday

Trip Types	Average Daily Traffic (vpd)		AM Peak Hour (vph)		PM Peak Hour (vph)	
	Enter[1]	Exit[1]	Enter	Exit	Enter	Exit
Cars (non-deliveries / pick-ups)	140	140	12	2	5	9
Trucks (deliveries / pick-ups)	50	50	1	0	6	3
Total Auto Auction (13 acres)	**190**	**190**	**13**	**2**	**11**	**12**

1 – It was estimated that the AM and PM peak hour each represent 10% of the daily traffic

Site Traffic Distribution
The following primary site traffic distribution was applied based on a review of the existing traffic volumes:

- 75% to / from the north on Benn's Church Boulevard
- 25% to / from the south on Benn's Church Boulevard

Figure 6 site trip distribution and Figure 7 shows the site trip assignment. Figure 8 shows the projected 2021 build-out peak hour traffic volumes.

Traffic Capacity Analysis
Traffic capacity analysis for the study intersections was performed using Synchro 10, which is a comprehensive software package that allows the user to model signalized and unsignalized intersections to determine levels-of-service based on the thresholds specified in the Highway Capacity Manual (HCM) 6th Edition.

Table 2 summarizes the capacity analysis results for the signalized intersection of Benn's Church Boulevard at Brewer's Neck Boulevard, and the Synchro output is enclosed for reference.

Table 2
Level-of-Service Summary for Benn's Church Boulevard at Brewer's Neck Boulevard

CONDITION	LANE GROUP	AM PEAK HOUR				PM PEAK HOUR			
		Lane LOS	Lane Delay (sec)	Queue (ft)	Overall LOS (Delay)	Lane LOS	Lane Delay (sec)	Queue (ft)	Overall LOS (Delay)
Existing (2020) Traffic Conditions	WBR NBT SBL SBT	A B B A	4.5 15.0 15.4 0.0	226 97 117 0	A (9.7 sec)	B C B A	16.1 23.7 12.3 0.1	511 146 124 0	B (13.3 sec)
No-Build (2021) Traffic Conditions	WBR NBT SBL SBT	A B B A	4.6 15.5 15.2 0.0	231 6 113 0	A (9.7 sec)	B C B A	16.2 23.8 12.2 0.1	519 147 126 0	B (13.3 sec)
Build (2021) Traffic Conditions	WBR NBT SBL SBT	A B B A	4.5 16.6 15.2 0.0	229 105 113 0	A (9.8 sec)	B C B A	16.2 23.6 12.2 0.1	519 147 126 0	B (13.3 sec)

Capacity analysis indicates that the intersection currently operates at LOS A during the AM peak hour and LOS B during the PM peak hour. Under no-build conditions, the intersection is expected to continue to operate at LOS A during the AM peak hour and LOS B during the PM peak hour.

Under build conditions, the intersection is expected to operate at LOS A during the AM peak hour and LOS B during the PM peak hour.

No improvements are recommended at this intersection.

Table 3 summarizes the capacity analysis results for the signalized intersection of Brewer's Neck Boulevard at Benn's Grant Boulevard / Queen Anne's Court, and the Synchro output is enclosed for reference.

Table 3
Level-of-Service Summary for Brewer's Neck Boulevard at Benn's Grant Boulevard / Queen Anne's Court

CONDITION	LANE GROUP	AM PEAK HOUR				PM PEAK HOUR			
		Lane LOS	Lane Delay (sec)	Queue (ft)	Overall LOS (Delay)	Lane LOS	Lane Delay (sec)	Queue (ft)	Overall LOS (Delay)
Existing (2020) Traffic Conditions	EBL	D	50.8	10	B (17.8 sec)	D	52.0	13	C (23.4 sec)
	EBT/R	C	21.7	349		D	41.3	453	
	WBL	D	47.5	283		C	33.2	566	
	WBT	A	9.0	196		B	10.8	386	
	WBR	A	0.0	0		A	0.0	0	
	NBL/T	D	51.0	5		E	57.0	7	
	NBR	A	1.6	13		A	1.5	16	
	SBL/T	D	46.9	22		D	46.3	17	
	SBR	A	0.0	0		A	0.0	0	
No-Build (2021) Traffic Conditions	EBL	D	51.5	10	B (17.9 sec)	D	52.1	14	C (23.9 sec)
	EBT/R	C	22.1	355		D	43.5	460	
	WBL	D	47.2	286		C	33.1	575	
	WBT	A	9.1	199		B	10.8	391	
	WBR	A	0.0	0		A	0.0	0	
	NBL/T	D	51.0	5		D	54.0	7	
	NBR	A	1.6	13		A	1.4	13	
	SBL/T	D	46.9	22		D	46.3	17	
	SBR	A	0.0	0		A	0.0	0	
Build (2021) Traffic Conditions	EBL	D	50.5	10	B (17.9 sec)	D	52.0	13	C (25.3 sec)
	EBT/R	C	22.4	345		D	48.4	460	
	WBL	D	45.8	297		C	32.7	594	
	WBT	A	9.0	199		B	10.8	392	
	WBR	A	0.0	0		A	0.0	0	
	NBL/T	D	51.5	5		D	55.0	6	
	NBR	A	1.5	13		A	1.4	16	
	SBL/T	D	46.8	22		D	46.3	17	
	SBR	A	0.0	0		A	0.0	0	

Capacity analysis indicates that the intersection currently operates at LOS B during the AM peak hour and LOS C during the PM peak hour. Under no-build conditions the intersection is expected to continue to operate at LOS B during the AM peak hour and LOS C during the PM peak hour.

Under build conditions, the intersection is expected to operate at LOS B during the AM peak hour and LOS C during the PM peak hour.

No improvements are warranted at this intersection.

Table 4 summarizes the capacity analysis results for the signalized intersection of Benn's Church Boulevard at Benn's Grant Boulevard, and the Synchro output is enclosed for reference.

Table 4
Level-of-Service Summary for Benn's Church Boulevard at Benn's Grant Boulevard

CONDITION	LANE GROUP	AM PEAK HOUR				PM PEAK HOUR			
		Lane LOS	Lane Delay (sec)	Queue (ft)	Overall LOS (Delay)[3]	Lane LOS	Lane Delay (sec)	Queue (ft)	Overall LOS (Delay)[3]
Existing (2020) Traffic Conditions	EBL	D	46.6	21	B (11.7 sec)	D	47.8	35	B (16.3 sec)
	EBT	D	42.9	42		D	45.1	51	
	EBR	A	0.1	0		A	0.1	0	
	WBL	B	19.8	24		C	21.0	28	
	WBT	A	8.6	12		B	11.5	22	
	WBR	A	0.0	0		A	0.0	0	
	NBL	D	46.6	21		D	46.0	6	
	NBT	B	12.2	57		B	15.3	97	
	NBR	A	1.1	24		A	0.9	20	
	SBT	B	16.1	87		B	20.0	177	
	SBR	A	0.0	0		A	0.1	0	
No-Build (2021) Traffic Conditions	EBL	D	46.6	21	B (11.7 sec)	D	47.8	35	B (16.2 sec)
	EBT	D	42.9	42		D	44.2	42	
	EBR	A	0.1	0		A	0.1	0	
	WBL	B	19.9	25		C	21.2	28	
	WBT	A	8.4	12		B	11.6	22	
	WBR	A	0.0	0		A	0.0	0	
	NBL	D	46.6	21		D	46.0	6	
	NBT	B	12.2	58		B	15.3	98	
	NBR	A	1.1	24		A	0.9	20	
	SBT	B	16.1	88		C	20.0	178	
	SBR	A	0.0	0		A	0.1	0	
Build (2021) Traffic Conditions	EBL	D	46.6	21	B (11.9 sec)	D	47.8	35	B (16.5 sec)
	EBT	D	42.9	42		D	45.1	51	
	EBR	A	0.1	0		A	0.1	0	
	WBL	C	20.1	28		C	21.9	29	
	WBT	A	8.3	11		B	11.4	22	
	WBR	A	0.0	0		A	0.0	0	
	NBL	D	46.6	21		D	46.0	6	
	NBT	B	12.4	58		B	15.5	98	
	NBR	A	1.1	24		A	0.9	21	
	SBT	B	16.4	88		C	20.2	178	
	SBR	A	0.0	0		A	0.1	0	

Capacity analysis indicates intersection currently operates at LOS B during the AM and PM peak hours. Under no-build conditions, the intersection is expected to continue to operate at LOS B during the AM and PM peak hours.

Under build conditions, the intersection is expected to operate at LOS B during the AM and PM peak hours.

No improvements are warranted at this intersection.

Table 5 summarizes the capacity analysis results for the unsignalized intersection of Benn's Church Boulevard at IWIP Road, and the Synchro output is enclosed for reference.

Table 5
Level-of-Service Summary for Benn's Church Boulevard at IWIP Road

CONDITION	LANE GROUP	AM PEAK HOUR				PM PEAK HOUR			
		Lane LOS	Lane Delay (sec)	Queue (ft)	Overall LOS (Delay)[3]	Lane LOS	Lane Delay (sec)	Queue (ft)	Overall LOS (Delay)[3]
Existing (2020) Traffic Conditions	EBL/R[1]	C	18.4	3	N/A	C	22.2	5	N/A
	NBU/L[2]	A	8.9	0		B	14.2	0	
	NBT	-	-	-		-	-	-	
	SBU[2]	B	11.1	0		B	11.8	0	
	SBT	-	-	-		-	-	-	
	SBR	-	-	-		-	-	-	
No-Build (2021) Traffic Conditions	EBL/R[1]	C	18.6	3	N/A	C	22.5	5	N/A
	NBU/L[2]	A	8.9	0		B	14.3	0	
	NBT	-	-	-		-	-	-	
	SBU[2]	B	11.2	0		B	11.9	0	
	SBT	-	-	-		-	-	-	
	SBR	-	-	-		-	-	-	
Build (2021) Traffic Conditions	EBL/R[1]	C	16.4	3	N/A	D	26.6	13	N/A
	NBU/L[2]	A	9.1	0		B	11.9	0	
	NBT	-	-	-		-	-	-	
	SBU[2]	B	11.2	0		B	10.8	0	
	SBT	-	-	-		-	-	-	
	SBR	-	-	-		-	-	-	

1. Level of service for minor approach
2. Level of service for major street left turn movement
3. HCM methodology does not provide lane group or overall LOS, delay, and queue lengths for major street through movements or right turns at unsignalized intersections

Capacity analysis indicates that the minor street left-turn movement currently operates with short delays (less than 25 seconds) during the AM and PM peak hours. Under no-build conditions the minor street left-turn movement is expected to continue to operate with short delays (less than 25 seconds) during the AM and PM peak hours.

Under build conditions, the minor street left-turn movement is expected to operate with short delays (less than 25 seconds) during the AM peak hour and with moderate delays (between 25 and 50 seconds) during the PM peak hour, with queue lengths of one vehicle or less.

No improvements are warranted or recommended at this intersection.

Recommendations
The existing turn lanes on Benn's Church Boulevard are sufficient to contain the projected queues. Based on the trip generation potential of the site, no improvements are warranted or recommended for build-out of the auto auction site. Additionally, the proposed auto auction will not have a significant negative impact on the surrounding roadway network.

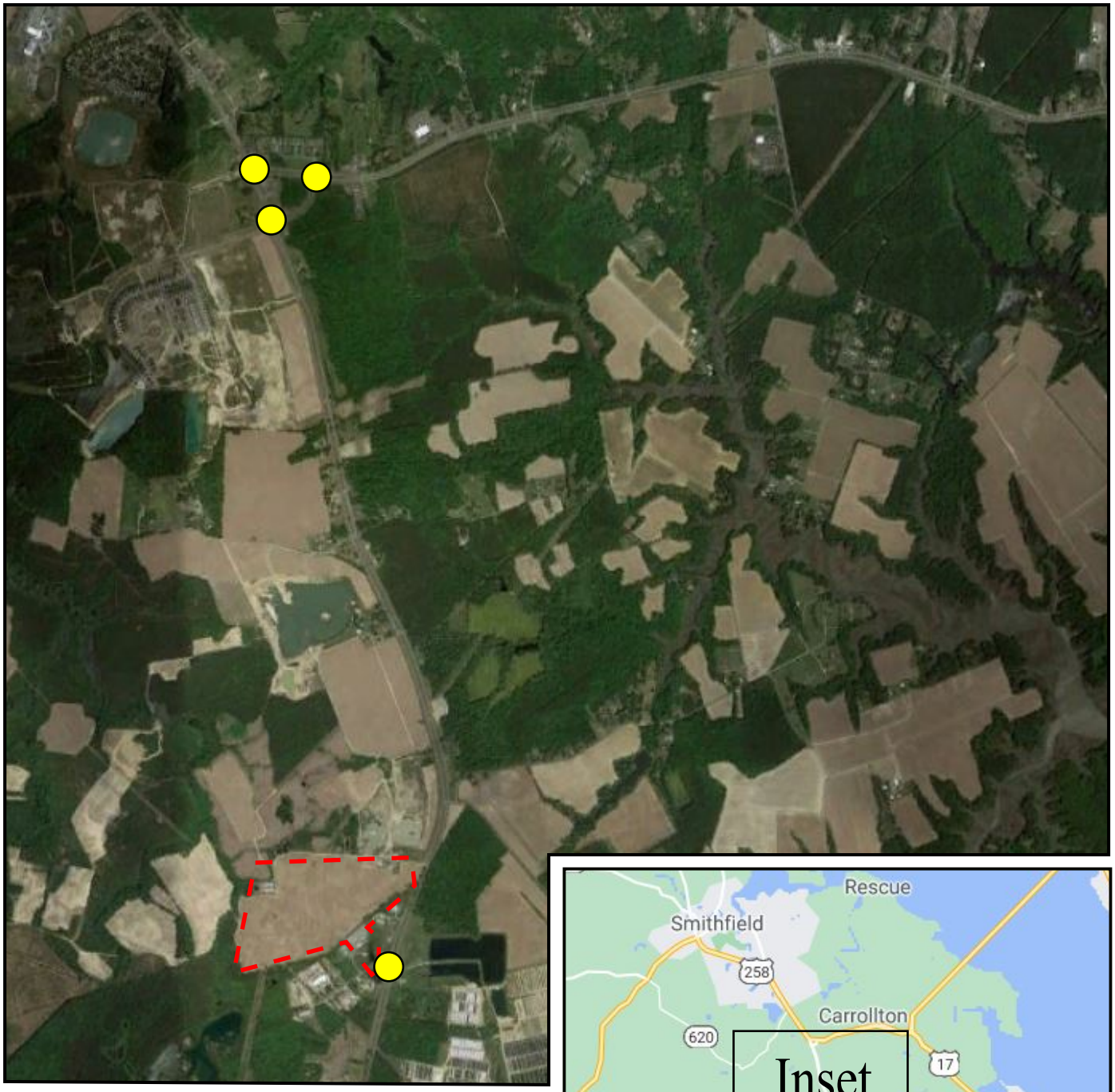
We appreciate your attention to this matter. Please contact me at (804) 217-8560 if you have any questions about this report.

Sincerely yours,
Ramey Kemp & Associates, Inc.

Michael Bailey, P.E., PTOE
Senior Traffic Operations Project Manager

Enclosures: Figures, Traffic count data, Synchro output

Copy to: Mr. Josh Norris, VDOT
Mr. Elmer Tolle III, CFM, Blakeway Corporation



Inset

Overview

LEGEND

N

Study Intersection

Site Boundary

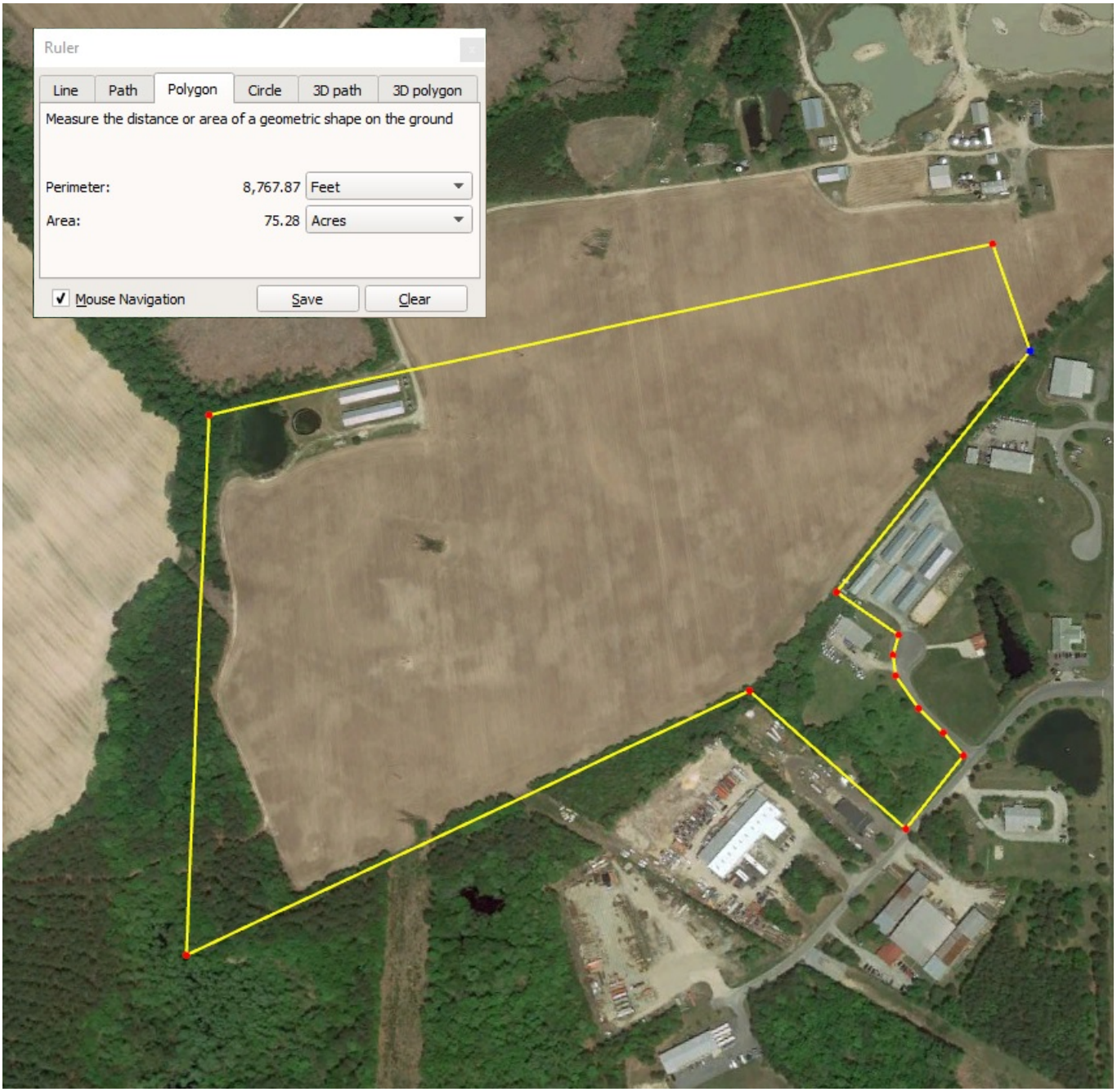
Moving forward.
RKA
RAMEY KEMP ASSOCIATES

Benn's Church Auto Auction
Isle of Wight County, Virginia

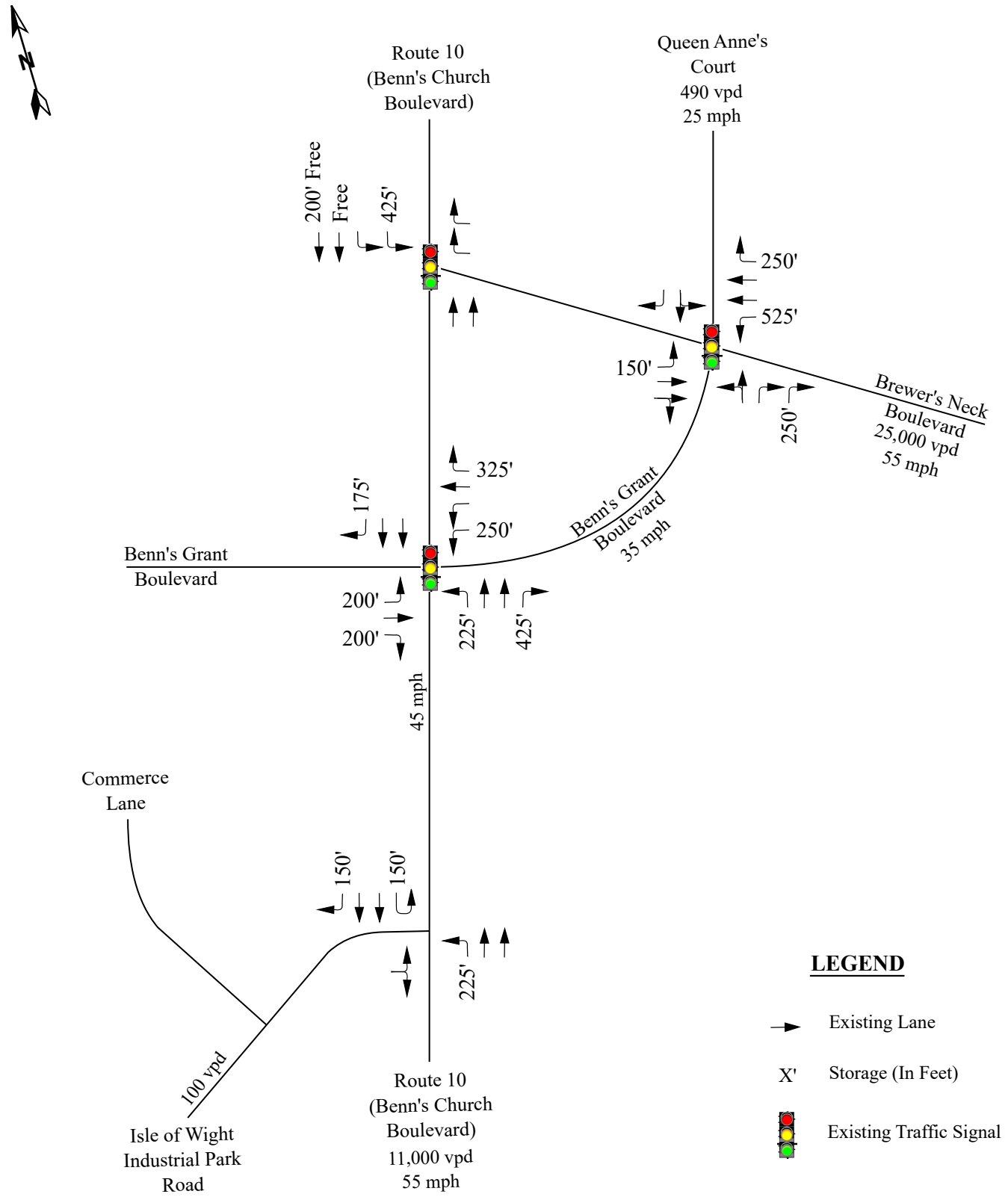
Site Location and
Study Intersections

Scale: Not to Scale

Figure 1



Moving forward. RKA RAMEY KEMP ASSOCIATES	Benn's Church Auto Auction Isle of Wight County, Virginia	Conceptual Site Plan Scale: Not to Scale | Figure 2



Moving forward.
RKA
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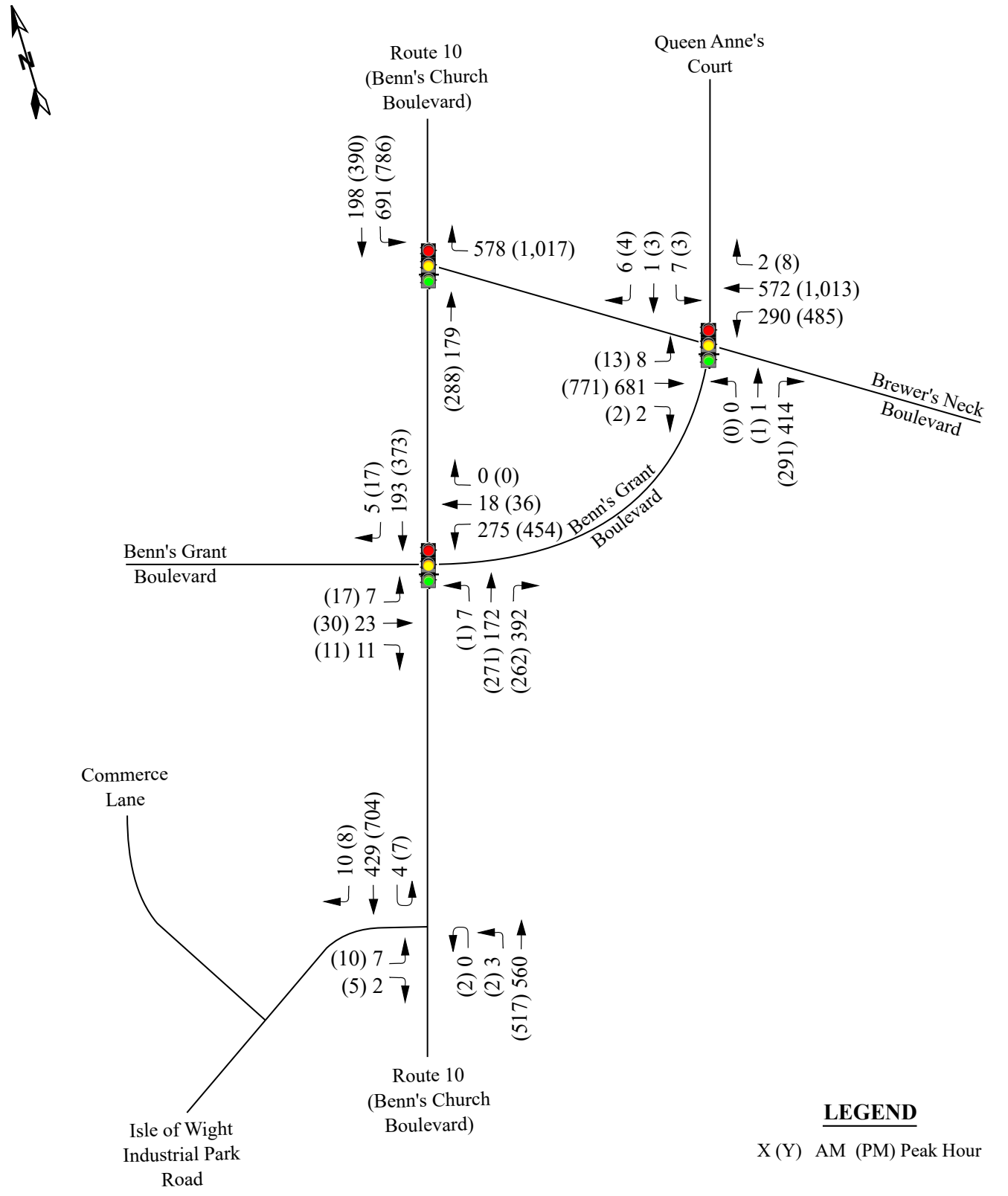
Benn's Church Auto Auction
Isle of Wight County, Virginia

Existing
Lane Configurations

Scale: Not to Scale | Figure 3



Moving forward.
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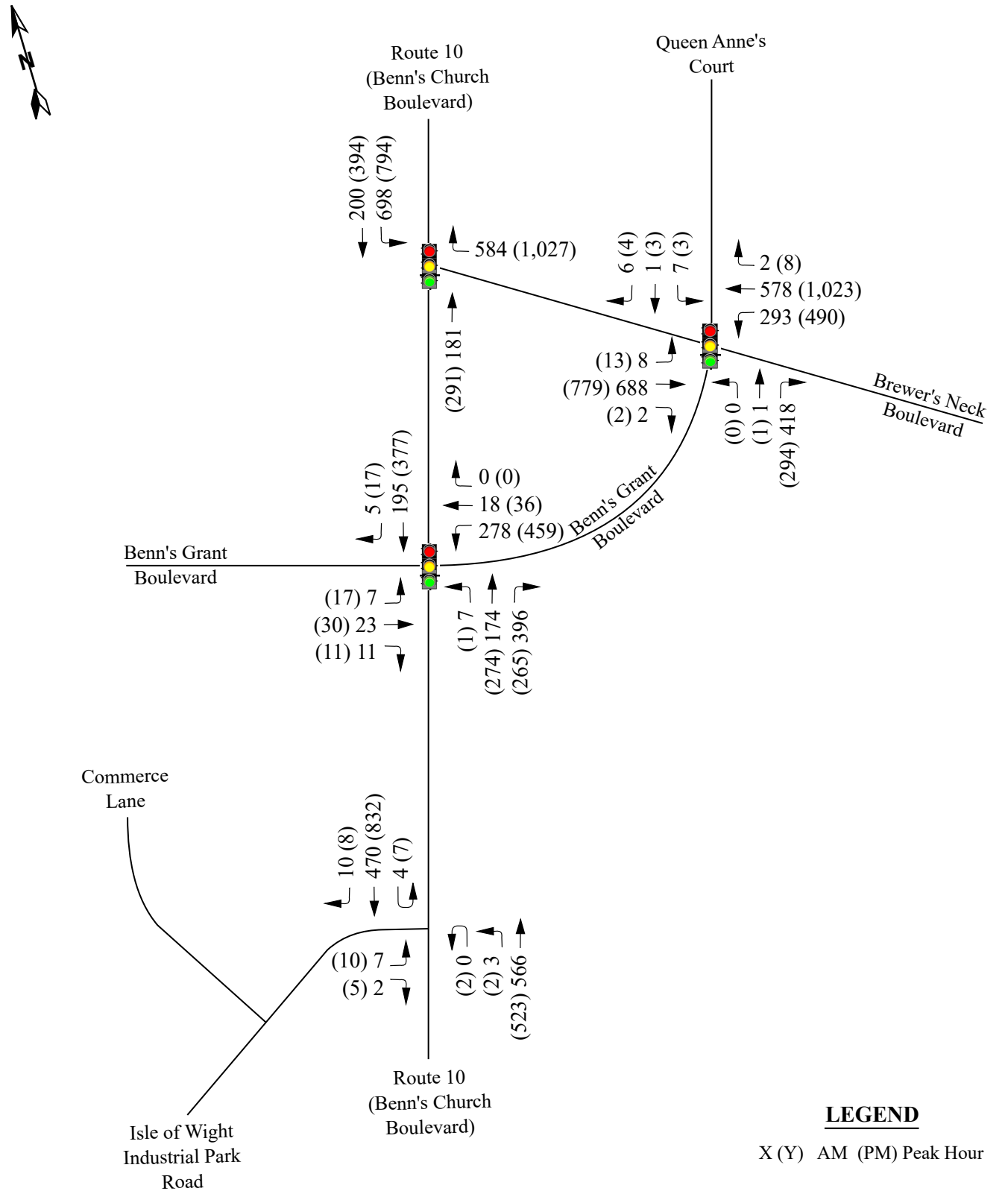
Benn's Church Auto Auction
Isle of Wight County, Virginia

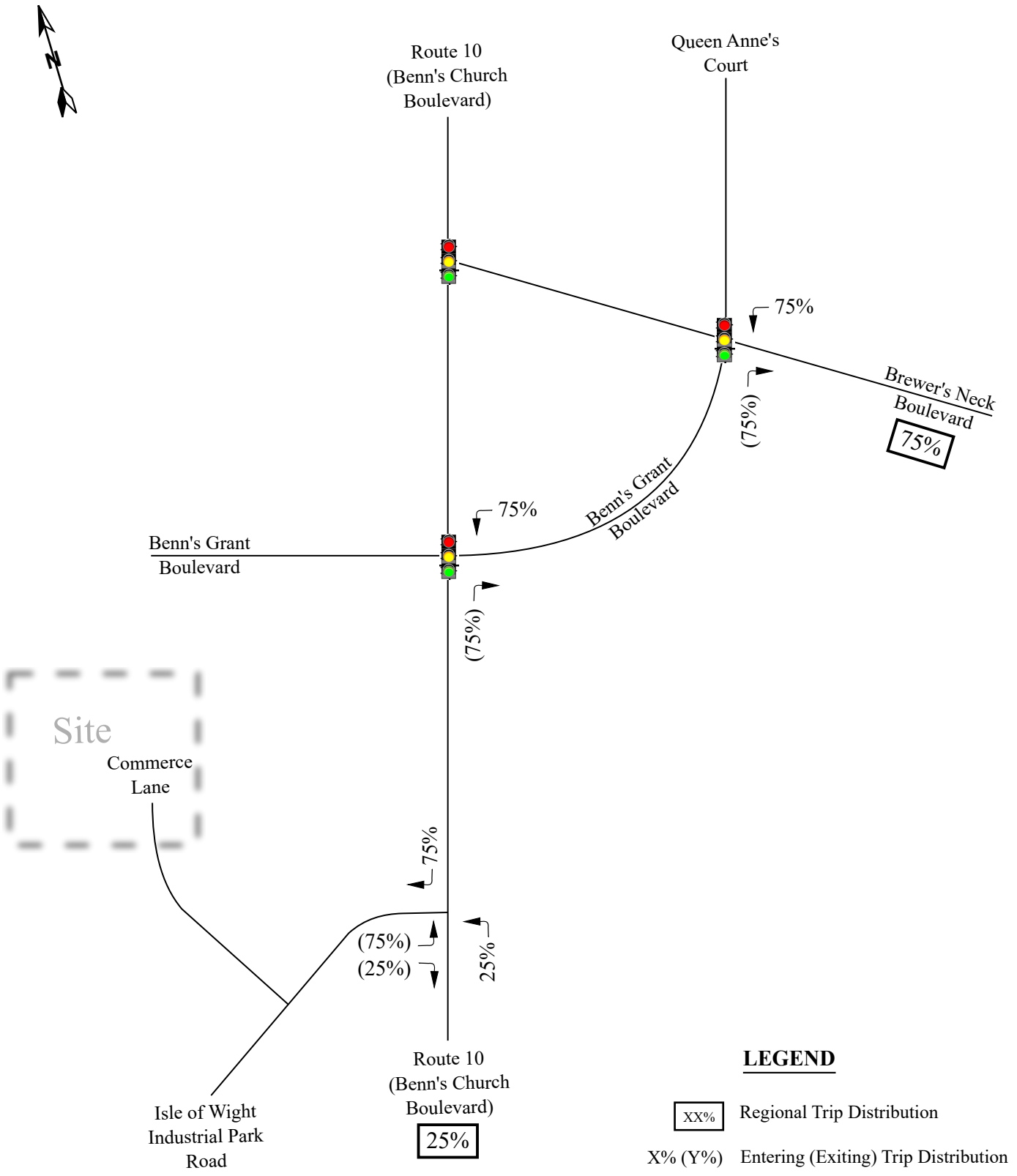
Existing (2020)
Peak Hour Traffic Volumes

Scale: Not to Scale

Figure 4



Moving forward. RKA RAMEY KEMP ASSOCIATES	Benn's Church Auto Auction Isle of Wight County, Virginia	No-Build (2021) Peak Hour Traffic Volumes Scale: Not to Scale | Figure 5



Moving forward.
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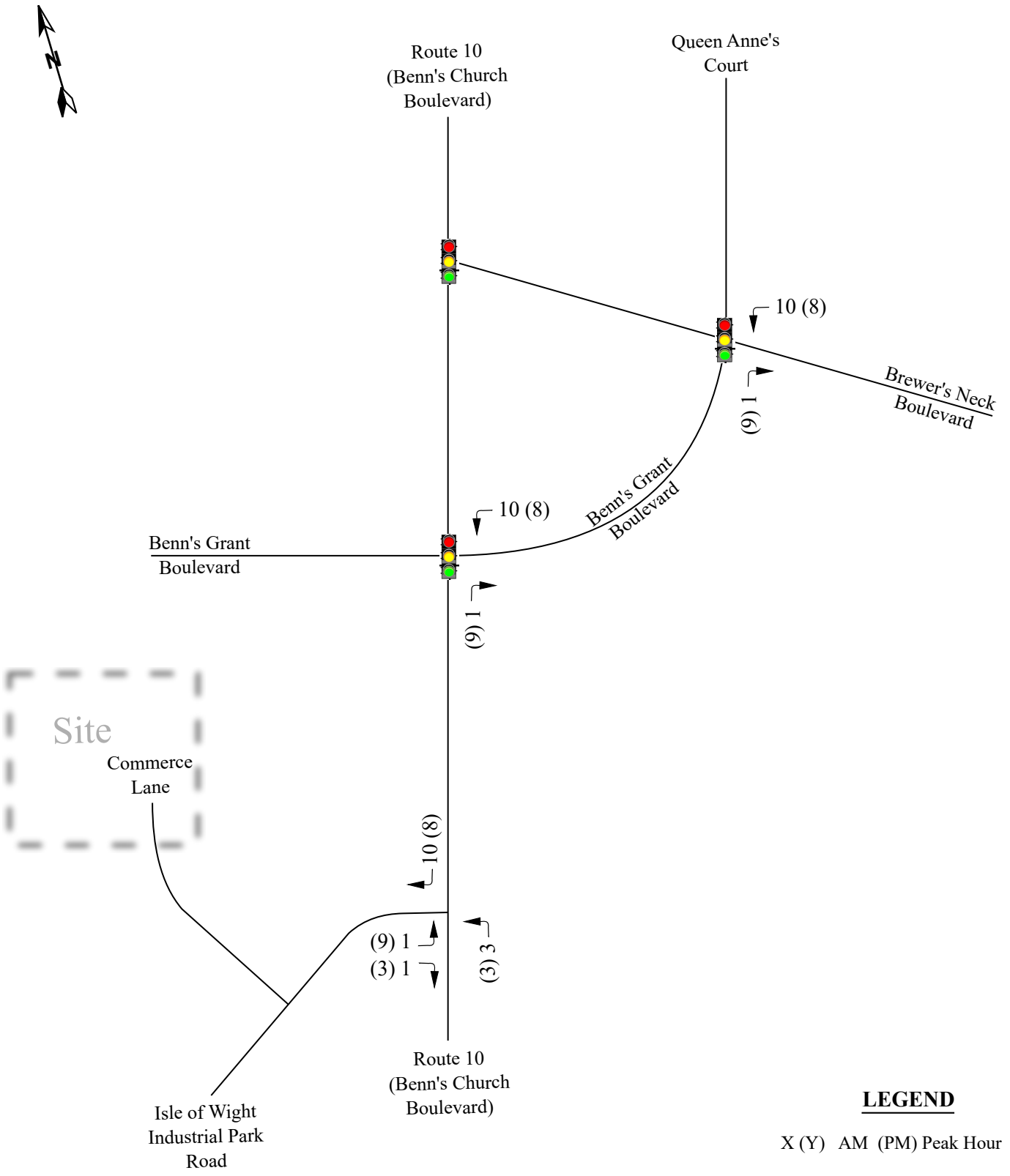
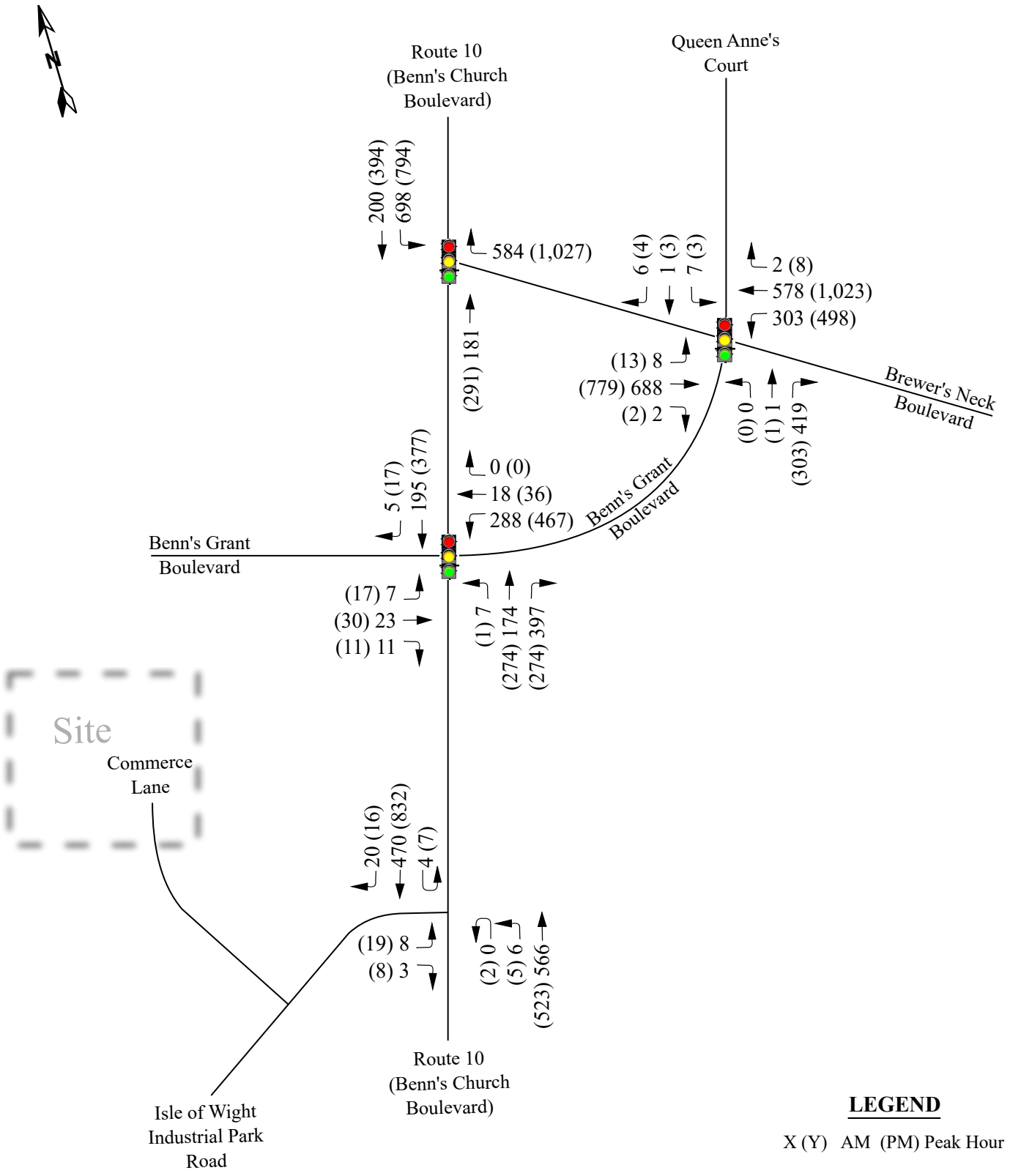
Benn's Church Auto Auction
Isle of Wight County, Virginia

Site Trip Distribution

Scale: Not to Scale | Figure 6



Moving forward. RKA RAMEY KEMP ASSOCIATES	Benn's Church Auto Auction Isle of Wight County, Virginia	Site Trip Assignment Scale: Not to Scale | Figure 7



Moving forward. RKA RAMEY KEMP ASSOCIATES	Benn's Church Auto Auction Isle of Wight County, Virginia	Build (2021) Peak Hour Traffic Volumes Scale: Not to Scale | Figure 8

Peggy Malone & Associates
904-992-8072

File Name : 1-Benns Church Blvd & Brewer's Neck Blvd AM
Site Code :
Start Date : 10/1/2020
Page No : 1

Groups Printed- Cars

	Benns Church Blvd Southbound				Brewers Neck Blvd Westbound			Benns Church Blvd Northbound			
Start Time	Thru	Left	Peds	App. Total	Right	Peds	App. Total	Thru	Peds	App. Total	Int. Total
07:00 AM	40	184	0	224	89	0	89	21	0	21	334
07:15 AM	36	159	0	195	113	0	113	32	0	32	340
07:30 AM	44	177	0	221	120	0	120	36	0	36	377
07:45 AM	40	151	0	191	177	0	177	40	0	40	408
Total	160	671	0	831	499	0	499	129	0	129	1459
08:00 AM	37	143	0	180	130	0	130	37	0	37	347
08:15 AM	31	178	0	209	111	0	111	27	0	27	347
08:30 AM	23	144	0	167	106	0	106	30	0	30	303
08:45 AM	48	143	0	191	116	0	116	23	0	23	330
Total	139	608	0	747	463	0	463	117	0	117	1327
Grand Total	299	1279	0	1578	962	0	962	246	0	246	2786
Apprch %	18.9	81.1	0		100	0		100	0		
Total %	10.7	45.9	0	56.6	34.5	0	34.5	8.8	0	8.8	

	Benns Church Blvd Southbound			Brewers Neck Blvd Westbound		Benns Church Blvd Northbound		
Start Time	Thru	Left	App. Total	Right	App. Total	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1								
Peak Hour for Entire Intersection Begins at 07:30 AM								
07:30 AM	**44**	177	**221**	120	120	36	36	377
07:45 AM	40	151	191	**177**	**177**	**40**	**40**	**408**
08:00 AM	37	143	180	130	130	37	37	347
08:15 AM	31	**178**	209	111	111	27	27	347
Total Volume	152	649	801	538	538	140	140	1479
% App. Total	19	81		100		100		
PHF	.864	.912	.906	.760	.760	.875	.875	.906

Peggy Malone & Associates
904-992-8072

File Name : 1-Benns Church Blvd & Brewer's Neck Blvd AM
Site Code :
Start Date : 10/1/2020
Page No : 1

Groups Printed- Trucks

	Benns Church Blvd Southbound				Brewers Neck Blvd Westbound			Benns Church Blvd Northbound			
Start Time	Thru	Left	Peds	App. Total	Right	Peds	App. Total	Thru	Peds	App. Total	Int. Total
07:00 AM	1	0	0	1	9	0	9	2	0	2	12
07:15 AM	1	5	0	6	4	0	4	5	0	5	15
07:30 AM	3	10	0	13	11	0	11	1	0	1	25
07:45 AM	2	9	0	11	15	0	15	6	0	6	32
Total	7	24	0	31	39	0	39	14	0	14	84
08:00 AM	7	5	0	12	6	0	6	2	0	2	20
08:15 AM	2	18	0	20	8	0	8	2	0	2	30
08:30 AM	3	14	0	17	21	0	21	2	0	2	40
08:45 AM	3	11	0	14	10	0	10	7	0	7	31
Total	15	48	0	63	45	0	45	13	0	13	121
Grand Total	22	72	0	94	84	0	84	27	0	27	205
Apprch %	23.4	76.6	0		100	0		100	0		
Total %	10.7	35.1	0	45.9	41	0	41	13.2	0	13.2	

	Benns Church Blvd Southbound			Brewers Neck Blvd Westbound		Benns Church Blvd Northbound		
Start Time	Thru	Left	App. Total	Right	App. Total	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1								
Peak Hour for Entire Intersection Begins at 07:45 AM								
07:45 AM	2	9	11	15	15	**6**	**6**	32
08:00 AM	**7**	5	12	6	6	2	2	20
08:15 AM	2	**18**	**20**	8	8	2	2	30
08:30 AM	3	14	17	**21**	**21**	2	2	**40**
Total Volume	14	46	60	50	50	12	12	122
% App. Total	23.3	76.7		100		100		
PHF	.500	.639	.750	.595	.595	.500	.500	.763

Peggy Malone & Associates
904-992-8072

File Name : 1-Benns Church Blvd & Brewer's Neck Blvd AM
Site Code :
Start Date : 10/1/2020
Page No : 1

Groups Printed- Combined

	Benns Church Blvd Southbound				Brewers Neck Blvd Westbound			Benns Church Blvd Northbound			
Start Time	Thru	Left	Peds	App. Total	Right	Peds	App. Total	Thru	Peds	App. Total	Int. Total
07:00 AM	41	184	0	225	98	0	98	23	0	23	346
07:15 AM	37	164	0	201	117	0	117	37	0	37	355
07:30 AM	47	187	0	234	131	0	131	37	0	37	402
07:45 AM	42	160	0	202	192	0	192	46	0	46	440
Total	167	695	0	862	538	0	538	143	0	143	1543
08:00 AM	44	148	0	192	136	0	136	39	0	39	367
08:15 AM	33	196	0	229	119	0	119	29	0	29	377
08:30 AM	26	158	0	184	127	0	127	32	0	32	343
08:45 AM	51	154	0	205	126	0	126	30	0	30	361
Total	154	656	0	810	508	0	508	130	0	130	1448
Grand Total	321	1351	0	1672	1046	0	1046	273	0	273	2991
Apprch %	19.2	80.8	0		100	0		100	0		
Total %	10.7	45.2	0	55.9	35	0	35	9.1	0	9.1	

	Benns Church Blvd Southbound			Brewers Neck Blvd Westbound		Benns Church Blvd Northbound		
Start Time	Thru	Left	App. Total	Right	App. Total	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1								
Peak Hour for Entire Intersection Begins at 07:30 AM								
07:30 AM	**47**	187	**234**	131	131	37	37	402
07:45 AM	42	160	202	**192**	**192**	**46**	**46**	**440**
08:00 AM	44	148	192	136	136	39	39	367
08:15 AM	33	**196**	229	119	119	29	29	377
Total Volume	166	691	857	578	578	151	151	1586
% App. Total	19.4	80.6		100		100		
PHF	.883	.881	.916	.753	.753	.821	.821	.901

Peggy Malone & Associates
904-992-8072

File Name : 1-Benns Church Blvd & Brewer's Neck Blvd PM
Site Code :
Start Date : 10/1/2020
Page No : 1

Groups Printed- Cars

	Benns Church Blvd Southbound				Brewers Neck Blvd Westbound			Benns Church Blvd Northbound			
Start Time	Thru	Left	Peds	App. Total	Right	Peds	App. Total	Thru	Peds	App. Total	Int. Total
04:00 PM	77	172	0	249	261	0	261	63	0	63	573
04:15 PM	88	213	0	301	231	0	231	60	0	60	592
04:30 PM	56	207	0	263	230	0	230	65	0	65	558
04:45 PM	71	177	0	248	255	0	255	70	0	70	573
Total	292	769	0	1061	977	0	977	258	0	258	2296
05:00 PM	71	157	0	228	245	0	245	69	0	69	542
05:15 PM	63	183	0	246	265	0	265	60	0	60	571
05:30 PM	68	146	0	214	251	0	251	54	0	54	519
05:45 PM	44	142	0	186	212	0	212	57	0	57	455
Total	246	628	0	874	973	0	973	240	0	240	2087
Grand Total	538	1397	0	1935	1950	0	1950	498	0	498	4383
Apprch %	27.8	72.2	0		100	0		100	0		
Total %	12.3	31.9	0	44.1	44.5	0	44.5	11.4	0	11.4	

	Benns Church Blvd Southbound			Brewers Neck Blvd Westbound		Benns Church Blvd Northbound		
Start Time	Thru	Left	App. Total	Right	App. Total	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1								
Peak Hour for Entire Intersection Begins at 04:00 PM								
04:00 PM	77	172	249	**261**	**261**	63	63	573
04:15 PM	**88**	**213**	**301**	231	231	60	60	**592**
04:30 PM	56	207	263	230	230	65	65	558
04:45 PM	71	177	248	255	255	**70**	**70**	573
Total Volume	292	769	1061	977	977	258	258	2296
% App. Total	27.5	72.5		100		100		
PHF	.830	.903	.881	.936	.936	.921	.921	.970

Peggy Malone & Associates
904-992-8072

File Name : 1-Benns Church Blvd & Brewer's Neck Blvd PM
Site Code :
Start Date : 10/1/2020
Page No : 1

Groups Printed- Trucks

	Benns Church Blvd Southbound				Brewers Neck Blvd Westbound			Benns Church Blvd Northbound			
Start Time	Thru	Left	Peds	App. Total	Right	Peds	App. Total	Thru	Peds	App. Total	Int. Total
04:00 PM	2	5	0	7	11	0	11	4	0	4	22
04:15 PM	4	3	0	7	10	0	10	3	0	3	20
04:30 PM	1	6	0	7	6	0	6	3	0	3	16
04:45 PM	1	3	0	4	7	0	7	0	0	0	11
Total	8	17	0	25	34	0	34	10	0	10	69
05:00 PM	2	8	0	10	7	0	7	1	0	1	18
05:15 PM	1	5	0	6	1	0	1	1	0	1	8
05:30 PM	1	6	0	7	4	0	4	0	0	0	11
05:45 PM	0	3	0	3	3	0	3	1	0	1	7
Total	4	22	0	26	15	0	15	3	0	3	44
Grand Total	12	39	0	51	49	0	49	13	0	13	113
Apprch %	23.5	76.5	0		100	0		100	0		
Total %	10.6	34.5	0	45.1	43.4	0	43.4	11.5	0	11.5	

	Benns Church Blvd Southbound			Brewers Neck Blvd Westbound		Benns Church Blvd Northbound		
Start Time	Thru	Left	App. Total	Right	App. Total	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1								
Peak Hour for Entire Intersection Begins at 04:00 PM								
04:00 PM	2	5	**7**	**11**	**11**	**4**	**4**	**22**
04:15 PM	**4**	3	7	10	10	3	3	20
04:30 PM	1	**6**	7	6	6	3	3	16
04:45 PM	1	3	4	7	7	0	0	11
Total Volume	8	17	25	34	34	10	10	69
% App. Total	32	68		100		100		
PHF	.500	.708	.893	.773	.773	.625	.625	.784

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File Name : 1-Benns Church Blvd & Brewer's Neck Blvd PM
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Groups Printed- Combined

	Benns Church Blvd Southbound				Brewers Neck Blvd Westbound			Benns Church Blvd Northbound			
Start Time	Thru	Left	Peds	App. Total	Right	Peds	App. Total	Thru	Peds	App. Total	Int. Total
04:00 PM	79	177	0	256	272	0	272	67	0	67	595
04:15 PM	92	216	0	308	241	0	241	63	0	63	612
04:30 PM	57	213	0	270	236	0	236	68	0	68	574
04:45 PM	72	180	0	252	262	0	262	70	0	70	584
Total	300	786	0	1086	1011	0	1011	268	0	268	2365
05:00 PM	73	165	0	238	252	0	252	70	0	70	560
05:15 PM	64	188	0	252	266	0	266	61	0	61	579
05:30 PM	69	152	0	221	255	0	255	54	0	54	530
05:45 PM	44	145	0	189	215	0	215	58	0	58	462
Total	250	650	0	900	988	0	988	243	0	243	2131
Grand Total	550	1436	0	1986	1999	0	1999	511	0	511	4496
Apprch %	27.7	72.3	0		100	0		100	0		
Total %	12.2	31.9	0	44.2	44.5	0	44.5	11.4	0	11.4	

	Benns Church Blvd Southbound			Brewers Neck Blvd Westbound		Benns Church Blvd Northbound		
Start Time	Thru	Left	App. Total	Right	App. Total	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1								
Peak Hour for Entire Intersection Begins at 04:00 PM								
04:00 PM	79	177	256	**272**	**272**	67	67	595
04:15 PM	**92**	**216**	**308**	241	241	63	63	**612**
04:30 PM	57	213	270	236	236	68	68	574
04:45 PM	72	180	252	262	262	**70**	**70**	584
Total Volume	300	786	1086	1011	1011	268	268	2365
% App. Total	27.6	72.4		100		100		
PHF	.815	.910	.881	.929	.929	.957	.957	.966

Peggy Malone & Associates
904-992-8072

File Name : 2-Queen Annes Court-Benns Grant & Brewers Neck Blvd AM
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Groups Printed- Cars

	Queen Annes Court Southbound					Brewers Neck Blvd Westbound					Benns Grant Blvd Northbound					Brewers Neck Blvd Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	2	0	2	0	4	0	90	32	0	122	77	1	0	0	78	0	176	0	0	176	380
07:15 AM	1	1	2	0	4	1	114	48	0	163	94	1	0	0	95	0	161	0	0	161	423
07:30 AM	0	0	2	0	2	1	121	55	0	177	61	0	0	0	61	2	172	3	0	177	417
07:45 AM	3	0	2	0	5	0	158	62	0	220	64	0	0	0	64	0	152	3	0	155	444
Total	6	1	8	0	15	2	483	197	0	682	296	2	0	0	298	2	661	6	0	669	1664
08:00 AM	2	0	1	0	3	0	132	48	0	180	60	0	0	0	60	0	142	2	0	144	387
08:15 AM	3	0	4	0	7	0	103	38	0	141	52	0	0	0	52	0	157	0	0	157	357
08:30 AM	1	0	2	0	3	2	111	47	0	160	74	0	0	0	74	0	160	2	0	162	399
08:45 AM	3	0	0	0	3	1	118	57	0	176	49	0	0	0	49	0	143	1	0	144	372
Total	9	0	7	0	16	3	464	190	0	657	235	0	0	0	235	0	602	5	0	607	1515
Grand Total	15	1	15	0	31	5	947	387	0	1339	531	2	0	0	533	2	1263	11	0	1276	3179
Apprch %	48.4	3.2	48.4	0		0.4	70.7	28.9	0		99.6	0.4	0	0		0.2	99	0.9	0		
Total %	0.5	0	0.5	0	1	0.2	29.8	12.2	0	42.1	16.7	0.1	0	0	16.8	0.1	39.7	0.3	0	40.1	

	Queen Annes Court Southbound				Brewers Neck Blvd Westbound				Benns Grant Blvd Northbound				Brewers Neck Blvd Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	1	**1**	**2**	4	**1**	114	48	163	**94**	**1**	0	**95**	0	161	0	161	423
07:30 AM	0	0	2	2	1	121	55	177	61	0	0	61	**2**	**172**	**3**	**177**	417
07:45 AM	**3**	0	2	**5**	0	**158**	**62**	**220**	64	0	0	64	0	152	3	155	**444**
08:00 AM	2	0	1	3	0	132	48	180	60	0	0	60	0	142	2	144	387
Total Volume	6	1	7	14	2	525	213	740	279	1	0	280	2	627	8	637	1671
% App. Total	42.9	7.1	50		0.3	70.9	28.8		99.6	0.4	0		0.3	98.4	1.3		
PHF	.500	.250	.875	.700	.500	.831	.859	.841	.742	.250	.000	.737	.250	.911	.667	.900	.941

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Groups Printed- Trucks

	Queen Annes Court Southbound					Brewers Neck Blvd Westbound					Benns Grant Blvd Northbound					Brewers Neck Blvd Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	9	3	0	12	4	0	0	0	4	0	1	0	0	1	17
07:15 AM	0	0	0	0	0	0	5	6	0	11	6	0	0	0	6	0	5	0	0	5	22
07:30 AM	0	0	0	0	0	0	11	4	0	15	3	0	0	0	3	0	10	0	0	10	28
07:45 AM	0	0	0	0	0	0	15	4	0	19	1	0	0	0	1	0	9	0	0	9	29
Total	0	0	0	0	0	0	40	17	0	57	14	0	0	0	14	0	25	0	0	25	96
08:00 AM	0	0	0	0	0	0	7	2	0	9	8	0	0	0	8	0	5	0	0	5	22
08:15 AM	0	0	1	0	1	1	8	6	0	15	7	0	0	0	7	0	14	0	0	14	37
08:30 AM	0	0	0	0	0	0	20	1	0	21	6	0	0	0	6	0	17	0	0	17	44
08:45 AM	0	0	0	0	0	0	12	6	0	18	1	0	0	0	1	0	11	0	0	11	30
Total	0	0	1	0	1	1	47	15	0	63	22	0	0	0	22	0	47	0	0	47	133
Grand Total	0	0	1	0	1	1	87	32	0	120	36	0	0	0	36	0	72	0	0	72	229
Apprch %	0	0	100	0		0.8	72.5	26.7	0		100	0	0	0		0	100	0	0		
Total %	0	0	0.4	0	0.4	0.4	38	14	0	52.4	15.7	0	0	0	15.7	0	31.4	0	0	31.4	

	Queen Annes Court Southbound				Brewers Neck Blvd Westbound				Benns Grant Blvd Northbound				Brewers Neck Blvd Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	0	0	0	0	7	2	9	**8**	0	0	**8**	0	5	0	5	22
08:15 AM	0	0	**1**	**1**	**1**	8	**6**	15	7	0	0	7	0	14	0	14	37
08:30 AM	0	0	0	0	0	**20**	1	**21**	6	0	0	6	0	**17**	0	**17**	**44**
08:45 AM	0	0	0	0	0	12	6	18	1	0	0	1	0	11	0	11	30
Total Volume	0	0	1	1	1	47	15	63	22	0	0	22	0	47	0	47	133
% App. Total	0	0	100		1.6	74.6	23.8		100	0	0		0	100	0		
PHF	.000	.000	.250	.250	.250	.588	.625	.750	.688	.000	.000	.688	.000	.691	.000	.691	.756

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Groups Printed- Combined

	Queen Annes Court Southbound					Brewers Neck Blvd Westbound					Benns Grant Blvd Northbound					Brewers Neck Blvd Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	2	0	2	0	4	0	99	35	0	134	81	1	0	0	82	0	177	0	0	177	397
07:15 AM	1	1	2	0	4	1	119	54	0	174	100	1	0	0	101	0	166	0	0	166	445
07:30 AM	0	0	2	0	2	1	132	59	0	192	64	0	0	0	64	2	182	3	0	187	445
07:45 AM	3	0	2	0	5	0	173	66	0	239	65	0	0	0	65	0	161	3	0	164	473
Total	6	1	8	0	15	2	523	214	0	739	310	2	0	0	312	2	686	6	0	694	1760
08:00 AM	2	0	1	0	3	0	139	50	0	189	68	0	0	0	68	0	147	2	0	149	409
08:15 AM	3	0	5	0	8	1	111	44	0	156	59	0	0	0	59	0	171	0	0	171	394
08:30 AM	1	0	2	0	3	2	131	48	0	181	80	0	0	0	80	0	177	2	0	179	443
08:45 AM	3	0	0	0	3	1	130	63	0	194	50	0	0	0	50	0	154	1	0	155	402
Total	9	0	8	0	17	4	511	205	0	720	257	0	0	0	257	0	649	5	0	654	1648
Grand Total	15	1	16	0	32	6	1034	419	0	1459	567	2	0	0	569	2	1335	11	0	1348	3408
Apprch %	46.9	3.1	50	0		0.4	70.9	28.7	0		99.6	0.4	0	0		0.1	99	0.8	0		
Total %	0.4	0	0.5	0	0.9	0.2	30.3	12.3	0	42.8	16.6	0.1	0	0	16.7	0.1	39.2	0.3	0	39.6	

	Queen Annes Court Southbound				Brewers Neck Blvd Westbound				Benns Grant Blvd Northbound				Brewers Neck Blvd Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	1	**1**	**2**	4	**1**	119	54	174	**100**	**1**	0	**101**	0	166	0	166	445
07:30 AM	0	0	2	2	1	132	59	192	64	0	0	64	**2**	**182**	**3**	**187**	445
07:45 AM	**3**	0	2	**5**	0	**173**	**66**	**239**	65	0	0	65	0	161	3	164	**473**
08:00 AM	2	0	1	3	0	139	50	189	68	0	0	68	0	147	2	149	409
Total Volume	6	1	7	14	2	563	229	794	297	1	0	298	2	656	8	666	1772
% App. Total	42.9	7.1	50		0.3	70.9	28.8		99.7	0.3	0		0.3	98.5	1.2		
PHF	.500	.250	.875	.700	.500	.814	.867	.831	.743	.250	.000	.738	.250	.901	.667	.890	.937

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Groups Printed- Cars

	Queen Annes Court Southbound					Brewers Neck Blvd Westbound					Benns Grant Blvd Northbound					Brewers Neck Blvd Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
04:00 PM	0	1	1	0	2	2	257	134	0	393	71	0	0	0	71	0	166	0	0	166	632
04:15 PM	3	1	0	0	4	1	238	90	0	329	59	1	0	0	60	0	200	3	0	203	596
04:30 PM	0	1	1	0	2	2	222	102	0	326	59	0	0	0	59	0	195	9	1	205	592
04:45 PM	0	0	1	0	1	2	267	91	0	360	64	0	0	0	64	2	170	1	0	173	598
Total	3	3	3	0	9	7	984	417	0	1408	253	1	0	0	254	2	731	13	1	747	2418
05:00 PM	1	0	0	0	1	2	240	80	0	322	56	0	0	0	56	0	164	0	0	164	543
05:15 PM	2	1	0	0	3	3	271	72	0	346	57	0	0	0	57	0	181	1	0	182	588
05:30 PM	3	1	2	0	6	2	245	79	0	326	60	0	1	0	61	0	137	1	0	138	531
05:45 PM	2	0	1	0	3	3	211	65	0	279	58	0	1	0	59	0	136	3	0	139	480
Total	8	2	3	0	13	10	967	296	0	1273	231	0	2	0	233	0	618	5	0	623	2142
Grand Total	11	5	6	0	22	17	1951	713	0	2681	484	1	2	0	487	2	1349	18	1	1370	4560
Apprch %	50	22.7	27.3	0		0.6	72.8	26.6	0		99.4	0.2	0.4	0		0.1	98.5	1.3	0.1		
Total %	0.2	0.1	0.1	0	0.5	0.4	42.8	15.6	0	58.8	10.6	0	0	0	10.7	0	29.6	0.4	0	30	

	Queen Annes Court Southbound				Brewers Neck Blvd Westbound				Benns Grant Blvd Northbound				Brewers Neck Blvd Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	**1**	**1**	2	**2**	257	**134**	**393**	**71**	0	0	**71**	0	166	0	166	**632**
04:15 PM	**3**	1	0	**4**	1	238	90	329	59	**1**	0	60	0	**200**	3	203	596
04:30 PM	0	1	1	2	2	222	102	326	59	0	0	59	0	195	**9**	**204**	591
04:45 PM	0	0	1	1	2	**267**	91	360	64	0	0	64	**2**	170	1	173	598
Total Volume	3	3	3	9	7	984	417	1408	253	1	0	254	2	731	13	746	2417
% App. Total	33.3	33.3	33.3		0.5	69.9	29.6		99.6	0.4	0		0.3	98	1.7		
PHF	.250	.750	.750	.563	.875	.921	.778	.896	.891	.250	.000	.894	.250	.914	.361	.914	.956

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Groups Printed- Trucks

	Queen Annes Court Southbound					Brewers Neck Blvd Westbound					Benns Grant Blvd Northbound					Brewers Neck Blvd Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	8	5	0	13	5	0	0	0	5	0	4	0	0	4	22
04:15 PM	1	0	0	0	1	1	8	4	0	13	1	0	0	0	1	0	3	0	0	3	18
04:30 PM	0	0	0	0	0	0	5	4	0	9	1	0	0	0	1	0	3	0	0	3	13
04:45 PM	0	0	0	0	0	0	8	4	0	12	1	0	0	0	1	0	4	0	0	4	17
Total	1	0	0	0	1	1	29	17	0	47	8	0	0	0	8	0	14	0	0	14	70
05:00 PM	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	0	8	0	0	8	15
05:15 PM	0	0	0	0	0	0	3	2	0	5	0	0	0	0	0	0	5	0	0	5	10
05:30 PM	0	0	0	0	0	0	3	2	0	5	3	0	0	0	3	0	6	0	0	6	14
05:45 PM	0	0	0	0	0	0	4	1	0	5	1	0	0	0	1	0	2	0	0	2	8
Total	0	0	0	0	0	0	17	5	0	22	4	0	0	0	4	0	21	0	0	21	47
Grand Total	1	0	0	0	1	1	46	22	0	69	12	0	0	0	12	0	35	0	0	35	117
Apprch %	100	0	0	0		1.4	66.7	31.9	0		100	0	0	0		0	100	0	0		
Total %	0.9	0	0	0	0.9	0.9	39.3	18.8	0	59	10.3	0	0	0	10.3	0	29.9	0	0	29.9	

	Queen Annes Court Southbound				Brewers Neck Blvd Westbound				Benns Grant Blvd Northbound				Brewers Neck Blvd Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	**8**	**5**	**13**	**5**	0	0	**5**	0	**4**	0	**4**	**22**
04:15 PM	**1**	0	0	**1**	**1**	8	4	13	1	0	0	1	0	3	0	3	18
04:30 PM	0	0	0	0	0	5	4	9	1	0	0	1	0	3	0	3	13
04:45 PM	0	0	0	0	0	8	4	12	1	0	0	1	0	4	0	4	17
Total Volume	1	0	0	1	1	29	17	47	8	0	0	8	0	14	0	14	70
% App. Total	100	0	0		2.1	61.7	36.2		100	0	0		0	100	0		
PHF	.250	.000	.000	.250	.250	.906	.850	.904	.400	.000	.000	.400	.000	.875	.000	.875	.795

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Groups Printed- Combined

	Queen Annes Court Southbound					Brewers Neck Blvd Westbound					Benns Grant Blvd Northbound					Brewers Neck Blvd Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
04:00 PM	0	1	1	0	2	2	265	139	0	406	76	0	0	0	76	0	170	0	0	170	654
04:15 PM	4	1	0	0	5	2	246	94	0	342	60	1	0	0	61	0	203	3	0	206	614
04:30 PM	0	1	1	0	2	2	227	106	0	335	60	0	0	0	60	0	198	9	1	208	605
04:45 PM	0	0	1	0	1	2	275	95	0	372	65	0	0	0	65	2	174	1	0	177	615
Total	4	3	3	0	10	8	1013	434	0	1455	261	1	0	0	262	2	745	13	1	761	2488
05:00 PM	1	0	0	0	1	2	247	80	0	329	56	0	0	0	56	0	172	0	0	172	558
05:15 PM	2	1	0	0	3	3	274	74	0	351	57	0	0	0	57	0	186	1	0	187	598
05:30 PM	3	1	2	0	6	2	248	81	0	331	63	0	1	0	64	0	143	1	0	144	545
05:45 PM	2	0	1	0	3	3	215	66	0	284	59	0	1	0	60	0	138	3	0	141	488
Total	8	2	3	0	13	10	984	301	0	1295	235	0	2	0	237	0	639	5	0	644	2189
Grand Total	12	5	6	0	23	18	1997	735	0	2750	496	1	2	0	499	2	1384	18	1	1405	4677
Apprch %	52.2	21.7	26.1	0		0.7	72.6	26.7	0		99.4	0.2	0.4	0		0.1	98.5	1.3	0.1		
Total %	0.3	0.1	0.1	0	0.5	0.4	42.7	15.7	0	58.8	10.6	0	0	0	10.7	0	29.6	0.4	0	30	

	Queen Annes Court Southbound				Brewers Neck Blvd Westbound				Benns Grant Blvd Northbound				Brewers Neck Blvd Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	**1**	**1**	2	**2**	265	**139**	**406**	**76**	0	0	**76**	0	170	0	170	**654**
04:15 PM	**4**	1	0	**5**	2	246	94	342	60	**1**	0	61	0	**203**	3	206	614
04:30 PM	0	1	1	2	2	227	106	335	60	0	0	60	0	198	**9**	**207**	604
04:45 PM	0	0	1	1	2	**275**	95	372	65	0	0	65	**2**	174	1	177	615
Total Volume	4	3	3	10	8	1013	434	1455	261	1	0	262	2	745	13	760	2487
% App. Total	40	30	30		0.5	69.6	29.8		99.6	0.4	0		0.3	98	1.7		
PHF	.250	.750	.750	.500	1.00	.921	.781	.896	.859	.250	.000	.862	.250	.917	.361	.918	.951

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	Benns Church Rd Southbound					Benns Grant Blvd Westbound					Benns Church Rd Northbound					Benns Grant Blvd Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
06:00 AM	0	17	0	0	17	0	1	16	0	17	65	32	0	0	97	0	3	0	0	3	134
06:15 AM	0	24	0	0	24	0	1	20	0	21	68	47	0	0	115	0	7	0	0	7	167
06:30 AM	3	36	0	0	39	0	5	23	0	28	65	34	0	0	99	1	6	3	0	10	176
06:45 AM	1	27	0	0	28	0	4	33	0	37	84	29	0	0	113	0	5	1	0	6	184
Total	4	104	0	0	108	0	11	92	0	103	282	142	0	0	424	1	21	4	0	26	661
07:00 AM	0	36	0	0	36	0	5	45	0	50	76	26	1	0	103	0	7	1	0	8	197
07:15 AM	0	46	0	0	46	0	2	47	0	49	89	39	1	0	129	2	6	2	0	10	234
07:30 AM	0	38	0	0	38	0	1	65	0	66	78	34	4	0	116	4	3	2	0	9	229
07:45 AM	4	38	0	0	42	0	4	50	0	54	60	35	0	0	95	3	2	1	1	7	198
Total	4	158	0	0	162	0	12	207	0	219	303	134	6	0	443	9	18	6	1	34	858
08:00 AM	1	35	0	0	36	0	0	43	0	43	55	24	1	0	80	2	4	1	0	7	166
08:15 AM	3	41	0	0	44	0	4	27	0	31	45	42	1	0	88	3	2	2	0	7	170
08:30 AM	0	35	0	0	35	0	3	23	0	26	36	27	0	0	63	1	3	1	0	5	129
08:45 AM	0	42	0	0	42	0	1	27	0	28	24	32	1	0	57	1	4	4	0	9	136
Total	4	153	0	0	157	0	8	120	0	128	160	125	3	0	288	7	13	8	0	28	601
Grand Total	12	415	0	0	427	0	31	419	0	450	745	401	9	0	1155	17	52	18	1	88	2120
Apprch %	2.8	97.2	0	0		0	6.9	93.1	0		64.5	34.7	0.8	0		19.3	59.1	20.5	1.1		
Total %	0.6	19.6	0	0	20.1	0	1.5	19.8	0	21.2	35.1	18.9	0.4	0	54.5	0.8	2.5	0.8	0	4.2	

	Benns Church Rd Southbound				Benns Grant Blvd Westbound				Benns Church Rd Northbound				Benns Grant Blvd Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 06:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	36	0	36	0	**5**	45	50	76	26	1	103	0	**7**	1	8	197
07:15 AM	0	**46**	0	**46**	0	2	47	49	**89**	**39**	1	**129**	2	6	**2**	**10**	**234**
07:30 AM	0	38	0	38	0	1	**65**	**66**	78	34	**4**	116	**4**	3	2	9	229
07:45 AM	**4**	38	0	42	0	4	50	54	60	35	0	95	3	2	1	6	197
Total Volume	4	158	0	162	0	12	207	219	303	134	6	443	9	18	6	33	857
% App. Total	2.5	97.5	0		0	5.5	94.5		68.4	30.2	1.4		27.3	54.5	18.2		
PHF	.250	.859	.000	.880	.000	.600	.796	.830	.851	.859	.375	.859	.563	.643	.750	.825	.916

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	Benns Church Rd Southbound					Benns Grant Blvd Westbound					Benns Church Rd Northbound					Benns Grant Blvd Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
06:00 AM	0	0	0	0	0	0	0	0	0	0	3	1	0	0	4	0	0	0	0	0	4
06:15 AM	0	2	0	0	2	0	0	1	0	1	3	2	0	0	5	0	0	0	0	0	8
06:30 AM	0	4	0	0	4	0	0	1	0	1	2	0	0	0	2	0	0	1	0	1	8
06:45 AM	0	2	0	0	2	0	0	1	0	1	2	5	0	0	7	0	1	0	0	1	11
Total	0	8	0	0	8	0	0	3	0	3	10	8	0	0	18	0	1	1	0	2	31
07:00 AM	0	1	0	0	1	0	0	3	0	3	6	1	0	0	7	0	0	0	0	0	11
07:15 AM	0	1	0	0	1	0	0	2	0	2	6	4	0	0	10	0	0	0	0	0	13
07:30 AM	0	0	0	0	0	0	0	6	0	6	4	1	0	0	5	0	0	0	0	0	11
07:45 AM	0	1	0	0	1	0	3	11	0	14	8	3	0	0	11	0	1	0	0	1	27
Total	0	3	0	0	3	0	3	22	0	25	24	9	0	0	33	0	1	0	0	1	62
08:00 AM	0	2	0	0	2	0	3	13	0	16	8	2	0	0	10	0	4	0	0	4	32
08:15 AM	0	4	0	0	4	0	1	8	0	9	9	6	0	0	15	0	1	0	0	1	29
08:30 AM	0	4	0	0	4	0	3	6	0	9	14	2	0	0	16	0	1	0	0	1	30
08:45 AM	0	1	0	0	1	0	1	5	0	6	2	4	0	0	6	0	2	0	0	2	15
Total	0	11	0	0	11	0	8	32	0	40	33	14	0	0	47	0	8	0	0	8	106
Grand Total	0	22	0	0	22	0	11	57	0	68	67	31	0	0	98	0	10	1	0	11	199
Apprch %	0	100	0	0		0	16.2	83.8	0		68.4	31.6	0	0		0	90.9	9.1	0		
Total %	0	11.1	0	0	11.1	0	5.5	28.6	0	34.2	33.7	15.6	0	0	49.2	0	5	0.5	0	5.5	

	Benns Church Rd Southbound				Benns Grant Blvd Westbound				Benns Church Rd Northbound				Benns Grant Blvd Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 06:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	1	0	1	0	**3**	11	14	8	3	0	11	0	1	0	1	27
08:00 AM	0	2	0	2	0	3	**13**	**16**	8	2	0	10	0	**4**	0	**4**	**32**
08:15 AM	0	**4**	0	**4**	0	1	8	9	9	**6**	0	15	0	1	0	1	29
08:30 AM	0	4	0	4	0	3	6	9	**14**	2	0	**16**	0	1	0	1	30
Total Volume	0	11	0	11	0	10	38	48	39	13	0	52	0	7	0	7	118
% App. Total	0	100	0		0	20.8	79.2		75	25	0		0	100	0		
PHF	.000	.688	.000	.688	.000	.833	.731	.750	.696	.542	.000	.813	.000	.438	.000	.438	.922

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Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
06:00 AM	0	17	0	0	17	0	1	16	0	17	68	33	0	0	101	0	3	0	0	3	138
06:15 AM	0	26	0	0	26	0	1	21	0	22	71	49	0	0	120	0	7	0	0	7	175
06:30 AM	3	40	0	0	43	0	5	24	0	29	67	34	0	0	101	1	6	4	0	11	184
06:45 AM	1	29	0	0	30	0	4	34	0	38	86	34	0	0	120	0	6	1	0	7	195
Total	4	112	0	0	116	0	11	95	0	106	292	150	0	0	442	1	22	5	0	28	692
07:00 AM	0	37	0	0	37	0	5	48	0	53	82	27	1	0	110	0	7	1	0	8	208
07:15 AM	0	47	0	0	47	0	2	49	0	51	95	43	1	0	139	2	6	2	0	10	247
07:30 AM	0	38	0	0	38	0	1	71	0	72	82	35	4	0	121	4	3	2	0	9	240
07:45 AM	4	39	0	0	43	0	7	61	0	68	68	38	0	0	106	3	3	1	1	8	225
Total	4	161	0	0	165	0	15	229	0	244	327	143	6	0	476	9	19	6	1	35	920
08:00 AM	1	37	0	0	38	0	3	56	0	59	63	26	1	0	90	2	8	1	0	11	198
08:15 AM	3	45	0	0	48	0	5	35	0	40	54	48	1	0	103	3	3	2	0	8	199
08:30 AM	0	39	0	0	39	0	6	29	0	35	50	29	0	0	79	1	4	1	0	6	159
08:45 AM	0	43	0	0	43	0	2	32	0	34	26	36	1	0	63	1	6	4	0	11	151
Total	4	164	0	0	168	0	16	152	0	168	193	139	3	0	335	7	21	8	0	36	707
Grand Total	12	437	0	0	449	0	42	476	0	518	812	432	9	0	1253	17	62	19	1	99	2319
Apprch %	2.7	97.3	0	0		0	8.1	91.9	0		64.8	34.5	0.7	0		17.2	62.6	19.2	1		
Total %	0.5	18.8	0	0	19.4	0	1.8	20.5	0	22.3	35	18.6	0.4	0	54	0.7	2.7	0.8	0	4.3	

	Benns Church Rd Southbound				Benns Grant Blvd Westbound				Benns Church Rd Northbound				Benns Grant Blvd Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 06:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	37	0	37	0	5	48	53	82	27	1	110	0	**7**	1	8	208
07:15 AM	0	**47**	0	**47**	0	2	49	51	**95**	**43**	1	**139**	2	6	**2**	**10**	**247**
07:30 AM	0	38	0	38	0	1	**71**	**72**	82	35	**4**	121	**4**	3	2	9	240
07:45 AM	**4**	39	0	43	0	**7**	61	68	68	38	0	106	3	3	1	7	224
Total Volume	4	161	0	165	0	15	229	244	327	143	6	476	9	19	6	34	919
% App. Total	2.4	97.6	0		0	6.1	93.9		68.7	30	1.3		26.5	55.9	17.6		
PHF	.250	.856	.000	.878	.000	.536	.806	.847	.861	.831	.375	.856	.563	.679	.750	.850	.930

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Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
02:00 PM	6	51	0	0	57	0	3	47	0	50	38	51	1	0	90	0	5	1	0	6	203
02:15 PM	1	49	0	0	50	0	0	49	0	49	52	52	0	0	104	1	0	3	0	4	207
02:30 PM	0	51	0	0	51	0	3	38	0	41	42	44	0	0	86	2	2	4	0	8	186
02:45 PM	0	48	0	0	48	0	1	55	0	56	50	52	3	0	105	0	3	2	0	5	214
Total	7	199	0	0	206	0	7	189	0	196	182	199	4	0	385	3	10	10	0	23	810
03:00 PM	2	49	0	0	51	0	4	45	0	49	43	45	0	0	88	0	0	6	0	6	194
03:15 PM	2	50	0	0	52	0	0	60	0	60	37	43	1	0	81	0	4	2	0	6	199
03:30 PM	0	54	0	0	54	0	4	62	0	66	24	46	0	0	70	0	2	1	0	3	193
03:45 PM	6	48	0	0	54	0	6	99	0	105	41	42	1	0	84	1	0	2	0	3	246
Total	10	201	0	0	211	0	14	266	0	280	145	176	2	0	323	1	6	11	0	18	832
04:00 PM	2	60	0	0	62	0	5	105	0	110	58	49	2	0	109	0	3	1	0	4	285
04:15 PM	5	86	0	0	91	0	2	91	0	93	60	41	0	0	101	3	1	1	0	5	290
04:30 PM	1	68	3	0	72	0	8	87	0	95	53	47	0	0	100	3	1	1	0	5	272
04:45 PM	4	69	0	0	73	0	1	92	0	93	53	57	1	0	111	3	4	3	0	10	287
Total	12	283	3	0	298	0	16	375	0	391	224	194	3	0	421	9	9	6	0	24	1134
05:00 PM	3	81	0	0	84	0	6	103	0	109	54	54	0	0	108	1	3	6	0	10	311
05:15 PM	6	84	0	0	90	0	6	88	0	94	56	65	0	0	121	2	5	4	0	11	316
05:30 PM	5	57	0	0	62	0	4	94	0	98	45	60	0	0	105	0	3	5	0	8	273
05:45 PM	7	42	0	0	49	0	4	71	0	75	55	49	1	0	105	1	0	0	1	2	231
Total	21	264	0	0	285	0	20	356	0	376	210	228	1	0	439	4	11	15	1	31	1131
06:00 PM	4	36	0	0	40	0	9	54	0	63	51	41	1	0	93	0	1	2	0	3	199
06:15 PM	3	42	0	0	45	0	3	52	0	55	28	41	1	0	70	0	7	3	0	10	180
06:30 PM	4	26	0	0	30	0	5	48	0	53	27	26	4	0	57	1	6	3	0	10	150
06:45 PM	3	30	0	0	33	2	4	31	0	37	32	38	1	0	71	0	2	0	0	2	143
Total	14	134	0	0	148	2	21	185	0	208	138	146	7	0	291	1	16	8	0	25	672
Grand Total	64	1081	3	0	1148	2	78	1371	0	1451	899	943	17	0	1859	18	52	50	1	121	4579
Apprch %	5.6	94.2	0.3	0		0.1	5.4	94.5	0		48.4	50.7	0.9	0		14.9	43	41.3	0.8		
Total %	1.4	23.6	0.1	0	25.1	0	1.7	29.9	0	31.7	19.6	20.6	0.4	0	40.6	0.4	1.1	1.1	0	2.6	

	Benns Church Rd Southbound				Benns Grant Blvd Westbound				Benns Church Rd Northbound				Benns Grant Blvd Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 06:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	4	69	0	73	0	1	92	93	53	57	**1**	111	**3**	4	3	10	287
05:00 PM	3	81	0	84	0	**6**	**103**	**109**	54	54	0	108	1	3	**6**	10	311
05:15 PM	**6**	**84**	0	**90**	0	6	88	94	**56**	**65**	0	**121**	2	**5**	4	**11**	**316**
05:30 PM	5	57	0	62	0	4	94	98	45	60	0	105	0	3	5	8	273
Total Volume	18	291	0	309	0	17	377	394	208	236	1	445	6	15	18	39	1187
% App. Total	5.8	94.2	0		0	4.3	95.7		46.7	53	0.2		15.4	38.5	46.2		
PHF	.750	.866	.000	.858	.000	.708	.915	.904	.929	.908	.250	.919	.500	.750	.750	.886	.939

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Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
02:00 PM	0	0	0	0	0	0	5	6	0	11	5	1	0	0	6	0	1	0	0	1	18
02:15 PM	0	4	0	0	4	0	1	11	0	12	5	0	0	0	5	0	7	0	0	7	28
02:30 PM	0	5	0	0	5	0	7	3	0	10	10	2	0	0	12	0	4	0	0	4	31
02:45 PM	0	0	0	0	0	0	1	4	0	5	1	1	0	0	2	0	7	0	0	7	14
Total	0	9	0	0	9	0	14	24	0	38	21	4	0	0	25	0	19	0	0	19	91
03:00 PM	0	3	0	0	3	0	2	6	0	8	2	1	0	0	3	0	1	0	0	1	15
03:15 PM	0	1	0	0	1	0	3	1	0	4	5	3	1	0	9	0	1	0	0	1	15
03:30 PM	0	3	0	0	3	0	7	1	0	8	3	1	0	0	4	0	3	1	0	4	19
03:45 PM	0	2	0	0	2	0	4	3	0	7	3	4	0	0	7	0	6	0	0	6	22
Total	0	9	0	0	9	0	16	11	0	27	13	9	1	0	23	0	11	1	0	12	71
04:00 PM	0	1	0	0	1	0	5	3	0	8	0	3	0	0	3	0	6	0	0	6	18
04:15 PM	0	0	0	0	0	0	1	5	0	6	0	0	0	0	0	0	0	0	0	0	6
04:30 PM	0	4	0	0	4	0	0	1	0	1	1	0	0	0	1	0	6	0	0	6	12
04:45 PM	0	1	0	0	1	0	2	5	0	7	1	0	0	0	1	0	0	0	0	0	9
Total	0	6	0	0	6	0	8	14	0	22	2	3	0	0	5	0	12	0	0	12	45
05:00 PM	0	1	0	0	1	0	5	2	0	7	0	3	0	0	3	0	3	0	0	3	14
05:15 PM	0	3	0	0	3	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	8
05:30 PM	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	1	2	0	0	3	5
05:45 PM	0	0	0	0	0	0	2	1	0	3	3	0	0	0	3	1	3	0	0	4	10
Total	0	4	0	0	4	0	10	4	0	14	3	3	0	0	6	2	11	0	0	13	37
06:00 PM	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	0	0	0	0	0	3
06:15 PM	0	0	0	0	0	0	0	2	0	2	1	1	0	0	2	0	0	0	0	0	4
06:30 PM	0	1	0	0	1	0	0	0	0	0	4	1	0	0	5	0	1	0	0	1	7
06:45 PM	0	0	0	0	0	0	0	1	0	1	2	1	0	0	3	0	0	0	0	0	4
Total	0	1	0	0	1	0	0	3	0	3	9	4	0	0	13	0	1	0	0	1	18
Grand Total	0	29	0	0	29	0	48	56	0	104	48	23	1	0	72	2	54	1	0	57	262
Apprch %	0	100	0	0		0	46.2	53.8	0		66.7	31.9	1.4	0		3.5	94.7	1.8	0		
Total %	0	11.1	0	0	11.1	0	18.3	21.4	0	39.7	18.3	8.8	0.4	0	27.5	0.8	20.6	0.4	0	21.8	

	Benns Church Rd Southbound				Benns Grant Blvd Westbound				Benns Church Rd Northbound				Benns Grant Blvd Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 06:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 02:00 PM																	
02:00 PM	0	0	0	0	0	5	6	11	5	1	0	6	0	1	0	1	18
02:15 PM	0	4	0	4	0	1	**11**	**12**	5	0	0	5	0	**7**	0	**7**	28
02:30 PM	0	**5**	0	**5**	0	**7**	3	10	**10**	**2**	0	**12**	0	4	0	4	**31**
02:45 PM	0	0	0	0	0	1	4	5	1	1	0	2	0	7	0	7	14
Total Volume	0	9	0	9	0	14	24	38	21	4	0	25	0	19	0	19	91
% App. Total	0	100	0		0	36.8	63.2		84	16	0		0	100	0		
PHF	.000	.450	.000	.450	.000	.500	.545	.792	.525	.500	.000	.521	.000	.679	.000	.679	.734

Peggy Malone & Associates
(888) 247-8602

File Name : Benns Church Rd & Benns Grant Blvd PM
Site Code :
Start Date : 8/10/2017
Page No : 1

Groups Printed- Combined

	Benns Church Rd Southbound					Benns Grant Blvd Westbound					Benns Church Rd Northbound					Benns Grant Blvd Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
02:00 PM	6	51	0	0	57	0	8	53	0	61	43	52	1	0	96	0	6	1	0	7	221
02:15 PM	1	53	0	0	54	0	1	60	0	61	57	52	0	0	109	1	7	3	0	11	235
02:30 PM	0	56	0	0	56	0	10	41	0	51	52	46	0	0	98	2	6	4	0	12	217
02:45 PM	0	48	0	0	48	0	2	59	0	61	51	53	3	0	107	0	10	2	0	12	228
Total	7	208	0	0	215	0	21	213	0	234	203	203	4	0	410	3	29	10	0	42	901
03:00 PM	2	52	0	0	54	0	6	51	0	57	45	46	0	0	91	0	1	6	0	7	209
03:15 PM	2	51	0	0	53	0	3	61	0	64	42	46	2	0	90	0	5	2	0	7	214
03:30 PM	0	57	0	0	57	0	11	63	0	74	27	47	0	0	74	0	5	2	0	7	212
03:45 PM	6	50	0	0	56	0	10	102	0	112	44	46	1	0	91	1	6	2	0	9	268
Total	10	210	0	0	220	0	30	277	0	307	158	185	3	0	346	1	17	12	0	30	903
04:00 PM	2	61	0	0	63	0	10	108	0	118	58	52	2	0	112	0	9	1	0	10	303
04:15 PM	5	86	0	0	91	0	3	96	0	99	60	41	0	0	101	3	1	1	0	5	296
04:30 PM	1	72	3	0	76	0	8	88	0	96	54	47	0	0	101	3	7	1	0	11	284
04:45 PM	4	70	0	0	74	0	3	97	0	100	54	57	1	0	112	3	4	3	0	10	296
Total	12	289	3	0	304	0	24	389	0	413	226	197	3	0	426	9	21	6	0	36	1179
05:00 PM	3	82	0	0	85	0	11	105	0	116	54	57	0	0	111	1	6	6	0	13	325
05:15 PM	6	87	0	0	93	0	8	88	0	96	56	65	0	0	121	2	8	4	0	14	324
05:30 PM	5	57	0	0	62	0	5	95	0	100	45	60	0	0	105	1	5	5	0	11	278
05:45 PM	7	42	0	0	49	0	6	72	0	78	58	49	1	0	108	2	3	0	1	6	241
Total	21	268	0	0	289	0	30	360	0	390	213	231	1	0	445	6	22	15	1	44	1168
06:00 PM	4	36	0	0	40	0	9	54	0	63	53	42	1	0	96	0	1	2	0	3	202
06:15 PM	3	42	0	0	45	0	3	54	0	57	29	42	1	0	72	0	7	3	0	10	184
06:30 PM	4	27	0	0	31	0	5	48	0	53	31	27	4	0	62	1	7	3	0	11	157
06:45 PM	3	30	0	0	33	2	4	32	0	38	34	39	1	0	74	0	2	0	0	2	147
Total	14	135	0	0	149	2	21	188	0	211	147	150	7	0	304	1	17	8	0	26	690
Grand Total	64	1110	3	0	1177	2	126	1427	0	1555	947	966	18	0	1931	20	106	51	1	178	4841
Apprch %	5.4	94.3	0.3	0		0.1	8.1	91.8	0		49	50	0.9	0		11.2	59.6	28.7	0.6		
Total %	1.3	22.9	0.1	0	24.3	0	2.6	29.5	0	32.1	19.6	20	0.4	0	39.9	0.4	2.2	1.1	0	3.7	

	Benns Church Rd Southbound				Benns Grant Blvd Westbound				Benns Church Rd Northbound				Benns Grant Blvd Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 06:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	1	72	**3**	76	0	8	88	96	54	47	0	101	**3**	7	1	11	284
04:45 PM	4	70	0	74	0	3	97	100	54	57	**1**	112	3	4	3	10	296
05:00 PM	3	82	0	85	0	**11**	**105**	**116**	54	57	0	111	1	6	**6**	13	**325**
05:15 PM	**6**	**87**	0	**93**	0	8	88	96	**56**	**65**	0	**121**	2	**8**	4	**14**	324
Total Volume	14	311	3	328	0	30	378	408	218	226	1	445	9	25	14	48	1229
% App. Total	4.3	94.8	0.9		0	7.4	92.6		49	50.8	0.2		18.8	52.1	29.2		
PHF	.583	.894	.250	.882	.000	.682	.900	.879	.973	.869	.250	.919	.750	.781	.583	.857	.945

Site ID: ADT 1
Unit #:
Location: IAAI Driveway & Portsmouth Blvd (I/O)
Direction: SOUTH
Lane: 1

File: D0818001.PRN
Job #: C/M/H
GPS: 36.75217,-76.52136

TIME	1	2	3	Total
00:15	0	0	0	0
00:30	0	0	0	0
00:45	1	0	0	1
01:00	0	0	0	0
Hour Total	1	0	0	1
01:15	0	0	0	0
01:30	0	0	0	0
01:45	0	0	0	0
02:00	0	0	0	0
Hour Total	0	0	0	0
02:15	0	0	0	0
02:30	0	0	0	0
02:45	0	0	0	0
03:00	0	0	0	0
Hour Total	0	0	0	0
03:15	0	0	0	0
03:30	0	0	0	0
03:45	0	0	0	0
04:00	0	0	0	0
Hour Total	0	0	0	0
04:15	0	0	0	0
04:30	0	0	0	0
04:45	1	0	0	1
05:00	0	0	0	0
Hour Total	1	0	0	1
05:15	1	0	0	1
05:30	0	0	0	0
05:45	0	0	0	0
06:00	0	0	0	0
Hour Total	1	0	0	1
06:15	0	0	0	0
06:30	0	0	0	0
06:45	0	0	0	0
07:00	0	0	0	0
Hour Total	0	0	0	0
07:15	0	0	0	0
07:30	0	0	0	0
07:45	0	0	0	0
08:00	7	0	0	7
Hour Total	7	0	0	7
08:15	5	1	0	6
08:30	4	1	0	5
08:45	1	0	0	1
09:00	0	1	0	1
Hour Total	10	3	0	13

Site ID: ADT 1
Unit #:
Location: IAAI Driveway & Portsmouth Blvd (I/O)
Direction: SOUTH
Lane: 1

File: D0818001.PRN
Job #: C/M/H
GPS: 36.75217,-76.52136

TIME	1	2	3	Total
09:15	0	2	0	2
09:30	0	0	0	0
09:45	0	1	0	1
10:00	0	1	0	1
Hour Total	0	4	0	4
10:15	0	3	0	3
10:30	0	0	1	1
10:45	0	1	0	1
11:00	1	0	0	1
Hour Total	1	4	1	6
11:15	0	2	0	2
11:30	2	0	0	2
11:45	1	0	0	1
12:00	1	1	0	2
Hour Total	4	3	0	7
12:15	2	3	0	5
12:30	1	1	0	2
12:45	1	1	0	2
13:00	3	2	0	5
Hour Total	7	7	0	14
13:15	2	3	0	5
13:30	1	0	0	1
13:45	1	0	0	1
14:00	1	0	0	1
Hour Total	5	3	0	8
14:15	3	0	1	4
14:30	1	3	0	4
14:45	0	3	1	4
15:00	0	2	0	2
Hour Total	4	8	2	14
15:15	2	2	0	4
15:30	2	1	0	3
15:45	0	1	0	1
16:00	0	1	0	1
Hour Total	4	5	0	9
16:15	1	2	0	3
16:30	1	0	0	1
16:45	1	1	0	2
17:00	2	2	1	5
Hour Total	5	5	1	11
17:15	0	1	0	1
17:30	0	2	0	2
17:45	0	1	1	2
18:00	0	0	1	1
Hour Total	0	4	2	6

Site ID: ADT 1 File: D0818001.PRN
Unit #: Job #: C/M/H
Location: IAAI Driveway & Portsmouth Blvd (I/O) GPS: 36.75217,-76.52136
Direction: SOUTH
Lane: 1

TIME	1	2	3	Total
18:15	2	1	0	3
18:30	0	0	0	0
18:45	0	1	0	1
19:00	0	0	0	0
Hour Total	2	2	0	4
19:15	0	0	0	0
19:30	0	1	0	1
19:45	0	0	0	0
20:00	0	0	0	0
Hour Total	0	1	0	1
20:15	0	0	0	0
20:30	0	0	0	0
20:45	0	0	0	0
21:00	0	0	0	0
Hour Total	0	0	0	0
21:15	0	0	0	0
21:30	0	0	0	0
21:45	0	0	0	0
22:00	0	0	0	0
Hour Total	0	0	0	0
22:15	0	0	0	0
22:30	0	0	0	0
22:45	0	0	0	0
23:00	0	0	0	0
Hour Total	0	0	0	0
23:15	0	0	0	0
23:30	0	0	0	0
23:45	0	0	0	0
24:00	0	0	0	0
Hour Total	0	0	0	0
DAY TOTAL	52	49	6	107
PERCENTS	48.6%	45.8%	5.6%	100.0%

Passenger Vehicles 100.0% Trucks & Buses 0.0%

AM Times	08:00	09:30	09:45	08:00
AM Peaks	17	5	1	19
PM Times	12:15	14:30	14:00	12:15
PM Peaks	7	10	2	14

Site ID: ADT 1
Unit #:
Location: IAAI Driveway & Portsmouth Blvd (I/O)
Direction: SOUTH
Lane: 1

File: D0818001.PRN
Job #: C/M/H
GPS: 36.75217,-76.52136

TIME	1	2	3	Total
00:15	0	0	0	0
Hour Total	0	0	0	0
DAY TOTAL	0	0	0	0
PERCENTS	0.0%	0.0%	0.0%	0.0%

Passenger Vehicles NaN

Trucks & Buses NaN

AM Times
AM Peaks

PM Times
PM Peaks

GRAND TOTAL	52	6		
	49	107		
PERCENTS	48.6%	45.8%	5.6%	100.0%

Site ID: ADT 1 File: D0818001.PRN
Unit #: Job #: C/M/H
Location: IAAI Driveway & Portsmouth Blvd (I/O) GPS: 36.75217,-76.52136
Direction: NORTH
Lane: 2

TIME	1	2	3	Total
00:15	0	0	0	0
00:30	0	0	0	0
00:45	0	0	0	0
01:00	1	0	0	1
Hour Total	1	0	0	1
01:15	0	0	0	0
01:30	0	0	0	0
01:45	0	0	0	0
02:00	0	0	0	0
Hour Total	0	0	0	0
02:15	0	0	0	0
02:30	0	0	0	0
02:45	0	0	0	0
03:00	0	0	0	0
Hour Total	0	0	0	0
03:15	0	0	0	0
03:30	0	0	0	0
03:45	0	0	0	0
04:00	0	0	0	0
Hour Total	0	0	0	0
04:15	0	0	0	0
04:30	0	0	0	0
04:45	1	0	0	1
05:00	0	0	0	0
Hour Total	1	0	0	1
05:15	1	0	0	1
05:30	0	0	0	0
05:45	0	0	0	0
06:00	0	0	0	0
Hour Total	1	0	0	1
06:15	0	0	0	0
06:30	0	0	0	0
06:45	0	0	0	0
07:00	0	0	0	0
Hour Total	0	0	0	0
07:15	0	0	0	0
07:30	0	0	0	0
07:45	0	0	0	0
08:00	2	0	0	2
Hour Total	2	0	0	2
08:15	0	0	0	0
08:30	1	1	0	2
08:45	0	1	0	1
09:00	1	0	0	1
Hour Total	2	2	0	4

Site ID: ADT 1
Unit #:
Location: IAAI Driveway & Portsmouth Blvd (I/O)
Direction: NORTH
Lane: 2

File: D0818001.PRN
Job #: C/M/H
GPS: 36.75217,-76.52136

TIME	1	2	3	Total
09:15	0	0	0	0
09:30	0	0	0	0
09:45	0	3	0	3
10:00	0	0	0	0
Hour Total	0	3	0	3
10:15	1	1	0	2
10:30	0	1	0	1
10:45	0	2	1	3
11:00	0	0	0	0
Hour Total	1	4	1	6
11:15	0	0	0	0
11:30	0	0	0	0
11:45	3	1	0	4
12:00	1	1	0	2
Hour Total	4	2	0	6
12:15	2	2	0	4
12:30	1	3	0	4
12:45	1	2	0	3
13:00	1	0	0	1
Hour Total	5	7	0	12
13:15	4	1	0	5
13:30	1	2	0	3
13:45	2	2	0	4
14:00	0	0	0	0
Hour Total	7	5	0	12
14:15	1	1	0	2
14:30	2	0	0	2
14:45	1	2	0	3
15:00	2	0	0	2
Hour Total	6	3	0	9
15:15	1	4	1	6
15:30	0	2	0	2
15:45	1	2	0	3
16:00	0	2	0	2
Hour Total	2	10	1	13
16:15	2	1	0	3
16:30	1	2	0	3
16:45	4	0	0	4
17:00	2	0	0	2
Hour Total	9	3	0	12
17:15	6	2	1	9
17:30	0	1	0	1
17:45	0	1	0	1
18:00	0	0	0	0
Hour Total	6	4	1	11

Site ID: ADT 1
Unit #:
Location: IAAI Driveway & Portsmouth Blvd (I/O)
Direction: NORTH
Lane: 2

File: D0818001.PRN
Job #: C/M/H
GPS: 36.75217,-76.52136

TIME	1	2	3	Total
18:15	0	0	0	0
18:30	1	2	0	3
18:45	0	4	0	4
19:00	0	0	0	0
Hour Total	1	6	0	7
19:15	2	0	0	2
19:30	0	2	0	2
19:45	1	0	0	1
20:00	0	0	0	0
Hour Total	3	2	0	5
20:15	1	0	0	1
20:30	0	0	0	0
20:45	0	0	0	0
21:00	0	0	0	0
Hour Total	1	0	0	1
21:15	0	0	0	0
21:30	0	0	0	0
21:45	0	0	0	0
22:00	0	0	0	0
Hour Total	0	0	0	0
22:15	0	0	0	0
22:30	0	0	0	0
22:45	0	0	0	0
23:00	0	0	0	0
Hour Total	0	0	0	0
23:15	0	0	0	0
23:30	0	0	0	0
23:45	0	0	0	0
24:00	0	0	0	0
Hour Total	0	0	0	0
DAY TOTAL	52	51	3	106
PERCENTS	49.1%	48.1%	2.8%	100.0%

Passenger Vehicles 100.0% Trucks & Buses 0.0%

AM Times	11:15	09:45	10:00	09:45
AM Peaks	4	5	1	6
PM Times	16:30	15:15	14:30	16:30
PM Peaks	13	10	1	18

Site ID: ADT 1
Unit #:
Location: IAAI Driveway & Portsmouth Blvd (I/O)
Direction: NORTH
Lane: 2

File: D0818001.PRN
Job #: C/M/H
GPS: 36.75217,-76.52136

TIME	1	2	3	Total
00:15	0	0	0	0
Hour Total	0	0	0	0
DAY TOTAL	0	0	0	0
PERCENTS	0.0%	0.0%	0.0%	0.0%

Passenger Vehicles NaN Trucks & Buses NaN

AM Times
AM Peaks

PM Times
PM Peaks

GRAND TOTAL	52	51	3	106
PERCENTS	49.1%	48.1%	2.8%	100.0%

Peggy Malone & Associates, Inc.
(888) 247-8602

File Name : Benns Church Blvd & Isle of Wight Ind. Park AM
Site Code :
Start Date : 8/18/2020
Page No : 1

Groups Printed- Cars

	Benns Church Rd Southbound			Benns Church Rd Northbound			IOW Industrial Park Blvd Eastbound				
Start Time	Right	U-Turn	App. Total	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
07:00 AM	3	0	3	1	0	1	0	0	0	0	4
07:15 AM	3	0	3	3	0	3	2	1	0	3	9
07:30 AM	2	3	5	0	0	0	0	1	0	1	6
07:45 AM	3	1	4	2	0	2	0	1	0	1	7
Total	11	4	15	6	0	6	2	3	0	5	26
08:00 AM	2	0	2	3	0	3	0	1	0	1	6
08:15 AM	1	2	3	1	0	1	1	0	0	1	5
08:30 AM	5	0	5	2	0	2	0	2	0	2	9
08:45 AM	2	0	2	3	0	3	0	0	0	0	5
Total	10	2	12	9	0	9	1	3	0	4	25
Grand Total	21	6	27	15	0	15	3	6	0	9	51
Apprch %	77.8	22.2		100	0		33.3	66.7	0		
Total %	41.2	11.8	52.9	29.4	0	29.4	5.9	11.8	0	17.6	

	Benns Church Rd Southbound		Benns Church Rd Northbound		IOW Industrial Park Blvd Eastbound			
Start Time	Right	App. Total	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1								
Peak Hour for Entire Intersection Begins at 07:15 AM								
07:15 AM	**3**	**3**	**3**	**3**	**2**	**1**	**3**	**9**
07:30 AM	2	2	0	0	0	1	1	3
07:45 AM	3	3	2	2	0	1	1	6
08:00 AM	2	2	3	3	0	1	1	6
Total Volume	10	10	8	8	2	4	6	24
% App. Total	100		100		33.3	66.7		
PHF	.833	.833	.667	.667	.250	1.00	.500	.667

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Groups Printed- Trucks

	Benns Church Rd Southbound			Benns Church Rd Northbound			IOW Industrial Park Blvd Eastbound				
Start Time	Right	U-Turn	App. Total	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
07:00 AM	1	1	2	0	0	0	0	0	0	0	2
07:15 AM	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	3	0	3	3
Total	1	1	2	0	0	0	0	3	0	3	5
08:00 AM	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	1	1	0	0	0	0	0	0	0	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	1	1	0	0	0	0	0	0	0	1
Total	0	2	2	0	0	0	0	0	0	0	2
Grand Total	1	3	4	0	0	0	0	3	0	3	7
Apprch %	25	75		0	0		0	100	0		
Total %	14.3	42.9	57.1	0	0	0	0	42.9	0	42.9	

	Benns Church Rd Southbound		Benns Church Rd Northbound		IOW Industrial Park Blvd Eastbound			
Start Time	Right	App. Total	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1								
Peak Hour for Entire Intersection Begins at 07:00 AM								
07:00 AM	**1**	**1**	0	0	0	0	0	1
07:15 AM	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	**3**	**3**	**3**
Total Volume	1	1	0	0	0	3	3	4
% App. Total	100		0		0	100		
PHF	.250	.250	.000	.000	.000	.250	.250	.333

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Groups Printed- Pedestrians

	Benns Church Rd Southbound			Benns Church Rd Northbound			IOW Industrial Park Blvd Eastbound				
Start Time	Right	U-Turn	App. Total	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0	0		
Total %											

	Benns Church Rd Southbound		Benns Church Rd Northbound		IOW Industrial Park Blvd Eastbound			
Start Time	Right	App. Total	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1								
Peak Hour for Entire Intersection Begins at 07:00 AM								
07:00 AM	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0
% App. Total	0		0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000

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Groups Printed- Cars - Trucks

	Benns Church Rd Southbound			Benns Church Rd Northbound			IOW Industrial Park Blvd Eastbound				
Start Time	Right	U-Turn	App. Total	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
07:00 AM	4	1	5	1	0	1	0	0	0	0	6
07:15 AM	3	0	3	3	0	3	2	1	0	3	9
07:30 AM	2	3	5	0	0	0	0	1	0	1	6
07:45 AM	3	1	4	2	0	2	0	4	0	4	10
Total	12	5	17	6	0	6	2	6	0	8	31
08:00 AM	2	0	2	3	0	3	0	1	0	1	6
08:15 AM	1	3	4	1	0	1	1	0	0	1	6
08:30 AM	5	0	5	2	0	2	0	2	0	2	9
08:45 AM	2	1	3	3	0	3	0	0	0	0	6
Total	10	4	14	9	0	9	1	3	0	4	27
Grand Total	22	9	31	15	0	15	3	9	0	12	58
Apprch %	71	29		100	0		25	75	0		
Total %	37.9	15.5	53.4	25.9	0	25.9	5.2	15.5	0	20.7	
Cars	21	6	27	15	0	15	3	6	0	9	51
% Cars	95.5	66.7	87.1	100	0	100	100	66.7	0	75	87.9
Trucks	1	3	4	0	0	0	0	3	0	3	7
% Trucks	4.5	33.3	12.9	0	0	0	0	33.3	0	25	12.1

	Benns Church Rd Southbound		Benns Church Rd Northbound		IOW Industrial Park Blvd Eastbound			
Start Time	Right	App. Total	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1								
Peak Hour for Entire Intersection Begins at 07:15 AM								
07:15 AM	**3**	**3**	**3**	**3**	**2**	1	3	**9**
07:30 AM	2	2	0	0	0	1	1	3
07:45 AM	3	3	2	2	0	**4**	**4**	9
08:00 AM	2	2	3	3	0	1	1	6
Total Volume	10	10	8	8	2	7	9	27
% App. Total	100		100		22.2	77.8		
PHF	.833	.833	.667	.667	.250	.438	.563	.750

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Groups Printed- Cars

	Benns Church Rd Southbound			Benns Church Rd Northbound			IOW Industrial Park Blvd Eastbound				
Start Time	Right	U-Turn	App. Total	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
04:00 PM	1	2	3	1	0	1	2	4	0	6	10
04:15 PM	2	1	3	1	1	2	1	3	0	4	9
04:30 PM	2	0	2	0	0	0	2	1	0	3	5
04:45 PM	2	2	4	0	0	0	0	2	0	2	6
Total	7	5	12	2	1	3	5	10	0	15	30
05:00 PM	0	0	0	0	1	1	3	5	0	8	9
05:15 PM	1	1	2	0	0	0	1	1	0	2	4
05:30 PM	3	5	8	0	0	0	2	2	0	4	12
05:45 PM	0	1	1	0	0	0	0	1	0	1	2
Total	4	7	11	0	1	1	6	9	0	15	27
Grand Total	11	12	23	2	2	4	11	19	0	30	57
Apprch %	47.8	52.2		50	50		36.7	63.3	0		
Total %	19.3	21.1	40.4	3.5	3.5	7	19.3	33.3	0	52.6	

	Benns Church Rd Southbound		Benns Church Rd Northbound		IOW Industrial Park Blvd Eastbound			
Start Time	Right	App. Total	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1								
Peak Hour for Entire Intersection Begins at 04:00 PM								
04:00 PM	1	1	**1**	**1**	**2**	**4**	**6**	**8**
04:15 PM	**2**	**2**	1	1	1	3	4	7
04:30 PM	2	2	0	0	2	1	3	5
04:45 PM	2	2	0	0	0	2	2	4
Total Volume	7	7	2	2	5	10	15	24
% App. Total	100		100		33.3	66.7		
PHF	.875	.875	.500	.500	.625	.625	.625	.750

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Groups Printed- Trucks

	Benns Church Rd Southbound			Benns Church Rd Northbound			IOW Industrial Park Blvd Eastbound				
Start Time	Right	U-Turn	App. Total	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
04:00 PM	0	1	1	0	1	1	0	0	0	0	2
04:15 PM	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	1	1	2	0	0	0	0	0	0	0	2
04:45 PM	0	0	0	0	0	0	0	0	0	0	0
Total	1	2	3	0	1	1	0	0	0	0	4
05:00 PM	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	1	0	1	1
05:45 PM	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	1	0	1	1
Grand Total	1	2	3	0	1	1	0	1	0	1	5
Apprch %	33.3	66.7		0	100		0	100	0		
Total %	20	40	60	0	20	20	0	20	0	20	

	Benns Church Rd Southbound		Benns Church Rd Northbound		IOW Industrial Park Blvd Eastbound			
Start Time	Right	App. Total	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1								
Peak Hour for Entire Intersection Begins at 04:00 PM								
04:00 PM	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0
04:30 PM	**1**	**1**	0	0	0	0	0	**1**
04:45 PM	0	0	0	0	0	0	0	0
Total Volume	1	1	0	0	0	0	0	1
% App. Total	100		0		0	0		
PHF	.250	.250	.000	.000	.000	.000	.000	.250

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Groups Printed- Pedestrians

	Benns Church Rd Southbound			Benns Church Rd Northbound			IOW Industrial Park Blvd Eastbound				
Start Time	Right	U-Turn	App. Total	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0	0		
Total %											

	Benns Church Rd Southbound		Benns Church Rd Northbound		IOW Industrial Park Blvd Eastbound			
Start Time	Right	App. Total	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1								
Peak Hour for Entire Intersection Begins at 04:00 PM								
04:00 PM	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0
% App. Total	0		0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000

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Groups Printed- Cars - Trucks

	Benns Church Rd Southbound			Benns Church Rd Northbound			IOW Industrial Park Blvd Eastbound				
Start Time	Right	U-Turn	App. Total	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
04:00 PM	1	3	4	1	1	2	2	4	0	6	12
04:15 PM	2	1	3	1	1	2	1	3	0	4	9
04:30 PM	3	1	4	0	0	0	2	1	0	3	7
04:45 PM	2	2	4	0	0	0	0	2	0	2	6
Total	8	7	15	2	2	4	5	10	0	15	34
05:00 PM	0	0	0	0	1	1	3	5	0	8	9
05:15 PM	1	1	2	0	0	0	1	1	0	2	4
05:30 PM	3	5	8	0	0	0	2	3	0	5	13
05:45 PM	0	1	1	0	0	0	0	1	0	1	2
Total	4	7	11	0	1	1	6	10	0	16	28
Grand Total	12	14	26	2	3	5	11	20	0	31	62
Apprch %	46.2	53.8		40	60		35.5	64.5	0		
Total %	19.4	22.6	41.9	3.2	4.8	8.1	17.7	32.3	0	50	
Cars	11	12	23	2	2	4	11	19	0	30	57
% Cars	91.7	85.7	88.5	100	66.7	80	100	95	0	96.8	91.9
Trucks	1	2	3	0	1	1	0	1	0	1	5
% Trucks	8.3	14.3	11.5	0	33.3	20	0	5	0	3.2	8.1

	Benns Church Rd Southbound		Benns Church Rd Northbound		IOW Industrial Park Blvd Eastbound			
Start Time	Right	App. Total	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1								
Peak Hour for Entire Intersection Begins at 04:00 PM								
04:00 PM	1	1	**1**	**1**	**2**	**4**	**6**	**8**
04:15 PM	2	2	1	1	1	3	4	7
04:30 PM	**3**	**3**	0	0	2	1	3	6
04:45 PM	2	2	0	0	0	2	2	4
Total Volume	8	8	2	2	5	10	15	25
% App. Total	100		100		33.3	66.7		
PHF	.667	.667	.500	.500	.625	.625	.625	.781

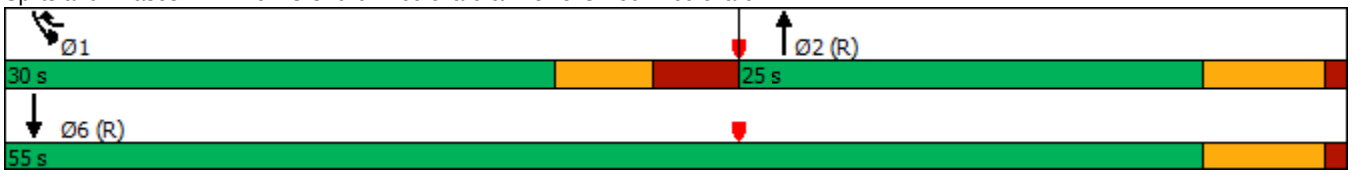
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	578	179	0	691	198
Future Volume (vph)	0	578	179	0	691	198
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	425	
Storage Lanes	0	2		0	1	
Taper Length (ft)	100				100	
Satd. Flow (prot)	0	2608	3343	0	3273	3343
Flt Permitted					0.950	
Satd. Flow (perm)	0	2608	3343	0	3273	3343
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		916				
Link Speed (mph)	45		45			45
Link Distance (ft)	1056		981			678
Travel Time (s)	16.0		14.9			10.3
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	9%	8%	2%	7%	8%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	642	199	0	768	220
Turn Type		Over	NA		Prot	NA
Protected Phases		1	2		1	6
Permitted Phases						
Detector Phase		1	2		1	6
Switch Phase						
Minimum Initial (s)		15.0	10.0		15.0	15.0
Minimum Split (s)		22.5	23.0		22.5	23.0
Total Split (s)		30.0	25.0		30.0	55.0
Total Split (%)		54.5%	45.5%		54.5%	100.0%
Yellow Time (s)		4.0	5.0		4.0	5.0
All-Red Time (s)		3.5	1.0		3.5	1.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0
Total Lost Time (s)		7.5	6.0		7.5	6.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Recall Mode		None	C-Min		None	C-Min
Act Effct Green (s)		21.0	20.5		21.0	55.0
Actuated g/C Ratio		0.38	0.37		0.38	1.00
v/c Ratio		0.41	0.16		0.61	0.07
Control Delay		4.5	15.0		15.4	0.0
Queue Delay		0.0	0.0		0.0	0.0
Total Delay		4.5	15.0		15.4	0.0
LOS		A	B		B	A
Approach Delay	4.5		15.0			12.0
Approach LOS	A		B			B
Queue Length 50th (ft)		0	21		101	0
Queue Length 95th (ft)		226	97		117	0
Internal Link Dist (ft)	976		901			598
Turn Bay Length (ft)					425	
Base Capacity (vph)		1643	1313		1406	3343

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Starvation Cap Reductn		0	0		0	0
Spillback Cap Reductn		0	0		0	0
Storage Cap Reductn		0	0		0	0
Reduced v/c Ratio		0.39	0.15		0.55	0.07

Intersection Summary

Area Type: Other
Cycle Length: 55
Actuated Cycle Length: 55
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.61
Intersection Signal Delay: 9.7 Intersection LOS: A
Intersection Capacity Utilization 39.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 1: Benns Church Boulevard & Brewer's Neck Boulevard



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	681	2	290	572	2	1	1	414	7	1	6
Future Volume (vph)	8	681	2	290	572	2	1	1	414	7	1	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	525		250	0		250	0		0
Storage Lanes	1		0	1		1	0		1	0		1
Taper Length (ft)	100			100			100			100		
Satd. Flow (prot)	1770	3374	0	1687	3343	1077	0	1836	2656	0	1615	1599
Flt Permitted	0.950			0.950				0.469			0.944	
Satd. Flow (perm)	1770	3374	0	1687	3343	1077	0	882	2656	0	1594	1599
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						223			445			298
Link Speed (mph)		55			55			35			25	
Link Distance (ft)		1056			1813			1225			436	
Travel Time (s)		13.1			22.5			23.9			11.9	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	7%	2%	7%	8%	50%	1%	1%	7%	14%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	9	734	0	312	615	2	0	2	445	0	9	6
Turn Type	Prot	NA		Prot	NA	Perm	Perm	NA	pt+ov	Perm	NA	Perm
Protected Phases	5	2		1	6			3	3 1		4	
Permitted Phases						6	3			4		4
Detector Phase	5	2		1	6	6	3	3	3 1	4	4	4
Switch Phase												
Minimum Initial (s)	10.0	25.0		10.0	25.0	25.0	5.0	5.0		10.0	10.0	10.0
Minimum Split (s)	19.5	31.5		23.0	32.5	32.5	23.0	23.0		23.0	23.0	23.0
Total Split (s)	20.0	33.0		31.0	44.0	44.0	23.0	23.0		23.0	23.0	23.0
Total Split (%)	18.2%	30.0%		28.2%	40.0%	40.0%	20.9%	20.9%		20.9%	20.9%	20.9%
Yellow Time (s)	5.0	5.5		5.0	5.5	5.5	3.5	3.5		4.0	4.0	4.0
All-Red Time (s)	4.5	1.0		4.0	1.0	1.0	4.5	4.5		4.0	4.0	4.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0		0.0			0.0	0.0
Total Lost Time (s)	9.5	6.5		9.0	6.5	6.5		8.0			8.0	8.0
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lead		Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	C-Min		None	C-Min	C-Min	None	None		None	None	None
Act Effct Green (s)	10.0	44.9		28.0	78.0	78.0		6.4	40.2		10.0	10.0
Actuated g/C Ratio	0.09	0.41		0.25	0.71	0.71		0.06	0.37		0.09	0.09
v/c Ratio	0.06	0.53		0.73	0.26	0.00		0.04	0.36		0.06	0.01
Control Delay	50.8	21.7		47.5	9.0	0.0		51.0	1.6		46.9	0.0
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	50.8	21.7		47.5	9.0	0.0		51.0	1.6		46.9	0.0
LOS	D	C		D	A	A		D	A		D	A
Approach Delay		22.1			21.9			1.8			28.1	
Approach LOS		C			C			A			C	
Queue Length 50th (ft)	7	170		201	39	0		1	0		6	0
Queue Length 95th (ft)	m10	#349		283	196	0		m5	13		22	0
Internal Link Dist (ft)		976			1733			1145			356	
Turn Bay Length (ft)	150			525		250			250			
Base Capacity (vph)	168	1378		433	2370	828		120	1317		217	475

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0	0		0	0		0	0
Spillback Cap Reductn	0	0		0	0	0		0	0		0	0
Storage Cap Reductn	0	0		0	0	0		0	0		0	0
Reduced v/c Ratio	0.05	0.53		0.72	0.26	0.00		0.02	0.34		0.04	0.01

Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 15 (14%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 105
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.73
Intersection Signal Delay: 17.8 Intersection LOS: B
Intersection Capacity Utilization 64.8% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Benns Grant Boulevard/Queen Annes Court & Brewer's Neck Boulevard

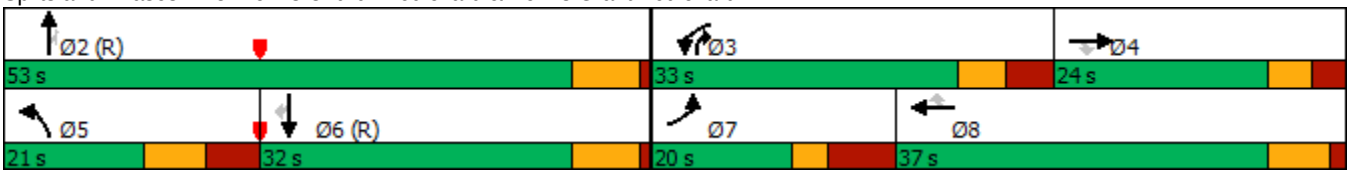
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	23	11	275	18	1	7	172	392	0	193	5
Future Volume (vph)	7	23	11	275	18	1	7	172	392	0	193	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		200	250		325	225		425	0		175
Storage Lanes	1		1	1		1	1		1	0		1
Taper Length (ft)	100			100			100			100		
Satd. Flow (prot)	1770	1810	1583	3183	1583	1583	1770	3406	1509	0	3539	1583
Flt Permitted	0.950			0.950			0.950					
Satd. Flow (perm)	1770	1810	1583	3183	1583	1583	1770	3406	1509	0	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			293			213			422			293
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		1344			1225			1996			981	
Travel Time (s)		26.2			23.9			30.2			14.9	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	5%	2%	10%	20%	2%	2%	6%	7%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	8	25	12	296	19	1	8	185	422	0	208	5
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov		NA	Perm
Protected Phases	7	4		3	8		5	2	3		6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	3		6	6
Switch Phase												
Minimum Initial (s)	10.0	15.0	15.0	10.0	15.0	15.0	10.0	15.0	10.0		15.0	15.0
Minimum Split (s)	18.5	22.5	22.5	18.0	23.0	23.0	19.5	23.5	18.0		23.5	23.5
Total Split (s)	20.0	24.0	24.0	33.0	37.0	37.0	21.0	53.0	33.0		32.0	32.0
Total Split (%)	18.2%	21.8%	21.8%	30.0%	33.6%	33.6%	19.1%	48.2%	30.0%		29.1%	29.1%
Yellow Time (s)	3.0	3.5	3.5	4.0	5.0	5.0	5.0	5.5	4.0		5.5	5.5
All-Red Time (s)	5.5	3.0	3.0	4.0	1.5	1.5	4.5	1.0	4.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	8.5	6.5	6.5	8.0	6.5	6.5	9.5	6.5	8.0		6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead		Lead		Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Min	None		C-Min	C-Min
Act Effct Green (s)	10.0	15.0	15.0	16.6	27.3	27.3	10.0	66.0	92.3		62.1	62.1
Actuated g/C Ratio	0.09	0.14	0.14	0.15	0.25	0.25	0.09	0.60	0.84		0.56	0.56
v/c Ratio	0.05	0.10	0.03	0.62	0.05	0.00	0.05	0.09	0.32		0.10	0.00
Control Delay	46.6	42.9	0.1	19.8	8.6	0.0	46.6	12.2	1.1		16.1	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	46.6	42.9	0.1	19.8	8.6	0.0	46.6	12.2	1.1		16.1	0.0
LOS	D	D	A	B	A	A	D	B	A		B	A
Approach Delay		32.1			19.0			5.0			15.7	
Approach LOS		C			B			A			B	
Queue Length 50th (ft)	5	16	0	115	13	0	5	33	0		37	0
Queue Length 95th (ft)	21	42	0	m24	m12	m0	21	57	24		87	0
Internal Link Dist (ft)		1264			1145			1916			901	
Turn Bay Length (ft)	200		200	250		325	225		425			175
Base Capacity (vph)	185	287	498	723	494	641	185	2042	1371		1996	1020

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0		0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0		0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0		0	0
Reduced v/c Ratio	0.04	0.09	0.02	0.41	0.04	0.00	0.04	0.09	0.31		0.10	0.00

Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 88 (80%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 85
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.62
Intersection Signal Delay: 11.7 Intersection LOS: B
Intersection Capacity Utilization 52.1% ICU Level of Service A
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Benns Church Boulevard & Benns Grant Boulevard



Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBU	NBL	NBT	SBU	SBT	SBR
Lane Configurations								
Traffic Vol, veh/h	7	2	1	3	560	4	465	10
Future Vol, veh/h	7	2	1	3	560	4	465	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	-	None
Storage Length	0	-	-	225	-	150	-	150
Veh in Median Storage, #	0	-	-	-	0	-	0	-
Grade, %	0	-	-	-	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92
Heavy Vehicles, %	43	2	2	2	6	2	2	10
Mvmt Flow	8	2	1	3	609	4	505	11

Major/Minor	Minor2		Major1			Major2		
Conflicting Flow All	826	253	505	516	0	609	-	0
Stage 1	513	-	-	-	-	-	-	-
Stage 2	313	-	-	-	-	-	-	-
Critical Hdwy	7.66	6.94	6.44	4.14	-	6.44	-	-
Critical Hdwy Stg 1	6.66	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.66	-	-	-	-	-	-	-
Follow-up Hdwy	3.93	3.32	2.52	2.22	-	2.52	-	-
Pot Cap-1 Maneuver	240	746	687	1046	-	590	-	-
Stage 1	463	-	-	-	-	-	-	-
Stage 2	606	-	-	-	-	-	-	-
Platoon blocked, %					-		-	-
Mov Cap-1 Maneuver	237	746	924	924	-	590	-	-
Mov Cap-2 Maneuver	237	-	-	-	-	-	-	-
Stage 1	461	-	-	-	-	-	-	-
Stage 2	602	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.4	0.1	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBU	SBT	SBR
Capacity (veh/h)	924	-	279	590	-	-
HCM Lane V/C Ratio	0.005	-	0.035	0.007	-	-
HCM Control Delay (s)	8.9	-	18.4	11.1	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	0	-	-

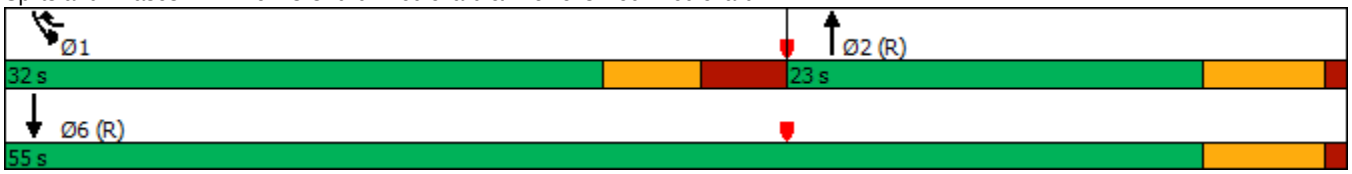
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	1017	288	0	786	390
Future Volume (vph)	0	1017	288	0	786	390
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	425	
Storage Lanes	0	2		0	1	
Taper Length (ft)	100				100	
Satd. Flow (prot)	0	2760	3471	0	3433	3505
Flt Permitted					0.950	
Satd. Flow (perm)	0	2760	3471	0	3433	3505
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		521				
Link Speed (mph)	45		45			45
Link Distance (ft)	1056		981			678
Travel Time (s)	16.0		14.9			10.3
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	3%	4%	2%	2%	3%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1094	310	0	845	419
Turn Type		Over	NA		Prot	NA
Protected Phases		1	2		1	6
Permitted Phases						
Detector Phase		1	2		1	6
Switch Phase						
Minimum Initial (s)		15.0	10.0		15.0	15.0
Minimum Split (s)		22.5	23.0		22.5	23.0
Total Split (s)		32.0	23.0		32.0	55.0
Total Split (%)		58.2%	41.8%		58.2%	100.0%
Yellow Time (s)		4.0	5.0		4.0	5.0
All-Red Time (s)		3.5	1.0		3.5	1.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0
Total Lost Time (s)		7.5	6.0		7.5	6.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Recall Mode		None	C-Min		None	C-Min
Act Effct Green (s)		24.4	17.1		24.4	55.0
Actuated g/C Ratio		0.44	0.31		0.44	1.00
v/c Ratio		0.72	0.29		0.56	0.12
Control Delay		16.1	23.7		12.3	0.1
Queue Delay		0.0	0.0		0.0	0.0
Total Delay		16.1	23.7		12.3	0.1
LOS		B	C		B	A
Approach Delay	16.1		23.7			8.2
Approach LOS	B		C			A
Queue Length 50th (ft)		107	7		94	0
Queue Length 95th (ft)		511	146		124	0
Internal Link Dist (ft)	976		901			598
Turn Bay Length (ft)					425	
Base Capacity (vph)		1598	1202		1651	3505

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Starvation Cap Reductn		0	0		0	0
Spillback Cap Reductn		0	0		0	0
Storage Cap Reductn		0	0		0	0
Reduced v/c Ratio		0.68	0.26		0.51	0.12

Intersection Summary

Area Type: Other
Cycle Length: 55
Actuated Cycle Length: 55
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.72
Intersection Signal Delay: 13.3 Intersection LOS: B
Intersection Capacity Utilization 55.2% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 1: Benns Church Boulevard & Brewer's Neck Boulevard



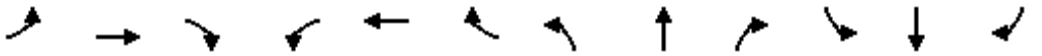
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	771	2	485	1013	1	1	1	291	3	3	4
Future Volume (vph)	13	771	2	485	1013	1	1	1	291	3	3	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	525		250	0		250	0		0
Storage Lanes	1		0	1		1	0		1	0		1
Taper Length (ft)	100			100			100			100		
Satd. Flow (prot)	1770	3539	0	1736	3505	1429	0	1818	2760	0	1634	1583
Flt Permitted	0.950			0.950				0.484				
Satd. Flow (perm)	1770	3539	0	1736	3505	1429	0	902	2760	0	1674	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						223			313			298
Link Speed (mph)		55			55			35			25	
Link Distance (ft)		1056			1813			1225			436	
Travel Time (s)		13.1			22.5			23.9			11.9	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	2%	2%	4%	3%	13%	2%	2%	3%	25%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	14	831	0	522	1089	1	0	2	313	0	6	4
Turn Type	Prot	NA		Prot	NA	Perm	Perm	NA	pt+ov	Perm	NA	Perm
Protected Phases	5	2		1	6			3	3 1		4	
Permitted Phases						6	3			4		4
Detector Phase	5	2		1	6	6	3	3	3 1	4	4	4
Switch Phase												
Minimum Initial (s)	10.0	25.0		10.0	25.0	25.0	5.0	5.0		10.0	10.0	10.0
Minimum Split (s)	19.5	31.5		23.0	32.5	32.5	23.0	23.0		23.0	23.0	23.0
Total Split (s)	19.0	32.0		32.0	45.0	45.0	23.0	23.0		23.0	23.0	23.0
Total Split (%)	17.3%	29.1%		29.1%	40.9%	40.9%	20.9%	20.9%		20.9%	20.9%	20.9%
Yellow Time (s)	5.0	5.5		5.0	5.5	5.5	3.5	3.5		4.0	4.0	4.0
All-Red Time (s)	4.5	1.0		4.0	1.0	1.0	4.5	4.5		4.0	4.0	4.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0		0.0			0.0	0.0
Total Lost Time (s)	9.5	6.5		9.0	6.5	6.5		8.0			8.0	8.0
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lead		Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	C-Min		None	C-Min	C-Min	None	None		None	None	None
Act Effct Green (s)	10.0	28.8		47.9	77.9	77.9		6.2	61.5		10.0	10.0
Actuated g/C Ratio	0.09	0.26		0.44	0.71	0.71		0.06	0.56		0.09	0.09
v/c Ratio	0.09	0.90		0.69	0.44	0.00		0.04	0.19		0.04	0.01
Control Delay	52.0	41.3		33.2	10.8	0.0		57.0	1.5		46.3	0.0
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	52.0	41.3		33.2	10.8	0.0		57.0	1.5		46.3	0.0
LOS	D	D		C	B	A		E	A		D	A
Approach Delay		41.5			18.0			1.8			27.8	
Approach LOS		D			B			A			C	
Queue Length 50th (ft)	11	179		291	82	0		1	0		4	0
Queue Length 95th (ft)	m13	#453		#566	386	0		m7	16		17	0
Internal Link Dist (ft)		976			1733			1145			356	
Turn Bay Length (ft)	150			525		250			250			
Base Capacity (vph)	160	927		755	2482	1077		123	1712		228	473

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0	0		0	0		0	0
Spillback Cap Reductn	0	0		0	0	0		0	0		0	0
Storage Cap Reductn	0	0		0	0	0		0	0		0	0
Reduced v/c Ratio	0.09	0.90		0.69	0.44	0.00		0.02	0.18		0.03	0.01

Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 25 (23%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 125
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.90
Intersection Signal Delay: 23.4 Intersection LOS: C
Intersection Capacity Utilization 75.2% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Benns Grant Boulevard/Queen Annes Court & Brewer's Neck Boulevard



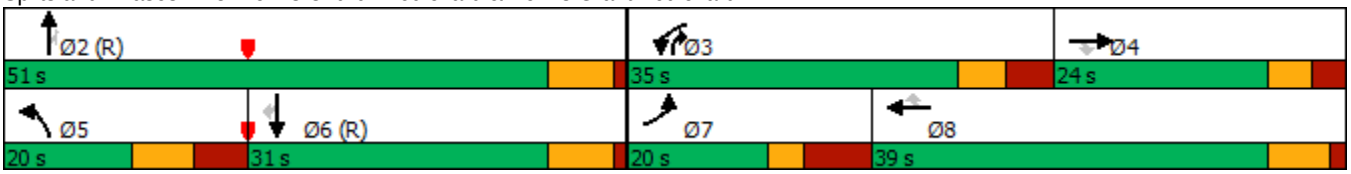
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	30	11	454	36	1	1	271	262	0	373	17
Future Volume (vph)	17	30	11	454	36	1	1	271	262	0	373	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		200	250		325	225		425	0		175
Storage Lanes	1		1	1		1	1		1	0		1
Taper Length (ft)	100			100			100			100		
Satd. Flow (prot)	1770	1284	1583	3433	1462	1583	1770	3539	1583	0	3505	1583
Flt Permitted	0.950			0.950			0.950					
Satd. Flow (perm)	1770	1284	1583	3433	1462	1583	1770	3539	1583	0	3505	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			293			213			282			293
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		1344			1225			1996			981	
Travel Time (s)		26.2			23.9			30.2			14.9	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	48%	2%	2%	30%	2%	2%	2%	2%	2%	3%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	18	32	12	488	39	1	1	291	282	0	401	18
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov		NA	Perm
Protected Phases	7	4		3	8		5	2	3		6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	3		6	6
Switch Phase												
Minimum Initial (s)	10.0	15.0	15.0	10.0	15.0	15.0	10.0	15.0	10.0		15.0	15.0
Minimum Split (s)	18.5	22.5	22.5	18.0	23.0	23.0	19.5	23.5	18.0		23.5	23.5
Total Split (s)	20.0	24.0	24.0	35.0	39.0	39.0	20.0	51.0	35.0		31.0	31.0
Total Split (%)	18.2%	21.8%	21.8%	31.8%	35.5%	35.5%	18.2%	46.4%	31.8%		28.2%	28.2%
Yellow Time (s)	3.0	3.5	3.5	4.0	5.0	5.0	5.0	5.5	4.0		5.5	5.5
All-Red Time (s)	5.5	3.0	3.0	4.0	1.5	1.5	4.5	1.0	4.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	8.5	6.5	6.5	8.0	6.5	6.5	9.5	6.5	8.0		6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead		Lead		Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Min	None		C-Min	C-Min
Act Effct Green (s)	10.0	15.0	15.0	21.9	28.9	28.9	10.0	60.7	92.3		56.8	56.8
Actuated g/C Ratio	0.09	0.14	0.14	0.20	0.26	0.26	0.09	0.55	0.84		0.52	0.52
v/c Ratio	0.11	0.18	0.03	0.71	0.10	0.00	0.01	0.15	0.21		0.22	0.02
Control Delay	47.8	45.1	0.1	21.0	11.5	0.0	46.0	15.3	0.9		20.0	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	47.8	45.1	0.1	21.0	11.5	0.0	46.0	15.3	0.9		20.0	0.1
LOS	D	D	A	C	B	A	D	B	A		B	A
Approach Delay		37.2			20.3			8.2			19.1	
Approach LOS		D			C			A			B	
Queue Length 50th (ft)	12	20	0	136	9	0	1	60	0		85	0
Queue Length 95th (ft)	35	51	0	28	m22	m0	6	97	20		177	0
Internal Link Dist (ft)		1264			1145			1916			901	
Turn Bay Length (ft)	200		200	250		325	225		425			175
Base Capacity (vph)	185	204	498	850	464	648	168	1951	1390		1808	958

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0		0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0		0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0		0	0
Reduced v/c Ratio	0.10	0.16	0.02	0.57	0.08	0.00	0.01	0.15	0.20		0.22	0.02

Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 88 (80%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 85
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.71
Intersection Signal Delay: 16.3 Intersection LOS: B
Intersection Capacity Utilization 54.2% ICU Level of Service A
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Benns Church Boulevard & Benns Grant Boulevard



Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBU	NBL	NBT	SBU	SBT	SBR
Lane Configurations								
Traffic Vol, veh/h	10	5	2	2	517	7	823	8
Future Vol, veh/h	10	5	2	2	517	7	823	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	-	None
Storage Length	0	-	-	225	-	150	-	150
Veh in Median Storage, #	0	-	-	-	0	-	0	-
Grade, %	0	-	-	-	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	50	2	2	29	2	13
Mvmt Flow	11	5	2	2	562	8	895	9

Major/Minor	Minor2		Major1			Major2		
Conflicting Flow All	1200	448	895	904	0	562	-	0
Stage 1	911	-	-	-	-	-	-	-
Stage 2	289	-	-	-	-	-	-	-
Critical Hdwy	6.84	6.94	7.4	4.14	-	6.98	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	3	2.22	-	2.79	-	-
Pot Cap-1 Maneuver	178	558	270	748	-	535	-	-
Stage 1	352	-	-	-	-	-	-	-
Stage 2	735	-	-	-	-	-	-	-
Platoon blocked, %					-		-	-
Mov Cap-1 Maneuver	174	558	395	395	-	535	-	-
Mov Cap-2 Maneuver	174	-	-	-	-	-	-	-
Stage 1	348	-	-	-	-	-	-	-
Stage 2	724	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	22.2	0.1	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBU	SBT	SBR
Capacity (veh/h)	395	-	226	535	-	-
HCM Lane V/C Ratio	0.011	-	0.072	0.014	-	-
HCM Control Delay (s)	14.2	-	22.2	11.8	-	-
HCM Lane LOS	B	-	C	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	0	-	-

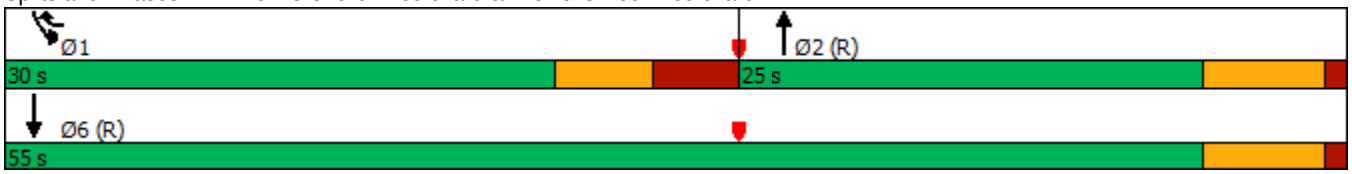
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	584	181	0	698	200
Future Volume (vph)	0	584	181	0	698	200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	425	
Storage Lanes	0	2		0	1	
Taper Length (ft)	100				100	
Satd. Flow (prot)	0	2608	3343	0	3273	3343
Flt Permitted					0.950	
Satd. Flow (perm)	0	2608	3343	0	3273	3343
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		909				
Link Speed (mph)	45		45			45
Link Distance (ft)	1056		981			678
Travel Time (s)	16.0		14.9			10.3
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	9%	8%	2%	7%	8%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	649	201	0	776	222
Turn Type		Over	NA		Prot	NA
Protected Phases		1	2		1	6
Permitted Phases						
Detector Phase		1	2		1	6
Switch Phase						
Minimum Initial (s)		15.0	10.0		15.0	15.0
Minimum Split (s)		22.5	23.0		22.5	23.0
Total Split (s)		30.0	25.0		30.0	55.0
Total Split (%)		54.5%	45.5%		54.5%	100.0%
Yellow Time (s)		4.0	5.0		4.0	5.0
All-Red Time (s)		3.5	1.0		3.5	1.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0
Total Lost Time (s)		7.5	6.0		7.5	6.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Recall Mode		None	C-Min		None	C-Min
Act Effct Green (s)		21.3	20.2		21.3	55.0
Actuated g/C Ratio		0.39	0.37		0.39	1.00
v/c Ratio		0.41	0.16		0.61	0.07
Control Delay		4.6	15.5		15.2	0.0
Queue Delay		0.0	0.0		0.0	0.0
Total Delay		4.6	15.5		15.2	0.0
LOS		A	B		B	A
Approach Delay	4.6		15.5			11.8
Approach LOS	A		B			B
Queue Length 50th (ft)		0	21		102	0
Queue Length 95th (ft)		231	6		113	0
Internal Link Dist (ft)	976		901			598
Turn Bay Length (ft)					425	
Base Capacity (vph)		1646	1311		1419	3343

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Starvation Cap Reductn		0	0		0	0
Spillback Cap Reductn		0	0		0	0
Storage Cap Reductn		0	0		0	0
Reduced v/c Ratio		0.39	0.15		0.55	0.07

Intersection Summary

Area Type: Other
Cycle Length: 55
Actuated Cycle Length: 55
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.61
Intersection Signal Delay: 9.7 Intersection LOS: A
Intersection Capacity Utilization 40.0% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 1: Benns Church Boulevard & Brewer's Neck Boulevard



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	688	2	293	578	2	1	1	418	7	1	6
Future Volume (vph)	8	688	2	293	578	2	1	1	418	7	1	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	525		250	0		250	0		0
Storage Lanes	1		0	1		1	0		1	0		1
Taper Length (ft)	100			100			100			100		
Satd. Flow (prot)	1770	3374	0	1687	3343	1077	0	1836	2656	0	1615	1599
Flt Permitted	0.950			0.950				0.469			0.944	
Satd. Flow (perm)	1770	3374	0	1687	3343	1077	0	882	2656	0	1594	1599
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						223			449			298
Link Speed (mph)		55			55			35			25	
Link Distance (ft)		1056			1813			1225			436	
Travel Time (s)		13.1			22.5			23.9			11.9	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	7%	2%	7%	8%	50%	1%	1%	7%	14%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	9	742	0	315	622	2	0	2	449	0	9	6
Turn Type	Prot	NA		Prot	NA	Perm	Perm	NA	pt+ov	Perm	NA	Perm
Protected Phases	5	2		1	6			3	3 1		4	
Permitted Phases						6	3			4		4
Detector Phase	5	2		1	6	6	3	3	3 1	4	4	4
Switch Phase												
Minimum Initial (s)	10.0	25.0		10.0	25.0	25.0	5.0	5.0		10.0	10.0	10.0
Minimum Split (s)	19.5	31.5		23.0	32.5	32.5	23.0	23.0		23.0	23.0	23.0
Total Split (s)	20.0	33.0		31.0	44.0	44.0	23.0	23.0		23.0	23.0	23.0
Total Split (%)	18.2%	30.0%		28.2%	40.0%	40.0%	20.9%	20.9%		20.9%	20.9%	20.9%
Yellow Time (s)	5.0	5.5		5.0	5.5	5.5	3.5	3.5		4.0	4.0	4.0
All-Red Time (s)	4.5	1.0		4.0	1.0	1.0	4.5	4.5		4.0	4.0	4.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0		0.0			0.0	0.0
Total Lost Time (s)	9.5	6.5		9.0	6.5	6.5		8.0			8.0	8.0
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lead		Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	C-Min		None	C-Min	C-Min	None	None		None	None	None
Act Effct Green (s)	10.0	44.6		28.3	78.0	78.0		6.4	40.5		10.0	10.0
Actuated g/C Ratio	0.09	0.41		0.26	0.71	0.71		0.06	0.37		0.09	0.09
v/c Ratio	0.06	0.54		0.73	0.26	0.00		0.04	0.36		0.06	0.01
Control Delay	51.5	22.1		47.2	9.1	0.0		51.0	1.6		46.9	0.0
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	51.5	22.1		47.2	9.1	0.0		51.0	1.6		46.9	0.0
LOS	D	C		D	A	A		D	A		D	A
Approach Delay		22.4			21.8			1.8			28.1	
Approach LOS		C			C			A			C	
Queue Length 50th (ft)	7	172		202	40	0		1	0		6	0
Queue Length 95th (ft)	m10	#355		286	199	0		m5	13		22	0
Internal Link Dist (ft)		976			1733			1145			356	
Turn Bay Length (ft)	150			525		250			250			
Base Capacity (vph)	168	1369		436	2370	828		120	1324		217	475

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0	0		0	0		0	0
Spillback Cap Reductn	0	0		0	0	0		0	0		0	0
Storage Cap Reductn	0	0		0	0	0		0	0		0	0
Reduced v/c Ratio	0.05	0.54		0.72	0.26	0.00		0.02	0.34		0.04	0.01

Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 15 (14%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 105
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.73
Intersection Signal Delay: 17.9 Intersection LOS: B
Intersection Capacity Utilization 65.0% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Benns Grant Boulevard/Queen Annes Court & Brewer's Neck Boulevard

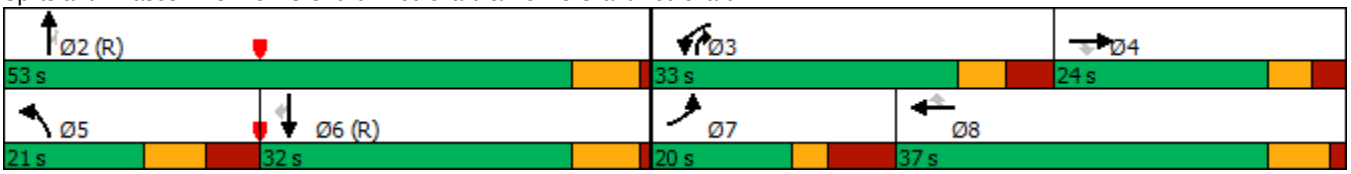
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	23	11	278	18	1	7	174	396	0	195	5
Future Volume (vph)	7	23	11	278	18	1	7	174	396	0	195	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		200	250		325	225		425	0		175
Storage Lanes	1		1	1		1	1		1	0		1
Taper Length (ft)	100			100			100			100		
Satd. Flow (prot)	1770	1810	1583	3183	1583	1583	1770	3406	1509	0	3539	1583
Flt Permitted	0.950			0.950			0.950					
Satd. Flow (perm)	1770	1810	1583	3183	1583	1583	1770	3406	1509	0	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			293			213			426			293
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		1344			1225			1996			981	
Travel Time (s)		26.2			23.9			30.2			14.9	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	5%	2%	10%	20%	2%	2%	6%	7%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	8	25	12	299	19	1	8	187	426	0	210	5
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov		NA	Perm
Protected Phases	7	4		3	8		5	2	3		6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	3		6	6
Switch Phase												
Minimum Initial (s)	10.0	15.0	15.0	10.0	15.0	15.0	10.0	15.0	10.0		15.0	15.0
Minimum Split (s)	18.5	22.5	22.5	18.0	23.0	23.0	19.5	23.5	18.0		23.5	23.5
Total Split (s)	20.0	24.0	24.0	33.0	37.0	37.0	21.0	53.0	33.0		32.0	32.0
Total Split (%)	18.2%	21.8%	21.8%	30.0%	33.6%	33.6%	19.1%	48.2%	30.0%		29.1%	29.1%
Yellow Time (s)	3.0	3.5	3.5	4.0	5.0	5.0	5.0	5.5	4.0		5.5	5.5
All-Red Time (s)	5.5	3.0	3.0	4.0	1.5	1.5	4.5	1.0	4.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	8.5	6.5	6.5	8.0	6.5	6.5	9.5	6.5	8.0		6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead		Lead		Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Min	None		C-Min	C-Min
Act Effct Green (s)	10.0	15.0	15.0	16.7	27.4	27.4	10.0	65.9	92.3		62.0	62.0
Actuated g/C Ratio	0.09	0.14	0.14	0.15	0.25	0.25	0.09	0.60	0.84		0.56	0.56
v/c Ratio	0.05	0.10	0.03	0.62	0.05	0.00	0.05	0.09	0.32		0.11	0.00
Control Delay	46.6	42.9	0.1	19.9	8.4	0.0	46.6	12.2	1.1		16.1	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	46.6	42.9	0.1	19.9	8.4	0.0	46.6	12.2	1.1		16.1	0.0
LOS	D	D	A	B	A	A	D	B	A		B	A
Approach Delay		32.1			19.1			5.0			15.8	
Approach LOS		C			B			A			B	
Queue Length 50th (ft)	5	16	0	117	13	0	5	33	0		37	0
Queue Length 95th (ft)	21	42	0	m25	m12	m0	21	58	24		88	0
Internal Link Dist (ft)		1264			1145			1916			901	
Turn Bay Length (ft)	200		200	250		325	225		425			175
Base Capacity (vph)	185	287	498	723	495	641	185	2039	1371		1994	1019

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0		0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0		0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0		0	0
Reduced v/c Ratio	0.04	0.09	0.02	0.41	0.04	0.00	0.04	0.09	0.31		0.11	0.00

Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 88 (80%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 85
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.62
Intersection Signal Delay: 11.7 Intersection LOS: B
Intersection Capacity Utilization 52.1% ICU Level of Service A
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Benns Church Boulevard & Benns Grant Boulevard



Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBU	NBL	NBT	SBU	SBT	SBR
Lane Configurations								
Traffic Vol, veh/h	7	2	1	3	566	4	470	10
Future Vol, veh/h	7	2	1	3	566	4	470	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	-	None
Storage Length	0	-	-	225	-	150	-	150
Veh in Median Storage, #	0	-	-	-	0	-	0	-
Grade, %	0	-	-	-	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92
Heavy Vehicles, %	43	2	2	2	6	2	2	10
Mvmt Flow	8	2	1	3	615	4	511	11

Major/Minor	Minor2		Major1			Major2		
Conflicting Flow All	835	256	511	522	0	615	-	0
Stage 1	519	-	-	-	-	-	-	-
Stage 2	316	-	-	-	-	-	-	-
Critical Hdwy	7.66	6.94	6.44	4.14	-	6.44	-	-
Critical Hdwy Stg 1	6.66	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.66	-	-	-	-	-	-	-
Follow-up Hdwy	3.93	3.32	2.52	2.22	-	2.52	-	-
Pot Cap-1 Maneuver	236	743	681	1041	-	585	-	-
Stage 1	459	-	-	-	-	-	-	-
Stage 2	604	-	-	-	-	-	-	-
Platoon blocked, %					-		-	-
Mov Cap-1 Maneuver	233	743	919	919	-	585	-	-
Mov Cap-2 Maneuver	233	-	-	-	-	-	-	-
Stage 1	457	-	-	-	-	-	-	-
Stage 2	600	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.6	0.1	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBU	SBT	SBR
Capacity (veh/h)	919	-	275	585	-	-
HCM Lane V/C Ratio	0.005	-	0.036	0.007	-	-
HCM Control Delay (s)	8.9	-	18.6	11.2	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	0	-	-

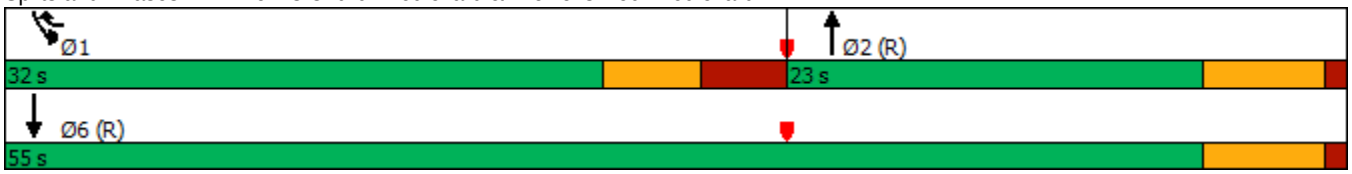
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	1027	291	0	794	394
Future Volume (vph)	0	1027	291	0	794	394
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	425	
Storage Lanes	0	2		0	1	
Taper Length (ft)	100				100	
Satd. Flow (prot)	0	2760	3471	0	3433	3505
Flt Permitted					0.950	
Satd. Flow (perm)	0	2760	3471	0	3433	3505
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		515				
Link Speed (mph)	45		45			45
Link Distance (ft)	1056		981			678
Travel Time (s)	16.0		14.9			10.3
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	3%	4%	2%	2%	3%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1104	313	0	854	424
Turn Type		Over	NA		Prot	NA
Protected Phases		1	2		1	6
Permitted Phases						
Detector Phase		1	2		1	6
Switch Phase						
Minimum Initial (s)		15.0	10.0		15.0	15.0
Minimum Split (s)		22.5	23.0		22.5	23.0
Total Split (s)		32.0	23.0		32.0	55.0
Total Split (%)		58.2%	41.8%		58.2%	100.0%
Yellow Time (s)		4.0	5.0		4.0	5.0
All-Red Time (s)		3.5	1.0		3.5	1.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0
Total Lost Time (s)		7.5	6.0		7.5	6.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Recall Mode		None	C-Min		None	C-Min
Act Effct Green (s)		24.6	16.9		24.6	55.0
Actuated g/C Ratio		0.45	0.31		0.45	1.00
v/c Ratio		0.73	0.29		0.56	0.12
Control Delay		16.2	23.8		12.2	0.1
Queue Delay		0.0	0.0		0.0	0.0
Total Delay		16.2	23.8		12.2	0.1
LOS		B	C		B	A
Approach Delay	16.2		23.8			8.2
Approach LOS	B		C			A
Queue Length 50th (ft)		109	7		95	0
Queue Length 95th (ft)		519	147		126	0
Internal Link Dist (ft)	976		901			598
Turn Bay Length (ft)					425	
Base Capacity (vph)		1595	1191		1652	3505

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Starvation Cap Reductn		0	0		0	0
Spillback Cap Reductn		0	0		0	0
Storage Cap Reductn		0	0		0	0
Reduced v/c Ratio		0.69	0.26		0.52	0.12

Intersection Summary

Area Type: Other
Cycle Length: 55
Actuated Cycle Length: 55
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.73
Intersection Signal Delay: 13.3 Intersection LOS: B
Intersection Capacity Utilization 55.5% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 1: Benns Church Boulevard & Brewer's Neck Boulevard



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	779	2	490	1023	8	1	1	294	3	3	4
Future Volume (vph)	13	779	2	490	1023	8	1	1	294	3	3	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	525		250	0		250	0		0
Storage Lanes	1		0	1		1	0		1	0		1
Taper Length (ft)	100			100			100			100		
Satd. Flow (prot)	1770	3539	0	1736	3505	1429	0	1818	2760	0	1634	1583
Flt Permitted	0.950			0.950				0.484				
Satd. Flow (perm)	1770	3539	0	1736	3505	1429	0	902	2760	0	1674	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						223			316			298
Link Speed (mph)		55			55			35			25	
Link Distance (ft)		1056			1813			1225			436	
Travel Time (s)		13.1			22.5			23.9			11.9	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	2%	2%	4%	3%	13%	2%	2%	3%	25%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	14	840	0	527	1100	9	0	2	316	0	6	4
Turn Type	Prot	NA		Prot	NA	Perm	Perm	NA	pt+ov	Perm	NA	Perm
Protected Phases	5	2		1	6			3	3 1		4	
Permitted Phases						6	3			4		4
Detector Phase	5	2		1	6	6	3	3	3 1	4	4	4
Switch Phase												
Minimum Initial (s)	10.0	25.0		10.0	25.0	25.0	5.0	5.0		10.0	10.0	10.0
Minimum Split (s)	19.5	31.5		23.0	32.5	32.5	23.0	23.0		23.0	23.0	23.0
Total Split (s)	19.0	32.0		32.0	45.0	45.0	23.0	23.0		23.0	23.0	23.0
Total Split (%)	17.3%	29.1%		29.1%	40.9%	40.9%	20.9%	20.9%		20.9%	20.9%	20.9%
Yellow Time (s)	5.0	5.5		5.0	5.5	5.5	3.5	3.5		4.0	4.0	4.0
All-Red Time (s)	4.5	1.0		4.0	1.0	1.0	4.5	4.5		4.0	4.0	4.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0		0.0			0.0	0.0
Total Lost Time (s)	9.5	6.5		9.0	6.5	6.5		8.0			8.0	8.0
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lead		Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	C-Min		None	C-Min	C-Min	None	None		None	None	None
Act Effct Green (s)	10.0	28.6		48.1	77.9	77.9		6.2	61.7		10.0	10.0
Actuated g/C Ratio	0.09	0.26		0.44	0.71	0.71		0.06	0.56		0.09	0.09
v/c Ratio	0.09	0.91		0.69	0.44	0.01		0.04	0.19		0.04	0.01
Control Delay	52.1	43.5		33.1	10.8	0.0		54.0	1.4		46.3	0.0
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	52.1	43.5		33.1	10.8	0.0		54.0	1.4		46.3	0.0
LOS	D	D		C	B	A		D	A		D	A
Approach Delay		43.6			17.9			1.8			27.8	
Approach LOS		D			B			A			C	
Queue Length 50th (ft)	11	182		291	83	0		1	0		4	0
Queue Length 95th (ft)	m14	#460		#575	391	0		m7	13		17	0
Internal Link Dist (ft)		976			1733			1145			356	
Turn Bay Length (ft)	150			525		250			250			
Base Capacity (vph)	160	920		759	2482	1077		123	1719		228	473

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0	0		0	0		0	0
Spillback Cap Reductn	0	0		0	0	0		0	0		0	0
Storage Cap Reductn	0	0		0	0	0		0	0		0	0
Reduced v/c Ratio	0.09	0.91		0.69	0.44	0.01		0.02	0.18		0.03	0.01

Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 25 (23%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 135
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 23.9 Intersection LOS: C
Intersection Capacity Utilization 75.7% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Benns Grant Boulevard/Queen Annes Court & Brewer's Neck Boulevard

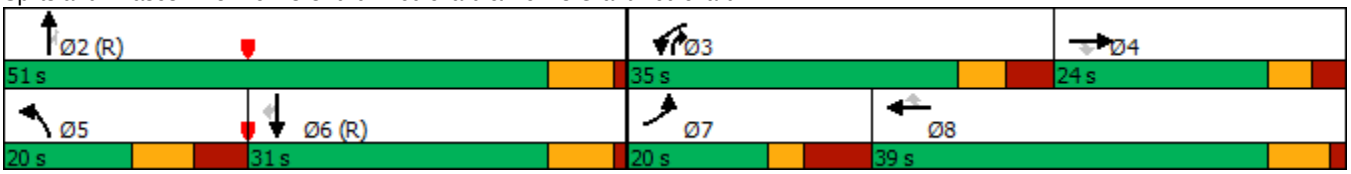
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	23	11	459	36	1	1	274	265	0	377	17
Future Volume (vph)	17	23	11	459	36	1	1	274	265	0	377	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		200	250		325	225		425	0		175
Storage Lanes	1		1	1		1	1		1	0		1
Taper Length (ft)	100			100			100			100		
Satd. Flow (prot)	1770	1284	1583	3433	1462	1583	1770	3539	1583	0	3505	1583
Flt Permitted	0.950			0.950			0.950					
Satd. Flow (perm)	1770	1284	1583	3433	1462	1583	1770	3539	1583	0	3505	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			293			213			285			293
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		1344			1225			1996			981	
Travel Time (s)		26.2			23.9			30.2			14.9	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	48%	2%	2%	30%	2%	2%	2%	2%	2%	3%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	18	25	12	494	39	1	1	295	285	0	405	18
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov		NA	Perm
Protected Phases	7	4		3	8		5	2	3		6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	3		6	6
Switch Phase												
Minimum Initial (s)	10.0	15.0	15.0	10.0	15.0	15.0	10.0	15.0	10.0		15.0	15.0
Minimum Split (s)	18.5	22.5	22.5	18.0	23.0	23.0	19.5	23.5	18.0		23.5	23.5
Total Split (s)	20.0	24.0	24.0	35.0	39.0	39.0	20.0	51.0	35.0		31.0	31.0
Total Split (%)	18.2%	21.8%	21.8%	31.8%	35.5%	35.5%	18.2%	46.4%	31.8%		28.2%	28.2%
Yellow Time (s)	3.0	3.5	3.5	4.0	5.0	5.0	5.0	5.5	4.0		5.5	5.5
All-Red Time (s)	5.5	3.0	3.0	4.0	1.5	1.5	4.5	1.0	4.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	8.5	6.5	6.5	8.0	6.5	6.5	9.5	6.5	8.0		6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead		Lead		Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Min	None		C-Min	C-Min
Act Effct Green (s)	10.0	15.0	15.0	22.1	29.1	29.1	10.0	60.5	92.3		56.6	56.6
Actuated g/C Ratio	0.09	0.14	0.14	0.20	0.26	0.26	0.09	0.55	0.84		0.51	0.51
v/c Ratio	0.11	0.14	0.03	0.72	0.10	0.00	0.01	0.15	0.21		0.22	0.02
Control Delay	47.8	44.2	0.1	21.2	11.6	0.0	46.0	15.3	0.9		20.0	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	47.8	44.2	0.1	21.2	11.6	0.0	46.0	15.3	0.9		20.0	0.1
LOS	D	D	A	C	B	A	D	B	A		C	A
Approach Delay		35.8			20.5			8.3			19.2	
Approach LOS		D			C			A			B	
Queue Length 50th (ft)	12	16	0	138	9	0	1	61	0		86	0
Queue Length 95th (ft)	35	42	0	28	m22	m0	6	98	20		178	0
Internal Link Dist (ft)		1264			1145			1916			901	
Turn Bay Length (ft)	200		200	250		325	225		425			175
Base Capacity (vph)	185	204	498	848	464	648	168	1947	1389		1804	957

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0		0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0		0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0		0	0
Reduced v/c Ratio	0.10	0.12	0.02	0.58	0.08	0.00	0.01	0.15	0.21		0.22	0.02

Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 88 (80%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 85
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.72
Intersection Signal Delay: 16.2 Intersection LOS: B
Intersection Capacity Utilization 54.3% ICU Level of Service A
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Benns Church Boulevard & Benns Grant Boulevard



Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBU	NBL	NBT	SBU	SBT	SBR
Lane Configurations								
Traffic Vol, veh/h	10	5	2	2	523	7	832	8
Future Vol, veh/h	10	5	2	2	523	7	832	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	-	None
Storage Length	0	-	-	225	-	150	-	150
Veh in Median Storage, #	0	-	-	-	0	-	0	-
Grade, %	0	-	-	-	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	50	2	2	29	2	13
Mvmt Flow	11	5	2	2	568	8	904	9

Major/Minor	Minor2		Major1			Major2		
Conflicting Flow All	1212	452	904	913	0	568	-	0
Stage 1	920	-	-	-	-	-	-	-
Stage 2	292	-	-	-	-	-	-	-
Critical Hdwy	6.84	6.94	7.4	4.14	-	6.98	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	3	2.22	-	2.79	-	-
Pot Cap-1 Maneuver	175	555	266	742	-	530	-	-
Stage 1	349	-	-	-	-	-	-	-
Stage 2	732	-	-	-	-	-	-	-
Platoon blocked, %					-		-	-
Mov Cap-1 Maneuver	171	555	389	389	-	530	-	-
Mov Cap-2 Maneuver	171	-	-	-	-	-	-	-
Stage 1	346	-	-	-	-	-	-	-
Stage 2	721	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	22.5	0.1	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBU	SBT	SBR
Capacity (veh/h)	389	-	222	530	-	-
HCM Lane V/C Ratio	0.011	-	0.073	0.014	-	-
HCM Control Delay (s)	14.3	-	22.5	11.9	-	-
HCM Lane LOS	B	-	C	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	0	-	-

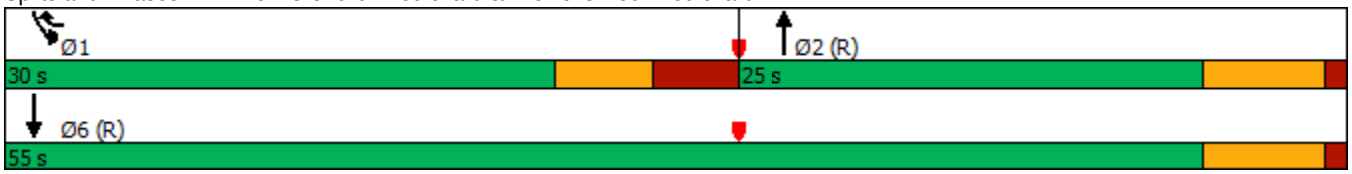
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	584	181	0	698	200
Future Volume (vph)	0	584	181	0	698	200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	425	
Storage Lanes	0	2		0	1	
Taper Length (ft)	100				100	
Satd. Flow (prot)	0	2656	3374	0	3303	3343
Flt Permitted					0.950	
Satd. Flow (perm)	0	2656	3374	0	3303	3343
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		909				
Link Speed (mph)	45		45			45
Link Distance (ft)	1056		981			678
Travel Time (s)	16.0		14.9			10.3
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	7%	7%	2%	6%	8%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	649	201	0	776	222
Turn Type		Over	NA		Prot	NA
Protected Phases		1	2		1	6
Permitted Phases						
Detector Phase		1	2		1	6
Switch Phase						
Minimum Initial (s)		15.0	10.0		15.0	15.0
Minimum Split (s)		22.5	23.0		22.5	23.0
Total Split (s)		30.0	25.0		30.0	55.0
Total Split (%)		54.5%	45.5%		54.5%	100.0%
Yellow Time (s)		4.0	5.0		4.0	5.0
All-Red Time (s)		3.5	1.0		3.5	1.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0
Total Lost Time (s)		7.5	6.0		7.5	6.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Recall Mode		None	C-Min		None	C-Min
Act Effct Green (s)		21.2	20.3		21.2	55.0
Actuated g/C Ratio		0.39	0.37		0.39	1.00
v/c Ratio		0.41	0.16		0.61	0.07
Control Delay		4.5	16.6		15.2	0.0
Queue Delay		0.0	0.0		0.0	0.0
Total Delay		4.5	16.6		15.2	0.0
LOS		A	B		B	A
Approach Delay	4.5		16.6			11.8
Approach LOS	A		B			B
Queue Length 50th (ft)		0	21		102	0
Queue Length 95th (ft)		229	105		113	0
Internal Link Dist (ft)	976		901			598
Turn Bay Length (ft)					425	
Base Capacity (vph)		1664	1326		1429	3343

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Starvation Cap Reductn		0	0		0	0
Spillback Cap Reductn		0	0		0	0
Storage Cap Reductn		0	0		0	0
Reduced v/c Ratio		0.39	0.15		0.54	0.07

Intersection Summary

Area Type: Other
Cycle Length: 55
Actuated Cycle Length: 55
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.61
Intersection Signal Delay: 9.8 Intersection LOS: A
Intersection Capacity Utilization 40.0% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 1: Benns Church Boulevard & Brewer's Neck Boulevard



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	688	2	303	578	2	1	1	419	7	1	6
Future Volume (vph)	8	688	2	303	578	2	1	1	419	7	1	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	525		250	0		250	0		0
Storage Lanes	1		0	1		1	0		1	0		1
Taper Length (ft)	100			100			100			100		
Satd. Flow (prot)	1770	3471	0	1687	3374	1583	0	1818	2682	0	1783	1583
Flt Permitted	0.950			0.950				0.469			0.944	
Satd. Flow (perm)	1770	3471	0	1687	3374	1583	0	874	2682	0	1758	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						223			451			298
Link Speed (mph)		55			55			35			25	
Link Distance (ft)		1056			1813			1225			436	
Travel Time (s)		13.1			22.5			23.9			11.9	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	4%	2%	7%	7%	2%	2%	2%	6%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	9	742	0	326	622	2	0	2	451	0	9	6
Turn Type	Prot	NA		Prot	NA	Perm	Perm	NA	pt+ov	Perm	NA	Perm
Protected Phases	5	2		1	6			3	3 1		4	
Permitted Phases						6	3			4		4
Detector Phase	5	2		1	6	6	3	3	3 1	4	4	4
Switch Phase												
Minimum Initial (s)	10.0	25.0		10.0	25.0	25.0	5.0	5.0		10.0	10.0	10.0
Minimum Split (s)	19.5	31.5		23.0	32.5	32.5	23.0	23.0		23.0	23.0	23.0
Total Split (s)	20.0	33.0		31.0	44.0	44.0	23.0	23.0		23.0	23.0	23.0
Total Split (%)	18.2%	30.0%		28.2%	40.0%	40.0%	20.9%	20.9%		20.9%	20.9%	20.9%
Yellow Time (s)	5.0	5.5		5.0	5.5	5.5	3.5	3.5		4.0	4.0	4.0
All-Red Time (s)	4.5	1.0		4.0	1.0	1.0	4.5	4.5		4.0	4.0	4.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0		0.0			0.0	0.0
Total Lost Time (s)	9.5	6.5		9.0	6.5	6.5		8.0			8.0	8.0
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lead		Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	C-Min		None	C-Min	C-Min	None	None		None	None	None
Act Effct Green (s)	10.0	43.4		29.5	78.0	78.0		6.4	41.7		10.0	10.0
Actuated g/C Ratio	0.09	0.39		0.27	0.71	0.71		0.06	0.38		0.09	0.09
v/c Ratio	0.06	0.54		0.72	0.26	0.00		0.04	0.35		0.06	0.01
Control Delay	50.5	22.4		45.8	9.0	0.0		51.5	1.5		46.8	0.0
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	50.5	22.4		45.8	9.0	0.0		51.5	1.5		46.8	0.0
LOS	D	C		D	A	A		D	A		D	A
Approach Delay		22.7			21.6			1.7			28.1	
Approach LOS		C			C			A			C	
Queue Length 50th (ft)	7	173		208	40	0		1	0		6	0
Queue Length 95th (ft)	m10	#345		297	199	0		m5	13		22	0
Internal Link Dist (ft)		976			1733			1145			356	
Turn Bay Length (ft)	150			525		250			250			
Base Capacity (vph)	168	1368		453	2392	1187		119	1357		239	473

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0	0		0	0		0	0
Spillback Cap Reductn	0	0		0	0	0		0	0		0	0
Storage Cap Reductn	0	0		0	0	0		0	0		0	0
Reduced v/c Ratio	0.05	0.54		0.72	0.26	0.00		0.02	0.33		0.04	0.01

Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 15 (14%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 105
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.72
Intersection Signal Delay: 17.9 Intersection LOS: B
Intersection Capacity Utilization 65.5% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Benns Grant Boulevard/Queen Annes Court & Brewer's Neck Boulevard

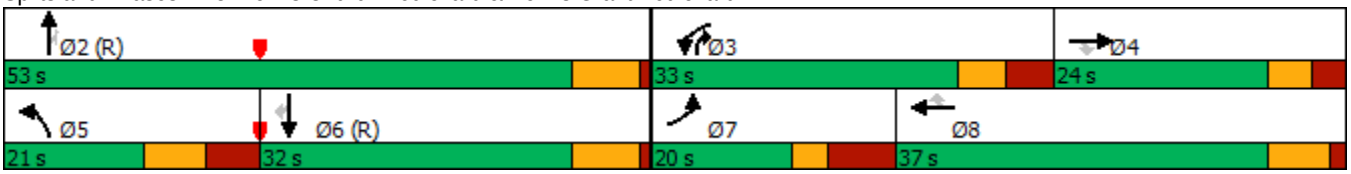
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	23	11	288	18	1	7	174	397	0	195	5
Future Volume (vph)	7	23	11	288	18	1	7	174	397	0	195	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		200	250		325	225		425	0		175
Storage Lanes	1		1	1		1	1		1	0		1
Taper Length (ft)	100			100			100			100		
Satd. Flow (prot)	1770	1810	1583	3183	1583	1583	1770	3406	1509	0	3539	1583
Flt Permitted	0.950			0.950			0.950					
Satd. Flow (perm)	1770	1810	1583	3183	1583	1583	1770	3406	1509	0	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			293			213			427			293
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		1344			1225			1996			981	
Travel Time (s)		26.2			23.9			30.2			14.9	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	5%	2%	10%	20%	2%	2%	6%	7%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	8	25	12	310	19	1	8	187	427	0	210	5
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov		NA	Perm
Protected Phases	7	4		3	8		5	2	3		6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	3		6	6
Switch Phase												
Minimum Initial (s)	10.0	15.0	15.0	10.0	15.0	15.0	10.0	15.0	10.0		15.0	15.0
Minimum Split (s)	18.5	22.5	22.5	18.0	23.0	23.0	19.5	23.5	18.0		23.5	23.5
Total Split (s)	20.0	24.0	24.0	33.0	37.0	37.0	21.0	53.0	33.0		32.0	32.0
Total Split (%)	18.2%	21.8%	21.8%	30.0%	33.6%	33.6%	19.1%	48.2%	30.0%		29.1%	29.1%
Yellow Time (s)	3.0	3.5	3.5	4.0	5.0	5.0	5.0	5.5	4.0		5.5	5.5
All-Red Time (s)	5.5	3.0	3.0	4.0	1.5	1.5	4.5	1.0	4.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	8.5	6.5	6.5	8.0	6.5	6.5	9.5	6.5	8.0		6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead		Lead		Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Min	None		C-Min	C-Min
Act Effct Green (s)	10.0	15.0	15.0	17.2	27.9	27.9	10.0	65.4	92.3		61.5	61.5
Actuated g/C Ratio	0.09	0.14	0.14	0.16	0.25	0.25	0.09	0.59	0.84		0.56	0.56
v/c Ratio	0.05	0.10	0.03	0.62	0.05	0.00	0.05	0.09	0.32		0.11	0.00
Control Delay	46.6	42.9	0.1	20.1	8.3	0.0	46.6	12.4	1.1		16.4	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	46.6	42.9	0.1	20.1	8.3	0.0	46.6	12.4	1.1		16.4	0.0
LOS	D	D	A	C	A	A	D	B	A		B	A
Approach Delay		32.1			19.4			5.1			16.0	
Approach LOS		C			B			A			B	
Queue Length 50th (ft)	5	16	0	120	13	0	5	34	0		38	0
Queue Length 95th (ft)	21	42	0	28	m11	m0	21	58	24		88	0
Internal Link Dist (ft)		1264			1145			1916			901	
Turn Bay Length (ft)	200		200	250		325	225		425			175
Base Capacity (vph)	185	287	498	723	498	643	185	2024	1369		1977	1013

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0		0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0		0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0		0	0
Reduced v/c Ratio	0.04	0.09	0.02	0.43	0.04	0.00	0.04	0.09	0.31		0.11	0.00

Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 88 (80%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 85
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.62
Intersection Signal Delay: 11.9 Intersection LOS: B
Intersection Capacity Utilization 52.1% ICU Level of Service A
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Benns Church Boulevard & Benns Grant Boulevard



Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBU	NBL	NBT	SBU	SBT	SBR
Lane Configurations								
Traffic Vol, veh/h	8	3	1	6	566	4	470	20
Future Vol, veh/h	8	3	1	6	566	4	470	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	-	None
Storage Length	0	-	-	225	-	150	-	150
Veh in Median Storage, #	0	-	-	-	0	-	0	-
Grade, %	0	-	-	-	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92
Heavy Vehicles, %	13	34	2	16	2	2	2	5
Mvmt Flow	9	3	1	7	615	4	511	22

Major/Minor	Minor2		Major1			Major2		
Conflicting Flow All	843	256	511	533	0	615	-	0
Stage 1	519	-	-	-	-	-	-	-
Stage 2	324	-	-	-	-	-	-	-
Critical Hdwy	7.06	7.58	6.44	4.42	-	6.44	-	-
Critical Hdwy Stg 1	6.06	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.06	-	-	-	-	-	-	-
Follow-up Hdwy	3.63	3.64	2.52	2.36	-	2.52	-	-
Pot Cap-1 Maneuver	282	655	681	939	-	585	-	-
Stage 1	532	-	-	-	-	-	-	-
Stage 2	674	-	-	-	-	-	-	-
Platoon blocked, %					-		-	-
Mov Cap-1 Maneuver	277	655	890	890	-	585	-	-
Mov Cap-2 Maneuver	277	-	-	-	-	-	-	-
Stage 1	527	-	-	-	-	-	-	-
Stage 2	669	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.4	0.1	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBU	SBT	SBR
Capacity (veh/h)	890	-	329	585	-	-
HCM Lane V/C Ratio	0.009	-	0.036	0.007	-	-
HCM Control Delay (s)	9.1	-	16.4	11.2	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	0	-	-

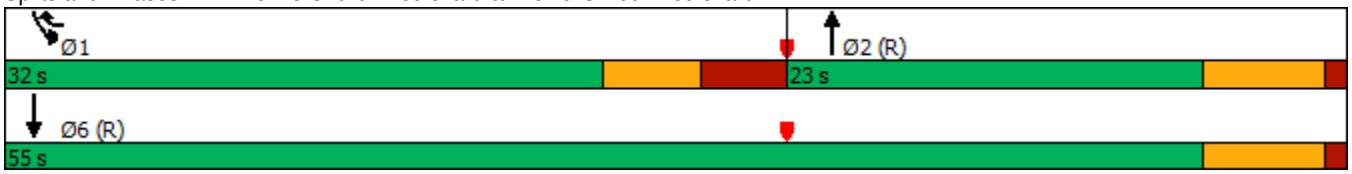
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	1027	291	0	794	394
Future Volume (vph)	0	1027	291	0	794	394
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	425	
Storage Lanes	0	2		0	1	
Taper Length (ft)	100				100	
Satd. Flow (prot)	0	2760	3471	0	3433	3505
Flt Permitted					0.950	
Satd. Flow (perm)	0	2760	3471	0	3433	3505
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		515				
Link Speed (mph)	45		45			45
Link Distance (ft)	1056		981			678
Travel Time (s)	16.0		14.9			10.3
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	3%	4%	2%	2%	3%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1104	313	0	854	424
Turn Type		Over	NA		Prot	NA
Protected Phases		1	2		1	6
Permitted Phases						
Detector Phase		1	2		1	6
Switch Phase						
Minimum Initial (s)		15.0	10.0		15.0	15.0
Minimum Split (s)		22.5	23.0		22.5	23.0
Total Split (s)		32.0	23.0		32.0	55.0
Total Split (%)		58.2%	41.8%		58.2%	100.0%
Yellow Time (s)		4.0	5.0		4.0	5.0
All-Red Time (s)		3.5	1.0		3.5	1.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0
Total Lost Time (s)		7.5	6.0		7.5	6.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Recall Mode		None	C-Min		None	C-Min
Act Effct Green (s)		24.6	16.9		24.6	55.0
Actuated g/C Ratio		0.45	0.31		0.45	1.00
v/c Ratio		0.73	0.29		0.56	0.12
Control Delay		16.2	23.6		12.2	0.1
Queue Delay		0.0	0.0		0.0	0.0
Total Delay		16.2	23.6		12.2	0.1
LOS		B	C		B	A
Approach Delay	16.2		23.6			8.2
Approach LOS	B		C			A
Queue Length 50th (ft)		109	105		95	0
Queue Length 95th (ft)		519	147		126	0
Internal Link Dist (ft)	976		901			598
Turn Bay Length (ft)					425	
Base Capacity (vph)		1595	1191		1652	3505

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Starvation Cap Reductn		0	0		0	0
Spillback Cap Reductn		0	0		0	0
Storage Cap Reductn		0	0		0	0
Reduced v/c Ratio		0.69	0.26		0.52	0.12

Intersection Summary

Area Type: Other
Cycle Length: 55
Actuated Cycle Length: 55
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.73
Intersection Signal Delay: 13.3 Intersection LOS: B
Intersection Capacity Utilization 55.5% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 1: Benns Church Boulevard & Brewer's Neck Boulevard



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	779	2	498	1023	8	1	1	303	3	3	4
Future Volume (vph)	13	779	2	498	1023	8	1	1	303	3	3	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	525		250	0		250	0		0
Storage Lanes	1		0	1		1	0		1	0		1
Taper Length (ft)	100			100			100			100		
Satd. Flow (prot)	1770	3539	0	1719	3505	1429	0	1818	2733	0	1818	1292
Flt Permitted	0.950			0.950				0.484				
Satd. Flow (perm)	1770	3539	0	1719	3505	1429	0	902	2733	0	1863	1292
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						223			326			298
Link Speed (mph)		55			55			35			25	
Link Distance (ft)		1056			1813			1225			436	
Travel Time (s)		13.1			22.5			23.9			11.9	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	2%	2%	5%	3%	13%	2%	2%	4%	2%	2%	25%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	14	840	0	535	1100	9	0	2	326	0	6	4
Turn Type	Prot	NA		Prot	NA	Perm	Perm	NA	pt+ov	Perm	NA	Perm
Protected Phases	5	2		1	6			3	3 1		4	
Permitted Phases						6	3			4		4
Detector Phase	5	2		1	6	6	3	3	3 1	4	4	4
Switch Phase												
Minimum Initial (s)	10.0	25.0		10.0	25.0	25.0	5.0	5.0		10.0	10.0	10.0
Minimum Split (s)	19.5	31.5		23.0	32.5	32.5	23.0	23.0		23.0	23.0	23.0
Total Split (s)	19.0	32.0		32.0	45.0	45.0	23.0	23.0		23.0	23.0	23.0
Total Split (%)	17.3%	29.1%		29.1%	40.9%	40.9%	20.9%	20.9%		20.9%	20.9%	20.9%
Yellow Time (s)	5.0	5.5		5.0	5.5	5.5	3.5	3.5		4.0	4.0	4.0
All-Red Time (s)	4.5	1.0		4.0	1.0	1.0	4.5	4.5		4.0	4.0	4.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0		0.0			0.0	0.0
Total Lost Time (s)	9.5	6.5		9.0	6.5	6.5		8.0			8.0	8.0
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lead		Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	C-Min		None	C-Min	C-Min	None	None		None	None	None
Act Effct Green (s)	10.0	27.7		49.0	77.9	77.9		6.2	62.6		10.0	10.0
Actuated g/C Ratio	0.09	0.25		0.45	0.71	0.71		0.06	0.57		0.09	0.09
v/c Ratio	0.09	0.94		0.70	0.44	0.01		0.04	0.19		0.04	0.01
Control Delay	52.0	48.4		32.7	10.8	0.0		55.0	1.4		46.3	0.0
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	52.0	48.4		32.7	10.8	0.0		55.0	1.4		46.3	0.0
LOS	D	D		C	B	A		D	A		D	A
Approach Delay		48.5			17.9			1.8			27.8	
Approach LOS		D			B			A			C	
Queue Length 50th (ft)	11	291		283	83	0		1	0		4	0
Queue Length 95th (ft)	m13	#460		#594	392	0		m6	16		17	0
Internal Link Dist (ft)		976			1733			1145			356	
Turn Bay Length (ft)	150			525		250			250			
Base Capacity (vph)	160	890		766	2482	1077		123	1727		254	433

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0	0		0	0		0	0
Spillback Cap Reductn	0	0		0	0	0		0	0		0	0
Storage Cap Reductn	0	0		0	0	0		0	0		0	0
Reduced v/c Ratio	0.09	0.94		0.70	0.44	0.01		0.02	0.19		0.02	0.01

Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 25 (23%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 135
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.94
Intersection Signal Delay: 25.3 Intersection LOS: C
Intersection Capacity Utilization 75.7% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Benns Grant Boulevard/Queen Annes Court & Brewer's Neck Boulevard

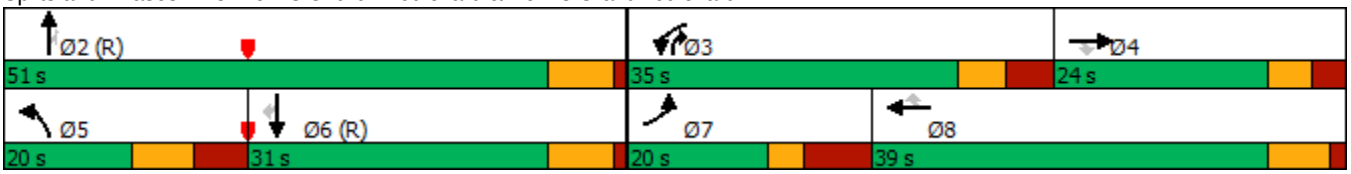
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	30	11	467	36	1	1	274	274	0	377	17
Future Volume (vph)	17	30	11	467	36	1	1	274	274	0	377	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		200	250		325	225		425	0		175
Storage Lanes	1		1	1		1	1		1	0		1
Taper Length (ft)	100			100			100			100		
Satd. Flow (prot)	1770	1284	1583	3400	1462	1583	1770	3539	1583	0	3505	1583
Flt Permitted	0.950			0.950			0.950					
Satd. Flow (perm)	1770	1284	1583	3400	1462	1583	1770	3539	1583	0	3505	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			293			213			295			293
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		1344			1225			1996			981	
Travel Time (s)		26.2			23.9			30.2			14.9	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	48%	2%	3%	30%	2%	2%	2%	2%	2%	3%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	18	32	12	502	39	1	1	295	295	0	405	18
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov		NA	Perm
Protected Phases	7	4		3	8		5	2	3		6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	3		6	6
Switch Phase												
Minimum Initial (s)	10.0	15.0	15.0	10.0	15.0	15.0	10.0	15.0	10.0		15.0	15.0
Minimum Split (s)	18.5	22.5	22.5	18.0	23.0	23.0	19.5	23.5	18.0		23.5	23.5
Total Split (s)	20.0	24.0	24.0	35.0	39.0	39.0	20.0	51.0	35.0		31.0	31.0
Total Split (%)	18.2%	21.8%	21.8%	31.8%	35.5%	35.5%	18.2%	46.4%	31.8%		28.2%	28.2%
Yellow Time (s)	3.0	3.5	3.5	4.0	5.0	5.0	5.0	5.5	4.0		5.5	5.5
All-Red Time (s)	5.5	3.0	3.0	4.0	1.5	1.5	4.5	1.0	4.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	8.5	6.5	6.5	8.0	6.5	6.5	9.5	6.5	8.0		6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead		Lead		Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Min	None		C-Min	C-Min
Act Effct Green (s)	10.0	15.0	15.0	22.3	29.3	29.3	10.0	60.3	92.3		56.4	56.4
Actuated g/C Ratio	0.09	0.14	0.14	0.20	0.27	0.27	0.09	0.55	0.84		0.51	0.51
v/c Ratio	0.11	0.18	0.03	0.73	0.10	0.00	0.01	0.15	0.21		0.23	0.02
Control Delay	47.8	45.1	0.1	21.9	11.4	0.0	46.0	15.5	0.9		20.2	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	47.8	45.1	0.1	21.9	11.4	0.0	46.0	15.5	0.9		20.2	0.1
LOS	D	D	A	C	B	A	D	B	A		C	A
Approach Delay		37.2			21.1			8.2			19.3	
Approach LOS		D			C			A			B	
Queue Length 50th (ft)	12	20	0	147	9	0	1	61	0		87	0
Queue Length 95th (ft)	35	51	0	29	m22	m0	6	98	21		178	0
Internal Link Dist (ft)		1264			1145			1916			901	
Turn Bay Length (ft)	200		200	250		325	225		425			175
Base Capacity (vph)	185	204	498	840	465	649	168	1938	1388		1795	953

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0		0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0		0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0		0	0
Reduced v/c Ratio	0.10	0.16	0.02	0.60	0.08	0.00	0.01	0.15	0.21		0.23	0.02

Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 88 (80%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 85
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.73
Intersection Signal Delay: 16.5 Intersection LOS: B
Intersection Capacity Utilization 54.6% ICU Level of Service A
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Benns Church Boulevard & Benns Grant Boulevard



Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBR	NBU	NBL	NBT	SBU	SBT	SBR
Lane Configurations								
Traffic Vol, veh/h	19	8	2	5	523	7	832	16
Future Vol, veh/h	19	8	2	5	523	7	832	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	-	None
Storage Length	0	-	-	225	-	150	-	150
Veh in Median Storage, #	0	-	-	-	0	-	0	-
Grade, %	0	-	-	-	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92
Heavy Vehicles, %	11	24	2	20	2	2	2	37
Mvmt Flow	21	9	2	5	568	8	904	17

Major/Minor	Minor2		Major1			Major2		
Conflicting Flow All	1218	452	904	921	0	568	-	0
Stage 1	920	-	-	-	-	-	-	-
Stage 2	298	-	-	-	-	-	-	-
Critical Hdwy	7.02	7.38	6.44	4.5	-	6.44	-	-
Critical Hdwy Stg 1	6.02	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.02	-	-	-	-	-	-	-
Follow-up Hdwy	3.61	3.54	2.52	2.4	-	2.52	-	-
Pot Cap-1 Maneuver	161	499	383	635	-	627	-	-
Stage 1	328	-	-	-	-	-	-	-
Stage 2	701	-	-	-	-	-	-	-
Platoon blocked, %					-		-	-
Mov Cap-1 Maneuver	156	499	531	531	-	627	-	-
Mov Cap-2 Maneuver	156	-	-	-	-	-	-	-
Stage 1	323	-	-	-	-	-	-	-
Stage 2	692	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	26.6	0.2	0.1
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBU	SBT	SBR
Capacity (veh/h)	531	-	196	627	-	-
HCM Lane V/C Ratio	0.014	-	0.15	0.012	-	-
HCM Control Delay (s)	11.9	-	26.6	10.8	-	-
HCM Lane LOS	B	-	D	B	-	-
HCM 95th %tile Q(veh)	0	-	0.5	0	-	-

REZONING SUPPLEMENTAL MATERIAL

for the

PROPOSED INDUSTRIAL DEVELOPMENT

at

ISLE OF WIGHT INDUSTRIAL PARK

Revised
April 1, 2022

Site Improvements

The subject properties are identified as Tax Map Parcel 42-06-015 (*located on IWIP Road*) and a portion of Tax Parcel 42-01-006. The proposed project area consists of approximately 74.79 acres. The development will consist of an office and storage yard located on parcel 42-01-006 as shown below in ***Figure 2.0***. These infrastructure improvements include office building, employee/customer parking, storage yard, and storm drainage system.

Figure 1.0 – Existing Conditions

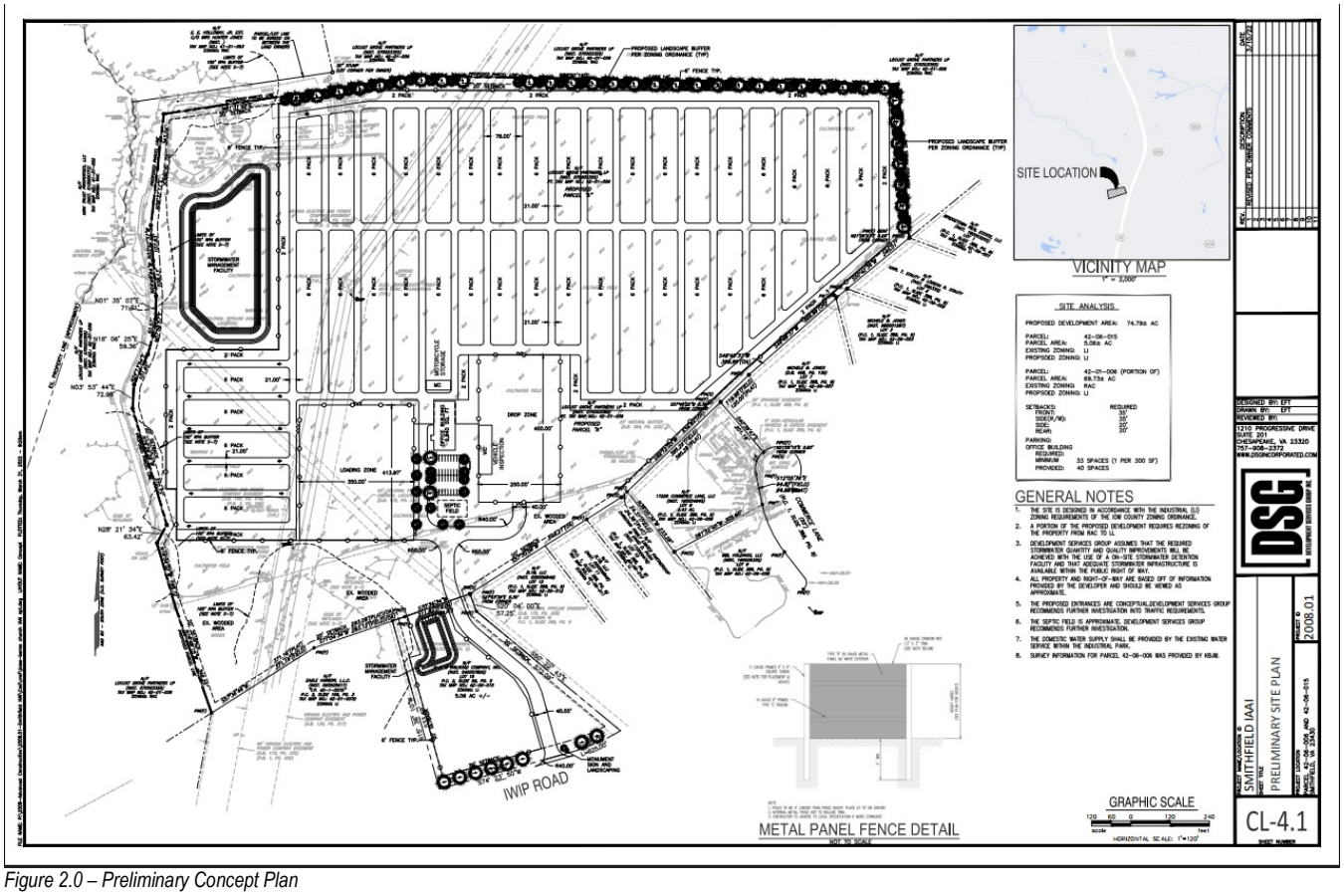


Figure 2.0 – Preliminary Concept Plan

Preliminary Site Analysis

Information Data as per Section 7-1004A

1(a) Soils - Based on GET Solutions geotechnical report, the project area consists of sand to medium clay soils.

Table II – Subsurface Soil Conditions

Average Depth (ft)	Stratum	Description	Ranges of SPT(1) N-Values
0 to 0.17 – 0.5	Surficial	➢ 2 to 6 inches of Topsoil	–
0.17 – 0.5 to 2 – 4	I	➢ SAND (SM, SC-SM, SC) *A deposit of medium stiff CLAY (CL) was encountered at a depth of 0.17 to 2 feet (BMP-2) and a deposit of soft CLAY (CL) was encountered at a depth of 2 to 4 feet (CBR-7).	2 – 7
2 – 4 to 10 – 15	II	➢ CLAY (CL, CH) ➢ SAND (SM, SC-SM, SC)	Cohesive 4 – 22 Granular 4 – 20

Note: (1) SPT = Standard Penetration Test, N-Values in Blows-per-foot (uncorrected).

Figure 3.0 – Soil Conditions provided by GET Solutions.

Ground Water

The initial groundwater level was recorded at the boring locations and as observed through the relative wetness of the recovered soil samples during the drilling operations. The initial groundwater level was measured to occur at depths ranging from 7.5 to 14 feet below the existing site grades.

Table III – Temporary Well Readings

Boring ID	Initial Groundwater Depth (ft)(1)	Stabilized Groundwater Depth (ft)(1) June 18, 2020
BMP-1	10	2.1
BMP-2	8	2.8
BMP-3	9	1.5
BMP-4	14	1.4

Notes: (1) Depth below existing site grade.

Figure 4.0 – Temporary Well Readings provided by GET Solutions.

The estimated seasonal high groundwater table (ESHWT) can fluctuate from year to year depending on many factors that include, but not limited to, natural drainage, tidal patterns, manmade drainage, surrounding development, and frequency and magnitude of rainfall patterns. Based on observations of the surrounding topography and nearby lakes in conjunction with the current performance of existing drainage features, we estimated the seasonal high groundwater table to coincide with the stabilized groundwater readings in Figure 4.0

b) Topography – The existing topography of the project limits consists of ground elevations ranging from 51.7 to 42.4 and draining east to west as shown on the preliminary site plan provided.

c) Existing Vegetation – The proposed project limits are primarily comprised of an agricultural farm field previously producing various crops common in this region. There are portions of wooded areas along the southern property line. All wooded areas are designated on the preliminary site plan.

d) Existing Structures – There are three existing buildings located within the project limits. Two (2) livestock buildings located in the northwestern corner of parcel 42-01-006. The two (2) livestock buildings will be demolished as part of the proposed improvements.

e) Historical and Architectural Significance – According to Virginia Department of Historic Resources (DHR), Isle of Wight County has six (6) homes or farms listed on the historic register. None of the six are located on or near the proposed project limits. Based on Isle of Wight's Archaeological Site Distribution exhibit within the current Comprehensive Plan provided by William and Mary Center for Archaeological Research, and dated 2005, no archaeological sites appear to be on the proposed project limits. Based upon our review of the report and current state records, there is no evidence identifying any of the parcels related to this project having moderate to high probability of archaeological resources. In fact, 17076 Benn's Church Boulevard (parcel 42-01-006C adjacent to our project) was reviewed by Virginia DHR and was determined to be "Not Eligible" for historical and archaeological purposes. DHR performed a Phase 1 during their site investigation to make this determination. This information can be found on Virginia Cultural Resources Information System (VCRIS). Multiple sites were studied as noted on VCRIS. All but one site was found to be "Not Eligible". 15362 Mount Holly Creek Lane located on the east side of Route 10 to the south of the project area was the only site meeting DHR requirements.

f) Environmentally Sensitive Lands – The project limits have been delineated by our sub-consultant Bay Environmental and all wetland information has been field located and shown on the preliminary site plan. Bay Environmental is currently in the process of having the Army Corps of Engineers field verify and provide a confirmation letter. The letter will be provided to the County during the site plan review process for their records. The proposed project does not propose any impacts to the existing wetlands and all proposed improvements are located outside of the existing 100' CBPA buffer as shown on the preliminary site plan.

g) Relationship of the site to existing road networks – The proposed project limits will have road frontage and access to IWIP Road within the existing industrial park as shown on the preliminary site plan. No other access will be provided to the site. A Traffic Impact Analysis (TIA) was performed for the proposed use as requested by the County and VDOT and is included with the application. The proposed development is projected to generate approximately 132 to 160 Average Daily Trips (ADT). Even though the proposed development is less than 200 ADT, the Department of Planning's staff has requested a Traffic Impact Analysis (TIA). Ramey Kemp Associates prepared the TIA report and was tasked by VDOT and the County to study the intersections of Benn's Church Boulevard at Brewer's Neck Boulevard, Brewer's Neck Boulevard at Benn's Grant Boulevard, Benn's Church Boulevard at Benn's Grant Boulevard, and Benn's Church Boulevard at IWIP Road. The TIA analyzed the existing and proposed traffic counts for 2020 and 2021 and determined that no improvements are warranted from the proposed development.

h) Public Water and Sewer Facilities

Water Level of Service

The proposed office building will utilize the existing community water service serving the industrial park for domestic water service. No changes in water demand are proposed with this use. The office building does not require a fire sprinkler system based on current building and fire codes. Based on ISO fire flow

calculations, the existing building requires 1,250 gpm hose demand. The proposed use will utilize existing fire hydrants/standpipes within the industrial park to address the fire flow requirements.

Sewer Level of Service

The proposed office building shall install and utilize a septic system to address sanitary sewer flows. Per VDH Table 5.1, the septic tank shall have a capacity of 1,050 gallons and will be located along the southside of the building. All construction permit documents will be submitted to the Virginia Department of Health for approval.

i) **Emergency Vehicles** – The proposed use shall provide drive aisles throughout the development that meet fire access requirements.

j) Schools – The proposed development is an industrial use and will not impact the existing school's capacity or function. There are no schools located within one mile of the project limits.

k) Recreation - The proposed development is an industrial use and will not impact the existing public recreation facilities. There are no public recreation facilities located within one mile of the project limits.

l) Essential Services – The proposed use is an automobile auction facility. The use requires an area to store the vehicles and access to public roadways. It has been determined that all services needed to perform the daily operation will be provided with the proposed improvements as shown on the preliminary site plan.

m) Adjoining Land Uses - The proposed development is located within and adjacent to the existing industrial park. The project limits are bond to the north and west by the residual parcel 42-01-006 zoned RAC. Construction activity will access the project through IWIP Road. As part of the proposed improvements, site lighting will be installed if required to address any safety concerns within the employee/customer parking lot. The storage yard will be screened with a solid metal fence with landscaping along the outside face of the facing along the northern proposed property line or defined by the zoning ordinance.

n) Local and Regional Plans – Isle of Wight County recently proposed the project limits to be included as industrial use in their updated Comprehensive Plan. The proposed use will act as an extension of the existing industrial park. No known regional plans currently.

o) Pedestrian Pathways – Due to the nature of the use and location within the existing industrial park, there are no pedestrian pathways existing or proposed at this time. The proposed development only has road frontage along IWIP Road located in the industrial park.

Water Quality Impact Assessment

The subject property is currently undeveloped with minimal vegetation. Most of the property is currently being used for agricultural purposes as shown in ***Figure 1.0*** above. Surface elevations appear to range from about 53'to 42' above sea level. The property currently drains to the west through a series of drainage ditches and overland flow into an existing private stormwater management facility located in the northwestern corner of the proposed property limits. The project area is located within the Chesapeake Bay Preservation Overlay District and is designated as a Resource Management Area (RMA). All proposed development areas are located outside of the 100' Resource Protection (RPA) buffer.

The project will be designed using DEQ's II B stormwater design criteria with Virginia's Runoff Reduction Method (VRRM). The proposed development will be required to remove approximately 83.3 pounds of phosphorus. Any required water quantity reduction will be achieved using several Level 2 Wet Pond/stormwater management facilities located in the northwestern and southwestern portion of the property. The stormwater management facility will be designed and constructed in accordance with Virginia Stormwater BMP Clearinghouse.

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BLAKEWAY
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WATER QUALITY IMPACT ASSEMENT

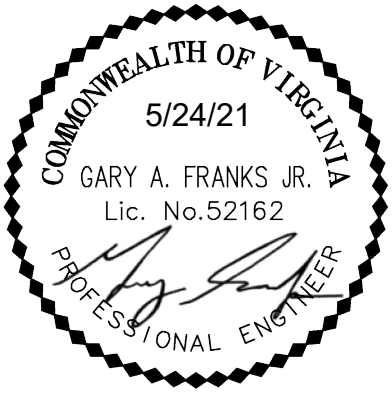
for the

PROPOSED INDUSTRIAL DEVELOPMENT

at

ISLE OF WIGHT INDUSTRIAL PARK

Revised
May 24, 2021



Smithfield IAAI

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APPENDIX B – REPORT OF SUBSURFACE EXPLORATION AND GEOTECHNICAL ENGINEERING SERVICES

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Overview

The subject properties are identified as Tax Map Parcel 42-06-008 (*17226 Commerce Lane*) and a portion of Tax Parcel 42-01-006. The proposed development is an automobile auction facility. The proposed project area consists of approximately 72.81 acres. The development will consist of an office located at 17226 Commerce Lane and storage yard located to the north of the existing office as shown below in ***Figure 2.0***. These infrastructure improvements include employee/customer parking, storage yard, and storm drainage system.

Figure 1.0 – Existing Conditions

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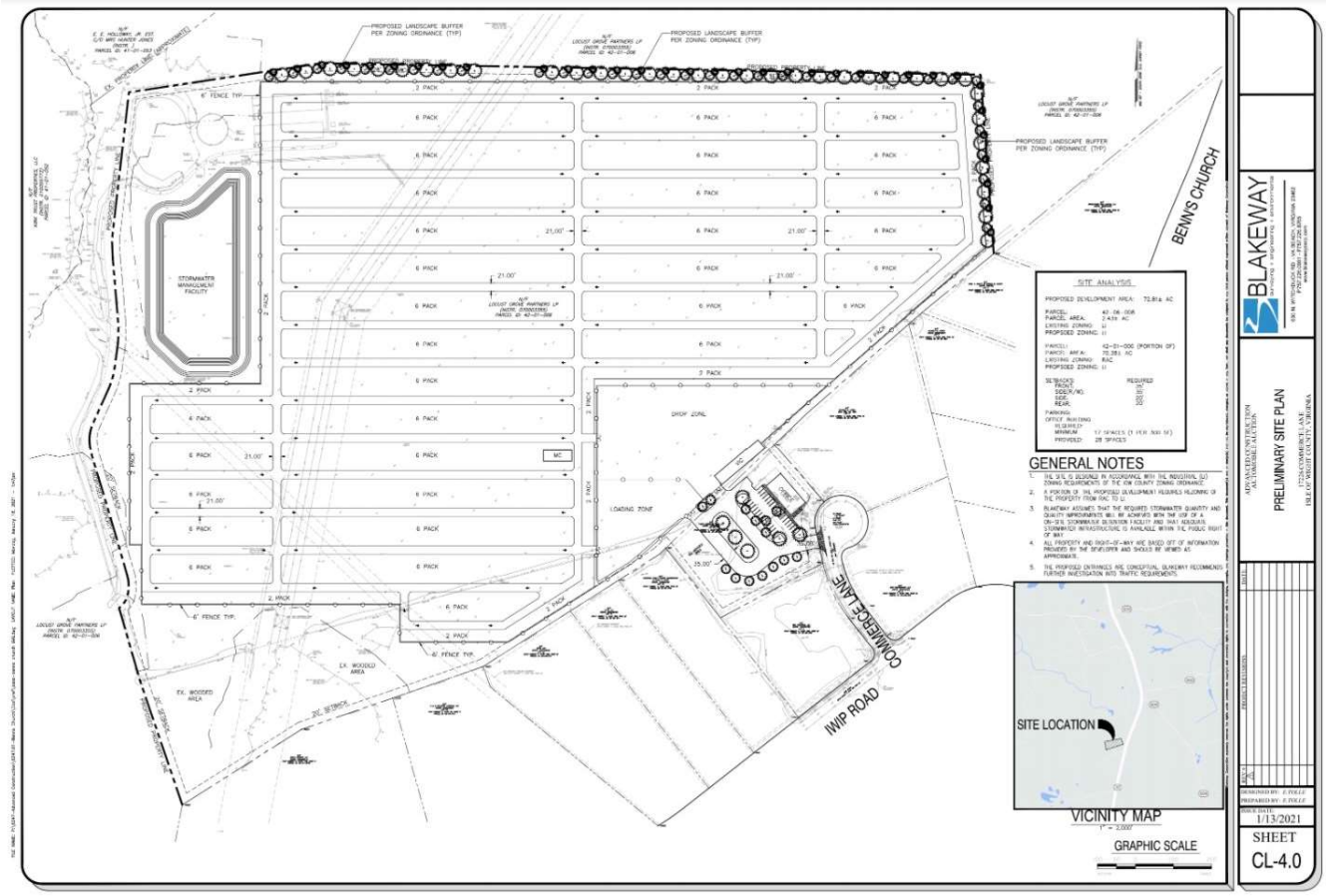

Figure 2.0 – Preliminary Concept Plan

Existing Conditions

Topography – The existing topography of the project limits consists of ground elevations ranging from 51.7 to 42.4 and draining east to west. Portion of the existing sheet flow discharges into the existing pond in the northwest portion of the project area.

Existing Vegetation – The proposed project limits are primarily comprised of an agricultural farm field previously producing various crops common in this region. There are portions of wooded areas along the southern property line and in the northwestern corner of 17226 Commerce Lane. All wooded areas are designated on the concept plan in relation to the proposed improvements.

Existing Structures – There are three existing buildings located within the project limits. The existing office building located at 17226 Commerce Lane and two livestock buildings located in the northwestern corner of parcel 42-01-006. The office building will continue to be used as an office for the proposed use and the two livestock buildings will be demolished as part of the proposed improvements.

Wetlands and RPA – As part of our preliminary site investigation a wetland delineation was performed within the proposed project limits. The wetland delineation identified approximately 1.05 acres of wetlands within the proposed property limits located in southwestern portion of the property. Other wetlands were located outside of the proposed property along the western portion of the residual parcel. A 100' CBPA buffer has been included on all wetlands associated with Chesapeake Bay Protection Areas and are shown on the concept plan. No proposed improvements will encroach the 100' buffer nor impact the existing wetlands.

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Soils Designation

Based on GET Solutions geotechnical report, the project area consists of sand to medium clay soils.

Table II – Subsurface Soil Conditions

Average Depth (ft)	Stratum	Description	Ranges of SPT(1) N-Values
0 to 0.17 – 0.5	Surficial	➢ 2 to 6 inches of Topsoil	–
0.17 – 0.5 to 2 – 4	I	➢ SAND (SM, SC-SM, SC) *A deposit of medium stiff CLAY (CL) was encountered at a depth of 0.17 to 2 feet (BMP-2) and a deposit of soft CLAY (CL) was encountered at a depth of 2 to 4 feet (CBR-7).	2 – 7
2 – 4 to 10 – 15	II	➢ CLAY (CL, CH) ➢ SAND (SM, SC-SM, SC)	Cohesive 4 – 22 Granular 4 – 20

Note: (1) SPT = Standard Penetration Test, N-Values in Blows-per-foot (uncorrected).

Figure 3.0 – Soil Conditions provided by GET Solutions.

Ground Water

The initial groundwater level was recorded at the boring locations and as observed through the relative wetness of the recovered soil samples during the drilling operations. The initial groundwater level was measured to occur at depths ranging from 7.5 to 14 feet below the existing site grades.

Table III – Temporary Well Readings

Boring ID	Initial Groundwater Depth (ft)(1)	Stabilized Groundwater Depth (ft)(1) June 18, 2020
BMP-1	10	2.1
BMP-2	8	2.8
BMP-3	9	1.5
BMP-4	14	1.4

Notes: (1) Depth below existing site grade.

Figure 4.0 – Temporary Well Readings provided by GET Solutions.

The estimated seasonal high groundwater table (ESHWT) can fluctuate from year to year depending on many factors that include, but not limited to, natural drainage, tidal patterns, manmade drainage, surrounding development, and frequency and magnitude of rainfall patterns. Based on observations of the surrounding topography and nearby lakes in conjunction with the current performance of existing drainage features, we estimated the seasonal high groundwater table to coincide with the stabilized groundwater readings in Figure 4.0

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Proposed Development

The development consists of utilizing the existing office building located at 17226 Commerce Lane and constructing an employee and customer parking lot adjacent to the existing building that meets County requirements. The remaining improvements will include the construction of the storage yard for the vehicles to be auctioned. The yard's perimeter will be screened with a 6' solid fence and landscaping meeting the County's buffer requirements.

Buffer Area Encroachments – As mentioned previously, the proposed development will not require any encroachment into the existing 100' CBPA areas as shown on the concept plan.

Designation of Wetlands – The existing wetlands were identified by Bay Environmental and confirmed by the Army Corps of Engineers.

Public Water and Sewer Facilities

Water Level of Service

The existing office building will continue to utilize the existing community water service serving the industrial park for domestic water service. No changes in water demand are proposed with this use. The existing office building does not require a fire sprinkler system based on current building and fire codes. Based on ISO fire flow calculations, the existing building requires 1,250 gpm hose demand. The proposed use will utilize existing fire hydrants/standpipes within the industrial park to address the fire flow requirements.

Sewer Level of Service

Based on the information provided by the County and Virginia Health Department, the existing office building utilizes a traditional septic system that was installed in 1992. The septic tank has a capacity of 750 gallons and is located along the eastern side of the building and the property line.

Landscape and Environmental Elements – The proposed development will be designed to meet the County's landscape requirements for parking lot and perimeter buffers. The proposed improvements do not require any removal of vegetation within the 100' CBPA buffer. The proposed development shall remove approximately 2.33 acres of woodland outside of the 100' CBPA buffer to install the site improvements.

Water Quality Measures

The subject property is currently undeveloped with minimal vegetation. Most of the property is currently being used for agricultural purposes as shown in ***Figure 1.0*** above. Surface elevations appear to range from about 53'to 42' above sea level. The property currently drains to the west through a series of drainage ditches and overland flow into an existing private stormwater management facility located in the northwestern corner of the proposed property limits. The project area is located within the Chesapeake Bay Preservation Overlay District and is designated as a Resource Management Area (RMA). All proposed development areas are located outside of the 100' Resource Protection (RPA) buffer.

The project will be designed using DEQ's II B stormwater design criteria with Virginia's Runoff Reduction Method (VRRM). The proposed development will be required to remove approximately 72.5 pounds of phosphorus. Any required water quantity reduction will be achieved using a Level 2 Wet Pond/stormwater management facility located in the northwestern portion of the property. Any remaining pollutant removal will be achieved by purchasing nutrient credits from an approved nutrient bank through DEQ. The stormwater

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management facility will be designed and constructed in accordance with Virginia Stormwater BMP Clearinghouse.

Water Quantity Measures

The proposed BMP is in the low portion of the property and the site will be graded to drain all proposed runoff into the BMP via overland flow and/or a combination of an underground conveyance system sized to meet all local and state requirements. Both the proposed stormwater management facility and onsite drainage system will be designed in accordance with DEQ's water quantity requirements for the 1-year, 10-year, and 100-year storm events.

Erosion and Sediment Control Measures

The proposed project shall construct and maintain all erosion and sediment control measures in accordance with the latest edition of the Virginia Erosion and Sediment Control Handbook. Typical erosion and sediment control measures anticipated for project shall include but not limited to, silt fencing, inlet protection, outlet protection, temporary sediment basins, tree protection, diversion dikes, temporary seeding, and a construction entrance.

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Appendix A

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:	Smithfield - IAAI
Date:	16-Nov-20
Linear Development Project?	No

CLEAR ALL

data input cells | constant values | calculation cells | final results

Site Information

Post-Development Project (Treatment Volume and Loads)

Enter Total Disturbed Area *(acres)* → 64.81

Maximum reduction required: 20%
The site's net increase in impervious cover (acres) is: 40.38
Post-Development TP Load Reduction for Site (lb/yr): 72.51

Check:
BMP Design Specifications List: 2011 Stds & Specs
Linear project? No
Land cover areas entered correctly? ✔
Total disturbed area entered? ✔

Pre-ReDevelopment 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
Managed Turf (acres) -- disturbed, graded for yards or other turf to be mowed/managed			63.83		63.83
Impervious Cover (acres)			0.98		0.98
					64.81

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			2.93		2.93 *
Managed Turf (acres) -- disturbed, graded for yards or other turf to be mowed/managed			20.52		20.52
Impervious Cover (acres)			41.36		41.36
Area Check	OK.	OK.	OK.	OK.	64.81

** Forest/Open Space areas must be protected in accordance with the Virginia Runoff Reduction Method*

Constants

Annual Rainfall (inches)	43
Target Rainfall Event (inches)	1.00
Total Phosphorus (TP) EMC (mg/L)	0.26
Total Nitrogen (TN) EMC (mg/L)	1.86
Target TP Load (lb/acre/yr)	0.41
Pj (unitless correction factor)	0.90

Runoff Coefficients (Rv)

	A Soils	B Soils	C Soils	D Soils
Forest/Open Space	0.02	0.03	0.04	0.05
Managed Turf	0.15	0.20	0.22	0.25
Impervious Cover	0.95	0.95	0.95	0.95

LAND COVER SUMMARY -- PRE-REDEVELOPMENT

Land Cover Summary-Pre		
Pre-ReDevelopment	**Listed**	**Adjusted[1]**
Forest/Open Space Cover (acres)	0.00	0.00
Weighted Rv(forest)	0.00	0.00
% Forest	0%	0%
Managed Turf Cover (acres)	63.83	23.45
Weighted Rv(turf)	0.22	0.22
% Managed Turf	98%	96%
Impervious Cover (acres)	0.98	0.98
Rv(impervious)	0.95	0.95
% Impervious	2%	4%
Total Site Area (acres)	**64.81**	**24.43**
Site Rv	**0.23**	**0.25**

LAND COVER SUMMARY -- POST DEVELOPMENT

Land Cover Summary-Post (Final)	
Post ReDev. & New Impervious	
Forest/Open Space Cover (acres)	2.93
Weighted Rv(forest)	0.04
% Forest	5%
Managed Turf Cover (acres)	20.52
Weighted Rv (turf)	0.22
% Managed Turf	32%
Impervious Cover (acres)	41.36
Rv(impervious)	0.95
% Impervious	64%
Final Site Area (acres)	**64.81**
Final Post Dev Site Rv	**0.68**

Land Cover Summary-Post	
Post-ReDevelopment	
Forest/Open Space Cover (acres)	2.93
Weighted Rv(forest)	0.04
% Forest	12%
Managed Turf Cover (acres)	20.52
Weighted Rv (turf)	0.22
% Managed Turf	84%
ReDev. Impervious Cover (acres)	0.98
Rv(impervious)	0.95
% Impervious	4%
Total ReDev. Site Area (acres)	**24.43**
ReDev Site Rv	**0.23**

Land Cover Summary-Post	
Post-Development New Impervious	
New Impervious Cover (acres)	40.38
Rv(impervious)	0.95

Treatment Volume and Nutrient Load

Pre-ReDevelopment Treatment Volume (acre-ft)	1.2478	0.5075
Pre-ReDevelopment Treatment Volume (cubic feet)	54,354	22,107
Pre-ReDevelopment TP Load (lb/yr)	**34.15**	**13.89**
Pre-ReDevelopment TP Load per acre (lb/acre/yr)	0.53	0.57
Baseline TP Load (lb/yr) (**0.41 lbs/acre/yr** applied to pre-redevelopment area excluding pervious land proposed for new impervious cover)		*10.02*

Final Post-Development Treatment Volume (acre-ft)	3.6603
Final Post-Development Treatment Volume (cubic feet)	159,443
Final Post-Development TP Load (lb/yr)	**100.18**
Final Post-Development TP Load per acre (lb/acre/yr)	1.55

Treatment Volume and Nutrient Load

Post-ReDevelopment Treatment Volume (acre-ft)	0.4636
Post-ReDevelopment Treatment Volume (cubic feet)	20,192
Post-ReDevelopment Load (TP) (lb/yr)*	**12.69**
Post-ReDevelopment TP Load per acre (lb/acre/yr)	0.52
Max. Reduction Required (Below Pre-ReDevelopment Load)	**20%**
TP Load Reduction Required for Redeveloped Area (lb/yr)	**1.58**

Post-Development Treatment Volume (acre-ft)	3.1968
Post-Development Treatment Volume (cubic feet)	139,250
Post-Development TP Load (lb/yr)	**87.49**
TP Load Reduction Required for New Impervious Area (lb/yr)	**70.93**

[1] *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 lbs/acre/year).

Post-Development Requirement for Site Area

TP Load Reduction Required (lb/yr)	**72.51**

Nitrogen Loads (Informational Purposes Only)

Pre-ReDevelopment TN Load (lb/yr)	244.31	Final Post-Development TN Load (Post-ReDevelopment & New Impervious) (lb/yr)	716.65

Drainage Area A

CLEAR BMP AREAS

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)			15.00		15.00	0.22
Impervious Cover (acres)			41.00		41.00	0.95
				Total	56.00	

Total Phosphorus Available for Removal in D.A. A (lb/yr)	96.36
Post Development Treatment Volume in D.A. A (ft^3)	153,368

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	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)														**1. Vegetated Roof (RR)**				
1.a. Vegetated Roof #1 (Spec #5)	45				0	0	0	0		0.00	0.00	0.00		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		0		0.00	0.00	0.00
2. Rooftop Disconnection (RR)														**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		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		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		0	0.00	0.00	0.00	0.00
2.d. To Dry Well or French Drain #1, Micro-Infilration #1 (Spec #8)	50			0	0	0	0	25	0.00	0.00	0.00	0.00		15	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		15	0.00	0.00	0.00	0.00
2.f. To Rain Garden #1, Micro-Bioretention #1 (Spec #9)	40			0	0	0	0	25	0.00	0.00	0.00	0.00		40	0.00	0.00	0.00	0.00
2.g. To Rain Garden #2, Micro-Bioretention #2 (Spec #9)	80			0	0	0	0	50	0.00	0.00	0.00	0.00		60	0.00	0.00	0.00	0.00
2.h. To Rainwater Harvesting (Spec #6)	80			0	0	0	0	0	0.00	0.00	0.00	0.00		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		40	0.00	0.00	0.00	0.00
3. Permeable Pavement (RR)														**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		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		25		0.00	0.00	0.00
4. Grass Channel (RR)														**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		20	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		20	0.00	0.00	0.00	0.00
4.c. Grass Channel with Compost Amended Soils as per specs (see Spec #4)	30			0	0	0	0	15	0.00	0.00	0.00	0.00		20	0.00	0.00	0.00	0.00
5. Dry Swale (RR)														**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		25	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		35	0.00	0.00	0.00	0.00
6. Bioretention (RR)														**6. Bioretention (RR)**				
6.a. Bioretention #1 or Micro-Bioretention #1 or Urban Bioretention (Spec #9)	40			0	0	0	0	25	0.00	0.00	0.00	0.00		40	0.00	0.00	0.00	0.00
6.b. Bioretention #2 or Micro-Bioretention #2 (Spec #9)	80			0	0	0	0	50	0.00	0.00	0.00	0.00		60	0.00	0.00	0.00	0.00
7. Infiltration (RR)														**7. Infiltration (RR)**				
7.a. Infiltration #1 (Spec #8)	50			0	0	0	0	25	0.00	0.00	0.00	0.00		15	0.00	0.00	0.00	0.00
7.b. Infiltration #2 (Spec #8)	90			0	0	0	0	25	0.00	0.00	0.00	0.00		15	0.00	0.00	0.00	0.00
8. Extended Detention Pond (RR)														**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		10	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		10	0.00	0.00	0.00	0.00
9. Sheetflow to Filter/Open Space (RR)														**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		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		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		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 RUNOFF REDUCTION IN D.A. A (ft^3)	0	
TOTAL PHOSPHORUS AVAILABLE FOR REMOVAL IN D.A. A (lb/yr)	96.36	
TOTAL PHOSPHORUS REMOVED WITH RUNOFF REDUCTION PRACTICES IN D.A. A (lb/yr)	0.00	
TOTAL PHOSPHORUS REMAINING AFTER APPLYING RUNOFF REDUCTION PRACTICES IN D.A. A (lb/yr)	96.36	

SEE WATER QUALITY COMPLIANCE TAB FOR SITE COMPLIANCE CALCULATIONS

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

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

10. Wet Swale (no RR)													**10. Wet Swale (Coastal Plain) (no RR)**				
10.a. Wet Swale #1 (Spec #11)	0			0	0	0	0	20	0.00	0.00	0.00	0.00		25	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		35	0.00	0.00	0.00	0.00
11. Filtering Practices (no RR)													**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		30	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		45	0.00	0.00	0.00	0.00
12. Constructed Wetland (no RR)													**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		25	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		55	0.00	0.00	0.00	0.00
13. Wet Ponds (no RR)													**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		30	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		20	0.00	0.00	0.00	0.00
13.c. Wet Pond #2 (Spec #14)	0	15.00	41.00	0	0	153,368	153,368	75	0.00	96.25	72.19	24.06		40	0.00	688.57	275.43	413.14
13.d. Wet Pond #2 (Coastal Plain) (Spec #14)	0			0	0	0	0	65	0.00	0.00	0.00	0.00		30	0.00	0.00	0.00	0.00
14. Manufactured Treatment Devices (no RR)													**14. Manufactured BMP (no RR)**				
14.a. Manufactured Treatment Device-Hydrodynamic	0			0	0	0	0	20	0.00	0.00	0.00	0.00		0	0.00	0.00	0.00	0.00
14.b. Manufactured Treatment Device-Filtering	0			0	0	0	0	50	0.00	0.00	0.00	0.00		0	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		0	0.00	0.00	0.00	0.00

TOTAL IMPERVIOUS COVER TREATED (ac)	41.00	AREA CHECK: OK.
TOTAL MANAGED TURF AREA TREATED (ac)	15.00	AREA CHECK: OK.
TOTAL PHOSPHORUS REMOVAL REQUIRED ON SITE (lb/yr)	72.51	
TOTAL PHOSPHORUS AVAILABLE FOR REMOVAL IN D.A. A (lb/yr)	96.36	
TOTAL PHOSPHORUS REMOVED WITHOUT RUNOFF REDUCTION PRACTICES IN D.A. A (lb/yr)	72.19	
TOTAL PHOSPHORUS REMOVED WITH RUNOFF REDUCTION PRACTICES IN D.A. A (lb/yr)	0.00	
TOTAL PHOSPHORUS LOAD REDUCTION ACHIEVED IN D.A. A (lb/yr)	72.19	
TOTAL PHOSPHORUS REMAINING AFTER APPLYING BMP LOAD REDUCTIONS IN D.A. A (lb/yr)	24.17	

SEE WATER QUALITY COMPLIANCE TAB FOR SITE COMPLIANCE CALCULATIONS

NITROGEN REMOVED WITH RUNOFF REDUCTION PRACTICES IN D.A. A (lb/yr)	0.00
NITROGEN REMOVED WITHOUT RUNOFF REDUCTION PRACTICES IN D.A. A (lb/yr)	275.43
TOTAL NITROGEN REMOVED IN D.A. A (lb/yr)	275.43

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)	41.00	0.00	0.00	0.00	0.00	OK.
IMPERVIOUS COVER TREATED (ac)	41.00	0.00	0.00	0.00	0.00	OK.
MANAGED TURF AREA (ac)	15.00	0.00	0.00	0.00	0.00	OK.
MANAGED TURF AREA TREATED (ac)	15.00	0.00	0.00	0.00	0.00	OK.
AREA CHECK	OK.	OK.	OK.	OK.	OK.	

Site Treatment Volume (ft^3)	159,443

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 (ft^3)	0	0	0	0	0	0
TP LOAD AVAILABLE FOR REMOVAL (lb/yr)	96.36	0.00	0.00	0.00	0.00	96.36
TP LOAD REDUCTION ACHIEVED (lb/yr)	72.19	0.00	0.00	0.00	0.00	72.19
TP LOAD REMAINING (lb/yr)	24.17	0.00	0.00	0.00	0.00	24.17
NITROGEN LOAD REDUCTION ACHIEVED (lb/yr)	275.43	0.00	0.00	0.00	0.00	275.43

Total Phosphorus

FINAL POST-DEVELOPMENT TP LOAD (lb/yr)	100.18
TP LOAD REDUCTION REQUIRED (lb/yr)	72.51
TP LOAD REDUCTION ACHIEVED (lb/yr)	72.19
TP LOAD REMAINING (lb/yr):	27.99
REMAINING TP LOAD REDUCTION REQUIRED (lb/yr):	0.32

Total Nitrogen (For Information Purposes)

POST-DEVELOPMENT LOAD (lb/yr)	716.65
NITROGEN LOAD REDUCTION ACHIEVED (lb/yr)	275.43
REMAINING POST-DEVELOPMENT NITROGEN LOAD (lb/yr)	441.23

Appendix B

REPORT OF SUBSURFACE EXPLORATION AND GEOTECHNICAL ENGINEERING SERVICES

Route 10 Parking and Storage Lot

Smithfield, Virginia

G E T Project No: VB20-119G
July 23, 2020

PREPARED FOR:

BLAKEWAY
surveying + engineering + environmental

5465 Greenwich Road • Virginia Beach, VA 23462
Phone: (757)-518-1703

July 23, 2020

TO: **Blakeway Corporation**
630 N. Witchduck Rd.
Virginia Beach, VA 23462

Attn: Mr. Elmer F. Tolle III, CFM

RE: Report of Subsurface Exploration and Geotechnical Engineering Services
Route 10 Parking and Storage Lot
Smithfield, Virginia
G E T Project No: VB20-119G

Dear Mr. Tolle:

In compliance with your instructions, we have completed our Geotechnical Engineering Services for the referenced project. The results of this study, together with our recommendations, are presented in this report.

Often, because of design and construction details that occur on a project, questions arise concerning subsurface conditions. **G E T Solutions, Inc.** would be pleased to continue its role as Geotechnical Engineer during the project implementation.

Thank you for the opportunity to work with you on this project. We trust that the information contained herein meets your immediate need, and should you have any questions or if we could be of further assistance, please do not hesitate to contact us.

Respectfully Submitted,
G E T Solutions, Inc.

Grey Weber, EIT
Project Engineer

Chris M. Caton, PE, PG, PMP
Senior Geotechnical Engineer
VA Registration No. 046947

Copies: (1) Client update

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info@getsolutionsinc.com

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EXECUTIVE SUMMARY

The project site is located at 17226 Commerce Lane in Smithfield, Virginia. The proposed construction will consist of building a new parking facility that consists of a large vehicle storage lot and stormwater management ponds. It is expected that the finish surface of the vehicle storage lot will be comprised of crushed asphalt, and the finished grades are anticipated to coincide with current grades; thus, cuts and fills are not expected to exceed 1 foot.

Our field exploration program included eight (8) 10-foot deep SPT borings, designated as CBR-1 through CBR-8, that were drilled within the proposed pavement areas and four (4) 15-foot deep SPT borings, designated as BMP-1 through BMP-4, that were drilled within the proposed stormwater management areas.

The initial groundwater level was measured to occur at depths ranging from 7.5 to 14 feet below existing grades at the boring locations. Stabilized groundwater readings were taken at the temporary groundwater monitoring well locations, designated as BMP-1 through BMP-4. A summary of the subsurface and groundwater conditions encountered at the SPT soil test borings is presented in Section 3 of this report.

A field-testing program during construction is recommended, which should include subgrade proofrolling and compaction testing to verify the stability of the shallow subsurface soils.

The shallow subsurface SAND (SM, SC-SM, SC) and CLAY (CL) soils encountered at the boring locations do not appear to meet the criteria recommended in this report for reuse as structural fill; however, may be used as fill in green areas.

This summary briefly discusses some of the major topics mentioned in the attached report. Accordingly, this report should be read in its entirety to thoroughly evaluate the contents.

1.0 PROJECT INFORMATION

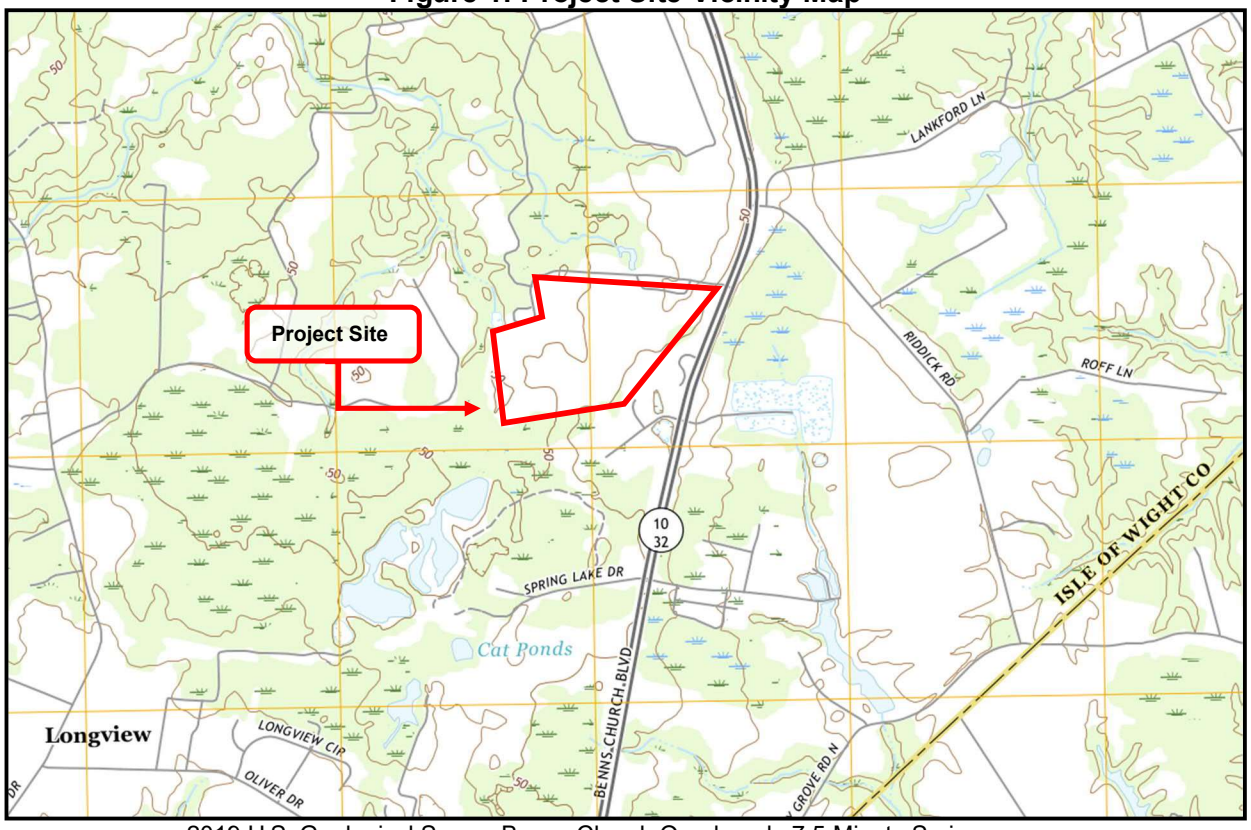
1.1 Project Authorization

G E T Solutions, Inc. has completed our subsurface exploration and geotechnical engineering services for the proposed Route 10 Parking and Storage Lot project located within Isle of Wight County in Smithfield, Virginia. The geotechnical engineering services were conducted in general accordance with the scope presented in **G E T** Proposal No. PVB19-432G dated June 26, 2019. Authorization to proceed with our services was received from the client in the form of an electronic mail dated May 21, 2020.

1.2 Project Site Location and Description

The project site is located at 17226 Commerce Lane in Smithfield, Virginia. The proposed project site is a 75-acre property consisting of an undeveloped, open grass area. Trees are located along a majority of the proposed project site except for the north, which is bordered by a dirt access road. This single-lane road, which runs besides the north and east edge of the site, services adjacent farmland. Overhead powerlines traverse the site to several transmission towers that are oriented through the southwest and northwest areas. Based on visual observations, the site appears to be relatively level with less than 1 foot of elevation change over 50 feet, with a recent topographic survey establishing site elevations at 40 to 60 feet NAVD 88. A site vicinity map is provided in Figure 1.

Figure 1: Project Site Vicinity Map



2019 U.S. Geological Survey Benns Church Quadrangle 7.5-Minute Series

1.3 Project Construction Description

The proposed construction will consist of building a new parking facility that consists of a large vehicle storage lot and stormwater management (BMP) ponds. It is expected that the finish surface of the vehicle storage lot will be comprised of crushed asphalt, and the finished grades are anticipated to coincide with current grades; thus, cuts and fills are not expected to exceed 1 foot.

If any of the noted information is incorrect or has changed, please inform G E T Solutions, Inc. so that we may amend the recommendations presented in this report, if appropriate.

1.4 Purpose and Scope of Services

The purpose of this study was to obtain information on the general subsurface conditions at the proposed project site. The subsurface conditions encountered were then evaluated with respect to the available project characteristics. In this regard, engineering assessments for the following items were formulated:

1. General assessment of the soils revealed by the borings performed at the site.

2. General location and description of potentially deleterious material encountered in the borings that may interfere with construction progress or the parking lot's performance, including existing fills or surficial/subsurface organics.

4. Engineering criteria for placement and compaction of approved structural fill material.

5. Evaluation of the on-site soils for re-use as structural fill.

6. Determine pertinent information regarding the groundwater conditions at the site for stormwater management purposes.

The scope of services did not include an environmental assessment for determining the presence or absence of wetlands or hazardous or toxic material in the soil, bedrock, surface water, groundwater or air, on or below or around this site. Prior to development of this site, an environmental assessment is advisable.

2.0 FIELD AND LABORATORY PROCEDURES

2.1 Field Exploration

In order to explore the general subsurface soil types and to aid in developing associated design parameters, the following exploration program was performed:

- Eight (8) 10-foot deep SPT borings, designated as CBR-1 through CBR-8, were drilled within the proposed pavement areas.

- Eight (8) bulk soil samples were collected from borings CBR-1 through CBR-8 within the proposed pavement areas. The bulk subgrade samples were collected from approximately 0.33 to 3 feet below existing grade and were returned to our laboratory and subjected to CBR testing in accordance with ASTM and VTM standards.

- Four (4) 15-foot deep SPT borings, designated as BMP-1 through BMP-4, were drilled within the proposed stormwater management areas. Additionally, temporary groundwater monitoring wells were installed at each of the BMP borings to obtain stabilized groundwater readings.

Standard Penetration Tests were performed in the field in general accordance with ASTM D1586. The tests were performed continuously from the existing ground surface to depths of 10 and 12 feet, and at 5-foot intervals thereafter starting at a depth of 13-feet. The soil samples were obtained with a standard 1.4" I.D., 2" O.D., 30" long split-spoon sampler. The sampler was driven with blows of a 140 lb. hammer falling 30 inches, using a safety hammer. The number of blows required to drive the sampler each 6-inch increment of penetration was recorded and is shown on the boring logs. The sum of the second and third penetration increments is termed the SPT N-value (uncorrected for automatic hammer and overburden pressure). A representative portion of each disturbed split-spoon sample was collected with each SPT, placed in a sealed glass jar, and returned to our laboratory for review.

The SPT boring locations were established by the design team and staked in the field by a representative of **G E T Solutions, Inc.** with the use of a hand-held Global Positioning System (GPS) device utilizing GPS coordinates and by corroborating with easily identifiable landmarks. Upon completion of the soil borings, the boreholes were backfilled for safety considerations, with the exception of the temporary wells which were left in place for future readings. Approximate soil boring locations are shown on the attached "Boring Location Plan" (Appendix I) which was developed by **G E T Solutions, Inc**. based on a site plan provided by the client.

2.2 Laboratory Testing

Representative portions of all soil samples collected during drilling operations were labeled, preserved and transferred to our laboratory in accordance with ASTM D4220 for classification and analysis. Soil descriptions on the boring logs are provided using visual-manual methods in general accordance with ASTM D2488 using the Unified Soil Classification System (USCS). Soil samples that were selected for index testing were classified in general accordance with ASTM D2487. It should be noted that some variation can be expected between samples classified using the visual-manual procedure (ASTM D2488) and the USCS (ASTM D2487). A summary of the soil classification system is provided in Appendix II.

Representative split-spoon and bulk soil samples were selected and subjected to natural moisture, #200 sieve wash, and Atterberg Limits testing in order to corroborate the visual classification. These test results are presented in Appendix III and on the soil test boring logs provided in Appendix IV. A generalized soil profile is provided in Appendix V.

The bulk soil samples were also subjected to Standard Proctor and CBR testing in general accordance with ASTM and VTM standards, respectively. The stress-strain curve was plotted for each specimen. If necessary, the stress-strain curves were corrected by adjusting the location of the origin for concave shaped curves. Subsequently, the CBR values were selected at 0.1-inch penetration using the corrected load values. A summary of the CBR test results is presented in Table I, and the Proctor curves, Particle Size Distribution Reports, and CBR curves are provided in Appendix VI.

Table I – CBR Test Results

Boring ID	Depth Below Grade (ft)	USCS	w_N (%)	Passing #200 Sieve (%)	Max. Dry Density (pcf)	Optimum Moisture (%)	CBR Value	Swell (%)
CBR-1	1 – 3	SC-SM	17	35.6	117.4	13.3	8.4	0.1
CBR-2	0.33 – 2	SM	11	19.5	115.7	11.2	32.3	0
CBR-3	1 – 3	SC	10	20.9	118.2	10.5	13.5	0.1
CBR-4	1 – 3	SC	15	32.6	119.6	11.4	20.4	0.1
CBR-5	0.33 – 2	SM	13	16.6	108.9	13.1	19.3	0
CBR-6	1 – 3	SC	14	34.3	120.2	10.6	12.1	0.1
CBR-7	1 – 3	CL	21	65.8	108.5	15.2	12.9	0.6
CBR-8	1 – 3	SC-SM	14	31.3	118.5	11.4	11.8	0.2

3.0 SITE AND SUBSURFACE CONDITIONS

3.1 Site Geology

The project site lies within a major physiographic province called the Atlantic Coastal Plain. Numerous transgressions and regressions of the Atlantic Ocean have deposited marine, lagoonal, and fluvial (stream lain) sediments. The regional geology is very complex, and generally consists of interbedded layers of varying mixtures of sands, silts and clays. Based on our review of existing geologic and soil boring data, the geologic stratigraphy encountered in our subsurface explorations generally consisted of marine deposited Sands, Silts and Clays.

3.2 Subsurface Soil Conditions

A summary of the subsurface soil conditions encountered at the SPT boring locations is presented in Table II.

Table II – Subsurface Soil Conditions

Average Depth (ft)	Stratum	Description	Ranges of SPT(1) N-Values
0 to 0.17 – 0.5	Surficial	➢ 2 to 6 inches of Topsoil	–
0.17 – 0.5 to 2 – 4	I	➢ SAND (SM, SC-SM, SC) *A deposit of medium stiff CLAY (CL) was encountered at a depth of 0.17 to 2 feet (BMP-2) and a deposit of soft CLAY (CL) was encountered at a depth of 2 to 4 feet (CBR-7).	2 – 7
2 – 4 to 10 – 15	II	➢ CLAY (CL, CH) ➢ SAND (SM, SC-SM, SC)	Cohesive 4 – 22 Granular 4 – 20

Note: (1) SPT = Standard Penetration Test, N-Values in Blows-per-foot (uncorrected).

The subsurface descriptions are of a generalized nature provided to highlight the major soil strata encountered. The records of the subsurface exploration are included in Appendix IV (Boring Logs) and in Appendix V (Generalized Soil Profile) which should be reviewed for specific information as to the individual borings. The stratifications shown on the records of the subsurface exploration represent the conditions only at the actual boring locations. Variations may occur and should be expected between boring locations. The stratifications represent the approximate boundary between subsurface materials and the transition may be gradual. It is noted that the "Topsoil" designation references the presence of surficial organic laden soil and does not represent any particular quality specification. It is recommended that this material be tested for approval prior to use as topsoil.

3.3 Groundwater Discussion

The initial groundwater level was recorded at the boring locations and as observed through the relative wetness of the recovered soil samples during the drilling operations. The initial groundwater level was measured to occur at depths ranging from 7.5 to 14 feet below the existing site grades. As an exception, the initial groundwater level was not encountered at boring locations CBR-4, CBR-5, CBR-6, and CBR-8 to the depths explored.

The soils encountered at this site at the presumed groundwater level consisted of relatively impermeable soils (soils predominantly comprised of Silt and Clay). Drilling fluids (drilling mud and water) were introduced into the bore holes during the drilling operations further impairing the ability to accurately determine the groundwater levels. In addition, as subsurface soils begin to dry moisture moves upwards through the soil profile by means of capillary action. Based on the subsurface soil composition (soils containing more than 30% of fines by weight), these initial groundwater readings (based on the relative wetness of the soils) could be in part attributed to the capillary action of the soils.

Stabilized groundwater readings were taken at the temporary groundwater monitoring well locations (designated as BMP-1 through BMP-4). The groundwater information associated with these wells is presented in Table III.

Table III – Temporary Well Readings

Boring ID	Initial Groundwater Depth (ft)[1]	Stabilized Groundwater Depth (ft)[1] June 18, 2020
BMP-1	10	2.1
BMP-2	8	2.8
BMP-3	9	1.5
BMP-4	14	1.4

Notes: (1) Depth below existing site grade.

The estimated seasonal high groundwater table (ESHWT) can fluctuate from year to year depending on many factors that include, but not limited to, natural drainage, tidal patterns, man-made drainage, surrounding development, and frequency and magnitude of rainfall patterns. Based on observations of the surrounding topography and nearby lakes in conjunction with the current performance of existing drainage features, we estimated the seasonal high groundwater table to coincide with the stabilized groundwater readings in Table III.

Water seepage, at varying elevations, should be expected within the side walls of open cut areas due to relatively impermeable soils located above the groundwater elevation. It is important to note that even small quantities of persistent seepage may complicate construction operations when excavations extend near or below areas of saturated soil. Construction difficulties resulting from near surface groundwater or excess soil moisture will be much less likely if work is conducted during the dry season.

Originally, infiltration testing was proposed at the BMP boring locations; however, due to presence SAND (SC) with an appreciable amount of fines and relatively impermeable CLAY (CL) soils located at and above the groundwater elevation and the shallow depths of the groundwater table, these tests were not performed. Based on the field exploration and corroborated with the soil classifications, the hydraulic conductivity of the SAND (SC) and CLAY (CL) soils located throughout the site is estimated to be on the order of 0.01 inches per hour or less, which corresponds to a Hydrologic Soil Group D (USDA *Part 630 Hydrology National Engineering Handbook*).

4.0 EVALUATIONS AND RECOMMENDATIONS

Our recommendations are based on the previously discussed project information, our interpretation of the soil test borings and laboratory data, and our observations during our site reconnaissance. If the proposed construction should vary from what was described, we request the opportunity to review our recommendations and make any necessary changes.

4.1 Clearing and Grading

The proposed construction areas should be cleared by means of removing the surficial topsoil material and any other unsuitable materials. It is estimated that a cut of up to 6 inches in depth will be required to remove the topsoil materials; however, this cut is expected to extend deeper in isolated areas to remove deeper deposits of organic soils or unsuitable soils, which become evident during the clearing. The proposed parking lot will likely require stabilization of the subgrade soils; therefore, the project's budget should include an allowance for subgrade improvements (undercut and backfill with structural fill). It is recommended that the clearing operations extend laterally at least 5 feet beyond the perimeter of the proposed construction area.

The results of our field exploration program indicated that the soils below the surficial materials were generally comprised of SAND (SM, SC) soils and isolated CLAY (CL) soils. Also, bulk soil samples indicated natural moisture contents of up to 5.8% above optimum moisture (as determined by means of laboratory testing). Accordingly, combinations of excess surface moisture from precipitation ponding on the site and the construction traffic, including heavy compaction equipment, may create pumping and general deterioration of the bearing capabilities of the surface soils. Therefore, undercutting to remove very soft/loose soils should be anticipated. The extent of the undercut will be determined in the field during construction based on the outcome of the field-testing procedures (subgrade proofroll).

Inherently wet subgrade soils combined with potential poor site drainage make this site particularly susceptible to subgrade deterioration; thus, it is recommended that the grading operations be performed during the drier months of the year (historically April through November as indicated by the NCDC *Climate Atlas of the United States*). This should minimize these potential problems, although they likely will not be eliminated. In addition, the site should be graded to enhance surface water runoff to reduce the ponding of water. In the event of heavy rainfall within areas to receive fill, we recommend that the grading operations cease until the site has had a chance to dry. If the subgrade becomes deteriorated due to the above-mentioned or other reasons, difficulty maneuvering construction equipment and machinery is likely. Similar projects have required significant improvements to stabilize or bridge unstable subgrade soils, which tend to deteriorate when exposed to construction traffic and moisture.

The undercut and backfill should be performed under the observation of a representative of **G E T Solutions, Inc.** who will evaluate the composition of the recovered soils. Recommendations concerning the subgrade improvements (as necessary) will be provided in the field following the testing procedures.

4.2 Subgrade Preparation

Following the clearing operation, the exposed subgrade soils should be densified with a large static drum roller. After the subgrade soils have been densified, they should be evaluated by **G E T Solutions, Inc.** for stability. Accordingly, the subgrade soils should be proofrolled to check for pockets of loose material hidden beneath a crust of better soil. Several passes should be made by a large rubber-tired roller or loaded dump truck over the construction areas. The number of passes will be determined in the field by the Geotechnical Engineer depending on the soil conditions. Any pumping or unstable areas observed during proofrolling (beyond the initial cut) should be undercut and/or stabilized at the direction of the Geotechnical Engineer.

During the subgrade testing (proofrolling), isolated areas of unstable subgrade soils are likely, thus requiring ground improvements. Soil instabilities may be noted during the proofroll due to high soil moisture contents. In this case, drying the subgrade soils (to within +/- 2% of the optimum moisture) should be attempted prior to ground improvements. If drying the soils is not a feasible option, the subgrade improvements can be performed by means of cement stabilization (granular soils) of the shallow unstable soils.

4.3 Structural Fill and Placement

Any material to be used for structural fill should be evaluated and tested by **G E T Solutions, Inc.** prior to placement to determine if they are suitable for the intended use. Suitable structural fill material should consist of sand or gravel containing less than 20% by weight of fines (SP, SM, SW, GP, GW), having a liquid limit less than 20 and plastic limit less than 6, and should be free of rubble, organics, clay, debris and other unsuitable material.

All structural fill should be compacted to a dry density of at least 98% of the Standard Proctor maximum dry density (ASTM D698) unless specified differently in this report. In general, the compaction should be accomplished by placing the fill in maximum 10-inch loose lifts and mechanically compacting each lift to at least the specified minimum dry density. A representative of **G E T Solutions, Inc.** should perform field density tests on each lift as necessary to assure that adequate compaction is achieved.

Care should be used when operating the compactors near existing structures to avoid transmission of the vibrations that could cause settlement damage or disturb occupants. In this regard, it is recommended that the vibratory roller remain at least 25 feet away from existing structures; these areas should be compacted with small, hand-operated compaction equipment.

4.4 Suitability of On-site Soils

Based on the laboratory testing program, the shallow subsurface SAND (SM, SC-SM, SC) and CLAY (CL) soils encountered at the boring locations do not appear to meet the criteria recommended in this report for reuse as structural fill; however, may be used as fill in green areas. Further classification testing (natural moisture content, gradation analysis, and Proctor testing) should be performed in the field during construction to evaluate the suitability of excavated soils for reuse as structural fill. The project's budget should include an allowance for imported structural fill.

The reason for the disqualification of the subsurface SAND (SC, SC-SM, SM) soils is that soils with large amounts of fine (generally >20%) are difficult to compact when wet, and would typically experience sponginess and instability during compaction if the moisture content is above their optimum moisture. It is noted, however, that when these soils are dried to or below optimum moisture and compacted, they perform adequately as fill. As such, the challenge becomes one of manipulating the moisture of these soils to achieve the desired degree of compaction. Also, utilizing proper compaction equipment (such as sheepsfoot rollers in combination with smooth steel drum rollers) generally increases the likelihood of achieving the desired degree of compaction, not to mention that this is further simplified if attempted during a dry season and establishing proper drainage patterns around the fill (so that they don't become saturated).

It has been our experience that under favorable weather conditions, where the moisture content of similar soils is manipulated to within 2 to 3 percentage points of optimum, compaction of these soils is achievable. A single rain event, however, may delay these proceedings by several days.

If the contractor attempts to reuse the on-site SAND soils, extensive moisture manipulation would be required prior to their reuse. This moisture manipulation could be accomplished by mechanically aerating, disking, and/or scarifying the cohesive soils. However due to their high fines content (Silt/Clay) and current moisture levels, it is not likely this would be a cost-effective operation and would likely delay the construction schedule. As an alternative, these soils could be treated with cement to aid in stabilization.

4.5 Parking/Storage Lot Recommendations

Following the proofrolling operations and the repair of any unsuitable areas, the exposed subgrade soils should be lined with a geosynthetic fabric/grid, Mirafi HP270N or equivalent. The fabric should then be overlain with 10 inches of crushed asphalt compacted to at least 98% of the Standard Proctor maximum dry density (ASTM D698). A representative of **G E T Solutions, Inc.** should perform field density testing to assure that adequate compaction is achieved. Considering the nature of the shallow subsurface soils, some localized subsidence (pothole, unevenness/unlevelness of the finished project) should be expected. It is anticipated that additional maintenance will be required over the lifetime of the storage lot (addition of crushed asphalt and periodic millings) with the bulk of improvements happening early on and tapering off as the subgrade soils improve.

4.6 Site Utility Installation

The base of the utility trenches should be observed by a qualified inspector prior to the pipe placement to verify the suitability of the bearing soils. It is expected that the utilities will be bearing in moist to wet granular and cohesive soils. In instances where unsuitable bearing soils are encountered, some stabilization may be required to provide suitable bedding. This stabilization is commonly accomplished by adding 12 inches or more of bedding stone (Type VDOT No. 57 or similar). The resulting excavations should be backfilled with structural fill, as described in Section 4.3 of this report. Soils containing appreciable amounts of fines or deleterious debris should be discarded or used as fill within green areas. Imported fill should be included in the construction budget for backfilling the utility excavations within the construction areas.

4.7 Dewatering

It is expected that dewatering will be required for excavations that extend near or below the existing groundwater table. Temporary dewatering will impact construction and be dependent on construction methods and scheduling. For those reasons, we recommend the Contractor be solely responsible for the design, installation, maintenance, and performance of all temporary dewatering systems. The dewatering system should be designed to maintain a controlled environment suitable for the proposed construction and specified construction methods. Where temporary shoring is employed, the dewatering system should be compatible with the type of shoring to be used. We recommend the Contractor verify groundwater conditions and evaluate dewatering requirements prior to construction.

Lowering the groundwater table during dewatering activities will result in an increase in effective stresses and may induce settlements of the soils underlying adjacent structures/pavements. Additionally, hydraulic compaction of predominately granular soils (e.g. SP, SM, SC soils) should be anticipated as a result of lowering the groundwater table. We recommend that the dewatering be performed such that the groundwater level is lowered no more than approximately 5 feet below the proposed excavation depth. It may be advantageous to install settlement monuments in areas where dewatering by means of well pointing is required.

4.8 Excavation Stability

The shallow subsurface soil within the project limits is comprised of granular and cohesive soil, which the Contractor should anticipate having relatively little cohesion and have a high potential for caving. Additionally, water seepage at varying elevations should be expected within the side walls of the open cut areas, increasing the potential for caving. Based on these mentioned characteristics, it is recommended that all subsurface soils be considered Type C in accordance with Occupational Safety and Health Administration (OSHA) criteria.

Temporary Slopes

In Federal Register, Volume 54, No. 209 (October, 1989), the United States Department of Labor, Occupational Safety and Health Administration (OSHA) amended its "Construction Standards for Excavations, 29 CFR, part 1926, Subpart P". This document was issued to better ensure the safety of workmen entering trenches or excavations. It is mandated by this federal regulation that all excavations, whether they be utility trenches, basement excavations, or footing excavations, be constructed in accordance with the new (OSHA) guidelines. It is our understanding that these regulations are being strictly enforced and if they are not closely followed, the owner and the Contractor could be liable for substantial penalties.

Temporary slopes may not be a feasible option. The Contractor is solely responsible for designing and constructing stable, temporary excavations and should shore, slope, or bench the sides of the excavations as required to maintain stability of both the excavation sides and bottom. The Contractor's responsible person, as defined in 29 CFR Part 1926, should evaluate the soil exposed in the excavations as part of the Contractor's safety procedures. In no case should slope height, slope inclination, or excavation depth, including utility trench excavation depth, exceed those specified in local, state, and federal safety regulations.

Shoring

Shoring design and installation should be the responsibility of the Contractor. Shoring systems required for this project should be designed by a professional engineer. Shoring systems should be designed to provide positive restraint of trench walls in an effort to protect against lateral deformation that may result in ground cracks, settlement, and/or other ground movements that may affect adjacent underground utilities and pavements as well as surface improvements. The Contractor should be made aware of this potential condition in order that preventative measures can be implemented or repair measures provided for.

Depending on the shoring system used, the removal process may create voids along the walls of the excavations. If these voids are left in place and are significant, backfill and/or the retained soil may shift laterally resulting in settlement of overlying structures/pavements. As such, care should be taken to remove the shoring systems and backfill the trenches in a manner as to not create these voids.
In all cases, the Contractor should select an excavation and/or shoring scheme that will protect adjacent and overlying improvements, including below grade utilities.

We are providing this information solely as a service to our client. **G E T Solutions, Inc.** is not assuming responsibility for construction site safety or the Contractor's activities; such responsibility is not being implied and should not be inferred.

5.0 REPORT LIMITATIONS

The recommendations submitted are based on the available soil information obtained by **G E T Solutions, Inc.** and the information supplied by the client and their designated agents for the proposed project. If there are any revisions to the plans for this project or if deviations from the subsurface conditions noted in this report are encountered during construction, **G E T Solutions, Inc.** should be notified immediately to determine if changes in the recommendations are required. If **G E T Solutions, Inc.** is not retained to perform these functions, **G E T Solutions, Inc.** cannot be responsible for the impact of those conditions on the geotechnical recommendations for the project.

The Geotechnical Engineer warrants that the findings, recommendations, specifications or professional advice contained herein have been made in accordance with generally accepted professional geotechnical engineering practices in the local area. No other warranties are implied or expressed.

After the plans and specifications are more complete, the Geotechnical Engineer should be provided the opportunity to review the final design plans and specifications to make sure our engineering recommendations have been properly incorporated into the design documents, in order that the earthwork and foundation recommendations may be properly interpreted and implemented. At that time, it may be necessary to submit supplementary recommendations.

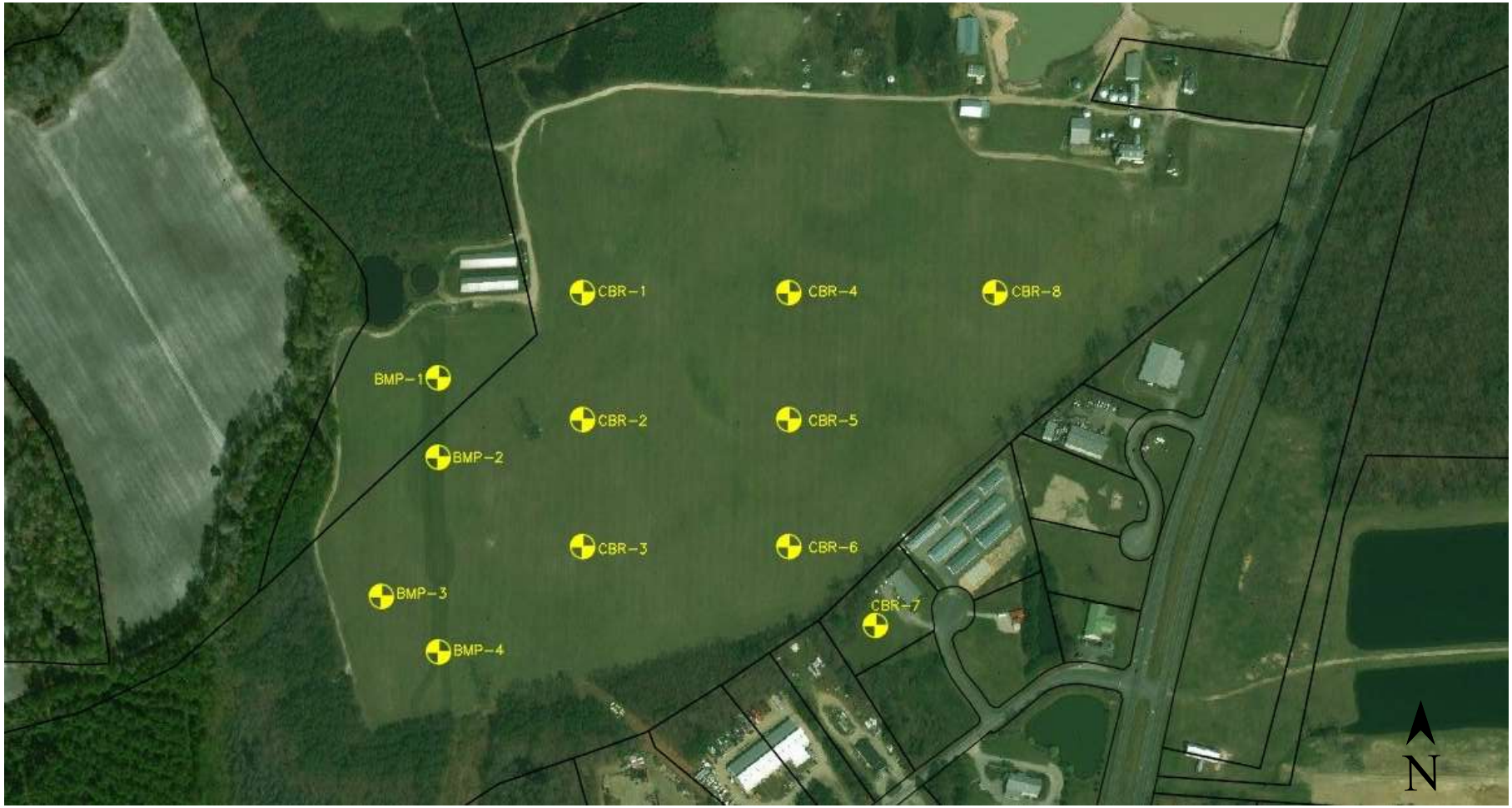
This report has been prepared for the exclusive use of the client and their designated agents for the specific application to the proposed Route 10 Parking and Storage Lot project in Smithfield, Virginia.

APPENDICES

APPENDIX I	BORING LOCATION PLAN
APPENDIX II	CLASSIFICATION SYSTEM FOR SOIL EXPLORATION
APPENDIX III	SUMMARY OF LABORATORY CLASSIFICATION RESULTS
APPENDIX IV	BORING LOGS
APPENDIX V	GENERALIZED SOIL PROFILE
APPENDIX VI	CBR TEST RESULTS

APPENDIX I

BORING LOCATION PLAN



BORING LOCATION PLAN

PROJECT: Route 10 Parking and Storage Lot

PROJECT LOCATION: Smithfield, Virginia

PROJECT NO: VB20-119G

CLIENT: Blakeway Corporation

GET Solutions, Inc.

APPENDIX II

CLASSIFICATION SYSTEM FOR SOIL EXPLORATION

GET Solutions, Inc.
Geotechnical • Environmental • Testing

Virginia Beach
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CLASSIFICATION SYSTEM FOR SOIL EXPLORATION

Standard Penetration Test (SPT), N-value

Standard Penetration Tests (SPT) were performed in the field in general accordance with ASTM D 1586. The soil samples were obtained with a standard 1.4" I.D., 2" O.D., 30" long split-spoon sampler. The sampler was driven with blows of a 140 lb. hammer falling 30 inches. The number of blows required to drive the sampler each 6-inch increment (4 increments for each soil sample) of penetration was recorded and is shown on the boring logs. The sum of the second and third penetration increments is termed the SPT N-value.

NON COHESIVE SOILS

(SILT, SAND, GRAVEL and Combinations)

Relative Density

Very Loose	4 blows/ft. or less
Loose	5 to 10 blows/ft.
Medium Dense	11 to 30 blows/ft.
Dense	31 to 50 blows/ft.
Very Dense	51 blows/ft. or more

Particle Size Identification

Boulders		8 inch diameter or more
Cobbles		3 to 8 inch diameter
Gravel	Coarse	1 to 3 inch diameter
	Medium	$^1/_2$ to 1 inch diameter
	Fine	$^1/_4$ to $^1/_2$ inch diameter
Sand	Coarse	2.00 mm to $^1/_4$ inch (diameter of pencil lead)
	Medium	0.42 to 2.00 mm (diameter of broom straw)
	Fine	0.074 to 0.42 mm (diameter of human hair)
Silt		0.002 to 0.074 mm (cannot see particles)

COHESIVE SOILS

(CLAY, SILT and Combinations)

Consistency

Very Soft	2 blows/ft. or less
Soft	3 to 4 blows/ft.
Medium Stiff	5 to 8 blows/ft.
Stiff	9 to 15 blows/ft.
Very Stiff	16 to 30 blows/ft.
Hard	31 blows/ft. or more

Relative Proportions

Descriptive Term	Percent
Trace	0-5
Few	5-10
Little	15-25
Some	30-45
Mostly	50-100

Strata Changes

In the column "Description" on the boring log, the horizontal lines represent approximate strata changes.

Groundwater Readings

Groundwater conditions will vary with environmental variations and seasonal conditions, such as the frequency and magnitude of rainfall patterns, as well as tidal influences and man-made influences, such as existing swales, drainage ponds, underdrains and areas of covered soil (paved parking lots, side walks, etc.).

CLASSIFICATION SYMBOLS (ASTM D 2487 and D 2488)

Coarse Grained Soils

More than 50% retained on No. 200 sieve

GW - Well-graded Gravel
GP - Poorly graded Gravel
GW-GM - Well-graded Gravel w/Silt
GW-GC - Well-graded Gravel w/Clay
GP-GM - Poorly graded Gravel w/Silt
GP-GC - Poorly graded Gravel w/Clay
GM - Silty Gravel
GC - Clayey Gravel
GC-GM - Silty, Clayey Gravel
SW - Well-graded Sand
SP - Poorly graded Sand
SW-SM - Well-graded Sand w/Silt
SW-SC - Well-graded Sand w/Clay
SP-SM - Poorly graded Sand w/Silt
SP-SC - Poorly graded Sand w/Clay
SM - Silty Sand
SC - Clayey Sand
SC-SM - Silty, Clayey Sand

Fine-Grained Soils

50% or more passes the No. 200 sieve

CL - Lean Clay
CL-ML - Silty Clay
ML - Silt
OL - Organic Clay/Silt
Liquid Limit 50% or greater
CH - Fat Clay
MH - Elastic Silt
OH - Organic Clay/Silt

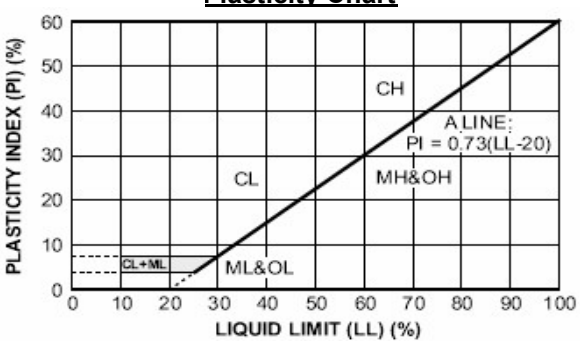
Highly Organic Soils

PT - Peat

Depending on percentage of fines (fraction smaller than No. 200 sieve size), coarse-grained soils are classified as follows:

Less than 5 percent	GW, GP, SW,SP
More than 12 percent	GM, GC, SM, SC
5 to 12 percent	Borderline cases requiring dual symbols

Plasticity Chart



APPENDIX III

SUMMARY OF LABORATORY CLASSIFICATION RESULTS

SUMMARY OF LABORATORY RESULTS

GET Solutions, INC.

CLIENT Blakeway Corporation **PROJECT NAME** Route 10 Parking and Storage Lot

PROJECT NUMBER VB20-119G **PROJECT LOCATION** Isle of Wight, Virginia

Borehole	Depth	Liquid Limit	Plastic Limit	Plasticity Index	Maximum Size (mm)	%<#200 Sieve	Class-ification	Water Content (%)	Dry Density (pcf)	Satur-ation (%)	Void Ratio
BMP-1	1.0							11.7			
BMP-1	3.0							17.0			
BMP-1	5.0							20.6			
BMP-1	7.0							20.1			
BMP-1	9.0							30.1			
BMP-1	11.0	71	24	47	0.075	65	CH	31.3			
BMP-1	14.0							45.0			
BMP-2	5.0	51	25	26	0.075	88	CH	25.0			
BMP-3	3.0	31	14	17	0.075	27	SC	20.6			
BMP-4	1.0							10.9			
BMP-4	3.0							19.5			
BMP-4	5.0							21.4			
BMP-4	7.0	41	18	23	0.075	77	CL	20.3			
BMP-4	9.0							16.5			
BMP-4	11.0							13.6			
BMP-4	14.0							17.4			
CBR-1	2.0	20	13	7	4.75	33	SC-SM	16.9			
CBR-1	7.0	34	15	19	0.075	42	SC	22.7			
CBR-2	1.0	NP	NP	NP	4.75	19	SM	11.1			
CBR-2	9.0	23	13	10	0.075	45	SC	15.2			
CBR-3	2.0	20	11	9	4.75	21	SC	9.7			
CBR-3	7.0	53	19	34	0.075	42	SC	18.6			
CBR-4	2.0	21	12	9	4.75	33	SC	15.4			
CBR-5	1.0	NP	NP	NP	4.75	17	SM	13.3			
CBR-5	5.0	24	11	13	0.075	46	SC	14.7			
CBR-6	2.0	20	12	8	4.75	34	SC	13.9			
CBR-7	2.0	27	16	11	4.75	66	CL	20.8			
CBR-7	7.0	33	14	19	0.075	30	SC	18.2			
CBR-8	2.0	16	12	4	4.75	31	SC-SM	13.8			
CBR-8	3.0	31	13	18	0.075	33	SC	17.9			

(1) GET - LABORATORY TEST SUMMARY - GET_STANDARD_DATATEMPLATE(03-17-14).GDT - 7/13/20 11:10 - G:\GINT\PROJECTS\VB20\VB20-119 ROUTE 10 PARKING AND STORAGE LOT.GPJ

APPENDIX IV

BORING LOGS

RECORD OF SUBSURFACE EXPLORATION

Virginia Beach
5465 Greenwich Road
Virginia Beach, VA 23642
757-518-1703

Williamsburg
1592-E Penniman Road
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Elizabeth City
106 Capital Trace Unit E
Elizabeth City, NC 27909
252-335-9765

Jacksonville
415-A Western Blvd
Jacksonville, NC 28546
910-478-9915

BORING ID
BMP-1

PROJECT NAME: **Route 10 Parking and Storage Lot**
PROJECT NUMBER: **VB20-119G**
CLIENT: **Blakeway Corporation**
SURFACE ELEVATION (NAVD 88) (ft): **46.0**
PROJECT LOCATION: **Isle of Wight, Virginia**
LOGGED BY: **G. Weber**
BORING LOCATION: **See attached Boring Location Plan**
DATE STARTED: **6/5/2020**
DRILLING METHOD(S): **Rotary wash "mud"**
DATE COMPLETED: **6/5/2020**
GROUNDWATER*: INITIAL (ft) ▽: **10** AFTER **312** HOURS (ft) ▼: **2.1** CAVE-IN (ft) ▽: ___
DRILLER: **GET Solutions, Inc.**
The initial groundwater readings are not intended to indicate the static groundwater level.

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Strata Legend	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)	%<#200
45	0.3	3 inches of Topsoil						
		Light brown, fine to medium, SILTY SAND, contains clay nodules, loose, moist (SM)		1	SS	19	2-3-2-2 (5)	
	2.0							
		Light gray mottled orange, fine to medium, CLAYEY SAND, contains fine organic material, medium dense, moist to wet (SC)		2	SS	18	2-5-6-7 (11)	
		Wet below 2.1 feet						
	5			3	SS	20	7-8-9-8 (17)	
40	6.0							
		Light brown mottled orange, fine, SILTY SAND, contains clay nodules, medium dense, wet (SM)		4	SS	20	6-7-8-6 (15)	
	8.0							
		Light gray mottled orange to dark gray, Sandy FAT CLAY, soft to stiff, wet (CH)		5	SS	24	5-5-5-11 (10)	
	10			6	SS	24	5-3-3-2 (6)	65
35								
				7	SS	24	2-2-2-2 (4)	
	15							
	15.0	Boring terminated at 15 feet below existing grade.						

TEST RESULTS
Plastic Limit X——X Liquid Limit
Water Content - ●
Penetration - ▨
10 20 30 40 50 60 70

This information pertains only to this boring and should not be interpreted as being indicitive of the site.

Sample Type(s):
SS - Split Spoon

Notes:

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Jacksonville, NC 28546
910-478-9915

BORING ID
BMP-2

PROJECT NAME: **Route 10 Parking and Storage Lot**
PROJECT NUMBER: **VB20-119G**
CLIENT: **Blakeway Corporation**
SURFACE ELEVATION (NAVD 88) (ft): **46.2**
PROJECT LOCATION: **Isle of Wight, Virginia**
LOGGED BY: **G. Weber**
BORING LOCATION: **See attached Boring Location Plan**
DATE STARTED: **6/5/2020**
DRILLING METHOD(S): **Rotary wash "mud"**
DATE COMPLETED: **6/5/2020**
GROUNDWATER*: INITIAL (ft) ▽: **8** AFTER **312** HOURS (ft) ▼: **2.8** CAVE-IN (ft) ▽: ___
DRILLER: **GET Solutions, Inc.**
The initial groundwater readings are not intended to indicate the static groundwater level.

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Strata Legend	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)	%<#200	TEST RESULTS
45	0	0.2 2 inches of Topsoil Brown to light gray mottled orange, LEAN CLAY, few to little sand, contains fine organic material, medium stiff to stiff, moist to wet (CL)		1	SS	16	2-2-3-2 (5)		
		Wet below 2.8 feet		2	SS	17	4-4-6-6 (10)		
		4.0 Light gray mottled orange, FAT CLAY, few sand, stiff, wet (CH)		3	SS	21	6-7-7-7 (14)	88	
40	5	6.0 Gray, fine to coarse, CLAYEY SAND, some to mostly gravel, medium dense, moist to wet (SC)		4	SS	20	8-8-9-9 (17)		
				5	SS	12	5-6-7-7 (13)		
35	10	10.0 Orange-brown, fine to coarse, SILTY SAND, loose, wet (SM)		6	SS	24	2-4-3-4 (7)		
				7	SS	24	2-3-4-3 (7)		
	15	14.5 Light gray, fine, CLAYEY SAND, loose, wet (SC) 15.0 Boring terminated at 15 feet below existing grade.							

TEST RESULTS: Plastic Limit X——X Liquid Limit; Water Content - ●; Penetration - ▨; 10 20 30 40 50 60 70

Sample Type(s):
SS - Split Spoon

Notes:

This information pertains only to this boring and should not be interpreted as being indicitive of the site.

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910-478-9915

BORING ID
BMP-3

PROJECT NAME: **Route 10 Parking and Storage Lot**
PROJECT NUMBER: **VB20-119G**
CLIENT: **Blakeway Corporation**
SURFACE ELEVATION (NAVD 88) (ft): **50.8**
PROJECT LOCATION: **Isle of Wight, Virginia**
LOGGED BY: **G. Weber**
BORING LOCATION: **See attached Boring Location Plan**
DATE STARTED: **6/5/2020**
DRILLING METHOD(S): **Rotary wash "mud"**
DATE COMPLETED: **6/5/2020**
GROUNDWATER*: INITIAL (ft) ▽: **9** AFTER **312** HOURS (ft) ▼: **1.5** CAVE-IN (ft) ▽: ___
DRILLER: **GET Solutions, Inc.**
The initial groundwater readings are not intended to indicate the static groundwater level.

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Strata Legend	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)	%<#200	TEST RESULTS
50	0	0.3 3 inches of Topsoil Light brown, fine, SILTY SAND, loose, moist to wet (SM)		1	SS	18	2-3-3-3 (6)		
		Wet below 1.5 feet							
		2.0 Brown, fine to medium, CLAYEY SAND, loose, wet (SC)		2	SS	14	2-3-3-3 (6)	27	
		Color change to Gray mottled orange below 4 feet		3	SS	24	2-4-4-6 (8)		
45	5	6.0 Gray mottled orange, LEAN CLAY, trace to some sand, stiff to very stiff, wet (CL)		4	SS	24	6-6-7-9 (13)		
				5	SS	24	6-7-8-10 (15)		
40	10			6	SS	23	7-8-9-9 (17)		
		Color change to Dark gray mottled gray below 13 feet		7	SS	24	9-10-10-11 (20)		
	15	15.0 Boring terminated at 15 feet below existing grade.							

TEST RESULTS
Plastic Limit X——X Liquid Limit
Water Content - ●
Penetration - ▨
10 20 30 40 50 60 70

Sample Type(s):
SS - Split Spoon

Notes:

This information pertains only to this boring and should not be interpreted as being indicitive of the site.

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BORING ID
BMP-4

PROJECT NAME: **Route 10 Parking and Storage Lot**
PROJECT NUMBER: **VB20-119G**
CLIENT: **Blakeway Corporation**
SURFACE ELEVATION (NAVD 88) (ft): **49.9**
PROJECT LOCATION: **Isle of Wight, Virginia**
LOGGED BY: **G. Weber**
BORING LOCATION: **See attached Boring Location Plan**
DATE STARTED: **6/5/2020**
DRILLING METHOD(S): **Rotary wash "mud"**
DATE COMPLETED: **6/5/2020**
GROUNDWATER*: INITIAL (ft) ▽: **14** AFTER **312** HOURS (ft) ▼: **1.4** CAVE-IN (ft) ▽: ___
DRILLER: **GET Solutions, Inc.**
The initial groundwater readings are not intended to indicate the static groundwater level.

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Strata Legend	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)	%<#200	TEST RESULTS
	0.3	4 inches of Topsoil							
		Light brown, fine, SILTY SAND, very loose, moist to wet (SM)		1	SS	11	2-2-2-2 (4)		
		Wet below 1.4 feet							
	2.0	Light gray mottled orange, fine to medium, CLAYEY SAND, very loose, wet (SC)		2	SS	17	1-2-2-3 (4)		
	4.0	Dark gray mottled gray, LEAN CLAY, little to some sand, stiff to very stiff, wet (CL)		3	SS	20	3-5-6-8 (11)		
45	5			4	SS	22	6-9-10-9 (19)	77	
				5	SS	24	7-8-10-9 (18)		
40	10	Color change to Dark gray mottled orange below 10 feet		6	SS	24	6-8-9-7 (17)		
		Color change to Light gray below 13 feet		7	SS	24	9-10-12-14 (22)		
35	15	15.0							
		Boring terminated at 15 feet below existing grade.							

TEST RESULTS
Plastic Limit X——X Liquid Limit
Water Content - ●
Penetration - ▨
10 20 30 40 50 60 70

Sample Type(s):
SS - Split Spoon

Notes:

This information pertains only to this boring and should not be interpreted as being indicitive of the site.

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BORING ID
CBR-1

PROJECT NAME: **Route 10 Parking and Storage Lot**
PROJECT NUMBER: **VB20-119G**
CLIENT: **Blakeway Corporation**
SURFACE ELEVATION (NAVD 88) (ft): **44.8**
PROJECT LOCATION: **Isle of Wight, Virginia**
LOGGED BY: **G. Weber**
BORING LOCATION: **See attached Boring Location Plan**
DATE STARTED: **6/5/2020**
DRILLING METHOD(S): **Rotary wash "mud"**
DATE COMPLETED: **6/5/2020**
GROUNDWATER*: INITIAL (ft) ▽: **8** AFTER ____ HOURS (ft) ▼: ____ CAVE-IN (ft) ▽: ____
DRILLER: **GET Solutions, Inc.**

The initial groundwater readings are not intended to indicate the static groundwater level.

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Strata Legend	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)	%<#200	TEST RESULTS
		5 inches of Topsoil							
	0.4	Brown, fine, SILTY SAND, loose, moist (SM)		1	SS	15	2-3-3-2 (6)		
	2.0	Light gray mottled orange, fine to medium, SILTY CLAYEY SAND, loose, moist (SC-SM)		2	SS	14	1-3-4-4 (7)	33	
	4.0	Light gray mottled orange, fine to medium, CLAYEY SAND, loose to medium dense, moist to wet (SC)		3	SS	20	3-3-4-5 (7)		
40	5			4	SS	23	3-5-6-6 (11)	42	
		Color change to Light gray, wet below 8 feet		5	SS	21	4-4-4-4 (8)		
35	10	10.0							
		Boring terminated at 10 feet below existing grade.							

TEST RESULTS
Plastic Limit X——X Liquid Limit
Water Content - ●
Penetration - ▨
10 20 30 40 50 60 70

Sample Type(s):
SS - Split Spoon

Notes:

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BORING ID
CBR-2

PROJECT NAME: **Route 10 Parking and Storage Lot**
PROJECT NUMBER: **VB20-119G**
CLIENT: **Blakeway Corporation**
SURFACE ELEVATION (NAVD 88) (ft): **50.4**
PROJECT LOCATION: **Isle of Wight, Virginia**
LOGGED BY: **G. Weber**
BORING LOCATION: **See attached Boring Location Plan**
DATE STARTED: **6/5/2020**
DRILLING METHOD(S): **Rotary wash "mud"**
DATE COMPLETED: **6/5/2020**
GROUNDWATER*: INITIAL (ft) ▽: **7.75** AFTER ____ HOURS (ft) ▼: ____ CAVE-IN (ft) ▽: ____
DRILLER: **GET Solutions, Inc.**
The initial groundwater readings are not intended to indicate the static groundwater level.

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Strata Legend	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)	%<#200	TEST RESULTS
50	0.3	4 inches of Topsoil							
		Brown, fine to medium, SILTY SAND, loose, moist (SM)		1	SS	16	1-2-3-3 (5)	19	
	2.0	Orange-brown, fine to medium, very loose to medium dense, moist to wet (SC)		2	SS	14	2-2-2-2 (4)		
		Color change to Light gray mottled orange below 4 feet		3	SS	21	2-3-4-7 (7)		
45	5	Wet below 7.75 feet ▽		4	SS	23	5-8-9-16 (17)		
				5	SS	24	1-4-5-8 (9)	45	
	10	10.0 Boring terminated at 10 feet below existing grade.							

TEST RESULTS: Plastic Limit X——X Liquid Limit; Water Content - ●; Penetration - ▨; 10 20 30 40 50 60 70

Sample Type(s):
SS - Split Spoon

Notes:

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BORING ID
CBR-3

PROJECT NAME: **Route 10 Parking and Storage Lot**
PROJECT NUMBER: **VB20-119G**
CLIENT: **Blakeway Corporation**
SURFACE ELEVATION (NAVD 88) (ft): **52.0**
PROJECT LOCATION: **Isle of Wight, Virginia**
LOGGED BY: **G. Weber**
BORING LOCATION: **See attached Boring Location Plan**
DATE STARTED: **6/5/2020**
DRILLING METHOD(S): **Rotary wash "mud"**
DATE COMPLETED: **6/5/2020**
GROUNDWATER*: INITIAL (ft) ▽: **7.5** AFTER ____ HOURS (ft) ▼: ____ CAVE-IN (ft) ▽: ____
DRILLER: **GET Solutions, Inc.**
The initial groundwater readings are not intended to indicate the static groundwater level.

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Strata Legend	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)	%<#200	TEST RESULTS
	0.3	4 inches of Topsoil							
		Brown, fine to medium, SILTY SAND, contains fine organic material, very loose, moist (SM)		1	SS	12	1-2-2-3 (4)		
50	2.0	Brown, fine to medium, CLAYEY SAND, loose to medium dense, moist to wet (SC)		2	SS	14	2-3-4-4 (7)	21	
	5	Color change to Light gray mottled orange below 4 feet		3	SS	17	2-4-6-10 (10)		
45		Wet below 7.5 feet		4	SS	20	6-8-12-16 (20)	42	
	8.0	Light gray mottled orange, LEAN CLAY, little sand, very stiff, wet (CL)		5	SS	22	8-8-8-10 (16)		
	10	10.0							
		Boring terminated at 10 feet below existing grade.							

TEST RESULTS
Plastic Limit X——X Liquid Limit
Water Content - ●
Penetration - ▨
10 20 30 40 50 60 70

This information pertains only to this boring and should not be interpreted as being indicitive of the site.

Sample Type(s):
SS - Split Spoon

Notes:

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BORING ID
CBR-4

PROJECT NAME: **Route 10 Parking and Storage Lot**
CLIENT: **Blakeway Corporation**
PROJECT LOCATION: **Isle of Wight, Virginia**
BORING LOCATION: **See attached Boring Location Plan**
DRILLING METHOD(S): **Rotary wash "mud"**
GROUNDWATER*: INITIAL (ft) ▽: ___ AFTER ___ HOURS (ft) ▼: ___ CAVE-IN (ft) ▽: ___
The initial groundwater readings are not intended to indicate the static groundwater level.

PROJECT NUMBER: **VB20-119G**
SURFACE ELEVATION (NAVD 88) (ft): **51.5**
LOGGED BY: **G. Weber**
DATE STARTED: **6/5/2020**
DATE COMPLETED: **6/5/2020**
DRILLER: **GET Solutions, Inc.**

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Strata Legend	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)	%<#200	TEST RESULTS
		5 inches of Topsoil							
	0.4	Brown, fine to medium, SILTY SAND, contains fine organic material, very loose (SM)		1	SS	14	1-2-2-1 (4)		
50	2.0	Brown, fine to medium, CLAYEY SAND, loose (SC)		2	SS	15	1-2-3-3 (5)	33	
	5	Color change to Gray mottled orange below 4 feet		3	SS	18	2-5-4-6 (9)		
	6.0	Gray mottled orange, LEAN CLAY, few sand, very stiff (CL)		4	SS	23	8-8-9-10 (17)		
45				5	SS	20	9-10-10-12 (20)		
	10	10.0 Boring terminated at 10 feet below existing grade.							

TEST RESULTS: Plastic Limit X——X Liquid Limit; Water Content - ●; Penetration - ▨; 10 20 30 40 50 60 70

Sample Type(s):
SS - Split Spoon

Notes: Water table not encountered at time of drilling

This information pertains only to this boring and should not be interpreted as being indicitive of the site.

RECORD OF SUBSURFACE EXPLORATION

Virginia Beach
5465 Greenwich Road
Virginia Beach, VA 23642
757-518-1703

Williamsburg
1592-E Penniman Road
Williamsburg, VA 23185
757-564-6452

Elizabeth City
106 Capital Trace Unit E
Elizabeth City, NC 27909
252-335-9765

Jacksonville
415-A Western Blvd
Jacksonville, NC 28546
910-478-9915

BORING ID
CBR-5

PROJECT NAME: **Route 10 Parking and Storage Lot**
CLIENT: **Blakeway Corporation**
PROJECT LOCATION: **Isle of Wight, Virginia**
BORING LOCATION: **See attached Boring Location Plan**
DRILLING METHOD(S): **Rotary wash "mud"**
GROUNDWATER*: INITIAL (ft) ▽: ___ AFTER ___ HOURS (ft) ▼: ___ CAVE-IN (ft) ▽: ___
The initial groundwater readings are not intended to indicate the static groundwater level.

PROJECT NUMBER: **VB20-119G**
SURFACE ELEVATION (NAVD 88) (ft): **51.2**
LOGGED BY: **G. Weber**
DATE STARTED: **6/5/2020**
DATE COMPLETED: **6/5/2020**
DRILLER: **GET Solutions, Inc.**

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Strata Legend	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)	%<#200	TEST RESULTS
51.2	0.3	4 inches of Topsoil							
50		Light gray, fine to medium, SILTY SAND, contains clay nodules, very loose to loose (SM)		1	SS	17	1-2-2-3 (4)	17	
		Color change to Orange-brown below 2 feet		2	SS	14	2-3-2-2 (5)		
	4.0								
	5	Light gray mottled orange, fine to medium, CLAYEY SAND, loose (SC)		3	SS	24	3-3-4-4 (7)	46	
	6.0								
45		Light gray mottled orange, LEAN CLAY, little sand, stiff to very stiff (CL)		4	SS	24	4-5-7-6 (12)		
				5	SS	22	9-9-11-12 (20)		
	10	10.0							
		Boring terminated at 10 feet below existing grade.							

TEST RESULTS: Plastic Limit X——X Liquid Limit; Water Content - ●; Penetration - ▨; 10 20 30 40 50 60 70

Sample Type(s):
SS - Split Spoon

Notes: Water table not encountered at time of drilling

This information pertains only to this boring and should not be interpreted as being indicitive of the site.

RECORD OF SUBSURFACE EXPLORATION

Virginia Beach
5465 Greenwich Road
Virginia Beach, VA 23642
757-518-1703

Williamsburg
1592-E Penniman Road
Williamsburg, VA 23185
757-564-6452

Elizabeth City
106 Capital Trace Unit E
Elizabeth City, NC 27909
252-335-9765

Jacksonville
415-A Western Blvd
Jacksonville, NC 28546
910-478-9915

BORING ID
CBR-6

PROJECT NAME: **Route 10 Parking and Storage Lot**
PROJECT NUMBER: **VB20-119G**
CLIENT: **Blakeway Corporation**
SURFACE ELEVATION (NAVD 88) (ft): **53.4**
PROJECT LOCATION: **Isle of Wight, Virginia**
LOGGED BY: **G. Weber**
BORING LOCATION: **See attached Boring Location Plan**
DATE STARTED: **6/5/2020**
DRILLING METHOD(S): **Rotary wash "mud"**
DATE COMPLETED: **6/5/2020**
GROUNDWATER*: INITIAL (ft) ▽: ___ AFTER ___ HOURS (ft) ▼: ___ CAVE-IN (ft) ▽: ___
DRILLER: **GET Solutions, Inc.**
The initial groundwater readings are not intended to indicate the static groundwater level.

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Strata Legend	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)	%<#200	TEST RESULTS
	0.3	3 inches of Topsoil							
		Dark brown, fine, SILTY SAND, loose (SM)		1	SS	15	1-3-2-2 (5)		
	2.0	Brown, fine to medium, CLAYEY SAND, loose (SC)		2	SS	16	2-3-4-4 (7)	34	
50	4.0	Gray mottled red, LEAN CLAY, little sand, very stiff (CL)		3	SS	21	6-8-9-8 (17)		
	5			4	SS	24	6-8-10-11 (18)		
45				5	SS	21	10-10-11-10 (21)		
	10	10.0 Boring terminated at 10 feet below existing grade.							

TEST RESULTS
Plastic Limit X——X Liquid Limit
Water Content - ●
Penetration - ▨
10 20 30 40 50 60 70

Sample Type(s):
SS - Split Spoon

Notes: Water table not encountered at time of drilling

This information pertains only to this boring and should not be interpreted as being indicitive of the site.

RECORD OF SUBSURFACE EXPLORATION

Virginia Beach
5465 Greenwich Road
Virginia Beach, VA 23642
757-518-1703

Williamsburg
1592-E Penniman Road
Williamsburg, VA 23185
757-564-6452

Elizabeth City
106 Capital Trace Unit E
Elizabeth City, NC 27909
252-335-9765

Jacksonville
415-A Western Blvd
Jacksonville, NC 28546
910-478-9915

BORING ID
CBR-7

PROJECT NAME: **Route 10 Parking and Storage Lot**
PROJECT NUMBER: **VB20-119G**
CLIENT: **Blakeway Corporation**
SURFACE ELEVATION (NAVD 88) (ft): **50.3**
PROJECT LOCATION: **Isle of Wight, Virginia**
LOGGED BY: **G. Weber**
BORING LOCATION: **See attached Boring Location Plan**
DATE STARTED: **6/5/2020**
DRILLING METHOD(S): **Rotary wash "mud"**
DATE COMPLETED: **6/5/2020**
GROUNDWATER*: INITIAL (ft) ▽: **8** AFTER ____ HOURS (ft) ▼: ____ CAVE-IN (ft) ▽: ____
DRILLER: **GET Solutions, Inc.**

The initial groundwater readings are not intended to indicate the static groundwater level.

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Strata Legend	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)	%<#200	TEST RESULTS
50	0	6 inches of Topsoil							
	0.5	Dark brown, fine, SILTY SAND, contains clay nodules and fine organic material, loose, moist (SM)		1	SS	18	2-3-3-2 (6)		
	2.0	Brown, Sandy LEAN CLAY, soft, moist (CL)		2	SS	19	2-2-2-4 (4)	66	
	4.0	Light gray mottled orange, fine to medium, CLAYEY SAND, loose to medium dense, moist to wet (SC)		3	SS	24	4-4-5-6 (9)		
45	5			4	SS	24	6-6-7-6 (13)	30	
		Wet below 8 feet ▽		5	SS	24	5-6-7-6 (13)		
	10	10.0 Boring terminated at 10 feet below existing grade.							

TEST RESULTS: Plastic Limit X——X Liquid Limit; Water Content - ●; Penetration - ▨; 10 20 30 40 50 60 70

Sample Type(s):
SS - Split Spoon

Notes:

This information pertains only to this boring and should not be interpreted as being indicitive of the site.

RECORD OF SUBSURFACE EXPLORATION

Virginia Beach
5465 Greenwich Road
Virginia Beach, VA 23642
757-518-1703

Williamsburg
1592-E Penniman Road
Williamsburg, VA 23185
757-564-6452

Elizabeth City
106 Capital Trace Unit E
Elizabeth City, NC 27909
252-335-9765

Jacksonville
415-A Western Blvd
Jacksonville, NC 28546
910-478-9915

BORING ID
CBR-8

PROJECT NAME: **Route 10 Parking and Storage Lot**
CLIENT: **Blakeway Corporation**
PROJECT LOCATION: **Isle of Wight, Virginia**
BORING LOCATION: **See attached Boring Location Plan**
DRILLING METHOD(S): **Rotary wash "mud"**
GROUNDWATER*: INITIAL (ft) ▽: ___ AFTER ___ HOURS (ft) ▼: ___ CAVE-IN (ft) ▽: ___
The initial groundwater readings are not intended to indicate the static groundwater level.

PROJECT NUMBER: **VB20-119G**
SURFACE ELEVATION (NAVD 88) (ft): **55.8**
LOGGED BY: **G. Weber**
DATE STARTED: **6/5/2020**
DATE COMPLETED: **6/5/2020**
DRILLER: **GET Solutions, Inc.**

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Strata Legend	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)	%<#200	TEST RESULTS
55	0.3	3 inches of Topsoil							
		Light brown, fine to medium, SILTY SAND, contains fine organic material, very loose (SM)		1	SS	15	1-1-2-2 (3)		
	2.0							31	
		Brown, fine to medium, SILTY CLAYEY SAND, very loose (SC-SM)		2	SS	15	1-1-1-2 (2)	33	
	4.0								
	5	Gray mottled orange, fine to medium, CLAYEY SAND, loose (SC)		3	SS	24	2-3-5-6 (8)		
50	6.0								
		Gray mottled orange, LEAN CLAY, little sand, stiff to very stiff (CL)		4	SS	24	5-6-7-11 (13)		
				5	SS	24	8-8-11-11 (19)		
	10	10.0							
		Boring terminated at 10 feet below existing grade.							

TEST RESULTS
Plastic Limit X——X Liquid Limit
Water Content - ●
Penetration - ▨
10 20 30 40 50 60 70

Sample Type(s):
SS - Split Spoon

Notes: Water table not encountered at time of drilling

This information pertains only to this boring and should not be interpreted as being indicitive of the site.

APPENDIX V

GENERALIZED SOIL PROFILE

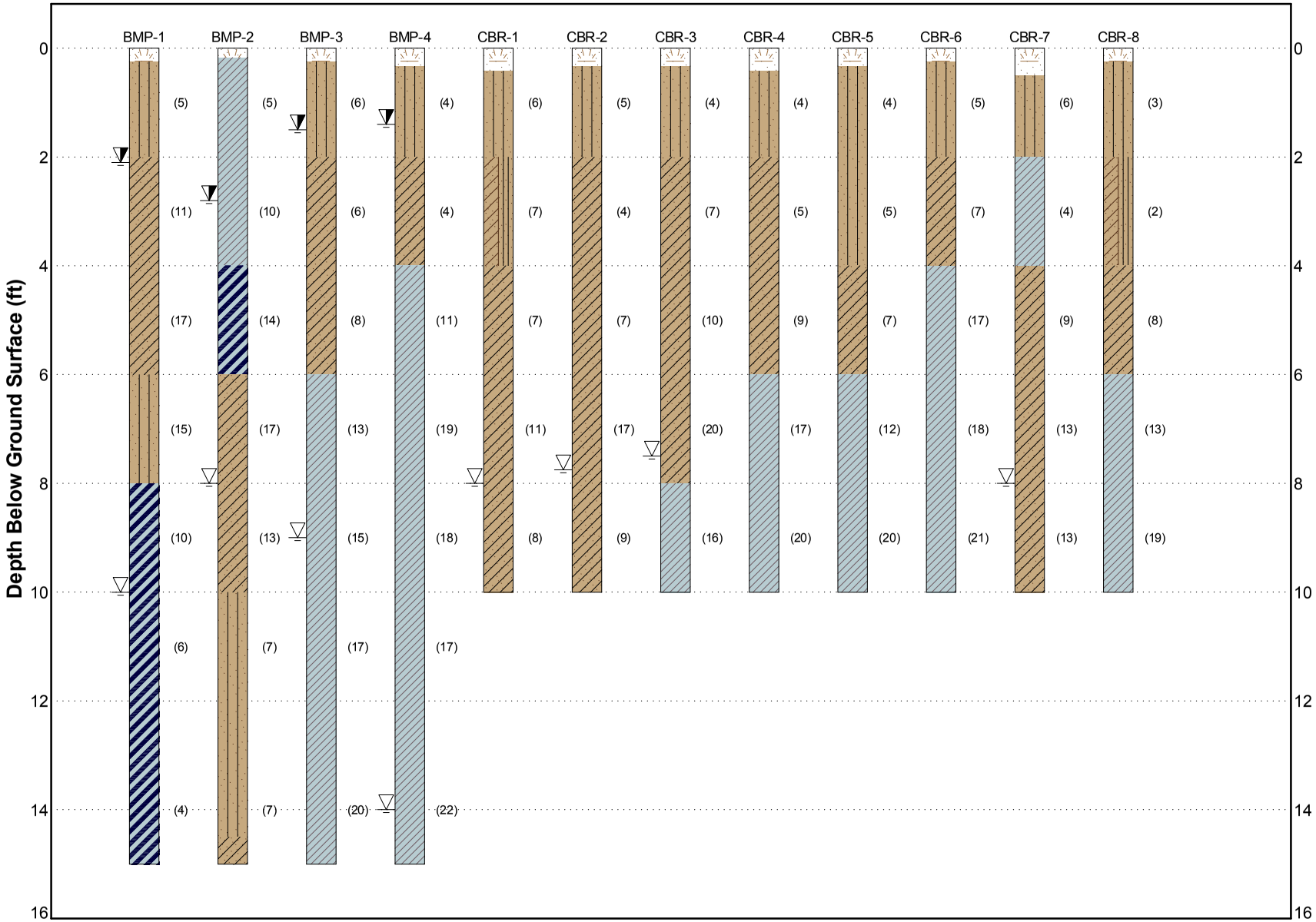
GENERALIZED SOIL PROFILE

PROJECT NAME: **Route 10 Parking and Storage Lot**

PROJECT NUMBER: **VB20-119G**

PROJECT LOCATION: **Isle of Wight, Virginia**

CLIENT: **Blakeway Corporation**



LEGEND

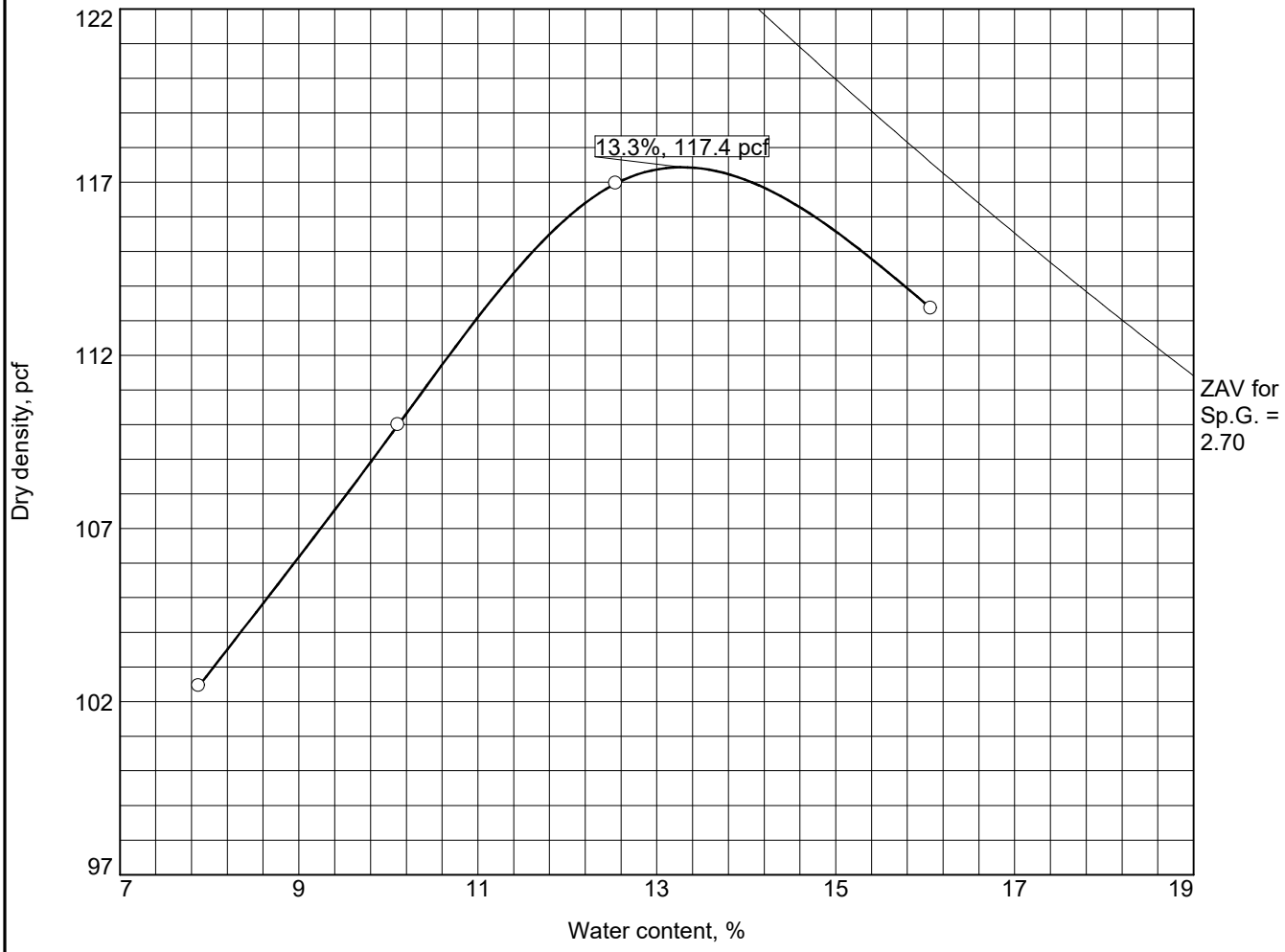
- Topsoil
- USCS Silty Sand
- USCS Clayey Sand
- USCS High Plasticity Clay
- USCS Low Plasticity Clay
- USCS Clayey Sand

(Numerical Value) = Sample N-Value

APPENDIX VI

CBR TEST RESULTS

MOISTURE DENSITY RELATIONSHIP (PROCTOR CURVE)



Test specification: ASTM D 698-12 Method A Standard

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > #4	% < No.200
	USCS	AASHTO						
12-36 in.	SC-SM	A-4(0)	17		21	8	0.1	35.6

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 117.4 pcf Optimum moisture = 13.3 %	Gray, SILTY CLAYEY SAND

Project No. VB20-119G **Client:** Blakeway Corporation
Project: Route 10 Parking and Storage Lot

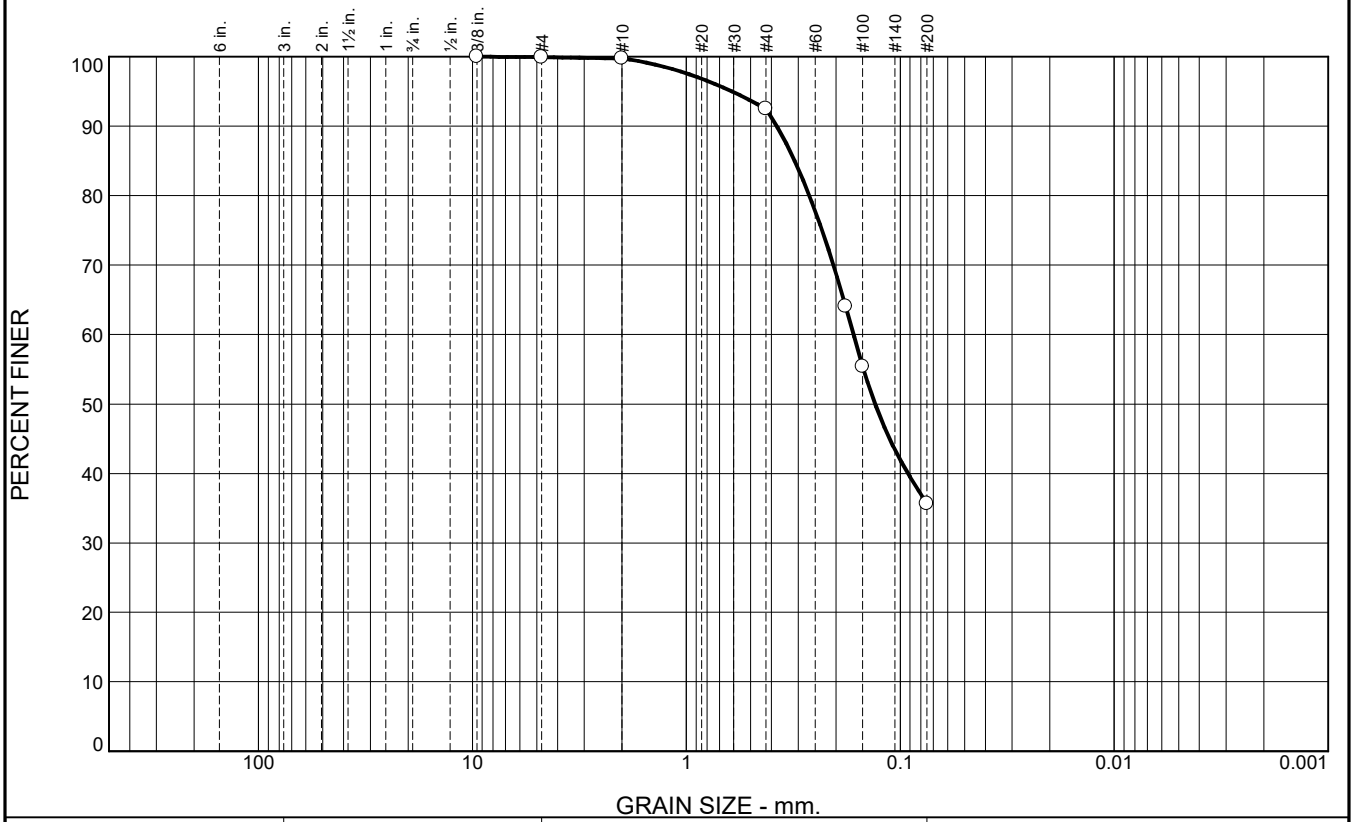
○**Location:** CBR-1 **Sample Number:** CBR-1

Remarks:
Sample Obtained 6/5/20

GET SOLUTIONS, INC.

Figure 1

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.1	0.2	7.2	56.9	35.6	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
.375	100.0		
#4	99.9		
#10	99.7		
#40	92.5		
#80	64.0		
#100	55.4		
#200	35.6		

* (no specification provided)

Material Description

Gray, SILTY CLAYEY SAND

Atterberg Limits

PL= 13 LL= 21 PI= 8

Coefficients

D_{90}= 0.3780 D_{85}= 0.3118 D_{60}= 0.1655
D_{50}= 0.1311 D_{30}= D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= SC-SM AASHTO= A-4(0)

Remarks

Sample Obtained 6/5/20

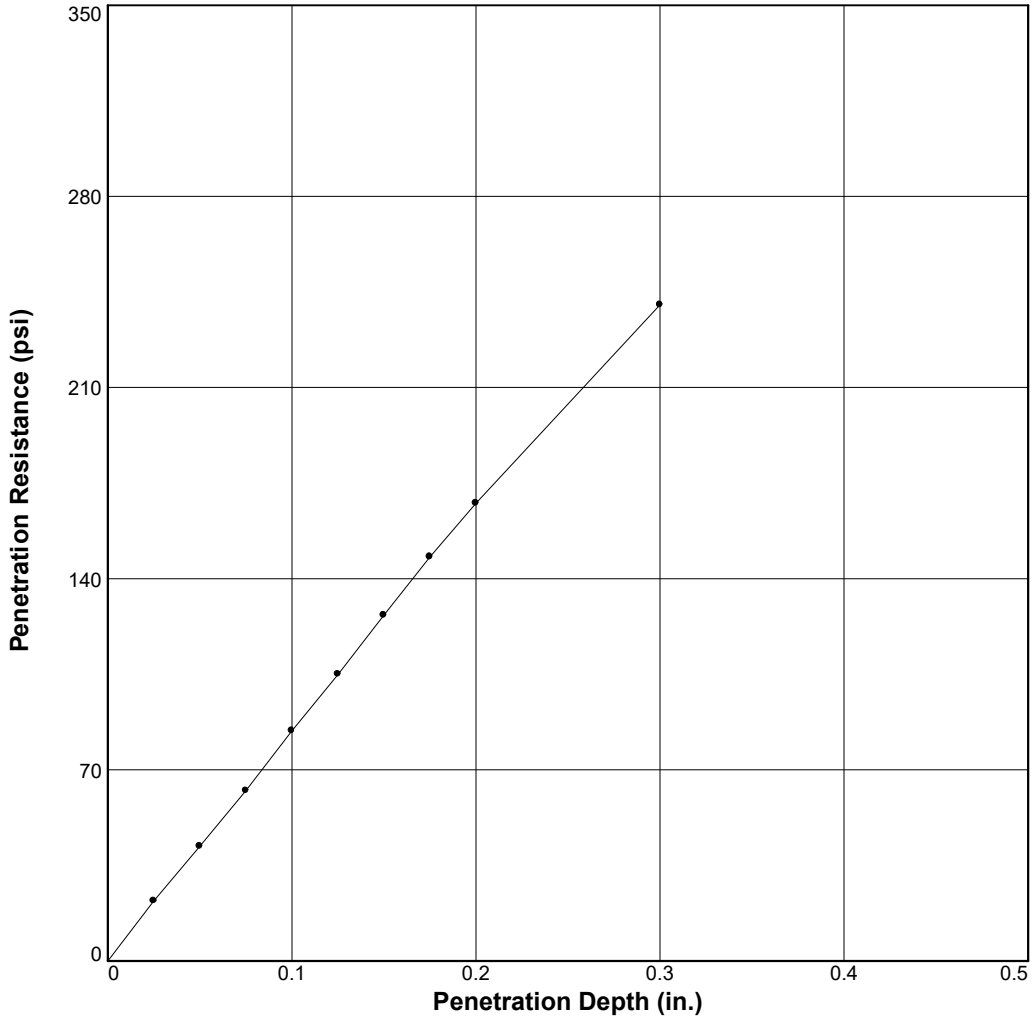
Location: CBR-1
Sample Number: CBR-1 **Depth:** 12-36 in. **Date:** 6/5/20

GET SOLUTIONS, INC.

Client: Blakeway Corporation
Project: Route 10 Parking and Storage Lot

Project No: VB20-119G **Figure** 1A

BEARING RATIO TEST REPORT
VTM-8 (2013)



	Molded			Soaked			CBR (%)		Linearity Correction (in.)	Surcharge (lbs.)	Max. Swell (%)
	Density (pcf)	Percent of Max. Dens.	Moisture (%)	Density (pcf)	Percent of Max. Dens.	Moisture (%)	0.10 in.	0.20 in.			
1 ○	117.3	99.9	13.5	117.1	99.8	14.1	8.4	11.2	0.000	10	0.1
2 △											
3 □											

Material Description	USCS	Max. Dens. (pcf)	Optimum Moisture (%)	LL	PI
Gray, SILTY CLAYEY SAND	SC-SM	117.4	13.3	21	8

Project No: VB20-119G

Project: Route 10 Parking and Storage Lot

Location: CBR-1

Sample Number: CBR-1 **Depth:** 12-36 in.

Date: 6/5/20

Test Description/Remarks:

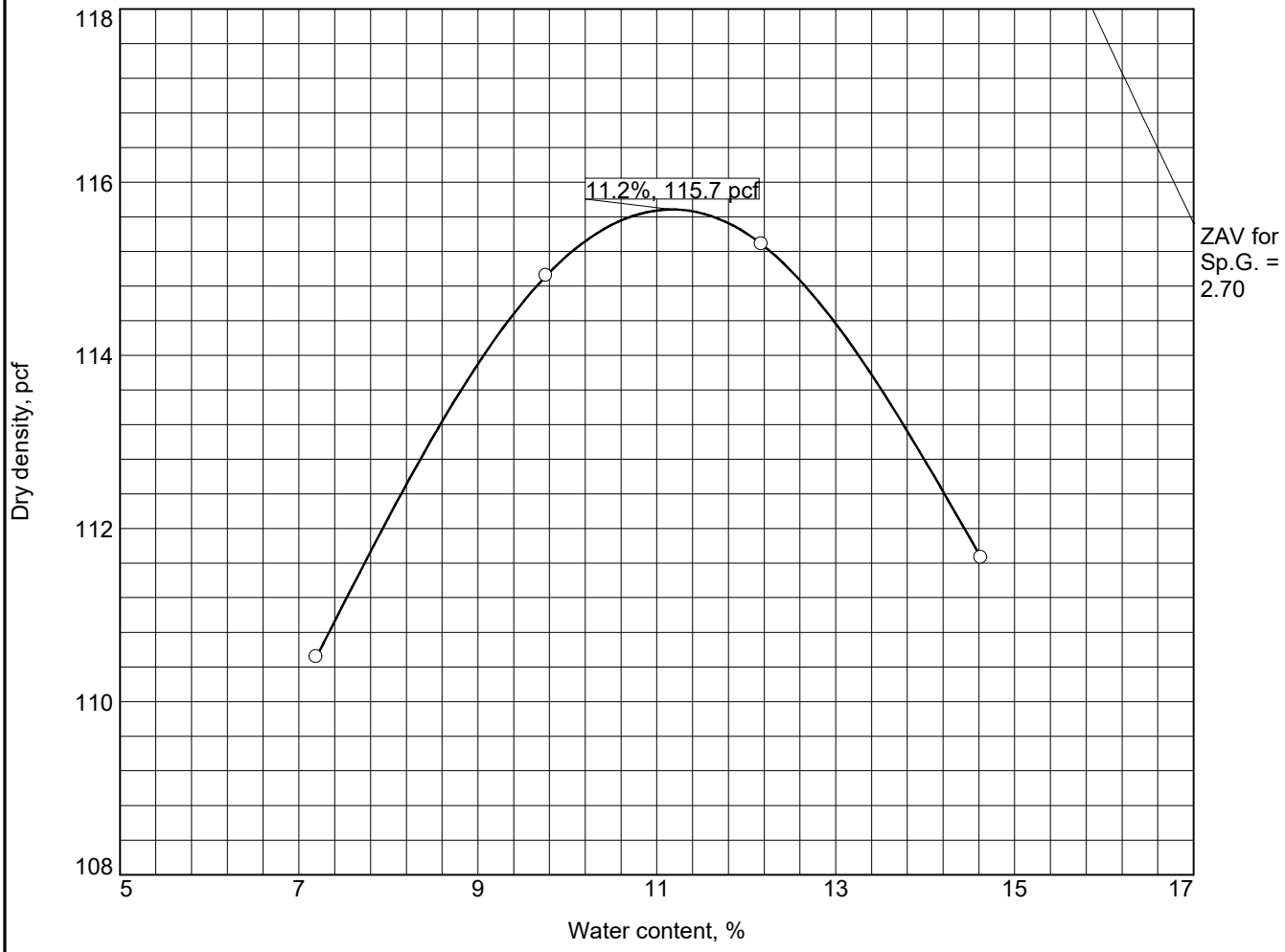
Resiliency Factor = 3.0

BEARING RATIO TEST REPORT

GET SOLUTIONS, INC.

Figure 1B

MOISTURE DENSITY RELATIONSHIP (PROCTOR CURVE)



Test specification: ASTM D 698-12 Method A Standard

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > #4	% < No.200
	USCS	AASHTO						
4-24 in.	SM	A-2-4(0)	11		NP	NP	0.1	19.5

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 115.7 pcf Optimum moisture = 11.2 %	Brown, SILTY SAND

Project No. VB20-119G **Client:** Blakeway Corporation
Project: Route 10 Parking and Storage Lot

○**Location:** CBR-2 **Sample Number:** CBR-2

Remarks:
Sample Obtained 6/5/20

GET SOLUTIONS, INC.

Figure 2

Particle Size Distribution Report

% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.1	0.1	9.8	70.5	19.5	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
.375	100.0		
#4	99.9		
#10	99.8		
#40	90.0		
#80	40.8		
#100	30.1		
#200	19.5		

* (no specification provided)

Material Description

Brown, SILTY SAND

Atterberg Limits

PL= NP LL= NP PI= NP

Coefficients

D_{90}= 0.4267 D_{85}= 0.3784 D_{60}= 0.2428
D_{50}= 0.2078 D_{30}= 0.1493 D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= SM AASHTO= A-2-4(0)

Remarks

Sample Obtained 6/5/20

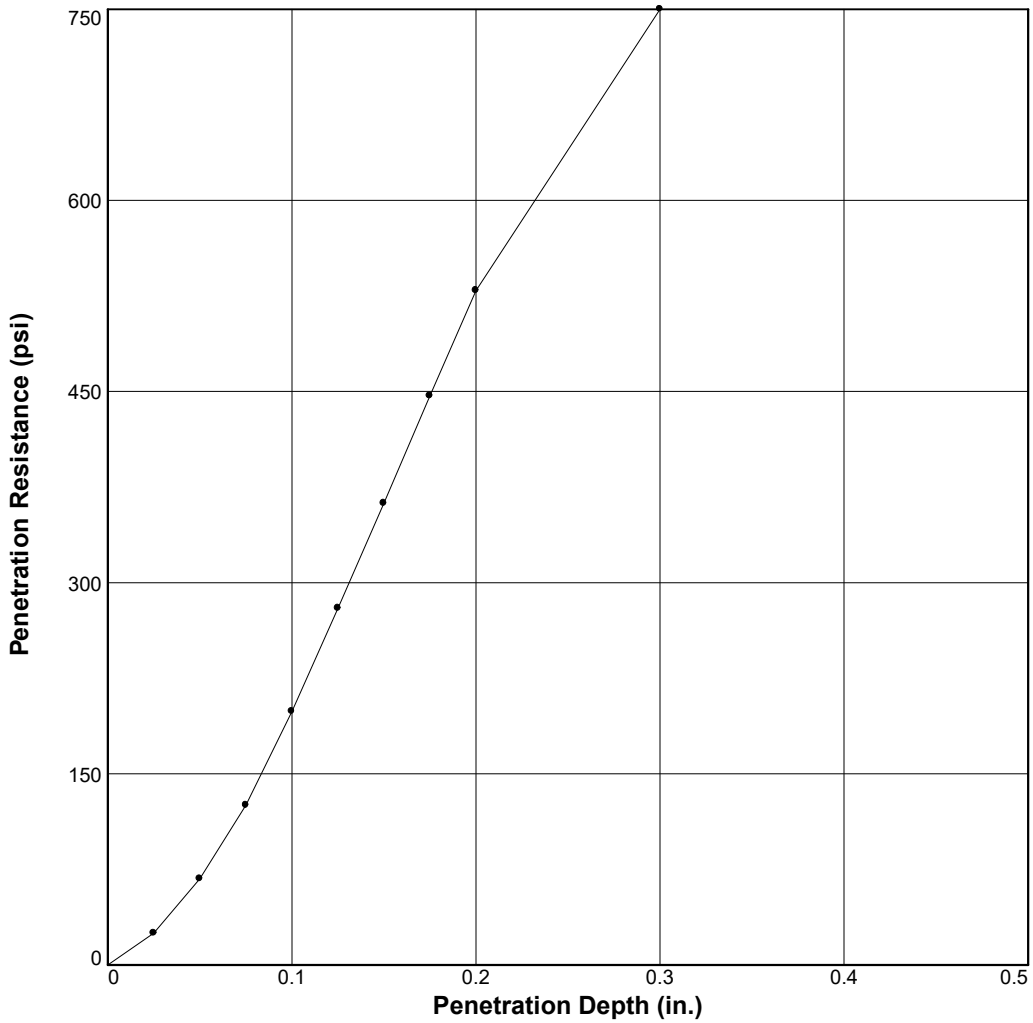
Location: CBR-2
Sample Number: CBR-2 **Depth:** 4-24 in. **Date:** 6/5/20

GET SOLUTIONS, INC.

Client: Blakeway Corporation
Project: Route 10 Parking and Storage Lot

Project No: VB20-119G **Figure** 2A

BEARING RATIO TEST REPORT
VTM-8 (2013)



	Molded			Soaked			CBR (%)		Linearity Correction (in.)	Surcharge (lbs.)	Max. Swell (%)
	Density (pcf)	Percent of Max. Dens.	Moisture (%)	Density (pcf)	Percent of Max. Dens.	Moisture (%)	0.10 in.	0.20 in.			
1 ○	115.2	99.6	10.9	115.2	99.6	11.5	32.3	40.9	0.038	10	0
2 △											
3 □											

Material Description	USCS	Max. Dens. (pcf)	Optimum Moisture (%)	LL	PI
Brown, SILTY SAND	SM	115.7	11.2	NP	NP

Project No: VB20-119G

Project: Route 10 Parking and Storage Lot

Location: CBR-2

Sample Number: CBR-2 **Depth:** 4-24 in.

Date: 6/5/20

Test Description/Remarks:

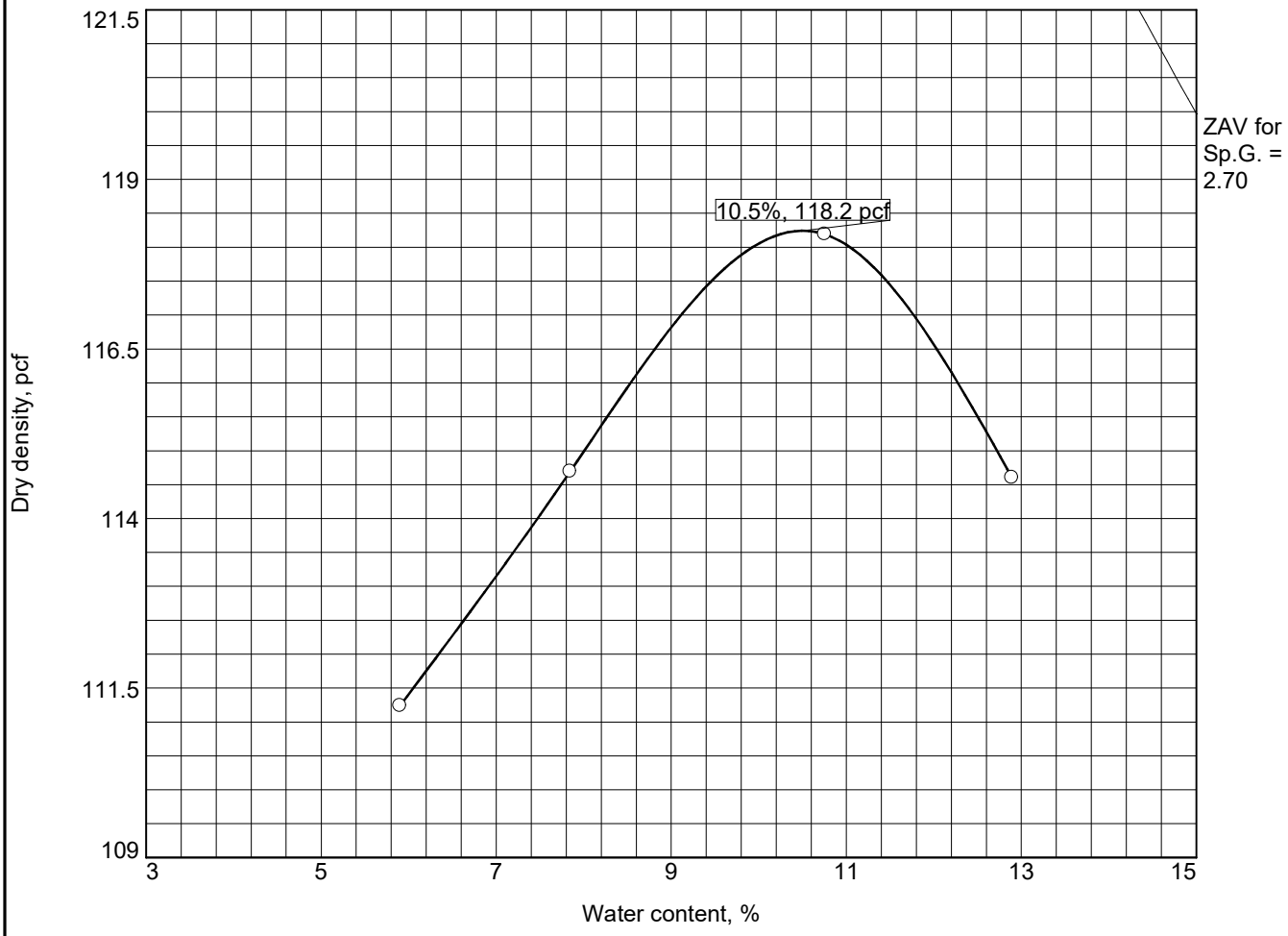
Resiliency Factor = 3.0

BEARING RATIO TEST REPORT

GET SOLUTIONS, INC.

Figure 2B

MOISTURE DENSITY RELATIONSHIP (PROCTOR CURVE)



Test specification: ASTM D 698-12 Method A Standard

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > #4	% < No.200
	USCS	AASHTO						
12-36 in.	SC	A-2-6(0)	10		22	11	0.1	20.9

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 118.2 pcf Optimum moisture = 10.5 %	Brown, CLAYEY SAND

Project No. VB20-119G **Client:** Blakeway Corporation
Project: Route 10 Parking and Storage Lot

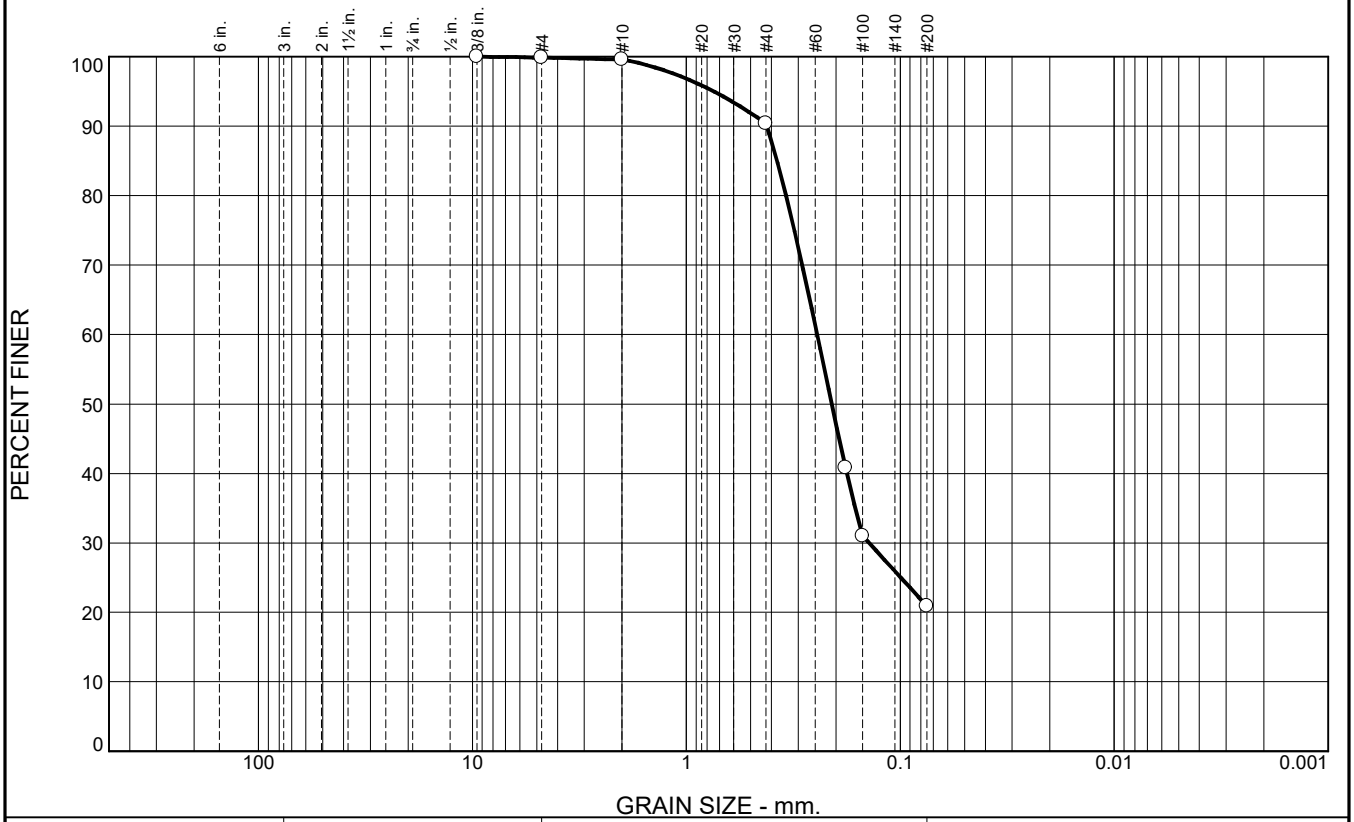
○**Location:** CBR-3 **Sample Number:** CBR-3

Remarks:
Sample Obtained 6/5/20

GET SOLUTIONS, INC.

Figure 3

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.1	0.3	9.2	69.5	20.9	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
.375	100.0		
#4	99.9		
#10	99.6		
#40	90.4		
#80	40.8		
#100	31.0		
#200	20.9		

* (no specification provided)

Material Description

Brown, CLAYEY SAND

Atterberg Limits

PL= 11 LL= 22 PI= 11

Coefficients

D_{90}= 0.4210 D_{85}= 0.3767 D_{60}= 0.2446
D_{50}= 0.2089 D_{30}= 0.1401 D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= SC AASHTO= A-2-6(0)

Remarks

Sample Obtained 6/5/20

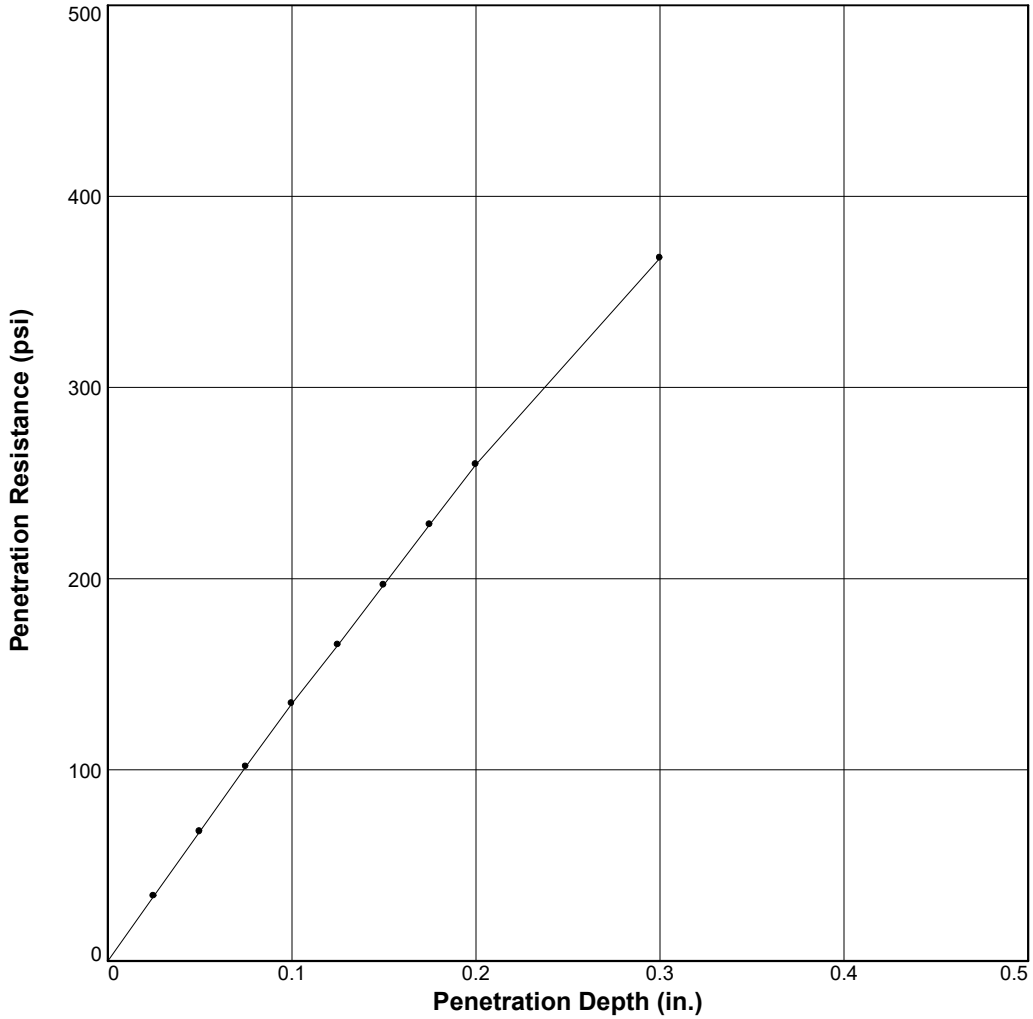
Location: CBR-3
Sample Number: CBR-3 **Depth:** 12-36 in. **Date:** 6/5/20

GET SOLUTIONS, INC.

Client: Blakeway Corporation
Project: Route 10 Parking and Storage Lot

Project No: VB20-119G **Figure** 3A

BEARING RATIO TEST REPORT
VTM-8 (2013)



	Molded			Soaked			CBR (%)		Linearity Correction (in.)	Surcharge (lbs.)	Max. Swell (%)
	Density (pcf)	Percent of Max. Dens.	Moisture (%)	Density (pcf)	Percent of Max. Dens.	Moisture (%)	0.10 in.	0.20 in.			
1 ○	117.4	99.3	10.7	117.3	99.2	11.5	13.5	17.3	0.000	10	0.1
2 △											
3 □											

Material Description	USCS	Max. Dens. (pcf)	Optimum Moisture (%)	LL	PI
Brown, CLAYEY SAND	SC	118.2	10.5	22	11

Project No: VB20-119G

Project: Route 10 Parking and Storage Lot

Location: CBR-3

Sample Number: CBR-3 **Depth:** 12-36 in.

Date: 6/5/20

Test Description/Remarks:

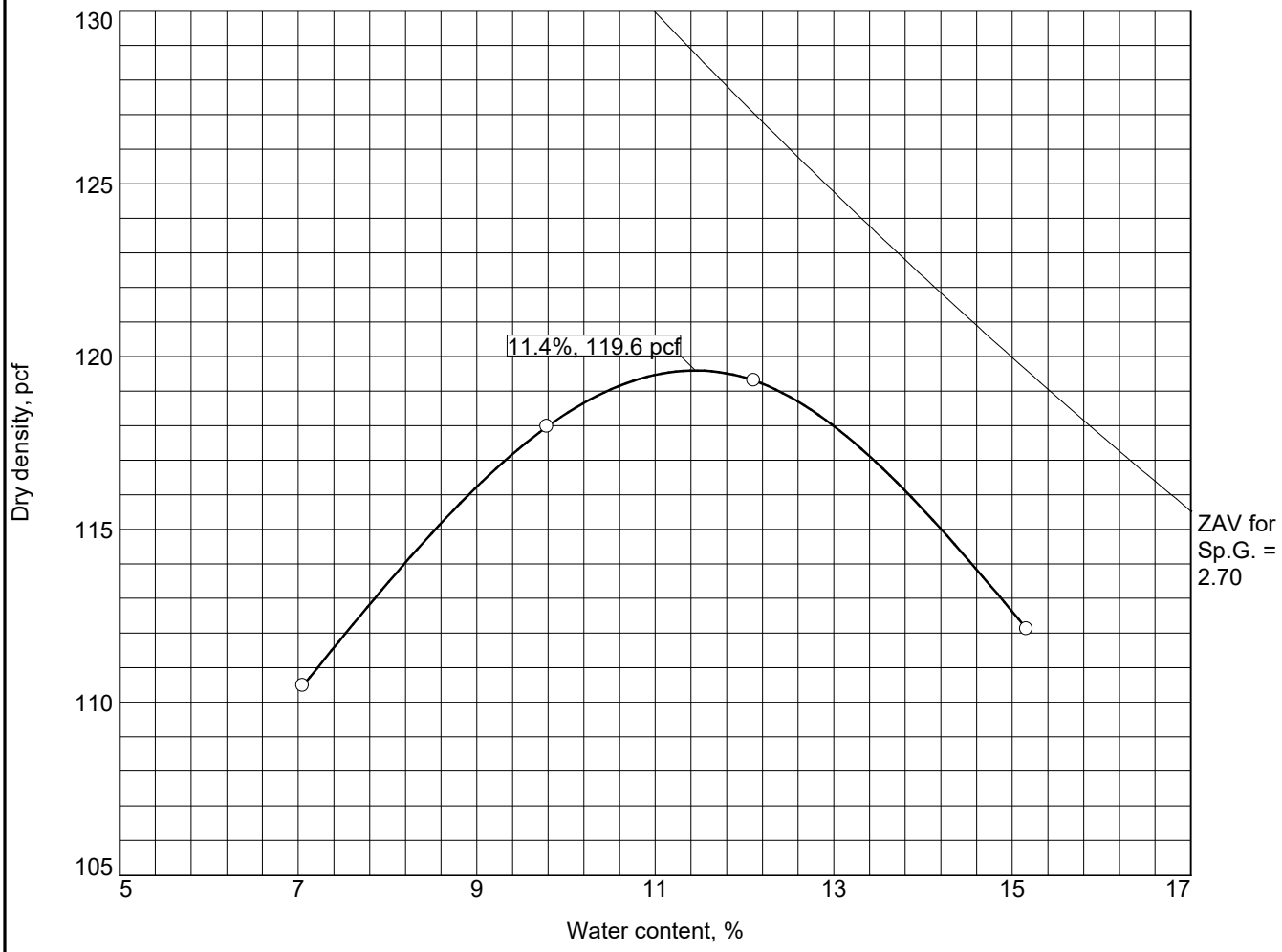
Resiliency Factor = 3.0

BEARING RATIO TEST REPORT

GET SOLUTIONS, INC.

Figure 3B

MOISTURE DENSITY RELATIONSHIP (PROCTOR CURVE)



Test specification: ASTM D 698-12 Method A Standard

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > #4	% < No.200
	USCS	AASHTO						
12-36 in.	SC	A-2-4(0)	15		21	9	0.1	32.6

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 119.6 pcf Optimum moisture = 11.4 %	Brown, CLAYEY SAND

Project No. VB20-119G **Client:** Blakeway Corporation
Project: Route 10 Parking and Storage Lot

○**Location:** CBR-4 **Sample Number:** CBR-4

Remarks:
Sample Obtained 6/5/20

GET SOLUTIONS, INC.

Figure 4

Particle Size Distribution Report

% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.1	0.2	7.4	59.7	32.6	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
.375	100.0		
#4	99.9		
#10	99.7		
#40	92.3		
#80	51.3		
#100	41.6		
#200	32.6		

* (no specification provided)

Material Description

Brown, CLAYEY SAND

Atterberg Limits

PL= 12 LL= 21 PI= 9

Coefficients

D_{90}= 0.3957 D_{85}= 0.3471 D_{60}= 0.2100
D_{50}= 0.1760 D_{30}= D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= SC AASHTO= A-2-4(0)

Remarks

Sample Obtained 6/5/20

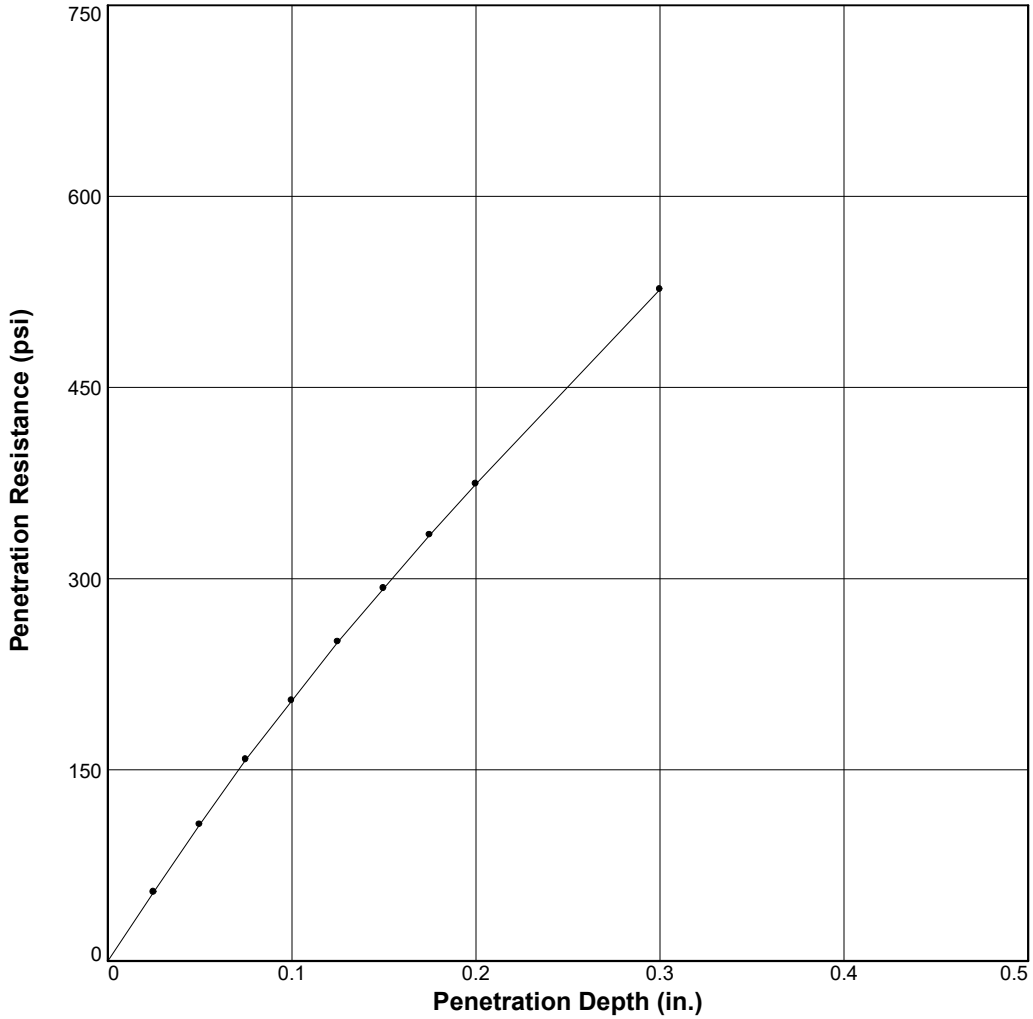
Location: CBR-4
Sample Number: CBR-4 **Depth:** 12-36 in. **Date:** 6/5/20

GET SOLUTIONS, INC.

Client: Blakeway Corporation
Project: Route 10 Parking and Storage Lot

Project No: VB20-119G **Figure** 4A

BEARING RATIO TEST REPORT
VTM-8 (2013)



	Molded			Soaked			CBR (%)		Linearity Correction (in.)	Surcharge (lbs.)	Max. Swell (%)
	Density (pcf)	Percent of Max. Dens.	Moisture (%)	Density (pcf)	Percent of Max. Dens.	Moisture (%)	0.10 in.	0.20 in.			
1 ○	119.6	100	11.1	119.5	99.9	11.6	20.4	25.0	0.000	10	0.1
2 △											
3 □											

Material Description	USCS	Max. Dens. (pcf)	Optimum Moisture (%)	LL	PI
Brown, CLAYEY SAND	SC	119.6	11.4	21	9

Project No: VB20-119G

Project: Route 10 Parking and Storage Lot

Location: CBR-4

Sample Number: CBR-4 **Depth:** 12-36 in.

Date: 6/5/20

Test Description/Remarks:

Resiliency Factor = 3.0

BEARING RATIO TEST REPORT

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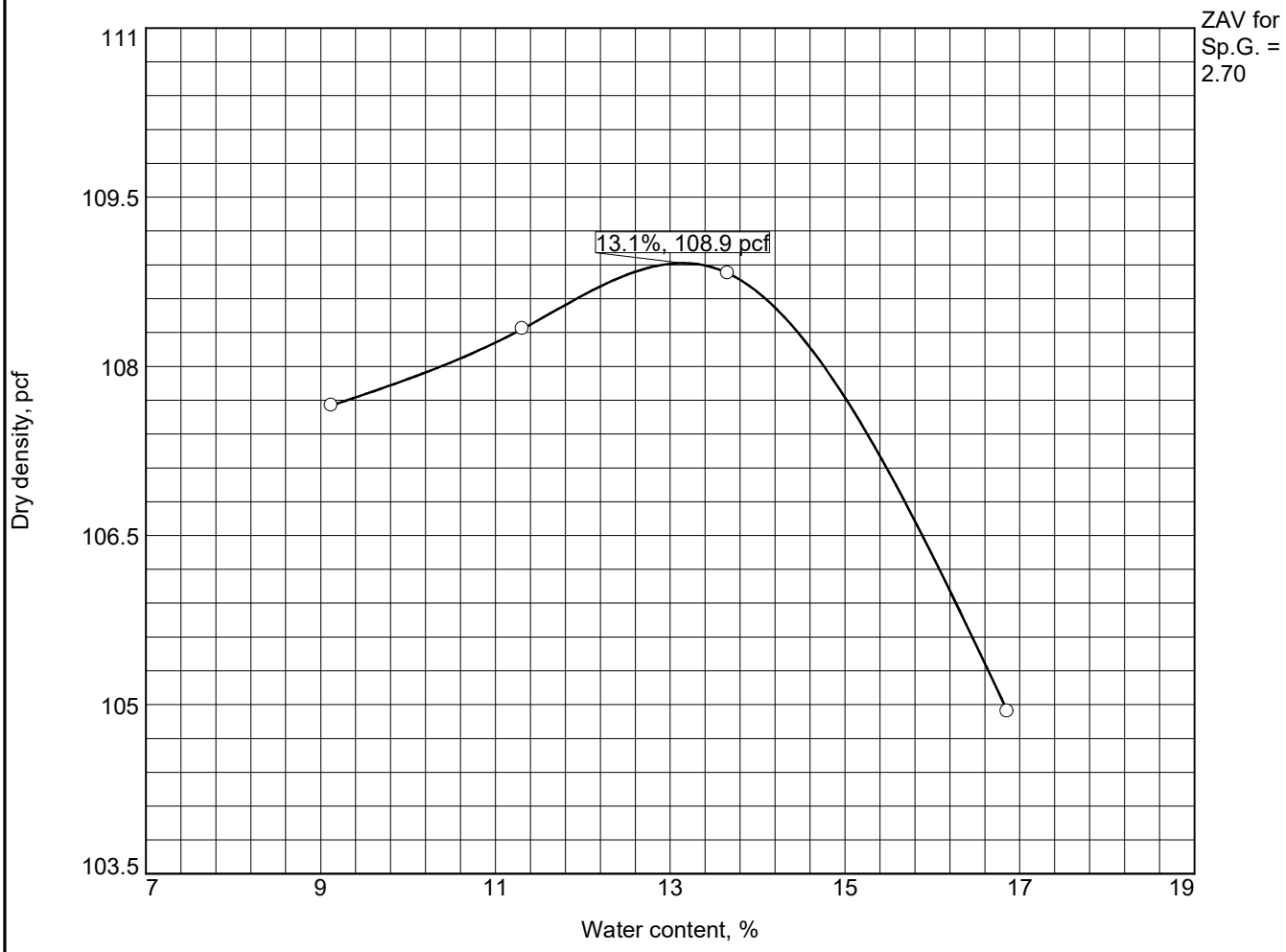
Figure 4B

MOISTURE DENSITY RELATIONSHIP (PROCTOR CURVE)



Test specification: ASTM D 698-12 Method A Standard

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > #4	% < No.200
	USCS	AASHTO						
4-24 in.	SM	A-2-4(0)	13		NP	NP	0.0	16.6

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 108.9 pcf Optimum moisture = 13.1 %	Gray, SILTY SAND

Project No. VB20-119G **Client:** Blakeway Corporation
Project: Route 10 Parking and Storage Lot

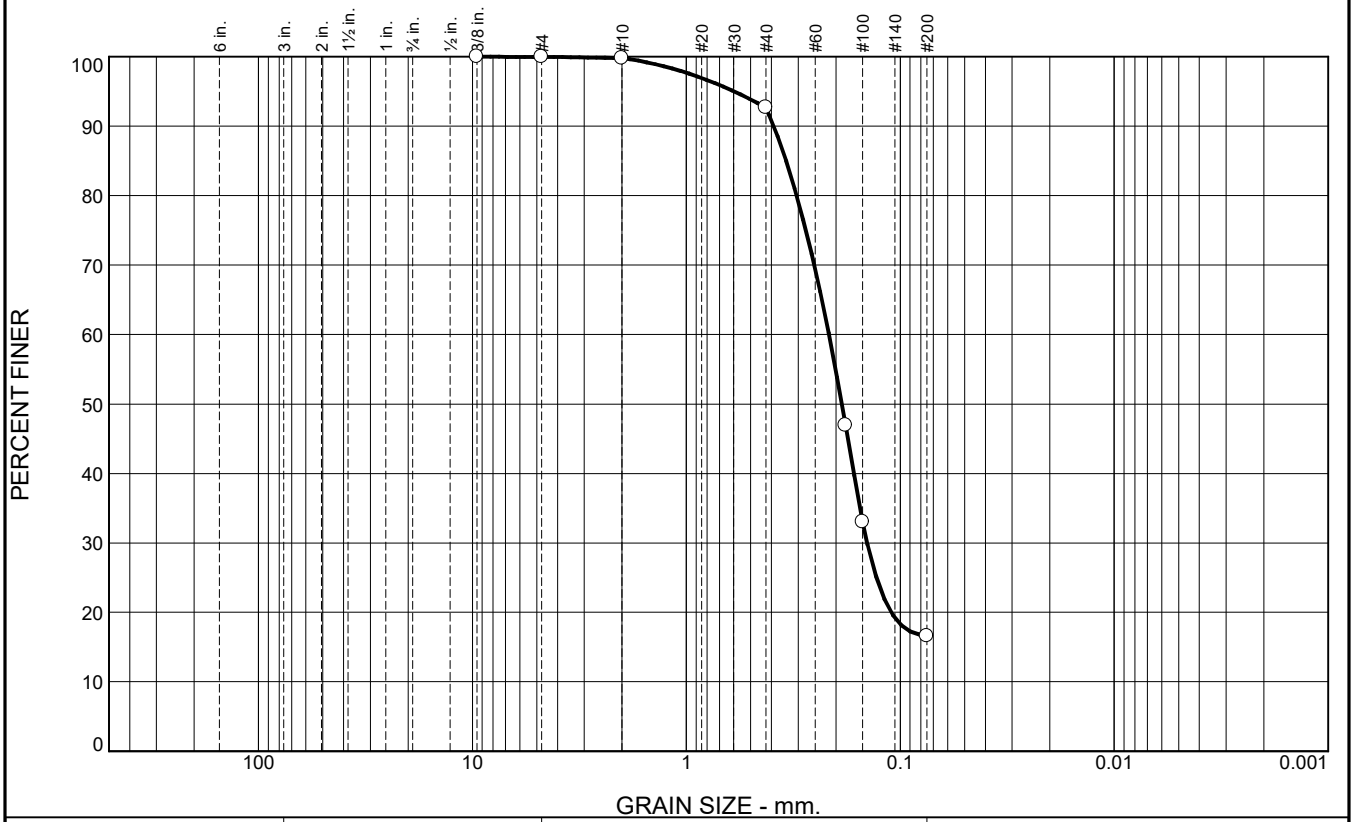
○**Location:** CBR-5 **Sample Number:** CBR-5

Remarks:
Sample Obtained 6/5/20

GET SOLUTIONS, INC.

Figure 5

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.2	7.1	76.1	16.6	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
.375	100.0		
#4	100.0		
#10	99.8		
#40	92.7		
#80	46.9		
#100	33.0		
#200	16.6		

* (no specification provided)

Material Description

Gray, SILTY SAND

Atterberg Limits

PL= NP LL= NP PI= NP

Coefficients

D_{90}= 0.3904 D_{85}= 0.3416 D_{60}= 0.2154
D_{50}= 0.1873 D_{30}= 0.1429 D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= SM AASHTO= A-2-4(0)

Remarks

Sample Obtained 6/5/20

Location: CBR-5
Sample Number: CBR-5 **Depth:** 4-24 in. **Date:** 6/5/20

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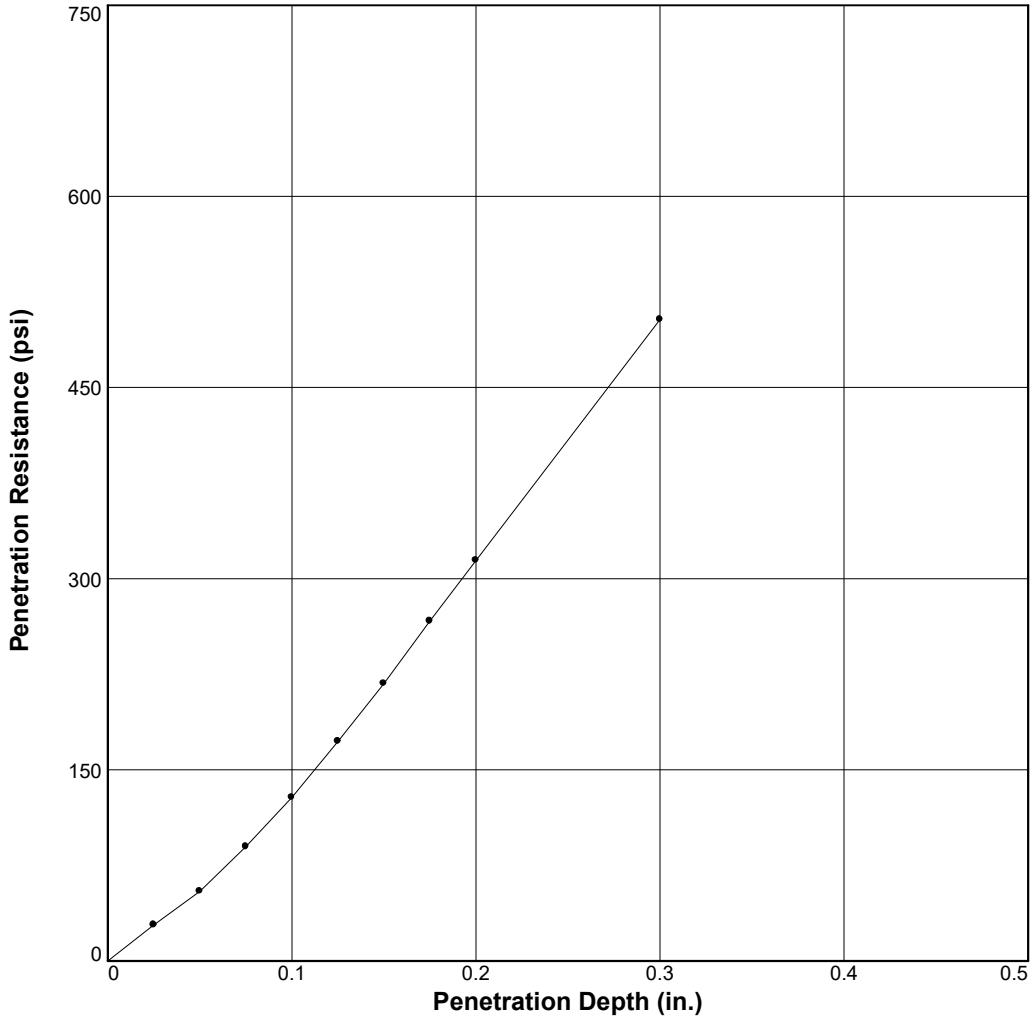
Client: Blakeway Corporation
Project: Route 10 Parking and Storage Lot

Project No: VB20-119G **Figure** 5A

BEARING RATIO TEST REPORT
VTM-8 (2013)



	Molded			Soaked			CBR (%)		Linearity Correction (in.)	Surcharge (lbs.)	Max. Swell (%)
	Density (pcf)	Percent of Max. Dens.	Moisture (%)	Density (pcf)	Percent of Max. Dens.	Moisture (%)	0.10 in.	0.20 in.			
1 ○	108.5	99.6	13.1	108.5	99.6	13.7	19.3	25.6	0.037	10	0
2 △											
3 □											

Material Description	USCS	Max. Dens. (pcf)	Optimum Moisture (%)	LL	PI
Gray, SILTY SAND	SM	108.9	13.1	NP	NP

Project No: VB20-119G

Project: Route 10 Parking and Storage Lot

Location: CBR-5

Sample Number: CBR-5 **Depth:** 4-24 in.

Date: 6/5/20

Test Description/Remarks:

Resiliency Factor = 3.0

BEARING RATIO TEST REPORT

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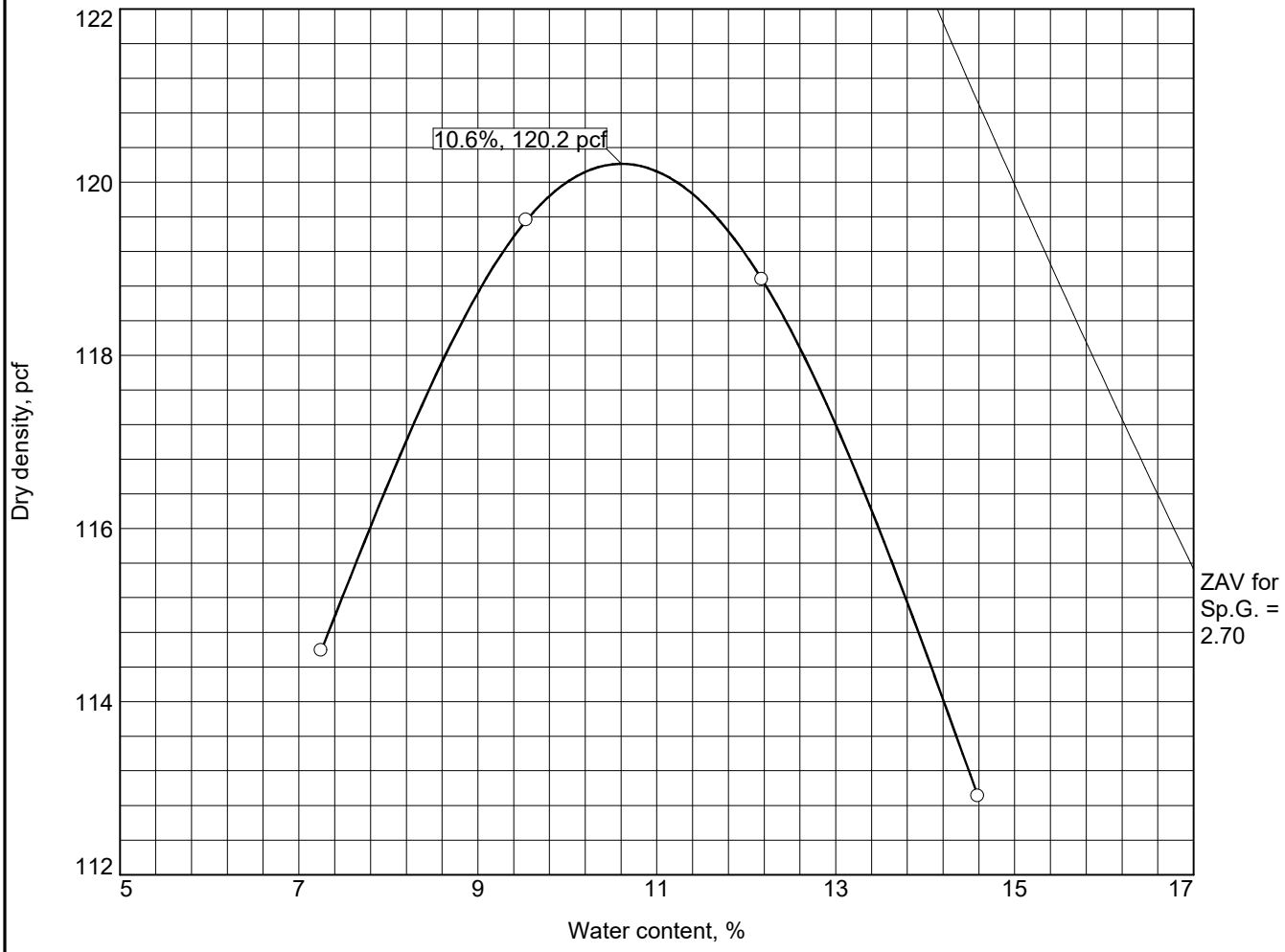
Figure 5B

MOISTURE DENSITY RELATIONSHIP (PROCTOR CURVE)



Test specification: ASTM D 698-12 Method A Standard

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > #4	% < No.200
	USCS	AASHTO						
12-36 in.	SC	A-2-4(0)	14		21	9	0.1	34.3

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 120.2 pcf Optimum moisture = 10.6 %	Brown, CLAYEY SAND
Project No. VB20-119G **Client:** Blakeway Corporation **Project:** Route 10 Parking and Storage Lot ○**Location:** CBR-6 **Sample Number:** CBR-6	**Remarks:** Sample Obtained 6/5/20

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Figure 6

Particle Size Distribution Report

% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.1	0.1	8.6	56.9	34.3	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
.375	100.0		
#4	99.9		
#10	99.8		
#40	91.2		
#80	51.8		
#100	43.3		
#200	34.3		

* (no specification provided)

Material Description

Brown, CLAYEY SAND

Atterberg Limits

PL= 12 LL= 21 PI= 9

Coefficients

D_{90}= 0.4094 D_{85}= 0.3572 D_{60}= 0.2110
D_{50}= 0.1736 D_{30}= D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= SC AASHTO= A-2-4(0)

Remarks

Sample Obtained 6/5/20

Location: CBR-6
Sample Number: CBR-6 **Depth:** 12-36 in. **Date:** 6/5/20

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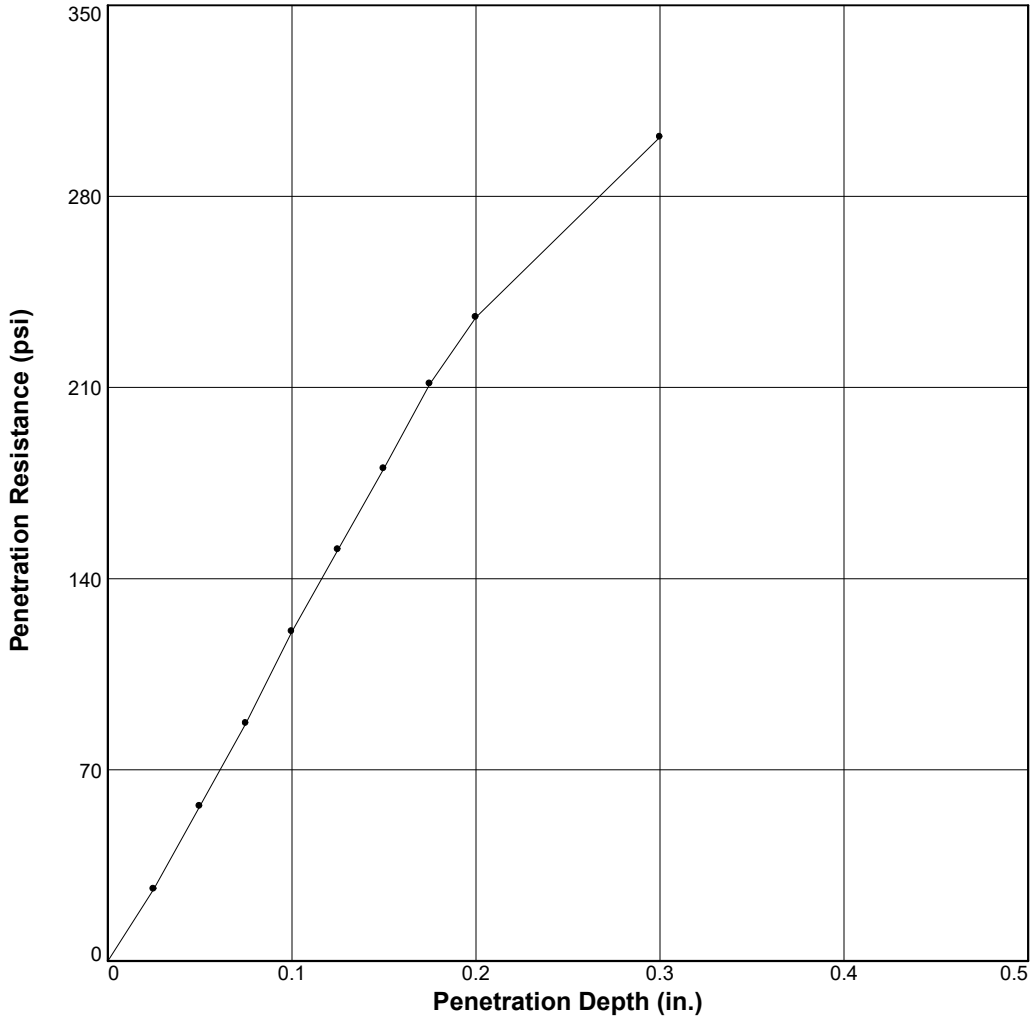
Client: Blakeway Corporation
Project: Route 10 Parking and Storage Lot

Project No: VB20-119G **Figure** 6A

BEARING RATIO TEST REPORT
VTM-8 (2013)



	Molded			Soaked			CBR (%)		Linearity Correction (in.)	Surcharge (lbs.)	Max. Swell (%)
	Density (pcf)	Percent of Max. Dens.	Moisture (%)	Density (pcf)	Percent of Max. Dens.	Moisture (%)	0.10 in.	0.20 in.			
1 ○	119.8	99.7	10.2	119.7	99.6	12.3	12.1	15.7	0.000	10	0.1
2 △											
3 □											

Material Description	USCS	Max. Dens. (pcf)	Optimum Moisture (%)	LL	PI
Brown, CLAYEY SAND	SC	120.2	10.6	21	9

Project No: VB20-119G

Project: Route 10 Parking and Storage Lot

Location: CBR-6

Sample Number: CBR-6 **Depth:** 12-36 in.

Date: 6/5/20

Test Description/Remarks:

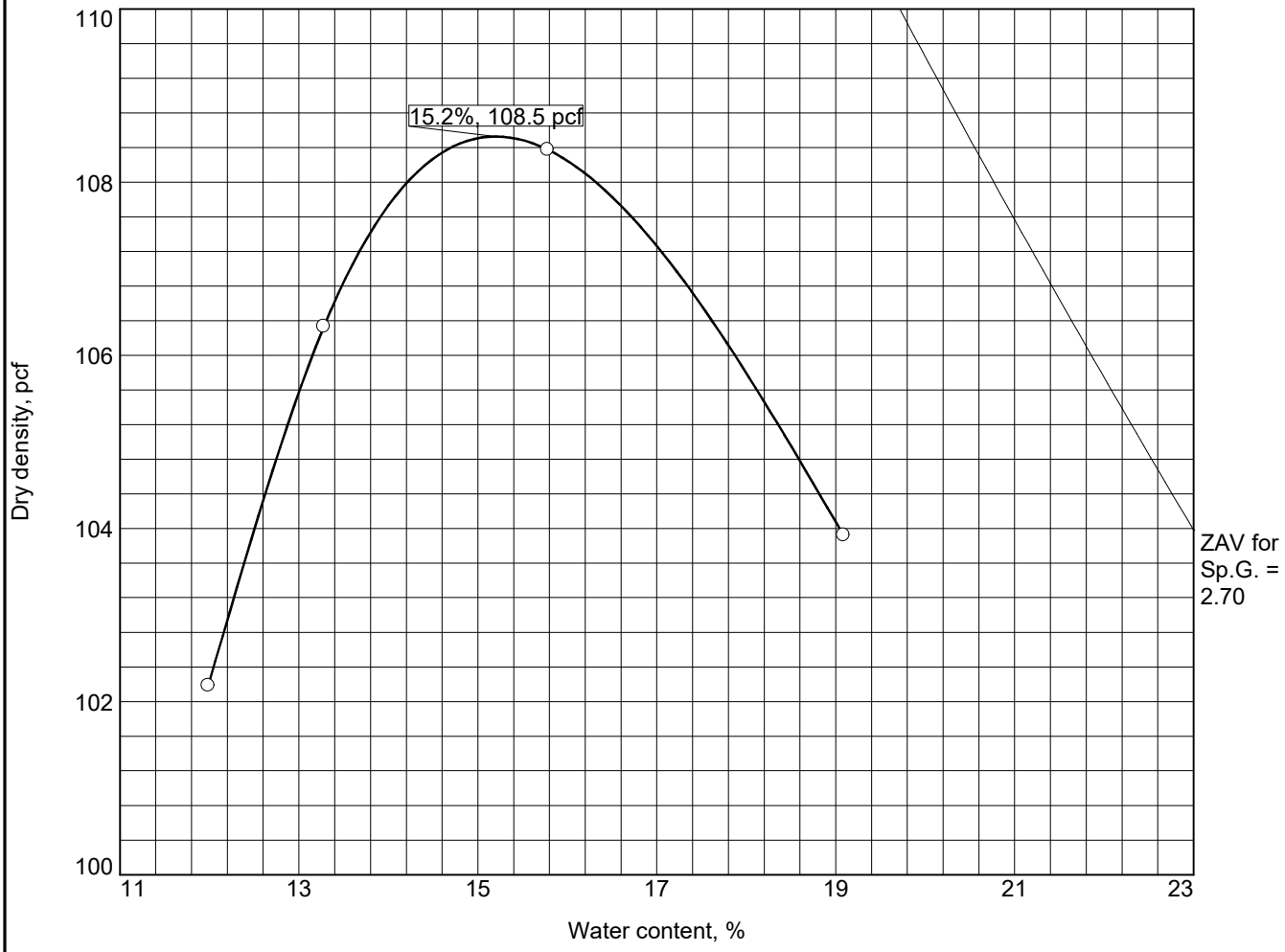
Resiliency Factor = 3.0

BEARING RATIO TEST REPORT

GET SOLUTIONS, INC.

Figure 6B

MOISTURE DENSITY RELATIONSHIP (PROCTOR CURVE)



Test specification: ASTM D 698-12 Method A Standard

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > #4	% < No.200
	USCS	AASHTO						
12-36 in.	CL	A-6(5)	21		28	12	0.0	65.8

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 108.5 pcf Optimum moisture = 15.2 %	Brown, Sandy LEAN CLAY
Project No. VB20-119G **Client:** Blakeway Corporation **Project:** Route 10 Parking and Storage Lot ○**Location:** CBR-7 **Sample Number:** CBR-7	**Remarks:** Sample Obtained 6/5/20

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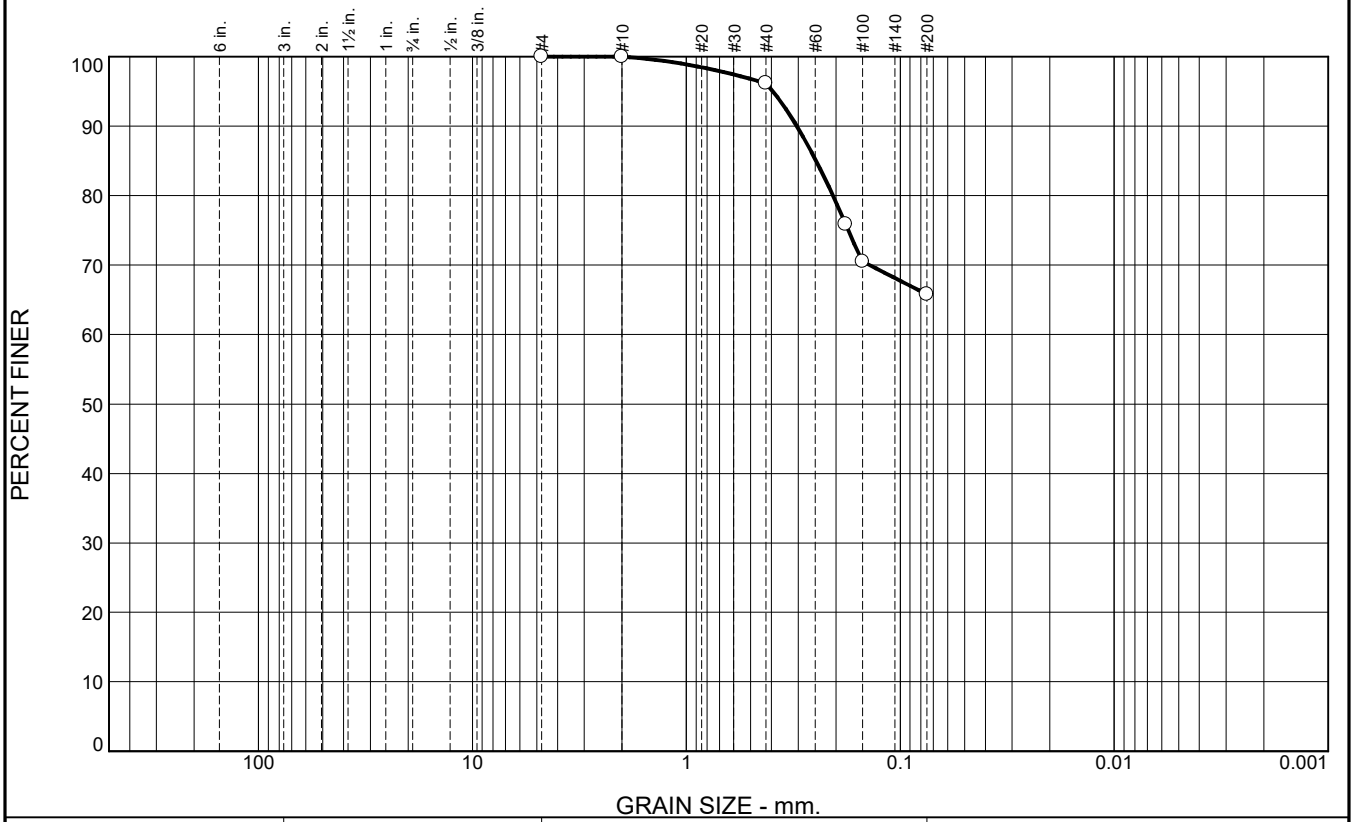
Figure 7

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.0	3.8	30.4	65.8	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#4	100.0		
#10	100.0		
#40	96.2		
#80	75.9		
#100	70.5		
#200	65.8		

* (no specification provided)

Material Description

Brown, Sandy LEAN CLAY

Atterberg Limits

PL= 16 LL= 28 PI= 12

Coefficients

D_{90}= 0.3043 D_{85}= 0.2475 D_{60}=
D_{50}= D_{30}= D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= CL AASHTO= A-6(5)

Remarks

Sample Obtained 6/5/20

Location: CBR-7
Sample Number: CBR-7 **Depth:** 12-36 in. **Date:** 6/5/20

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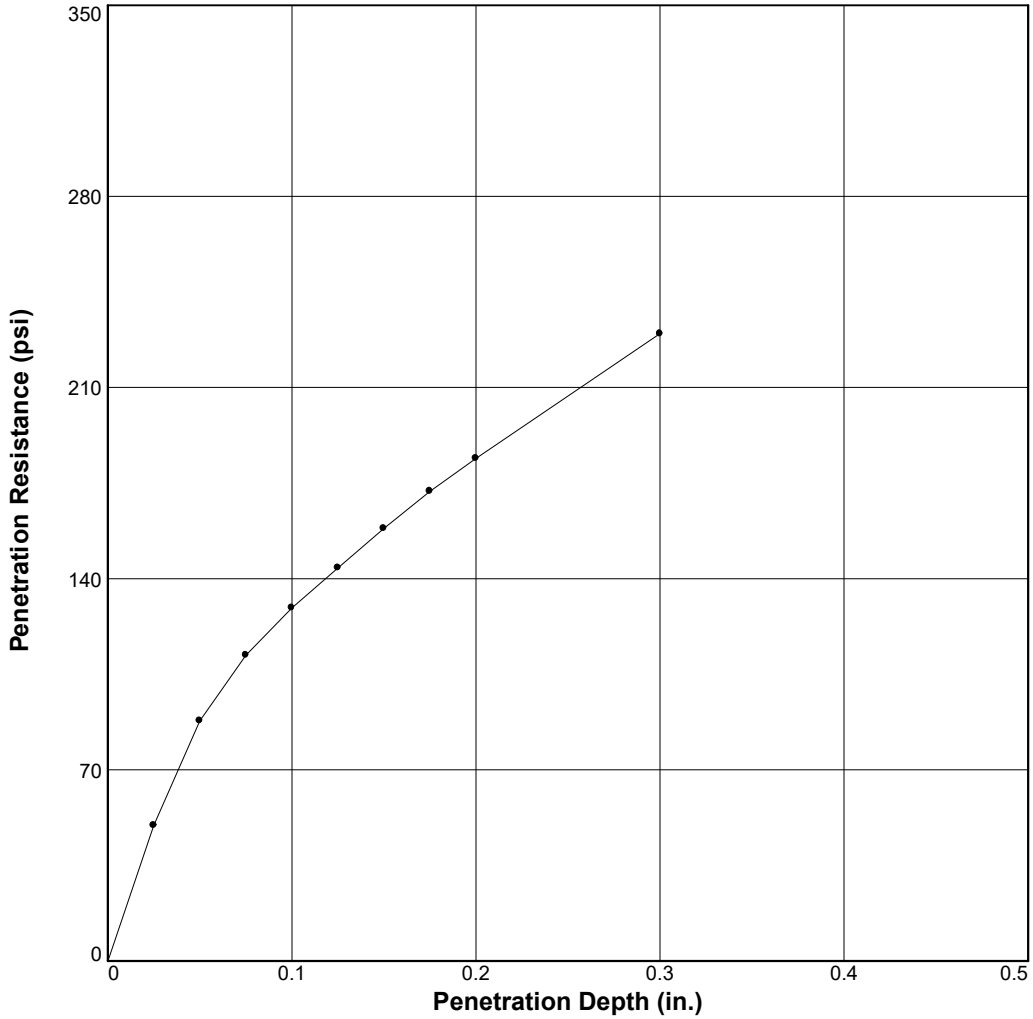
Client: Blakeway Corporation
Project: Route 10 Parking and Storage Lot

Project No: VB20-119G **Figure** 7A

BEARING RATIO TEST REPORT
VTM-8 (2013)



	Molded			Soaked			CBR (%)		Linearity Correction (in.)	Surcharge (lbs.)	Max. Swell (%)
	Density (pcf)	Percent of Max. Dens.	Moisture (%)	Density (pcf)	Percent of Max. Dens.	Moisture (%)	0.10 in.	0.20 in.			
1 ○	108.3	99.8	14.7	107.6	99.2	17.9	12.9	12.3	0.000	10	0.6
2 △											
3 □											

Material Description	USCS	Max. Dens. (pcf)	Optimum Moisture (%)	LL	PI
Brown, Sandy LEAN CLAY	CL	108.5	15.2	28	12

Project No: VB20-119G

Project: Route 10 Parking and Storage Lot

Location: CBR-7

Sample Number: CBR-7 **Depth:** 12-36 in.

Date: 6/5/20

Test Description/Remarks:

Resiliency Factor = 2.0

BEARING RATIO TEST REPORT

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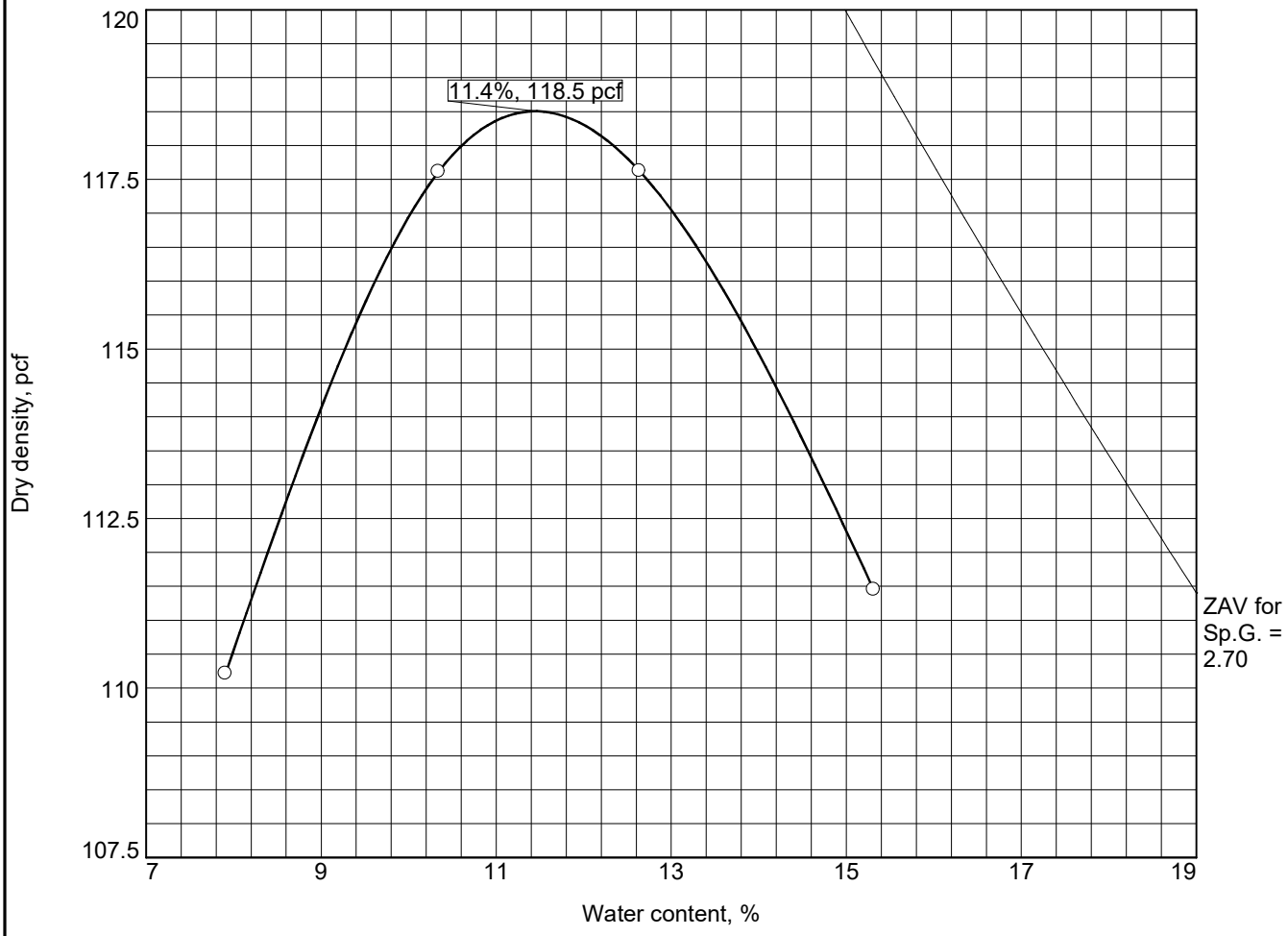
Figure 7B

MOISTURE DENSITY RELATIONSHIP (PROCTOR CURVE)



Test specification: ASTM D 698-12 Method A Standard

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > #4	% < No.200
	USCS	AASHTO						
12-36 in.	SC-SM	A-2-4(0)	14		15	3	0.0	31.3

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 118.5 pcf Optimum moisture = 11.4 %	Brown, SILTY CLAYEY SAND

Project No. VB20-119G **Client:** Blakeway Corporation
Project: Route 10 Parking and Storage Lot

○**Location:** CBR-8 **Sample Number:** CBR-8

Remarks:
Sample Obtained 6/5/20

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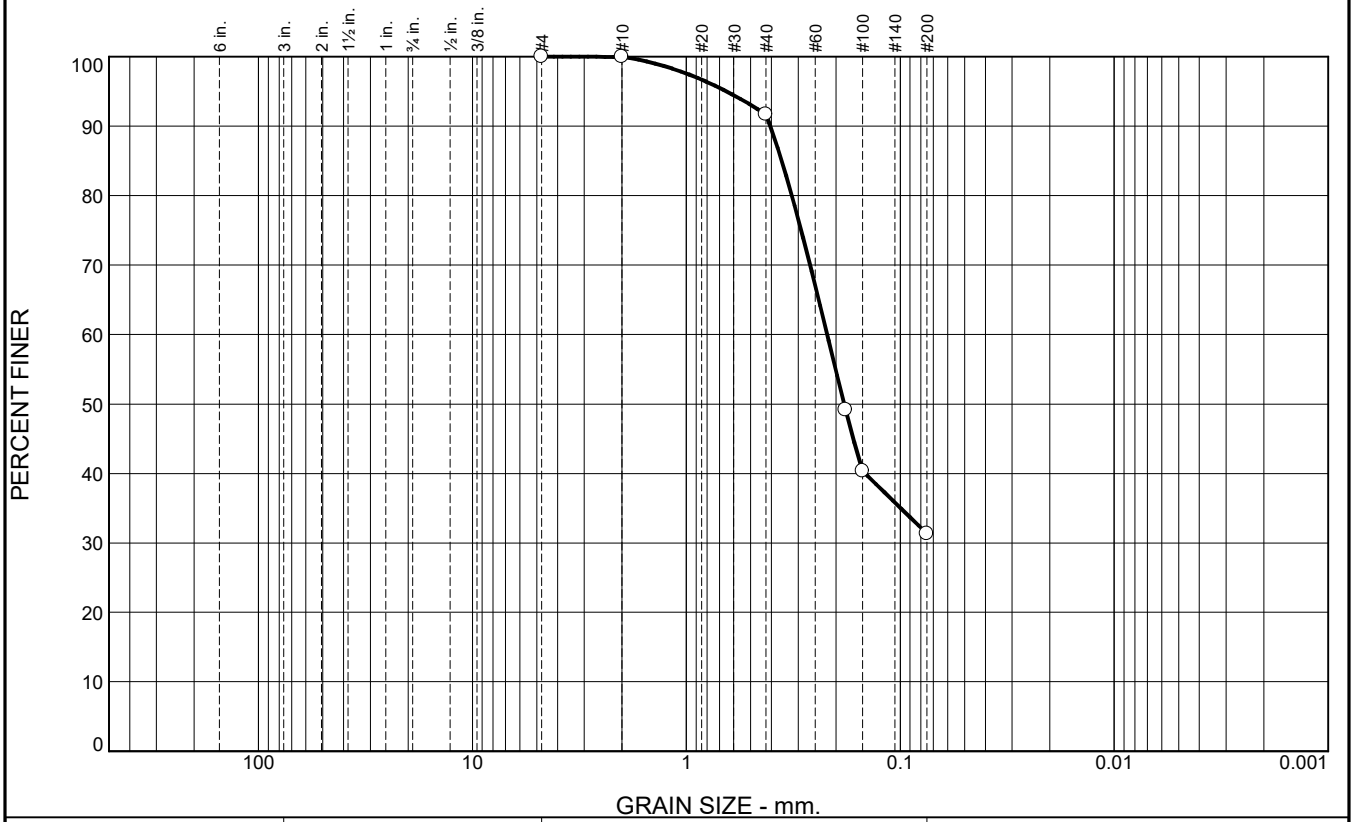
Figure 8

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.0	8.3	60.4	31.3	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#4	100.0		
#10	100.0		
#40	91.7		
#80	49.2		
#100	40.3		
#200	31.3		

* (no specification provided)

Material Description

Brown, SILTY CLAYEY SAND

Atterberg Limits

PL= 12 LL= 15 PI= 3

Coefficients

D_{90}= 0.4054 D_{85}= 0.3582 D_{60}= 0.2197
D_{50}= 0.1828 D_{30}= D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= SC-SM AASHTO= A-2-4(0)

Remarks

Sample Obtained 6/5/20

Location: CBR-8
Sample Number: CBR-8 **Depth:** 12-36 in. **Date:** 6/5/20

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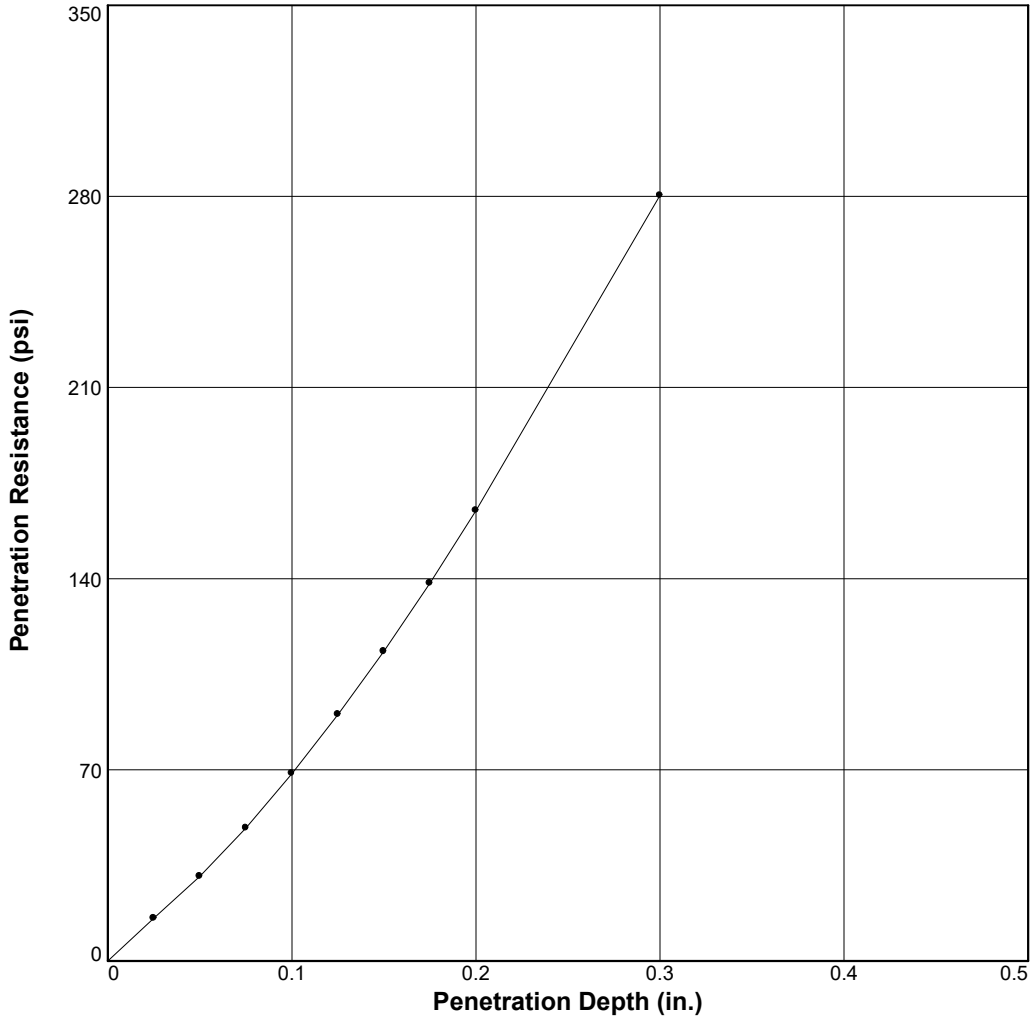
Client: Blakeway Corporation
Project: Route 10 Parking and Storage Lot

Project No: VB20-119G **Figure** 8A

BEARING RATIO TEST REPORT
VTM-8 (2013)



	Molded			Soaked			CBR (%)		Linearity Correction (in.)	Surcharge (lbs.)	Max. Swell (%)
	Density (pcf)	Percent of Max. Dens.	Moisture (%)	Density (pcf)	Percent of Max. Dens.	Moisture (%)	0.10 in.	0.20 in.			
1 ○	117.3	99	11.7	117.1	98.8	12.4	11.8	15.2	0.055	10	0.2
2 △											
3 □											

Material Description	USCS	Max. Dens. (pcf)	Optimum Moisture (%)	LL	PI
Brown, SILTY CLAYEY SAND	SC-SM	118.5	11.4	15	3

Project No: VB20-119G

Project: Route 10 Parking and Storage Lot

Location: CBR-8

Sample Number: CBR-8 **Depth:** 12-36 in.

Date: 6/5/20

Test Description/Remarks:

Resiliency Factor = 3.0

BEARING RATIO TEST REPORT

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Figure 8B

Legend

- Study Area ~ 80.23 acres
- Excavated Stormwater Pond~ 0.66 acres PFO
- Wetlands ~ 2.28 acres
- PSS Wetlands ~ 0.56 acres
- Perennial Stream ~ 337.08 linear feet
- Intermittent Stream ~ 112.84 linear feet
- Other Streams ~ 371.96 linear feet
- Wetland Line
- Data Points

N
W E
S

0 100 200 400 600 800
Feet

Source: Isle of Wight County Parcel Data; State of Virginia 2017 Infrared Orthophotographs; Wetlands and Streams Marked Using Trimble R1

Scale: 1 in = 400 ft
Bay #: 20-073-01
Date: 02/09/2022
Prepared by: OCC
Reviewed by: AJLC
VA PWD #: 3402000113

Figure 2: Site Conditions
Wetland Delineation
17226 Commerce Lane
Isle of Wight County, Virginia

BAY ENVIRONMENTAL, INC.
Environmental Consulting Services

DEPARTMENT OF THE ARMY
US ARMY CORPS OF ENGINEERS
NORFOLK DISTRICT
FORT NORFOLK
803 FRONT STREET
NORFOLK VA 23510-1011

February 10, 2022

PRELIMINARY JURISDICTIONAL DETERMINATION (PJD)

Eastern Virginia Regulatory Section
NAO-2021-00628 (Cypress Creek)

Mr. Robert Taylor
Locust Grove Partners, LP
17076 Benns Church Road
Smithfield, VA 23430

Dear Mr. Taylor:

This letter is in regard to your request for a preliminary jurisdictional determination of the aquatic resources for 80.23 acres located west of Benns Church Boulevard and at 17226 Commerce Lane in Isle of Wight County, Virginia (all or portions of Isle of Wight County Tax Parcel Identification Numbers (TPINs): 42-06-008, 42-06-009, 41-01-052, 41-01-053, and 42-01-006A) hereinafter referred to as project area.

The map entitled "Figure 2: Site Conditions Wetland Delineation 17226 Commerce Lane Isle of Wight, Virginia" dated 05/03/2021 and revised on February 9, 2022, by Bay Environmental and received February 9, 2022 (copy enclosed) provides the location of the aquatic resources on the property referenced above. The parcel contains approximately 3.5 acres of aquatic resources and approximately 822 linear feet of jurisdictional stream channel.

These aquatic resources exhibit wetland criteria as defined in the 1987 Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region. This preliminary jurisdictional determination and associated aquatic resource delineation map may be submitted with a permit application. This letter is not confirming the Cowardin classifications of these aquatic resources.

Please be aware that you may be required to obtain a Corps permit for any discharge of dredged and/or fill material, either temporary or permanent, into a water of the U.S. In addition, you may be required to obtain a Corps permit for certain activities occurring within, under, or over a navigable water of the U.S. subject to the Section 10 of the Rivers and Harbors Act. Furthermore, you may be required to obtain state and local authorizations, including a Virginia Water Protection Permit from the Virginia Department of Environmental Quality (DEQ), a permit from the Virginia Marine Resources Commission (VMRC), and/or a permit from your local wetlands board.

This is a preliminary jurisdictional determination and is not a legally binding determination regarding whether Corps jurisdiction applies to the aquatic resources in question. To determine Corps' jurisdiction, you may request and obtain an approved jurisdictional determination.

This delineation of aquatic resources can be relied upon for no more than five years from the date of this letter. New information may warrant revision. Enclosed is a copy of the "Preliminary Jurisdictional Determination Form". Please review the document, sign, and return one copy to the Corps, either by email (Melissa.a.nash@usace.army.mil) or by standard mail to 803 Front Street Norfolk, VA 23510

If you have any questions, please contact me either by telephone at (757) 201-7489 or by email at melissa.a.nash@usace.army.mil .

Sincerely,

Melissa A Nash

Melissa Nash
Eastern Virginia
Regulatory Section

Enclosure(s):

cc:

Amy Conley, Bay Environmental, Inc.

Appendix 2 - PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM

BACKGROUND INFORMATION

A. **REPORT COMPLETION DATE FOR PJD:** 10-FEB-2022

B. **NAME AND ADDRESS OF PERSON REQUESTING PJD:**
Amy Conley
Bay Environmental
648 Independence Parkway
Chesapeake, VA 23320

Locust Grove Partners LP
17076 Benns Church Road
Smithfield, VA 23430

C. **DISTRICT OFFICE, FILE NAME, AND NUMBER:**
NAO, 17226 Commerce Lane JD, NAO-2021-00628

D. **PROJECT LOCATION(S) AND BACKGROUND INFORMATION:**
(USE THE TABLE BELOW TO DOCUMENT MULTIPLE AQUATIC RESOURCES AND/OR AQUATIC RESOURCES AT DIFFERENT SITES)

State: VA County/parish/borough: Isle of Wight County City: Smithfield
Center coordinates of site (lat/long in degree decimal format):
Lat.: 36.902331° Long.: -76.581173°
Universal Transverse Mercator: 18
Name of nearest waterbody: Cypress Creek

E. **REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):**
☐ Office (Desk) Determination. Date: 2-9-2022
☐ Field Determination. Date(s): 4-29-2021

TABLE OF AQUATIC RESOURCES IN REVIEW AREA WHICH "MAY BE" SUBJECT TO REGULATORY JURISDICTION.

Site Number	Latitude (decimal degrees)	Longitude (decimal degrees)	Estimated amount of aquatic resource in review area (acreage and linear feet, if applicable)	Type of aquatic resource (i.e., wetland vs. non-wetland waters)	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)
PFO wetlands	36.903208	-76.587527	2.28 acres	Wetland	Section 404
SS wetlands	36.901283	-76.585131	0.56 acres	Wetland	Section 404
stormwater pond	36.905059	-76.586715	0.66 acres	Non-wetland waters	Section 404
streams	36.905062	-76.587435	822 feet	Non-wetland waters	Section 404

1) The Corps of Engineers believes that there may be jurisdictional aquatic resources in the review area, and the requestor of this PJD is hereby advised of his or her option to request and obtain an approved JD (AJD) for that review area based on an informed decision after having discussed

[1] Districts may establish timeframes for requester to return signed PJD forms. If the requester does not respond within the established time frame, the district may presume concurrence and no additional follow up is necessary prior to finalizing an action.

the various types of JDs and their characteristics and circumstances when they may be appropriate.

2) In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an AJD for the activity, the permit applicant is hereby made aware that: (1) the permit applicant has elected to seek a permit authorization based on a PJD, which does not make an official determination of jurisdictional aquatic resources; (2) the applicant has the option to request an AJD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an AJD could possibly result in less compensatory mitigation being required or different special conditions; (3) the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) undertaking any activity in reliance upon the subject permit authorization without requesting an AJD constitutes the applicant's acceptance of the use of the PJD; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a PJD constitutes agreement that all aquatic resources in the review area affected in any way by that activity will be treated as jurisdictional, and waives any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an AJD or a PJD, the JD will be processed as soon as practicable. Further, an AJD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331. If, during an administrative appeal, it becomes appropriate to make an official determination whether geographic jurisdiction exists over aquatic resources in the review area, or to provide an official delineation of jurisdictional aquatic resources in the review area, the Corps will provide an AJD to accomplish that result, as soon as is practicable. This PJD finds that there "may be" waters of the U.S. and/or that there "may be" navigable waters of the U.S. on the subject review area, and identifies all aquatic features in the review area that could be affected by the proposed activity, based on the following information:

SUPPORTING DATA. Data reviewed for PJD (check all that apply)

Checked items should be included in subject file. Appropriately reference sources below where indicated for all checked items:

_X__ Maps, plans, plots or plat submitted by or on behalf of the PJD requestor:
Map: "Figure 2: Site Conditions Wetland Delineation 17226 Commerce Lane Isle of Wight, Virginia" dated 05/03/2021 and revised on February 9, 2022, by Bay Environmental.

_X__ Data sheets prepared/submitted by or on behalf of the PJD requestor.
_X__ Office concurs with data sheets/delineation report.
___ Office does not concur with data sheets/delineation report. Rationale:
_____.

___ Data sheets prepared by the Corps: _____.

___ Corps navigable waters' study: _____.

___ U.S. Geological Survey Hydrologic Atlas: _____.
___ USGS NHD data.

[1] Districts may establish timeframes for requester to return signed PJD forms. If the requester does not respond within the established time frame, the district may presume concurrence and no additional follow up is necessary prior to finalizing an action.

___ USGS 8 and 12 digit HUC maps.
_X__ U.S. Geological Survey map(s). Cite scale & quad name: _ Benns Church USGS Quad _.
_X__ Natural Resources Conservation Service Soil Survey. Citation: __Online Soil Survey Isle of Wight County___.
_X__ National wetlands inventory map(s). Cite name: __USFWS Online map__.
___ State/local wetland inventory map(s): _____.
___ FEMA/FIRM maps: _____
___ 100-year Floodplain Elevation is: _____. (National Geodetic Vertical Datum of 1929)
_X__ Photographs: _X__ Aerial (Name & Date): Google Earth and Regulatory Reporting Tool__
___ or _X__ Other (Name & Date): _Onsite photos provided by applicant__.
___ Previous determination(s). File no. and date of response letter: _____.
___ Other information (please specify): _____.

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

Melissa A Nash 2-10-2022

Signature and date of Regulatory staff member completing PJD

Signature and date of person requesting PJD (REQUIRED, unless obtaining the signature is impracticable)[1]

[1] Districts may establish timeframes for requester to return signed PJD forms. If the requester does not respond within the established time frame, the district may presume concurrence and no additional follow up is necessary prior to finalizing an action.

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Locust Grove Partners, LP	File Number: NAO-2021-00628	Date: 2-10-2022
Attached is:		See Section below
	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A
	PROFFERED PERMIT (Standard Permit or Letter of permission)	B
	PERMIT DENIAL	C
	APPROVED JURISDICTIONAL DETERMINATION	D
X	PRELIMINARY JURISDICTIONAL DETERMINATION	E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/appeals.aspx or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:	If you only have questions regarding the appeal process you may also contact: Ms. Naomi J. Handell Regulatory Program Manager (CENAD-PD-OR) U.S. Army Corps of Engineers Fort Hamilton Military Community 301 General Lee Avenue Brooklyn, New York 11252-6700 Telephone number: (917) 789-4841 Naomi.J.Handell@usace.army.mil

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

	Date:	Telephone number:
_____ Signature of appellant or agent.		

DEPARTMENT OF THE ARMY
US ARMY CORPS OF ENGINEERS
NORFOLK DISTRICT
FORT NORFOLK
803 FRONT STREET
NORFOLK VA 23510-1011

February 10, 2022

Supplemental Preapplication Information

Project Number: **NAO-2021-00628**
Applicant: **Locust Grove Partners, LP**
Project Location: **80.23 acres located west of Benns Church Boulevard and at 17226 Commerce Lane in Isle of Wight County, Virginia.**

1. A search of the Virginia Department of Historic Resources data revealed the following:

   ☐ No known historic properties are located on the property.

   ☒ Tribal consultation may be required.

   ☐ The following known architectural resources are located on or near the property:

   ☒ The following known archaeological resources are located on the property: 44IW0319 and 44IW0318

   ☐ The following known historic resources are located in the vicinity of the property (potential for effects to these resources from future development):

   NOTE:
   1) *The information above is for planning purposes only. In most cases, the property has not been surveyed for historic resources. Undiscovered historic resources may be located on the subject property or adjacent properties and this supplemental information is not intended to satisfy the Corps' requirements under Section 106 of the National Historic Preservation Act (NHPA).*
   2) *Prospective permittees should be aware that Section 110k of the NHPA (16 U.S.C. 470h-2(k)) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of Section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant.*

2. A search of the data supplied by the U.S. Fish & Wildlife Service, the Virginia Department of Conservation and Recreation and the Virginia Department of Game and Inland Fisheries revealed the following:

   ☐ No known populations of threatened or endangered species are located on or within the vicinity of the subject property.

   ☒ The following federally-listed species may occur within the vicinity of the subject property: **Northern Long-eared Bat (*Myotis septentrionalis*)**

   ☐ The following state-listed (or other) species may occur within the vicinity of the subject property:

Please note this information is being provided to you based on the preliminary data you submitted to the Corps relative to project boundaries and project plans. Consequently, these findings and recommendations are subject to change if the project scope changes or new information becomes available and the accuracy of the data.

I HEREBY CERTIFY THAT THE PROPERTY SHOWN HEREON IS LOCATED IN ZONE " X " ON THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL No. 510303 0065 B, DATED AUGUST 19, 1991.

STAFFORD C. CAMP

THIS SURVEY WAS PERFORMED WITHOUT BENEFIT OF A CURRENT TITLE REPORT, AND AS SUCH, THIS SURVEY IS SUBJECT TO ANY EASEMENT OF RECORD AND OTHER PERTINENT FACTS WHICH A TITLE SEARCH MIGHT DISCLOSE.

I, STAFFORD C. CAMP, C.L.S. HEREBY CERTIFY THAT THIS SUBDIVISION WAS MADE BY ME AT THE DIRECTION OF THE OWNER, AND THAT THIS SUBDIVISION IS ENTIRELY WITHIN THE BOUNDARIES OF LAND OWNED BY THE UNDERSIGNED OWNER, AND THAT IRON RODS, AS SHOWN ON THIS PLAT AS SMALL SOLID CIRCLES, HAVE ACTUALLY BEEN PLACED, AND THEIR LOCATIONS CORRECTLY SHOWN.

MAY 14, 2002

THIS SUBDIVISION OF PROPERTY, AS IT APPEARS ON THIS PLAT, IS WITH THE FREE CONSENT, AND IS IN ACCORDANCE WITH THE DESIRES OF THE UNDERSIGNED OWNERS.

05-14-02, 2002

ARTHUR P. RAWLINGS (TRUSTEE)

STATE OF VIRGINIA, COUNTY OF Southampton, TO-WIT:

I, Alexis Knight, A NOTARY PUBLIC IN AND FOR THE CITY AND STATE AFORESAID, DO HEREBY CERTIFY THAT ARTHUR P. RAWLINGS SIGNED THE FOREGOING IN MY JURISDICTION AFORESAID.

GIVEN UNTO MY HAND THIS 14th DAY OF May, 2002

MY COMMISSION EXPIRES May 31, 2005

NOTARY PUBLIC

WHERE SEPTIC TANKS ARE TO BE INSTALLED ON INDIVIDUAL LOTS, THERE SHALL BE AN APPROVAL OF THE DRAINFIELD BY THE HEALTH DEPARTMENT AT THE TIME APPLICATION IS MADE FOR A SEPTIC TANK PERMIT. BOTH THE DRAINFIELDS SHALL BE LOCATED ENTIRELY OUTSIDE OF THE RESOURCE PROTECTION AREA. APPROVAL OF THIS PLAT BY THE PLATTING AUTHORITY DOES NOT INDICATE THAT THE INDIVIDUAL LOT IS SUITABLE FOR APPROVAL OF A PRIMARY AND 100% RESERVE DRAINFIELD.

THIS SUBDIVISION IS APPROVED BY THE UNDERSIGNED IN ACCORDANCE WITH EXISTING SUBDIVISION REQUIREMENTS AND MAY BE COMMITTED TO RECORD.

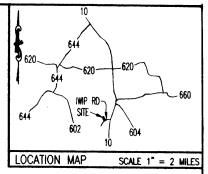
VDOT

COUNTY SUBDIVISION AGENT

CURVE	DELTA ANGLE	RADIUS	ARC LENGTH	CHORD BEARING	CHORD LEN	TANGENT
C1	15°25'55"	625.00'	168.34'	S 66°40'53" W	167.83'	84.68'

2-96-5

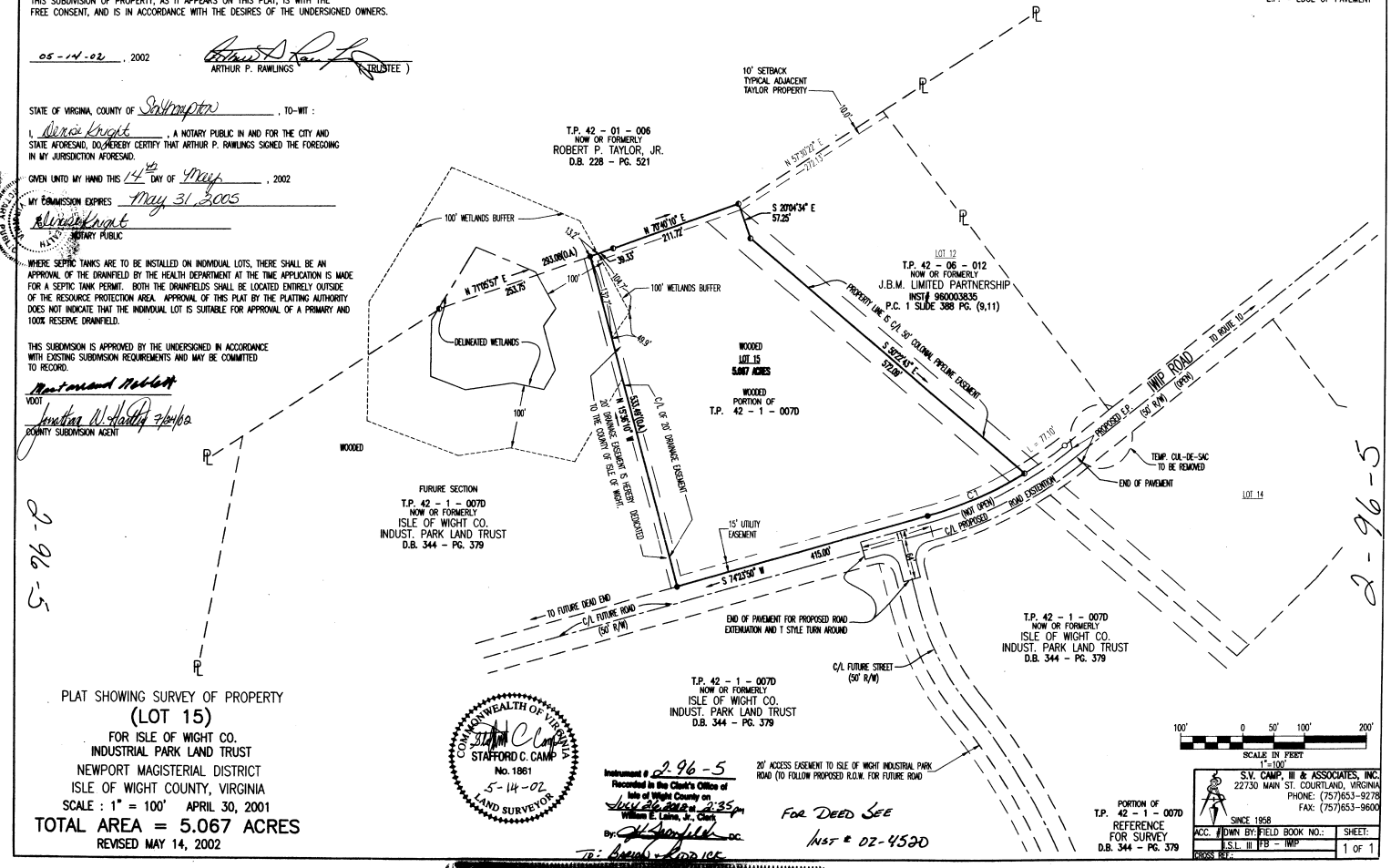
P.C. 1 SLIDE 388 PG. (9,11)



LOCATION MAP SCALE 1" = 2 MILES

LEGEND:
- ○ COMPUTED POINT
- ● IRON ROD SET
- ◐ IRON ROD FOUND

E.P. = EDGE OF PAVEMENT



PLAT SHOWING SURVEY OF PROPERTY

(LOT 15)

FOR ISLE OF WIGHT CO.
INDUSTRIAL PARK LAND TRUST
NEWPORT MAGISTERIAL DISTRICT
ISLE OF WIGHT COUNTY, VIRGINIA
SCALE : 1" = 100' APRIL 30, 2001

TOTAL AREA = 5.067 ACRES

REVISED MAY 14, 2002

COMMONWEALTH OF VIRGINIA
STAFFORD C. CAMP
No. 1861
5-14-02
LAND SURVEYOR

Instrument # 2-96-5
Recorded in the Clerk's Office of Isle of Wight County on July 26, 2002 at 2:35 PM
William E. Laine, Jr., Clerk
By: DC
Teste: Barbara Rudolph

FOR DEED SEE INST # 02-4520

PORTION OF T.P. 42 - 1 - 007D
REFERENCE FOR SURVEY
D.B. 344 - PG. 379

S.V. CAMP, III & ASSOCIATES, INC.
22730 MAIN ST. COURTLAND, VIRGINIA
PHONE: (757)653-9278
FAX: (757)653-9600
SINCE 1958

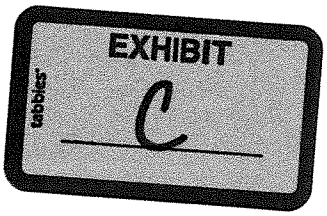
ACC. #	DWN BY:	FIELD BOOK NO.:	SHEET:
	J.S.L. III	FB - IWIP	1 OF 1

CROSS REF.:

2-96-5

C:\R14PROJECTS\SUBDIVISIONS\IWIP-INDUSTRIAL-PARK-LOT-15.dwg Tue May 14 14:26:28 2002

TETRA TECH



September 23, 2021

Ania Domagala-Pierga
Senior Real Estate Counsel
Insurance Auto Auctions, Inc.
Two Westbrook Corporate Center
Westchester, Illinois, 60154

Subject: Fluid Handling Best Management Practices

Dear Ms. Domagala-Pierga:

Tetra Tech, Inc. (Tetra Tech) provides Insurance Auto Auctions, Inc. (IAA) with environmental consulting services in New Jersey and nationwide. Per IAA's request, Tetra Tech prepared this letter describing IAA operations and environmental best management practices as they relate to fluid handling.

IAA OPERATIONS

IAA holds weekly auctions of usable and damaged vehicles. Generally, IAA obtains vehicles after they have been towed to a repair shop and evaluated by an insurance adjuster. Typically, these vehicles are towed to IAA branches 2 to 3 weeks after they first arrive at a repair shop. IAA's experience is that vehicle leakage, if any, generally occurs before the vehicles arrive at IAA's branches. Vehicles are catalogued for sale and placed in the vehicle inventory area via a loader once they arrive. IAA's branches are not intended for long-term storage of vehicles because IAA's aim is to sell the vehicles as quickly as possible.

ENVIRONMENTAL PROTECTIONS

Companywide, IAA implements a rigorous set of Best Management Practices to ensure that any fluid leaks from vehicles are promptly cleaned and storage yards are kept clean. Using materials prepared by Tetra Tech, IAA employees are trained to properly respond to spills in the event any occur. IAA employees are also trained on proper housekeeping and material management. Implementation of the Best Management Practices minimizes any potential environmental impacts to soil and groundwater at storage locations.

FLUID HANDLING

IAA does not dismantle vehicles, drain fluids, or sell vehicle parts. Based on IAA's long history of environmentally benign operations, demonstrated operating history, adherence to environmental Best Management Practices, and the fact that IAA's operations are designed to minimize direct contact with vehicle fluids, it is Tetra Tech's opinion that IAA's current fluid management practices and adherence to environmental Best Management Practices does not result in a material risk to the environment

Sincerely,

Bob Farnes
Manager

Tetra Tech
1100 S. McCaslin Boulevard, Suite 150, Superior, Colorado 80027
Tel 303.441.7900 tetratech.com

Insurance Auto Auctions, Inc.

Environmental Best Management Practices

Insurance Auto Auctions, Inc.
Westchester, IL

Prepared by:

Tetra Tech, Inc.
1100 S. McCaslin Boulevard, Suite 150
Superior, Colorado 80027

February 2017

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1.0 INTRODUCTION

This document presents Best Management Practices (BMP) for Insurance Auto Auctions, Inc. (IAA) branches. It is the environmental policy of IAA to comply with all applicable laws, regulations, permits, and orders. IAA has developed this document to proactively conduct operations at their branches in an environmentally responsible manner. There are various activities that take place during IAA operations that can potentially release pollutants to the environment if the activities are not performed properly. These environmental issues are limited to possible storm water impacts and storage and management of materials and wastes. This document identifies potential sources of environmental impacts from IAA branches and includes BMPs to minimize these adverse environmental impacts. This document provides general BMPs for IAA branches that address federal requirements. Each IAA branch will also comply with additional regulatory requirements that address state and local regulations.

2.0 REVIEWS AND CHANGES

IAA will review the BMPs described in this document on an annual basis and make changes as necessary. Reviews will also take place whenever there is a (1) significant change in a branch's design, construction, operation, or maintenance that has an effect on the potential for environmental impacts; or (2) when there is a change in applicable laws, regulations, permits, and orders that affects operations at IAA branches.

3.0 IAA OPERATIONS

IAA is primarily engaged in securing and storing vehicles from insurance total losses, bank repossessions, lease, and charity donations for subsequent auction to IAA authorized buyers. Vehicles are typically transported from primary holding facilities, such as towing companies, body shops, garages, car dealers, and residences, and then brought to IAA branches. IAA inspects and evaluates all vehicles prior to arrival and storage. Vehicles remain in the same condition as they arrive in and are not dismantled or repaired. Most vehicles have been stored for approximately 15 to 20 days at a primary holding location prior to arriving at an IAA branch. Once relocated to an IAA

branch, vehicle storage periods average approximately 30 to 55 days while awaiting proper paperwork for resale prior to auction.

The location of all loading, unloading, storage, sale, and access rows associated with stored materials and vehicles varies from branch to branch. The outdoors will be primarily used for vehicle storage and wholesale auction. Auctioning of vehicles is primarily done outdoors one to two days per week. Access to the yard is strictly managed through the main gate of the branch and is monitored by IAA personnel. Buyers are issued ID badges. Loading, unloading, and movement of stored vehicles are controlled by IAA personnel. In some cases, vehicles are loaded and unloaded from tow trucks using a forklift. IAA activities with the potential to result in environmental impacts are addressed in the following sections.

4.0 HAZARDOUS WASTE STORAGE AND DISPOSAL

The Resource Conservation and Recovery Act (RCRA) establishes a federal program to manage and track hazardous wastes from cradle to grave – from the waste's initial generation point to time of final disposal or recycling. The objective of the program is to ensure that hazardous waste is handled in a manner that protects human health and the environment. Under RCRA, hazardous waste is a waste that poses substantial or potential threats to public health or the environment and generally exhibits these characteristics - ignitable (i.e. flammable), oxidizing, corrosive, and/or toxic. For additional details on RCRA regulations, the U.S. Environmental Protection Agency (EPA) provides the RCRA Online Database -- http://www.epa.gov/rcraonline. State or local regulatory agencies may also have applicable regulations regarding hazardous waste and used oil.

Under RCRA, there are regulations for the generation, transportation, and treatment, storage, recycling or disposal of hazardous wastes. The regulatory requirements that apply to a branch depend upon the amount of hazardous waste that is generated by the branch each month. There are two types of waste generation levels that apply to IAA

branches – conditionally exempt small quantity generator (CESQG) and small quantity generator (SQG).

4.1 Conditionally Exempt Small Quantity Generator

If a branch generates less than 220 pounds (100 kilograms) of hazardous waste or less than 220 pounds of spill residue per month, a branch is considered a CESQG.

4.1.1 Disposal: Hazardous waste must be delivered to an offsite treatment, storage and disposal facility (TSDF) located in the U.S. that is "permitted, licensed, or registered by a State to manage municipal or industrial solid waste." This means the waste can go to a local industrial or municipal solid waste landfill. However, most permitted municipal and industrial landfills have created their own regulations that do not allow certain wastes to be disposed, especially hazardous wastes. For this reason, make sure that the TSDF you have selected has the necessary permits to handle hazardous waste.

4.1.2 Documentation and Reporting: There are no specific federal requirements for keeping records of the amount of hazardous waste generated by a CESQG. However, it is highly recommended that records be created and retained.

This documentation provides a basis for determining your generator status each calendar month and is proof to any regulatory agency that may question your monthly generation rates. Hazardous waste that is sent to a TSDF is generally listed on a Uniform Hazardous Waste Manifest. The manifest provides the proper documentation for monthly generation of hazardous waste. If at any time, the monthly generation for the facility exceeds 220 pounds, EPA must be notified of your change of generator status.

4.1.3 Storage: There are no specific federal requirements for storage and labeling of accumulated hazardous waste, however, there are some basic practices that help ensure safe management of hazardous waste. Storage containers should not be leaking, bulging, rusted, or incompatible with the waste stored in them. While there are no labeling requirements for CESQGs under RCRA, the Occupational Safety and

Health Act (OSHA) requires that you have labels on all containers. As a CESQG, you cannot accumulate onsite more than 2200 pounds of hazardous waste at any one time prior to disposal. If this happens, you must then follow all the requirements of a small quantity generator.

4.2 Small Quantity Generator

If a branch generates less than 2200 pounds (1000 kilograms) but more than 220 pounds (100 kilograms) of hazardous waste per calendar month, it is considered a small quantity generator (SQG) for that month.

4.2.1 Generation and Disposal: As a SQG, you are allowed to generate less than 2200 pounds of hazardous waste in any calendar month. All hazardous waste generated by the SQG that is not treated onsite must be manifested to an offsite TSDF permitted to handle hazardous waste or to an approved designated facility (e.g., recycling facility).

4.2.2 Documentation and Reporting: SQGs are required to track, report, and maintain documentation regarding their hazardous waste generation.

Manifests: Hazardous waste that is sent to a TSDF or an approved designated facility must be listed on a Uniform Hazardous Waste Manifest. A manifest provides a description of the hazards of the waste and the waste handlers. You must sign and date the manifest and obtain the signature of the transporter on the manifest. You must also keep a copy of the form until you receive a copy signed by the TSDF. Manifests must be kept for at least three years from the date of shipment. If your generator status changes, you must notify EPA or the State.

Exception Report: Once a hazardous waste manifest has been signed and dated by you (the generator), EPA gives the disposal contractor 60 days to transport the waste to the TSDF and return a signed copy of the manifest to you. If, after 60 days, you do not receive the "Return to Generator" copy of the manifest signed by the TSDF, you must send a legible photocopy of the manifest to the EPA Regional Administrator and a brief

written statement about not receiving the signed copy. This report must be maintained for at least three years.

Miscellaneous: Generators are also required to keep records of test results, waste analyses, or other waste determinations for at least three years from the date of shipment of that waste.

4.2.3 Storage: Hazardous waste must be stored in sealed tanks or containers, provided they are not leaking, bulging, rusted, or incompatible with the waste stored in them. Storage areas should have a means of secondary containment, an alarm, a fire extinguisher, a "No Smoking" sign, and a means of communication (e.g., walkie-talkie, cellular phone, or air horn) in the event of a spill or other emergency.

4.2.4 Labeling: Hazardous waste tanks and containers must be labeled with the words "Hazardous Waste", the contents of the container, the accumulation start date, the waste codes of the contents, and the name, address, and EPA ID number of the generator.

4.2.5 Time Limitations: SQGs are required to dispose their hazardous waste within 180 days of placing the waste into the container.

5.0 POTENTIAL IMPACTS TO STORM WATER

Potential pollutant sources exist at IAA branches that may adversely impact storm water runoff. Storm water may carry pollutants to storm ditches, drains, and eventually, bodies of water, such as streams, rivers, lakes, or oceans. Potential pollutant sources include:

- Aboveground storage tanks (AST) that contain various materials such as fuel, oil, and waste fluids
- Drums and containers that contain fuel, oil, waste fluids, and cleaning and maintenance chemicals
- Burned vehicles and vehicles that contain fluids within their mechanical systems
- Hydraulic equipment that contain fluids within their mechanical systems

- Oil water separators

5.1 Potential Storm Water Discharge Pollutants

Based upon review of activities conducted at IAA branches, it is possible that significant materials could contact storm water runoff. Potential pollutants in storm water may include oil and grease; common gasoline compounds such as benzene, toluene, ethylbenzene and xylenes (BTEX); diesel fuel, methyl-tertiary-butyl ether (MTBE); metals, and suspended (non-filterable) solids. At IAA branches, potential sources of materials that can come in contact with storm water runoff include the following:

- **Vehicle-related fluid** from de minimis releases (a release that is too small to be a regulatory concern) may be present in storm water discharge. The presence of these materials may originate from drips and leaks from vehicles traveling the road, de minimis releases from stored vehicles and vehicle transport equipment, and precipitation contact with exposed surfaces containing vehicle related fluids. Vehicles brought to IAA branches may contain residual amounts of fluids in the mechanical systems that are part of the vehicles. These fluids may include windshield-washer fluid, radiator fluid, motor oil, transmission fluid, brake fluid, grease, hydraulic oil, battery acid, and gasoline or diesel fuel.
- **Material and waste storage** tanks and containers can leak or spill during fluid transfer. If these leaks and spills are not prevented or contained, they can come in contact with storm water runoff. Materials stored and used for operations at IAA branches include facility maintenance chemicals (such as small quantities of cleaning supplies, paints, and fertilizers), diesel and gasoline fuel, propane, transmission fluid, grease, heating or motor oil, and antifreeze. Some of the used or waste materials stored at IAA branches include contaminated, used or expired materials such as used oil, fuel contaminated with water or other vehicle fluids, expired hydraulic oil, and contaminated soil containing spilled materials.
- **Runoff** from adjacent properties containing soil, organic materials, and petroleum-based products may also contribute to storm water contamination.
- **Erosion** of inorganic solids could result when disturbance of soil surfaces during transport equipment operation in access aisles is combined with precipitation events.

6.0 BEST MANAGEMENT PRACTICES

The following BMPs for IAA branches provide guidance on how to minimize adverse environmental impacts from operations. The BMPs include general practices such as good housekeeping, preventative maintenance and inspections to prevent

environmental issues. Guidance is also provided for BMPs that control storm water impacts and response to spills. Finally, operation-specific BMPs cover vehicle washing, flood vehicle preparation and equipment service and maintenance.

6.1 Good Housekeeping

Employees at IAA branches follow good housekeeping procedures to reduce the possibility of accidental releases and to reduce safety hazards to facility personnel. Key elements of IAA's good housekeeping program include the following items:

- Visual inspections of vehicles brought to the branch to assess integrity of vehicle fluid systems and identify the need for repair or remedy of vehicle hydraulic/mechanical systems that could leak significant materials on the property.
- Visual inspections of travel aisles in the storage yard for evidence of releases of significant materials and identifying the cause of the release when possible. Removal of the miscellaneous debris (i.e., loose vehicle parts that may have inadvertently fallen off of the host vehicle), as necessary, to prevent possible damage to site vehicles.
- Regular maintenance of site vehicles and equipment to prevent de minimis releases.
- Careful handling of vehicles, to minimize the potential for damage to vehicle systems, which may in turn cause a release.
- Proper handling, storage and inventory of significant materials, when necessary in the storage yard and within the branch garage or warehouse.
- Orderly storage and inventory of stored vehicles.
- Prompt, routine removal of de minimis releases.
- Continued training of IAA personnel regarding good housekeeping practices.

6.2 Preventive Maintenance

IAA personnel are responsible for the continued inspections and preventative maintenance. Preventive maintenance includes visual operational inspection of facility equipment, trucks, loaders, and storm water management features to detect conditions which may cause breakdowns or failures resulting in the potential discharge of significant materials into storm water.

Preventive maintenance applies to the following branch features that are considered an integral part of facility BMPs for storm water and pollution prevention systems:

- Catch basins and culvert systems
- Drainage swales
- Vegetated areas
- Site grading
- Pavement
- Trucks and forklifts
- Fuel storage tanks; above ground and underground

6.3 Inspections

To prevent the release of materials, IAA personnel conduct routine inspections. Inspections include fuel storage and material storage areas as well as the storage yards. Daily routine visual inspections are conducted in the vehicle storage yard and building areas. Inspections of vehicles are conducted prior to their arrival at an IAA branch by the drivers before the vehicles are loaded on transports. The indoor and outdoor vehicles are inspected daily during normal yard operations. Inspections of vehicles, equipment, fueling equipment, and building maintenance material are done routinely in the course of normal business operations.

Each system and major item of branch equipment is inspected at least monthly. Inspection procedures vary depending upon the equipment or system; however, the major elements of the inspection program include observation of equipment and environmental conditions of the branch.

Regulations require that ASTs containing petroleum products are visually inspected once every thirty days. If an issue is identified that requires action, the issue is documented and subsequent remedy is recorded upon timely completion. Visual inspections include addressing the following questions:

- Are there any visible leaks on tanks, tank seams, connections, fittings, valves?
- Are there any visible leaks on aboveground piping, pipe seams, connections, fittings, flanges, threaded connections, pumps or valves?
- If utilized, is overfill prevention or leak detection equipment in good operating condition?
- If a double-walled tank is utilized, is the interstice free of liquid and is the interstitial monitoring equipment operating properly?
- Is the secondary containment system free of tank product and other liquids or debris, such as rainwater, snowmelt, dirt, leaves, trash, etc.?
- Are concrete surfaces and ground free of any evidence of new leaks or spills?
- Are tank supports, berms, bollards or bumpers surrounding the tank in good condition?
- Is the tank labeled with appropriate signs identifying the material within and with appropriate warnings?
- Do you have the appropriate supplies for cleaning up a spill and overfill? Are these supplies appropriately marked and conveniently located?

6.4 Storm Water Control Measures

Storm water BMPs described in this section focus on controlling and reducing possible contaminants that may discharge to storm water. Storm water devices used to reduce contaminants that may enter storm water could include vegetative swales, hay bales, and absorbent booms. Branches may incorporate vegetative and structural control measures to reduce pollutants to storm water. Storm water BMPs and devices used to control and reduce the impacts of pollutants discharged into storm water are described in the following sections.

6.4.1 Vegetative Storm Water Controls

Vegetative controls refer to landscaping practices that provide pollutant removal primarily by limiting sediment movement and preventing erosion. Vegetative control may include vegetated filter strips, grassed swales, and habitat creation/preservation, and landscaping. IAA branches may use the following vegetative storm water controls.

Vegetative Strips: Vegetative strips may be placed perpendicular to the direction of surface water flow across the branch.

Vegetative Swales: Vegetated drainage swales may be used to provide pollutant removal, velocity reduction, and erosion protection.

6.4.2 Structural Control Measures

Engineered controls consist of non-natural features constructed or placed with the intent of reducing impacts of pollutants to surface water discharge from IAA branches. The following engineered controls may be used:

Release Containment: Release containment (metal dikes or something similar) may be used around ASTs. Double-walled ASTs may be used where feasible.

Wood Chips: Natural, untreated wood chips may be distributed along the ground surface to provide filtration of surface runoff flow and to provide dust suppression through retention of moisture at ground surface.

Crushed Stone and Gravel: Stone and gravel placement in high traffic areas helps minimize erosion and sediment additions to storm water drainage areas.

Berms: Earthen or concrete berms may be used to control and contain flow.

Oil Absorbent Boom: Oil absorbent booms may be used based on observation of surface water conditions. An oil absorbent boom acts as a barrier against the transport of oil and grease by removing them from surface water flow.

Plastic Covering: Vehicles received at branches with their outer body coverings intact provide inherent covering of vehicle mechanical system surfaces. Select vehicles and components may be shrink-wrapped with polyethylene plastic to prevent contact with precipitation and protect valuable components.

6.5 Release Response

The following sections discuss release response procedures and the response team that may take care of a release at an IAA branch.

6.5.1 Procedures

IAA personnel are trained to recognize potential release situations and how to respond appropriately in the event of a release. Emergency response kits are located at the IAA branches adjacent to areas with spill potential.

Release response procedures are similar for each material that may be stored at an IAA branch. If releases absorbed on the ground surface are observed during operations or routine inspections, the affected solids on the ground surface are removed by hand or mechanical equipment as soon as practical and disposed of properly. Materials and equipment used in the cleanup of this material may include absorbents, rags, shovels, backhoes, loaders, DOT-approved storage drums, etc.

Specific material handling procedures to reduce contaminated material from entering a storm water conveyance or drainage point include covering impacted solids with sheathing, use of absorbent material, and deployment of an absorbent boom at drainage outfall locations. A release to the ground surface may or may not require emergency response procedures, depending on the nature of the release. Release response and cleanup equipment are available at all IAA branches. Employees responding to a release have been instructed to implement containment by using collection equipment at the location of the release and, if possible, to prevent migration of the release off of the branch property by executing response measures.

Free product and/or impacted surface water shall be recovered to the extent practicable, as soon as possible after a detected release. This will increase the efficiency of the response actions and serve to minimize emulsified or dissolved phase material which could pass through the facility storm water system and off branch property.

If releases to surface water are observed during operations or routine inspections, the materials (liquids or solids) are recovered by hand or with mechanical equipment. Equipment used in the cleanup of releases to surface water may include skimmers, pumps, adsorbents, bailers, etc., as deemed necessary.

Pumping of liquids recovered from a release should include transfer into a secure temporary holding tank or drum as soon as possible. Absorbent material should be placed on the release locations and below identified sources of the release. The waste absorbent material should be disposed of properly. Impacted soil should be excavated and stored in appropriate containers or covered with polyethylene sheets.

Impacted material collected during the response must be removed promptly and disposed of in accordance with Federal, State and local requirements. A licensed emergency response contractor may be required to assist in cleanup of releases depending on the size and location of the release, weather and ground conditions, and the effectiveness of response actions implemented by IAA personnel. Appropriate regulatory agencies will be notified in the event of a reportable release.

Immediately following emergency response actions, the affected drainage path and associated possible collection points should be closely monitored to allow recovery of as much of the release material as possible. This includes identification and collection of released material that might be caught in stagnant zones and continues to present potential for migration after initial removal of accumulated material.

IAA maintains records at its corporate office of all significant material releases and response actions taken. These records are kept and periodically reviewed to reduce the chances of release reoccurrence, to assess potential improvements that could be made to response procedures, and to comply with applicable federal, state and local regulations.

6.5.2 Response Team

IAA response teams are trained in release identification and response procedures, release reporting procedures, and communications systems. The release response team for IAA branches includes the Branch Manager and those individuals identified by the Branch Manager to respond properly.

6.6 Vehicle Washing

Vehicle washing does not occur at all IAA branches. However, for some branches it is a part of normal operations. Vehicle washing has the potential to adversely affect the quality of storm water runoff. As wash water flows over vehicles and the ground, chemicals can be picked up including oil and grease, pesticides, metals, and other contaminants and can discharge to storm sewers. To minimize adverse impacts, the following practices are used:

- Catch basins are maintained and kept free of debris. If no catch basin exists, vehicles are washed over pervious surfaces such as lawns and gravel areas. Washing activities do not occur adjacent to or on storm drains or within the boundaries of storm water ditches, retention ponds, or other storm water conveyances.
- If possible, washing occurs without detergents. If a detergent is used, "non-toxic", "phosphate free", or "biodegradable" detergent will be chosen.
- Vehicle washing is kept to the exterior of the car.

6.7 Flood Vehicle Preparation

Flood vehicle servicing does not occur at all IAA branches. However, for some branches it is a part of normal operations. There are four levels of flood vehicle servicing, as described below:

1. Vacuum Water from Interior: Vacuumed water is containerized and properly disposed of.

2. Wash Vehicle Exterior and Engine: Vehicles are washed over pervious surfaces such as lawns and gravel areas. Wash water is prevented from entering the storm drain or any nearby streets. The amount of detergents and other cleaners is either eliminated (i.e. only water is used) or only those that are "non-toxic", "phosphate free", or "biodegradable" are chosen. Engines are washed in a contained area with no access to the sewer or storm drains. Waste water from engine washing is collected for future treatment and disposal.

3. Change Vehicle Fluids: Vehicle fluids are changed indoors and only over impervious surfaces where possible. If changing, adding, or draining vehicle fluids outside, all work is conducted within areas where spills can be contained and cleaned up immediately. Drip pans are utilized when changing fluids, when possible. Any releases are immediately cleaned up in accordance with the established spill response plan. Drained fluids are immediately transferred to a

designated waste storage area, making sure not to mix different types of waste materials together (e.g., combining used oil with used antifreeze.)

4. Shampoo and Full Detail Cleaning: Shampoo water that is collected in the wet/dry vacuum is containerized and disposed of properly.

6.8 Specialized Equipment Service and Maintenance

Specialized equipment is used to handle and move vehicles in a proper and orderly manner. The most commonly used specialized equipment at IAA branches is the forklift. Routine forklift maintenance is necessary to ensure long performance life of the machines, reduce expensive repair costs, and maintain a safe work environment. Typical maintenance of a forklift involves fluid checks and changes (such as engine oil or transmission fluid), tire changes, radiator flushing, battery replacement, and general inspection of hoses, belts, gauges, and other components. The following good housekeeping practices are implemented to ensure minimal environmental impacts occur at IAA branches resulting from servicing and maintaining forklifts or loaders:

- Indoor floor drains that are connected to the storm drain system are plugged prior to equipment maintenance.
- Drip pans and adequate spill prevention and cleanup materials are kept on-site and easily available for use.
- Drip pans containing oil or other automotive fluids are not left unattended, and the contents are disposed of properly in accordance with all applicable local, state, and federal regulations.
- Fluids are changed indoors and only over impervious surfaces where possible. If changing, adding, or draining vehicle fluids outside, all work is conducted within areas where spills can be contained and cleaned up immediately.
- Batteries are stored indoors on non-reactive, curbed, and impervious surfaces where no floor drain is present. If floor drains are present, batteries are stored upright in a plastic tub or other appropriate container to contain any leaked battery acid.
- Each used battery is labeled and dated.
- Used batteries are recycled by either returning them to the manufacturer for a trade-in with the purchase of new batteries, or by arranging for a registered waste transporter to pick them up for recycling. Used batteries are recycled prior to accumulating 40 batteries.

- Wastewater from parts cleaning, engine cleaning, undercarriage cleaning, radiator flushing, etc. is containerized and disposed of in accordance with all applicable local, state, and federal regulations.
- Specific areas are designated with in the facility for engine, part, or radiator cleaning. Washing or rinsing parts outdoors only occurs when absolutely necessary. If washing or rinsing parts outside, work is conducted within areas where spills can be contained and cleaned up immediately.

7.0 Employee Training

Employee training is conducted to inform branch personnel of the BMPs used at IAA branches. The training covers practices for hazardous waste management and preventing releases and the procedures for responding properly and rapidly to releases. Local branch personnel are trained initially, prior to work assignments, and annually thereafter to ensure they are familiar with the elements and goals of the practices and procedures. Training records are updated and maintained on a regular basis.

ADDENDUM TO PHASE I CULTURAL RESOURCES SURVEY OF SMITHFIELD IAAI PROPERTY

ISLE OF WIGHT COUNTY, VIRGINIA

Circa~ Cultural Resource Management

MAY 2022

ADDENDUM TO
PHASE I CULTURAL RESOURCES SURVEY OF SMITHFIELD IAAI PROPERTY
ISLE OF WIGHT COUNTY, VIRGINIA

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May 2022

ABSTRACT

In May 2022, Blakeway Corporation contracted Circa~ Cultural Resource Management, LLC (Circa~) to conduct an addendum survey to the Phase I cultural resources survey of Smithfield Insurance Auto Auctions, Incorporated (IAAI) Property in Isle of Wight County, Virginia. This addendum survey aimed to identify and record additional cultural resources within one additional 5.07-acre parcel included in the project area before the site's development. This survey identified no isolated finds, one new archaeological site, and no new architectural resources.

The project area consists of a hardwood and softwood forest partially cleared in 2003 to develop the tract as a laydown yard for the railroad. The majority of the project area currently consists of an expansive concrete pad with steel connections in the western portion of the tract and thick gravel in the eastern portion of the tract. The pad site is roughly two feet higher than the surrounding elevations to the north and west. A Columbia Gas pipeline runs along the eastern boundary. The utility marker for the gas company requested no excavations within 50 feet of their utilities' western edge. The historical maps illustrate that the project area has been forested since 1919. No structures are shown within the project area on the historical maps. A tire dump and a target practice shooting area were noticed along the western portion of the project area.

Site 44IW0351 is a moderate artifact scatter that dates from circa post-1950 and represents the remains of a dump. All the artifacts recovered were restricted to the ground surface, with no artifacts recovered from shovel tests. Given these facts, Circa ~'s professional opinion is that the site lacks the potential to contribute significant new information or answer research questions about historical sites in the region. Therefore, due to the lack of a quantity and diversity of artifacts, and lack of intact features, combined with the presence of all artifacts recovered from the ground surface, the site is recommended as not eligible for the National Register of Historic Places under Criteria A, B, C, or D. Accordingly, no further archaeological investigation appears warranted.

In sum, the proposed construction will not have an adverse effect on any archaeological or architectural resources potentially eligible or eligible for listing on the National Register of Historic Places. No further work is recommended.

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INTRODUCTION

In May 2022, Circa~ Cultural Resource Management, LLC (Circa~) conducted an addendum survey to the 2021 Phase I cultural resources survey of Smithfield Insurance Auto Auctions, Incorporated (IAAI) Property, Isle of Wight County, Virginia (Figures 1 and 2). The project area, which encompasses approximately 5.07 acres, is bordered by Isle of Wight Industrial Park Road and industrial development to the south, a Columbia Gas pipeline to the east, a forested area to the west, and an agricultural field to the north. The project consists of an access road to the overall project area to the north and a stormwater management pond in the northwestern section. The Area of Potential Effect (APE) for archaeological and architectural resources is the approximately 5.07-acre project area.

In June of 2021, Blakeway Corporation contracted Circa~ to conduct a Phase I cultural resources survey of the Smithfield IAAI property in Isle of Wight County, Virginia. The original project area, encompassing approximately 73 acres, is bordered by rural agricultural lands to the north, south, east, and west, and a commerce park to the south. This Phase I cultural resources survey aimed to identify and record all historic resources within the project area before the project's development. This survey identified 30 isolated finds, no previously-identified archaeological resources, two new archaeological resources, one previously-identified architectural resource, and no new architectural resources.

IAAI is filing for a Conditional Rezoning to operate a business that auctions automobiles via the internet. The process is as follows:

1. Vehicles involved in collisions, floods, or recovered from thefts and repossessions are made available for sale by insurance companies, dealerships, rental companies, and fleet leasing companies;

2. IAAI contracts with such companies to receive and re-market the vehicles, which are then delivered to the site on flatbeds or some other commercial vehicle carrier;

3. Upon arrival, the vehicles are inspected to prevent contaminant leaks;

4. The vehicles are photographed and put into temporary storage while awaiting sale;

5. All vehicles are sold via internet auction;

6. Each vehicle is sold as an intact unit (meaning not dismantled nor sold in parts), and they leave the site in the same condition in which they arrived, whether operable or not (no work or maintenance is done on the vehicles); and

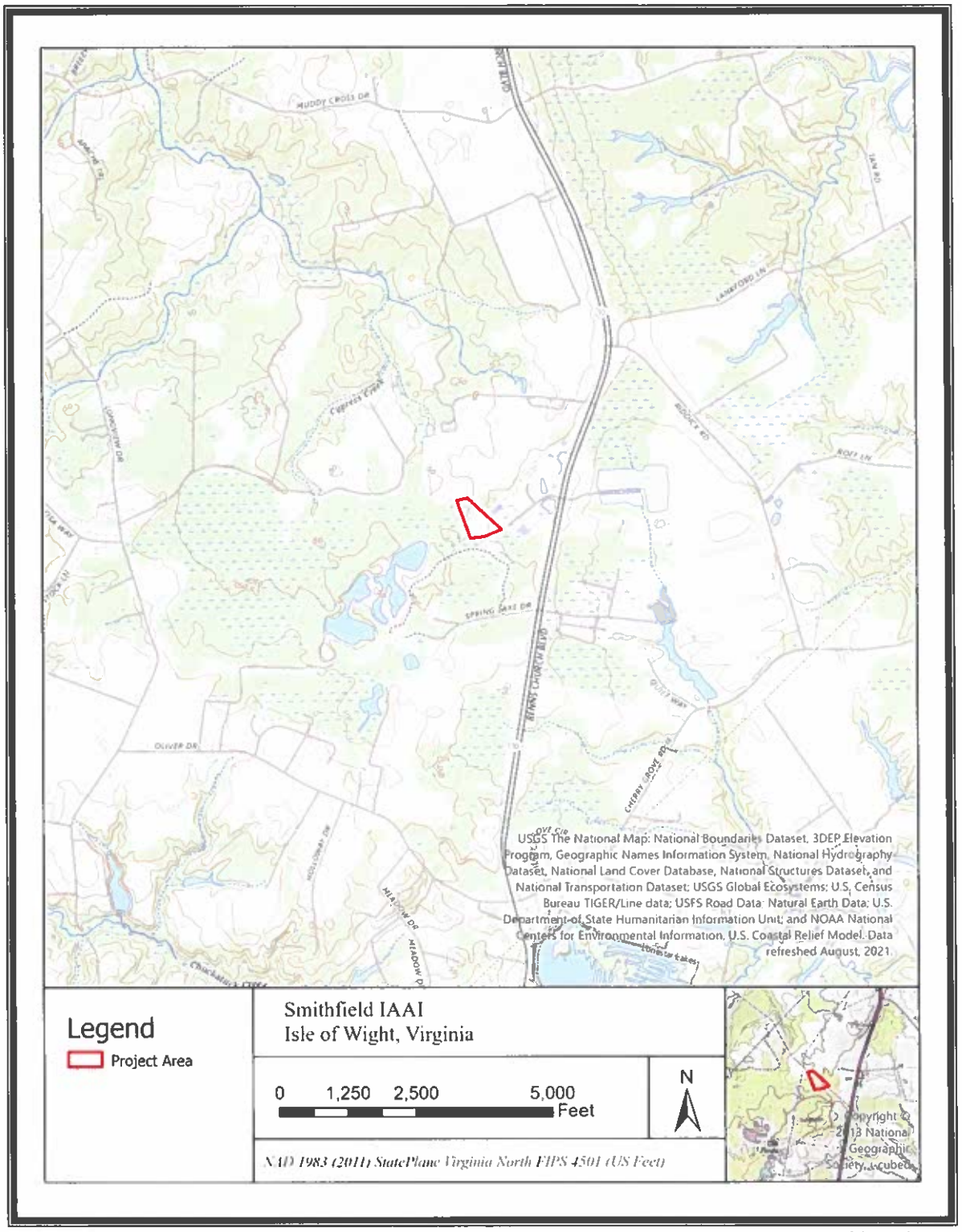


Figure 1. Approximate location of the additional project area on USGS Benns Church quadrangle.

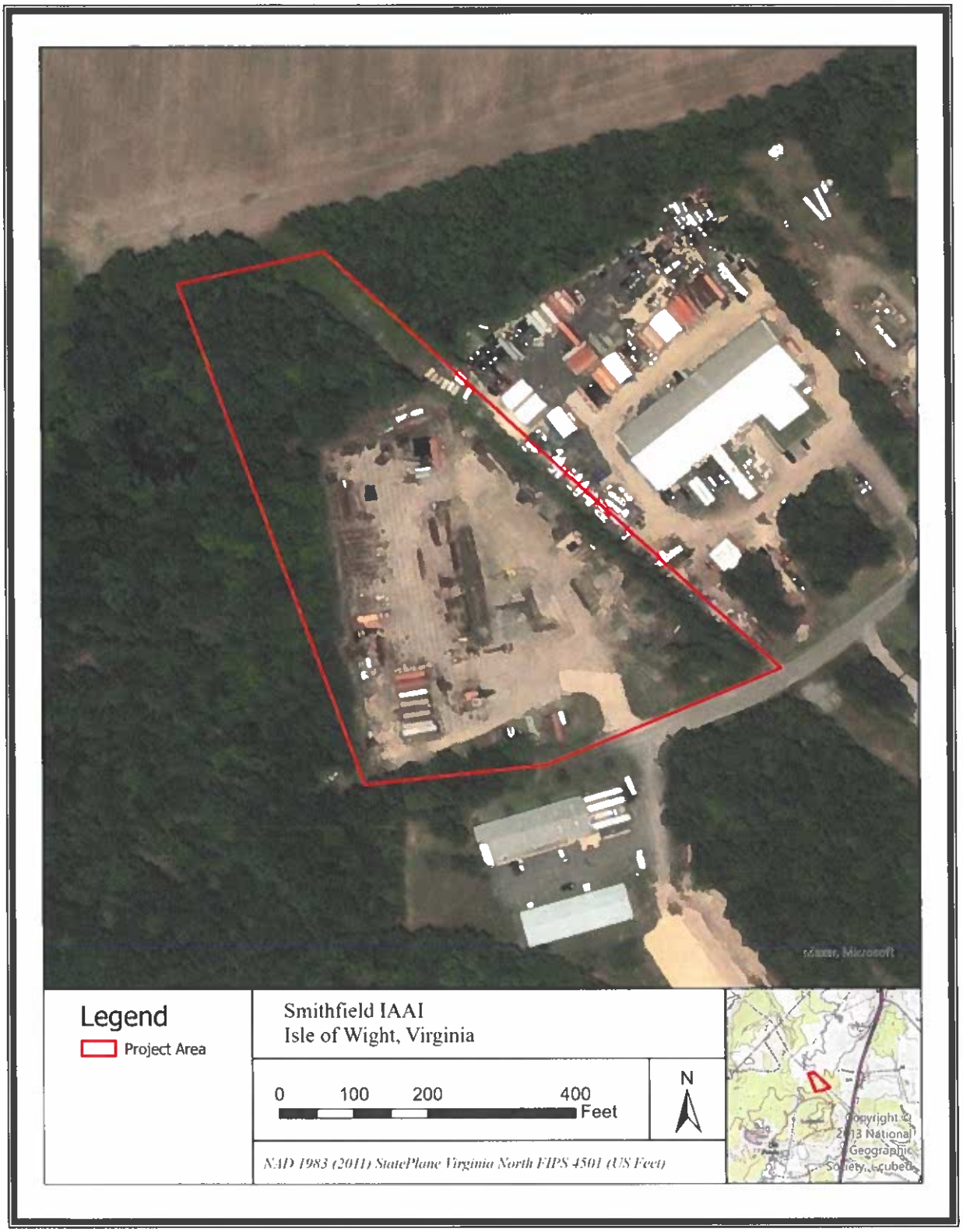


Figure 2. Current (2022) aerial view of the additional project area, from Google Earth.

7. Then, they are delivered to the buyers on flatbed trucks or some other commercial vehicle carrier.

Since the initial Phase I survey was completed, IAAI has added one parcel to the project area (#42-06-015) for site access. This parcel was not included in the original survey, and Isle of Wight County requested the study to be updated to address any cultural resources within this new parcel.

The investigation was conducted in compliance with Section 106 of the National Historic Preservation Act of 1966 (as amended) and conducted per the Secretary of the Interior's *Standards and Guidelines for Archaeological Documentation* and the *Guidelines for Preparing Archaeological Resource Management Reports* of VDHR. The report describes fieldwork results and makes recommendations for further work.

This report describes the project area's physical and environmental setting, the survey results are defined, the findings reviewed, and recommendations explained. Field notes, artifacts, and other project records are presently being curated in Circa ~'s office in Williamsburg, Virginia. It is anticipated that all these materials will eventually be transferred to VDHR in Richmond, Virginia, following the project's conclusion.

At Circa~, Carol D. Tyrer, Registered Professional Archaeologist (RPA), served as Project Manager and Principal Investigator for the project and completed the archaeology section of the report. Dawn M. Muir, RPA, served as the Historian and Architectural Historian for the project and conducted the background research and architectural survey. Skye Hughes, RPA, assisted with the graphics for the report and background research. Jessie Bordeaux, Archaeological Lab Technician, assisted in the processing of artifacts. The successful completion of the Phase I survey for the proposed development was made possible by the contribution of many individuals. In particular, Elmer F. Tolle III, CFM, Vice-President with Development Services Group, Inc., ensured that project information and maps were always available for the study.

ENVIRONMENTAL BACKGROUND

The primary reasons for incorporating environmental studies into archaeological projects are: to learn of possible environmental constraints or lack of constraints; to determine the presence or absence of critical resources that might have influenced site distribution, etc.; and to discover environmental factors -- erosion, deposition, subsidence, and historical land-use patterns -- that might influence the integrity of archaeological sites once they have formed. A brief environmental summary of the project area is provided below.

The tract is situated in the Coastal Plain physiographic province, and the majority is within an area previously disturbed for an equipment laydown area. A fringe of hardwood and softwood trees is evident along the laydown area's northern and western edge. The tract is relatively level and ranges in elevation from approximately 48 feet above mean sea level (AMSL) to 53 feet AMSL. The site can be accessed via Isle of Wight Industrial Park Road.

A review of aerial photos from 1994 through the present shows the development of the tract in 2003 as a storage laydown area for the railroad supplies and equipment (Figure 3 and 4). In addition, a review of historic maps of the area from 1608 to the present showed no development within the project area.

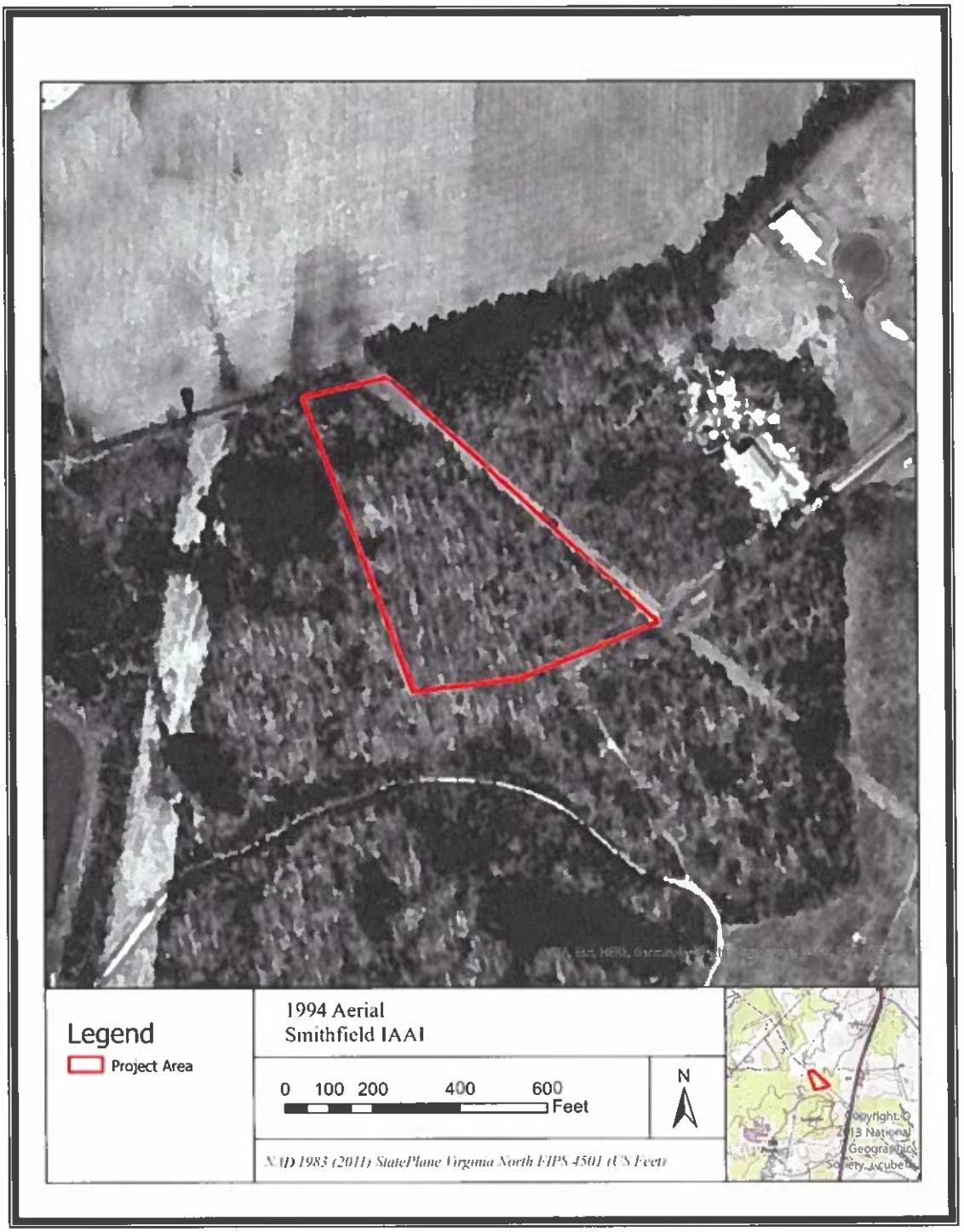


Figure 3. 1994 aerial view of Project Area.

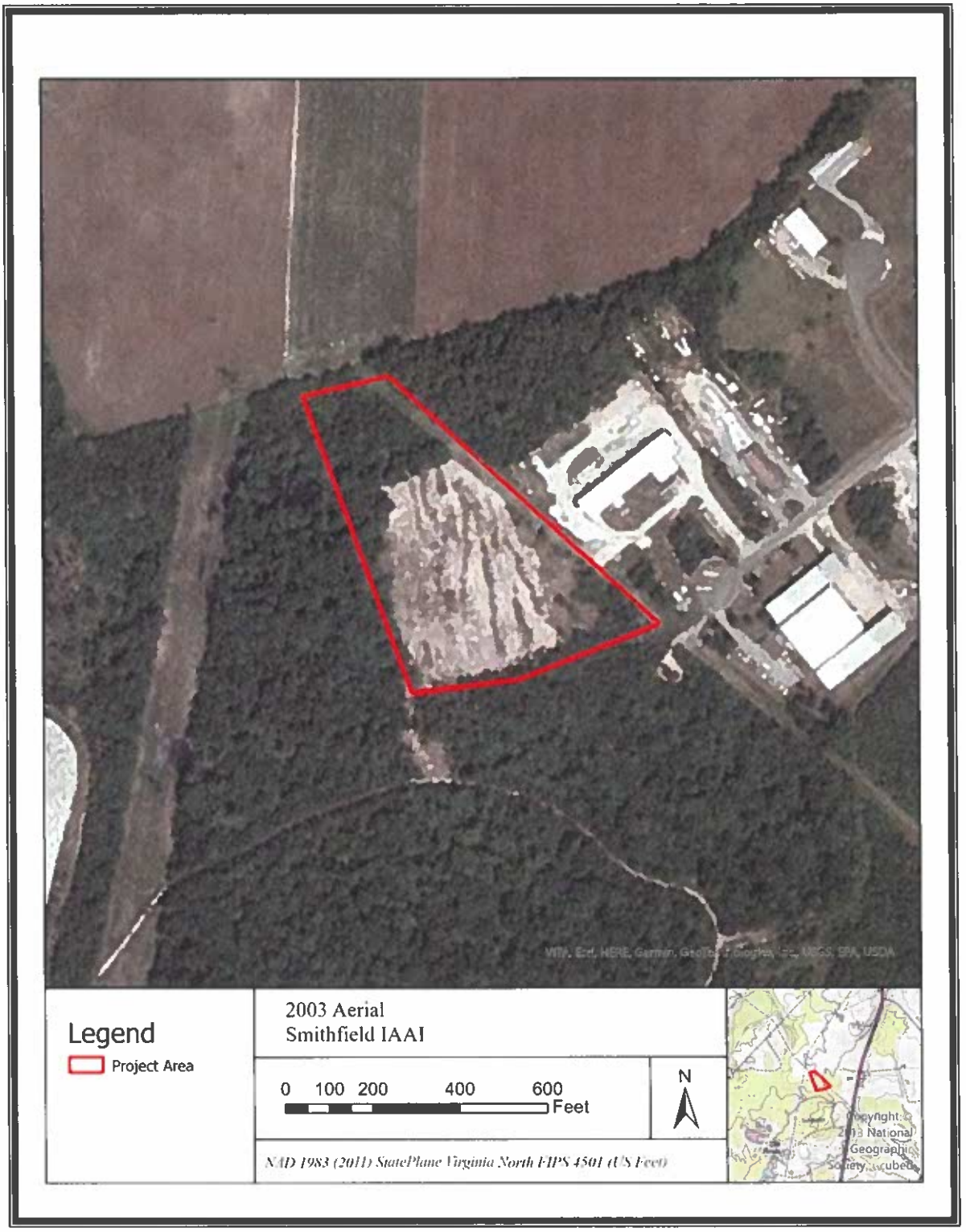


Figure 4. 2003 aerial view of Project Area.

Soils

Two different soil types and variants exist within the project area (Natural Resources Conservation Service [NRCS] 2022). These soil and soil types include Kinston loam and Uchee loamy sand, with 0% to 2% slopes (Figure 5 and Table 1). These types and variants are described below, including references to drainage, hunting, and gathering potential, and horticultural and agricultural productivity potential. Further, conclusions regarding the suitability of each for historical and Native American occupation and archaeological site probability are also explained.

Soil maps and associated data analyze soil types within a geographic area. Despite comprehensive and detailed coverage of most areas by soil surveyors, researchers often miss microenvironments due to their small footprints. Unfortunately, resource-rich microenvironments were often common sites of cultural activity. This analysis of archaeological potential is a "best-guess" using the best available data.

Well-drained, agriculturally- and horticulturally productive soils proximal to transportation corridors were the best choices for historic period occupation. Secondary areas, such as those containing wet soils and acid soils, after improvement such as drainage and liming, may have also been suitable choices for historic occupation. No navigable waterways exist within the project area; thus, water travel is not a factor in the site probability analysis of this tract.

Areas of wet soils may have been attractive to Native American cultures. In these areas, edible herbaceous plant species may have been gathered, and faunal species browsing these areas may have been hunted with success. Well-drained soils proximal to these resource-rich areas may have made adequate hunting and gathering campsites where the hunted and gathered resources were processed. These sites would have left a visible archaeological footprint. Little archaeological evidence would be located within the wet areas, the immediate locale of resource procurement.

Areas containing gravelly soils may have been especially attractive to stone tool-manufacturing Native American cultures, but the level of attraction may have depended on the type and quality of the gravels available in these locations. Well-drained soils proximal to quarry-able, gravel-rich areas would have made adequate lithic material procurement campsites.

Table 1. Soils Identified Within the Project Area Boundaries.

Soil Symbol	Soil Name	Acres Within the Project Area	Location Within Project Area	Percentage Within the Project Area
7	Kinston loam	3.07	Southern, northern, western, eastern, central	53.80%
19A	Uchee loamy sand, 0% to 2% slopes	2.00	Central, northern, eastern	46.20%

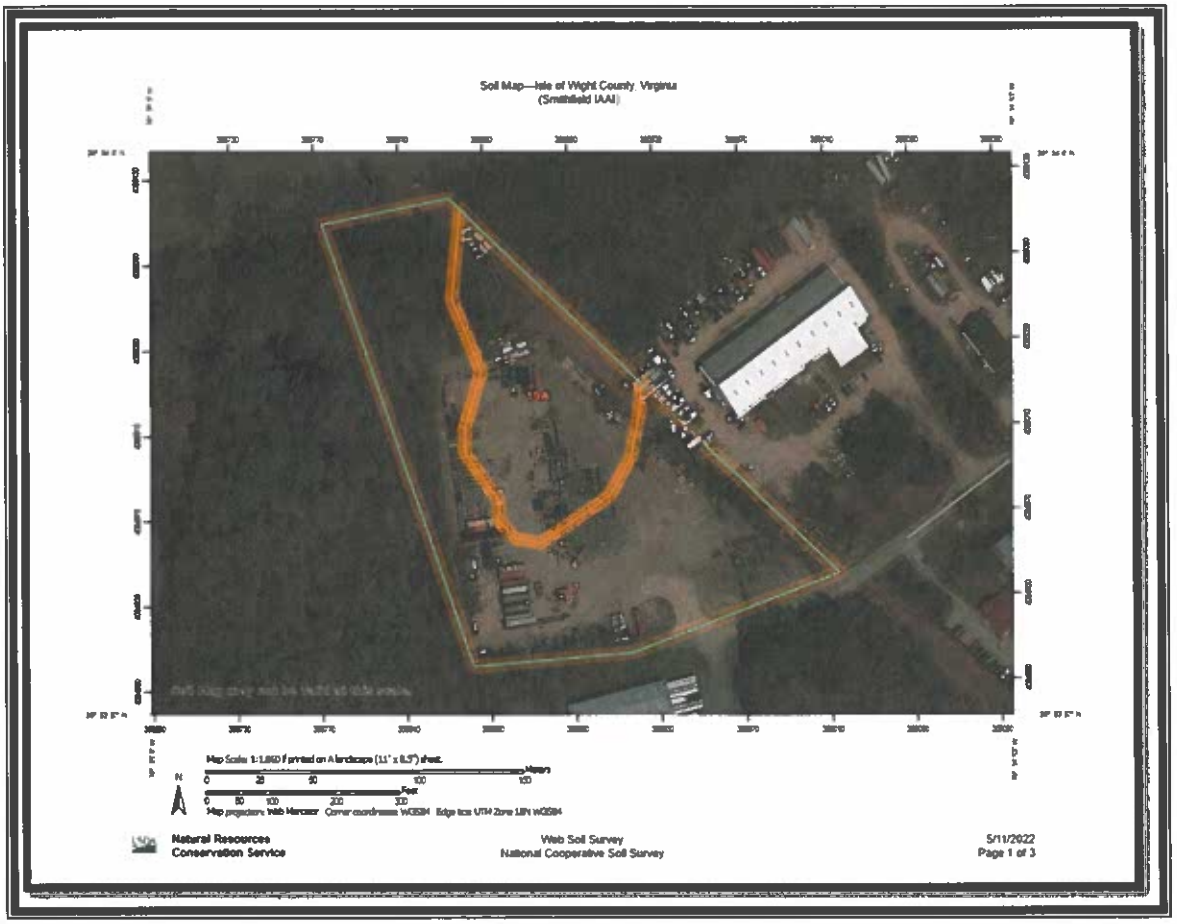


Figure 5. Project area soil map, from NRCS website.

Soils Identified Within the Project Area

Kinston Soil (7)

Kinston soil is a very-deep, poorly-drained, moderately-permeable soil formed in marine sediments found on floodplains of the Coastal Plain (NRCS 2022). Solum thickness ranges from 40 inches to 72 inches, and depth to bedrock is over 72 inches in this strongly acid to very strongly acid soil. The content of rock fragments is 0% to 3% throughout the solum. This soil features negligible surface runoff. Most of this soil is forested with limited pasture and crop growth. Where cleared, this soil can support growing pasture, corn, soybeans, and general farm crops. Where wooded, this soil can support water-tolerant hardwoods such as sweet gum, black gum, water oak, poplar, hickory, beech, elm, and ironwood. Loblolly pines are also found in some drained areas.

Uchee Complex (19A)

Uchee soil is a very-deep, well-drained, slowly-permeable soil formed in sandy and loamy marine sediments on smooth ridge tops and dissected side slopes of the Atlantic Coastal Plain (NRCS 2022). Solum thickness ranges from 40 inches to 60 inches in this very-strongly-acid to strongly-acid soil. Much of this soil is cleared and used for cultivated crops, including cotton, corn, and pasture. Wooded areas can support loblolly pine, longleaf pine, shortleaf pine, southern red oak, blue jack oak, and hickory.

PREVIOUSLY-RECORDED CULTURAL RESOURCES

Circa~ performed an archival search for the original Smithfield IAAI project area using the VDHR online V-CRIS system on June 24, 2021. This research was completed to determine if historic resources exist within the project area boundaries. The search identified 15 archaeological and 13 architectural resources within a one-mile radius of the project area boundaries. Of these resources, no archaeological or architectural resources were previously identified within the project area. Circa~ reviewed the VDHR online V-CRIS system on May 11, 2022, to update the archival search. The search did not identify any new resources within one mile of the project area, and no previously-identified sites were found within the new project area (Figure 6).

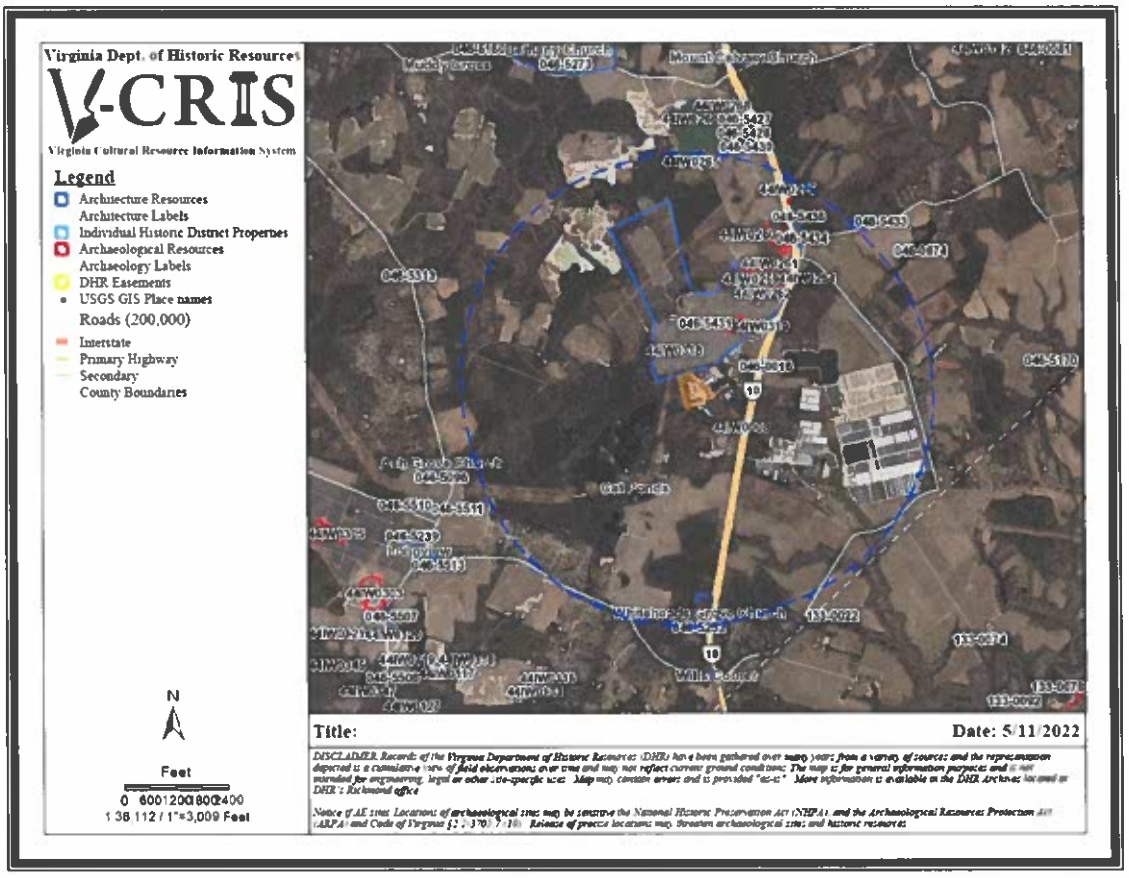


Figure 6. VDHR V-CRIS map showing project area outlined in orange and previously-identified resources within one mile.

RESULTS

The field survey provides specific information concerning the location, nature, and distribution of archaeological resources within the project area. Based on VDHR guidelines, Circa~ uses two types of designations to group archaeological resources: isolated finds and sites. An archaeological site is defined as a grouping of artifacts that date to specific periods and reveal the location of human activity and land use. An isolated find is determined when a limited number of artifacts are recovered from the

ground surface or shovel testing. This event may be either a casual or single-episode discard, such as a projectile point or a bottle break, or a small collection of artifacts related to various periods, such as a projectile point from the Woodland period and a bottle fragment from the 20th century. Appendix A contains VDHR V-CRIS forms.

Architectural Resources

Circa~ identified no architectural resources within the project area boundaries during the Phase I survey.

Archaeological Resources

The project area originally consisted of a hardwood and softwood forest partially cleared in 2003 to develop the tract as a laydown yard for the railroad. The project area currently consists of an expansive concrete pad with steel connections in the western portion of the tract and thick gravel in the eastern portion of the tract. The pad site is roughly two feet higher than the surrounding elevations to the north and west. A Columbia Gas pipeline runs along the east boundary. The utility marker for the gas company requested no excavations within 50 feet of their utilities' western edge. The historical maps illustrate that the project area has been forested since 1919. No structures are shown within the project area on the historical maps. A tire dump and a target practice shooting area were noticed along the western portion of the project area. Plates 1 - 12 illustrate the current conditions of the project area.

Plate 1. View of the project area, looking west.

Plate 2. View of the project area, looking northwest.

Plate 3. View of the concrete pad within the project area, looking south.

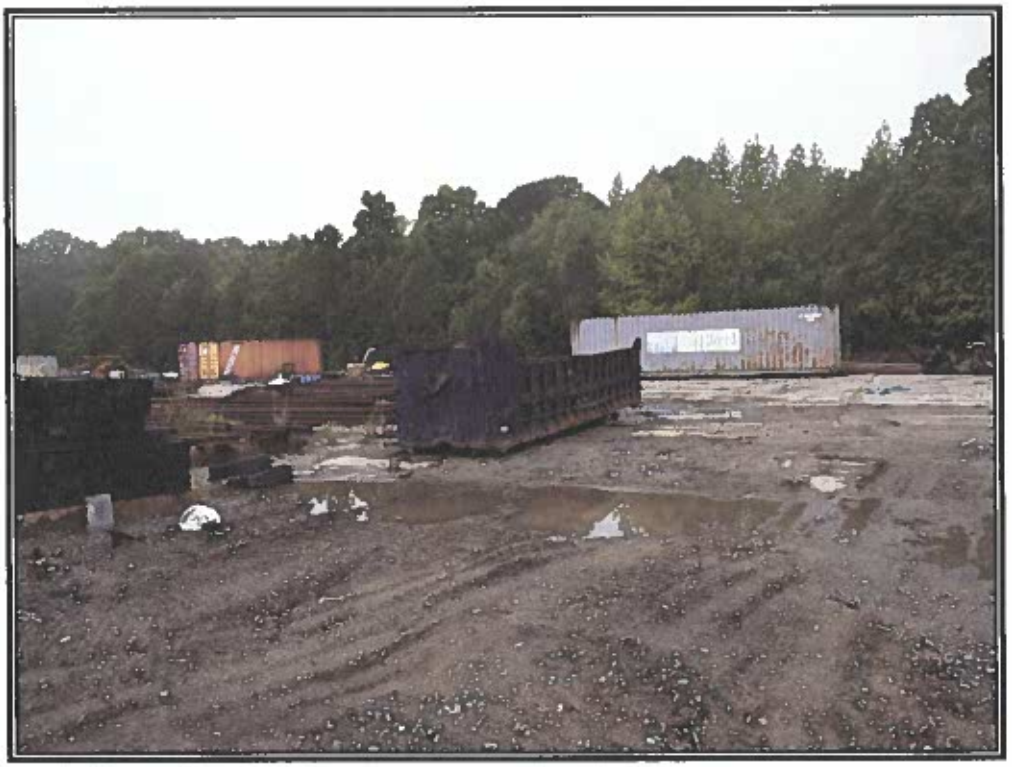


Plate 4. View of the gravel and concrete pad within the project area, looking west.

Plate 5. View of the gravel portion of the project area, looking south.

Plate 6. View of the northern end of the project area, looking northwest.

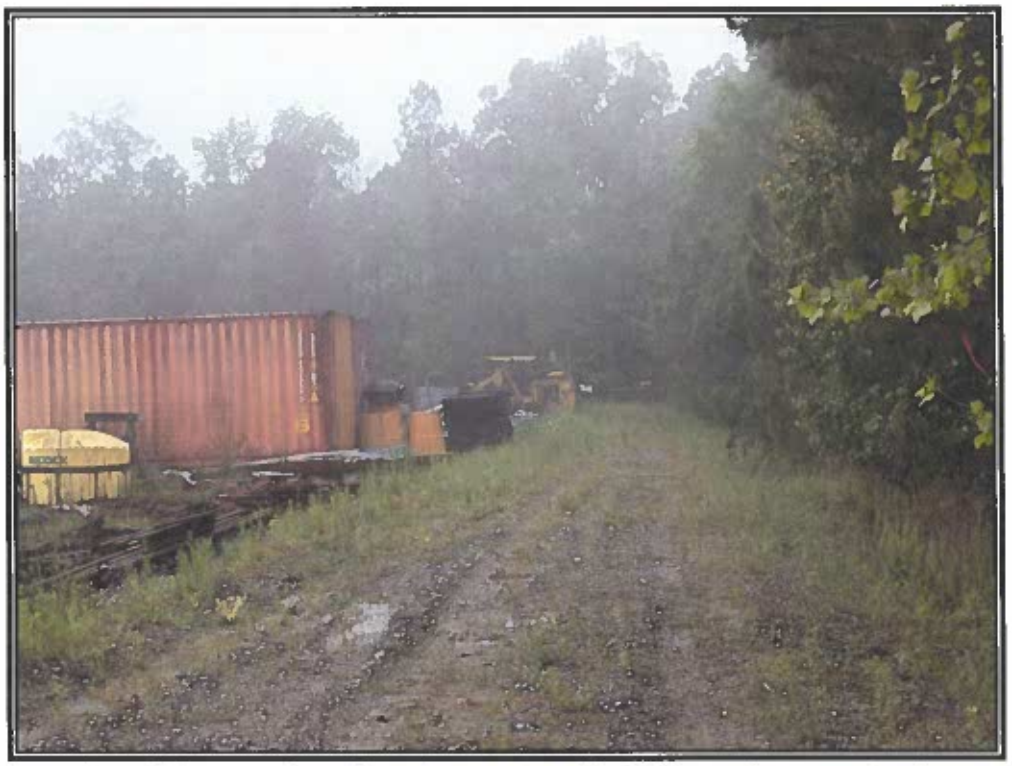


Plate 7. View of the gravel road on the western side of the project area, looking south.

Plate 8. View of the forested area in the northern portion of the project area at Shovel Test 2-7, looking north.

Plate 9. View of a tire pile within the northwestern portion of the project area at Shovel Test 4-1, looking southwest.

Plate 10. View of the target practice area within the western section of the project area at Shovel Test 3-1, looking southwest.

Plate 11. View of the low area within the project area, looking southwest.

Plate 12. View of the western portion of the project area at Shovel Test 2-1, looking south.

Circa~ laid out a grid on 50-foot intervals in the northern and western forested portion of the site. In addition, Circa~ excavated three shovel tests in the southeastern portion of the project area in a grassy area (Figure 7). Within the forest area, 19 shovel tests were excavated. Two soil strata were excavated before reaching sterile subsoil (Figure 8). Stratum A, approximately 0.35 to 0.65 feet thick, consisted of a grayish-brown (10YR 6/4) sandy loam under a thick humic layer. Approximately 0.32 to 0.60 feet thick, Stratum B consisted of yellowish-brown (2.5Y 6/6) sandy clay. Stratum C excavated approximately 0.20 feet thick and consisted of a sterile yellowish-brown (2.5Y 5/6) sandy clay subsoil or C-horizon. Shovel tests excavated closer to the developed area illustrated disturbance within the shovel test profiles. Shovel Tests 20 through 22 revealed one disturbed soil profile before reaching sterile subsoil (see Figure 8). Stratum A, approximately 0.55 to 0.75 feet thick, consisted of a grayish-brown (10YR 6/4) sand mixed with yellowish-brown (2.5Y 6/6) sandy clay with large gravel inclusions. Stratum B excavated approximately 0.20 feet thick and consisted of a sterile yellowish-brown (2.5Y 5/6) sandy clay subsoil or C-horizon. No artifacts were recovered from the shovel testing efforts. One surface dump site was noted by the survey efforts.

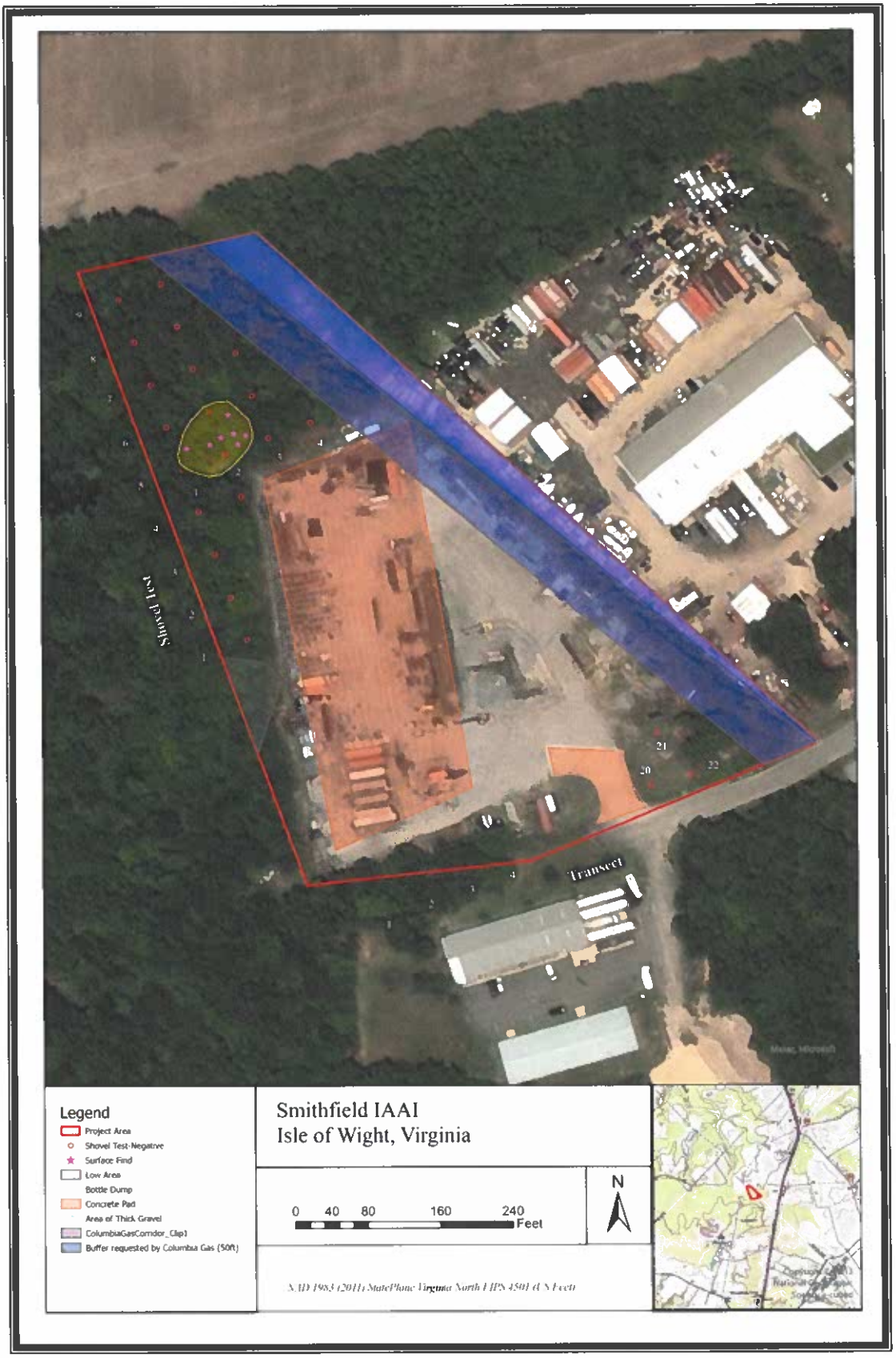


Figure 7. Shovel test map.

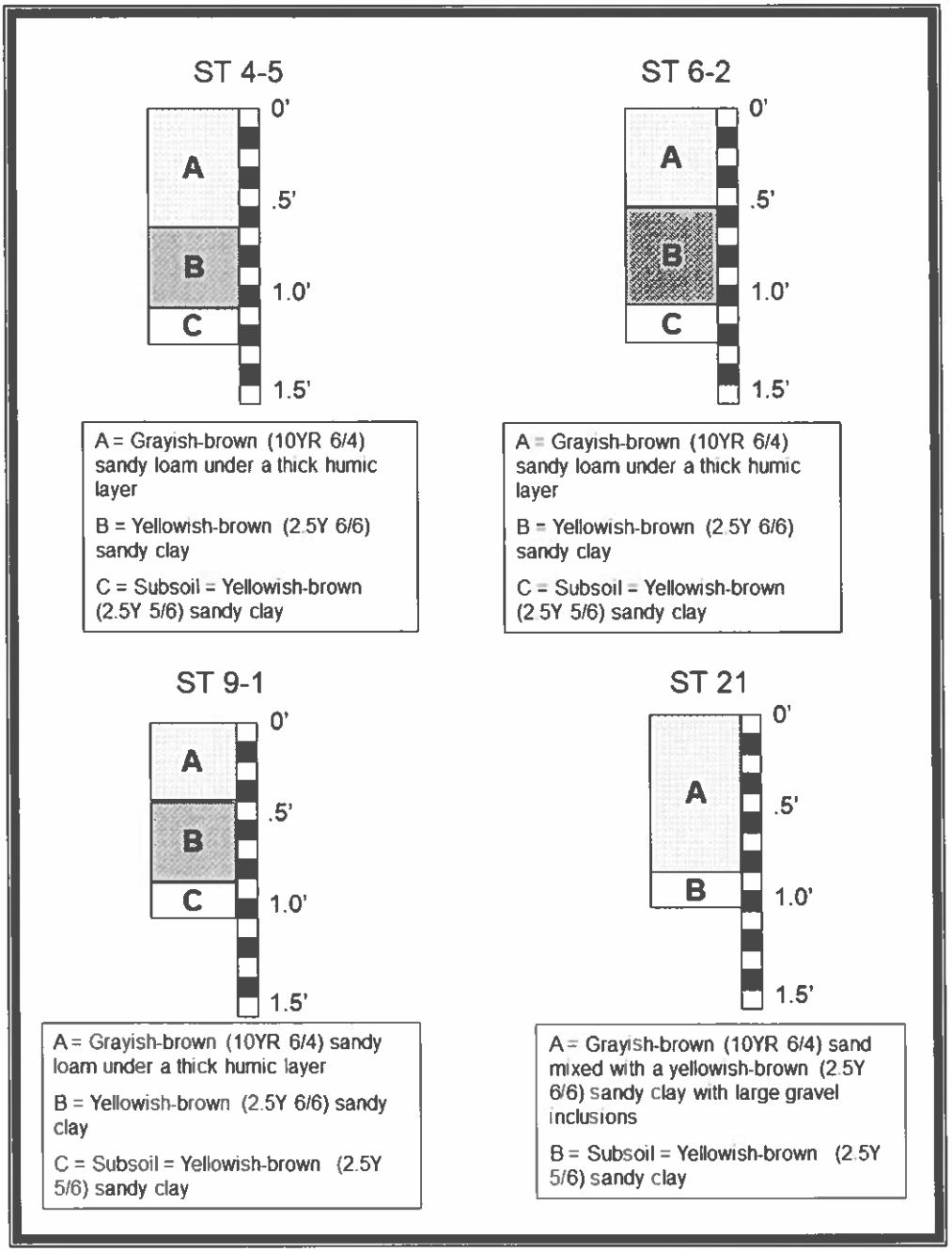


Figure 8. Representative shovel test profiles.

Site 44IW0351

This site is located on the northwestern portion of the project area, north of the concrete pad on a slightly sloping east to west upland slope (see Figure 7 and Plate 13). The elevation is 48 feet AMSL, and the landform drains to the west towards a low, wet area off-site. The site consists of an open mix of mature hardwoods and softwoods.

Plate 13. View of the bottle scatter within the project area, looking north.

The site was recorded by a moderate surface scatter of artifacts recovered from the forest floor concentrated within an area measuring approximately 120 feet north to south by 130 feet east to west. Circa~ excavated six shovel tests in this area; all were negative. Negative shovel tests and the surface scatter defined the northern, southern, western, and eastern boundaries. Two soil strata were excavated before reaching sterile subsoil (see Figure 8). Stratum A, approximately 0.45 to 0.65 feet thick, consisted of a grayish-brown (10YR 6/4) sandy loam under a thick humic layer. Approximately 0.38 to 0.60 feet thick, Stratum B consisted of yellowish-brown (2.5Y 6/6) sandy clay. Stratum C excavated approximately 0.20 feet thick and consisted of a sterile yellowish-brown (2.5Y 5/6) sandy clay subsoil or C-horizon.

This site was recorded by the light scatter of clear glass bottles, whiteware sherds, metal buckets, and concrete step fragments noted on the ground surface. The clear bottle glass fragments were identified as alcoholic or container types that date circa post-1950. The whiteware sherd exhibited a green glaze and molded ribbing typical of Fiestaware; however, the base of the plate was impressed "MADE IN USA," but not with the Fiestaware trademark (Plate 14). In addition to these artifacts, Circa~ staff noted a metal bucket and smoothed concrete step fragments within the site borders (Plates 15 and 16).

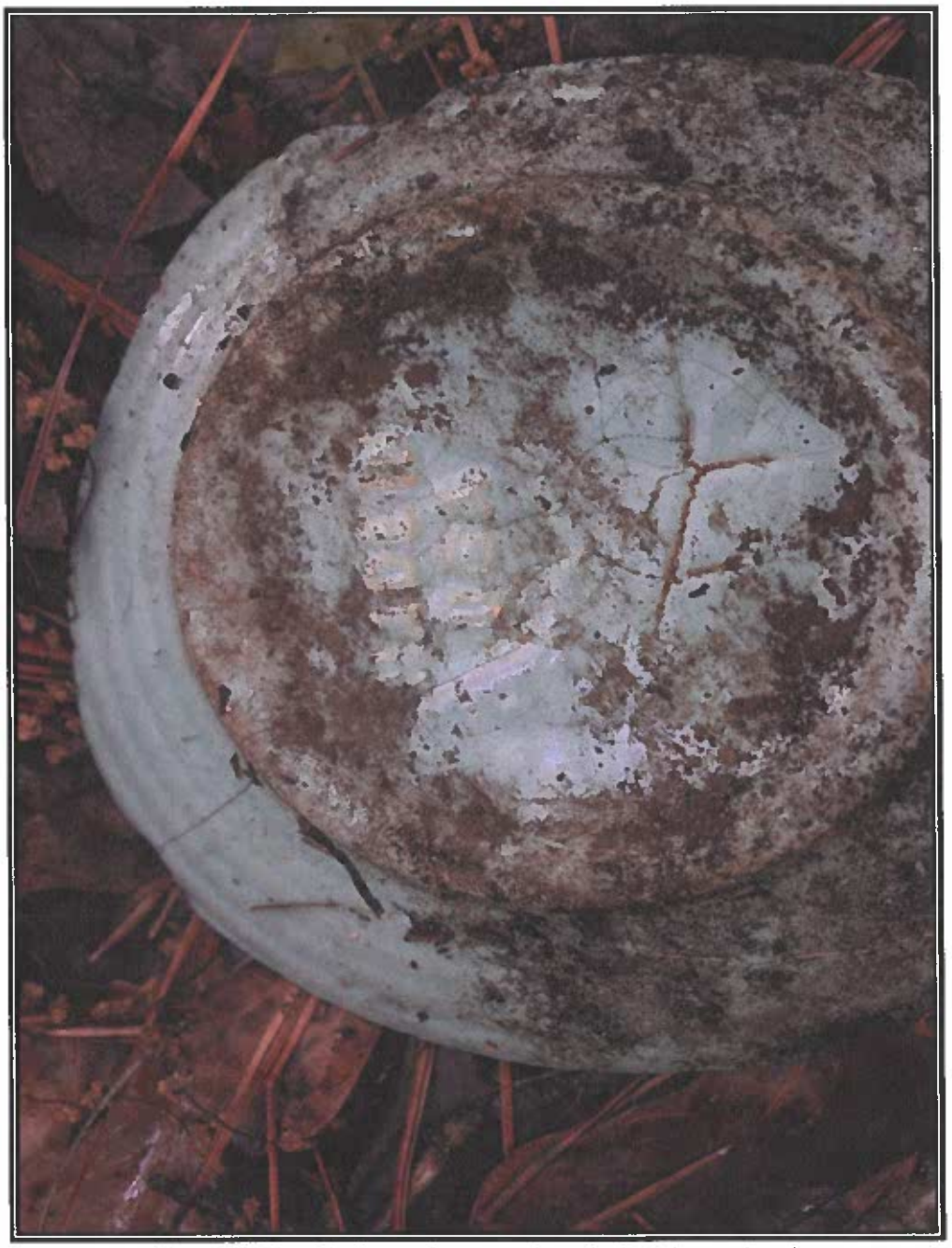


Plate 14. Detail view of green-glazed plate base sherd.

Plate 15. View of the concrete steps within the project area, looking southwest.

Plate 16. Detail view of the bucket within the project area.

This moderate artifact scatter dates from circa post-1950 and represents the remains of a dump. All the artifacts recovered were restricted to the ground surface, with no artifacts recovered from shovel tests. Given these facts, Circa ~'s professional opinion is that the site lacks the potential to contribute significant new information or answer research questions about historical sites in the region. Therefore, due to the lack of a quantity and diversity of artifacts, and lack of intact features, combined with the presence of all artifacts recovered from the ground surface, the site is recommended as not eligible for the National Register of Historic Places under Criteria A, B, C, or D. Accordingly, no further archaeological investigation appears warranted.

CONCLUSIONS AND RECOMMENDATIONS

The project area originally consisted of a hardwood and softwood forest partially cleared in 2003 to develop the tract as a laydown yard for the railroad. The project area currently consists of an expansive concrete pad with steel connections in the western portion of the tract and thick gravel in the eastern portion of the tract. The pad site is roughly two feet higher than the surrounding elevations to the north and west. A Columbia Gas pipeline runs along the eastern boundary. The utility marker for the gas company requested no excavations within 50 feet of their utilities' western edge. The historical maps illustrate that the project area has been forested since 1919. No structures are shown within the project area on the historical maps. A tire dump and a target practice shooting area were noticed along the western portion of the project area. One archaeological site was located in the northwestern section of the project area.

Architectural Resources

No architectural resources were identified within the APE during the Phase I survey.

Archaeological Sites

Site 44IW0351 is a moderate artifact scatter that dates from circa post-1950 and represents the remains of a dump. All the artifacts recovered were restricted to the ground surface, with no artifacts recovered from shovel tests. Given these facts, Circa ~'s professional opinion is that the site lacks the potential to contribute significant new information or answer research questions about historical sites in the region. Therefore, due to the lack of a quantity and diversity of artifacts, and lack of intact features, combined with the presence of all artifacts recovered from the ground surface, the site is recommended as not eligible for the National Register of Historic Places under Criteria A, B, C, or D. Accordingly, no further archaeological investigation appears warranted.

In sum, the proposed construction will not have an adverse effect on any archaeological or architectural resources potentially eligible or eligible for listing on the National Register of Historic Places. No further work is recommended.

Table 2. Summary of identified resources and recommendations

Site	Type	National Register Eligibility	Recommendation	Effect Determination
44IW0351	Dump, mid-20th century	No	No further work	No effect

APPENDIX A
VDHR V-CRIS FORMS

Snapshot

Date Generated: May 19, 2022

Site Name:	No Data
Site Classification:	Terrestrial, open air
Year(s):	1950 - 2022
Site Type(s):	Artifact scatter
Other DHR ID:	No Data
Temporary Designation:	Site 1

Site Evaluation Status

Not Evaluated

Locational Information

USGS Quad:	BENNS CHURCH
County/Independent City:	Isle Of Wight (County)
Physiographic Province:	Coastal Plain
Elevation:	48
Aspect:	No Data
Drainage:	James
Slope:	No Data
Acreage:	0.020
Landform:	Other
Ownership Status:	Private
Government Entity Name:	No Data

Site Components

Component 1

Category:	Domestic
Site Type:	Artifact scatter
Cultural Affiliation:	Indeterminate
Cultural Affiliation Details:	No Data
DHR Time Period:	Post Cold War, The New Dominion
Start Year:	1950
End Year:	2022
Comments:	May 2022: This site represents a circa 1950s dump. The site was recorded by a moderate surface scatter of artifacts recovered from the forest floor concentrated within an area measuring approximately 120 feet north to south by 130 feet east to west. Circa~ excavated six shovel tests in this area; all were negative.

Bibliographic Information

Bibliography:

No Data

Informant Data:

No Data

Events

Event Type: Survey:Phase I

Project Staff/Notes:

May 2022: In the spring of 2022, Circa~ Cultural Resource Management, LLC (Circa~) conducted an addendum survey to the 2021 Phase I cultural resources survey of Smithfield Insurance Auto Auctions, Incorporated (IAAI) Property, Isle of Wight County, Virginia. The project area, which encompasses approximately 5.07 acres, is bordered by the Isle of Wight Industrial Park Road and industrial development to the south, a Columbia Gas pipeline to the east, a forested area to the west, and an agricultural field to the north. The project consists of an access road to the overall project area to the north and a stormwater management pond in the northwestern section. The Area of Potential Effect (APE) is the approximately 5.07-acre project area for archaeological and architectural resources.

At Circa~, Carol D. Tyrer, Registered Professional Archaeologist (RPA), served as Project Manager and Principal Investigator for the project She also completed the archaeology section of the report. Dawn M. Muir, RPA, served as the Historian and Architectural Historian for the project and completed the background research and architectural survey. Skye Hughes, RPA, assisted with the graphics for the report and background research.

Project Review File Number: No Data

Sponsoring Organization: No Data

Organization/Company: Circa~ Cultural Resource Management, LLC

Investigator: Carol D. Tyrer

Survey Date: 5/13/2022

Survey Description:

May 2022: Archival research commenced with the examination of cartographic and historic works that are on file online with the Library of Congress, the Colonial Williamsburg Rockefeller Library, VDHR, the Library of Virginia, and Isle of Wight County. Efforts were made to determine whether historic road rights-of-way passed close to the project area and whether subsurface cultural deposits were likely to be present. Data accumulated during previous archival research on historic sites throughout the region also were examined.

Prior to subsurface testing, the entire project area was visually inspected via pedestrian survey and all aboveground evidence of cultural activity noted and recorded. Shovel tests, approximately 1.50-foot in diameter, were excavated at 50-foot intervals. Shovel tests were excavated at 25-foot radius around selected positive shovel tests to aid in the determination of isolated finds. Waterlogged areas, or portions of the project area with slopes in excess of 15%, were carefully examined for cultural material, but were not subjected to subsurface testing. All shovel tests were excavated according to natural levels to sterile subsoil, and all soils screened through ¼-inch wire mesh. Profiles were recorded for representative shovel tests and soil color recorded in accordance with the Munsell classification system. All shovel tests were recorded on standard field forms and all cultural material retained.

Once removed from the field, all archaeological data and specimens were transported to Circa~ 's laboratory for processing and analysis. Prior to washing, artifacts from a given provenience were first emptied into a screened basket and sorted. Items determined to be unstable will be either dry brushed or in some cases not washed and re-bagged with the appropriate provenience information. These items may include unstable organic objects, such as wood or other plant material, leather, bone, fabric, metal requiring immediate conservation, and overglaze painted delftware, and other soft-bodied ceramics such as some local wares. Stable objects will be washed with a soft brush and edges of ceramics and glass will be thoroughly cleaned to aid in the identification of body type and mending. Items will be then placed by provenience on a drying rack.

In a given provenience, artifacts were sorted first by material and checked for mends. Stylistic attributes were described with current terminology and recorded by count into a database for analysis. Non-diagnostic artifacts with like attributes will be grouped together - i.e., clear, amber, etc. bottle body glass fragments, unrecognizable nail fragments, corroded metal fragments, and aqua window glass. Diagnostic artifacts were sorted and grouped together based on type or ware and/or vessel or function.

Current Land Use	Date of Use	Comments
Forest	5/13/2022 12:00:00 AM	May 2022: This site is located on the northwestern portion of the project area, north of the concrete pad on a slightly sloping east to west upland slope. The elevation is 48 feet AMSL, and the landform drains to the west towards a low, wet area off-site. The site consists of an open mix of mature hardwoods and softwoods.

Threats to Resource: Development

Site Conditions: Surface Deposits Present But With No Subsurface Integrity

Survey Strategies: Observation, Subsurface Testing, Surface Testing

Specimens Collected: Yes

Specimens Observed, Not Collected: No

Artifacts Summary and Diagnostics:

May 2022: This site was recorded by the light scatter of clear glass bottles, whiteware sherds, metal buckets, and concrete step fragments noted on the ground surface. The clear bottle glass fragments were identified as alcoholic or container types that date circa post-1950. The whiteware sherd exhibited a green glaze and molded ribbing typical of Fiestaware; however, the base of the plate was impressed "MADE IN USA," but not with the Fiestaware trademark. In addition to these artifacts, Circa~ staff noted a metal bucket and smoothed concrete step fragments within the site borders.

Summary of Specimens Observed, Not Collected:

No Data

Current Curation Repository: Circa~

Permanent Curation Repository: Land owner

Field Notes:	Yes
Field Notes Repository:	Circa~
Photographic Media:	Digital
Survey Reports:	Yes
Survey Report Information:	
Circa~ 2022 Addendum to Phase I Cultural Resources Survey of Smithfield IAAI Property, Isle of Wight County, Virginia	
Survey Report Repository:	VDHR
DHR Library Reference Number:	No Data
Significance Statement:	May 2022: This moderate artifact scatter dates from circa post-1950 and represents the remains of a dump. All the artifacts recovered were restricted to the ground surface, with no artifacts recovered from shovel tests. Given these facts, Circa ~'s professional opinion is that the site lacks the potential to contribute significant new information or answer research questions about historical sites in the region. Therefore, due to the lack of a quantity and diversity of artifacts, and lack of intact features, combined with the presence of all artifacts recovered from the ground surface, the site is recommended as not eligible for the National Register of Historic Places under Criteria A, B, C, or D. Accordingly, no further archaeological investigation appears warranted.
Surveyor's Eligibility Recommendations:	Recommended Not Eligible
Surveyor's NR Criteria Recommendations, :	No Data
Surveyor's NR Criteria Considerations:	No Data

APPENDIX B:
STAFF RESUMES

CAROL D. TYRER, RPA
PRESIDENT/PROJECT MANAGER/PRINCIPAL INVESTIGATOR/LABORATORY DIRECTOR
CIRCA~ CULTURAL RESOURCE MANAGEMENT, LLC
Williamsburg, Virginia Office

Education:

University of Tennessee, Chattanooga, 1984, BA, Sociology and Anthropology: Anthropology
University of Tennessee, Chattanooga, 1984, BA English and American Language and Literature: Technical Writing
University of Tennessee, Chattanooga, 1987, English: Technical Writing Graduate classes
University of Denver, 2012, MLS. Global Affairs: World History and Culture
Liberty University: Ph.D., American History, (ongoing) est. 2023

October 2019 to present: Register of Professional Archaeologists (RPA) #18078

Professional Experience:

2012-present: President/Project Manager/Principal Investigator/Laboratory Director, Circa~ Cultural Resource Management, Inc., Williamsburg, Virginia.
2005-2012: President/Project Manager/Laboratory Director, Circa~ Cultural Resource Management, Inc., Williamsburg, Virginia.
2002-2005: Partner/Chief Financial Officer/Operations Manager/Project Manager/Marketing Director/Laboratory Director, James River Institute for Archaeology, Inc. (JRIA), Williamsburg, Virginia.
1995-2002: Operations Manager/Project Manager/ Marketing Director/Archaeological Laboratory Director, Cultural Resources, Inc. (CRI), Williamsburg, Virginia.
1991-1995: Project Manager/Marketing Director/ Archaeological Laboratory Director, Espey, Huston & Associates, Inc. (EH&A), Williamsburg, Virginia.
1990-1991: Consultant, Colonial Williamsburg Foundation.
1988-1991: Project Manager/Archaeological Laboratory Director, Mid-Atlantic Archaeological Research & Associates (MAAR), Williamsburg, Virginia.
1990 Field Crew, College of William and Mary Archaeological Project Center, Williamsburg, Virginia.
1985-1986: Assistant Curator, Riley County Historical Museum, Manhattan, Kansas.
1985: Assistant Field Supervisor, Environmental Systems, Inc., Kansas City, Kansas.
1985: Field Supervisor/Field Crew, Fort Riley, Kansas, University of Wichita, Kansas.
1983-1984: Field Crew, St. Simon's Island, Georgia, University of Tennessee
1982-1984: Lab Technician, University of Tennessee
1977-1982: Field and Lab Technician (summers), TVA, Chattanooga, Tennessee

Non-Profit Experience:

1996 to present: Co-president, Friends of the National Park Service Historic Green Spring Park, Williamsburg, Virginia
2010 to present: Vice-president Watermen's Museum, Yorktown, Virginia

Fields of Experience:

Ms. Tyrer has over 42 years of professional experience in the field of archaeology and the management of archaeological and museum collections. Her current responsibilities at Circa~ include managerial and technical tasks associated with archaeological assessments and Phase I, II, and III excavations, consultation with and representation of clients before state and national review agencies, writing and editing technical reports, preparing and managing project budgets, and developing and implementing archaeological research designs, site predictability models, and sensitivity areas. She has been the principal author of over 400 technical reports and historical studies (all accepted by the regulatory agencies), and worked closely with the Virginia Department of Historic Resources (VDHR) and other official agencies to fulfill the requirements of local, state, and federal regulations related to both archaeological and architectural resources.

As Laboratory Director, Ms. Tyrer has identified, catalogued, and analyzed artifacts from sites in Tennessee, North Carolina, South Carolina, Kentucky, West Virginia, Maryland, Florida, Pennsylvania, Georgia, Kansas, and Virginia. She has performed these analyses on Native American sites of all periods and on 17th, 18th, 19th, and 20th century historic sites. She is familiar with the state and federal artifact curation standards and uses these guidelines daily. She has prepared field soil samples for flotation of faunal remains and for carbon-14 dating and has experience in metal conservation. She also identifies and analyzes artifacts recovered from excavations and prepares distribution maps, vessel counts, and detailed discussions on artifact types for reports.

Ms. Tyrer's specialty is the identification and analysis of ceramics. She completed specialized computer cataloguing of the extensive ceramic study collection at The Colonial Williamsburg Foundation in Williamsburg, Virginia. Ms. Tyrer has also worked in a county historical museum identifying, labeling, curating, and appraising artifacts and museum specimens, and preparing exhibits. In addition, Ms. Tyrer has re-cataloged and analyzed the approximately 100,000-artifact collection from George Washington's Boyhood Home using the Automated National Catalog System (ANCS) developed by the National Park Service.

Ms. Tyrer has considerable experience in historic and prehistoric archaeological resources. She has personally designed and completed investigations for dozens of projects ranging from a large-scale study archaeological and historical resources to detailed investigations of numerous individual historic and prehistoric sites throughout the east coast. Ms. Tyrer's technical capabilities include detailed archival and literary research at the local, state, and national levels; site documentation and analysis; evaluation of properties for National Register and State Landmark significance; and technical report writing. As with other

senior staff, she will also be responsible for the formulation of research designs, preparation of project budgets, selection and guidance of field crews, and the preparation of technical reports.

Ms. Tyrer also has extensive experience with assessment, survey, evaluation, and mitigation of historic and prehistoric resources. She has developed sampling designs for site locations models and settlement patterns for prehistoric and historic sites for tracts of land ranging from a few acres to thousands of acres. These sampling designs are based on previous and present land use, environmental characteristics, and topographic features. Other responsibilities include the dissemination of archaeological information to the public through various media and exhibits, educational site brochures, and site visits.

DAWN M. MUIR, R.P.A.
HISTORIAN
ARCHITECTURAL HISTORIAN
PRINCIPAL INVESTIGATOR
CIRCA~ CULTURAL RESOURCE MANAGEMENT, LLC

Education:

Radford University, 1996, B.A. Interior Merchandising

Middle Tennessee State University, M.A., 2000, Public History: Historic Preservation tract

2010-present: Registered Professional Archaeologist (RPA) #203780

Professional Experience:

2007-present: Architectural Historian, Historian, Principal Investigator, Circa~ Cultural Resource Management, LLC, Williamsburg, Virginia.

2004-2007: Cultural Resources Manager, Preservation Planner, Vanasse Hangen Brustlin, Inc. (VHB), Williamsburg, Virginia.

2000-2004: Cultural Resource Specialist, Architectural Historian, General Scientific Corporation under contract to Naval Air Station Patuxent River, Patuxent River, Maryland.

1998-2000: Assistant, Main Street Murfreesboro, Murfreesboro, Tennessee.

Fields of Experience:

Ms. Muir has over 20 years of professional experience in the fields of archaeology, architectural history, and cultural resources. Her current responsibilities at Circa~ include managerial and technical tasks associated with cultural resources assessments including both archaeology and architectural resources and Phase I, II, and III surveys and excavations, consultation with state and national review agencies, developing and implementing archaeological and architectural research designs, and writing and editing technical reports. She has authored or co-authored over 200 technical reports and historical studies (all accepted by the regulatory agencies), and worked closely with the Virginia Department of Historic Resources (VDHR), the Maryland Historical Trust (MHT), the National Park Service (NPS), the U.S. Army Corps of Engineers, and other official agencies to fulfill the requirements of local, state, and federal regulations related to archaeological and architectural resources.

As a principal investigator and architectural historian, Ms. Muir has identified archaeological and architectural resources in Tennessee, Maryland, Pennsylvania, New York, North Carolina, Massachusetts, Maine, and Virginia. She has performed surveys and analyses on all periods including Paleoindian to Woodland Native American sites and 17th, 18th, 19th, and 20th century historic sites and burials. She has completed investigations for numerous projects that range from large-scale studies of archaeological and historic resources to detailed investigations of individual Native American and historic sites. Ms. Muir is familiar with the management and preparation of environmental documents that comply with the National Historic Preservation Act of 1966, as amended and the National Environmental Policy Act of 1969. She has a solid understanding of federal and state environmental and cultural resources including the *Secretary of the Interior Standards and Guidelines for Archaeology and Historic Preservation*. She is familiar with both the Maryland and Virginia standards, and she uses these guidelines when drafting reports.

Ms. Muir's technical capabilities include detailed archival and literary research at the local, state, and national levels; site documentation and analysis; evaluation of properties for National Register of Historic Places and State Landmark significance; preparation of project budgets; selection and guidance of field crew; and technical report writing. Ms. Muir also has extensive experience with assessment, survey, evaluation, and mitigation of both Native American and historic resources. In addition, Ms. Muir has a thorough understanding of the Section 106 process and has written over 100 Section 106 compliance packages. As part of the Section 106 process, Ms. Muir has drafted over 30 Memorandums of Agreement (MOA) as mitigation for various projects and has developed a draft Programmatic Agreement (PA) for Disaster Preparedness related to cultural resources.

In addition, Ms. Muir has also attended various training sessions including How to Manage the National Environmental Policy Act and Write Effective National Environmental Policy Act documents, How to Write Creative Mitigation, an Introductory and Advanced Section 106 Seminar, and How to Write Programmatic Agreements. Ms. Muir was also instrumental in arranging a Historic Preservation Workshop for Naval Air Station (NAS) Patuxent River.

Prior to joining Circa~, Ms. Muir worked as a cultural resource specialist contractor for NAS Patuxent River in Patuxent River, Maryland, where she oversaw the historic preservation requirements of the NAS. Ms. Muir also maintained the historic building database for the NAS, which contained over 50 historic structures at both the NAS and two outlying properties. In addition, Ms. Muir assisted in a station-wide survey of buildings over 50 years of age. This effort resulted in a comprehensive report of the station's history and significance, the identification of and preparation of nominations for four National Register of Historic Places eligible districts, and the eventual completion of an Integrated Cultural Resources Management Plan (ICRMP) for the NAS. Ms. Muir also assisted in archaeological

requirements for NAS Patuxent River including monitoring for underground utilities at an 18th century house site, assisting in survey of a Jesuit Mission site on an outlying base of NAS Patuxent River, and finalizing the artifact collection for the Officers Club archaeological survey.

Ms. Muir has also worked on several other notable projects. While at NAS Patuxent River, Ms. Muir conducted an architectural and landscape survey and National Register nomination of the Mattapany-Sewell Historic District, which included a 18th century house and outbuildings; drafted a Preservation Plan and National Register nomination for the Point Lookout Light Station Complex, owned and operated at the time by NAS Patuxent River; and drafted a Preservation Plan and repair scope of work for the St. Nicholas Chapel on the NAS in response to water and roof damage sustained during several hurricanes. In addition, Ms. Muir assisted in a project to relocate the St. Nicholas Chapel cemetery and restore the existing gravestones that had been buried by the U. S. Navy in the 1940s. More recently, Ms. Muir assisted in a Phase I Architectural Reconnaissance Survey of the East and West Area of NASA Langley Air Field, in Hampton, Virginia.

SKYE W. HUGHES, R.P.A.
HISTORIAN/PRINCIPAL INVESTIGATOR/GIS ANALYIST
CIRCA~ CULTURAL RESOURCE MANAGEMENT, LLC

Education:

New Mexico State University, 1996, B.A. Anthropology and French

Florida Atlantic University, M.A., 2003, Anthropology

Register of Professional Archaeologists (RPA) #12804

Professional Experience:

2017-present: Historian, GIS Analyst, Principal Investigator, Circa~ Cultural Resource Management, LLC, Williamsburg, Virginia.

2003-2008: Principal Investigator, Panamerican Consultants, Inc. (PCI), Tampa, Florida.

2002-2003: Archaeologist, Southeastern Archaeological Company, Inc. (SEARCH), Riverview, Florida.

1999-2002: Archaeologist, Technical Writer, Illustrator, Janus Research, St. Petersburg, Florida

1998-2000: Museum attendant, Morikami Museum and Japanese Gardens, Delray Beach, Florida

1997-1998: Assistant instructor Introduction to Anthropology, Florida Atlantic University, Boca Raton, Florida

1997: Laboratory Director, Florida Atlantic University, Boca Raton, Florida

1997-1998: Consulting archaeologist, Historic Preservation Services, Plantation, Florida

1996-1998: Archaeologist, Archaeological and Historical Conservancy, Inc., Miami, Florida

Fields of Experience:

Ms. Hughes has over 25 years of professional experience in the fields of archaeology, architectural history, and cultural resources. From 2003 to 2008, Ms. Hughes worked as a Principal Investigator for Panamerican Consultants, supervising for five years archaeological and architectural fieldwork and studies. Her current responsibilities at Circa~ include technical tasks associated with cultural resources assessments including both archaeology and architectural resources and Phase I, II, and III surveys and excavations, consultation with state and national review agencies, developing and implementing archaeological and architectural research designs, and writing and editing technical reports. She has authored or co-authored over 200 technical reports and historical studies (all accepted by the regulatory agencies) and worked closely with the U. S. Fish and Wildlife Service (USFWS), the U. S. Army Corps of Engineers (USACE), and other official agencies to fulfill the requirements of local, state, and federal regulations related to archaeological and architectural resources.

As an archaeologist and principal investigator, Ms. Hughes has identified archaeological and architectural resources in Florida, Louisiana, Texas, Alabama, and Virginia. She has performed surveys and analyses on all periods including Paleoindian to Woodland Native American sites and 17th, 18th, 19th, and 20th century historic sites and burials. She has completed investigations for numerous projects that range from large-scale studies of archaeological and historic resources to detailed investigations of individual Native American and historic sites. Ms. Hughes is familiar with the management and preparation of environmental documents that comply with the National Historic Preservation Act of 1966, as amended and the National Environmental Policy Act (NEPA) of 1969. She has a solid understanding of federal and state environmental and cultural resources including the *Secretary of the Interior Standards and Guidelines for Archaeology and Historic Preservation*. She is familiar with Virginia standards, and she uses these guidelines when drafting reports.

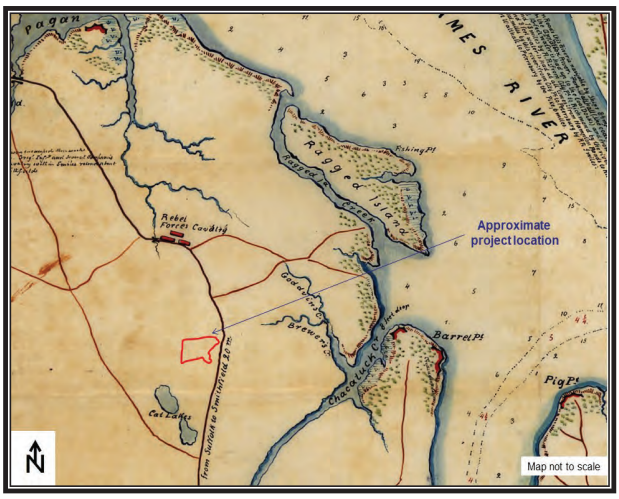
Ms. Hughes's technical capabilities include detailed archival and literary research at the local, state, and national levels; site documentation and analysis; evaluation of properties for National Register of Historic Places and State Landmark significance; preparation of project budgets; selection and guidance of field crew; and technical report writing. Ms. Hughes also has extensive experience with assessment, survey, evaluation, and mitigation of both Native American and historic resources. In addition, Ms. Hughes has a thorough understanding of the Section 106 process.

In addition, Ms. Hughes gained teaching experience while working towards her graduate degree in Anthropology working as an assistant instructor and teaching assistant while at Florida Atlantic University. She has also given guest lectures on zooarchaeology and presented professional papers at various conferences.

Prior to joining Circa~, Ms. Hughes worked as a staff archaeologist for PCI in Tampa Florida, where she served as a Principal Investigator for archaeological projects under contract to many different firms. Ms. Hughes has also worked on several notable projects. These include a 3,000+-acre survey for the Southwest Florida Water Management District and Sarasota County, a Phase I survey at Naval Station Mayport, and Phase I and II excavations at Naval Air Station (NAS) Jacksonville.

PHASE I CULTURAL RESOURCES SURVEY OF SMITHFIELD IAAI PROPERTY

ISLE OF WIGHT COUNTY, VIRGINIA



Circa~ Cultural Resource Management

JULY 2021

PHASE I CULTURAL RESOURCES SURVEY OF SMITHFIELD IAAI PROPERTY ISLE OF WIGHT COUNTY, VIRGINIA

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ABSTRACT

In June of 2021, Blakeway Corporation contracted Circa~ Cultural Resource Management, LLC (Circa~) to conduct a Phase I cultural resources survey of the Smithfield Insurance Auto Auctions, Incorporated (IAAI) property in Isle of Wight County, Virginia. This Phase I cultural resources survey aimed to identify and record all historic resources within the project area prior to the project's development. This survey resulted in the identification of 30 isolated finds, no previously-identified archaeological resources, two new archaeological resources, one previously-identified architectural resource, and no new architectural resources.

No further work is recommended for the 30 isolated finds, as they are not eligible for listing on the National Register of Historic Places.

Site 44IW0318, a light artifact scatter that dates from circa post-1900, may represent the remains of a small structure. All the artifacts recovered were restricted to the surface of Stratum A plowzone. In addition, the site appears to have been disturbed by the installation of the power line tower. Given these facts, Circa~'s opinion is that the site lacks the potential to contribute significant new information or answer research questions about historical sites in the region. Therefore, due to the lack of a quantity and diversity of artifacts, and lack of intact features, combined with the presence of all artifacts recovered from the plowzone, the site is recommended as not eligible for the National Register of Historic Places under Criteria A, B, C, or D. Accordingly, no further archaeological investigation appears warranted.

Site 44IW0319, a light artifact scatter dates from circa post-1880, may represent the remains of a small structure that burned. All the artifacts recovered were restricted to the surface of Stratum A plowzone. Given these facts, Circa~'s opinion is that the site lacks the potential to contribute significant new information or answer research questions about historical sites in the region. Due to the lack of a quantity and diversity of artifacts, and lack of intact features, combined with the presence of all artifacts recovered from the plowzone, the site is recommended as not eligible for the National Register of Historic Places under Criteria A, B, C, or D. Accordingly, no further archaeological investigation appears warranted.

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INTRODUCTION

In June of 2019, Circa~ Cultural Resource Management, LLC (Circa~) conducted a Phase I cultural resources survey of the Smithfield Insurance Auto Auctions, Incorporated (IAAI) property in Isle of Wight County, Virginia (Figure 1). The project area, which encompasses approximately 73 acres, is bordered by rural agricultural lands to the north, south, east, and west and by a commerce park to the south. The Area of Potential Effect (APE) for archaeological and architectural resources is the 72.81-acre project area.

Figure 1. Approximate location of the project area depicted in red upon USGS Benns Church quad.

Insurance Auto Auctions, Incorporated (IAAI) is filing for a Conditional Rezoning to operate a business that auctions automobiles via the internet. The process is as follows:

1. Vehicles involved in collisions, floods, or recovered from thefts and repossessions are made available for sale by insurance companies, dealerships, rental companies, and fleet leasing companies;

2. IAAI contracts with such companies to receive and re-market the vehicles, which are then delivered to the site on flatbeds or some other commercial vehicle carrier;

3. Upon arrival, the vehicles are inspected to prevent contaminant leaks;

4. The vehicles are photographed and put into temporary storage while awaiting sale;

5. All vehicles are sold via internet auction;

6. Each vehicle is sold as an intact unit (meaning not dismantled nor sold in parts), and they leave the site in the same condition in which they arrived, whether operable or not (no work or maintenance is done on the vehicles); and

7. Then, they are delivered to the buyers on flatbed trucks or some other commercial vehicle carrier.

IAAI runs world-class operations and has expanded its business, adding over 100 facilities in the last 10 years. Currently, IAAI employs nearly 4,200 people and has over 200 facilities throughout the United States, Canada, and the United Kingdom. IAAI follows strict regulatory compliance at federal, state, and local levels, including regular environmental audits. In addition, the company has developed its own Environmental Best Management Practices Manual containing the standards IAAI applies to its operations and carries a pollution liability policy, which covers all its locations throughout the U.S. and Canada.

The investigation was carried out in compliance with a County rezoning request and conducted per the Secretary of the Interior's *Standards and Guidelines for Archaeological Documentation* and the *Guidelines for Preparing Archaeological Resource Management Reports* of the Virginia Department of Historic Resources (VDHR). The report describes fieldwork results and makes recommendations for further work.

This report contains a description of the project area's physical and environmental setting, an outline of meaningful historical contexts for the APE, a general research design that summarizes field methods, previous research in the area, and expected results, and finally, the survey results are described, the findings reviewed, and recommendations explained. Field notes, artifacts, and other project records are presently being curated in Circa ~'s office in Williamsburg, Virginia. It is anticipated that all these materials will eventually be transferred either to the landowner or VDHR in Richmond, Virginia, following the project's conclusion.

At Circa~, Carol D. Tyrer, Registered Professional Archaeologist (RPA), served as Project Manager for the project. Skye Hughes, RPA, served as the Principal Investigator for the project and Dawn M. Muir. RPA, served as the Architectural Historian for the project. Ms. Hughes was assisted in the field by Carol D. Tyrer. Skye Hughes, Carol D. Tyrer, and Dawn M. Muir prepared the report. The successful completion of the Phase I survey for the proposed development was made possible by the contribution of many individuals. In particular, Elmer F. Tolle III, CFM with Blakeway Corporation, ensured that project information and maps were always available for the study.

ENVIRONMENTAL BACKGROUND

The primary reasons for incorporating environmental studies into archaeological projects are: to learn of possible environmental constraints or lack of constraints; to determine the presence or absence of critical resources that might have influenced site distribution, etc.; and to discover environmental factors -- erosion, deposition, subsidence, and historical

land-use patterns -- that might influence the integrity of archaeological sites once they have formed. A brief environmental summary of the project area is provided below.

The tract is situated in the Coastal Plain physiographic province, and the majority is within a planted agricultural field with a fringe of mature trees along the western and southwestern edge of the tract. The tract is fairly level and ranges in elevation from approximately 52 feet above mean sea level (AMSL) in the eastern section of the tract to 18 feet AMSL in the southwestern section of the tract. The landform consists of a rolling upland. The site can be accessed via Commerce Lane.

A review of aerial photos from 1994 through 2018 shows little change in the project area over the last 24 years. However, timbering and development have occurred within the project area's northwestern corner and to the south and north during this period (Figures 2 - 6).

Figure 2. 1994 aerial view of the project area from Google Earth.

Figure 3. 2003 aerial view of the project area from Google Earth.

Figure 4. 2008 aerial view of the project area from Google Earth.

Figure 5. 2014 aerial view of the project area, from Google Earth.

Figure 6. Current (2018) aerial view of the project area, from Google Earth.

Soils

Six different soil types and soil type variants exist within the project area (Natural Resources Conservation Service [NRCS] 2021). These soil and soil types include Uchee loamy sand, 0% to 2% slopes; Kinston loam; Slagle sandy loam, 0% to 2%; Peawick-Slagle complex, 2% to 6% slopes; Rumford loamy sand; and Nawney loam (Figure 7 and Table 1). These types and variants are described below, including references to drainage, hunting and gathering potential, and horticultural and agricultural productivity potential. Further, conclusions regarding the suitability of each for historical and Native American occupation and archaeological site probability are also explained.

Soil maps and associated data provide an analysis of soil types within a geographic area. Despite comprehensive and detailed coverage of most areas by soil surveyors, researchers often miss microenvironments due to their small footprints. Unfortunately, resource-rich microenvironments were often common sites of cultural activity. As such, this analysis of archaeological potential is a "best-guess" using the best available data.

Well-drained, agriculturally- and horticulturally productive soils proximal to transportation corridors were the best choices for historic period occupation. Secondary areas, such as those containing wet soils and acid soils, after improvement such as drainage and liming, may have also been suitable choices for historic occupation. No navigable waterways exist within the project area; thus, water travel is not a factor in the site probability analysis of this tract.

Areas of wet soils may have been attractive to Native American cultures. In these areas, edible herbaceous plant species may have been gathered, and faunal species browsing these areas may have been hunted with success. Well-drained soils proximal to these resource-rich areas may have made adequate hunting and gathering campsites where the hunted and gathered resources were processed. These sites would have left an observable archaeological footprint. Little archaeological evidence would be located within the wet areas, the immediate locale of resource procurement.

Areas containing gravelly soils may have been especially attractive to stone tool-manufacturing Native American cultures, but the level of attraction may have depended on the type and quality of the gravels available in these locations. Well-drained soils proximal to quarry-able, gravel-rich areas would have made adequate lithic material procurement campsites, but in this case, archaeological materials may be located at both the campsites and the quarry sites.

Table 1. Soils Identified Within the Project Area Boundaries.

Soil Symbol	Soil Name	Acres Within the Project Area	Location Within Project Area	Percentage Within the Project Area
19A	Uchee loamy sand, 0% to 2% slopes	51.20	Northern, western, central, eastern	58.60%
7	Kinston loam	17.90	Central, northern, western, southern	20.50%
18A	Slagle fine sandy loam, 0% to 2% slopes	7.20	Eastern, southern	8.20%
14B	Peawick-Slagle complex, 2% to 6% slopes	6.70	Northern	7.70%

Soil Symbol	Soil Name	Acres Within the Project Area	Location Within Project Area	Percentage Within the Project Area
16	Rumford loamy sand	4.10	Northern	4.70%
10	Nawney loam	0.20	Western	0.30%

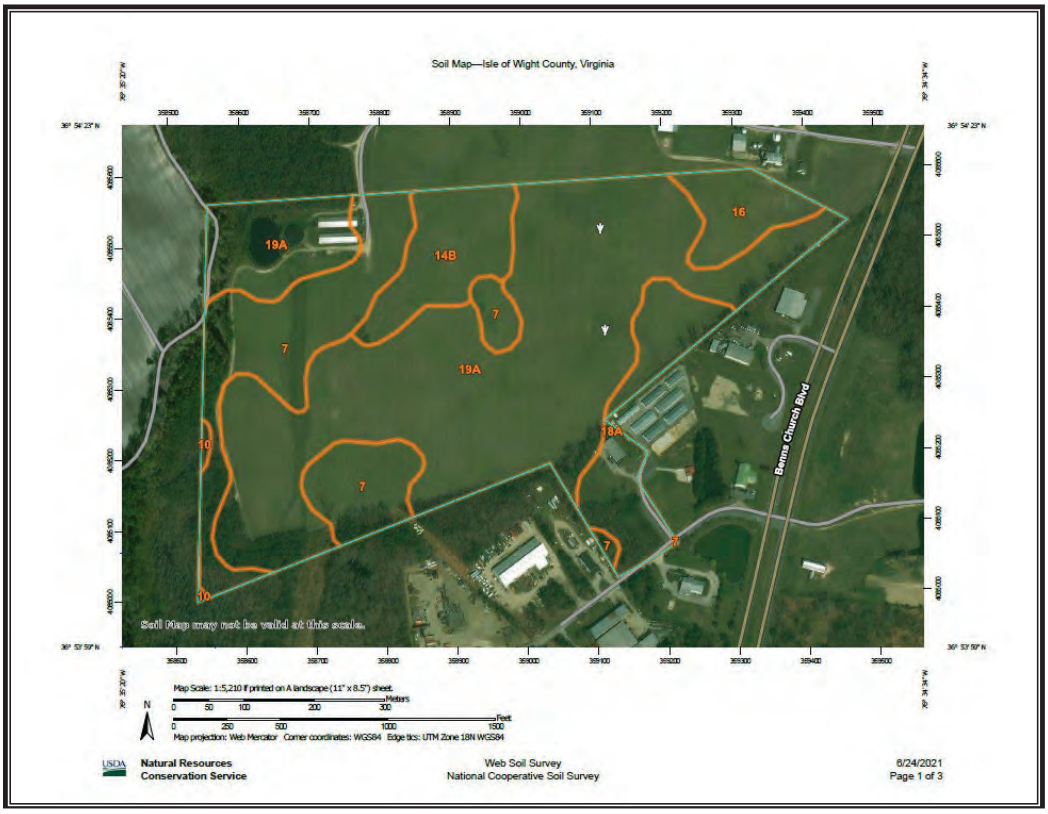


Figure 7. Project area soil map, from NRCS website.

Soils Identified Within the Project Area

Uchee Complex (19A)
Uchee soil is a very-deep, well-drained, slowly-permeable soil formed in sandy and loamy marine sediments on smooth ridge tops and dissected side slopes of the Atlantic Coastal Plain (NRCS 2021). Solum thickness ranges from 40 inches to 60 inches in this very strongly acid to strongly acid soil. Much of this soil is cleared and used for cultivated crops, including cotton, corn, and pasture. Wooded areas can support loblolly pine, longleaf pine, shortleaf pine, southern red oak, blue jack oak, and hickory.

Kinston Soil (7)
Kinston soil is a very-deep, poorly-drained, moderately-permeable soil formed in marine sediments found on floodplains of the Coastal Plain (NRCS 2021). Solum thickness ranges from 40 inches to 72 inches, and depth to bedrock is over 72 inches in this strongly acid to very strongly acid soil. Content of rock fragments is 0% to 3% throughout the solum. This soil features a negligible surface runoff. Most of this soil is forested with limited pasture and crop growth. Where cleared, this soil can support growing pasture, corn, soybeans,

and general farm crops. Where wooded, this soil can support water-tolerant hardwoods such as sweet gum, black gum, water oak, poplar, hickory, beech, elm, and ironwood. Loblolly pines are also found in some drained areas.

Slagle Soil (18A, 14B)
Slagle soil is a very-deep, moderately-well-drained, moderately-slowly- to slowly-permeable soil found within marine terraces and uplands of the Atlantic Coastal Plain (NRCS 2021). Bedrock is located over 75 inches below the ground surface in this extremely acid to strongly acid soil. This soil is mainly used for crops and forestry. Where cultivated, this soil can support corn, soybeans, peanuts, and tobacco. Where wooded, the soil can support loblolly pine, Virginia pine, sweet gum, red maple, southern red oak, water oak, yellow poplar, and hickory.

Peawick Soil (14B)
Peawick soil is a very-deep, moderately-well-drained, very-slowly-permeable soil formed in clayey fluvial sediments or fluviomarine sediments high in silt found on stream terraces of the Coastal Plain and Piedmont (NRCS 2021). Solum thickness is over 60 inches, and depth to bedrock is over 72 inches in this extremely acid to strongly acid soil. Quartz gravel makes up 0% to 15% of the solum with particle size over 30% silt or over 40% silt with very fine sand. This soil features a slow to rapid surface runoff and slow internal drainage. Most of this soil is in cropland or wooded. Where cultivated, this soil can support corn, soybeans, small grains, and pasture grasses. Where wooded, this soil can support loblolly pines, yellow poplar, sweet gum, and white oak.

Rumford Soil
Rumford soil is a very-deep, moderately-well- to somewhat-excessively-drained, moderately-rapidly-permeable soil formed in marine sediments found on the marine terrace of the Coastal Plain (NRCS 2021). Depth to bedrock is over 72 inches in this extremely acid to strongly acid soil. Quartz gravel makes up 0% to 15% of the solum and 0% to 50% of the C-horizon. Most of this soil is in cropland or wooded. Where cultivated, this soil can support corn, soybeans, small grains, and hay. Where wooded, this soil can support loblolly pines, Virginia pines, and various hardwoods.

Nawney Soil (10)
Nawney soil is very-deep, poorly-drained, moderately-permeable soil formed in the loamy marine and fluvial sediments located in floodplains of the Coastal Plain (NRCS 2021). The loamy horizons extend from a depth of 40 inches to over 60 inches below the surface. The soil acidity ranges from extremely acid through strongly acid to about 40 inches and extremely acid through slightly acid below 40 inches. This soil features a slow surface runoff. These soils are mainly forested. Where wooded, these soils can support water-tolerant trees such as cypress, water tupelo, sweet gum, red maple, water oak, and black gum.

RESEARCH STRATEGY AND METHODOLOGY

Research Strategy

The survey was designed to identify all cultural resources present in the project area and obtain sufficient information to make recommendations about the further research potential of each resource based on potential eligibility to the National Register of Historic Places. Both documentary research and archaeological field survey were performed at a level in compliance with the *Secretary of the Interior's Standards* (Department of the Interior 1983, 48 FR 44720-44723) and VDHR guidelines for Phase I archaeological surveys. Moreover, the field survey was conducted in compliance with statutes regarding the impact of undertakings on historic properties as summarized by the Advisory Council on Historic Preservation (36 CFR 800 [1986 and amended]). To meet Advisory Council on Historic Preservation standards, a Phase I archaeological survey must be conducted in "a reasonable and good faith effort to identify historic properties that may be affected by the undertaking" (36 CFR 800.4). The Phase I survey was performed and documented at a level that meets or exceeds these standards.

A cultural resource is gauged to be significant if at least one of four National Register of Historic Places criteria can be applied to it:

A. Associated with significant events in the broad patterns of national history;
B. Associated with the lives of persons significant in our past;
C. Representative of a type, period, or method of construction, or the work of master; and
D. Capable of yielding important information about the past.

Typically, Criterion D applies to archaeological sites. To be capable of yielding important information about the past, generally, a site must possess artifacts, soil strata, structural remains, or other cultural features that make it possible to test historical hypotheses, corroborate and amplify currently available information, or reconstruct the sequence of the local archaeological record.

Methods

Archival Research

Archival research commenced examining cartographic and historical works on file online with the Library of Congress, the Colonial Williamsburg Rockefeller Library, VDHR, the Library of Virginia, and Isle of Wight County. Efforts were made to determine whether historic road rights-of-way passed close to the project area and whether subsurface cultural deposits were likely to be present. Data accumulated during previous archival research on historical sites throughout the region also were examined.

Architectural Field Methods

A field survey of all historic structures was conducted according to VDHR's survey procedures. A VDHR site form was completed for each structure or complex 45 years of age or older, and at least one photograph taken, usually more. In addition, all structures

within the sites were photographed and described, even if they fell outside of the project area boundaries.

Archaeological Field Methods

Prior to subsurface testing, the entire project area was visually inspected via pedestrian survey, and all above-ground evidence of cultural activity was noted and recorded. The project area was located within an agricultural field, and the survey was completed right after the plowing and disking phase and planting a new soybean crop. As a result, surface visibility was 70% or better, and a pedestrian survey of the cultivated areas was completed at 35-foot intervals. In addition, limited shovel testing was completed in areas where artifacts were recorded on the ground surface to sample the soil stratigraphy or the presence of subsurface cultural layers.

Shovel tests were excavated on a 50- or 25-foot grid in areas where surface artifacts were located to determine the depth of the plowzone, any intact soil stratum under the plowzone, artifact densities within the soil profiles, and site boundaries. All shovel tests were excavated according to natural levels to the sterile subsoil, and all soils screened through a ¼-inch wire mesh. Profiles were recorded for representative shovel tests, and soil color was recorded per the Munsell classification system. All shovel tests were recorded on standard field forms, and all cultural material was retained unless the material was modern.

Laboratory Methods

Once removed from the field, all archaeological data and specimens were transported to Circa~ 's laboratory for processing and analysis. Before washing, artifacts from a given provenience were first emptied into a screened basket and sorted. Items determined to be unstable were either dry brushed or, in some cases, not washed and re-bagged with the appropriate provenience information. These items may include unstable organic objects, such as wood or other plant material, leather, bone, fabric, metal requiring immediate conservation, and overglaze-painted delftware, and other soft-bodied ceramics such as some local wares. Stable objects were washed with a soft brush, and the edges of ceramics and glass will be thoroughly cleaned to identify body type and mending. Items were then placed by provenience on a drying rack.

Diagnostic artifacts were sorted and grouped based on type or ware or vessel, or function. In a given provenience, artifacts were sorted first by material and checked for mends. Stylistic attributes were described with current terminology and recorded by count into a database for analysis. Non-diagnostic artifacts with like attributes will be grouped - i.e., clear, amber, etc., bottle body glass fragments, unrecognizable nail fragments, corroded metal fragments, and aqua window glass.

CULTURAL BACKGROUND

The following section provides the Native American and historical background information necessary to assess the archaeological potential of the proposed project area. Previous investigations in the general vicinity of the project area are outlined, while specific documents and resources employed in this survey are discussed.

Historic Context

Native American Context

Virginia's Native American cultural chronology, like that of the rest of the Middle Atlantic region, is divided into three major periods, Paleoindian, Archaic, and Woodland, with the differences mainly defined on changes in subsistence practices, settlement patterns, and types of material remains found. The three main periods reflect major changes, while "Early," "Middle," and "Late" subperiods reflect less dramatic, though still significant, changes.

Paleoindian Period (Prior to 10,000 B.C.)

Paleoindian occupation in Virginia, the first human occupation of the region, began sometime before 10,000 B.C. The earliest diagnostic artifacts where there is any consensus are Clovis projectile points, typically fashioned of high-quality cryptocrystalline materials such as chert, chalcedony, and jasper. Later Paleoindian points include smaller Clovis-like and Cumberland variants and small "Mid-Paleo" points. Dalton, Hardaway-Dalton, and Hardaway side-notched points make up the later end of the Paleoindian period in the southeastern part of Virginia. Also, diagnostic, though to a lesser extent, are certain types of well-made endscrapers, sidescrapers, and other formalized tools. Most current views now hold that eastern Paleoindians were generalized foragers with an emphasis on hunting. The social organization consisted of relatively small bands that exploited a broad but defined territory.

Isolated projectile point finds and what appear to be small temporary camps represent the majority of Paleoindian remains in Virginia. Although some larger and very notable base camps are present in Virginia, they are relatively rare and usually associated with sources of preferred high-quality lithic materials. Two of the most important Paleoindian sites in Virginia and the eastern United States are the Thunderbird Site in the Shenandoah Valley (Gardner 1974, 1977) and the Williamson Site in south-central Virginia (McCary 1951, 1975). Both are large base camps associated with nearby sources of high-grade cryptocrystalline lithic materials. Researchers have formulated a site typology at the Thunderbird site area and its surrounding environs, including lithic quarries, quarry-related base camps, quarry reduction stations, base camp maintenance stations, remote hunting sites, and isolated point sites (Gardner 1981, 1989).

One of the earliest dating sites in North America, Cactus Hill, lies in the Coastal Plain along the Nottoway River in nearby Sussex County, Virginia (McAvoy and McAvoy 1997). Although still controversial, Cactus Hill appears to have the potential to become one of the most well-accepted pre-Clovis sites in the western hemisphere.

There are concentrations of Paleoindian materials in Virginia, and, conversely, there are areas where sites and isolated finds of this early period are mostly absent. The largest concentrations are in Dinwiddie and Mecklenburg counties, with a second one around the Dismal Swamp. In the Virginia Coastal Plain, counties lying south of the James River account for the largest number of Paleoindian finds (McCary 1983, Turner 1989). Isle of Wight County is one of those counties with a relatively high concentration of such finds.

This situation likely represents the northern edge of the greater cluster that extends to the Dismal Swamp.

Despite this location, Paleoindian finds are rare, and Paleoindian sites are far less common than all other periods of Native American history. However, a fluted point crafted from petrified wood was recovered to the east of the project tract. Thus, given this find, the chance of finding remains from this early period within the project area is considered higher than average. In addition, any well-drained location along the James River, and, mainly, where tributaries converge, is a high-potential location for Native American camps and settlements in general. Therefore, considering that several Paleoindian finds have been discovered near the project tract and in Isle of Wight County and the nearby City of Suffolk, the presence of these types of sites or isolated finds being present in the project area cannot be ruled out.

Archaic Period (8,000 B.C. - 1200 B.C.)
The beginning of the Archaic period generally coincides with the end of the Pleistocene epoch, marked in this region by a climatic shift from a moist, cool period to a warmer, dryer climate. Vegetation also changed at this time from a largely boreal forest setting to a mixed conifer-deciduous forest. In eastern Virginia, a temperate climate was established, and the formation of the Chesapeake estuary began (Dent 1995). Researchers believe that increasing differences in the seasonal availability of resources brought on by post-Pleistocene changes coincide with increasing emphasis on strategies of seasonally geared mobility.

A band-level social organization involving seasonal movements corresponding to the seasonal availability of resources and, in some instances, shorter-interval movements is thought to characterize Archaic populations primarily. Settlement during the Archaic period probably involved the occupation of relatively large regions by single band-sized groups, living in base camps during part of the year and dispersing as necessary on an as-needed or seasonal basis, creating smaller microband camps, possibly consisting of no more than single families.

The development of more specialized resource procurement activities and the technology to accomplish these activities also characterize the Archaic period. These differences in the material culture are believed to reflect larger, more localized populations and changes in food procurement and processing methods.

Corner and side notching became a common characteristic of projectile points at the beginning of the Archaic period (Early Archaic subperiod), indicating changes in hafting technology and possibly the invention of the spear-thrower (atlatl). Notched forms include Palmer and Kirk corner-notched and, in localized areas, various side-notched forms. A series of bifurcate base forms marked the later end of the Early Archaic subperiod and the beginning of the Middle Archaic subperiod.

The Middle Archaic subperiod, circa 6,500 B.C. - 3,000 B.C., sees the rise of various stemmed projectile point forms. In eastern Virginia, the most common Middle Archaic

forms would be Stanly, Morrow Mountain, and Guilford types, followed by the side-notched Halifax type at the end of the subperiod transition into the Late Archaic subperiod between circa 3,500 B.C. and 3,000 B.C. Stemmed and notched forms, including various large, broad-bladed stemmed knives and projectile points (e.g., Savannah River and variants), dominated the Late Archaic subperiod. These forms generally diminish in size by the succeeding Early Woodland subperiod. Also found, though more rarely along the margins of the Dismal Swamp, are stemmed and notched-stem forms like those generally associated more prominently with areas of Pennsylvania and adjoining parts of the northeast (Perkiomen).

The Archaic period also marks the beginning of ground-stone technology, with the occurrence of ground-stone atlatl weights and celts. New tool categories developed during the Archaic period include chipped- and ground-stone celts, ground-stone net sinkers, pestles, pecked stones, mullers, and axes. Vessels carved from steatite have been found on sites dating to the end of the Late Archaic subperiod.

Marked increases in population density and decreased mobility characterize the Late Archaic subperiod in eastern North America (4,000 B.C. - 1,200 B.C.). Because population growth necessitated a larger and more predictable food supply, agriculture probably has its origins in the Middle Atlantic region during this subperiod. Yarnell (1976), for example, writes that sunflower, sump weed, and possibly goosefoot may have been cultivated as early as 2,000 B.C. In the lower Little Tennessee River Valley, remains of squash were recorded in the Late Archaic Savannah River contexts (circa 2,400 B.C.), with both squash and gourd in slightly later period contexts (Chapman and Shea 1988).

Of most relevance to the project area environs is a settlement model presented by Gardner (1982) for the nearby Portsmouth locality. In this model, the Late Archaic settlement pattern shows continuity with the earlier Middle Archaic subperiod. The settlement system involves a fusion-fission cycle of alternating group dispersal and aggregation in a series of seasonal shifts (Gardner 1982). Locally, these shifts would occur between the fringe of the Great Dismal Swamp to the south and the estuarine zone and its associated streams. Briefly stated, foray camps would be located directly on the estuaries and up the freshwater tributaries, with seasonally occupied small group base camps in the tributary headwaters. By contrast, the Dismal Swamp is the suggested location of seasonally occupied large group aggregations with associated satellite camps around them.

The most common types of Archaic sites that would most likely be found in and around the project area would be those dating to the Middle and Late Archaic subperiods. Middle and Late Archaic campsites are common in the James River-drained Coastal Plain. The project area was viewed as having moderate potential for Middle to Late Archaic components representing small group, transient campsites. In most cases, such sites would not likely have the National Register of Historic Places significance unless preserved features or unplowed subsurface deposits were present.

Woodland Period (1,200 B.C. - circa A.D. 1600)
Ceramic technology, a gradually developing dependence on horticulture, and increased sedentism characterized the Woodland period. Researchers have designated three subperiods (Early, Middle, and Late Woodland) based primarily on stylistic and technological changes in ceramic and projectile point types and settlement patterns.

Not all researchers agree on the temporal brackets for the Early and Middle Woodland subperiods in Virginia. Some use the southeastern chronology where the Early Woodland subperiod begins circa 1,000 B.C. and lasts to circa A.D. 200/300. This chronology may apply to southwestern Virginia, though not to the Piedmont, Coastal Plain, or Potomac-drained Ridge and Valley. Gardner (1982) initially formulated the most widely used temporal scheme in the Middle Atlantic, Early Woodland, circa 1,200 B.C. - 500 B.C.; Middle Woodland, circa 500 B.C. - A.D. 900, and the one that is probably most applicable to the project area environs. Others elaborated on the scheme based on both artifact styles and, perhaps more significance, perceived settlement shifts.

The appearance of ceramics in the archaeological record generally defined the Early Woodland subperiod, bracketed herein at circa 1,200 B.C. - 500 B.C. The earliest Woodland ceramic wares, Marcey Creek plain, and variants are rectangular or oval and resemble the preceding Late Archaic soapstone vessels. In the Tidewater James River area, these ceramics are rare and appear to be, in part, contemporaneous with similar flat-bottom vessels tempered with grog, sand, and, in some cases, shell. Variously tempered beaker-shaped vessels, as well as those having more conventional sub-conical shapes, follow these forms.

The complexity of and emphasis on ceremonial aspects, especially those concerned with the burial of the dead, are also characteristic of the Early Woodland subperiod across a broad region of the east. In Virginia, this emphasis is not seen until the end of the Early Woodland subperiod about 500 B.C., when stone and earth burial cairns and cairn clusters occur in the western part of Virginia; however, despite the mention of such mounds in both oral tradition and older publications, most researchers generally accept that this phenomenon did not extend into the Coastal Plain.

Gardner's model indicates that, in the general project area vicinity, large and intensively occupied sites interpreted as sedentary (as opposed to seasonal) large group base camps are in the estuarine zone/shoreline with smaller, short-term support camps located in the estuarine zone and throughout the freshwater tributary network. During this time, shell middens appear, indicating shellfish were an important part of the subsistence focus (Gardner 1982). The succeeding Middle Woodland subperiod sees the most intensive use of these resources, and middens of this subperiod are generally both larger and more abundant.

The appearance of net-marked and corded pottery that is either sand-tempered, sand- and crushed-rock-tempered, or gravel-tempered marked the Middle Woodland subperiod in this area, defined herein between circa 500 B.C. and A.D. 900. These types generally span the subperiod circa 500 B.C. to A.D. 300 and are slightly overlapped in time by, and

replaced with, the shell-tempered Mockley ware from slightly before circa A.D. 200 to about A.D. 900 throughout outer Tidewater Virginia.

By the Late Woodland subperiod (circa A.D. 900 - 1600), agriculture had assumed major importance in the Native American subsistence system. The adoption of agriculture represents a major change in the Native American subsistence economy and settlement patterns. Expanses of arable land became a dominant settlement factor, and sites were located on fertile floodplain soils or, in many cases, on higher terraces or ridges adjacent to them. During this subperiod, shell middens were still used, but the larger habitation sites were not necessarily correlated. The location of Early to Middle Woodland shell middens are often re-used but mainly as short-term foray sites (Gardner 1982).

By the time of initial European exploration, most of the Native American groups in the Coastal Plain from the James drainage to the Northern Neck shared a common culture and were subsumed within an emerging paramount chiefdom under the domain of one paramount chief, Powhatan. Some groups were direct components of the chiefdom, while others, usually those most distant, were at least allied in some manner with the paramount group (Rountree 1989).

Diagnostic artifacts of the Late Woodland subperiod include several triangular projectile point styles originating during the latter part of the Middle Woodland subperiod. These styles decreased in size through time and eventually culminated in the very small and often serrated triangles typically found on the most recent Late Woodland and early contact period villages. Late Woodland subperiod ceramics in the Isle of Wight County area include shell-tempered Townsend and Roanoke simple stamped types, along with plain-surfaced, shell-tempered variants. The most common pottery type in the vicinity appears to have been Roanoke simple stamped and plain variants by European contact.

Settlements dating to this time consist of both villages and small hamlets. Some villages were highly nucleated, while others were internally dispersed over a wide area. Some were entirely fortified by circular or oval palisades, while others contained a fortified core area and outlying houses, indicating a rise in intergroup conflict. The more dispersed villages and hamlets were scattered over a wide area, indicating internally fluid settlement within a loosely defined town or village territory.

Drawings and journals of early European explorers describing Indian villages indicate that houses were constructed of an oval, rectangular, or circular framework of flexible green sapling poles set in the ground, lashed together, and covered with thatch or bark mats. Burial sites of the period were situated in individual pits or ossuaries. Such historical accounts are consistent with data obtained from archaeological excavations of Late Woodland to early historic village sites (Hodges and Hodges 1994).

With the development of a more sedentary settlement-subsistence system culminating in the Late Woodland subperiod, permanent habitation sites gradually replaced base camp habitation sites more characteristic of those of the previous foragers and hunter-gatherers. Various supporting camps and activity areas were established in the day-to-day

procurement of food and other resources (i.e., short-term hunting and foraging camps, quarries, butchering locations, and re-tooling locations). Locations used partially or mainly for ceremonial purposes were also present, usually in association with habitation sites.

The large base camps, hamlets, and villages are typically located on bluffs, terraces, or high floodplains adjacent to rivers or significant tributaries. Small seasonal camps and non-seasonally based satellite camps supporting nearby sedentary villages and hamlets are located along smaller streams in the interior. Limited concentrations and sparse scatters of lithics and ceramics typically characterize these campsites. As indicated earlier, shellfish-gathering sites and shell middens suggest ephemeral re-use of the earlier middens.

Historic Context

Settlement to Society (1607-1750)
In 1619, 100 English colonists settled near the mouth of a creek on the south side of the James River. This settlement was the beginning of Isle of Wight County. However, Captain John Smith visited the present-day Isle of Wight County as early as 1608. While hoping to find food for the starving settlers at Jamestown, Smith contacted the Worrosquoyacke Indians who occupied a village in the present-day Isle of Wight County. Smith revisited the tribe in 1611, and he noted the presence of the Indians on his 1610 map of Virginia (Figure 8).

The first English settlers in what is now Isle of Wight County included Captain Christopher Lawne, Sir Richard Worsley, Nathaniel Basse, and John Hobson, who helped establish a settlement on the south shore of the James River at Lawne's Creek, near the current boundary between Isle of Wight and Surry counties. Lawne's plantation was known as Warrosquoyacke, after the local Indian group. Edward Bennett followed Lawne's settlement when he was granted a patent along the Pagan River in 1621. Nathaniel Basse also followed settling at "Basse's Choice." The following year, in 1622, the Powhatan uprising destroyed these Southside settlements resulting in the loss of 53 colonists. Sir George Yeardley led a punitive expedition later in the year against the Warrosquoyackes and Nansemonds, which opened the south shore of the James River to increasing European settlement.

The lands near the mouth of Chuckatuck Creek and the Nansemond River were first patented in the 1630s and 1640s. Between 1639 and 1645, Tristram Norsworthy (Nosworthy) patented nearly 1,000 acres of land around and including Ragged Island (Nugent 1992). A native of Devon, England, Norsworthy was a prominent local figure in Isle of Wight's early years, serving as burgess for Nansemond County in 1641. His eldest son, Colonel George Norsworthy, served as the local captain of militia and sheriff. Among the first English arrivals to this area, the Norsworthys remained a prominent Isle of Wight family into the 20th century (Boddie 1973).

Figure 8. Detail of *Virginia discovered and discribed* by Captayn John Smith, 1610.

When Virginia's first counties were created in 1634, the current project area was encompassed by Warrosquoyacke County. Warrosquoyacke was divided in 1647 between Isle of Wight to the west and Upper and Lower Norfolk counties to the east. By this time, the project area was considered part of Upper Norfolk County. Residents of Ragged Island and Terrascoe Neck, which included those lands between Chuckatuck Creek and the James River, won their petition to be included in Isle of Wight County in 1656 and 1674, the House of Burgesses formally established the boundary (King 1993).

A 1673 map of Virginia drafted by Augustine Herrmann clearly shows the extent of English expansion. The map shows settlements clustered along many of the County's interior creeks and streams, including the lands along Chuckatuck Creek and around Ragged Island (Figure 9).

Colony to Nation (1750-1789)

During the 18th century, small towns began to develop in Isle of Wight County. The town of Smithfield was incorporated in 1752, just one year after Joshua Fry and Peter Jefferson created their map of Virginia (Figure 10). Fry and Jefferson noted development occurring but no development within the project area.

Figure 9. Detail of *Virginia and Maryland as it is planted and inhabited this present year 1670* surveyed and exactly drawne by the only labour & endeavour of Augustin Herrman bohemiensis.

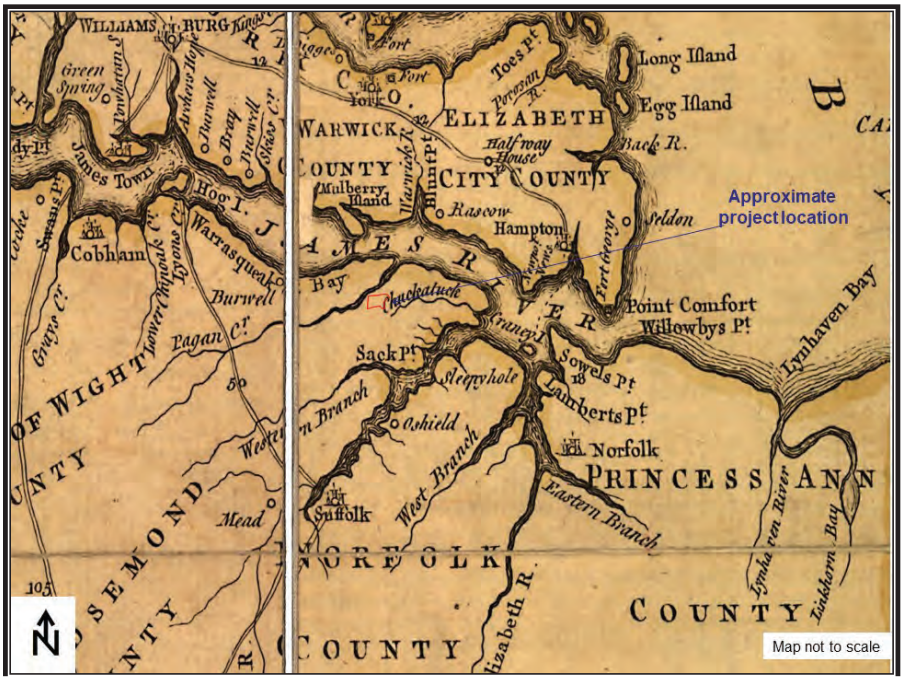


Figure 10. Detail of *A map of the most inhabited part of Virginia containing the whole province of Maryland with part of Pensilvania, New Jersey and North Carolina*. Drawn by Joshua Fry & Peter Jefferson in 1751.

Isle of Wight's economy in the second half of the 18th century centered around tobacco cultivation, even though the Southside's sandy soils were never particularly conducive to growing the crop. By the latter years of the 18th century, however, Isle of Wight's farmers began diversifying their crops and exploring alternative products. Touring the Smithfield area in 1783, German visitor Johann David Schoeff commented that:

> *...the coast is nearer here, one has passed the tobacco country proper, the plant not thriving on the poorer sandy soil of the region, but tobacco is brought hither from more distant parts; on the other hand, the extensive pine forests supply a different sort of produce, namely tar, pitch and turpentine, which with salted hog meat are the most important articles for export of this place* (King 1993).

As with most other parts of Virginia, Isle of Wight's citizens were divided in their loyalties as the revolution grew imminent in the 1770s. A considerable number of English and Scots immigrants resided in Isle of Wight. When they left the County, their property reverted to the Government, who typically sold the land to their more "patriotic" neighbors. Several local men joined the Princess Anne District Battalion in 1775 and fought at Kempsville and Portsmouth. Later in the war, Isle of Wight men served in the 7th, 8th, and 9th companies of the 4th Virginia Regiment of Foot. No major battles were fought in Isle of Wight during the Revolutionary War, though British Lt. Col. Banastre Tarleton led a raid against the Isle of Wight courthouse in Smithfield in 1781. Tarleton succeeded in damaging the building, though the court records had recently been removed and hidden (King 1993).

Early National Period (1789-1830) and Antebellum Period (1830-1860)

During the end of the 18th century and the beginning of the 19th century, Isle of Wight transitioned from a predominantly tobacco economy to one characterized by diversified farming and the exploitation of the County's timber resources. The most important local products now included wheat, corn, oats, Irish potatoes, sweet potatoes, peas, beans, hogs, and forest products. By the 1830s, the Isle of Wight farmers were also growing enough cotton to support two local factories (King 1993). Development in Isle of Wight County is evident on an 1825 map of Virginia created by Herman Boye (Figure 11). His map shows the beginning of a road network, although no development is shown within the project area.

From 1830 to 1860, the population of Isle of Wight County remained virtually constant at around 5,000 inhabitants. Slavery was not as important to the County's social and economic makeup as in other Tidewater counties in the antebellum period, and Isle of Wight County was home to a significant number of free slaves before Emancipation. By 1860, 1,370 free blacks were residing in the County; together, they held 2,965 acres of land, a modest average of 44.25 acres per adult male (King 1993). A map of the area created in 1855 shows that the County was developing around a complex road network and railroad lines, although no development is evident in the project area (Figure 12).

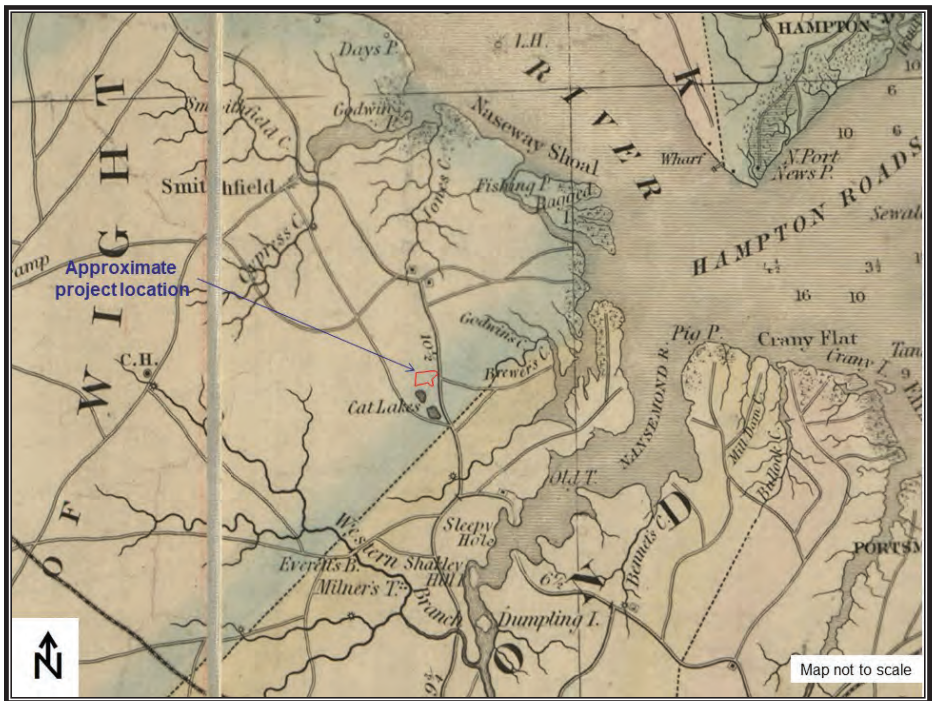


Figure 11. Detail of *A map of the state of Virginia, constructed in conformity to law from the late surveys authorized by the legislature and other original and authentic documents* by Herman Böÿe, 1825.

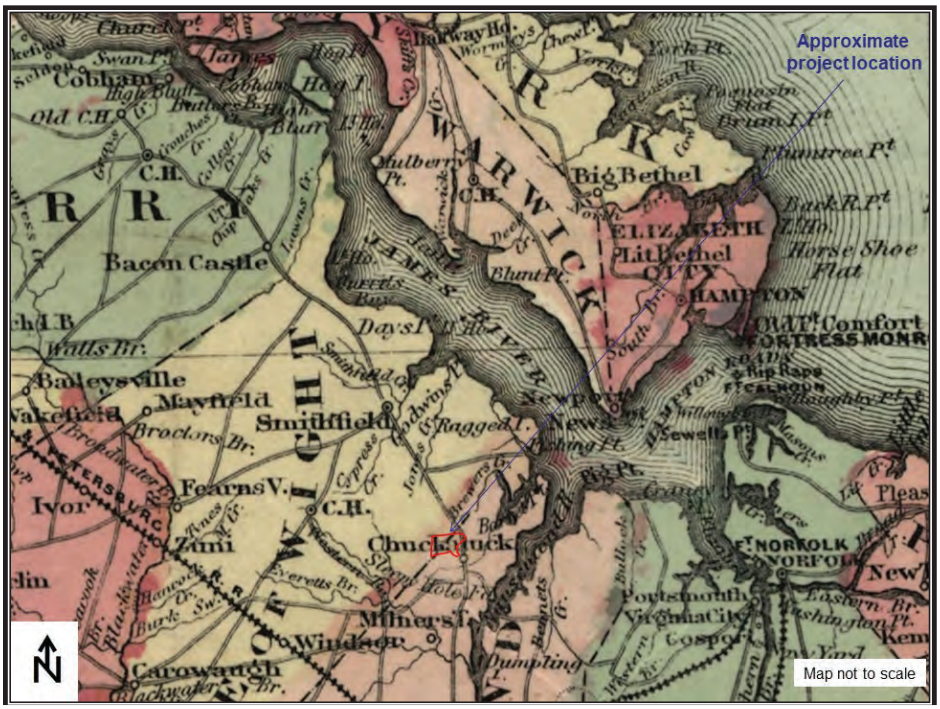


Figure 12. Detail of *J.H. Colton's topographical map of seat of war in Virginia, Maryland*, J.H. Colton's Geographical Establishment, New York. 1855.

Isle of Wight County's economy had never been heavily oriented toward slave labor, and many of its citizens questioned the wisdom of fighting a sectional conflict to protect what they perceived to be the interests of large slave owners. However, when war was finally declared, many Isle of Wight men willingly took up arms to defend the Confederacy, some joining the Surry Light Artillery Company, and others the Isle of Wight Grays, which became Company D of the 16th Virginia Infantry Regiment (King 1993).

Civil War (1861-1865)

When Federal Major General Benjamin Butler seized Newport News in May 1861, Confederate General Robert E. Lee quickly realized the threat posed to Suffolk, an essential junction of the Southside railroad lines connecting the port of Norfolk with Petersburg and Richmond. Immediately Lee ordered local commander Brigadier General Benjamin Huger to strengthen the region's defenses and erect or expand several fortifications along the Nansemond River and the south side of the James River in Isle of Wight County. On May 14, 1862, several Federal gunboats came up the James and fired on Fort Boykin, an important Southside fortification located on Burwell's Bay, several miles west of Smithfield. Overwhelmed by the longer range of the Union guns, the Confederate defenders of Fort Boykin abandoned the defenses, destroying their guns and the fort's buildings in the process. After this engagement, Huger withdrew his forces from the Southside forts, and the battery near Ragged Island was likely abandoned by late May 1862 (King 1993). Maps of the area drawn during this time show development around the project area with no development directly within the project area (Figure 13 – 17).

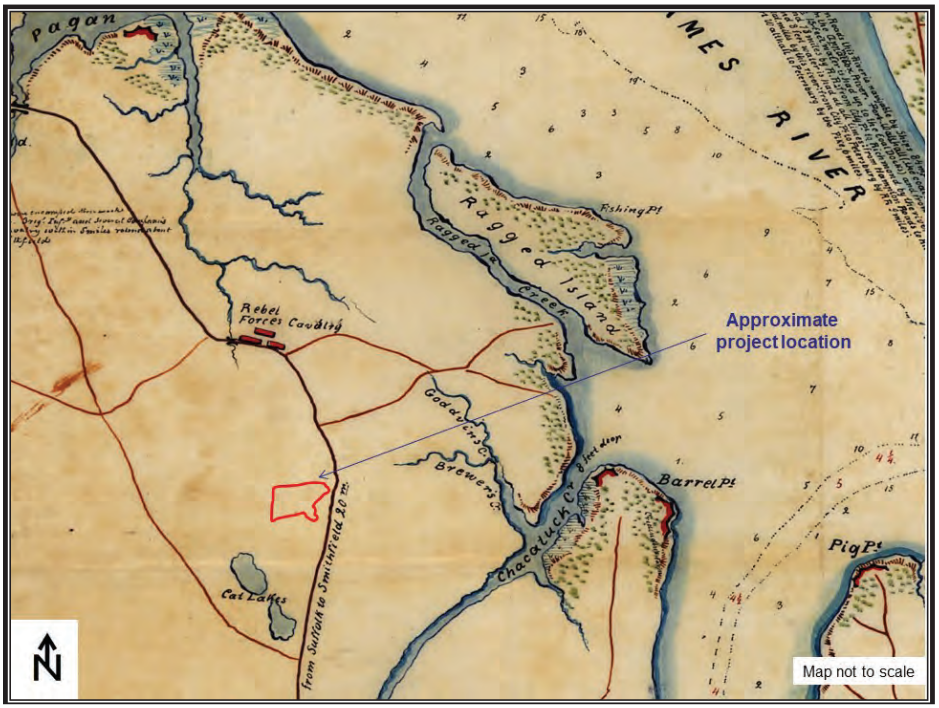


Figure 13. Detail of *Copy of a map military reconnaissance Dep't Va.: [Hampton Roads and Norfolk regions, Va.]* drawn and compiled under the direction of Col. T.J. Cram, Chief Top'l Enge'r Dep. Va.; by Sergt. Ch. Worret. 1862.

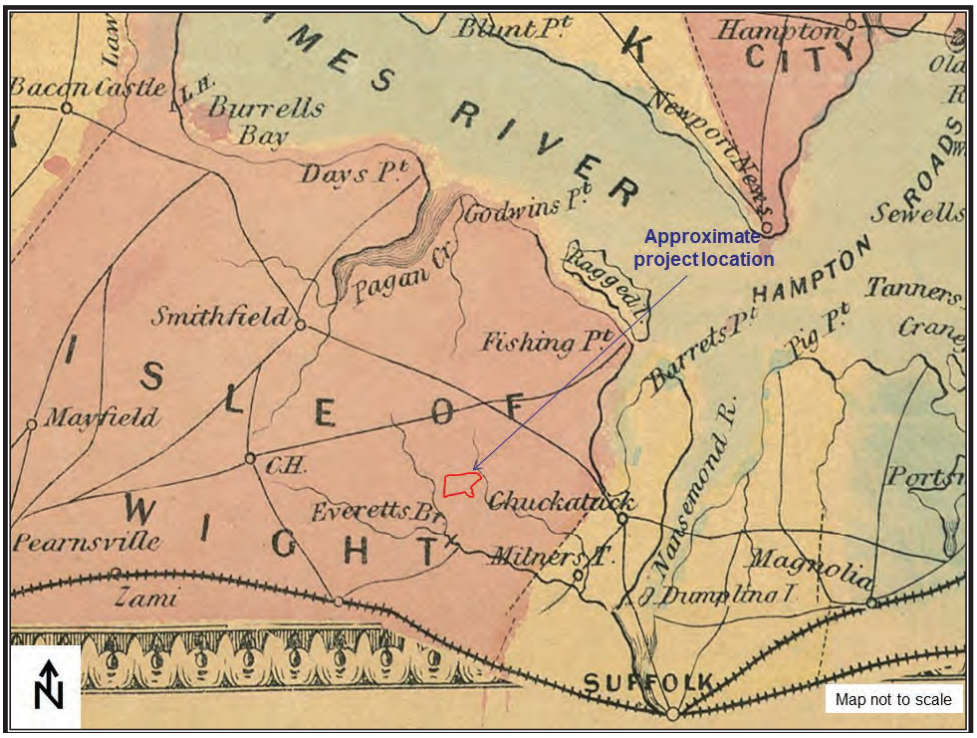


Figure 14. Detail of *The battle fields and military positions in the Virginian peninsula: from surveys supplied by officers of the army*. 1862.

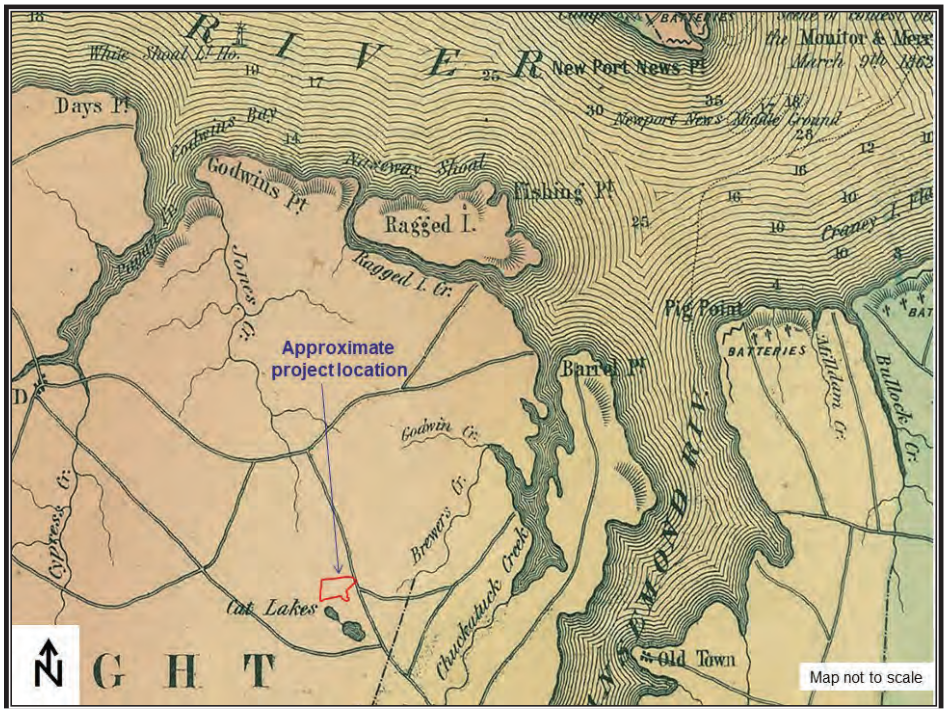


Figure 15. Detail of *Johnson's map of the vicinity of Richmond and Peninsular Campaign in Virginia: showing also the interesting localities along the James, Chickahominy, and York Rivers* compiled from the official maps of the War Dept. by Johnson and Ward. 1862.

Figure 16. Detail of *S.E. portion of Virginia and N.E. portion of N'th Carolina* drawn b. Serg't Ch. Worret; & compiled under the direction of Col. T.J. Cram, Chief Top'l Eng'r Dep't Va 1860s.

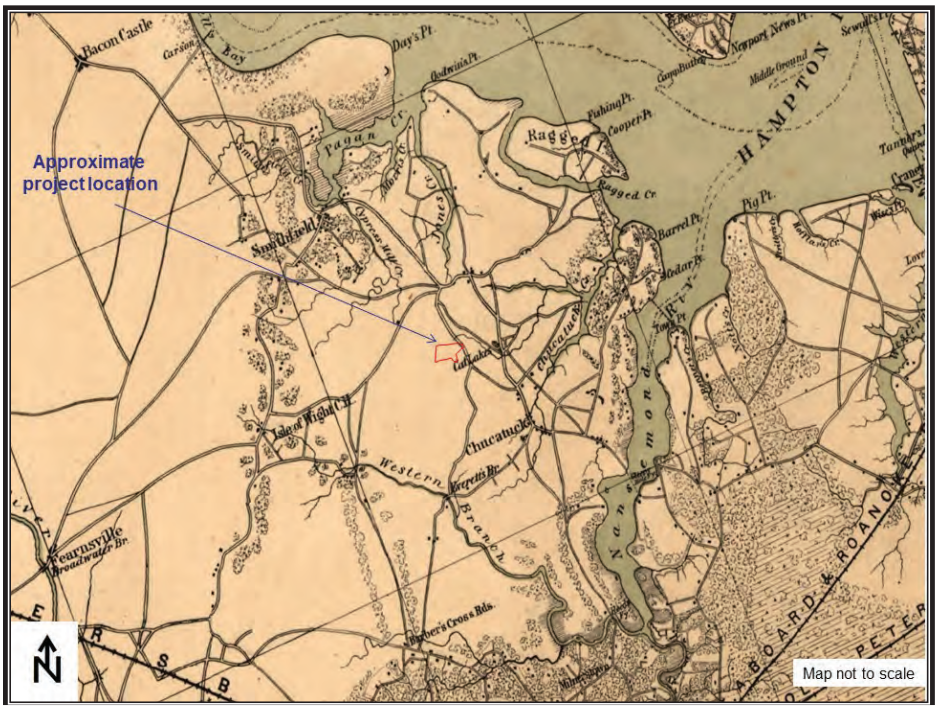


Figure 17. Detail of *Military map of south-eastern Virginia* compiled at the U.S. Coast Survey Office; drawn by A. Lindenkohl. 1865.

Isle of Wight County saw few direct military engagements during the war, the most significant being the Battle of Smithfield of January 31 - February 1, 1864. Confederate defenders repulsed a minor Union assault against the Town of Smithfield. However, living in a sort of no-man's-land, Isle of Wight's citizens were harried by Federal cavalry raids, which frequently resulted in the appropriation of supplies and the destruction of property. An 1864 resolution of the County's justices succinctly outlined the hardships faced by Isle of Wight citizens during the war years:

> *Whereas on account of the exposed condition of the county, being beyond the lines of the Confederate Army and subject to frequent and destructive raids of the enemy and the difficult and embarrassed communication with other sections of the state, our people, in a great measure, are dependent upon their own resources for an adequate supply of the necessities of life. And whereas, on account of the loss of almost our entire slave population, and the loss of a number of our free labor, and the conscription of white men between the ages of eighteen and forty-five to recruit the ranks of our armies, there is a great scarcity of productive labor, and whereas any further extension of conscription within the limits of this county will but result in the paralyzing of production and great suffering and hardships upon those who will be left at home . . . all other business is suspended in the county and, our people with scarcely an exception, are engaged in the cultivation of the soil* (King 1993).

Reconstruction and Growth (1865-1917)

Four years of civil war had a devastating effect on the land and people of Virginia, and Isle of Wight County was no exception, though it certainly suffered less than other parts of the Commonwealth. The wake of the conflict left the County more impoverished due to the lack of draft animals, the poor condition of long-neglected fields hampered agricultural life, and it was difficult for most former slave owners to come to terms, both emotionally and financially, with emancipation. The County's population also dropped considerably in the immediate postwar years. In 1860, Isle of Wight's residents numbered nearly 10,000; by 1870, the population had dropped by almost 20%, to 8,320. After the war, both black and white residents left Isle of Wight in large numbers, seeking work in nearby cities. Physically, economically, socially, and politically, the county's landscape had been irrevocably altered in a short period (King 1993).

Agricultural changes in Isle of Wight County, including the remarkable growth of peanut and soybean production, spurred population growth toward the end of the 19th century. By 1890, the County's population had well exceeded its pre-war levels. In the early 20th century, Isle of Wight farmers profited from an expanding truck-farming market, supplying the growing cities of Newport News and Norfolk with a variety of fresh fruits and vegetables. During this period, the meat-packing industry also grew considerably, introducing the famed "Smithfield ham" to a national market.

World War I to World War II (1917-1945)

The beginning of the 20th century saw frequent and rapid change in Isle of Wight County. For example, electric power became available to most rural residents after 1939, when the Community Electric Cooperative first began raising power lines. However, perhaps the most significant local development witnessed during this period was the construction of the James River Bridge, officially opened by President Calvin Coolidge on November 17, 1928. Virtually overnight, the bridge ended Isle of Wight's relative isolation from Hampton Roads' growing urban centers. County businessman and booster Albert Sidney Johnson was instrumental in getting the main north-south U. S. highway, Route 17, routed through Isle of Wight via the James River Bridge and across the new Crittenden and Nansemond River bridges to Portsmouth and Norfolk. Initially, the bridge tolls were high enough to discourage daily commuting to the Peninsula, but ready access to the region's cities still proved a significant stimulus to the local economy, despite the onset of the Depression (King 1993). Maps of the area drawn during this period show this growth, with development noted within the project area for the first time (Figure 18). The northern structure shown on the historic map appears to be in the vicinity of the hog pens. Several roads are noted within the project area. One road is located along the southern edge of the project area, and another road is noted branching off and running northwest across the southwestern portion of the project area. Circa~ noticed that this road is still intact and used by the landowner west of the project area. Within the project area, the traces of the roads have been erased by cultivation activities in the past. The third road runs north to south across the western edge of the project area and crosses where the tank and pigpens are now located. Site 44IW0318 is located in the vicinity of the southern structure shown on the map.

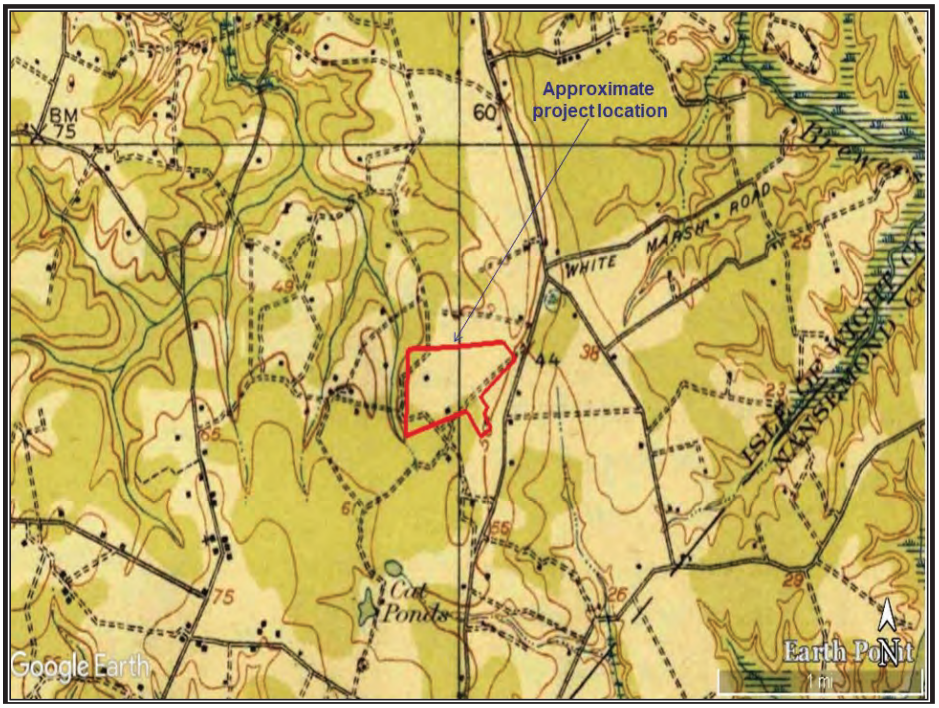


Figure 18. Detail of 1919 Smithfield quad.

The New Dominion (1945 to present)

Isle of Wight grew at an unprecedented rate after World War II, and today the County has over 28,500 residents, more than double the population at the turn of the 20th century. In 1975, Virginia took over the James River Bridge and removed the tolls; as a result, Isle of Wight County quickly developed into a bedroom community of Newport News, with residential developments springing up along the Route 17 corridor. Despite this increasing residential growth, most Isle of Wight County remains predominantly rural (King 1993). Maps of the area drawn during this period show this continued rural nature, with the project area now shown as an agricultural field with development noted previously no longer appearing (Figures 19 and 20). However, a transmission line was running through the center of the project area by 1965.

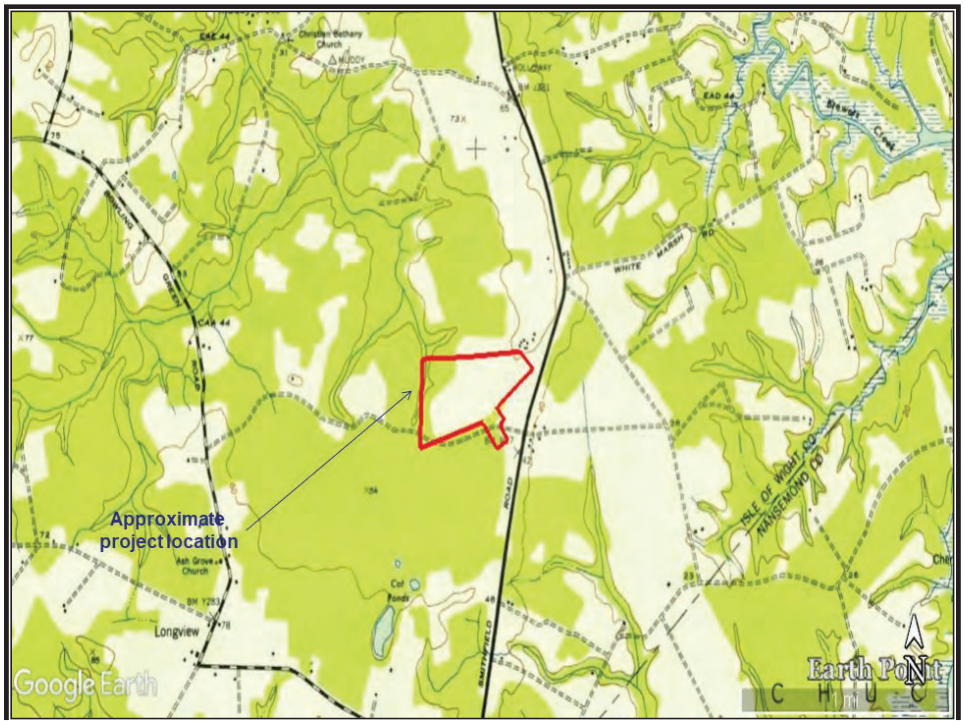


Figure 19. Detail of 1952 Benns Church quad.

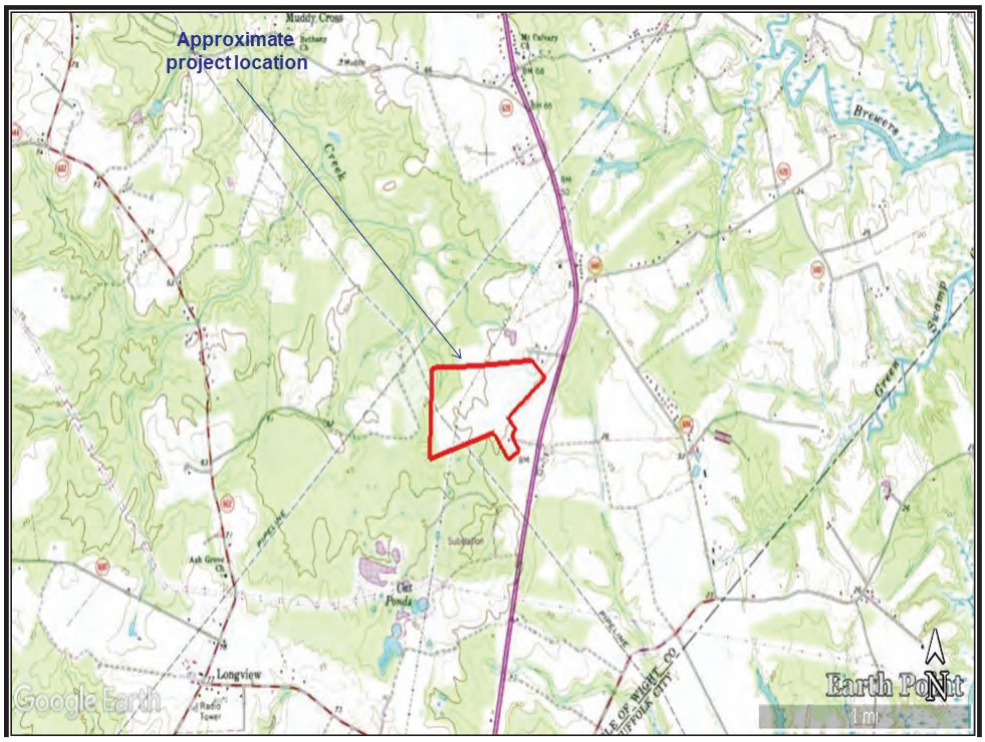


Figure 20. Detail of 1965 Benns Church quad.

PREVIOUSLY-RECORDED CULTURAL RESOURCES

Circa~ performed an archival search for the Smithfield IAAI project area using the VDHR online V-CRIS system on June 24, 2021. This research was completed to determine if historic resources exist within the project area boundaries. The search identified 15 archaeological resources and 13 architectural resources within a one-mile radius of the project area boundaries. Table 2 lists all the resources within one mile of the project area boundaries. Figures 21 and 22 show the approximate project area boundaries (yellow-shaded area) and resources within proximity. Of these resources, no archaeological or architectural resources were previously identified within the project area.

According to the VDHR V-CRIS search, at least three Phase I surveys have been completed within one mile of the project area (Figure 23). First, the Virginia State Library conducted an *Archaeological Reconnaissance of Routes 258/32 and 10/32, Isle of Wight County,* in 1976. Second, the Mid-Atlantic Archaeological Research (MAAR) Associates, Inc. completed a *Phase I Cultural Resources Survey for the Proposed Smithfield Interceptor in Isle of Wight County, Virginia and the City of Suffolk* in 1993. Both surveys were conducted to the east of the project area along the road corridor for Route 258. Finally, in 1981, the Archaeological Society of Virginia conducted *An Archaeological Reconnaissance Survey of the 500KV Septa to Yadkin Line in the County of Isle of Wight and the Cities of Suffolk and Chesapeake, Virginia,* the south and west of the project area. In addition, VDHR holds no easement within one mile of the project area.

Table 2. Resources Within a One-Mile Radius of Project Area Boundaries.

VDHR Survey Number	Date of resource	Description of resource	Survey Information	Recommendation
Archaeological Sites				
44IW0008	No date	Artifact scatter	Phase I survey 2/75 and 4/17/19	Recommended not eligible 4/17/19
44IW0022	18th century 19th century	Single dwelling	Phase I survey 1/58 and 10/58	None made
44IW0259	Woodland 19th century 20th century	Temporary camp	Phase I survey 8/09	Recommended not eligible 8/09
44IW0260	Native American 19th century 20th century	Lithic scatter, single dwelling	Phase I survey 8/09	Recommended not eligible 8/09
44IW0261	19th century	Trash scatter	Phase I survey 8/09	Recommended not eligible 8/09
44IW0262	No date	Trash scatter	Phase I survey 8/09	Recommended not eligible 8/09
44IW0263	No date	Trash scatter	Phase I survey 8/09	Recommended not eligible 8/09
44IW0264	Native American 19th century	Lithic scatter and cemetery	Phase I survey 8/09	Recommended not eligible, but did recommend a cemetery delineation 8/09
44IW0265	No date	Trash scatter	Phase I survey 8/09	Recommended not eligible 8/09
44IW0266	No date	Trash scatter	Phase I survey 8/09	Recommended not eligible 8/09
44IW0267	19th century	Trash scatter	Phase I survey 8/09	Recommended not eligible 8/09
44IW0268	19th century	Trash scatter	Phase I survey 8/09	Recommended not eligible 8/09
44IW0269	No date	Trash scatter	Phase I survey 8/09	Recommended not eligible 8/09
44IW0274	20th century	Trash scatter	Phase I survey 8/09	Recommended not eligible 8/09
44IW0275	No date	Temporary camp, artifact scatter	Phase I survey 9/6/13 Phase II survey 9/19/13	VDHR determined not eligible 4/17/14
Architectural Resources				
046-0016	ca. 1770	Green Riddick House, 15362 Mount Holly Creek Lane, the site was moved from its original location and included one house and one silo	Historic American Building Survey (HABS) 10/58	None made
046-0074	ca. 1775	Chapman Place, located on Route 604, the site includes one house	Phase II survey 10/73	None made

VDHR Survey Number	Date of resource	Description of resource	Survey Information	Recommendation
046-5252	ca. 1877	Whitehead's Grove Baptist Church, 18366 Benns Church Boulevard, site includes one church and one cemetery	Phase I survey 3/05	None made
046-5427	ca. 1961	House, 16168 Benns Church Boulevard	Phase I survey 9/13	VDHR determined not eligible 5/14
046-5428	ca. 1884	House, 16184 Benns Church Boulevard, the site includes one house, one garage, two sheds, and two barns	Phase I survey 9/13	VDHR determined not eligible 5/14
046-5429	ca. 1963	House, 16210 Benns Church Boulevard, the site includes one house and one garage	Phase I survey 9/13	VDHR determined not eligible 5/14
046-5430	ca. 1900	House, 16202 Benns Church Boulevard, the site includes one house, one vehicle shed, one shed, two silos, and one barn	Phase I survey 9/13	VDHR determined not eligible 5/14
046-5431	ca. 1857	House, 17076 Benns Church Boulevard, site includes two houses, one foundation, two vehicle sheds, four silos, two barns, one smokehouse, and one shed	Phase I survey 9/13	VDHR determined not eligible 5/14
046-5432	ca. 1955	House, 20449 Lankford Lane, the site includes one house and two sheds	Phase I survey 9/13	VDHR determined not eligible 5/14
046-5433	ca. 1937	House, 20505 Lankford Lane, site includes one church, one pump house, and one house	Phase I survey 9/13	VDHR determined not eligible 5/14
046-5434	ca. 1950	House, located on Benns Church Boulevard	Phase I survey 9/13	VDHR determined not eligible 5/14
046-5435	ca. 1958	Commercial building, 16441 Benns Church Boulevard, the site includes one commercial building and one garage	Phase I survey 9/13	VDHR determined not eligible 5/14
046-5436	ca. 1920	House, 16419 Benns Church Boulevard, the site includes one house, one garage, and one workshop	Phase I survey 9/13	VDHR determined not eligible 5/14

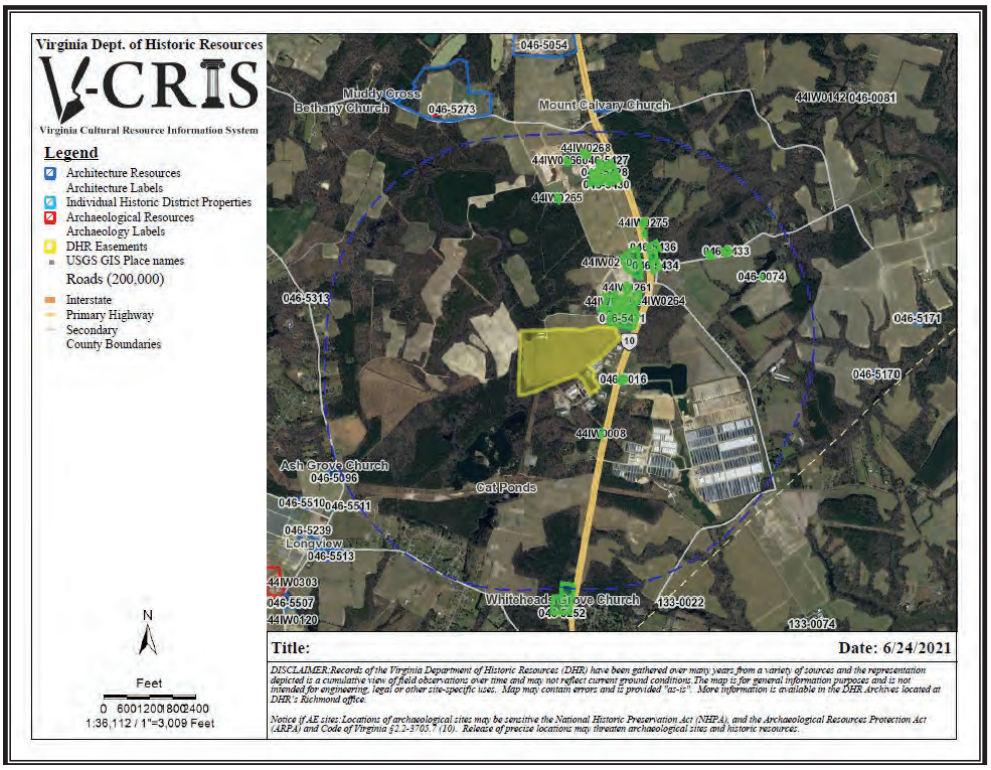


Figure 21. V-CRIS map showing previously-identified resources within a one-mile radius of project area boundaries.

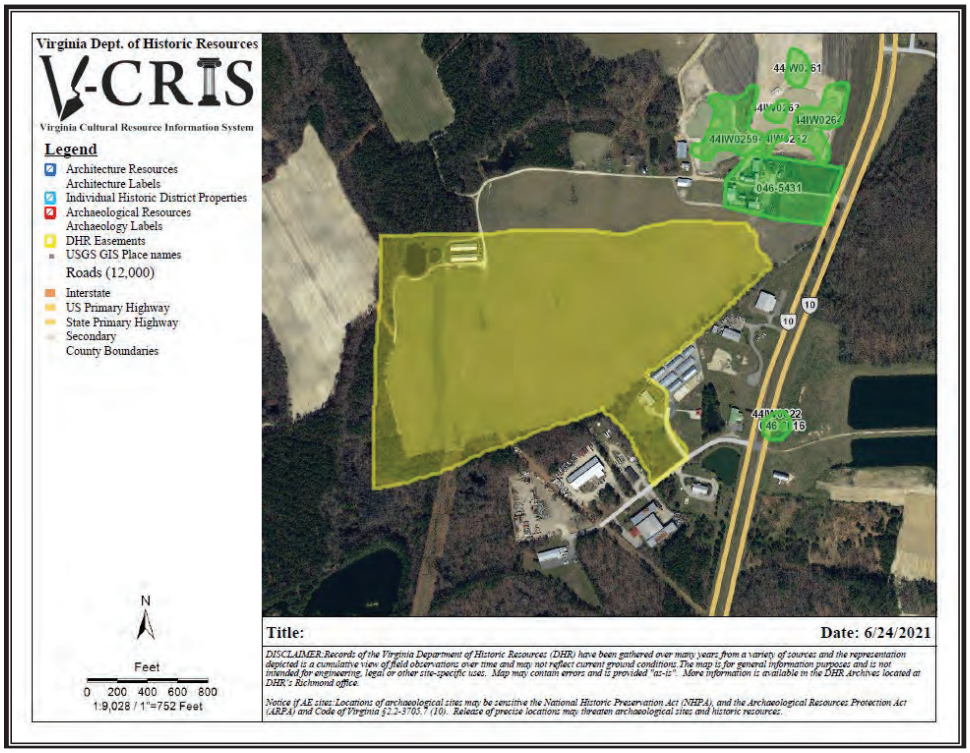


Figure 22. Detailed V-CRIS map showing previously-identified resources within proximity to the project area boundaries.

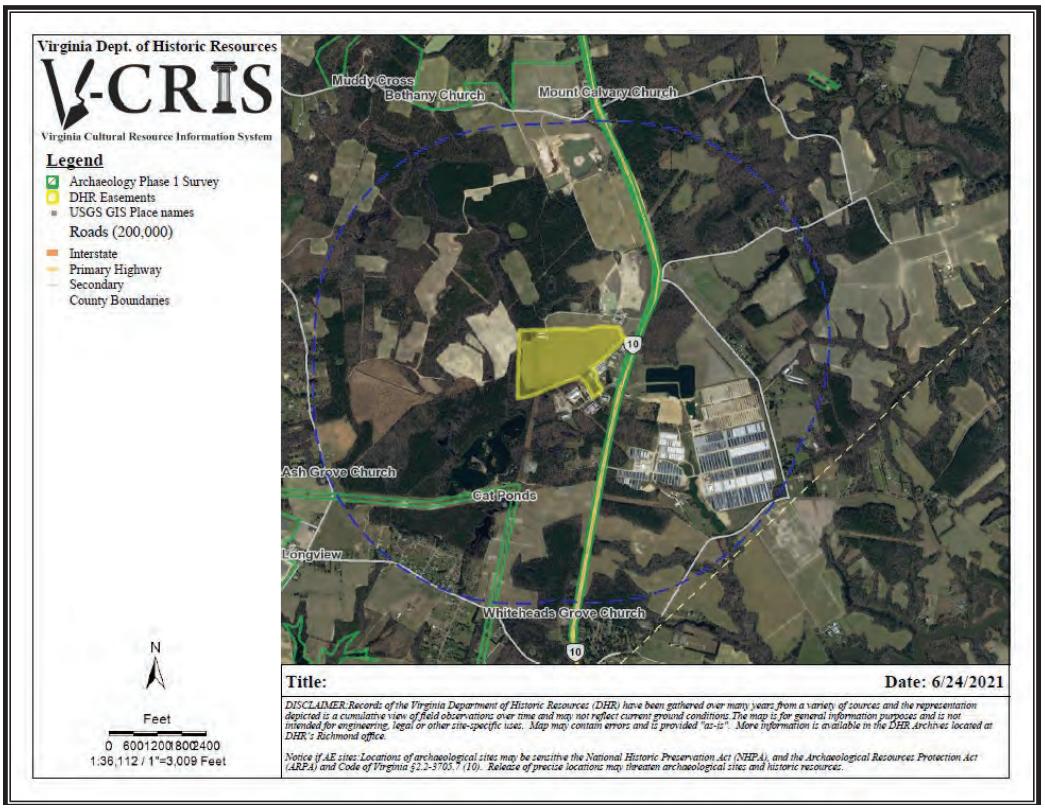


Figure 23. VDHR V-CRIS map showing project area in yellow and previous survey areas outlined in light blue.

ARCHAEOLOGICAL SITE POTENTIAL

Native American Site Potential

Five previously-identified Native American archaeological sites are located within one mile of the project area (Table 3 and Figure 24). Of these sites, one site dates to the Woodland period and the 19th and 20th century; one site dates to the Native American period and the 19th century; one site dates to the Native American period and the 19th and 20th century; and two sites have no associated dates but contain a Native American and historical component.

Given the project area's upland nature remote from the Brewer's Creek, Greens Swamp, and Chuckatuck Creek, and the Nansemond River, the possibility of finding additional Native American resources is considered low to moderate. However, all previously-identified sites were situated in a similar environment to the project area but closer to a water source. Given this information, it is possible that a Native American site, most likely a temporary camp, could be found within the project area boundaries. Given the previously-identified sites, this site would most likely date to the Woodland period and contain a historical component and range in size from under one acre to less than three acres. Judging from the previously-identified sites, if a site were found within the project area, it would probably contain a light mix of lithic artifacts and Native American pottery.

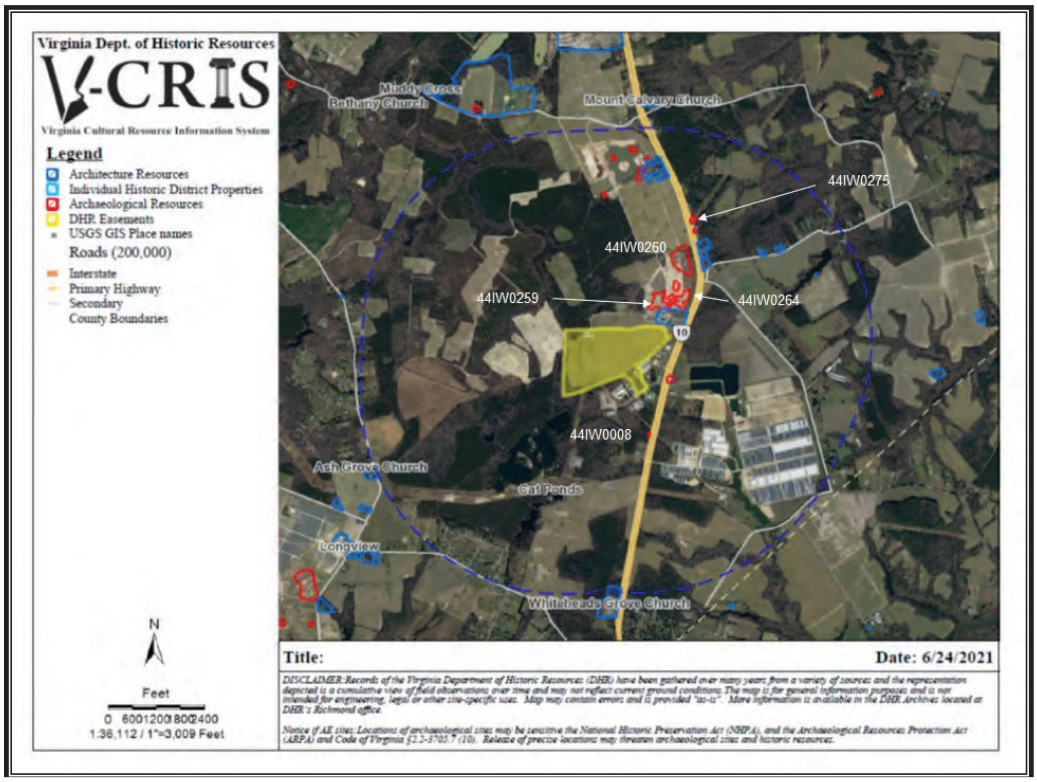


Figure 24. VDHR V-CRIS map showing previously-identified Native American archaeological resources within one mile of the project area (yellow-shaded area).

Historic Site Potential

Fifteen previously-identified historic archaeological sites are located within one mile of the project area (Table 4 and Figure 25). Of these sites, one site dates to the Woodland period and the 19th and 20th century; one site dates to the Native American period and the 19th century; one site dates to the Native American period and the 19th and 20th century; one site dates to the 18th and 19th century; three sites dates to the 19th century; one site dates to the 20th century; two sites have no associated dates but contain a Native American and historic component; and five sites have no associated dates but contain a historical component.

Table 3. Previously-Identified Native American Archaeological Sites Within One Mile of The Project Area.

Site Number	Site Chronology	Site Type	Native American Lithic Artifacts	Native American Ceramic Artifacts	Site Size	Soil Type	Additional Site Information
44IW0008	No date (Native American and Historic)	Artifact scatter	One Savannah River blade fragment	None listed	0.08 acres	None listed	The site is situated approximately 50 feet AMSL on a terrace in a recently cleared stand of young pines
44IW0259	Woodland 19th century 20th century	Temporary camp	Quartzite shatter, quartzite fire-cracked rock, one quartzite secondary flake	One cord-marked sherd	3.20 acres	None listed	The site is situated approximately 60 feet AMSL on a knoll in a soybean field
44IW0260	Native American 19th century 20th century	Lithic scatter, single dwelling	Chert shatter, quartzite flakes, quartzite shatter, quartz fire-cracked rock	None listed	6.30 acres	None listed	The site is situated approximately 65 feet AMSL on a knoll in a soybean field
44IW0264	Native American 19th century	Lithic scatter, cemetery	One quartzite fragment, one quartzite fire-cracked rock, one shatter, one ground stone, four tertiary flakes, quartz shatter, quartzite shatter, fire-cracked rock, one chert tertiary flake	None listed	2.40 acres	None listed	The site is situated approximately 60 feet AMSL on a knoll in a soybean field
44IW0275	No date (Native American and Historic)	Temporary camp, artifact scatter	Quartz flakes, quartzite flakes, chert flakes, shatter, cores, fire-cracked rock, projectile points, one woodland stemmed projectile point, one Piscataway projectile point	23 Mockley ware sherds, one Stony Creek sherd	0.40 acres	None listed	The site is situated approximately 50 feet AMSL on a floodplain in an open grassy area

Given the project area's distance from Brewer's Creek, Green Swamp, and Chuckatuck Creek, and the Nansemond River, and the presence of historic structures on or near the project area on the historical USGS maps, the possibility of finding historic archaeological resources is considered moderate to high. In addition, most of the previously-identified sites are clustered to the north of the project area along Route 10. Given this information, it is possible that a historical site, most likely a domestic site, could be found within the project area boundaries. Given the previously-identified sites, this site would most likely date to the 18th, 19th, or 20th century and possibly contain a small Native American component. The site would probably range in size from under one acre to less than three acres. Judging from the previously-identified sites, if a site were found within the project area, it would probably contain a light mix of ceramic artifacts and domestic artifacts, including glass fragments and building materials such as brick and nails.

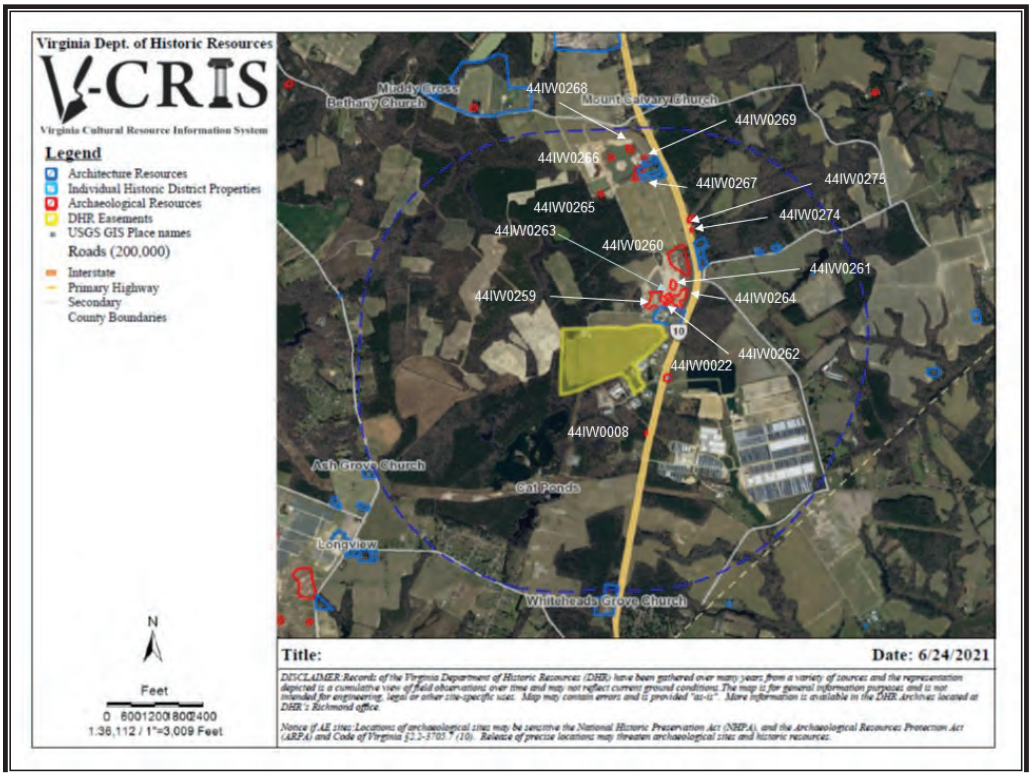


Figure 25. VDHR V-CRIS map showing previously-identified historic archaeological resources within one mile of the project area (yellow-shaded area).

Table 4. Previously-Identified Historical Archaeological Sites Within One Mile of The Project Area.

Site Number	Site Chronology	Site Type	Historic Ceramic Artifacts	Other Historic Artifacts	Site Size	Soil Type	Additional Site Information
44IW0008	No date (Native American and Historic)	Artifact scatter	One pearlware sherd	One cut nail fragment, one brick fragment, one colorless window glass fragment	0.08 acres	None listed	The site is situated approximately 50 feet AMSL on a terrace in a recently cleared stand of young pines
44IW0022	18th century 19th century	Single dwelling	None listed	None listed	None listed	None listed	None listed
44IW0259	Woodland 19th century 20th century	Temporary camp	Coarse redware sherds, American stoneware sherds, ironstone sherds, whiteware sherds, two pearlware sherds	Amber bottle glass fragments, two solarized bottle glass fragments, oyster shell fragments, clamshell fragments, sheet metal fragments, two machine parts, brick fragments, mortar fragments, nails, aqua window glass fragments, colorless glass fragments	3.20 acres	None listed	The site is situated approximately 60 feet AMSL on a knoll in a soybean field
44IW0260	Native American 19th century 20th century	Lithic scatter, single dwelling	Redware sherds, porcelain sherds, ironstone sherds, whiteware sherds, stoneware sherds, two pearlware sherds, one creamware sherd	Bright green bottle glass fragments, colorless bottle glass fragments, solarized colorless bottle glass fragments, aqua bottle glass fragments, cobalt bottle glass fragments, amber bottle glass fragments, glass plate fragments, milk glass fragments, colorless tableware glass fragments, one brass rivet, tin can fragments, one iron knife, clamshell fragments, oyster shell	6.30 acres	None listed	The site is situated approximately 65 feet AMSL on a knoll in a soybean field

Site Number	Site Chronology	Site Type	Historic Ceramic Artifacts	Other Historic Artifacts	Site Size	Soil Type	Additional Site Information
				fragments, aluminum sheeting fragments, one costume jewelry fragment, brick fragments, mortar fragments, aqua window glass fragments, colorless window glass fragments, nails, one cut nail, one wire nail, nail fragments			
44IW0261	19th century	Trash scatter	One creamware shred, one pearlware sherd, one whiteware sherd	One iron barbed wire fragment, three brick fragments, one aqua window glass fragment, one bottle glass fragment, three oyster shells	0.70 acres	None listed	The site is situated approximately 65 feet AMSL on a knoll in a soybean field
44IW0262	No date (Historic)	Trash scatter	One creamware sherd, two pearlware sherds, one stoneware sherd	Three brick fragments, three iron nail fragments, one aqua window glass fragment, one bottle glass fragment, one clamshell, one bone fragment, three oyster shell fragments, two coal fragments, one copper allow sheet metal fragment	0.40 acres	None listed	The site is situated approximately 65 feet AMSL on a knoll in a soybean field
44IW0263	No date (Historic)	Trash scatter	Two pearlware sherds, one whiteware sherd	Five brick fragments, one iron cut nail fragment, two colorless window glass fragments, three bottle glass fragments, one coal fragment	0.40 acres	None listed	The site is situated approximately 65 feet AMSL on a knoll in a soybean field

Site Number	Site Chronology	Site Type	Historic Ceramic Artifacts	Other Historic Artifacts	Site Size	Soil Type	Additional Site Information
44IW0264	Native American 19th century	Lithic scatter, cemetery	One pearlware sherd, one porcelain sherd	Eight brick fragments, mortar fragments, one wrought nail fragment, one charcoal fragment, bottle glass fragments, cut nails, wire nails, window glass fragments	2.40 acres	None listed	The site is situated approximately 60 feet AMSL on a knoll in a soybean field
44IW0265	No date (Historic)	Trash scatter	None listed	Two nail fragments, two lime soda bottle glass fragments, one iron fragment	0.30 acres	None listed	The site is situated approximately 65 feet AMSL on a knoll in a cotton field
44IW0266	No date (Historic)	Trash scatter	None listed	Three brick fragments, one nail fragment, three bottle glass fragments	0.30 acres	None listed	The site is situated approximately 70 feet AMSL on a knoll in a cotton field
44IW0267	19th century	Trash scatter	Creamware sherds, pearlware sherds, whiteware sherds	Aqua bottle glass fragments, colorless bottle glass fragments, solarized bottle glass fragments, tin can fragments, one kaolin tobacco pipe stem, one bolt, one washer, one aluminum sheet metal fragment, one lead fragment, one iron fragment, one rubber fragment	1.40 acres	None listed	The site is situated approximately 65 feet AMSL on a knoll in a cotton field
44IW0268	19th century	Trash scatter	None listed	Two brick fragments, two bottle glass fragments, one lime soda glass fragment, seven solarized glass fragments, one granite fragment	0.50 acres	None listed	The site is situated approximately 65 feet AMSL on a knoll in a cotton field

Site Number	Site Chronology	Site Type	Historic Ceramic Artifacts	Other Historic Artifacts	Site Size	Soil Type	Additional Site Information
44IW0269	No date (Historic)	Trash scatter	One whiteware sherd	Three brick fragments, one nail fragment	0.30 acres	None listed	The site is situated approximately 65 feet AMSL on a knoll in a cotton field
44IW0274	20th century	Trash scatter	None listed	One brick fragment, one iron nail, one iron can, one amber bottle glass fragment, two colorless bottle glass fragments	0.10 acres	None listed	The site is situated approximately 51 feet AMSL on a floodplain
44IW0275	No date (Native American and Historic)	Temporary camp, artifact scatter	Whiteware sherds, porcelain sherds	Brick fragments, iron wire nails, bottle glass fragments, pavement fragments, oyster shell fragments, charcoal fragments, seed/nutshell fragments	0.40 acres	None listed	The site is situated approximately 50 feet AMSL on a floodplain in an open grassy area

RESULTS

The field survey aims to provide specific information concerning the location, nature, and distribution of archaeological resources within the project area. Based on VDHR guidelines, Circa~ uses two types of designations for the grouping of archaeological resources: isolated finds and sites. An isolated find is defined as when a limited number of artifacts are recovered from the ground surface or shovel testing. This event may be either a casual or a single-episode discard such as a projectile point or a bottle break or maybe a small collection of artifacts related to various periods, such as a projectile point from the Woodland period and a bottle fragment from the 20th century. An archaeological site is defined as a grouping of artifacts that date to specific periods and reveal the location of human activity and land use. Appendix A contains VDHR site forms. Appendix B contains the inventory of artifacts recovered. Appendix C contains the shovel test map.

Architectural Resources

During the Phase I survey, Circa~ identified two architectural resources within the project area. One of the resources was a previously-identified resource and one was a modern resource.

The archival search did not locate any previously-identified architectural resources within the project area boundaries. The Phase I survey identified 11 buildings within the project area boundaries. Further research indicated that these resources were associated with Site 046-5431, a previously-identified architectural resource located north of the project area.

Site 046-5431

Site 046-5431 is a circa 1857 house located at 17076 Benns Church Boulevard to the north of the project area boundaries. Cultural Resources, Inc. (CRI) identified the site in September 2013 during a Phase I cultural resources survey of approximately 3.324 acres for the proposed Dominion Virginia Power Benns Church substation rebuild. They recorded a circa 1857 house, a circa 1950 secondary dwelling, a circa 1847 foundation, a circa 1900 vehicle shed, a circa 1980 vehicle shed, a circa 1950 silo, a circa 1980 silo, a circa 1900 barn, a circa 1980 barn, a circa 1857 smokehouse, a circa 1980 shed, and two additional silos without a date. CRI stated that the resource was typical of a mid-19th century house, and the resource had no known association with broad patterns in history or important people or events. They further noted that the design and workmanship were undistinguished, and the materials were stock. They also noted that the main house had been altered with modern materials. As a result, they recommended that the site was not eligible for listing on the National Register of Historic Places. In May 2014, VDHR concurred with this recommendation.

Because 11 of the buildings associated with this site were situated within the project area boundaries and did not seem to have been included in the original survey, Circa~ re-surveyed the site during the Phase I survey and noted the original identified circa 1857 house, the secondary dwelling, the foundation, two vehicle sheds, four silos, two barns, the smokehouse, and one shed. In addition, Circa~ identified one animal shelter, five sheds,

two wells, three vehicle sheds, one well house, one garage, 18 silos, two pig pens, and one storage tank.

This site is situated on the west side of Benns Church Boulevard on an approximately 275-acre parcel away from Benns Church Boulevard, surrounded by a mowed lawn with scattered mature trees and plantings (Figure 26). The main house, facing east, is set on a fairly-level grade with a long, single-lane, gravel driveway that leads from Benns Church Boulevard to the house. Two Flemish-bond brick pillars with corbelled caps flank the entrance to the driveway. A gravel parking area is situated along the rear elevation of the main house, and a slate walkway parallels the eastern side of the parking area, separating it from the house. A decorative metal bell attached to a wooden pole is situated near the rear entrance of the house. Numerous gravel and dirt lanes run throughout the parcel providing access to the interior of the parcel and the various outbuildings. Various wooden utility poles and wooden poles with mercury vapor lights attached to the top are situated throughout the property as well as several above-ground storage tanks. A wooden utility pole is located at the driveway entrance, and overhead utility lines run parallel to Benns Church Road. Several wooden utility poles run along the southern edge of the driveway, and overhead utility lines run parallel to the driveway to the south. Overhead utility lines also run throughout the parcel. Agricultural fields are visible to the south and west, and ponds created from a sand-mining operation are visible to the north. CRI stated that the main house was built circa 1857, and a discussion with the current landowner confirms that construction date. However, the current house was built on the foundation of the original house on the property, which according to the current landowner, burned.

House

This circa 1857, two-story, three-bay, shallow-pitched hipped roof, Colonial Revival-style, wood-frame house is clad in painted-white vinyl siding and rests on a five-course American-bond brick foundation with an English basement with two exterior-end painted-white five-course American-bond brick chimneys with corbelled caps (Plates 1 -6). The roof is covered in asphalt shingles with overhanging eaves and metal gutters and downspouts. There is a one-story, one-bay wood porch under a hipped roof with a painted-white scroll-sawn balustrade supported by square, painted-white wood columns with decorative, painted-white scroll sawn brackets. Five wood steps flanked by painted-white wood railings lead from the porch to the front yard. Sash, double-hung, 6/6, wood-frame windows flanked by painted-black wood shutters are typical on the façade. The entrance on the façade is a single-leaf, wood-panel door with lights covered by a metal-screen door.

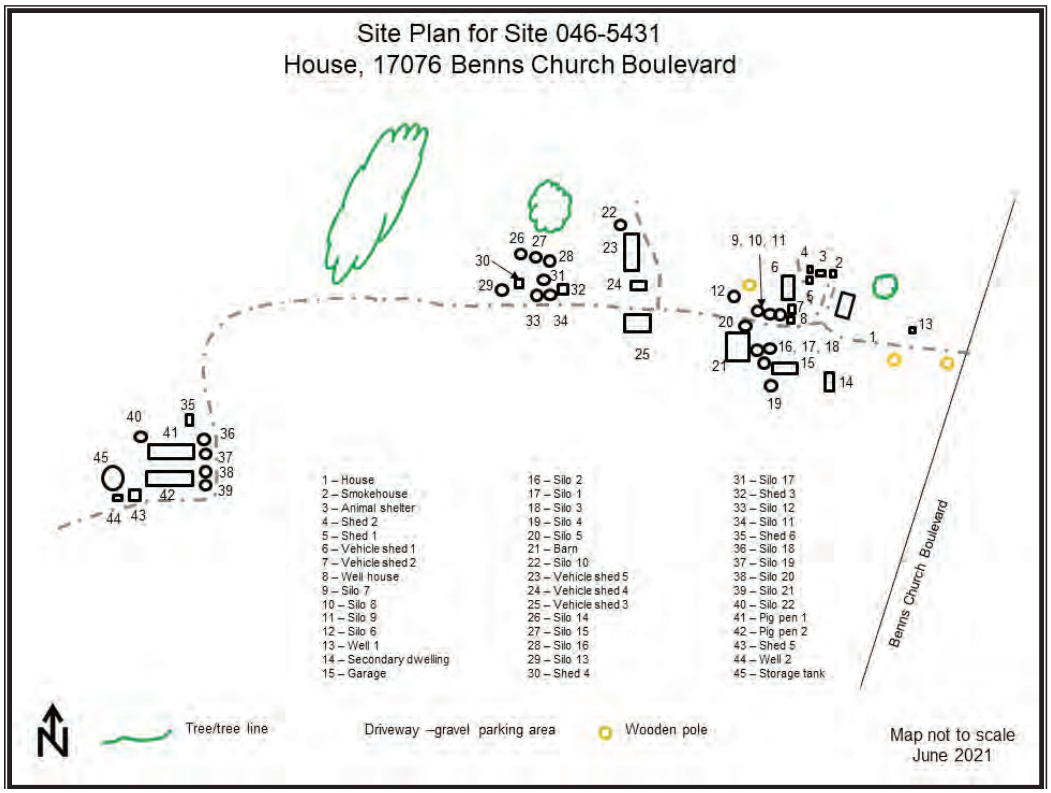


Figure 26. Site plan for Site 046-5431.

Plate 1. View of Site 046-5431, House, façade and addition, looking west.

Plate 2. View of Site 046-5431, House, façade and addition, Vehicle shed 2, Well house, and Garage, looking west.

Plate 3. View of Site 046-5431, House, façade, side elevation, and addition, Garage, and Silo 1, looking southwest.

Plate 4. View of Site 046-5431, House, façade, side elevation, and addition, and Vehicle shed 1, looking north.

Plate 5. View of Site 046-5431, House, side elevation and addition, looking north.

Plate 6. View of Site 046-5431, House, side and rear elevation and additions, looking northeast.

There is a one-story, two-bay, hipped roof, wood-frame addition attached to the side (north) elevation clad in painted-white vinyl siding and resting on a raised Flemish-bond brick foundation (Plates 7, 8, and 9). The roof is covered in asphalt shingles with metal gutters and downspouts. There is a wood deck on the north elevation. Paired, nine-light and 27-light, wood-frame windows are typical on the addition. There is also a bow window on the addition consisting of four nine-light, wood-frame windows. The entrance on the addition is a pair of double-leaf, wood-frame French doors with lights. There is a roll-up cloth awning over the doors.

There is a one-story, one-bay, hipped roof, wood-frame addition attached to the west elevation of the addition clad in painted-white vinyl siding and resting on a raised Flemish-bond brick foundation (Plate 10). The roof is covered in asphalt shingles with metal gutters and downspouts. There is a wood deck with a wood balustrade attached to the addition that connects to the wood deck on the addition. Five wood steps flanked by wood railings lead from the deck to the side yard. Sash, double-hung, 6/6, wood-frame windows are typical on the addition. The entrance on the addition is a recessed, single-leaf, wood-panel door with lights.

There is a two-story, two-bay, shed roof, wood-frame addition attached to the rear (west) elevation clad in painted-white vinyl siding and resting on a Flemish-bond brick foundation (Plate 11). The southernmost bay is recessed on the first story. The roof is covered in asphalt shingles with metal gutters and downspouts. There is a one-story, one-bay, wood porch under a hipped roof with a wood balustrade supported by wood posts. Four wood steps flanked by wood railings lead from the porch to the walkway. Sash, double-hung, 4/4 and 6/6, wood-frame windows are typical on the addition. The entrance on the addition is a single-leaf, wood-panel door with lights.

Plate 7. View of Site 046-5431, House, façade, side elevation, and addition, Garage, and Silo 1, looking west.

Plate 8. View of Site 046-5431, House, façade, side elevation, and addition, looking west.

Plate 9. View of Site 046-5431, House, side and rear elevation and additions, looking southeast.

Plate 10. View of Site 046-5431, House, rear elevation and additions, looking east.

Plate 11. View of Site 046-5431, House, side and rear elevation and additions, looking northeast.

Secondary Dwelling

To the south of the house, there is a circa 1950, one-story, three-bay, side-gable, ranch style, wood-frame house clad in painted-yellow vinyl siding and resting on a raised concrete-block foundation with one central-interior Flemish-bond brick chimney (Plate 12). The roof is covered in asphalt shingles. There is a one-story, one-bay, wood porch under a front gable supported by wood posts. Four wood steps flanked by wood railings lead from the porch to the front yard. Single and paired, sash, double-hung, 6/6, wood-frame windows flanked by painted-green wood shutters are typical on the façade and elevations. The entrance on the façade is a single-leaf, wood-panel door with lights.

There is a one-story, one-bay, side-gable, wood-frame addition attached to the side (south) elevation clad in painted-white vinyl siding and resting on a raised concrete-block foundation (Plate 13). The roof is covered in asphalt shingles. Sash, double-hung, 6/6, wood-frame windows are typical on the addition. No entrance is visible on the addition.

There is a one-story, two-bay, shed roof, wood-frame addition attached to the rear (west) elevation clad in painted-yellow vinyl siding and resting on a raised concrete-block foundation (Plate 14). The roof is covered in asphalt shingles. There is a full-width wood deck with one wood step flanked by a wood railing leading from the entrance to the deck. Sash, double-hung, 6/6, wood-frame windows are typical on the addition. The entrance on the addition is a single-leaf, wood-panel door with lights.

Plate 12. View of Site 046-5431, Secondary dwelling, looking west.

Plate 13. View of Site 046-5431, Secondary dwelling, looking northeast.

Plate 14. View of Site 046-5431, Secondary dwelling, looking east.

Well 1

To the east of the house, there is a circa 1857 well. CRI initially identified this as a foundation. However, further inspection of the structure revealed a round, brick-lined well within a five-course American-bond brick rectangular pit (Plates 15, 16, and 17). There are four courses above grade, and the well is entirely below grade. The well is dry, and debris was noted at the bottom.

Well 2 (Within the Project Area Boundaries)

To the southwest of the house, there is a circa 1980 square, concrete-block well within a concrete-block square pit (Plates 18 and 19). There are three courses of the block above grade, and the well rests entirely below grade. Metal pipes are visible leading from metal support braces across the top of the pit into the well shaft.

Vehicle Shed 1

To the west of the house, there is a circa 1980, one-story, three-bay, side-gable, wood-frame Butler building used as a vehicle shed clad in metal siding and resting on a concrete-block foundation (Plates 20 and 21). The roof is covered in corrugated metal. No windows are visible on the vehicle shed. The façade and rear (west) elevation are open.

Plate 15. View of Site 046-5431, Well 1, looking west.

Plate 16. View of Site 046-5431, Well 1, looking northwest.

Plate 17. Detail view of Site 046-5431, Well 1, interior.

Plate 18. View of Site 046-5431, Well 2, looking north.

Plate 19. Detail view of Site 046-5431, Well 2, interior.

Plate 20. View of Site 046-5431, Vehicle shed 1 and 2, Well house, and Silo 9, looking north.

Plate 21. View of Site 046-5431, Vehicle shed 1, looking northwest.

Vehicle Shed 2

To the west of the house, there is a circa 1900, one-story, four-bay, side-gable, wood-frame vehicle shed clad in painted-white wood siding and resting on a raised concrete-block foundation (Plates 22 – 25). The roof is covered in standing-seam metal with exposed rafter tails. No windows are visible on the façade; sash, double-hung, 1/1, wood-frame windows are typical on the side (south) elevation. The entrance on the façade is a double-leaf, sliding, vertical wood plank door. There are also three double-leaf openings. The northernmost opening has a single-leaf, wood-frame screen door.

A one-story, one-bay, metal-frame animal shelter is attached to the side (north) elevation resting on a poured-concrete slab-on-grade foundation (see Plate 23). The shelter is enclosed in metal chain-link, and the top is open. The entrance on the addition is a single-leaf, metal-frame chain link door.

Vehicle Shed 3

To the west of the house, there is a circa 1950, one-story, five-bay, side-gable, wood-frame vehicle shed clad in metal siding and resting on a concrete-block foundation (Plates 26, 27, and 28). The roof is covered in standing-seam metal. No windows are visible on the vehicle shed. The façade and rear (south) elevation are open.

Plate 22. View of Site 046-5431, Vehicle shed 1 and 2, Well house, and Barn, looking west.

Plate 23. View of Site 046-5431, Vehicle shed 1 and 2, Garage, and Silo 1, 2, 8, and 9, looking southwest.

Plate 24. View of Site 046-5431, Vehicle shed 1 and 2, Well house, and Silo 8 and 9, looking northwest.

Plate 25. View of Site 046-5431, Vehicle shed 2, Well house, and Silo 9, looking east.

Plate 26. View of Site 046-5431, Vehicle shed 3, looking south.

Plate 27. View of Site 046-5431, Vehicle shed 3, looking southeast.

Plate 28. View of Site 046-5431, Vehicle shed 3, looking north.

There is a one-story, one-bay, shed roof, wood-frame addition attached to the side (east) elevation clad in corrugated metal siding and resting on a concrete-block pier foundation (Plate 29). The roof is covered in standing-seam metal. No windows are visible on the addition. The north and south elevations are open.

Plate 29. View of Site 046-5431, Vehicle shed 3, looking south.

There is a one-story, one-bay, shed roof, wood-frame addition attached to the side (west) elevation clad in corrugated metal siding and resting on a wood pier foundation (Plate 30). The addition is starting to collapse. The roof is covered in corrugated metal. No windows are visible on the addition. The entrance on the addition is a single-leaf opening.

Plate 30. View of Site 046-5431, Vehicle shed 3 and Silo 7, 8, and 9, looking east.

Vehicle Shed 4

To the west of the house, there is a circa 1950, one-story, one-bay, shallow-pitched front-gable, wood-frame vehicle shed clad in corrugated metal siding and resting on a concrete-block foundation (Plates 31, 32, and 33). The roof is covered in standing-seam metal. No windows are visible on the vehicle shed. The entrance on the façade is a double-leaf, sliding, corrugated metal door. A double-leaf, sliding, corrugated metal door is on the side (south) elevation.

Vehicle Shed 5

To the west of the house, there is a circa 1950, one-story, six-bay, side-gable, wood-frame vehicle shed clad in corrugated metal siding and resting on a concrete-block foundation (Plates 34 and 35). The roof is covered in corrugated metal. No windows are visible on the vehicle shed. The façade is open.

Plate 31. View of Site 046-5431, Vehicle shed 4 and 5, looking west.

Plate 32. View of Site 046-5431, Vehicle shed 4, looking south.

Plate 33. View of Site 046-5431, Vehicle shed 4, looking northeast.

Plate 34. View of Site 046-5431, Vehicle shed 5, looking west.

Plate 35. View of Site 046-5431, Vehicle shed 5, looking northwest.

There is a one-story, one-bay, shed roof, wood-frame addition attached to the rear (west) elevation clad in corrugated metal siding and resting on a concrete-block pier foundation (Plates 36 and 37). The siding does not extend to the roofline, leaving an opening around the top of the addition. The roof is covered in corrugated metal with overhanging eves and exposed rafter tails. No windows are visible on the addition. The north and south elevations are open.

Plate 36. View of Site 046-5431, Vehicle shed 4 and 5, looking north.

Plate 37. View of Site 046-5431, Vehicle shed 5, looking south.

Silo 1

To the southwest of the house, there is a circa 1950, one-story, round, concrete-block silo resting on a concrete-block foundation (Plates 38, 39, and 40). The top of the silo is open. No windows are visible on the silo. No entrance is visible on the silo. There is a metal ladder attached to the west side.

Plate 38. View of Site 046-5431, Silo 1, 2, 3, 4, and 5, looking southeast.

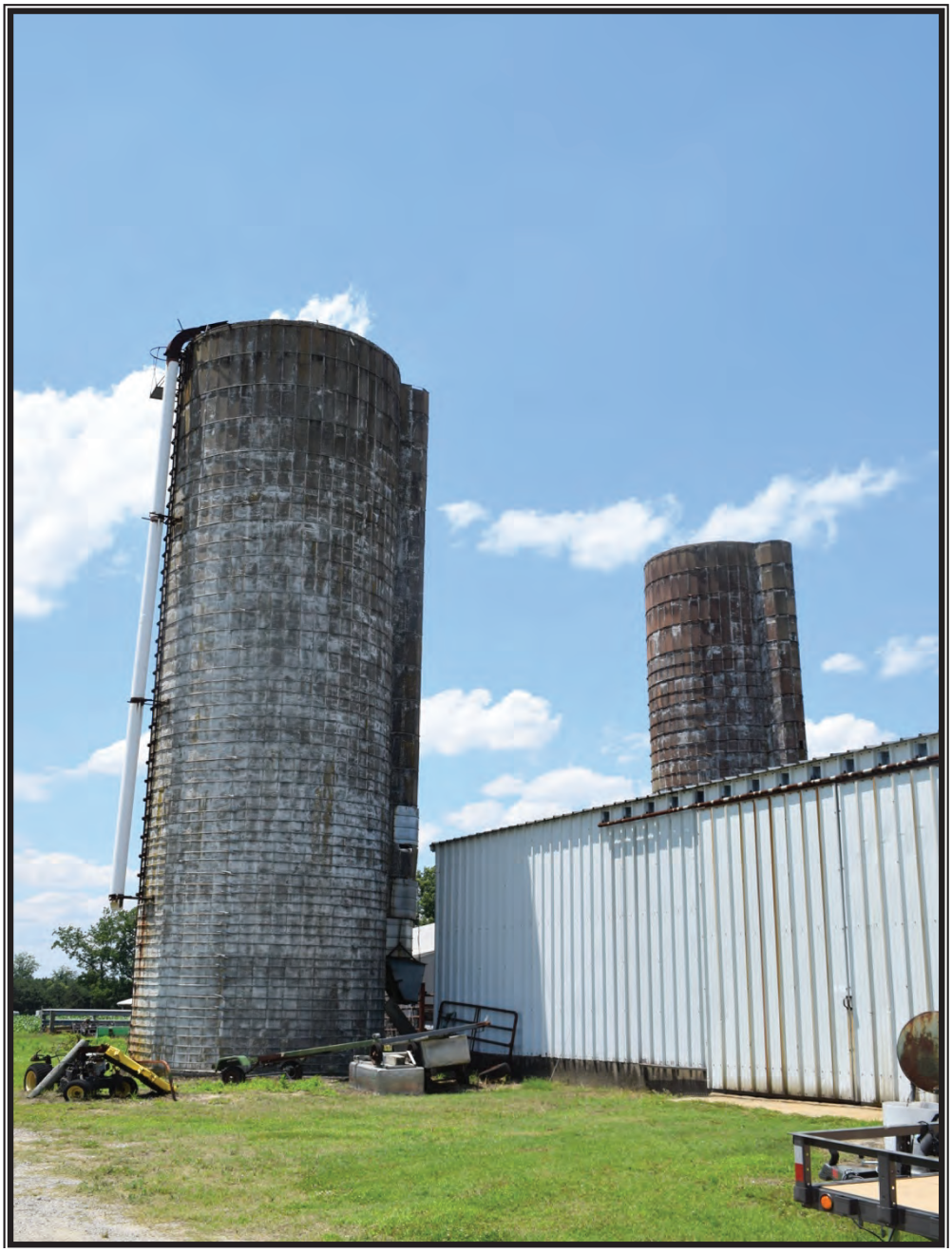


Plate 39. View of Site 046-5431, Silo 1 and 2 and Garage, looking west.

Plate 40. View of Site 046-5431, Silo 1 and 2 Garage, looking east.

Silo 2

To the southwest of the house, there is a circa 1950, one-story, round, concrete-block silo resting on a concrete-block foundation (see Plates 38, 39, and 40). Various metal patches are visible on the silo. The top of the silo is open. No windows are visible on the silo. No entrance is visible on the silo. There is a metal chute attached to the south side.

Silo 3

To the southwest of the house, there is a circa 1950, one-story, round, pyramidal roof, wood-frame silo clad in corrugated metal siding and resting on a poured-concrete slab-on-grade foundation (Plates 41, 42, and 43). The roof is covered in standing-seam metal. No windows are visible on the silo. The entrance on the silo is a single-leaf, wood door, and there is a metal ladder on the south side.

Silo 4

To the southwest of the house, there is a circa 1950, one-story, round, pyramidal roof, wood-frame silo clad in corrugated metal siding and resting on a poured-concrete slab-on-grade foundation (see Plates 41, 42, and 43). The roof is covered in standing-seam metal. No windows are visible on the silo. The entrance on the silo is a single-leaf, wood door, and there is a metal ladder attached to the south side.

Plate 41. View of Site 046-5431, Silo 3, 4, and 5 and Barn, looking west.

Plate 42. View of Site 046-5431, Silo 3 and 4 and Barn, looking northeast.

Plate 43. View of Site 046-5431, Silo 3, 4, and 5, looking north.

Silo 5

To the southwest of the house, there is a circa 1950, one-story, round, pyramidal roof, wood-frame silo clad in corrugated metal siding and resting on a poured-concrete slab-on-grade foundation (Plate 44). The roof is covered in standing-seam metal. No windows are visible on the silo. The entrance to the silo is a single-leaf, wood door. Metal electrical boxes under a wood hood are visible on the east side.

Plate 44. View of Site 046-5431, Silo 5, Vehicle shed 4, and Barn, looking west.

Silo 6

To the west of the house, there is a circa 1950, one-story, round, pyramidal roof, wood-frame silo clad in corrugated metal siding and resting on a poured-concrete slab-on-grade foundation (Plate 45). The roof is covered in standing-seam metal. No windows are visible on the silo. No entrance is visible on the silo. A metal ladder is attached to the north side, and metal electrical boxes are visible on the north side with a metal vent below.

Plate 45. View of Site 046-5431, Silo 6 and Barn, looking north.

There is a one-story, one-bay, shed roof, wood-frame lean-to attached to the west side (see Plate 45). The roof is covered in corrugated metal supported by wood posts. The lean-to is open on three sides. There is a large metal fan and metal boxes resting on a poured-concrete pad in the lean-to. The boxes are attached to the silo by a metal vent.

Silo 7

To the west of the house, there is a circa 1950, one-story, round, pyramidal roof, wood-frame silo clad in corrugated metal siding and resting on a poured-concrete slab-on-grade foundation (Plate 46). The roof is covered in standing-seam metal. No windows are visible on the silo. No entrance is visible on the silo. There is a metal ladder attached to the south side.

Plate 46. View of Site 046-5431, Silo 4, 7, and 8, looking north.

There is a one-story, one-bay, flat roof, wood-frame lean-to attached to the northwest side (Plate 47). The roof is covered in corrugated metal supported by wood posts. The lean-to is open on three sides. There is a large metal fan resting on a poured-concrete pad in the lean-to. The boxes are attached to the silo by a metal vent.

Plate 47. View of Site 046-5431, Silo 7 and 8, looking east.

Silo 8
To the west of the house, there is a circa 1950, one-story, round, pyramidal roof, wood-frame silo clad in corrugated metal siding and resting on a poured-concrete slab-on-grade foundation (see Plates 46 and 47). The roof is covered in standing-seam metal. No windows are visible on the silo. No entrance is visible on the silo.

Silo 9
To the west of the house, there is a circa 1950, one-story, round, pyramidal roof, wood-frame silo clad in corrugated metal siding and resting on a poured-concrete slab-on-grade foundation (see Plates 24 and 25). The roof is covered in standing-seam metal. No windows are visible on the silo. No entrance is visible on the silo. There is a metal ladder attached to the south side.

Silo 10
To the west of the houses, there is a circa 1980, one-story, round, flat roof, metal-frame silo clad in metal sheeting and resting on a poured-concrete slab-on-grade foundation (Plates 48). The roof is covered in metal sheets. No windows are visible on the silo. The entrance to the silo is a single-leaf, metal door. There is a metal ladder attached to the south side.

Plate 48. View of Site 046-5431, Silo 10, looking northwest.

Silo 11
To the west of the house, there is a circa 1980, one-story, round, pyramidal roof, metal-frame silo clad in metal siding with a conical base resting on metal supports (Plates 49 - 52). The roof is covered in standing-seam metal. No windows are visible on the silo. No entrance is visible on the silo. There is a metal ladder attached to the north side.

Plate 49. View of Site 046-5431, Silo 11 and 12, and Shed 3, looking northwest.

Plate 50. View of Site 046-5431, Silo 11, 12, and 17, and Shed 3, looking northwest.

Plate 51. View of Site 046-5431, Silo 11, 12, and 17, looking southwest.

Plate 52. View of Site 046-5431, Silo 12 and 17, looking west.

Silo 12

To the west of the house, there is a circa 1980, one-story, round, pyramidal roof, metal-frame silo clad in metal siding with a conical base resting on metal supports (see Plates 49, 50, and 51). The roof is covered in standing-seam metal. No windows are visible on the silo. No entrance is visible on the silo. There is a metal ladder attached to the south side.

Silo 13

To the west of the house, there is a circa 1980, one-story, round, shallow-pitched pyramidal roof, metal-frame silo clad in metal sheeting and resting on a poured-concrete slab-on-grade foundation (Plates 53 and 54). The roof is covered in metal sheeting. No windows are visible on the silo. No entrance is visible on the silo. There is an open, round vent hole at the base on the north side.

Plate 53. View of Site 046-5431, Silo 13, looking east.

Plate 54. View of Site 046-5431, Silo 13, looking northeast.

Silo 14

To the west of the house, there is a circa 1980, one-story, round, pyramidal roof, metal-frame silo clad in metal siding with a conical base resting on metal supports on a raised, poured-concrete slab-on-grade foundation (Plates 55 and 56). The roof is covered in standing-seam metal. No windows are visible on the silo. No entrance is visible on the silo. There is a metal ladder attached to the west side.

Plate 55. View of Site 046-5431, Silo 14, 15, and 16, looking north.

Plate 56. View of Site 046-5431, Silo 14, 15, and 16, looking northeast.

Silo 15
To the west of the house, there is a circa 1980, one-story, round, pyramidal roof, metal-frame silo clad in metal siding with a conical base resting on metal supports on a raised, poured-concrete slab-on-grade foundation (see Plates 55 and 56). The roof is covered in standing-seam metal. No windows are visible on the silo. No entrance is visible on the silo. There is a metal ladder attached to the west side.

Silo 16
To the west of the house, there is a circa 1980, one-story, round, pyramidal roof, metal-frame silo clad in metal siding with a conical base resting on metal supports on a raised, poured-concrete slab-on-grade foundation (see Plates 55 and 56). The roof is covered in standing-seam metal. No windows are visible on the silo. No entrance is visible on the silo. There is a metal ladder attached to the west side.

Silo 17
To the west of the houses, there is a circa 1980, one-story, round, flat roof, metal-frame silo clad in metal sheeting and resting on a poured-concrete slab-on-grade foundation (Plate 57). The roof is covered in metal sheets. No windows are visible on the silo. The entrance to the silo is a single-leaf, metal door. There is a metal ladder attached to the south side.

Plate 57. View of Site 046-5431, Silo 17, looking southwest.

Silo 18 (Within the Project Area Boundaries)
To the southwest of the house, there is a circa 1980, one-story, round, shallow-pitched pyramidal roof, metal-frame silo clad in corrugated metal siding with a conical base resting on metal supports on a poured-concrete slab-on-grade foundation (Plates 58, 59, and 60). The roof is covered in corrugated metal. No windows are visible on the silo. No entrance is visible on the silo. There is a metal ladder attached to the north side.

Plate 58. View of Site 046-5431, Silo 18, 19, 20, and 21 and Pig pen 1 and 2, looking northeast.

Plate 59. View of Site 046-5431, Silo 18, 19, 20, and 21, and Pig pen 1 and 2, looking north.

Plate 60. View of Site 046-5431, Silo 18 and Pig pen 1, looking west.

Silo 19 (Within the Project Area Boundaries)
To the southwest of the house, there is a circa 1980, one-story, round, shallow-pitched pyramidal roof, metal-frame silo clad in corrugated metal siding with a conical base resting on metal supports on a poured-concrete slab-on-grade foundation (see Plates 58 and 59). The roof is covered in corrugated metal. No windows are visible on the silo. No entrance is visible on the silo. There is a metal ladder attached to the north side.

Silo 20 (Within the Project Area Boundaries)
To the southwest of the house, there is a circa 1980, one-story, round, shallow-pitched pyramidal roof, metal-frame silo clad in corrugated metal siding with a conical base resting on metal supports on a poured-concrete slab-on-grade foundation (Plate 61). The roof is covered in corrugated metal. No windows are visible on the silo. No entrance is visible on the silo. There is a metal ladder attached to the north side.

Plate 61. View of Site 046-5431, Silo 20 and Pig pen 1, looking northwest.

Silo 21 (Within the Project Area Boundaries)
To the southwest of the house, there is a circa 1980, one-story, round, shallow-pitched pyramidal roof, metal-frame silo clad in corrugated metal siding with a conical base resting on metal supports on a poured-concrete slab-on-grade foundation (Plate 62). The roof is covered in corrugated metal. No windows are visible on the silo. No entrance is visible on the silo. There is a metal ladder attached to the north side.

Plate 62. View of Site 046-5431, Silo 21 and Pig pen 1 and 2 looking northwest.

Silo 22 (Within the Project Area Boundaries)
To the west of the house, there is a circa 1980, one-story, round, pyramidal roof, metal-frame silo clad in metal siding with a conical base resting on metal supports (Plates 63 and 64). The silo is lying on its side at the edge of a wood line. The roof is covered in standing-seam metal. No windows are visible on the silo. No entrance is visible on the silo.

Plate 63. View of Site 046-5431, Silo 22, looking north.

Plate 64. View of Site 046-5431, Silo 22, looking southwest.

Barn

To the southwest of the house, there is a circa 1950, one-story, two-bay, front-gable, wood-frame barn clad in metal siding and resting on a concrete-block foundation (Plates 65, 66, and 67). The roof is covered in corrugated metal. No windows are visible on the barn. The entrance on the façade is a double-leaf, sliding, corrugated metal door. There is also a smaller, double-leaf, sliding, corrugated metal door and a double-leaf, sliding, corrugated metal door on the rear (west) elevation. The side (north) elevation is open.

Plate 65. View of Site 046-5431, Barn and Silo 2, 3, 4, and 5, looking northeast.

Plate 66. View of Site 046-5431, Barn, Garage, and Silo 1, 2, 3, and 4, looking east.

Plate 67. View of Site 046-5431, Barn and Silo 3 and 4, looking south.

Smokehouse

To the north of the house, there is a circa 1857, one-story, one-bay, steeply-pitched side-gable, wood-frame smokehouse clad in painted-white wood siding and resting on a brick pier foundation (Plates 68, 69, and 70). The siding is deteriorating and has been replaced with painted-white plywood on the side (west) elevation. The roof is covered in wood shakes with exposed rafter tails. No windows are visible on the smokehouse. The entrance on the façade is a single-leaf, vertical wood plank door.

Shed 1

To the west of the house, there is a circa 1980, one-story, one-bay, front-gable, wood-frame shed clad in plywood siding and screening and resting on a concrete-block pier foundation (Plate 71). A portion of the shed is covered with a plastic tarp. The roof is covered in asphalt shingles. No windows are visible on the shed. The entrance on the façade is a single-leaf, wood-panel door.

Shed 2

To the west of the house, there is a circa 1980, one-story, one-bay, shed roof, wood-frame shed clad in plywood siding and screening and resting on a concrete-block pier foundation (see Plate 71). The lower half of the shed is covered with a plastic tarp. The roof is covered in corrugated metal. No windows are visible on the shed. The entrance on the façade is a double-leaf, wood-panel door.

Plate 68. View of Site 046-5431, Smokehouse, looking southwest.

Plate 69. View of Site 046-5431, Smokehouse, looking south.

Plate 70. View of Smokehouse, looking southeast.

Plate 71. View of Site 046-5431, Shed 1 and 2, Animal shelter, and Smokehouse, looking north.

Shed 3

To the west of the house, there is a circa 1950, one-story, one-bay, front-gable, wood-frame shed clad in corrugated metal siding and resting on a concrete-block foundation (Plates 72 and 73). The roof is covered in corrugated metal with exposed rafter tails. No windows are visible on the shed. The entrance on the façade is a double-leaf opening. There is a single-leaf opening on the rear (west) elevation.

Plate 72. View of Site 046-5431, Shed 3 and Silo 17, looking south.

Plate 73. View of Site 046-5431, Shed 3 and Silo 17, looking southwest.

Shed 4

To the west of the house, there is a circa 1950, one-story, three-bay shed ruin (Plate 74). Only the concrete-block walls remain intact. There are portions of the poured-concrete slab-on-grade foundation visible through the grass.

Plate 74. View of Site 046-5431, Shed 4, looking north.

Shed 5 (Within the Project Area Boundaries)
To the southwest of the house, there is a circa 1950, one-story, two-bay, shed roof, wood-frame shed clad in corrugated metal siding and resting on a poured-concrete slab-on-grade foundation (Plate 75). The roof is covered in corrugated metal and is starting to deteriorate. A portion of the roof is missing. No windows are visible on the shed. The façade is open.

Plate 75. View of Site 046-5431, Shed 5 and Storage tank, looking north.

Shed 6 (Within the Project Area Boundaries)
To the southwest of the house, there is a circa 1950, one-story, one-bay, front-gable, painted-white concrete-block shed resting on a concrete-block foundation (Plates 76 and 77). The roof is covered in asphalt shingles with a boxed cornice. No windows are visible on the shed. The entrance on the façade is a single-leaf, wood-panel door with lights.

Animal Shelter
To the north of the house, there is a circa 1980, one-story, six-bay, flat roof, wood-frame animal shelter clad in screening material and resting on the ground (Plate 78). The roof is screened with fencing material. The entrance on the façade is a double-leaf, wood-frame screen door.

Plate 76. View of Site 046-5431, Shed 6, looking northeast.

Plate 77. View of Site 046-5431, Shed 6, looking northeast.

Plate 78. View of Site 046-5431, Animal shelter, Smokehouse, and Shed 1 and 2, looking south.

Well House

To the west of the house, there is a circa 1900, one-story, one-bay, pyramidal roof, painted-white concrete-block well house resting on a concrete-block foundation (Plate 79). The well house is deteriorating, and there are chips in the concrete blocks where a vehicle hit the wall. The roof is covered in asphalt shingles. No windows are visible on the well house. The entrance on the façade is a single-leaf, plywood door.

Plate 79. View of Site 046-5431, Well house, Vehicle shed 2, and Silo 17 and 18, looking northwest.

Garage

To the southwest of the house, there is a circa 1950, one-story, two-bay, shallow-pitched front-gable, wood-frame garage clad in metal siding and resting on a raised concrete-block foundation (Plates 80, 81, and 82). The roof is covered in corrugated metal. No windows are visible in the garage. The entrance on the façade is a roll-up metal garage door. There is also a single-leaf, wood door. There is a double-leaf, corrugated metal sliding door on the side (south) elevation.

There is a one-story, three-bay, side-gable, concrete-block addition attached to the side (north) elevation resting on a concrete-block foundation (Plate 83). The roof is covered in standing-seam metal with overhanging eaves and a round metal vent in the center of the roof peak. Fixed, six-light, metal-frame windows are typical on the addition. Some of the windows have been boarded over with plywood. The entrance on the addition is a double-leaf opening.

Plate 80. View of Site 046-5431, Garage and Silo 1 and 2, looking west.

Plate 81. View of Site 046-5431, Garage and Silo 1 and 2, looking west.

Plate 82. View of Site 046-5431, Garage and Silo 1 and 2, looking northwest.

Plate 83. View of Site 046-5431, Garage, looking southeast.

Pig Pen 1 (Within the Project Area Boundaries)
To the southwest of the house, there is a circa 1950, one-story, three-bay, front-gable, wood-frame pig pen clad in painted-white plywood and resting on a concrete-block foundation (Plates 84, 85, and 86). This building may have been initially used as a chicken house but has since been converted into a pig pen. The roof is covered in corrugated metal with overhanging eaves. The window openings have been covered with canvas that is starting to deteriorate. The entrance on the facade is a recessed, single-leaf, wood-panel door. There is a single-leaf, wood-panel door and a double-leaf, wood-panel door on the rear (west) elevation. There are also large metal fans on the rear (west) elevation.

Pig Pen 2 (Within the Project Area Boundaries)
To the southwest of the house, there is a circa 1950, one-story, three-bay, front-gable, wood-frame pig pen clad in painted-white plywood and resting on a raised concrete-block foundation (Plates 87 - 92). This building may have been initially used as a chicken house but has since been converted into a pig pen. The roof is covered in corrugated metal. The window openings have been covered with canvas that is starting to deteriorate. The entrance on the facade is a single-leaf, wood-panel door. There is a single-leaf, wood-panel door and a double-leaf, wood-panel door on the rear (west) elevation. There are also large metal fans on the rear (west) elevation.

Plate 84. View of Site 046-5431, Pig pen 1 and 2, looking south.

Plate 85. View of Site 046-5431, Pig pen 1, looking northeast.

Plate 86. View of Site 046-5431, Pig pen 1, looking east.

Plate 87. View of Site 046-5431, Pig pen 1 and 2, and Silo 18 and 19, looking north.

Plate 88. View of Site 046-5431, Pig pen 2, looking northwest.

Plate 89. View of Site 046-5431, Pig pen 2 and Storage tank, looking northwest.

Plate 90. View of Site 046-5431, Pig pen 1 and 2, looking southeast.

Plate 91. View of Site 046-5431, Pig pen 1 and 2 and Storage tank, looking east.

Plate 92. View of Site 046-5431, Pig pen 2, looking east.

There is a one-story, one-bay, shed roof, wood-frame lean-to attached to the side (north) elevation clad in canvas that is starting to deteriorate and resting on a concrete-block foundation (see Plate 90). The roof is covered in corrugated metal. No windows are visible on the addition. There is a double-leaf door on the west elevation.

Storage Tank (Within the Project Area Boundaries)
To the southwest of the house, there is a circa 1980, one-story, round storage tank clad in metal panels and resting on a poured-concrete slab-on-grade foundation (Plate 93). The tank is open at the top. There is a metal ladder with a small square metal platform attached to the west side.

East Coast Emergency Vehicles Office Building (No VDHR number received)
On the west side of Benns Church Boulevard, there is a circa 1988 office building situated in the southeastern portion of the project area (Plate 94). Because this building was constructed circa 1988 and is less than 45 years old, Circa~ did not complete a formal survey of the building.

Plate 93. View of Site 046-5431, Storage tank, looking northwest.

Plate 94. View of East Coast Emergency Vehicles office building, 17226 Commerce Lane, looking northwest.

Archaeological Survey

The 1919 USGS historical map illustrates two structures and portions of three roads within the project area (see Figure 18). The northern structure shown on the historic map appears to be in the vicinity of the hog pens. Site 44IW0318 is located in the vicinity of the southern structure shown on the map. Several roads are noted within the project area. One road is located along the southern edge of the project area, and another road is noted branching off and running northwest across the southwestern portion of the project area. Circa~ noticed that this road is still intact and used by the landowner west of the project area. Within the project area, traces of the roads have been erased by cultivation activities in the past. The third road runs north to south across the western edge of the project area and crosses west of the tank and pig pen locations. By 1952, the USGS map shows that the structures and the roads are gone, with only a small portion of one road running across the southwestern corner of the tract. By 1965, the initial development is no longer illustrated. However, the 1965 historical map shows two power lines running across the western portion of the project area. The historical maps illustrate that the project area was used as a plowed field since 1919.

An interview with the landowner discussed his willingness to give relic and metal-detecting hunters permission to search his land. His only request was that the hunters share the location and types of finds with him. The finds belong to the hunters, but he was curious where items were located. The project area field was pretty barren, with the metal-detector searches yielding a button and a few other uninteresting iron artifacts. The landowner indicated no structures on the property for as long as he lived there, roughly 73 years. In addition, he noted that he never saw any historical or Native American relics in that field but had noticed items in other fields closer to the water and spring located off and west of the project area. This patterning is also reflective of the areas frequented by the relic and metal detector hunters, who concentrated their search and collecting efforts on other portions of the farm that proved productive for Native American and historical artifacts. Circa~'s survey noted fragments of shotguns shells around the utility towers and skeet fragments located west of the towers. The landowner indicated that he held dove hunts and various target shoots on the property, where the shooters clustered around the towers and shot to the west, away from the structures and road. This account was reflected in the patterning of modern "artifacts" noted on the ground surface.

The project area is located on a landform that consists of a relatively-level broad rolling upland. The highest elevations on the site are located just to the south of the northeastern property line, and the landforms slope slightly to the south and west. The majority of the project tract is currently used for crops, with a fringe of trees along the western and southern property lines. In addition, several power line easements run roughly northwest to southeast and northeast to southwest across the project area. Figure 27 illustrates the area where the pedestrian survey was completed. Plates 95 - 99 illustrate the current conditions of the project area.

Figure 27. Map depicting the area where the pedestrian survey was completed. The yellow shading illustrates fields with 75% to 100% surface visibility, the blue illustrates portions of the project area where timbering and development occurred in the past, and the green shading illustrates wet areas.

Plate 95. View of Project Area, looking southwest.

Plate 96. View of Project Area, looking south.

Plate 97. View of the wet area within the Project Area's southwestern corner, looking southwest.

Plate 98. View of Project Area, looking east.

Plate 99. View of the power lines within the Project Area, looking north.

Isolated Finds

IF-SF1

One isolated find was recovered from the surface of the plowzone of an active agricultural field on the northwestern edge of the project area just to the south of a dirt road and hog pens. This find consisted of one oyster shell fragment. One shovel test was excavated in the find's location. The test was negative. One soil stratum was excavated before reaching sterile subsoil (Figure 28). Stratum A, 1.00 feet thick, consisted of a grayish-brown (10YR 6/4) sandy plowzone. Stratum B excavated 0.20 feet thick, consisted of a sterile yellowish-brown (2.5Y 5/6) sandy clay subsoil or C-horizon. No further work is recommended for this isolated find.

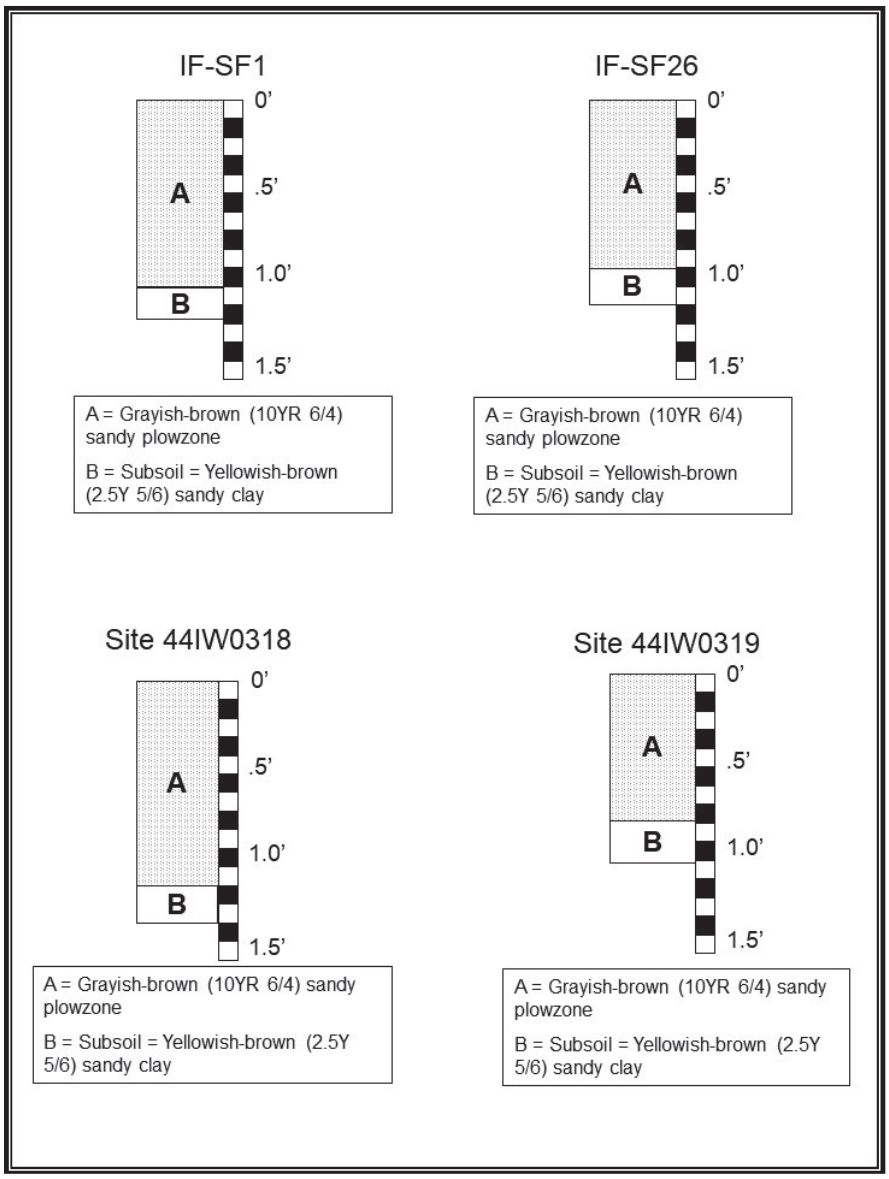


Figure 28. Representative shovel test profiles.

IF-SF3

One isolated find was recovered from the surface of the plowzone of an active agricultural field on the northwestern edge of the project area south of a dirt road and hog pens. This find consisted of three modern white plastic fragments. No further work is recommended for this isolated find.

IF-SF4

One isolated find was recovered from the surface of the plowzone of an active agricultural field on the western edge of the project area south and east of a dirt road. This find consisted of one brass and plastic shotgun shell fragment. No further work is recommended for this isolated find.

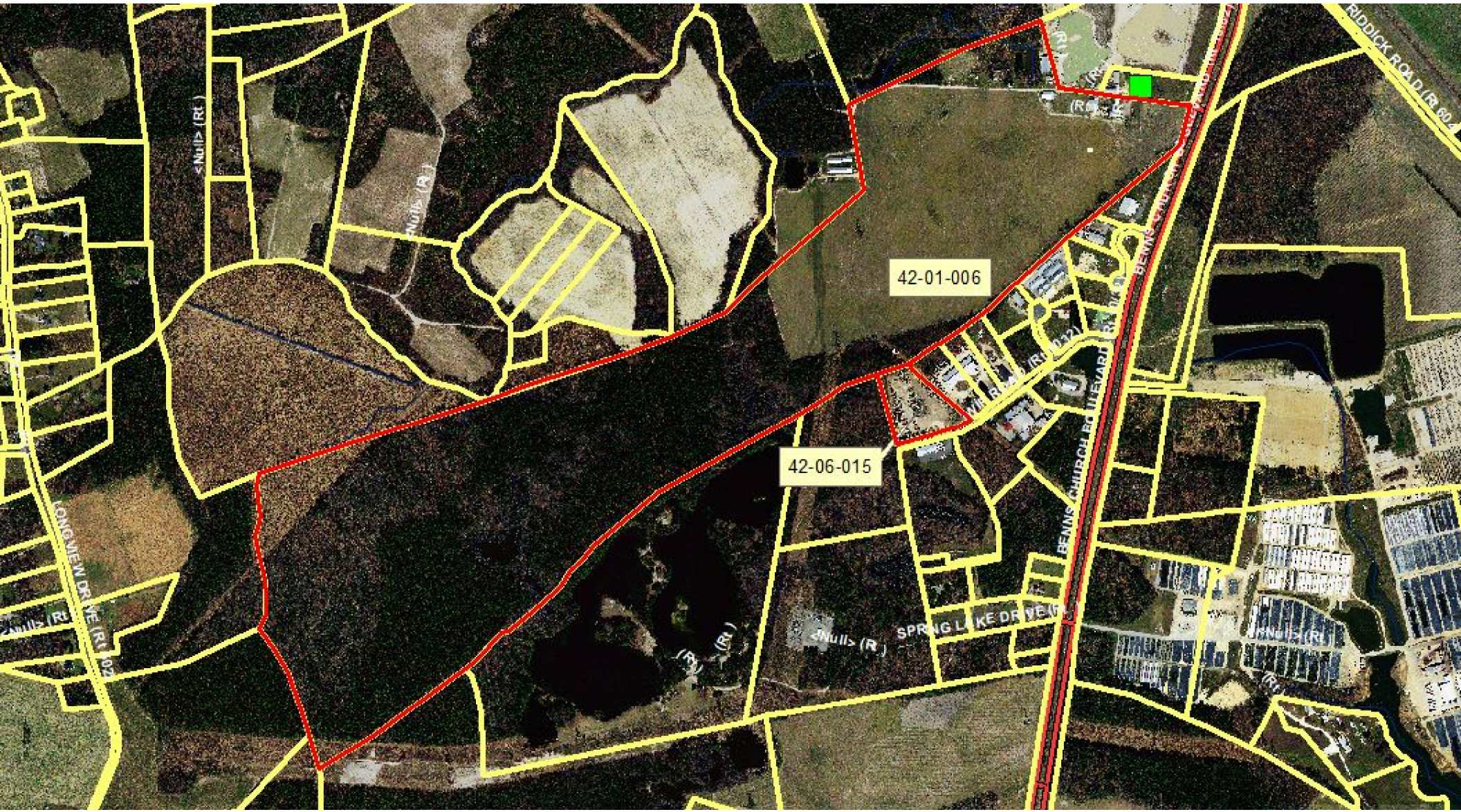
IF-SF5
One isolated find was recovered from the surface of the plowzone of an active agricultural field on the southwestern edge of the project east of a dirt road. This find consisted of two modern white plastic pipe fragments. No further work is recommended for this isolated find.

IF-SF6
One isolated find was recovered from the surface of the plowzone of an active agricultural field on the southwestern edge of the project area east of a dirt road. This find consisted of one oyster shell fragment. One shovel test was excavated in the find's location. The test was negative. One soil stratum was excavated before reaching sterile subsoil (see Figure 28). Stratum A, 1.10 feet thick, consisted of a grayish-brown (10YR 6/4) sandy plowzone. Stratum B excavated 0.20 feet thick, consisted of a sterile yellowish-brown (2.5Y 5/6) sandy clay subsoil or C-horizon. No further work is recommended for this isolated find.

IF-SF7
One isolated find was recovered from the surface of the plowzone of an active agricultural field on the southwestern edge of the project area east of a dirt road. This find consisted of one quartzite fire-cracked rock. One shovel test was excavated in the find's location. The test was negative. One soil stratum was excavated before reaching sterile subsoil (see Figure 28). Stratum A, 1.20 feet thick, consisted of a grayish-brown (10YR 6/4) sandy plowzone. Stratum B excavated 0.20 feet thick, consisted of a sterile yellowish-brown (2.5Y 5/6) sandy clay subsoil or C-horizon. No further work is recommended for this isolated find.

IF-SF8
One isolated find was recovered from the surface of the plowzone of an active agricultural field on the southwestern edge of the project area east and west of two utility easements. This find consisted of one quartzite fire-cracked rock and one quartzite primary flake. Nine shovel tests were excavated in the find's location. The tests were negative. One soil stratum was excavated before reaching sterile subsoil (see Figure 28). Stratum A, approximately 0.90 to 1.20 feet thick, consisted of a grayish-brown (10YR 6/4) sandy plowzone. Stratum B excavated 0.20 feet thick, consisted of a sterile yellowish-brown (2.5Y 5/6) sandy clay subsoil or C-horizon. No further work is recommended for this isolated find.

IF-SF9
One isolated find was recovered from the surface of the plowzone of an active agricultural field on the southern edge of the project area east of a power line easement. This find consisted of one reddish-brown brick fragment. One shovel test was excavated in the find's location. The test was negative. One soil stratum was excavated before reaching sterile subsoil (see Figure 28). Stratum A, 1.10 feet thick, consisted of a grayish-brown (10YR 6/4) sandy plowzone. Stratum B excavated 0.20 feet thick, consisted of a sterile yellowish-brown (2.5Y 5/6) sandy clay subsoil or C-horizon. No further work is recommended for this isolated find.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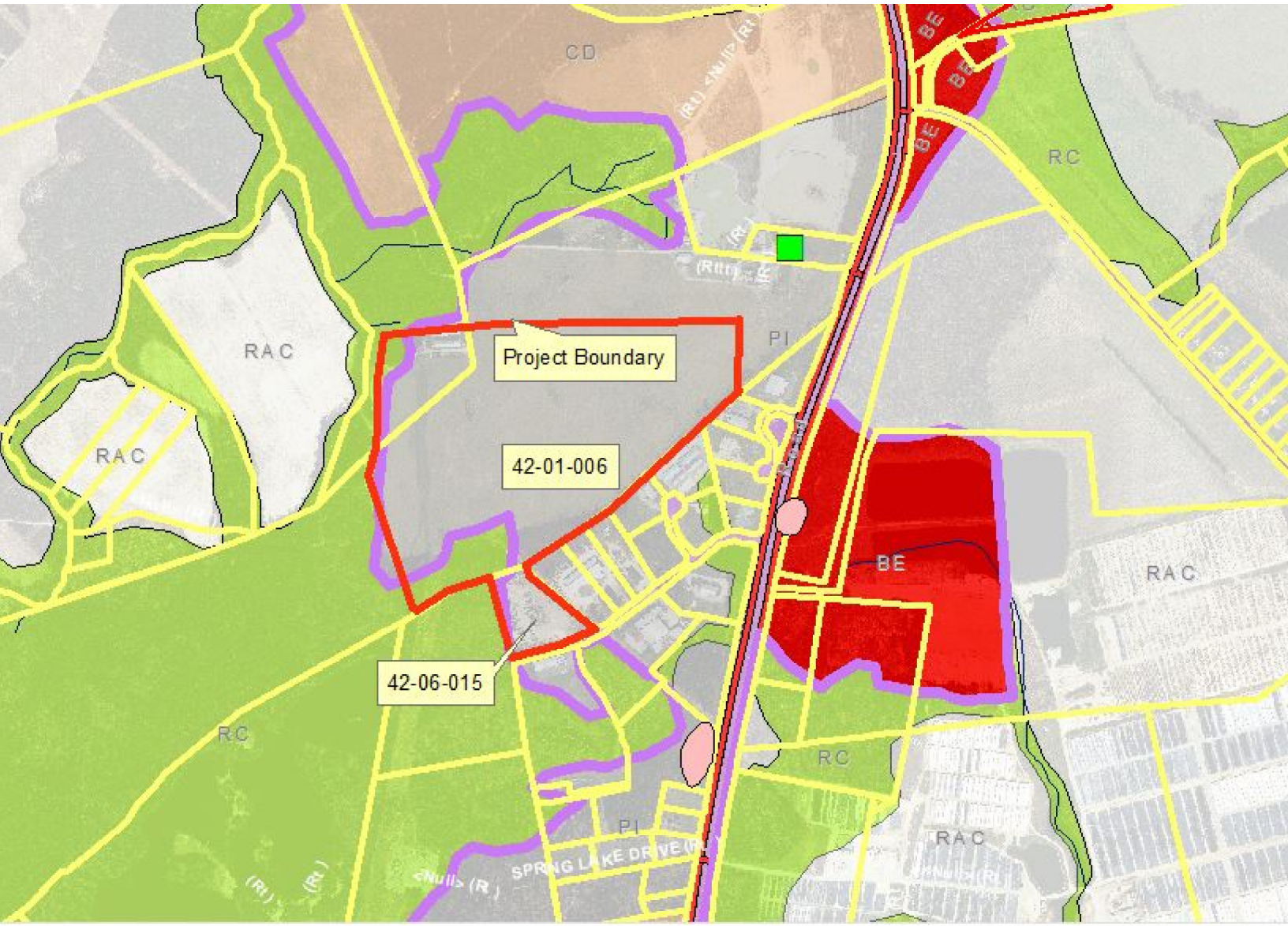
42-06-015
RIDDICK ROAD (R 60
BENNS CHURCH BOULEVARD
SPRING LAKE DRIVE
LONG MEW DRIVE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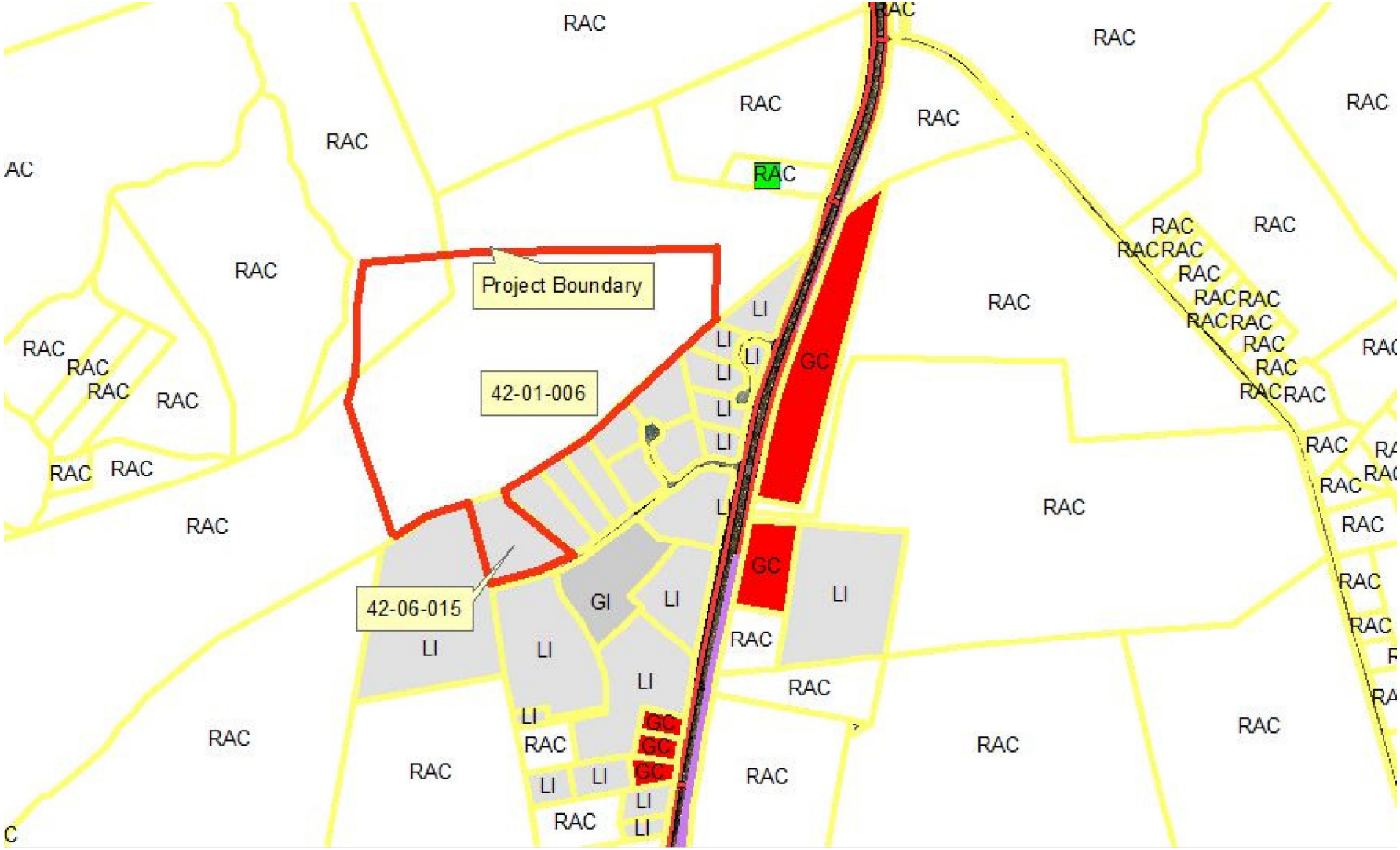

Project Boundary
42-01-006
42-06-015
RAC
LI
GC
GI

RESOLUTION NUMBER PC-22-14

ISLE OF WIGHT COUNTY PLANNING COMMISSION
A RESOLUTION TO PRESENT A REPORT AND RECOMMENDATION TO THE BOARD OF SUPERVISORS RELATING TO REZONING REQUEST ZA-04-21 TO CHANGE THE ZONING DISTRICT OF 5.07 ACRES ON PROPERTY WITH TAX MAP NUMBER 42-06-015 AND 69.73 ACRES ON PROPERTY WITH TAX MAP NUMBER 42-01-006 TO THE CONDITIONAL-LIMITED INDUSTRIAL ZONING DISTRICT

WHEREAS, Advanced Construction Development, LLC, applicant, and Locust Grove Partners, LP and H&B Railroad Company, Inc. property owners, have requested a conditional zoning for property with tax map number 42-06-015 and 42-01-006 to specifically allow the uses of auction establishment and scrap and salvage service only as set forth in the attached proffered conditions; and,

WHEREAS, the procedural requirements for the consideration of this request by the Planning Commission have been met.

NOW, THEREFORE, BE IT RESOLVED by the Planning Commission of Isle of Wight County, that:

Section 1. Findings.

A. The Isle of Wight County Planning Commission finds that the proposed rezoning is reasonable, and warranted due to a change in circumstances affecting the property, and has considered the following factors and finds that the proposed rezoning does not conflict with:

1. the existing use and character of property within the County;

2. the Comprehensive Plan;

3. the suitability of the property for various uses;

4. the trends of growth or change;

5. the current or future requirements of the community as to land for various purposes as determined by population and economic studies and other studies;

6. the transportation requirements of the community;

7. the requirements for airports, housing, schools, parks, playgrounds, recreation areas and other public services;

8. the conservation of natural resources;

9. the preservation of flood plains;

10. the preservation of agricultural and forestal land;

11. the conservation of properties and their values;

12. the encouragement of the most appropriate use of land throughout the County;

Section 2. Recommendation to Board of Supervisors.

The Planning Commission recommends to the Board of Supervisors that the request, ZA-4-21, be:

___ a. Granted as submitted, and that the Board of Supervisors adopt the proposed Ordinance without modification.

___b. Denied, and that Board of Supervisors do not adopt the proposed Ordinance.

___c. Granted with the modifications set forth on the attached listing of specific conditions, and that the Board of Supervisors adopt the proposed Ordinance with such modifications.

READ AND PASSED: _____

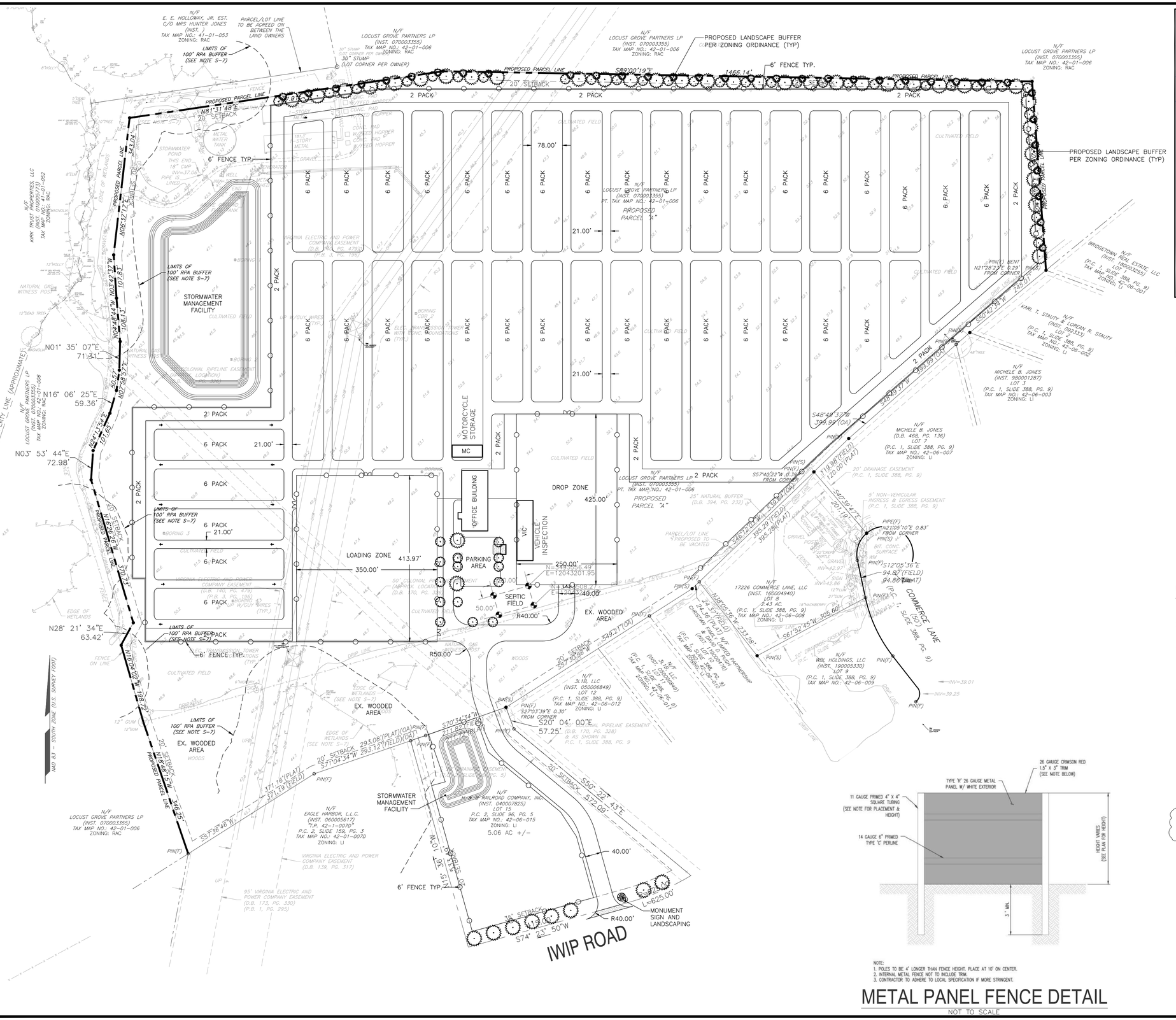
TESTE:

_____

Approved as to Form:

_____

Bobby Jones, County Attorney



VICINITY MAP

1" = 2,000'

SITE ANALYSIS

PROPOSED DEVELOPMENT AREA: 74.79± AC

PARCEL:	42-06-015
PARCEL AREA:	5.06± AC
EXISTING ZONING:	LI
PROPSOED ZONING:	LI
PARCEL:	42-01-006 (PORTION OF)
PARCEL AREA:	69.73± AC
EXISTING ZONING:	RAC
PROPSOED ZONING:	LI

SETBACKS:	REQUIRED
FRONT:	35'
SIDE(R/W):	35'
SIDE:	20'
REAR:	20'

GENERAL NOTES

1. THE SITE IS DESIGNED IN ACCORDANCE WITH THE INDUSTRIAL (LI) ZONING REQUIREMENTS OF THE IOW COUNTY ZONING ORDINANCE.
2. A PORTION OF THE PROPOSED DEVELOPMENT REQUIRES REZONING OF THE PROPERTY FROM RAC TO LI.
3. DEVELOPMENT SERVICES GROUP ASSUMES THAT THE REQUIRED STORMWATER QUANTITY AND QUALITY IMPROVEMENTS WILL BE ACHIEVED WITH THE USE OF A ON-SITE STORMWATER DETENTION FACILITY AND THAT ADEQUATE STORMWATER INFRASTRUCTURE IS AVAILABLE WITHIN THE PUBLIC RIGHT OF WAY.
4. ALL PROPERTY AND RIGHT-OF-WAY ARE BASED OFF OF INFORMATION PROVIDED BY THE DEVELOPER AND SHOULD BE VIEWED AS APPROXIMATE.
5. THE PROPOSED ENTRANCES ARE CONCEPTUAL.DEVELOPMENT SERVICES GROUP RECOMMENDS FURTHER INVESTIGATION INTO TRAFFIC REQUIREMENTS.
6. THE SEPTIC FIELD IS APPROXIMATE. DEVELOPMENT SERVICES GROUP RECOMMENDS FURTHER INVESTIGATION.
7. THE DOMESTIC WATER SUPPLY SHALL BE PROVIDED BY THE EXISTING WATER SERVICE WITHIN THE INDUSTRIAL PARK.
8. SURVEY INFORMATION FOR PARCEL 42-06-006 WAS PROVIDED BY KBJW.
9. THE PROPOSED IMPROVEMENTS SHALL NOT EXCEED 60% LOT COVERAGE IN ACCORDANCE WITH THE ZONING ORDINANCE.
10. THE PROPOSED IMPROVEMENTS SHALL INCLUDE THE INSTALLATION OF A DRY HYDRANT TO BE UTILIZED WITH THE PROPOSED STORMWATER MANAGEMENT FACILITY.

NOTE:
1. POLES TO BE 4' LONGER THAN FENCE HEIGHT, PLACE AT 10' ON CENTER.
2. INTERNAL METAL FENCE NOT TO INCLUDE TRIM.
3. CONTRACTOR TO ADHERE TO LOCAL SPECIFICATION IF MORE STRINGENT.

METAL PANEL FENCE DETAIL

NOT TO SCALE

GRAPHIC SCALE

120 60 0 120 240

scale feet

HORIZONTAL SCALE: 1"=120'

REV.	DESCRIPTION	DATE
1	REVISED PER OWNER COMMENTS	3/10/22
2	REVISED PER COUNTY COMMENTS	7/5/22
3	REVISED PER COUNTY COMMENTS	9/16/22
4		
5		
6		
7		
8		
9		
10		
11		

DESIGNED BY: EFT
DRAWN BY: EFT
REVIEWED BY:

1210 PROGRESSIVE DRIVE
SUITE 201
CHESAPEAKE, VA 23320
757-908-2372
WWW.DSGINCORPORATED.COM

DSG DEVELOPMENT SERVICES GROUP INC.

PROJECT NAME/LOCATION ID: SMITHFIELD IAAI

SHEET TITLE: CONCEPT PLAN

PROJECT LOCATION: PARCEL 42-06-006 AND 42-06-015 SMITHFIELD, VA 23430

PROJECT ID: 2008.01

CL-4.1

SHEET NUMBER

FILE NAME: P:\2008-Advanced Construction\2008.01-Smithfield IAAI\Cad\ref\case-barns church IAAI opt.dwg LAYOUT NAME: Concept PLOTTED: Tuesday, September 20, 2022 - 11:40am

Saunders & Ojeda, P.C.

Attorneys and Counselors at Law

705 West Washington Street, Suffolk, Virginia 23434
757.942.7070 • Fax 757.934.1299
www.suffolkvalaw.com

Martin N. Speroni
msperoni@sando.law

September 22, 2022

VIA HAND DELIVERY AND EMAIL (aring@isleofwightus.net)

Amy M. Ring, AICP
Isle of Wight County, Department of Community Development
17140 Monument Circle, Suite 206
Isle of Wight, VA 23397

RE: Isle of Wight Auto Auction Rezoning (RZ-04-21), 4th Submittal IWIP Road
Tax Map No. 42-01-006 & 42-06-015
MUNIS Case No. 23438

Dear Ms. Ring:

Thank you again for meeting with us (via videoconference) on September 6, 2022. It was a very productive dialogue. This letter is the follow-up you required in such videoconference.

On behalf of our client (the Applicant), and taking into consideration the discussion we had in our videoconference, please note our comments below.

1. Elmer Tolle, III, CFM, today emailed you an updated Concept Plan dated 9/16/22 incorporating the comments discussed during the videoconference.

2. The Applicant, Advanced Construction Development, LLC, intends to lease the land to the prospective operator of the site (Operator) – an operating company licensed to conduct business in Virginia, controlled by an IAA, Inc., a publicly-traded firm that is a leading digital marketplace connecting vehicle buyers and sellers.

3. The lease planned between Applicant and Operator contains Phase I environmental test clauses for the beginning and the termination of the lease period – and the Operator would be bound to remedy any violation of any environmental rules or regulations by any pertinent authority. Naturally, the Applicant is keenly interested in the Property being in good environmental shape when the Operator returns it to them.[1]

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[1] While solar fields typically require a decommissioning plan, such may not be the preferred answer in this case, where concerns for the environment are ongoing and can be addressed contractually between the land owner (the Applicant) and the Operator.

4. The Applicant and the Operator are compelled by law to conform and follow all applicable codes and regulations, state and federal, whether in place now, or as may be applicable in the future, environmental or otherwise.

5. Fire suppression. The Applicant and the Operator intend to continue to work closely with the Fire Marshal. As discussed in the videoconference, when it comes to fire suppression, it is calculated that the dry hydrant is sufficient. In terms of electric vehicles (EV), we discussed placing the EVs in the most accessible and convenient place with respect to the dry hydrant. We discussed the fact that since wider acceptance of EV technology is rather new to the mass market, it is expected that technology and regulations will evolve as time passes and the industry gains experience. The Applicant and the Operator plan on keeping their practices at the leading edge of these changes. The Operator will place inventory in conformance with regulations and in a manner that is protective of employee safety and the environment. Again, these procedures will likely change with evolving technology and future regulations.

6. As to concerns about (i) vehicle carriers parking in public streets and (ii) vehicles being dropped off in the public right of way, the Property layout has been designed to leave quite a bit of space in the area anterior to the vehicle drop off zone, so that it is unlikely that there would typically be waiting vehicle carriers in the public road. Although ultimately neither Applicant nor Operator have formal authority over what may happen outside of the Property line, the Operator can instruct the vehicle carriers not to drop of vehicles in the public right-of-way and not to park near the Property after hours; any vehicles dropped off or parked in contravention of said instructions can be handled under the customary County processes.

Please do not hesitate to contact me with any questions.

Sincerely,

Martin N. Speroni, Esq.

MNS/hr

cc: Shawn Fulkerson (sfulkerson@fulkersonlawoffice.com)
Scott Fulkerson (jsfulkerson@cox.net)
Elmer Tolle (etolle@dsgva.com)
Robert W. Jones, Jr., Esq. (bjones@isleofwightus.net)

ORDINANCE NUMBER:

AN ORDINANCE TO CHANGE THE ZONING DISTRICT OF 5.07 ACRES ON PROPERTY WITH TAX MAP NUMBER 42-06-015 AND 69.73 ACRES ON PROPERTY WITH TAX MAP NUMBER 42-01-006 TO THE CONDITIONAL-LIMITED INDUSTRIAL ZONING DISTRICTTO PERMIT DEVELOPMENT OF AN AUCTION ESTABLISHMENT AND SCRAP AND SALVAGE SERVICE

WHEREAS, Advanced Construction Development, LLC, applicant, and Locust Grove Partners, LP and H&B Railroad Company, Inc. property owners, have requested a conditional zoning for property with tax map number 42-06-015 and a portion of 42-01-006 to specifically allow the uses of auction establishment and scrap and salvage service as set forth in the attached proffered conditions and which land is shown on Exhibit B; and

WHEREAS, the proposed rezoning to C-LI zoning has been advertised and reviewed by the Planning Commission in compliance with the requirements of state law; and,

WHEREAS, the Planning Commission has made a recommendation as stated in Exhibit "A" to approve the requested rezoning with the proffered conditions attached hereto as Exhibit "C"; and,

WHEREAS, a public hearing before the Isle of Wight County Board of Supervisors was duly advertised as required by law and held on October 20, 2022, at which public hearing the public was presented with the opportunity to comment on the proposed rezoning.

NOW, THEREFORE, BE IT ORDAINED by the Isle of Wight County Board of Supervisors of Isle of Wight County, Virginia, that:

Section 1. Exhibits.

Exhibit "A", "Planning Commission Recommendation", Exhibit "B", "Property Map", and Exhibit "C", "Proffered Conditions", as attached hereto, are hereby incorporated as part of this ordinance.

Section 2. Findings.

The Board of Supervisors finds that the requested conditional rezoning application, ZA-4-21, as submitted with proffered conditions herein, is for the expressed purpose of developing the subject property in harmony with the standards of the Isle of Wight County Zoning Ordinance; and it will have no more adverse effects on the health, safety or comfort of persons living or working in or driving through the neighborhood; and will be no more injurious to property or improvements in the neighborhood than would any other use generally permitted in the same district, taking into consideration the location, type and height of buildings or structures, the type and extent of landscaping and screening on site; and whether the use is consistent with any theme, action, policy or map of the Comprehensive Plan with the conditions set forth below.

These findings are based upon the consideration for the existing use and character of the property, the Comprehensive Plan, the suitability of the property for various uses, the trends of growth or change, the current and future requirements of the community as to land for various purposes as determined by population and economic studies and other studies, the transportation requirements of the community, the requirements of airports, housing, schools, parks, playgrounds, recreation areas and other public services, the conservation of natural resources, the preservation

floodplains, the preservation of agricultural and forestal land, the conservation of properties and their values, and the encouragement of the most appropriate use of land throughout the County.

Section 3. Rezoning.

A. The property as shown on the attached Exhibit "B" is hereby rezoned with proffered conditions described in Exhibit "C" and the Official Zoning Map be, and is hereby, amended to allow the proposed development.

B. The foregoing rezoning and amendment to the official zoning map shall remain in effect until a subsequent amendment changes the zoning of the property.

Section 4. Severability.

It is the intention of the Board of Supervisors that the provisions, sections, paragraphs, sentences, clauses, and phrases of this ordinance are severable; and, if any phrase, clause, sentence, paragraph, section, and provision of this ordinance hereby adopted shall be declared unconstitutional or otherwise invalid by the valid judgement or decree of a court of competent jurisdiction, such unconstitutionality or invalidity shall not affect any of the remaining phrase, clauses, sentences, paragraphs, sections, and provisions of this ordinance, to the extent that they can be enforced notwithstanding such determination

Section 5. Effective Date

This ordinance shall be effective upon passage and shall not be published or codified.

DATE: _____

READ AND PASSED: _____
Chairman, Board of Supervisors

TESTE: _____
Clerk, Board of Supervisors

Approved as to Form:

_____
Robert W. Jones Jr., County Attorney

ISSUE:

Resolution to Expand the County's Enterprise Zone

BACKGROUND:

The County has an opportunity to apply for expansion of its current Enterprise Zones through the Virginia Department of Housing and Community Development. Expansion of the Enterprise Zones would be a beneficial to the County's economic development efforts.

BUDGETARY IMPACT:

None.

RECOMMENDATION:

Conduct a Public Hearing and approve a resolution to expand the County's Enterprise Zones.

ATTACHMENTS:

Description	Type	Upload Date
Resolution	Resolution	10/13/2022

RESOLUTION TO AMEND THE JOINT ISLE OF WIGHT/SOUTHAMPTON ENTERPRISE ZONE

WHEREAS, Isle of Wight County has a designated Enterprise Subzone, identified as the Camptown Enterprise Subzone, that provides a combination of State and Local incentives to promote economic development; and,

WHEREAS, Isle of Wight County has a designated Enterprise Zone, identified as the Windsor Enterprise Subzone 1, that provides a combination of State and Local incentives to promote economic development; and,

WHEREAS, there is a current need to amend both the existing Camptown Enterprise Subzone and Windsor Enterprise Subzone 1 in Isle of Wight County to incorporate additional properties in and around the Town of Windsor and to increase economic growth opportunities; and,

WHEREAS, this proposed expansion will serve to benefit economic and industrial expansion of Isle of Wight County to meet the goals and objectives of the Virginia Enterprise Zone Program.

NOW, THEREFORE, BE IT RESOLVED that the Isle of Wight County Board of Supervisors authorizes the County Administrator to submit the necessary Enterprise Zone amendment package and sign all necessary documentation on behalf of Isle of Wight County for this proposed Enterprise Zone amendment and meet other program administrative and reporting requirements, as defined by the Enterprise Zone Regulations throughout the life of the zone.

Adopted this 20th day of October, 2022.

_____
Rudolph Jefferson, Chairman

_____
Carey Mills Storm, Clerk

Approved as to Form:

_____
Robert W. Jones, Jr., County Attorney

ISSUE:

Discussion of Fee Schedule for Heritage Park

BACKGROUND:

The County has recently added three large open shelters at Heritage Park, making it a potentially desirable site for events such as class/family reunions, wedding receptions, picnics, etc. In this regard, staff has develop a proposed fee schedule for rental of Heritage Park and its facilities.

The Board may wish to consider adopting a fee schedule for Heritage Park.

BUDGETARY IMPACT:

None.

RECOMMENDATION:

Per the Board's discussion and direction.

ATTACHMENTS:

Description	Type	Upload Date
Proposed Fee Schedule for Heritage Park	Backup Material	9/6/2022

Joel C. Bradshaw Fairgrounds at Heritage Park

21311 Courthouse Highway, Windsor, VA 23487

Proposed Facilities & Services Fees

DRAFT Rev. 6-20-2022

AVAILABILITY

Available for rental throughout the calendar year excluding August 15-September 30 (County Fair) and other blackout dates. Contact Isle of Wight County Parks & Recreation for all inquiries.

Hours:
Weekday – Monday-Thursday: 7:00 am – 9:00 pm
Weekend – Friday-Sunday: 6:00 am – 10:00 pm

PAVILIONS

Rental includes trash, water, power, and on-site personnel. See additional services for other rental costs.

Pavilion Dimensions: 80'W x 120'L x 16'H (Poultry Pavilion or Agricultural Pavilion) OR 80'W x 120'L x 18'H (4-H Pavilion). Max Capacity: 288 per pavilion.

Daily Rates:
$1,500.00 choice of 1 pavilion.
$500.00 each additional pavilion.

$500 deposit – refundable up until 2 weeks (14 days) from rental. Forfeited after any cancelations less than 2 weeks from rental date.

Full payment due 2 weeks (14 days) before rental date.

10% off base for rentals Monday – Thursday (7:00 am – 9:00 pm) ONLY.

FAIRGROUNDS

Rental includes trash, water, power, and on-site personnel. See additional services for other rental costs.

$3,500.00-$6,000.00 for entire fairgrounds including parking lot, pavilions, rodeo arena, and motorsports track. Does not include grain bin, office, or barn.

$500 deposit – refundable up until 2 weeks (14 days) from rental. Forfeited after any cancelations less than 2 weeks from rental date.

Full payment due 2 weeks (14 days) before rental date.

10% off base for rentals Monday – Thursday (7:00 am – 9:00 pm) ONLY.

DRAFT

ADDITIONAL SERVICES & FEES

Required: minimum 2 portable toilets (1 regular, 1 handicap). Additional 1 portable toilet per 50 people. Rate TBD through Parks & Rec. OR personal arrangements can be made with rental company with approval from Parks & Recreation. Liability insurance must be on file and delivery must be coordinated at least 2 weeks prior to rental.

Early set-up available the day prior for additional $500.00 after 2:00 pm contingent upon availability.

Custom Message (with approval) on Park Digital Sign at Park Entrance: $25.00 per day

Wifi Access: $100.00

Folding Chairs: $1.50 per chair

8’ Folding Table with OR without Tablecloth Clips (tablecloths not included): $8.50 per table

Picnic Table: $10 per picnic table

Benches: $3.50 per bench

Bleachers: $150.00 per bleacher

Light Towers: Price TBD

Vendor Fees:
Non-profit Food Vendor Fee (per day): $50.00
For Profit/Food Truck Vendors (per day): $150.00
**All food vendors must be approved by the Isle of Wight County Health Department and reported to the office of the Isle of Wight County Commissioner of the Revenue. Liability insurance naming Isle of Wight County as additionally insured for $1,000,000.00 must be on file.*

$500.00 fee for any damages to the property.

DRAFT

ISSUE:

Discussion of Holding a Strategic Planning Retreat/Tour

BACKGROUND:

At its work session on October 7, 2021 the Board requested that this matter be placed on the October 21, 2021 for consideration of potential dates in January 2022 for a Board Retreat.

The Board may wish to consider combining a tour of the Hayden Village facility with a discussion to follow regarding programming for seniors, a regional transportation proposal from Senior Services, an update of capital projects, private roads policies and/or other topics in which the Board has interest.

BUDGETARY IMPACT:

None.

RECOMMENDATION:

Per the Board's discussion.

BACKGROUND:

The matters attached to this Board report are included as a means of providing information to the Board relative to matters of interest. These items do not require any action by the Board.

BUDGETARY IMPACT:

None

RECOMMENDATION:

For the Board's information.

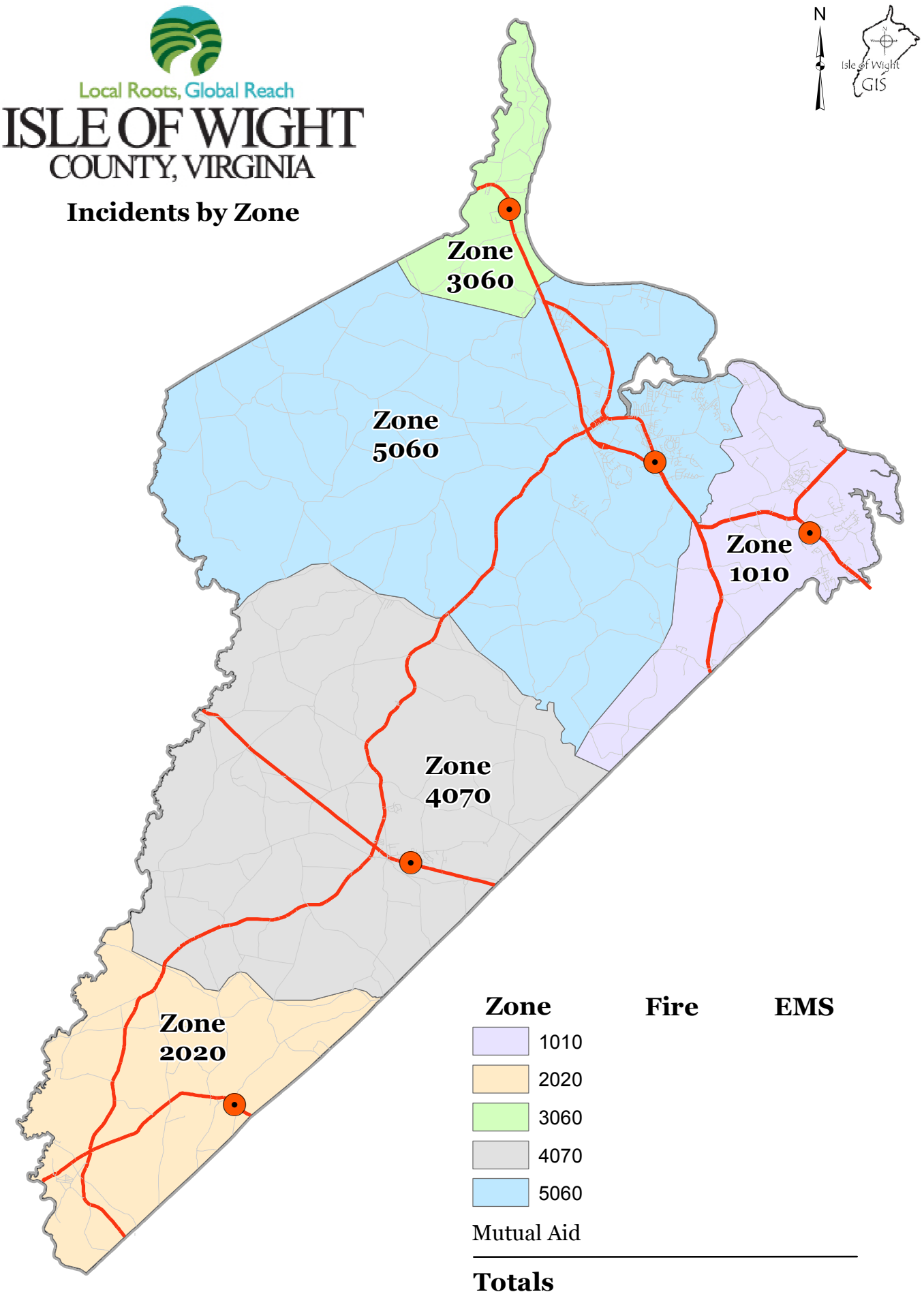
ATTACHMENTS:

Description	Type	Upload Date
Incidents by Zone Map - September 2022	Backup Material	10/6/2022
Incidents by Zone Data - September 2022	Backup Material	10/6/2022
Station Activity Report - October 2022	Backup Material	10/6/2022
Zencity Summary Report - September 2022	Backup Material	10/7/2022

Local Roots, Global Reach

ISLE OF WIGHT COUNTY, VIRGINIA

Incidents by Zone



ISLE OF WIGHT

Incident be Zone

Agency: IWFR, Event date/Time range: 09/01/2022 00:00:00 - 09/30/2022 23:59:59

Station/Beat Code	Nature Code	Self Init	CFS	Total	% Total	Avg Disp Time	Avg Resp Time	Avg Scene Time	Total Call Time	Avg Call Time
	ACCIDENT UNKNOWN INJURIES	0	1	1	14%	0:02:50	0:00:00	0:00:00	0:11:46	0:11:46
	ACCIDENT WITH INJURIES	0	2	2	29%	0:01:53	0:06:43	0:48:57	1:55:05	0:57:33
	ATTEMPT SUICIDE	0	1	1	14%	0:01:03	0:10:39	11:12:03	11:23:45	11:23:45
	Subtotals for EMS	**0**	**4**	**4**	**57%**	**0:01:55**	**0:08:41**	**6:00:30**	**13:30:36**	**4:11:01**
	ASSIST BOATER	0	2	2	29%	0:02:05	0:15:33	0:59:29	1:21:10	0:40:35
	Subtotals for FIRE	**0**	**2**	**2**	**29%**	**0:02:05**	**0:15:33**	**0:59:29**	**1:21:10**	**0:40:35**
	FIRE MUTUAL AID	0	1	1	14%	0:01:00	0:00:00	0:00:00	0:43:05	0:43:05
	Subtotals for MUTA	**0**	**1**	**1**	**14%**	**0:01:00**	**0:00:00**	**0:00:00**	**0:43:05**	**0:43:05**
	Totals for	**0**	**7**	**7**	**100%**	**0:01:46**	**0:10:58**	**4:20:10**	**15:34:51**	**2:47:21**
1010	ABDOMINAL PAIN	0	4	4	3%	0:01:01	0:10:28	0:56:31	4:32:00	1:08:00
	ABRASIONS BRUISES ETC	0	2	2	2%	0:00:47	0:07:28	0:35:02	1:26:34	0:43:17
	ACCIDENT UNKNOWN INJURIES	0	5	5	4%	0:01:19	0:04:44	0:14:48	1:44:17	0:20:51
	ACCIDENT WITH ENTRAPMENT	0	1	1	1%	0:00:05	0:03:42	0:51:08	0:54:55	0:54:55
	ACCIDENT WITH INJURIES	0	1	1	1%	0:00:59	0:07:03	0:59:26	1:07:28	1:07:28
	ALARM - MEDICAL	0	3	3	2%	0:01:06	0:12:07	0:41:15	1:55:22	0:38:27
	ALLERGIC REACTIONS	0	1	1	1%	0:00:38	0:00:00	0:43:23	0:44:01	0:44:01
	ASSAULT WITH INJURIES	0	1	1	1%	0:02:05	0:00:47	0:50:56	0:53:48	0:53:48
	BITE	0	1	1	1%	0:01:58	0:06:03	0:46:06	0:54:07	0:54:07
	CARDIAC ARREST	0	1	1	1%	0:00:50	0:07:02	0:28:11	0:36:03	0:36:03
	CHEST PAIN	0	11	11	9%	0:01:37	0:06:51	1:02:03	12:55:39	1:10:31
	CHILD OR ANIMAL LOCKED IN CAR	0	1	1	1%	0:00:08	0:03:47	0:26:02	0:29:57	0:29:57
	DIABETIC PROBLEMS	0	3	3	2%	0:00:54	0:09:43	0:55:09	3:17:21	1:05:47

Station/Beat Code	Nature Code	Self Init	CFS	Total	% Total	Avg Disp Time	Avg Resp Time	Avg Scene Time	Total Call Time	Avg Call Time
	DIFFICULTY BREATHING	1	7	8	6%	0:01:17	0:07:15	0:51:33	7:52:09	0:59:01
	FALLS AND RELATED INJURIES	0	11	11	9%	0:01:56	0:09:34	0:39:22	9:19:39	0:50:53
	FRACTURES OR BROKEN BONES	0	1	1	1%	0:01:08	0:08:34	1:25:25	1:35:07	1:35:07
	HEART PROBLEMS	0	1	1	1%	0:00:58	0:04:43	1:25:59	1:31:40	1:31:40
	LIFT ASSIST	0	11	11	9%	0:01:50	0:13:35	0:27:50	7:55:45	0:43:15
	OVERDOSE	0	1	1	1%	0:02:08	0:21:13	1:23:28	1:46:49	1:46:49
	PAIN	0	2	2	2%	0:01:52	0:08:17	1:00:44	2:21:47	1:10:54
	POSSIBLE DOA	0	1	1	1%	0:01:12	0:04:51	0:28:23	0:34:26	0:34:26
	PSYCHIATRIC PROBLEMS	1	3	4	3%	0:00:17	0:05:02	0:58:44	4:16:11	1:04:03
	SICK / ILL OR RESCUE	1	29	30	23%	0:01:55	0:08:27	0:57:49	33:55:10	1:07:50
	STROKE	0	4	4	3%	0:01:19	0:08:09	1:15:59	5:41:47	1:25:27
	UNCONSCIOUS OR FAINTING	0	5	5	4%	0:01:28	0:05:40	1:12:53	6:40:07	1:20:01
	Subtotals for EMS	**3**	**111**	**114**	**88%**	**0:01:14**	**0:07:43**	**0:51:56**	**115:02:09**	**0:59:52**
	ARCING WIRES DOWN POWER LINES	0	1	1	1%	0:01:37	0:07:08	2:32:01	2:40:46	2:40:46
	BRUSH FIRE	1	1	2	2%	0:00:42	0:05:37	0:13:29	0:39:35	0:19:48
	FIRE ALARM	0	6	6	5%	0:01:39	0:07:45	0:11:44	1:21:32	0:13:35
	FIRE OTHER NOT LISTED	0	2	2	2%	0:00:14	0:07:09	0:13:53	0:42:30	0:21:15
	SMELL OF GAS INSIDE/OUTSIDE	0	1	1	1%	0:02:21	0:04:16	0:37:50	0:44:27	0:44:27
	STRUCTURE FIRE	0	3	3	2%	0:01:50	0:10:54	0:48:37	3:04:02	1:01:21
	Subtotals for FIRE	**1**	**14**	**15**	**12%**	**0:01:24**	**0:07:08**	**0:46:16**	**9:12:52**	**0:53:32**
	Totals for 1010	**4**	**125**	**129**	**100%**	**0:01:16**	**0:07:36**	**0:50:50**	**124:15:01**	**0:58:38**
2020	ABRASIONS BRUISES ETC	0	1	1	4%	0:00:12	0:11:23	0:24:17	0:35:52	0:35:52
	ACCIDENT UNKNOWN INJURIES	0	2	2	9%	0:03:33	0:07:30	1:58:12	4:18:30	2:09:15
	ACCIDENT WITH ENTRAPMENT	0	1	1	4%	0:01:26	0:04:35	1:12:24	1:18:25	1:18:25
	ALARM - MEDICAL	0	1	1	4%	0:03:40	0:00:00	0:00:00	0:15:42	0:15:42
	BACK PAIN (NON TRAUMATIC)	0	1	1	4%	0:02:12	0:12:02	0:45:44	0:59:58	0:59:58

Station/Beat Code	Nature Code	Self Init	CFS	Total	% Total	Avg Disp Time	Avg Resp Time	Avg Scene Time	Total Call Time	Avg Call Time
	CHEST PAIN	0	3	3	13%	0:02:14	0:05:50	0:41:13	2:27:51	0:49:17
	DIFFICULTY BREATHING	0	1	1	4%	0:01:41	0:06:30	0:51:37	0:59:48	0:59:48
	FALLS AND RELATED INJURIES	0	1	1	4%	0:03:55	0:03:27	2:49:36	2:56:58	2:56:58
	LIFT ASSIST	0	1	1	4%	0:01:08	0:11:20	0:12:19	0:24:47	0:24:47
	PAIN	0	1	1	4%	0:01:45	0:15:03	0:31:08	0:47:56	0:47:56
	SICK / ILL OR RESCUE	0	1	1	4%	0:04:44	0:19:45	0:07:07	0:31:36	0:31:36
	UNCONSCIOUS OR FAINTING	0	3	3	13%	0:01:43	0:09:15	0:17:21	1:05:14	0:21:45
	Subtotals for EMS	**0**	**17**	**17**	**74%**	**0:02:21**	**0:09:42**	**0:53:43**	**16:42:37**	**1:00:57**
	BURNING COMPLAINT	0	1	1	4%	0:01:09	0:00:00	0:00:00	0:30:12	0:30:12
	FIRE ALARM	0	3	3	13%	0:01:17	0:05:43	0:01:44	0:26:22	0:08:47
	STRUCTURE FIRE	0	2	2	9%	0:01:15	0:06:16	0:08:22	0:31:46	0:15:53
	Subtotals for FIRE	**0**	**6**	**6**	**26%**	**0:01:14**	**0:06:00**	**0:05:03**	**1:28:20**	**0:18:17**
	Totals for 2020	**0**	**23**	**23**	**100%**	**0:02:08**	**0:09:08**	**0:46:14**	**18:10:57**	**0:52:25**
3060	ACCIDENT UNKNOWN INJURIES	0	2	2	10%	0:01:24	0:09:39	0:56:08	2:14:21	1:07:11
	ACCIDENT WITH INJURIES	0	1	1	5%	0:01:54	0:05:13	0:31:41	0:38:48	0:38:48
	CHOKING	0	1	1	5%	0:01:54	0:14:57	0:43:42	1:00:33	1:00:33
	DIFFICULTY BREATHING	0	4	4	19%	0:01:47	0:17:10	0:13:30	2:09:46	0:32:27
	HEAD INJURY	0	1	1	5%	0:01:55	0:19:13	1:07:48	1:28:56	1:28:56
	PAIN	0	1	1	5%	0:02:28	0:15:25	1:04:44	1:22:37	1:22:37
	POSSIBLE DOA	0	1	1	5%	0:03:06	0:15:33	1:56:23	2:15:02	2:15:02
	SICK / ILL OR RESCUE	0	2	2	10%	0:01:51	0:17:41	1:28:20	3:35:45	1:47:53
	STROKE	0	2	2	10%	0:02:35	0:13:16	1:11:41	2:55:03	1:27:32
	UNCONSCIOUS OR FAINTING	0	3	3	14%	0:01:55	0:17:11	0:45:01	2:08:21	0:42:47
	Subtotals for EMS	**0**	**18**	**18**	**86%**	**0:02:05**	**0:14:32**	**0:59:54**	**19:49:12**	**1:14:23**
	BRUSH FIRE	0	1	1	5%	0:02:33	0:09:13	0:55:00	1:06:46	1:06:46

Station/Beat Code	Nature Code	Self Init	CFS	Total	% Total	Avg Disp Time	Avg Resp Time	Avg Scene Time	Total Call Time	Avg Call Time
	FIRE ALARM	0	1	1	5%	0:00:52	0:00:00	0:00:00	0:07:09	0:07:09
	FIRE OTHER NOT LISTED	0	1	1	5%	0:00:04	0:10:52	0:53:51	1:04:47	1:04:47
	Subtotals for FIRE	**0**	**3**	**3**	**14%**	**0:01:10**	**0:10:02**	**0:54:26**	**2:18:42**	**0:46:14**
	Totals for 3060	**0**	**21**	**21**	**100%**	**0:01:52**	**0:13:47**	**0:58:59**	**22:07:54**	**1:07:53**
4070	ABDOMINAL PAIN	1	3	4	3%	0:01:46	0:10:33	1:29:13	6:33:52	1:38:28
	ABRASIONS BRUISES ETC	2	1	3	2%	0:00:12	0:17:30	0:28:19	1:42:51	0:34:17
	ACCIDENT UNKNOWN INJURIES	0	5	5	4%	0:01:20	0:04:22	1:19:18	7:04:58	1:25:00
	ACCIDENT WITH INJURIES	0	3	3	2%	0:01:24	0:04:41	1:23:51	4:29:48	1:29:56
	ALARM - MEDICAL	0	1	1	1%	0:02:53	0:04:01	0:13:13	0:20:07	0:20:07
	BACK PAIN (NON TRAUMATIC)	0	1	1	1%	0:01:48	0:04:44	0:44:44	0:51:16	0:51:16
	BLEEDING/HEMORRHAGING	0	2	2	1%	0:01:51	0:07:25	0:10:30	0:39:31	0:19:46
	CARDIAC ARREST	0	1	1	1%	0:01:11	0:15:36	1:25:44	1:42:31	1:42:31
	CHEST PAIN	0	7	7	5%	0:01:50	0:10:07	1:28:06	11:40:29	1:40:04
	DIABETIC PROBLEMS	0	3	3	2%	0:01:20	0:16:24	0:55:30	3:39:43	1:13:14
	DIFFICULTY BREATHING	1	12	13	9%	0:01:22	0:06:54	0:49:44	12:25:46	0:57:22
	FALLS AND RELATED INJURIES	0	7	7	5%	0:02:08	0:09:52	0:52:52	7:34:12	1:04:53
	HEADACHE	0	1	1	1%	0:00:25	0:06:16	0:55:24	1:02:05	1:02:05
	HEART PROBLEMS	0	4	4	3%	0:02:04	0:09:01	0:58:17	4:37:30	1:09:23
	HEAT AND COLD EXPOSURE	0	1	1	1%	0:01:25	0:04:38	0:36:22	0:42:25	0:42:25
	INDUSTRIAL ACCIDENT	0	1	1	1%	0:01:30	0:10:59	2:18:14	2:30:43	2:30:43
	LIFT ASSIST	0	12	12	9%	0:02:05	0:09:02	0:12:38	4:45:11	0:23:46
	MEDIC STANDBY	15	0	15	11%	0:00:01	0:27:35	6:14:23	95:26:22	6:21:45
	OVERDOSE	0	1	1	1%	0:01:37	0:14:31	0:53:57	1:10:05	1:10:05
	PAIN	1	3	4	3%	0:01:28	0:10:33	1:00:32	4:50:14	1:12:34
	PSYCHIATRIC PROBLEMS	1	1	2	1%	0:00:05	0:03:55	0:52:02	1:48:04	0:54:02
	SEIZURE	0	1	1	1%	0:00:46	0:06:41	1:24:46	1:32:13	1:32:13

Station/Beat Code	Nature Code	Self Init	CFS	Total	% Total	Avg Disp Time	Avg Resp Time	Avg Scene Time	Total Call Time	Avg Call Time
	SICK / ILL OR RESCUE	2	22	24	17%	0:01:42	0:09:37	0:54:18	24:46:50	1:01:57
	STROKE	0	2	2	1%	0:01:53	0:06:59	1:05:32	2:28:46	1:14:23
	UNCONSCIOUS OR FAINTING	0	4	4	3%	0:01:18	0:10:03	0:59:20	4:42:45	1:10:41
	WELFARE CHECK	1	0	1	1%	0:00:14	0:10:47	0:37:41	0:48:42	0:48:42
	Subtotals for EMS	**24**	**99**	**123**	**88%**	**0:01:22**	**0:09:43**	**1:10:10**	**209:56:59**	**1:19:41**
	ARCING WIRES DOWN POWER LINES	0	2	2	1%	0:01:44	0:09:08	0:09:25	0:40:32	0:20:16
	BRUSH FIRE	0	2	2	1%	0:02:53	0:12:22	4:25:42	9:21:54	4:40:57
	BURNING COMPLAINT	0	1	1	1%	0:01:07	0:11:01	0:09:25	0:21:33	0:21:33
	FIRE ALARM	0	5	5	4%	0:01:21	0:05:31	0:16:00	1:38:01	0:19:36
	FIRE OTHER NOT LISTED	0	1	1	1%	0:00:07	0:06:41	0:13:35	0:20:23	0:20:23
	SMELL OR ODOR OF SMOKE	0	2	2	1%	0:03:26	0:07:23	0:14:16	0:50:09	0:25:05
	STANDBY	1	0	1	1%	0:00:00	0:00:00	3:02:18	3:02:18	3:02:18
	TRANSFORMER FIRE OR POWER LINE	0	1	1	1%	0:01:20	0:11:08	3:10:43	3:23:11	3:23:11
	TRASH OR DUMPSTER FIRE	0	1	1	1%	0:00:14	0:26:47	0:00:02	0:27:03	0:27:03
	Subtotals for FIRE	**1**	**15**	**16**	**11%**	**0:01:32**	**0:11:15**	**1:17:56**	**20:05:04**	**1:28:56**
	RESCUE MUTUAL AID	0	1	1	1%	0:00:05	0:02:09	0:20:18	0:22:32	0:22:32
	Subtotals for MUTA	**0**	**1**	**1**	**1%**	**0:00:05**	**0:02:09**	**0:20:18**	**0:22:32**	**0:22:32**
	Totals for 4070	**25**	**115**	**140**	**100%**	**0:01:22**	**0:09:51**	**1:10:44**	**230:24:35**	**1:20:24**
5060	ABDOMINAL PAIN	0	4	4	2%	0:01:53	0:13:07	0:47:30	4:10:01	1:02:30
	ABRASIONS BRUISES ETC	0	2	2	1%	0:00:44	0:06:34	0:04:39	0:23:54	0:11:57
	ACCIDENT UNKNOWN INJURIES	0	8	8	3%	0:01:13	0:05:11	0:43:04	6:35:40	0:49:28
	ACCIDENT WITH ENTRAPMENT	0	2	2	1%	0:00:47	0:02:53	1:28:33	3:04:26	1:32:13
	ACCIDENT WITH INJURIES	0	3	3	1%	0:02:27	0:06:30	0:55:25	3:06:35	1:02:12
	ALARM - MEDICAL	0	6	6	2%	0:02:23	0:13:55	0:59:36	5:22:12	0:53:42
	ALLERGIC REACTIONS	0	1	1	0%	0:06:08	0:08:51	0:52:11	1:07:10	1:07:10

Station/Beat Code	Nature Code	Self Init	CFS	Total	% Total	Avg Disp Time	Avg Resp Time	Avg Scene Time	Total Call Time	Avg Call Time
	BLEEDING/HEMORRHAGING	0	10	10	4%	0:01:21	0:10:57	1:01:26	12:17:21	1:13:44
	BURN INJURIES	1	0	1	0%	0:00:18	0:08:54	0:38:41	0:47:53	0:47:53
	CARDIAC ARREST	0	3	3	1%	0:00:51	0:08:51	0:33:44	2:10:20	0:43:27
	CHEST PAIN	0	7	7	3%	0:01:35	0:09:25	1:05:16	8:53:56	1:16:17
	CHILD OR ANIMAL LOCKED IN CAR	0	1	1	0%	0:00:43	0:05:59	0:08:46	0:15:28	0:15:28
	DIABETIC PROBLEMS	0	5	5	2%	0:01:49	0:12:30	0:59:59	6:11:34	1:14:19
	DIFFICULTY BREATHING	0	22	22	9%	0:01:26	0:10:07	1:03:37	26:22:59	1:11:57
	FALLS AND RELATED INJURIES	0	12	12	5%	0:01:44	0:10:51	1:04:52	15:29:20	1:17:27
	FRACTURES OR BROKEN BONES	0	3	3	1%	0:01:44	0:10:49	1:15:13	4:23:18	1:27:46
	HEAD INJURY	0	1	1	0%	0:01:56	0:00:54	1:15:55	1:18:45	1:18:45
	HEADACHE	0	1	1	0%	0:00:05	0:08:24	0:55:13	1:03:42	1:03:42
	HEART PROBLEMS	0	1	1	0%	0:03:12	0:19:56	1:16:56	1:40:04	1:40:04
	LIFT ASSIST	0	14	14	6%	0:01:43	0:08:40	0:15:05	5:56:38	0:25:28
	MEDIC STANDBY	1	4	5	2%	0:00:32	0:24:04	6:33:48	33:39:49	6:43:58
	OBSTETRICS	0	1	1	0%	0:00:32	0:05:52	1:20:01	1:26:25	1:26:25
	OVERDOSE	0	1	1	0%	0:04:09	0:08:41	1:25:06	1:37:56	1:37:56
	PAIN	0	12	12	5%	0:01:35	0:09:19	0:51:55	12:34:00	1:02:50
	POSSIBLE DOA	0	1	1	0%	0:02:01	0:12:54	0:56:41	1:11:36	1:11:36
	PSYCHIATRIC PROBLEMS	0	1	1	0%	0:00:07	0:05:13	0:54:21	0:59:41	0:59:41
	SEIZURE	0	5	5	2%	0:01:03	0:12:08	0:59:51	6:05:13	1:13:03
	SICK / ILL OR RESCUE	0	45	45	18%	0:01:46	0:11:55	1:04:13	58:25:39	1:17:54
	STROKE	0	12	12	5%	0:01:22	0:11:33	1:03:37	15:18:18	1:16:32
	UNCONSCIOUS OR FAINTING	0	11	11	4%	0:01:10	0:05:31	1:20:46	16:02:05	1:27:28
	Subtotals for EMS	**2**	**199**	**201**	**80%**	**0:01:37**	**0:09:41**	**1:07:52**	**258:01:58**	**1:17:46**
	ARCING WIRES DOWN POWER LINES	0	2	2	1%	0:01:19	0:03:26	0:35:41	1:20:51	0:40:26
	BRUSH FIRE	0	2	2	1%	0:00:59	0:05:54	0:09:48	0:33:22	0:16:41
	BURNING COMPLAINT	0	1	1	0%	0:01:00	0:00:00	0:04:44	0:05:44	0:05:44

Station/Beat Code	Nature Code	Self Init	CFS	Total	% Total	Avg Disp Time	Avg Resp Time	Avg Scene Time	Total Call Time	Avg Call Time
	CAR FIRE	0	1	1	0%	0:01:05	0:09:21	0:04:41	0:15:07	0:15:07
	CARBON MONOXIDE ALARM	0	1	1	0%	0:00:04	0:06:35	0:11:27	0:18:06	0:18:06
	FIRE ALARM	0	16	16	6%	0:01:16	0:06:13	0:10:20	3:38:44	0:13:40
	FIRE DEPT COMMUNITY RELATIONS	0	3	3	1%	0:01:10	0:04:28	0:18:14	1:07:08	0:22:23
	FIRE OTHER NOT LISTED	1	8	9	4%	0:00:24	0:07:31	0:12:35	2:53:14	0:19:15
	HAZARDOUS MATERIALS INCIDENT	0	1	1	0%	0:00:13	0:04:58	0:10:22	0:15:33	0:15:33
	SMELL OF GAS INSIDE/OUTSIDE	0	6	6	2%	0:01:43	0:06:19	0:13:01	2:06:17	0:21:03
	SMELL OR ODOR OF SMOKE	0	2	2	1%	0:02:48	0:08:30	0:07:51	0:38:18	0:19:09
	STRUCTURE FIRE	0	5	5	2%	0:01:39	0:04:23	0:48:36	4:33:08	0:54:38
	Subtotals for FIRE	**1**	**48**	**49**	**20%**	**0:01:08**	**0:06:09**	**0:15:37**	**17:45:32**	**0:21:49**
	Totals for 5060	**3**	**247**	**250**	**100%**	**0:01:29**	**0:08:44**	**0:52:56**	**275:47:30**	**1:01:47**
SRY	RESCUE MUTUAL AID	0	2	2	100%	0:01:50	0:25:05	1:29:53	2:09:26	1:04:43
	Subtotals for MUTA	**0**	**2**	**2**	**100%**	**0:01:50**	**0:25:05**	**1:29:53**	**2:09:26**	**1:04:43**
	Totals for SRY	**0**	**2**	**2**	**100%**	**0:01:50**	**0:25:05**	**1:29:53**	**2:09:26**	**1:04:43**
SUF	FIRE MUTUAL AID	0	2	2	33%	0:02:13	0:12:53	0:36:34	1:01:16	0:30:38
	RESCUE MUTUAL AID	1	3	4	67%	0:03:26	0:11:15	1:01:25	3:52:45	0:58:11
	Subtotals for MUTA	**1**	**5**	**6**	**100%**	**0:02:50**	**0:12:04**	**0:49:00**	**4:54:01**	**0:44:24**
	Totals for SUF	**1**	**5**	**6**	**100%**	**0:02:50**	**0:12:04**	**0:49:00**	**4:54:01**	**0:44:24**

ISLE OF WIGHT COUNTY

FIRE-EMS ACTIVITY REPORT 2022

STATION RESPONSES	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	YTD
CARROLLTON	144	117	127	121	131	120	156	149	167				1232
CARRSVILLE	43	45	38	43	47	43	41	32	36				368
RUSHMERE	4	2	7	6	3	10	9	6	10				57
WINDSOR FIRE	30	32	39	40	31	50	43	30	35				330
SMITHFIELD FIRE	89	50	71	69	71	77	68	76	96				667
IOW RESCUE	287	213	234	247	265	259	268	269	267				2309
WINDSOR RESCUE	123	83	115	116	103	142	117	112	122				1033
TOTAL STATION RESPONSES													**5996**

VOL. ACTIVITY HOURS	1ST QUARTER	2ND QUARTER	3RD QUARTER	4TH QUARTER	YTD
CARROLLTON					0
CARRSVILLE					
RUSHMERE					0
WINDSOR FIRE					0
SMITHFIELD FIRE					
IOW RESCUE					
WINDSOR RESCUE	760	756			1516
TOTAL VOL. HOURS REPORTED					**1,516**

Note: *1. Station Responses- Data pulled from E911 Computer Aided Dispatch (CAD) system* *n/r not reported*

2. VOL. Activity Hours- Information as reported by Volunteer Agencies

Isle of Wight County, VA

Overview Report

01.09.2022-30.09.2022

zencity

Volume of Conversations

-1%

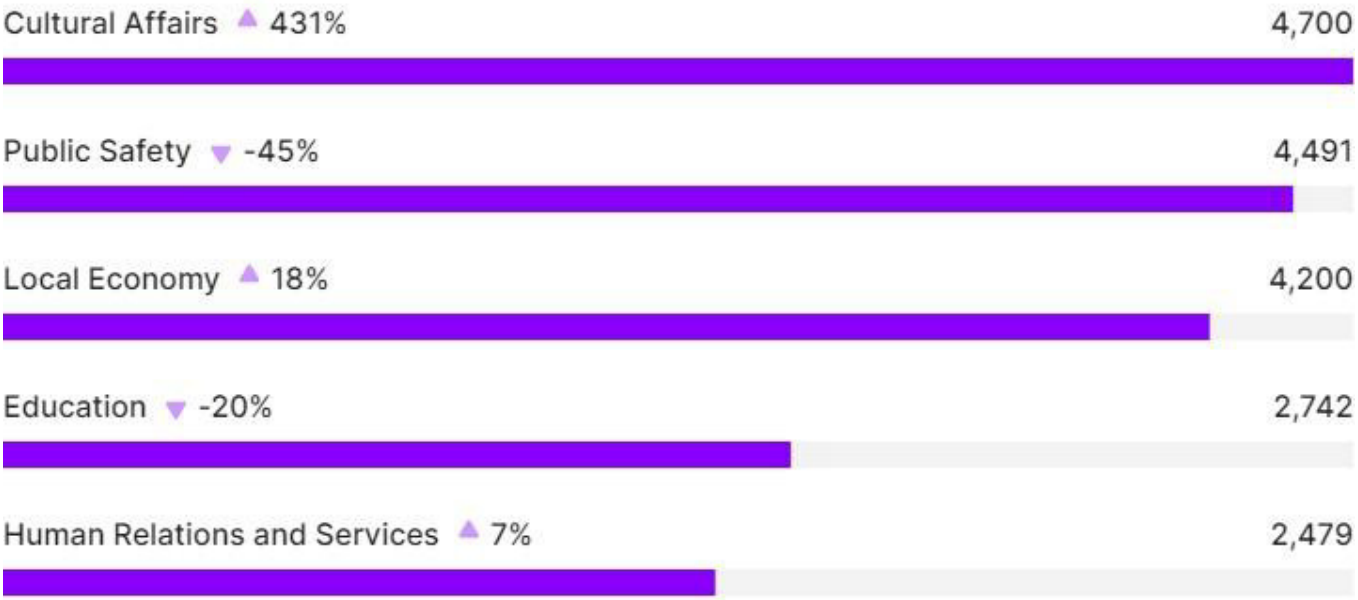
Compared to the monthly average

22,530 Interactions analyzed

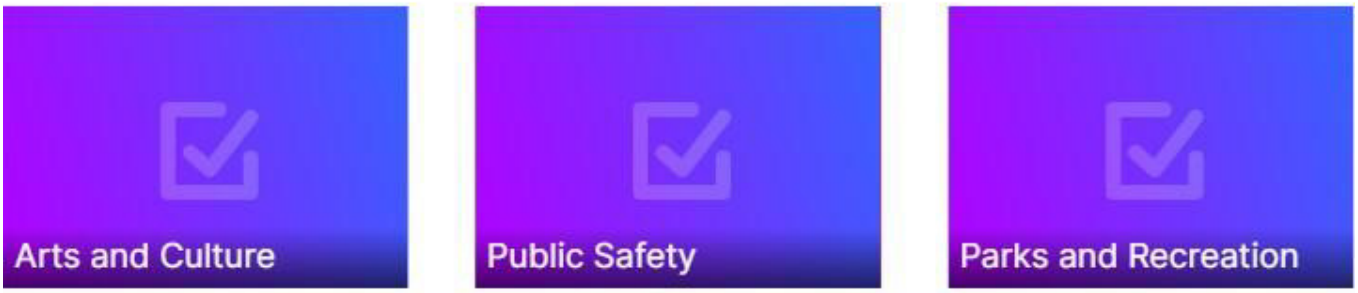
Sentiment Analysis

Trending Topics

Compared to the monthly average — Interactions



Leading Projects



New

5,053 Interactions analyzed

▲ x 4.4

4,500 Interactions analyzed

▲ x 5.5

3,410 Interactions analyzed

ISSUE:

Application of Remus Brustur of Frontier Development, Applicant, and the William G. Yeoman, III, Trust, Property Owner, for a Conditional Use Permit (CUP-8-21) for a Wawa Convenience Store and Gas Station on 5.69 Acres Located on the Southwest Corner of Turner Drive (Rte. 644) and Benns Church Boulevard (Rte. 10)

BACKGROUND:

Remus Brustur of Frontier Development, applicant, and the William G. Yeoman, III, Trust, property owner, submitted an application for a conditional use permit (CUP-8-21) for a Wawa convenience store and gas station on 5.69 acres located on the southwest corner of Turner Drive (Rte. 644) and Benns Church Boulevard (Rte. 10) on property with tax map number 32-01-007.

The project site is located on the southwest corner of the intersection between Benns Church Boulevard (Rte. 10) and Turner Drive (Rte.644) on a property with tax map number 32-01-007. The property is bounded by Benns Church Boulevard to the northeast, by Turner Drive to the northwest, by Smithfield High School to the southwest, and by a residence and cropland to the southeast.

The project site's past and current use is agricultural use. There are no existing structures or environmentally sensitive features on the site.

The applicant proposes to use the site for a Wawa convenience store and gasoline station. The convenience store will be 6,049 square feet and the gasoline station will have sixteen fuel pumps with an approximately fifteen foot canopy. Elevations of the proposed building are attached for your information.

The conceptual plan shows a right in/right out only entrance on Benns Church Boulevard as well as a full access site entrance on Turner Drive. Please note that the concept plan submitted as part of the application is for general illustrative purposes only, and a full site plan will be required for a full, formal review for compliance with County ordinances prior to construction.

The facility is a commercial use and will not have significant impacts on public services with the exception of adjacent local roadways. The project's traffic impact assessment (TIA) shows that the facility is projected to generate 4,378 average daily weekday trips. During peak times in the morning and afternoons, the

majority of traffic generated (63% and more) will be by people stopping at the business on their way to or from somewhere else.

The TIA find that the impacts of the development's additional traffic on local roadways will absorb most of the existing lane capacity and contribute to a declining level of service at the primary intersection of Turner Drive and Route 10, by causing additional delay for key turning movements. The existing Level of Service (LOS) at the intersection in the No Build scenario is a LOS D. With the increase in Wawa traffic, plus the mitigating traffic improvements the application has proposed in the submitted TIA, the future LOS continues as a D. Accounting for the proposed improvements, the Wawa is still expected to cause a minor increase in wait times for drivers taking northbound lefts and southbound rights exiting Turner Drive onto Route 10 during peak hours. There also continue to be particular concerns about driver safety and queuing issues for drivers trying to exit left at the Wawa's Turner Drive site entrance, heading towards Smithfield High School—particularly during morning peak hours which will overlap with school arrival hours, the student driver population, and heavy bus traffic.

The TIA recommends the following to address the safety, capacity, and delay issues:

1. Lengthen the westbound left-turn lane on Benns Church Boulevard to consist of 350 feet of storage and a 200-foot taper.
2. Reconfigure and shorten the existing shared through/left-turn lane on Turner Drive to an exclusive left-turn lane consisting of 200 feet of storage and a 100-foot taper.
3. Extend, modify, and reconfigure the existing exclusive right-turn lane to serve as a shared through/right-turn lane.
4. Construct one exclusive right-turn lane into the site from eastbound Benns Church Boulevard consisting of 200 feet of storage and a 100-foot taper.
5. Install pavement markings to for a "DO NOT BLOCK INTERSECTION" box and identification signage to include signage reflecting a potential fine for those observed/caught impeding intersection operations.
6. Widen Turner Drive to the south of the proposed Wawa Site Driveway for a distance of approximately 300 feet to provide the roadway transition necessary to support the introduction of the proposed southbound exclusive left-turn lane from Turner Drive into the Wawa development site. Widening will extend from the Wawa Site Driveway to a tie-in point with the existing three-lane section/transition portion of Turner Drive associated with the southbound left-turn lane serving the Smithfield High School site access driveway.

An analysis of the traffic impacts and consistency with County plan and ordinances is discussed further in the attached Planning Commission staff report.

BUDGETARY IMPACT:

None.

RECOMMENDATION:

The Planning Commission recommended approval of the conditional use permit with the following conditions:

1. In lieu of the "DO NOT BLOCK THE BOX" improvements, submit an alternative intersection design for the Turner Drive site entrance with enhanced safety and greater functionality to reduce delays and drain on law enforcement resources, such as a single-lane roundabout, to the County and VDOT for review and approval at site plan submittal.
2. The property shall provide a shared entrance with the adjacent property onto Benn's Church Boulevard.
3. Provide a cross-access easement along the rear property line that meets VDOT standards for a future public cross parcel access road.
4. The proposed connection across the rear of the property from the Turner Drive entrance shall be designed to have sufficient throat distance from the intersection of Entrance 2 with Turner Drive to be submitted at site plan review.
5. The proposed multipurpose trail along the frontage with Benn's Church Boulevard shall meet the County's minimum trail specifications at the time of site plan submittal.
6. The proposed public sidewalk along Turner Drive shall meet VDOT minimum specifications at the time of site plan submittal.
7. With the exception of the signal timing optimization and coordination, the applicant shall be responsible for the design and construction of the all other recommended improvements not listed here provided in the project TIA received in Community Development on June 16, 2022. In addition to the signal changes proposed, the applicant shall install an ADA accessible curb ramp as part of the sidewalk and trail improvements and a pedestrian push button signal for their side of the intersection to provide pedestrian safety.

In order to in order to help mitigate safety concerns and the further degradation of traffic conditions at the intersection of Benns Church Boulevard and Turner

Drive, staff also recommends approval of the application with the conditions listed above.

ATTACHMENTS:

Description	Type	Upload Date
CUP-8-21 Wawa CUP PC staff report June 26, 2022	Backup Material	7/5/2022
Wawa Application	Backup Material	6/21/2022
Statement of Reason and Narrative Description	Backup Material	6/21/2022
Wawa Elevations and Concept Plan	Backup Material	6/21/2022
Wawa Traffic Impact Analysis June 16, 2022	Backup Material	6/21/2022
Wawa Site Property Location Map	Backup Material	6/21/2022
Wawa Site Zoning Map	Backup Material	6/21/2022
Wawa Site Future Recommended Land Use Map	Backup Material	6/21/2022
VDOT Comments June 15, 2022	Backup Material	6/21/2022
County Transportation Manager Comments	Backup Material	6/21/2022
Town of Smithfield Comments	Backup Material	6/21/2022
Town of Smithfield Comments	Backup Material	6/21/2022
Applicant Transportation Comment Response 061622	Backup Material	6/21/2022
CUP-8-21 Wawa BOS Ordinance	Ordinance	7/8/2022

PLANNING REPORT

APPLICATION:

Application of Remus Brustur of Frontier Development, applicant, and the William G. Yeoman, III, Trust, property owner, for a conditional use permit (CUP-8-21) for a Wawa convenience store and gas station on 5.69 acres located on the southwest corner of Turner Drive (Rte. 644) and Benns Church Boulevard (Rte. 10) on property with tax map number 32-01-007

ELECTION DISTRICT:

D3

LOCATION:

The project site is located on the southwest corner of the intersection between Benns Church Boulevard (Rte. 10) and Turner Drive (Rte.644) on a property with tax map number 32-01-007. The property is bounded by Benns Church Boulevard to the northeast, by Turner Drive to the northwest, by Smithfield High School to the southwest, and by a residence and cropland to the southeast.

BACKGROUND:

The project site's past and current use is agricultural use. There are no existing structures or environmentally sensitive features on the site.

DESCRIPTION:

The applicant proposes to use the site for a Wawa convenience store and gasoline station. The convenience store will be 6,049 square feet and the gasoline station will have sixteen fuel pumps with an approximately fifteen foot canopy. Elevations of the proposed building are attached for your information.

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200 foot taper.

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An analysis of the traffic impacts are discussed further in the "Staff Conclusions" section of the staff report.

COMPREHENSIVE LAND USE PLAN:

The recommended future land use designation for this property is business and employment (BE) on the County's Future Recommended Land Use Map in the 2020 Comprehensive Plan. The primary role of BE is defined locations for employment creation and expansion. These areas should be developed with a mix of office, commercial, and light industrial uses. Expected development in BE might include medical offices, an office park in a campus like setting, supporting retail services, community shopping centers, light manufacturing, research and development, and other low intensity industrial uses which are compatible with surrounding development. Nonresidential uses may include parks and trails, or existing community facilities, but siting for new community facilities should be considered elsewhere first. BE should be connected to residential uses with vehicular and pedestrian access.

The BE land use is best located on major transportation routes and at major intersections. BE should be master planned for coordination with surrounding uses and quality of design internally. BE should also have access to public water and sewer infrastructure with capacity for more intense development.

The proposed uses of convenience store and gasoline station are defined as a commercial uses type in the Zoning Ordinance and can be considered generally consistent with the recommended future land use designation.

ORDINANCE REVIEW:

Both proposed the convenience store and gasoline station require approval of a conditional use permit in the Rural Agricultural Conservation (RAC) zoning district. The Zoning Ordinance also includes supplemental use regulations for both proposed uses in Article V.

The property lies both in the Chesapeake Bay Preservation Area Overlay district as well as the Newport Development Service Overlay (NDSO) district. The property does not contain any wetlands or stream features. Due to the project's size and no existing resource protection area features on site, a water quality impact analysis is not required.

The project will be required to meet all nonresidential design criteria in the NDSO district regulations and supplemental use regulations for convenience stores and gas stations at site plan review.

The proposed site is currently in agricultural use and has no environmentally sensitive features or identified archeological or architectural resources. The site is shown as having high potential for archeological resources according to the County's 2005 archeological study. A review of the project site by historic resources staff yielded no concerns with the project. A Phase I Cultural Resources Analysis will be required at the time of site plan review.

Section 1-1017 of the Zoning Ordinance provides the following criteria for review of a conditional use permit

Section 24-617 of the Zoning Ordinance provides the following criteria for review of a conditional use permit application that the Planning Commission and Board of Supervisors shall consider before granting the permit:

1. That the establishment, maintenance, and operation of the conditional use will not be detrimental to or endanger the public health, safety, and general welfare;
2. That the conditional use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially impair the use of other property within the immediate proximity;
3. That adequate utilities, water, sewer or septic system, access roads, storm drainage and/or other necessary public facilities and improvements have been or will be provided;
4. That adequate measures have been or will be taken to provide ingress and egress so designed as to minimize traffic congestion on the public streets;
5. That the proposed conditional use is not contrary to the goals and objectives of the Isle of Wight County Comprehensive Plan;
6. That the conditional use shall, in all other respects, conform to the applicable regulations of the zoning district classification in which it is located and to the special requirements established for the specific use; and
7. That the use(s) at the location proposed will not result in a multiplicity or saturation of similar uses in the same general neighborhood of the proposed use.

In addition to the standards and other guidelines set forth in the Zoning Ordinance, the Board may impose reasonable conditions or limitations on any approval, including the posting of performance guarantees. Such conditions may include, but are not necessarily limited to:

1. The number of persons living or working in the immediate area and the proposed hours of operation, as may applicable;
2. Traffic conditions, including facilities for pedestrians, such as sidewalks and parking facilities; the access of vehicles to roads; peak periods of traffic; and proposed roads, but only if construction of such roads will commence within the reasonably foreseeable future;
3. The orderly growth of the neighborhood and community and the fiscal impact on the County;
4. The effect of odors, dust, gas, smoke, fumes, vibration, glare, and noise upon the use of surrounding properties;
5. Facilities for police, fire protection, sewerage, water, trash and garbage collection and disposal, and the ability of the County or persons to supply such services;
6. The degree to which the development is consistent with generally accepted engineering and planning principles and practices;
7. The structures in the vicinity such as schools, houses of worship, theaters, hospitals, and similar places of public use;
8. The purposes set forth in this ordinance, the County's Comprehensive Plan, and related studies for land use, roads, parks, schools, sewers, water, population, recreation, and the like;
9. The environmental impact, the effect on sensitive natural features, and opportunities for recreation and open space; and
10. The preservation of cultural and historic resources or landmarks.

In addition to obtaining approval for a conditional use permit, the applicant will be required to submit a preliminary site plan that meets all Ordinance requirements and obtain any necessary state permits prior to establishing the use.

AGENCY REVIEW:

Upon receipt of the application, staff distributed it to the following departments and outside agencies for their review and comment.

<u>Departments and agencies with no outstanding concerns for the project:</u>

- Utility Services
- Emergency Services
- Isle of Wight County Museum

- Economic Development

Departments and Agencies with Outstanding Concerns:

- VDOT - Concern with additional delays and continued service level deterioration of the intersection, especially the deterioration of the right-turn movement from Turner Drive from a service level B to a service level D. Also has continued safety concerns with the "DO NOT BLOCK THE BOX" area and reliance on public safety resources for successful implementation. Final comment letter attached
- Transportation Manager - Concern with additional delays and continued service level deterioration of the intersection, especially with traffic generated by a potential new school adjacent to the high school. Also has continued safety concerns with the "DO NOT BLOCK THE BOX" area and reliance on public safety resources for successful implementation. Final comment letter attached.
- Town of Smithfield - concern with potential cut-through traffic from Turner Drive entrance to avoid the signal and exit Route 10. Recommends reconfiguring driveway, so it functions more like a roadway at the rear of the property to avoid parking areas.

STAFF CONCLUSIONS:

Based on an analysis of the project, staff identified the following strengths and weaknesses for the proposed uses:

Strengths:

1. The proposed uses are generally consistent with the County's future recommended land use plan;
2. The proposed uses will generate additional employment opportunities and tax revenues necessary to fund future public services and facilities; and
3. The proposed business will provide additional local retail and services to community members.

Weaknesses:

1. The proposed use will continue to contribute to the degradation of service of the intersection with Benns Church Boulevard and Turner Drive, to include increased wait times and safety concerns for left hand turns from the site onto Turner Drive.

Staff's analysis of the project finds that most of the criteria for granting the conditional use permit are met, however, additional measures need to be taken to provide adequate ingress and egress to minimize traffic congestion on public streets and to protect public safety. There remains a safety concern with the proposed full access site entrance on Turner Drive as drivers exit the site to turn left on Turner Drive due to limited visibility for cars exiting the site. The applicant proposes installing pavement markings delineating an area not to block, also known as a "DO NOT BLOCK THE BOX" area, to make it easier for people to exit the site while traffic is waiting at the light. This remedy is dependent on continued County law enforcement resources for successful implementation, whether by providing a police presence at the site or with having to maintain and monitor a traffic camera.

In order to in order to help mitigate safety concerns and the further degradation of traffic conditions at the intersection of Benns Church Boulevard and Turner Drive, staff recommends the following conditions:

1. In lieu of the "DO NOT BLOCK THE BOX" improvements, submit an alternative intersection design for the Turner Drive site entrance with enhanced safety and greater functionality to reduce delays and drain on law enforcement resources, such as a single-lane roundabout, to the County and VDOT for review and approval at site plan submittal.
2. The property shall provide a shared entrance with the adjacent property onto Benn's Church Boulevard.
3. Provide a cross-access easement along the rear property line that meets VDOT standards for a future public cross parcel access road.
4. The proposed connection across the rear of the property from the Turner Drive entrance shall be designed to have sufficient throat distance from the intersection of Entrance 2 with Turner Drive to be submitted at site plan review.
5. The proposed multipurpose trail along the frontage with Benn's Church Boulevard shall meet the County's

5. The proposed multipurpose trail along the frontage with Benns Church Boulevard shall meet the County's minimum trail specifications at the time of site plan submittal.
6. The proposed public sidewalk along Turner Drive shall meet VDOT minimum specifications at the time of site plan submittal.
7. With the exception of the signal timing optimization and coordination, the applicant shall be responsible for the design and construction of the all other recommended improvements not listed here provided in the project TIA received in Community Development on June 16, 2022. In addition to the signal changes proposed, the applicant shall install an ADA accessible curb ramp as part of the sidewalk and trail improvements and a pedestrian push button signal for their side of the intersection to provide pedestrian safety.

STAFF RECOMMENDATION:

Based on the strengths of the application, staff recommends approval with the conditions listed above in order to help mitigate safety concerns and delays at the intersection of Benns Church Boulevard and Turner Drive.

ATTACHMENTS:

Description	Type	Upload Date
Wawa Application	Backup Material	6/21/2022
Statement of Reason and Narrative Description	Backup Material	6/21/2022
Wawa Elevations and Concept Plan	Backup Material	6/21/2022
Wawa Traffic Impact Analysis June 16, 2022	Backup Material	6/21/2022
Wawa Site Property Location Map	Backup Material	6/21/2022
Wawa Site Zoning Map	Backup Material	6/21/2022
Wawa Site Future Recommended Land Use Map	Backup Material	6/21/2022
VDOT Comments June 15, 2022	Backup Material	6/21/2022
County Transportation Manager Comments	Backup Material	6/21/2022
Town of Smithfield Comments	Backup Material	6/21/2022
Town of Smithfield Comments	Backup Material	6/21/2022
Applicant Transportation Comment Response 061622	Backup Material	6/21/2022
CUP-8-21 Wawa CUP PC Resolution	Backup Material	6/21/2022

Local Roots, Global Reach
ISLE OF WIGHT
COUNTY, VIRGINIA
DEPARTMENT OF PLANNING AND ZONING

CUP-8-21
MUNIS# 25060

APPLICATION FOR CONDITIONAL / SPECIAL USE PERMIT

This application should be used to petition for a permit for certain uses which, because of their unique characteristics or potential impacts on adjacent land uses, are not generally permitted in certain zoning districts as a matter of right, but which may, under the right set of circumstances and conditions be acceptable in certain specific locations. The following application requirements are consistent with the procedures set forth in Section 1-1017, *Conditional Uses,* and Section 1-1018, *Special Use Permits for Uses Not Provided For,* of the Isle of Wight County Zoning Ordinance, as amended.

A. APPLICATION FOR (CHECK ALL THAT APPLY):

[X] Conditional Use Permit (Are applicant proposed conditions attached?): _X_ Yes _____ No

The proposed use or activity is listed as a conditional use in the _RAC_ zoning district as per Section _4-2003_ in Article IV of the Isle of Wight County Zoning Ordinance.

[X] Special Use Permit (Are applicant proposed conditions attached?): _X_ Yes _____ No

Proposed Use or Activity: _To allow convenience store and gas station_

B. PROJECT DESCRIPTION:

Project Name: Wawa convenience store with gas station

Property Address (if any): Southwest corner of Turner Drive and Benns Church Blvd

Election District: Windsor

Comprehensive Plan Designation: Business & Employment

The use permit will apply to 3.8892 acres out of 3.8892 total acres

Tax Parcel Identification # 32-01-007 Number of acres to be effected: 3.8892

Tax Parcel Identification # _____ Number of acres to be effected: _____

Tax Parcel Identification # _____ Number of acres to be effected: _____

LEGAL ACREAGE 5.69 ACRES

Proposed Utilities (check all that apply): Public Water _X_ Private Well _____

Public Sewer _X_ Private Septic _____

C. **APPLICATION INFORMATION:**

Applicant(s) Name(s): ~~Frontier Companies~~ Frontier Development

Address: ~~1001 SW 3rd Avenue, Suite 500~~ 2950 SW 27th Avenue, Suite 300

City, State, Zip Code: ~~Miami, Florida 33129~~ Miami, Florida 33133

Phone No.: 305-692-9992 Email: jleach@fdllc.com Fax No.:

Property Owner(s) Name(s): Yeoman William G III Trustee William G Y

Address: C/O Henry E Layden PO Box 231

City, State, Zip Code: Smithfield VA 23431

Phone No.: 757-438-3160 Email: henry.layden1@gmail.com Fax No.: N/A

Applicants/Owners Affidavit (including compliance with all deed restrictions and covenants)

This application must be signed by the owner(s) of the subject property or must have attached written evidence of the owner's consent, which may be in the form of a binding contract of sale with the owner's signature or a letter signed by the owner(s), containing written authorization to act with full authority on the owner(s) behalf in filing this use permit application. Signing this application shall certify the owner's compliance with all deed restrictions and covenants, and shall constitute the granting of authority of the County to enter onto the property for the purpose of conducting site analyses and compliance with Federal, State and County regulations.

Applicant: Remus Brustur
Printed or Typed Name

Applicant: _____ Date: 10/12/2021
Signature

MIAMI-DADE
County of ~~Isle of Wight, Commonwealth of Virginia~~ STATE OF FLORIDA

Subscribed and sworn to before me Jennifer Zurita,
A Notary Public in and for the County of ~~Isle of Wight~~ MIAMI-DADE
~~Commonwealth of Virginia~~, this 12 day of Oct., 2021
STATE OF FLORIDA

_____
Notary Public

My Commission Expires _____

JENNIFER ZURITA
Notary Public-State of Florida
Commission # HH 109084
My Commission Expires
March 24, 2025

Owner: HENRY LAYDEN
Printed or Typed Name

Owner: _____ Date: 10/20/21
Signature

County of Isle of Wight, Commonwealth of Virginia

Subscribed and sworn to before me Elizabeth Dixon Jones
A Notary Public in and for the County of Isle of Wight,
Commonwealth of Virginia, this 20th day of Oct., 2021

_____
Notary Public

My Commission Expires December 31, 2022

ELIZABETH DIXON JONES
NOTARY PUBLIC
Commonwealth of Virginia
Reg. # 7767629
Com. Exp. Dec. 31, 2022

Owner: _____
Printed or Typed Name

Owner: _____ Date: _____
Signature

County of Isle of Wight, Commonwealth of Virginia

Subscribed and sworn to before me _____,
A Notary Public in and for the County of Isle of Wight,
Commonwealth of Virginia, this ___ day of _____, 20___

_____
Notary Public

My Commission Expires _____

Owner: _____
Printed or Typed Name

Owner: _____ Date: _____
Signature

County of Isle of Wight, Commonwealth of Virginia

Subscribed and sworn to before me _____,
A Notary Public in and for the County of Isle of Wight,
Commonwealth of Virginia, this ___ day of _____, 20___

_____
Notary Public

My Commission Expires _____

NOTICE: THE ATTACHED CHECKLIST MUST BE COMPLETED, CERTIFIED, AND SUBMITTED OR THE APPLICATION WILL BE CONSIDERED INCOMPLETE.

Remit Application to: Isle of Wight County Central Permitting, 17140 Monument Circle, Suite 100
P. O. Box 80, Isle of Wight, Virginia 23397

FOR OFFICE USE ONLY:

Complete Application Received On: 10-26-2021 Fees Paid: $1,200
Tax Query: [X] Current [ ] Delinquent Distribution Date: 10-29-2021
Posted/Date to Post: _____

AGENCIES REFERRALS:

___ Department of Conservation & Recreation	___ Inspections
X Economic Development	___ Sheriff's Office
X Emergency Services	X Town of Smithfield
X General Services (2)	___ Town of Windsor
___ Environmental Planner	X VDOT
___ Health Department	___ Schools
X Transportation Manager	___ Budget & Finance
___ Commission of Revenue	___ County Attorney
X Other IOW MUSEUM	

Verified By: Amy M. Bruce Date: 10/29/21

Revised August 13, 2014

COUNTY OF ISLE OF WIGHT
DISCLOSURE OF REAL ESTATE HOLDINGS

Applicant Remus Brustur

Address 2950 SW 27th Avenue, Suite 300
Street

Miami Florida 33133
City State Zip

REAL ESTATE HOLDINGS TO BE AFFECTED

Location or Address	Description
32-01-007	SOUTHWEST CORNER OF TURNER DR. & RTE. 10

OTHER OWNERS OF AFFECTED REAL ESTATE

(Not Required for Corporation whose stock is traded on a national or local stock exchange or having more than 500 shareholders.)

Name of Individuals Corporation/Partnership Business Association	Address

Does any member of the Isle of Wight County Planning Commission or governing body have any interest in such property, either individually, by ownership of stock in a corporation owning such land, partnership, as the beneficiary of a trust, or the settlor of a revocable trust, or whether a member of the immediate household of any member of the Planning Commission or governing body has any such interest? Yes (No)

If yes, names of members:

I do solemnly swear that the foregoing statement(s) and attachments(s), if any, are complete, correct and true.

Applicant: Remus Brustur (Printed or Typed Name) Applicant: _____ (Signature) Date: 10/12/2021

STATE OF FLORIDA
~~Commonwealth~~ of ~~Virginia~~
County of ~~Isle of Wight~~ MIAMI DADE

Subscribed and sworn to before me Jennifer Zurita,
A Notary Public in and for the County of ~~Isle of Wight, Commonwealth of Virginia~~ MIAMI-DADE, STATE OF FLORIDA, this 12 day of Oct., 2021.

_____
Notary Public

My Commission Expires _____

JENNIFER ZURITA
Notary Public-State of Florida
Commission # HH 109084
My Commission Expires
March 24, 2025

Local Roots, Global Reach

ISLE OF WIGHT COUNTY, VIRGINIA

DEPARTMENT OF PLANNING AND ZONING

SUBMITTAL CHECKLIST FOR CONDITIONAL / SPECIAL USE PERMITAPPLICATIONS

In conjunction with Section 1-1017, *Conditional Uses*, and Section 1-1018, *Special Uses Permits for Uses Not Provided For*, of the Isle of Wight County Zoning Ordinance, as amended, the following information shall be submitted for a Conditional / Special Use Permit Application. Please note that it is the applicant's responsibility to ensure that the application is in compliance with all Federal, State and County regulations.

No application for a Conditional / Special Use shall be certified as complete unless the following information is provided, unless the Zoning Administrator reduces the number of required copies.

X 1. Fifteen (15) copies of the original, executed application and one (1) original executed application. Both the applicant(s) and the property owner(s) must have their signature(s) notarized on page No. 2 of the application.

X 2. The appropriate fees have been submitted with the application. Checks should be made payable to: Treasurer, Isle of Wight County.

X 3. Fifteen (15) copies of a statement of the reasons for seeking such permit, and if applicable, a statement of conditions.

X 4. Fifteen (15) copies) of a narrative description of the property which shall include the Tax Parcel Identification Number.

X 5. One (1) copy of the most recent deed(s) for the property(s) associated with the application.

X 6. A concept plan of the property showing all existing and proposed physical improvements and such other information as is necessary to clearly indicate to the Planning Commission and Board of Supervisors that adequate provisions shall be made for compliance with all standards for that particular use and the extent of the property to be so used on a given parcel or parcels. Such document shall be drawn to scale and shall include the following information:

- A vicinity map at a scale of no less than one (1) inch equals two thousand (2,000) feet
- Title of drawing
- Date of drawing
- Existing wood line
- North arrow
- Scale bar
- Current zoning of parcel(s) to be rezoned, including tax map number(s) and owner(s)
- Current zoning of adjacent parcel(s), including tax map number(s) and owner(s)
- Street names including route number and width(s) of the right-of-way(s)
- Fifteen (15) full size copies, with one (1) reduced 11 inch X 17 inch copy shall be submitted
- Please note that additional information on the site layout may be requested by the Zoning Administrator during the review process in order to more effectively review the application and prepare the staff reports for the Planning Commission and Board of Supervisors.

X 7. Fifteen (15) copies of such supplemental material as may be necessitated by the proposal itself or the district in which located or proposed to be located, and in accordance with Section 5-5000, *Supplementary Use Regulations,* of the Isle of Wight County Zoning Ordinance.

X 8. All real estate taxes must be paid and current at the time of submittal; otherwise, the submittal will be refused at the counter. Proof of the most recent tax payment to the County must accompany the application.

I, the undersigned, certify that this application is complete, accurate and contains all required and requested information, documents and other submittals, and that all statements made herein are, to the best of my knowledge, true and correct. I further certify that I have exercised due diligence to obtain the most recent, complete and correct information available. I understand that any section not completed in its entirety may delay processing of this application and the date of the Planning Commission public hearing and that the submittal of a complete application does not guarantee the application will be placed on the next available Planning Commission agenda.

JEREMY YEE

Printed or Typed Name

Signature

10/25/2021

Date

This deed is exempt from recordation taxes pursuant to § 58.1-811(A)(12) of the Code of Virginia, 1950, as amended.

PG 69 FEB17 2000

CONSIDERATION: $ -0-

GRANTEES' ADDRESS: 14096 Benn's Church Boulevard
Smithfield, Virginia 23430

THIS INSTRUMENT PREPARED BY: WILLIAM H. RIDDICK, III
BARLOW & RIDDICK, P.C.
353 MAIN STREET
P.O. BOX 190
SMITHFIELD, VIRGINIA 23431

THIS DEED OF GIFT, made and entered into this 17TH day of February, 2000, by and between WILLIAM GROVER YEOMAN, III, unmarried, Grantor, and WILLIAM G. YEOMAN, III, Trustee of the WILLIAM GROVER YEOMAN, III TRUST pursuant to a trust agreement dated February 22, 1991, Grantee.

WITNESSETH:

That for estate planning purposes and for no monetary consideration, the Grantor does give, grant and convey with General Warranty and English Covenants of Title, unto the Grantee, and his successor in trust, the following real estate, together with improvements thereon and appurtenances thereunto pertaining, to-wit:

PARCEL ONE:
All that certain tract, piece or parcel of land containing two hundred seventy-nine and eighty-four hundredths (279.84) acres by survey, but conveyed in gross and not by the acre, this being a conveyance of hazard as to acreage, situate, lying and being near Benns Church, in Newport Magisterial District, Isle of Wight County, Virginia; lying partly on both the East and West side of State Highway No. 10, and bounded by said Highway, the lands now or formerly of Daisy M. Bunkley, Philip F. Edwards, Jones' Creek, the lands now or formerly owned by George Yeoman, Christie Jordan, C. E. Johnson, J. F. Minton and others, and being the same land of which E. K. Batten and Maggie E. Batten, his wife, died seized and possessed.

PARCEL TWO:
All of that certain triangular tract, piece or parcel of land, situate, lying and being on the West side of State Highway No. 10 leading from Smithfield to Suffolk, said piece or parcel of land having its base on the East (on said Highway) and its apex on the West, containing six (6) acres, more or less, sale and conveyance in gross and not by the acre, and is bounded on the North by the secondary road leading from said State Highway No. 10 to Longview via Old Jordan's Mill, on the East by the aforesaid State Highway No. 10 leading from Smithfield to Suffolk, on the South by other lands now or formerly of W. Grover Yeoman, Jr., and on the West by the lands now or formerly of Jones Turner. The property hereby conveyed being a portion of the farm generally known and referred to as the Daisy Minton Bunkley Farm and a portion of the land conveyed to Junius M. Batten by deed from Rodham T. Delk, Special Commissioner, dated the 8th day of

March 1952 and recorded in the Clerk's Office of Isle of Wight County, Virginia.

LESS, SAVE AND EXCEPT those parcels of land conveyed to the Commonwealth of Virginia for the widening and improvement of Route 10.

The above-described real property was conveyed to Grantor by two separate deeds, both dated February 17, 2000, the first being from William Grover Yeoman, III as Trustee of the William Grover Yeoman, Jr. Family Trust and the second being from William Grover Yeoman, III as Trustee of the William Grover Yeoman, Jr. Marital Trust, both of which deeds are recorded prior to this deed in the Clerk's Office of the Circuit Court of Isle of Wight County, Virginia.

TO HAVE AND TO HOLD said property as Trustee under the William Grover Yeoman, III Trust, dated the 22nd day of February, 1991, as the same may be amended from time to time..

TO FURTHER HAVE AND TO HOLD the property with full power, right and authority hereby granted unto Grantee, and his successor in trust, to sell, lease, exchange, encumber and/or convey the said property, either in whole or in part, upon such terms and conditions and for such consideration, or no consideration, as Grantee may in the discretion of Grantee deem advantageous, with the further right to subdivide and re-subdivide said property and to dedicate such portions thereof for public use as Grantee shall deem desirable, together with the right to grant licenses and easements for utilities or other purposes across, over and under said property, and Grantee is hereby empowered to execute, acknowledge and deliver such deed, deeds of trust, leases and other instruments necessary to carry out the foregoing powers, and there shall be no obligation or liability upon any purchaser or purchasers, lessee or lessees of said property, or any part thereof, or upon any party or parties making any loans secured by deed or deeds of trust upon said property, or any part thereof, to see to the proper application of the proceeds of such sale, lease or loan.

Every deed, deed of trust, lease or other instrument executed by the Grantee, or his successor in trust, on behalf of either trust identified herein and in relation to the property described herein shall be conclusive evidence in favor of every person claiming any right, title or interest thereunder that: (1) at the time of the delivery of such instrument the trust was in full force and effect; (2) that such instrument was executed in accordance with the terms and conditions of the trust agreement establishing said trust, as the same may be amended from time to time, and is binding upon all beneficiaries under said trust; and (3) if such instrument is executed by successor(s) in trust to the Grantee, that such successor(s) in trust have been properly appointed and are fully vested with all the title, estate, rights, powers, duties and obligations of Grantees provided such successor(s) in trust certify in said instrument that such successor(s) in trust have been properly appointed.

This conveyance is made expressly subject to the conditions, restrictions, rights of way, and easements and other instruments of record, if any, legally affecting the aforementioned property.

WITNESS the following signature and seal:

William Grover Yeoman, III (SEAL)
WILLIAM GROVER YEOMAN, III

STATE OF VIRGINIA
COUNTY OF ISLE OF WIGHT, to wit:

The foregoing instrument was acknowledged this 17th day of February, 2000 by WILLIAM GROVER YEOMAN, III.

NOTARY PUBLIC

My commission: 3-31-2001

THIS DEED IS PREPARED WITHOUT BENEFIT OF TITLE EXAMINATION.

Verified and mailed to
Barlow & Riddick

this ___ day of ___, ___

INSTRUMENT #000000662
RECORDED IN THE CLERK'S OFFICE OF
ISLE OF WIGHT COUNTY ON
FEBRUARY 17, 2000 AT 04:33PM
WILLIAM E. LAINE JR., CLERK
BY: _____ (DC)

Kimley»Horn

Statement of Reason – Conditional Use Permit

The property lies within the Rural Agricultural Conservation (RAC) District. The purpose of the Conditional Use Permit is to allow the proposed Wawa convenience store and gasoline station. The project will comply with the standards as listed in section 5-5000 supplementary use regulations, specifically for item K. Convenience Store and item P. Gasoline Station, except for the following modifications:

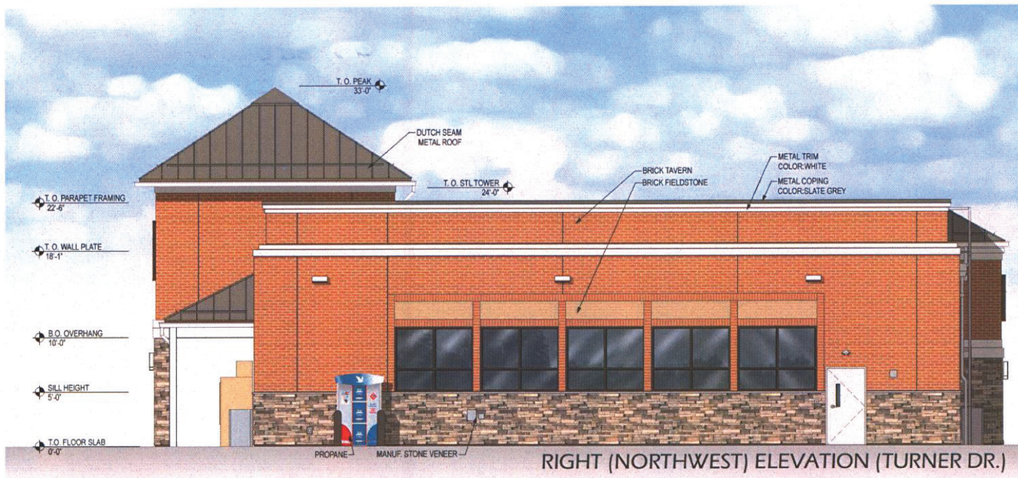
Item K. Convenience Store, 1.b. – The outdoor display of goods for sale shall prohibited except for the ice machine and propane gas as shown on site plan prepared by Kimley-Horn, dated 10-22-2021.

Item P. Gasoline Station, 1.j. – The gasoline station canopy measurements shall be consistent with the canopy elevations prepared by Cuhaci and Peterson, dated 10-20-2021.

Kimley»Horn

Narrative Description of The Property – Conditional Use Permit

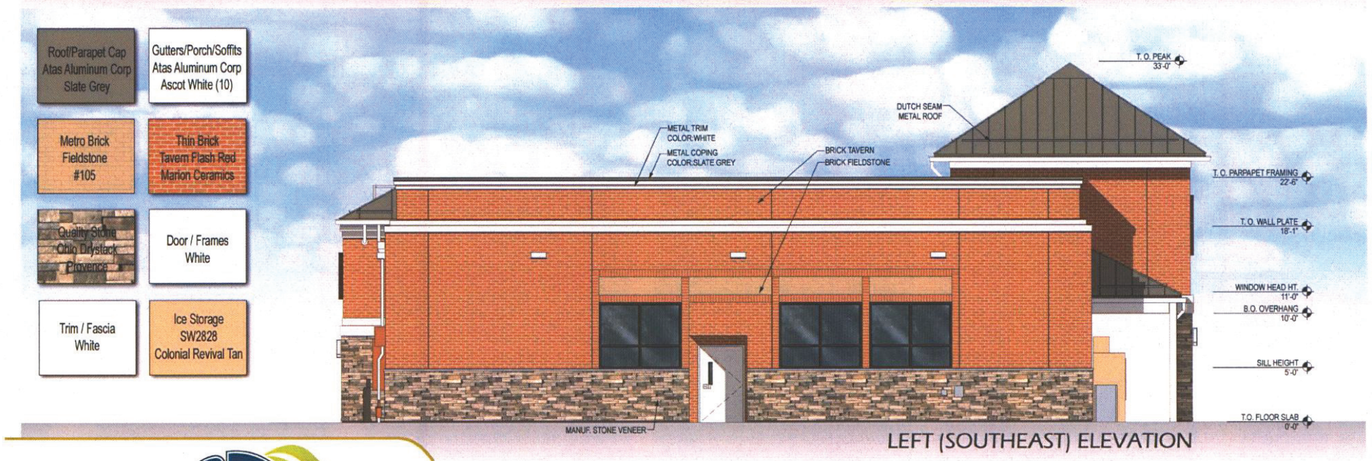
The property, Parcel A, is the lands of William G. Yeoman, III, Trust as recorded in instrument number 00662 having a parcel identification of 32-01-007. The total site area is 169,412 square feet or 3.8892 acres. The property is zoned Rural Agricultural Conservation (RAC).



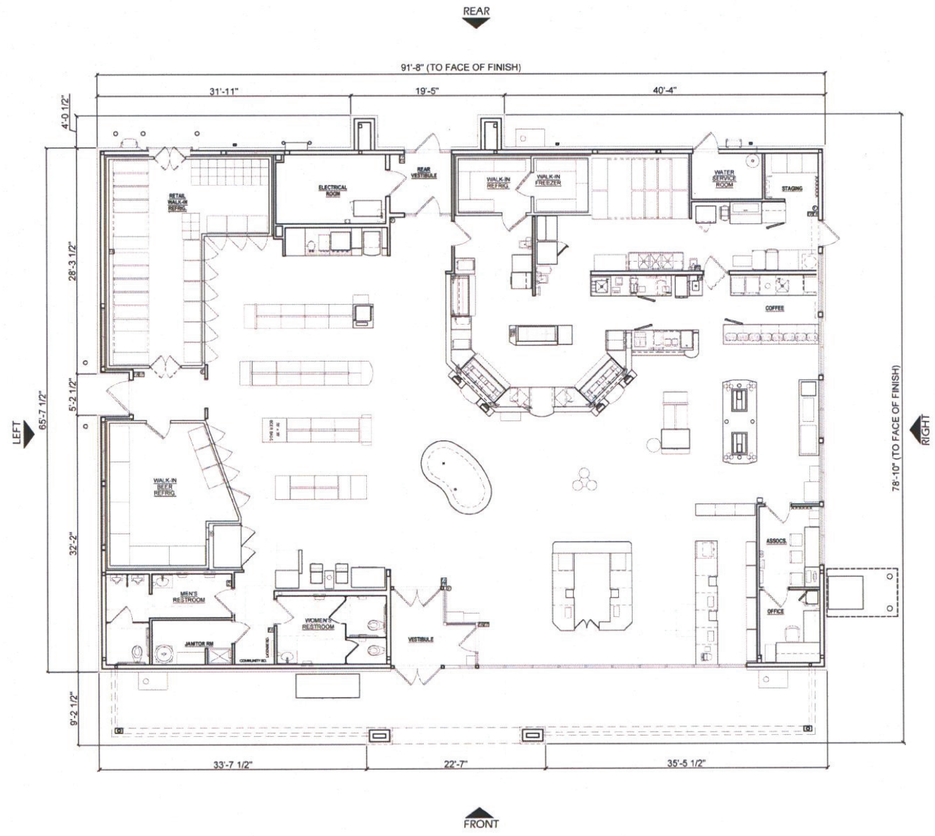
RIGHT (NORTHWEST) ELEVATION (TURNER DR.)

FRONT (NORTHEAST) ELEVATION (BENNS CHURCH BLVD.)

REAR (SOUTHWEST) ELEVATION



LEFT (SOUTHEAST) ELEVATION



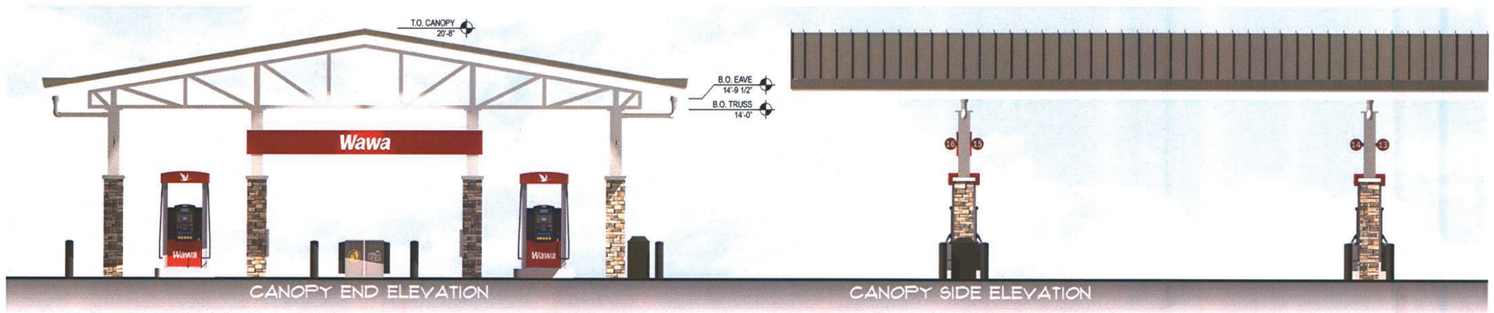
FLOOR PLAN

NOTE:
SIGNAGE IS SHOWN FOR REFERENCE ONLY
SEPARATE PERMIT REQUIRED

Cuhaci & Peterson
Architects Engineers Planners
ORLANDO • PHILADELPHIA

WAWA W50 FB VA M_v.2021.1

Benns Chruch & Turner Dr., Isle of Wight, VA • C&P Project #2210807 • 10-20-2021

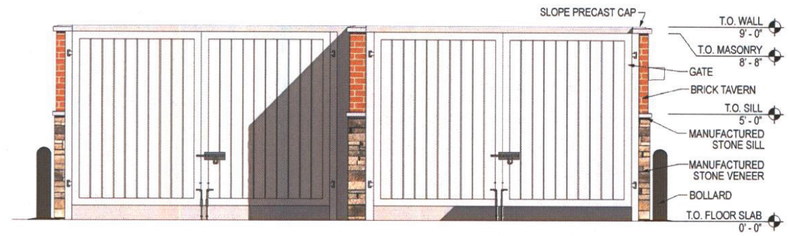


CANOPY END ELEVATION

CANOPY SIDE ELEVATION

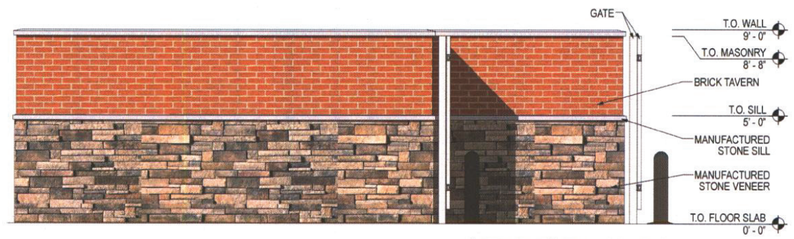
CANOPY PERSPECTIVE VIEW

The Wawa fuel canopy is a registered service mark in the U.S. Patent and Trademark Office. The fuel canopy, as well as Wawa's brand names, slogans, logos, service marks, and other trademarks of Wawa's goods, services, and promotions belong exclusively to Wawa, Inc. and/or, Wild Goose Holding Co., Inc. and are protected from copying and simulation under national and international trademark and copyright laws and treaties throughout the world.

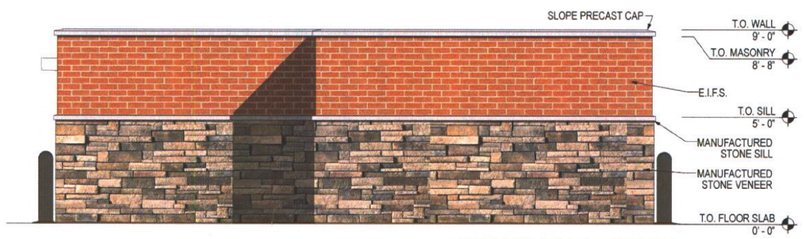


FRONT ELEVATION

RIGHT ELEVATION



LEFT ELEVATION



REAR ELEVATION

Cuhaci & Peterson
Architects Engineers Planners

WAWA GAS CANOPY® STACKED 8 - A-FRAME - TRASH COMPOUND MAOF17-R

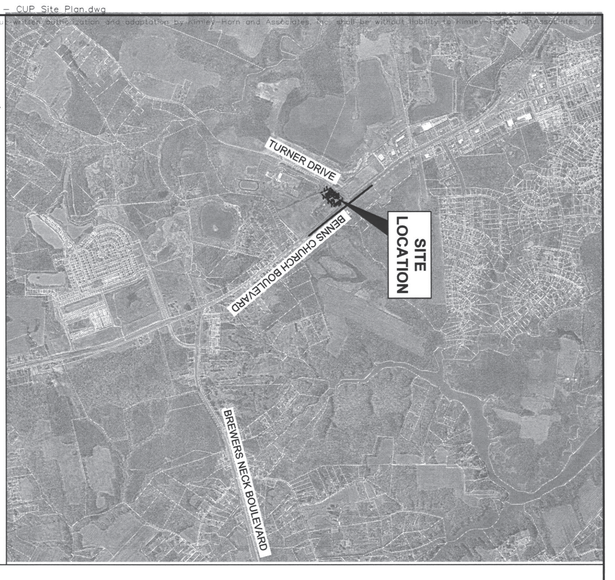
Benns Church & Turner Dr., Isle of Wight, VA • C&P Project #2210807 • 10-20-2021

Plotted By:Mathews, Joe Sheet Set:Kha Layout:CUP LANDSCAPE PLAN October 25, 2021 09:55:32am K:\VAB_Civil_WAWA\116543041 – Wawa Benns Church\CADD\Exhibits\CUP\VA, Isle of Wight Wawa – CUP Site Plan.dwg
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. for the specific purpose intended will be at user's sole risk and without liability or legal exposure to Kimley-Horn and Associates, Inc.

GRAPHIC SCALE IN FEET
0 20 40 80

NORTH

VICINITY MAP
1"=2,000'



TURNER DRIVE VA RTE. 644

BENNS CHURCH BOULEVARD VA RTE 10

PERIMETER ZONE LANDSCAPING
10' LANDSCAPE BUFFER
FRONTAGE ZONE LANDSCAPING
PROPOSED SWM POND 1
PROPOSED SWM POND 2
PARKING ZONE LANDSCAPING
SCREENING ZONE LANDSCAPING
FOUNDATION ZONE LANDSCAPING
80' BUILDING SETBACK
50' LANDSCAPE BUFFER
ORNAMENTAL FENCE
MONUMENT SIGN
FOUNDATION ZONE LANDSCAPING REPRESENTING 50 PERCENT OF TOTAL REQUIRED TO BE LOCATED ELSEWHERE ON SITE
60' BUILDING SETBACK
POB PARCEL B
N44°14'39"E 568.42
S49°01'13"W
MODERN BARN
ADR=1,251 SF
BLDG HT= 43'7"

WAWA

ISLE OF WIGHT COUNTY VIRGINIA

CUP LANDSCAPE PLAN

BENNS CHURCH BOULEVARD & TURNER DRIVE

KHA PROJECT	116543041
DATE	10/22/2021
SCALE	AS SHOWN
DESIGNED BY	NJS
DRAWN BY	NJS
CHECKED BY	JY

Kimley»Horn

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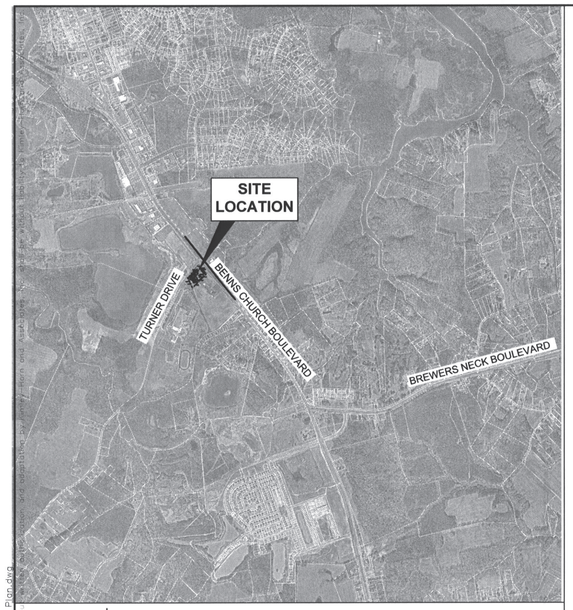
No.	REVISIONS	DATE	BY



VICINITY MAP
1"=2,000'

nearmap
Imagery © 2021 Nearmap, HERE

NORTH

SITE DATA

JURISDICTION	ISLE OF WIGHT COUNTY
EXISTING ZONING	RAC
PROPOSED ZONING	RAC
SEE "PARCEL A" DATA BELOW	
WAWA "PARCEL A" AREA	3.89 AC.±
BUILDING AREA	6,049 S.F.
MIN. PARKING REQUIRED	34 SPACES
PARKING PROVIDED	55 SPACES
FRONT SETBACK (BENNS CHURCH) FRONT SETBACK (TURNER) SIDE SETBACK REAR SETBACK	60 FT 85 FT 35 FT 35 FT
FRONT BUFFER YARD SIDE BUFFER YARD REAR BUFFER YARD	50 FT 10 FT 10 FT
# MPD'S	8

PARCEL A

LANDS N/F
WILLIAM G. YEOMAN, III, TRUSTEE
WILLIAM G. YEOMAN TRUST
INSTRUMENT NO. 00662
PARCEL ID 32-01-007
ZONED: RAC
AREA= 169,412 SQ. FT. OR
3.8892 ACRES

NO POSTED ADDRESS

BENNS CHURCH BOULEVARD VA RTE 10
VARIABLE WIDTH RIGHT-OF-WAY
(VARY FROM 300' TO 200')

TURNER DRIVER DRIVE VA RTE. 644
VARIABLE WIDTH RIGHT-OF-WAY
(VARY FROM 100' TO 50')

POB PARCEL A
POB PARCEL B

MONUMENT SIGN
EXISTING DITCH TOB
6'X8' CONC VENT STACK PAD
(2) 22,00 GAL COMPARTIMENTALIZED TANKS
(1) 20,000 GAL TANK
60' BUILDING SETBACK
50' LANDSCAPE BUFFER
PROPOSED 14' PEDESTRIAN EASEMENT
36" HIGH ORNAMENTAL FENCE
FUEL CANOPY
PROPANE GAS
50' LANDSCAPE BUFFER
85' BUILDING SETBACK
ICE MACHINE
Wawa
6,049 SF
PROPOSED 30' SHARED ACCESS EASEMENT
PROPOSED SHARED ACCESS EASEMENT
10' LANDSCAPE BUFFER
35' BUILDING SETBACK
AIR MACHINE ON CONC PAD W/ BOLLARDS
POTENTIAL EV SPACES
CHARGING POST (TYP)
CHARGING STATION EQUIPMENT.
PROPOSED SWM POND 1
PROPOSED SWM POND 2
PROPOSED 60' PRIVATE CROSS ACCESS EASEMENT
10' LANDSCAPE BUFFER
WOODEN BARN AREA=1,251 S.F. BOG ht.= 127
REBAR FOUND
50' TAPER
100' STACKING LANE
12' TURN LANE
N46°47'30"E 60.83'
N37°19'41"E 1.00'
N24°53'44"W 322.87'
N44°19'39"E 568.42'
N42°48'14"W 212.91'
N.F. 1,110.69'S
410.45'
R=11517.16'
L=247.78'
D=1°13'58"
CHB=S40°21'49"E
CHD=247.77'
R=11517.16'
L=319.16'
D=1°35'16"
CHB=S39°52'12"E
CHD=319.15'

GRAPHIC SCALE IN FEET
0 20 40 80

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No.	REVISIONS	DATE	BY

KHA PROJECT 116543041
DATE 10/22/2021
SCALE AS SHOWN
DESIGNED BY NJS
DRAWN BY NJS
CHECKED BY JY

CUP SITE PLAN
BENNS CHURCH BOULEVARD & TURNER DRIVE

WAWA
ISLE OF WIGHT COUNTY VIRGINIA

SHEET NUMBER
1

Plotted By:Mathews, Joe Sheet Set:Kha Layout:CUP PLAN October 25, 2021 09:55:11am K:\VAB_Civil_WAWA\116543041 — Wawa Benns Church\CADD\Exhibits\CUP\VA_Isle of Wight_Wawa _CUP Site Plan.dwg
The electronic signature and design presented hereon are applicable to the specific project and date for which they were prepared. Reuse of and reliance on this document on any other project without written verification by Kimley-Horn and Associates, Inc. for the specific project and date for which it was prepared is prohibited.

Traffic Impact Analysis
for
Wawa Convenience Market Development – Benns Church Boulevard at Turner Drive
Isle of Wight County, Virginia

Prepared for:
Frontier Development

Prepared by:

Kimley-Horn and Associates, Inc.
4525 Main Street, Suite 1000
Virginia Beach, VA 23462
P: 757.213.8600 F: 757.213.8601

Kimley-Horn Project Number: 116947000
June 2022

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1.0 EXECUTIVE SUMMARY

Kimley-Horn and Associates, Inc. (Kimley-Horn) was retained to perform a traffic impact analysis (TIA) for a proposed Wawa Convenience Market and Fuel Sales located in Isle of Wight County, Virginia. The proposed Wawa will consist of a 6,049 square foot (sf) convenience market with 16 fueling positions. The proposed development site is bounded by Benns Church Boulevard (State Route 10) to the north, Turner Drive to the west, Smithfield High School and Smithfield Middle School to the south, and residential/agricultural properties to the east/southeast as illustrated in **Figure 1**. A conceptual site plan is also illustrated in **Figure 2**.

This project is a part of a Conditional Use Permit (CUP) application. Based on conversations with the Virginia Department of Transportation (VDOT) and Isle of Wight County, it was determined that a VDOT 527 TIA would not be required; however, this TIA has been prepared to meet VDOT and Isle of Wight County TIA requirements for the CUP application. The purpose of this TIA is to examine existing and future traffic conditions within the agreed upon project study area, identify traffic impacts resulting from the proposed development on the surrounding local road network, as well as recommend transportation improvements that support the development and help maintain acceptable traffic operations.

The proposed development has the potential to generate 4,378 daily weekday trips. Out of the total weekday daily trips, 508 driveway trips are anticipated to occur during the AM peak hour and 393 driveway trips are expected to occur during the PM peak hour. Pass-by assumptions for the proposed development were determined to be 63% and 66% of the trips generated during the AM and PM peak hours respectively. As a result, the proposed development is estimated to generate a total of 188 new trips occurring during the AM peak hour and 134 new trips during the PM peak hour.

Based on the results of the traffic analysis, the future impacts associated with the proposed development are anticipated to be minimal overall, with some deterioration in operations expected at the signalized intersection of Benns Church Boulevard at Turner Drive.

Under all future year development scenarios, it is anticipated that overall intersection operations will be maintained at LOS D or better during the AM and PM peak hours for all study area intersections.

It is also acknowledged that there are select movements under current and future conditions that do and/or will periodically have the potential to experience greater periods of operational delay. To address these operational constraints, this TIA has identified several potential improvements focused on reducing vehicle delay and facilitating traffic progression along the corridor.

As documented in the TIA, Scenario 4 was included to focus specifically on the potential impacts associated with just the proposed Wawa development as a part of the CUP application. It was initially identified that a proposed site access driveway along Turner Drive would likely be within the functional area of the Benns Church Boulevard/Turner Drive signalized intersection. In an effort to mitigate this concern and in collaboration with VDOT and the County, the proposed Site Access Driveway # 2 has been located approximately 450 feet south of the Benns Church signalized intersection (i.e., approximately 115 feet more than the minimum spacing requirement of 335 feet). The location of Site Driveway # 2 is also complemented with the installation of a proposed exclusive left-turn lane to serve southbound traffic attempting to accessing the site and to ensure through traffic flow is not impeded. Therefore, it is anticipated that queue lengths will not extend as far south as the proposed Site Access Driveway #2 on any type of regularly basis throughout the day and with the proposed southbound left-turn lane it is expected that this full access intersection along Turner Driver will function safely and efficiently under peak and off-peak traffic conditions.

The recommended off-site roadway/intersection improvements are summarized below:

Benns Church Boulevard

- VDOT should continue to monitor and optimize traffic signal phasing and timing plans to accommodate peak hour/off-peak traffic volumes along Benns Church Boulevard
  - Coordinated signal timing optimization for the Turner Drive and Cypress Run intersections should occur following construction and approximately 90-days of operation and occupancy of the Wawa Convenience Market to account for the changes in traffic volumes/travel patterns
  - Signal coordination improvements should facilitate the progression of traffic along Benns Church Boulevard from Cypress Run Drive to Turner Drive

Benns Church Boulevard at Turner Drive

Benns Church Boulevard Westbound Approach

- Lengthen the westbound left-turn lane on Benns Church Boulevard to consist of 350 feet of storage and a 200-foot taper

Turner Drive Northbound Approach

- Reconfigure the existing shared through/left-turn lane to an exclusive left-turn lane consisting of 200 feet of storage and a 100-foot taper
- Extend, modify, and reconfigure the existing exclusive right-turn lane serve as a shared through/right-turn lane
- Construct/install the necessary traffic signal infrastructure (e.g., signal heads, signage, wiring, etc.) improvements to serve the new lane use designations/movements associated with the northbound Turner Drive approach to the intersection

Benns Church Boulevard at Cypress Run Drive

- VDOT should optimize existing signal timing plans (both AM and PM) and implement cycle lengths that are consistent with cycle lengths at the Turner Drive intersection to enhance traffic operations at the Cypress Run Drive intersection as well as better facilitate traffic progression along Benns Church Boulevard

Benns Church Boulevard at Proposed Wawa Site Driveway # 1

- Site access will function as Right-In/Right-Out (RIRO) Only
- Construct one exclusive right-turn lane, along eastbound Benns Church Boulevard consisting of 200 feet of storage and a 100-foot taper.
- The proposed Wawa site driveway will consist of one inbound lane and one outbound lane
- Install/provide STOP control for outbound movements (i.e., approach to Benns Church Boulevard)

Turner Drive at Proposed Wawa Site Driveway # 2

- Site access will function as Full Access/Full Movement
- Install supplemental signage and pavement markings to consist of the following:
  - “DO NOT BLOCK INTERSECTION” signage
  - Intersection pavement markings delineating the area not to block (i.e., the box)
  - Supplement with signage reflecting a potential fine for those observed/caught impeding intersection operations

- Widen Turner Drive to the south of the proposed Wawa Site Driveway # 2 for a distance of approximately 300 feet to provide the roadway transition necessary to support the introduction of the proposed southbound exclusive left-turn lane serving the Wawa development site.
    - Widening will extend from the Wawa Site Driveway # 2 intersection to a tie-in point with the existing three-lane section/transition portion of Turner Drive associated with the southbound left-turn lane serving the Smithfield High School site access driveway.

It is noted that the existing right-of-way (ROW) along this segment of Turner Drive is approximately 40-feet in width. Therefore, the proposed widening of Turner Drive is intended to be implemented within the existing ROW and match the existing cross section.

Proposed Wawa Site Driveway # 2 Westbound Approach

- Site driveway will consist of one inbound lane and one outbound lane
- Install/provide STOP control for outbound (driveway) approach

Turner Drive Southbound Approach

- Construct/delineate one exclusive left-turn lane consisting of 150 feet of storage and a 100-foot taper

Turner Drive Northbound Approach

- Construct a new travel lane along the east side of Turner Drive to account for/accommodate the proposed southbound left-turn lane

Beyond the above-mentioned improvements, no other off-site geometric or traffic control improvements are recommended as part of the proposed Wawa Convenience Market development.

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2.0 INTRODUCTION

Kimley-Horn and Associates, Inc. (Kimley-Horn) was retained to perform a traffic impact analysis (TIA) for a proposed Wawa Convenience Market and Fuel Sales located in Isle of Wight County, Virginia. The proposed Wawa will consist of a 6,049 square foot (sf) convenience market with 16 fueling positions. The proposed development site is bounded by Benns Church Boulevard (State Route 10) to the north, Turner Drive (State Route 644) to the west, Smithfield High School to the south, and residential/agricultural properties to the east/southeast as illustrated in **Figure 1**. A conceptual site plan is also illustrated in **Figure 2**.

This project is a part of a Conditional Use Permit (CUP) application. Based on conversations with the Virginia Department of Transportation (VDOT) and Isle of Wight County, it was determined that a VDOT 527 TIA would not be required; however, this TIA has been prepared to meet VDOT and Isle of Wight County TIA requirements for the CUP application. Additionally, a TIA Assumptions document was prepared and approved by VDOT and Isle of Wight County and included in **Appendix A** of this report.

It is noted that an additional analysis scenario has been included in this TIA (i.e., Build conditions without a proposed new Elementary School). This scenario consists of applying a growth rate to existing volumes to establish background traffic and includes only additional/new traffic associated with the proposed Wawa development under consideration. It excludes a proposed new 600 pupil elementary school from the background traffic. This scenario was added to provide a more clear and/or realistic picture of the trip generation impacts, and the anticipated operational conditions associated with the proposed development in 2023/2024. Concern was raised that the proposed but not approved new Elementary School was overstating near-term traffic volume estimates and/or the reduction in operational conditions along Turner Drive. The analysis scenario that includes the new elementary school should be used by Isle of Wight County in collaboration with Isle of Wight County Schools and/or VDOT for future planning purposes and not as a factor in the consideration of the CUP application.

The purpose of this TIA is to examine existing and future traffic conditions within the agreed upon project study area, identify traffic impacts resulting from the proposed development on the surrounding local road network, as well as recommend transportation improvements that support the development and help maintain acceptable traffic operations.

Throughout this TIA, the “proposed development” refers to the proposed Wawa.

3.0 PROJECT BACKGROUND

3.1 STUDY AREA

The study area for this analysis includes three (3) existing roadways, two (2) existing intersections, and two (2) future intersections/access points planned to support the proposed development. The study area roadways and intersections are as follows:

Roadways

- Benns Church Boulevard (State Route 10)
- Turner Drive (State Route 644)
- Cypress Run Drive

Intersections

Existing:

- Benns Church Boulevard at Turner Drive (signalized)
- Benns Church Boulevard at Cypress Run Drive (signalized)

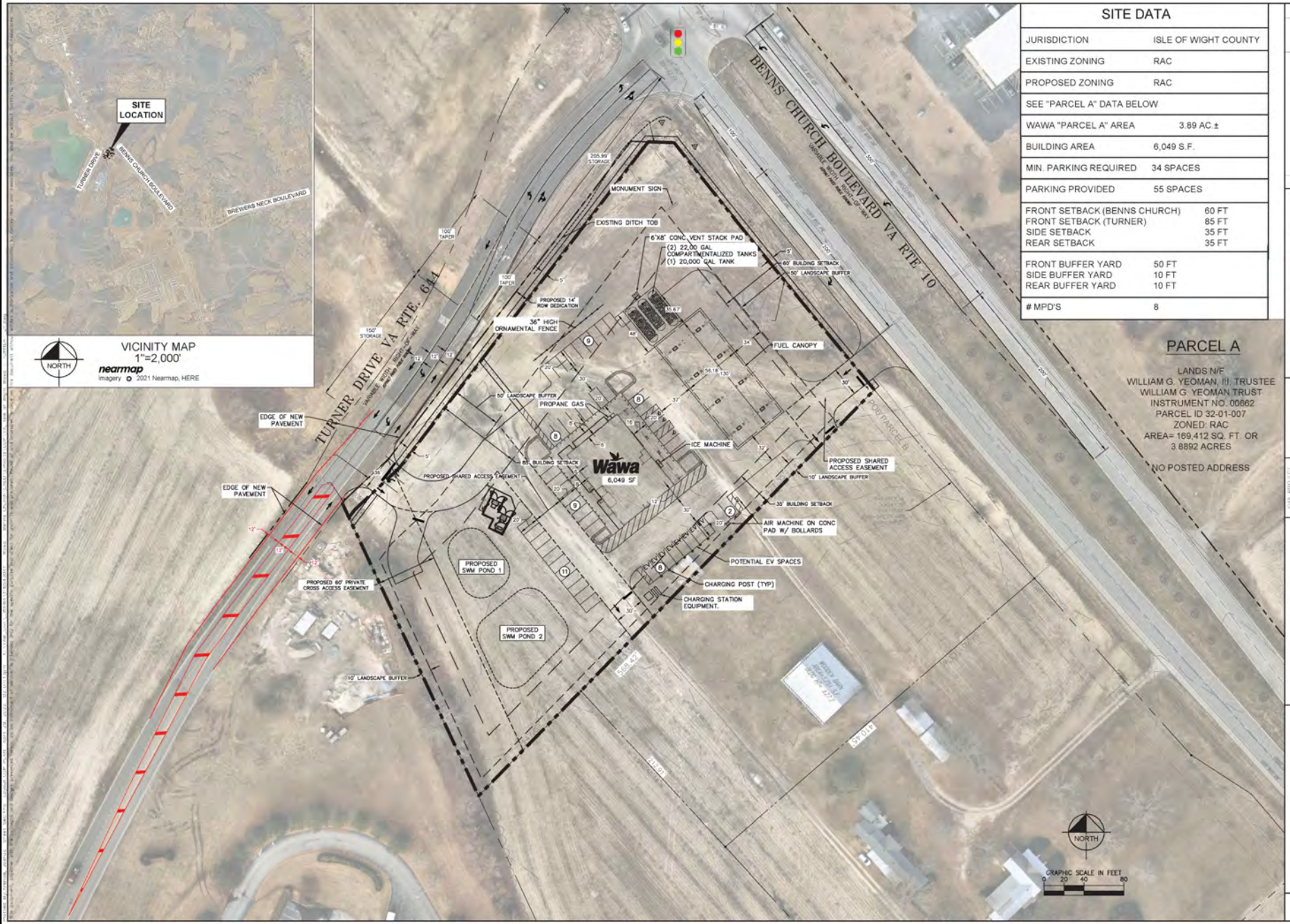
Proposed:

- Benns Church Boulevard at Site Access Driveway #1: Unsignalized, Right-In/Right-Out (RI/RO) only
- Turner Drive at Site Access Driveway # 2: Unsignalized, Full-Movement

All study area roadways and intersections were identified and agreed to with VDOT and Isle of Wight County as referenced in the TIA Assumptions document provided in **Appendix A**.

Kimley»Horn	Wawa Development Benns Church Boulevard TIA	Project Study Area	FIGURE 1

THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



Kimley»Horn	Wawa Development Benns Church Boulevard TIA	Conceptual Site Plan with Proposed Off-Site Improvements	FIGURE 2

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3.2 EXISTING CONDITIONS

Figure 3 depicts existing lane designations throughout the study area along with existing full width storage and taper lengths for exclusive turn lanes. The following provides a short description of the existing roadway characteristics for each facility:

- **Benns Church Boulevard (State Route 10)** – is a four-lane, divided minor arterial within the limits of the study area. Benns Church Boulevard is oriented in an approximate east/west direction with a posted speed limit of 45 miles per hour (mph). Based on VDOT historic counts reported for 2019, this section of Benns Church Boulevard carries approximately 27,000 vehicles per day (vpd).
- **Turner Drive (State Route 644)** – is primarily a two-lane, undivided major collector within the limits of the study area. Turner Drive runs in an approximate north/south direction. Based on VDOT historic counts reported in 2019, this section of Turner Drive carries approximately 3,200 vehicles per day (vpd). The posted speed limit is 40 mph.
- **Cypress Run Drive –** is primarily a two-lane, undivided local road within the limits of the study area. Cypress Run Drive is oriented in an approximate east/west direction. This roadway connects Benns Church Boulevard to a shopping center and a handful of residential homes. The posted speed limit is 15 mph.

Existing traffic signal timing data for the signalized intersection at Benns Church Boulevard at Turner Drive and Benns Church Boulevard at Cypress Run Drive was provided by VDOT.

3.3 EXISTING TRAFFIC VOLUMES

Kimley-Horn collected existing turning movement count (TMC) data on August 11, 2021 (Wednesday) at each study area intersection. The existing weekday TMC data was collected from 6:30 AM to 8:30 AM and from 3:30 PM to 6:30 PM.

Historical AAWDTs for Benns Church Boulevard are presented in **Table 1.** All raw traffic count data are provided in **Appendix B**. Uniform morning (AM) and evening (PM) peak hours were established from the TMC data. Based on the TMC data, the AM peak hour occurs from 7:15 AM to 8:15 AM and the PM peak hour occurs from 4:15 PM to 5:15 PM.

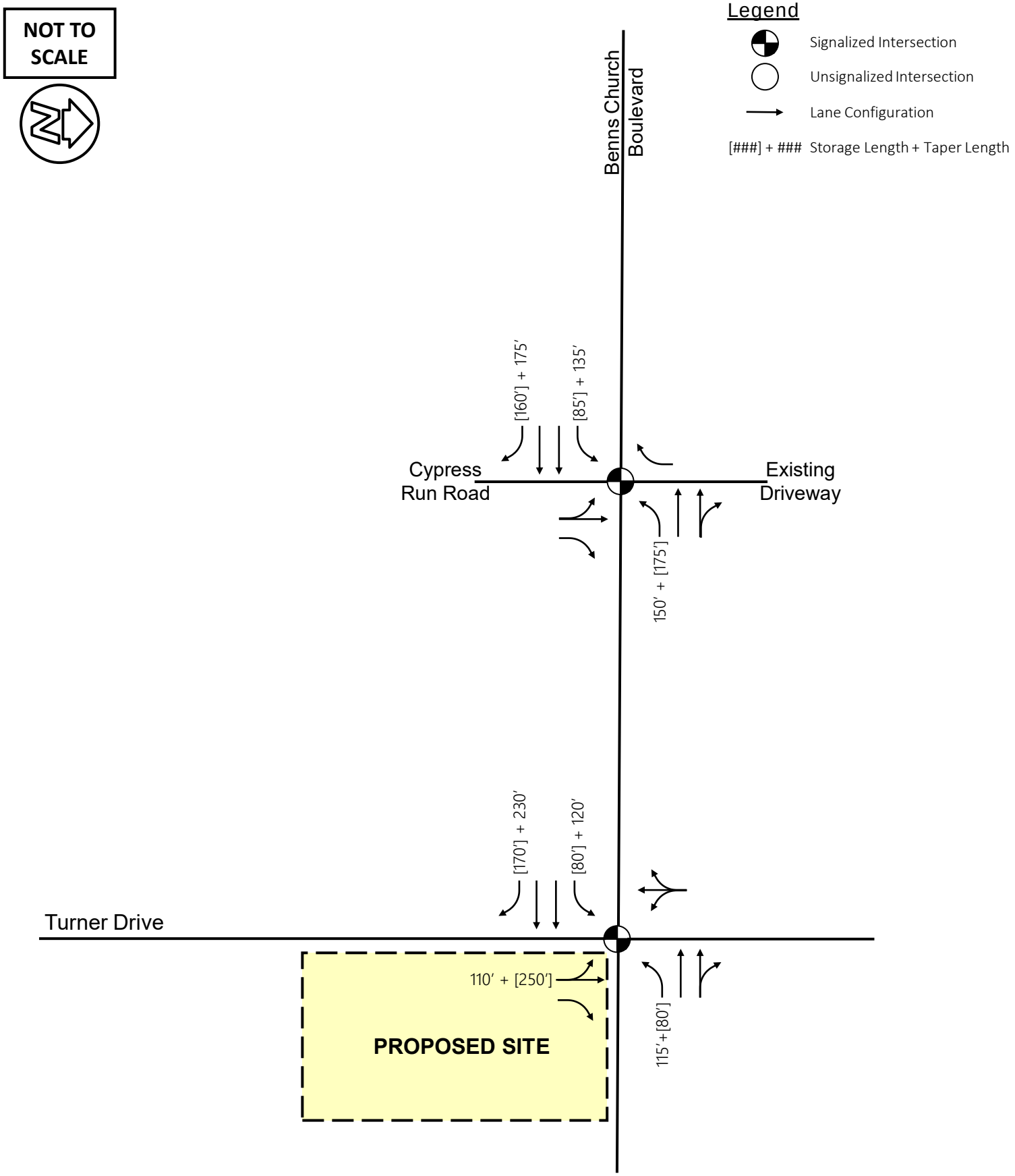
The existing (i.e., 2021) AM and PM peak hour traffic volumes have been adjusted to ensure school traffic was adequately accounted for in the operational analysis and are illustrated in **Figure 4**. The existing volumes were adjusted using the 2021 TMC data combined with historic TMC data (which accounts for influence of school related traffic/turning movements) to develop the adjusted 2021 traffic volumes. Heavy vehicle percentages were calculated for each individual intersection movement, while overall intersection peak hour factors were calculated and then applied to each intersection movement.

The existing traffic volumes have also been adjusted to account for COVID-19 related impacts. This was done by comparing the TMC data collected in August of 2021 to TMC data that was collected in August of 2017. A COVID factor was created for each individual movement by dividing the December 2016 TMC movement volume by the 2021 TMC movement volume. The 2021 data that was adjusted to account for school traffic was then multiplied by this factor to get the final adjusted 2021 volume data." It is noted that due to the timing of the data collection for 2017 and 2021 (i.e., August), Kimley-Horn intentionally selected volumes for specific movements that needed to be and/or were more directly representative of "school in session" volumes (i.e., December 2016 TMC data captures turning movements at the Benns Church Boulevard/Turner Drive signalized intersection with school fully in session).

Table 1: Study Area Roadway Historical AAWDTs

VDOT Historical Daily Traffic Volumes AAWDT						
Location	**2015**	**2016**	**2017**	**2018**	**2019**	**Average Annual Growth**
Southern Corporate Limits of the Town of Smithfield to Brewers Neck Boulevard	27,000	28,000	26,000	26,000	27,000	0.102%
					Average Annual Growth Rate	**0.10%**
					Proposed Annual Growth Rate	**1.0%**

Source: VDOT (i.e., 2015 to 2019 ADT)



Kimley»Horn	Wawa Development Benns Church Boulevard TIA	2021 Existing Lane Geometry	FIGURE 3

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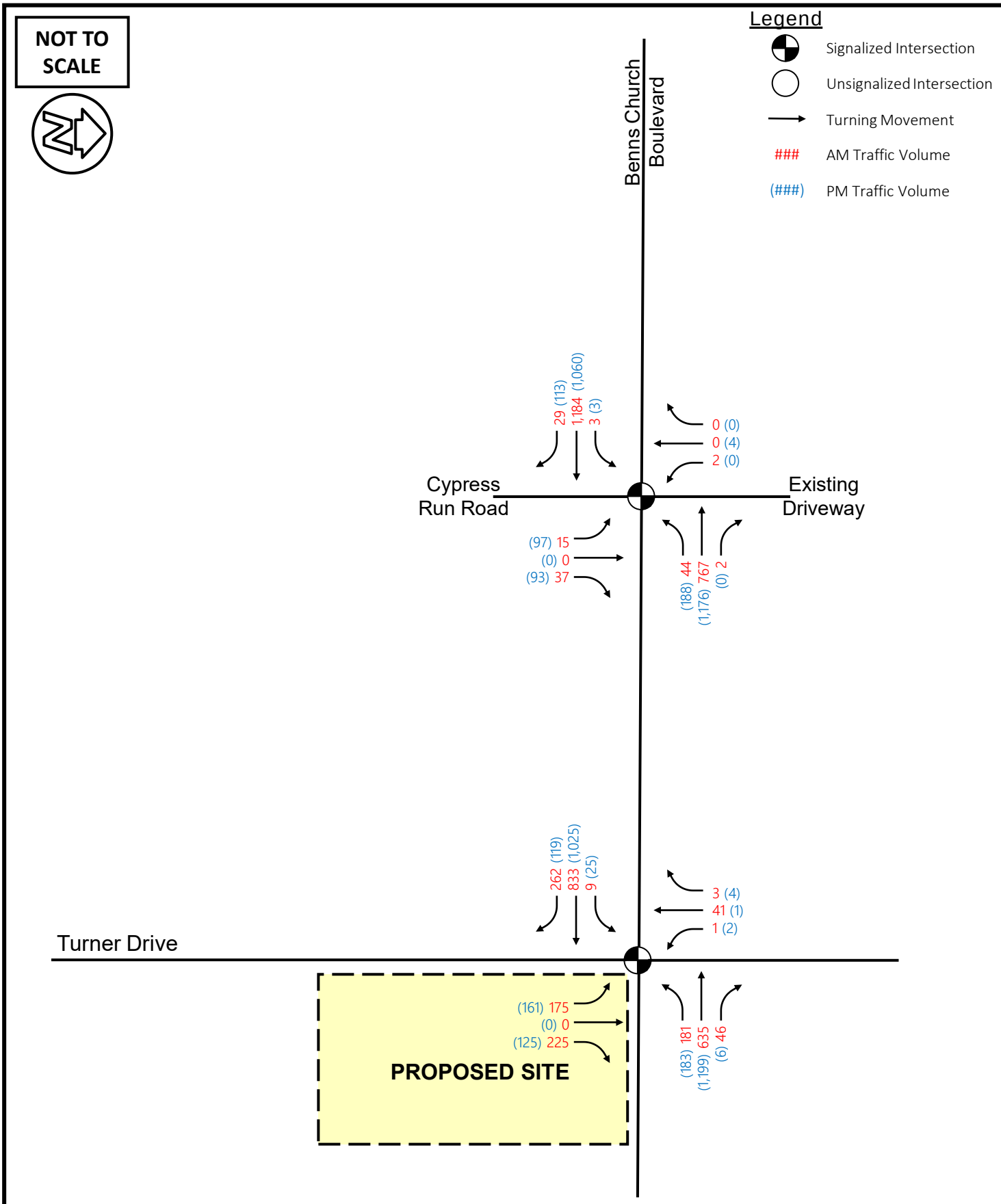

Kimley»Horn	Wawa Development Benns Church Boulevard TIA	2021 Existing Peak Hour Volumes	FIGURE 4

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4.0 PROJECTED TRAFFIC VOLUMES

In addition to 2021 Existing Conditions, this study includes the analysis of three (3) Future Year (i.e., one (1) No Build and two (2) Build) scenarios. The proposed development is anticipated to open in 2023. The following analysis scenarios for the AM and PM peak hours were studied as part of this TIA. The peak hours for this intersection were determined by looking at the school hours of both Smithfield Middle and Smithfield High School combined with the historic traffic volume data from 2016 and 2017 collected by VDOT. A summary of general traffic conditions associated with each scenario is included below:

- **Scenario 1** – Existing (2021) traffic conditions
- **Scenario 2** – Future Year (2023) No-Build Conditions – Opening year traffic conditions with a future growth rate applied to approved base year traffic volumes plus background development trips (i.e., approved historical growth rate plus approved adjacent development traffic if applicable) but without traffic volumes generated by the proposed Wawa Convenience Market with Fuel development.
    - Background traffic for this TIA was assumed to include a New 600 Pupil Elementary School located along Turner Drive adjacent to Smithfield Middle School and Smithfield High School
- **Scenario 3** – Future Year (2023) Build-out conditions – Opening year traffic conditions with a future growth rate applied to approved base year traffic volumes plus background development trips (i.e., approved historical growth rate plus approved adjacent development traffic if applicable), with traffic volumes generated by the proposed Wawa Convenience Market with Fuel development
    - Background traffic for this TIA was assumed to include a New 600 Pupil Elementary School located along Turner Drive adjacent to Smithfield Middle School and Smithfield High School
- **Scenario 4*** – Future Year (2023) Build-out No Elementary School conditions – Opening year traffic conditions with a future growth rate applied to approved base year traffic volumes plus background development trips (i.e., approved historical growth rate), with traffic volumes generated by the proposed Wawa Convenience Market with Fuel development
    - Same as Scenario 3, however it does not include traffic volumes for a proposed New 600 Pupil Elementary School to the south of Smithfield High School along Turner Drive
    - Unlike Scenario 3 and 5, the northbound approach of Turner Drive at Benns Church Boulevard will consist of an exclusive left-turn lane and a shared though/right-turn lane
- **Scenario 5** – Future Year (2023) Build-out conditions – Opening year traffic conditions with a future growth rate applied to approved base year traffic volumes plus background development trips (i.e., approved historical growth rate plus approved adjacent development traffic if applicable), with traffic volumes generated by the proposed Wawa Convenience Market with Fuel development
    - Same as Scenario 3 and also includes a dedicated pedestrian phase as a part of signal operations at the signalized intersection of Benns Church Boulevard and Turner Drive

***Note:** Scenario 4 was added to provide a clearer and/or realistic picture of the trip generation impacts, and the anticipated operational conditions associated with the proposed development in 2023/2024. Concern was raised that the proposed but not approved new Elementary School was overstating near-term traffic volume estimates and/or the reduction in operational conditions along Turner Drive. The analysis scenario that includes the new elementary school should be used by Isle of Wight County in collaboration with Isle of Wight County Schools and/or VDOT for future planning purposes and not as a factor in the consideration of the CUP application.

4.1 BACKGROUND TRAFFIC GROWTH

A conservative 1% growth rate per year was used to account for general growth and other developments that may occur near or within the study area. This growth rate is consistent with overall County average growth rate used in other similar traffic studies.

The 2023 background peak hour traffic volumes were developed by applying a compounding 1.0% growth rate over a 2-year period to existing/base year (2021) volumes plus traffic associated with the approved/planned adjacent development as well as a proposed new 600 pupil elementary school). However, as noted previously, background traffic for Scenario 4 did not include the consideration of traffic associated with the proposed elementary school.

Trip generation associated with the proposed new elementary school is expected to result in an additional 1,134 daily weekday trips, as well as 402 trips during the AM peak hour (i.e., 217 entering and 185 exiting) and 102 trips during the PM peak hour (i.e., 49 entering and 53 existing) as shown in **Table 2**.

Table 2: Trip Generation for a Proposed New 600 Pupil Elementary School

ITE Code	ITE Description	Density	Unit	Daily	AM Peak Hour			PM Peak Hour		
					Total	In	Out	Total	In	Out
520	Elementary School	600	Students	*1,134*	*402*	*217*	*185*	*102*	*49*	*53*
			New Site Trips	*1,134*	*402*	*217*	*185*	*102*	*49*	*53*

4.2 SITE ACCESS SPACING

Based on the conceptual site plan, access to the site is proposed at the following two locations:

- **Site Access #1** on Benns Church Boulevard, approximately 300 feet east of Turner Drive – This intersection will operate as an unsignalized, right-in/right-out (RIRO) driveway
- **Site Access #2** on Turner Drive, approximately 450 feet south of the Benns Church Boulevard – This intersection will operate as an unsignalized, full-movement (i.e., full access) intersection

Based on these proposed access locations and permitted movements, spacing requirements per VDOT's *Roadway Design Manual Appendix F Access Management Design Standards for Entrances and Intersections* were reviewed. The required intersection spacing was compared to the proposed intersection spacing for the site entrances and is summarized in ***Table 3***.

Table 3: Summary of Site Access Spacing

Site Access	Roadway	To	From	Minimum Spacing Requirement (feet)	Proposed Access Spacing (feet)	Meets Spacing Requirements?
Site Access #1 (Partial Access)	Benns Church Boulevard	Turner Drive	Site Access #1	250'	300'	Yes (+50')
Site Access #2 (Full Access)	Turner Drive	Benns Church Boulevard	Site Access #2	335'	450'	Yes (+115')

4.3 PROPOSED TRIP GENERATION, DISTRIBUTION, AND ASSIGNMENT

Traffic generation potential for the proposed development was obtained using *ITE Trip Generation 10th Edition* (2017). Trip generation estimates for the proposed site land uses are shown in **Table 4**. In addition, pass-by reductions were applied, consistent with the methods contained within the ITE *Trip Generation Handbook 10th Edition.* Trip generation estimates were developed and compared based on the number of fueling stations, convenience market square footage, and calculating the average using the volumes associated with fueling stations and square footage. Therefore, the proposed pass-by reduction was determined to be 63% and 66% of the trips generated for the AM and PM peak hours, respectively.

Table 4: Trip Generation for Proposed Development

ITE Code	ITE Description	Density	Unit	Daily	AM Peak Hour			PM Peak Hour		
					Total	In	Out	Total	In	Out
Trip Generation Based on Fueling Stations										
960	Super Convenience Market/Gas Station	16	Fueling Positions	3,688	449	225	224	367	184	183
Pass-By (63% AM, 66% PM)					(283)	(142)	(141)	(242)	(121)	(121)
New Site Trips				3,688	166	83	83	125	63	62
960	Super Convenience Market/Gas Station	6,049	Square Ft	5,067	566	283	283	419	210	209
Pass-By (63% AM, 66% PM)					(357)	(178)	(178)	(277)	(139)	(138)
New Site Trips				5,067	209	105	105	142	71	71
960	Super Convenience Market/Gas Station	Average		4,378	508	254	254	393	197	196
Pass-By (63% AM, 66% PM)					(320)	(160)	(160)	(259)	(130)	(129)
New Site Trips				4,378	188	94	94	134	67	67

The proposed Wawa development has the potential to generate a total of 4,378 daily weekday trips. Out of the total weekday trips, 508 driveway trips will occur during the AM peak hour and 393 driveway trips will occur during the PM peak hour. Pass-by assumptions for the proposed development were determined to be 63% and 66% of the trips generated during the AM and PM peak hours respectively.

As a result, the proposed development is estimated to generate a total of 188 new trips occurring during the AM peak hour and 134 new trips during the PM peak hour.

Site traffic distributions were preliminary determined from available traffic data, anticipated routes for vehicles entering and exiting the site, and a general familiarity of the study area. At the regional level it is anticipated that the majority of traffic will be traveling to/from Benns Church Boulevard located northeast of the project site.

Proposed distributions determined for the proposed Wawa Convenience Market with Fuel development are listed below:

- To/from the south on Turner Drive – 20%
- To/from the west on Benns Church Boulevard – 40%
- To/from the east on Benns Church Boulevard – 40%

Two (2) unsignalized access driveways are proposed with the development. The first access driveway will be located along eastbound Benns Church Boulevard, approximately 325 feet south of Turner Drive, and will operate with right-in-right-out (RI/RO) only operations. Site access driveway #2 will be located along Turner Drive, approximately 450 feet south of Benns Church Boulevard and will accommodate full movement operations.

Detailed trip distribution and assignment is shown in **Figure 5**.

AM and PM future traffic volumes for Scenarios 3 and 5 are illustrated in **Figure 6** and **Figure 7**.

AM and PM future traffic volumes for Scenario 4 are illustrated in **Figure 8** and **Figure 9**.

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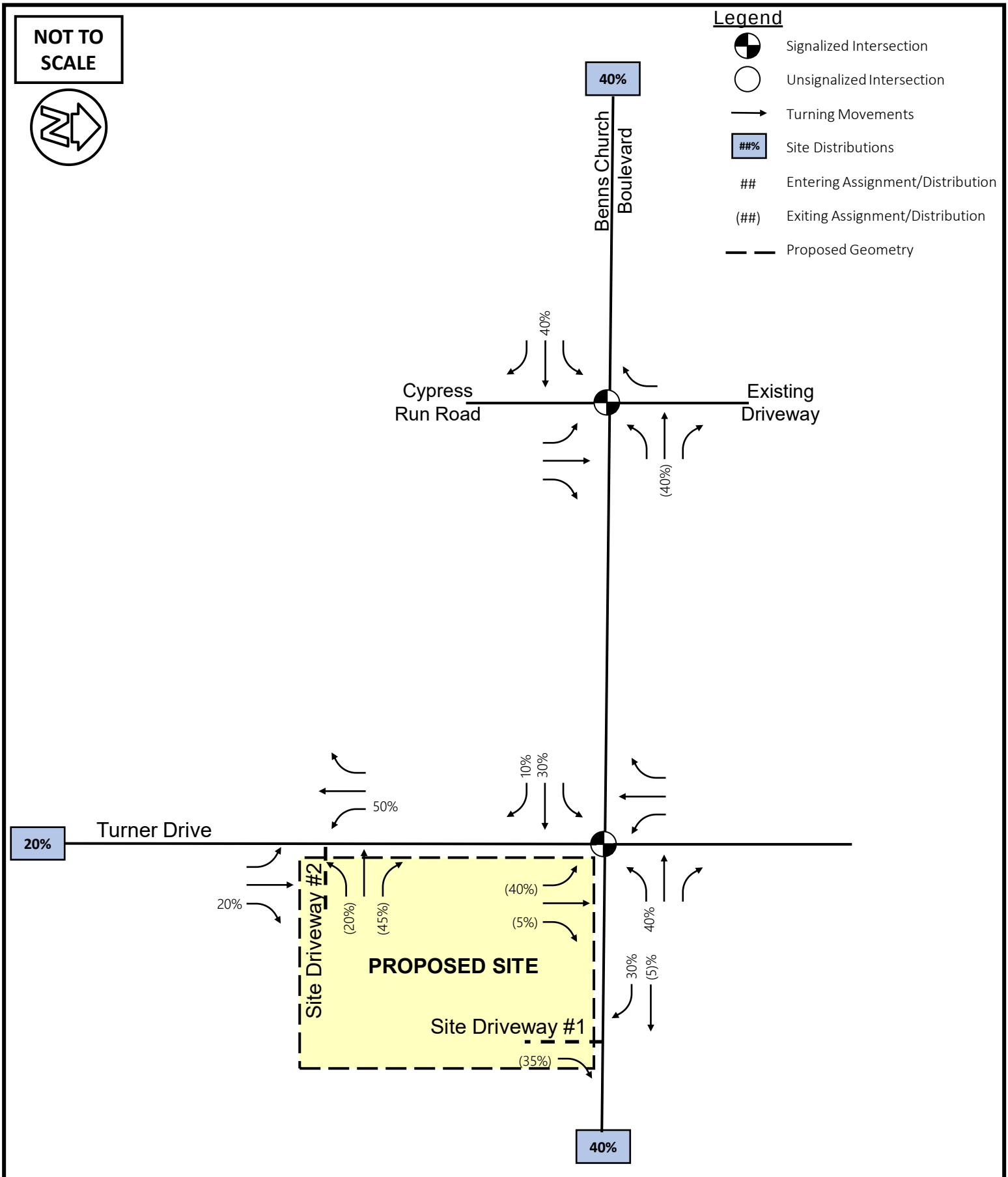

Kimley»Horn	Wawa Development Benns Church Boulevard TIA	Proposed Trip Distributions	FIGURE 5

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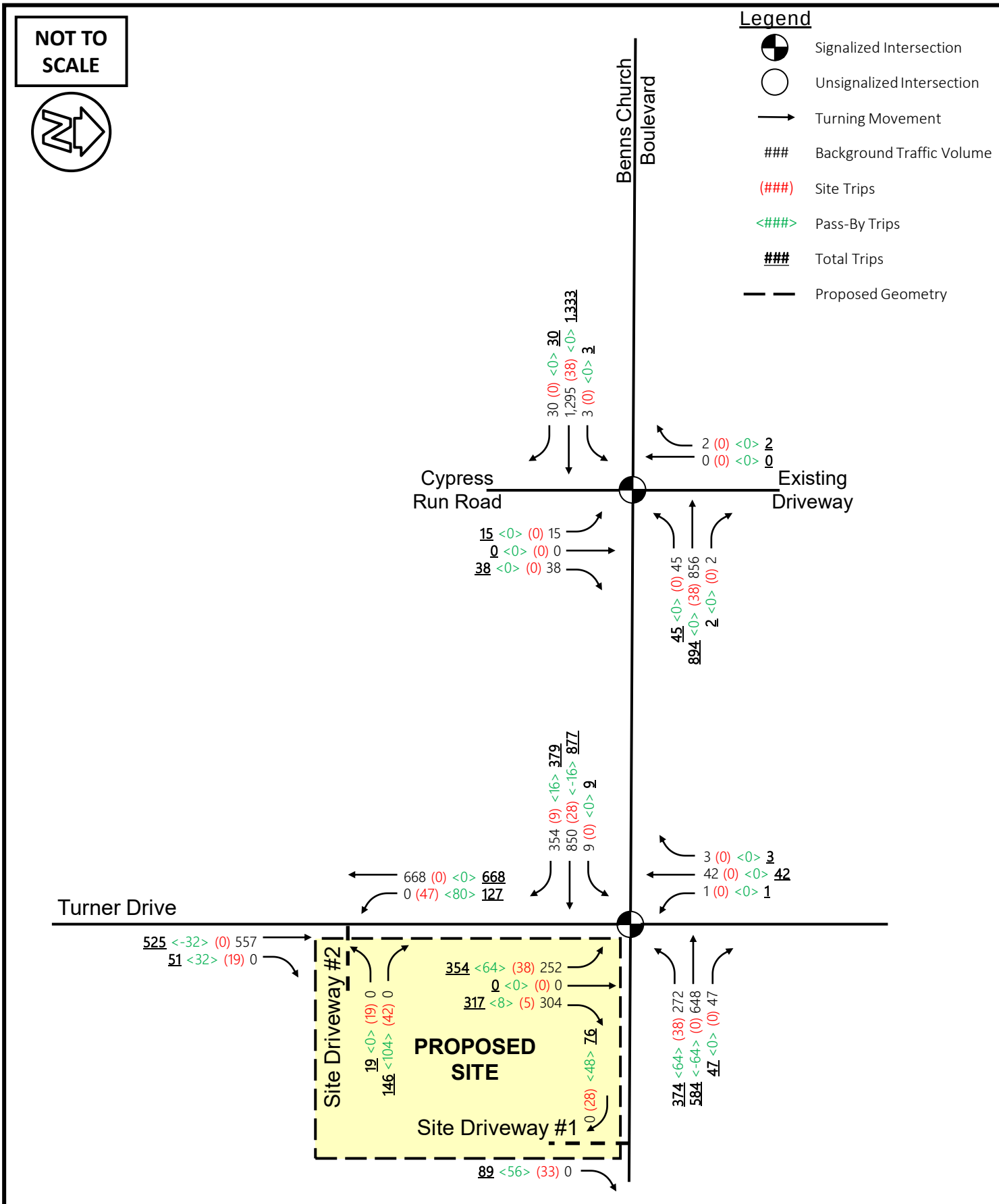

Kimley»Horn	Wawa Development Benns Church Boulevard TIA	2023 AM Peak Hour Volumes for Scenarios 3 and 5	FIGURE 6

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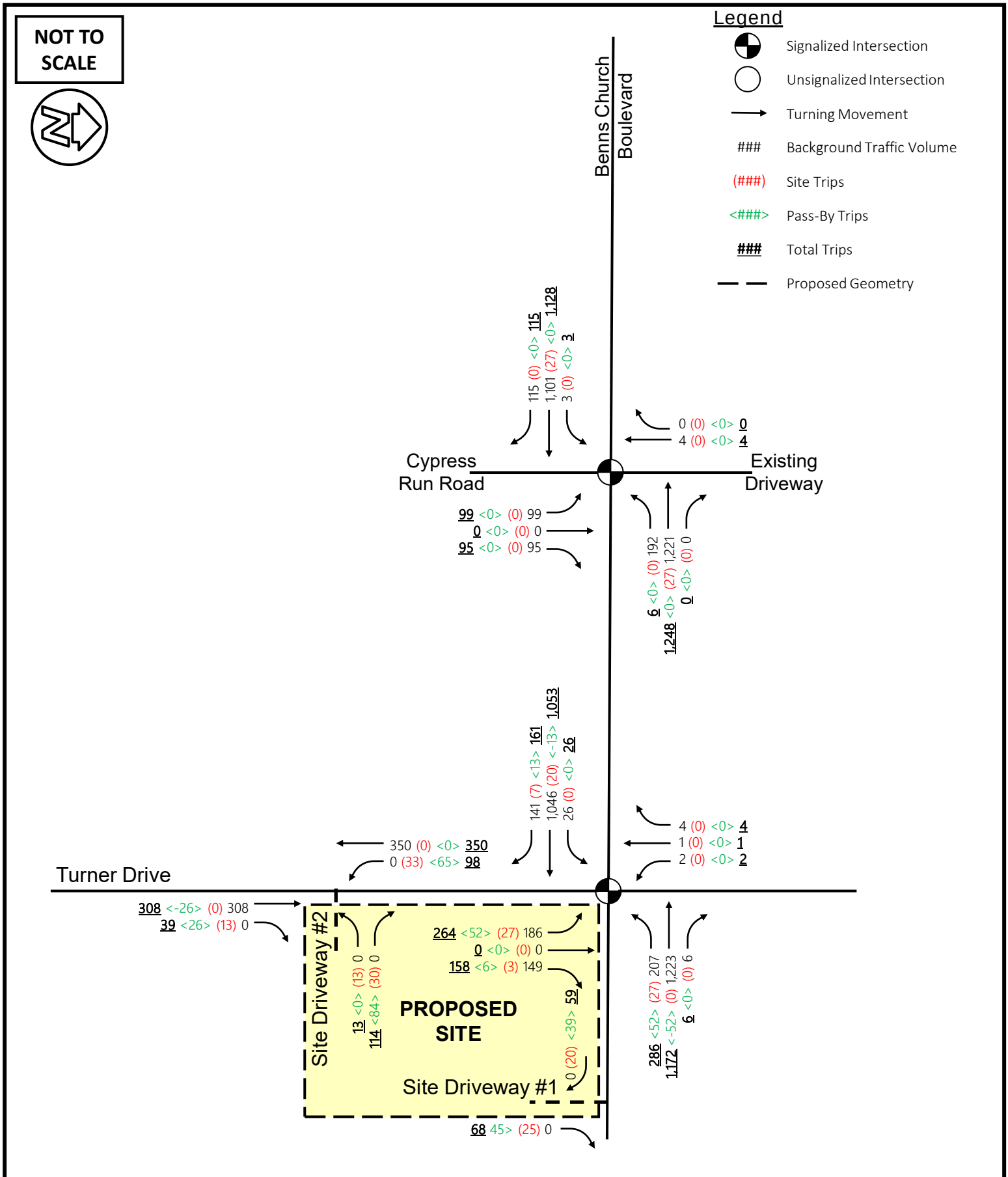

Kimley»Horn	Wawa Development Benns Church Boulevard TIA	2023 PM Peak Hour Volumes for Scenarios 3 and 5	FIGURE 7

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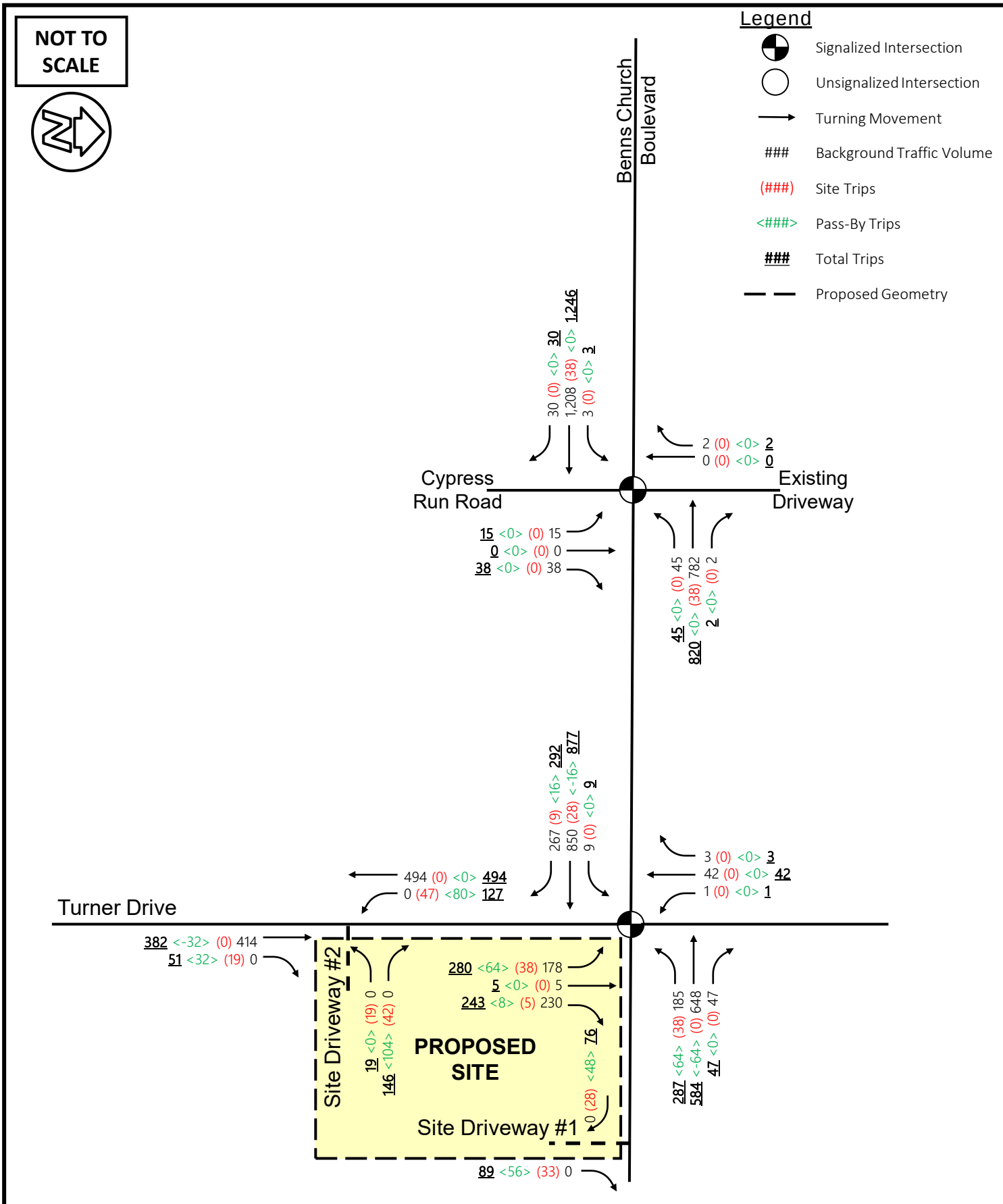

Kimley»Horn	Wawa Development Benns Church Boulevard TIA	2023 AM Peak Hour Volumes for Scenario 4	FIGURE 8

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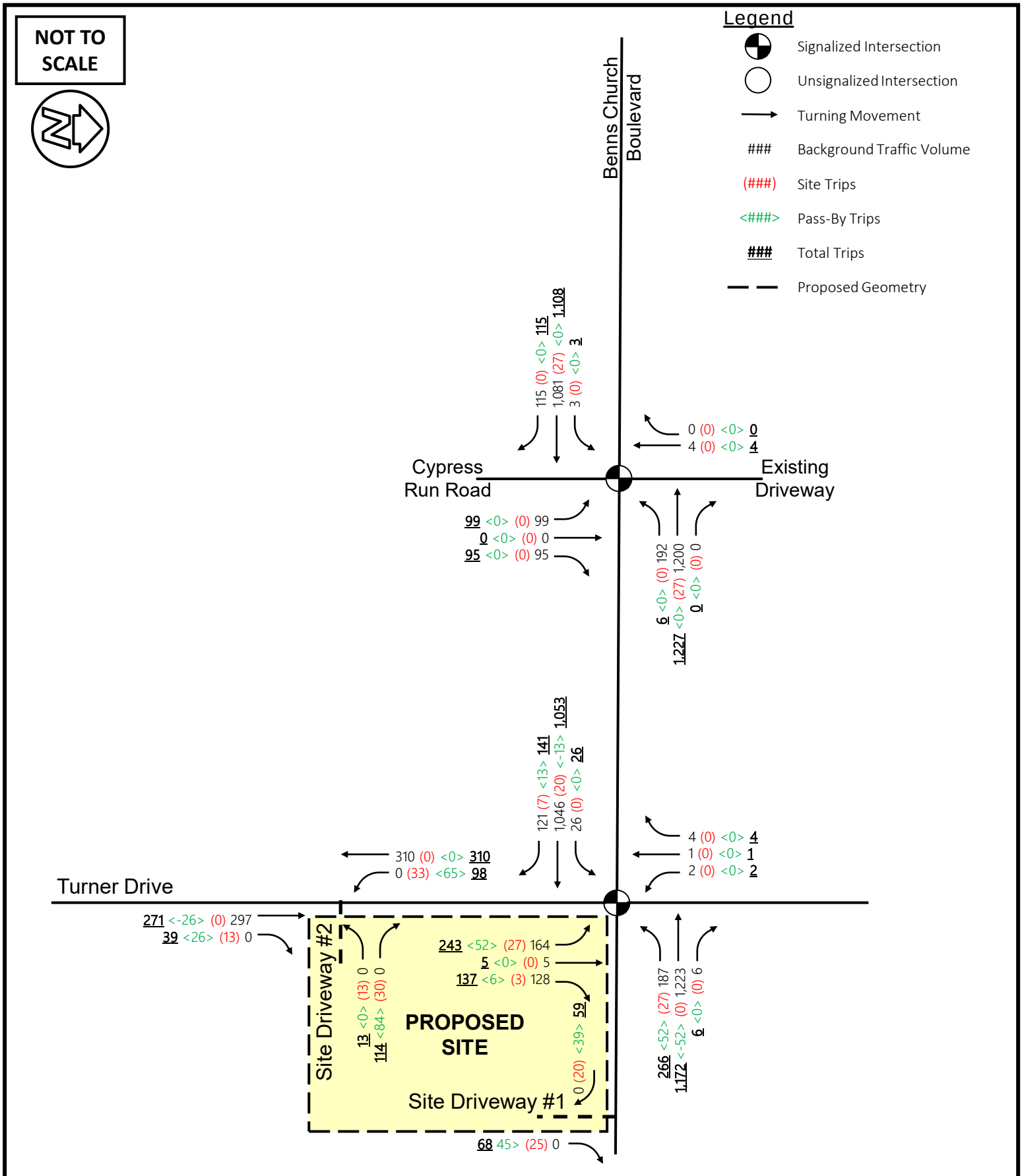

Kimley»Horn	Wawa Development Benns Church Boulevard TIA	2023 PM Peak Hour Volumes for Scenario 4	FIGURE 9

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5.0 TRAFFIC ANALYSIS

5.1 TURN LANE WARRANT

A right-turn lane warrant analysis was performed for the eastbound approach of Benns Church Boulevard at the proposed RI/RO Site Access Driveway # 1 and for the eastbound approach of Benns Church Boulevard at Turner Drive. A left-turn lane warrant analysis was performed for the southbound approach of Turner Drive at the proposed Site Access Driveway # 2 and for the northbound approach of Turner Drive at Benns Church Boulevard. These were conducted to assess the need for any additional right-turn and/or left-turn treatments (i.e., new exclusive turn-lane or improvement of an existing turn-lane), due to the increase in traffic generated by the proposed development and anticipated to access the development site at these locations. This was conducted in accordance with VDOT turn-lane warrant analysis guidelines per *Appendix F Access Management Design Standards for Entrances and Intersections*. Detailed data sheets for the turn-lane warrants are provided in **Appendix C.**

A right-turn lane warrant analysis for the eastbound approach of Benns Church Boulevard at Turner Drive was completed No Build and Build Conditions. The existing right-turn lane consists of approximately 170 feet of full width storage and a 230-foot taper. Based on AM volumes for both scenarios, a capacity analysis was warranted to determine the appropriate storage lane length and a 200-foot taper is required. The SimTraffic Queue Reports were used to complete the capacity analysis. For the AM and PM scenarios, both the No-Build and Build-out scenarios are projected to have an approximate 280-foot max queue. While 280 feet is the current approximate storage in the right-turn lane, the SimTraffic software is only projecting the max queue to fill the storage lane because the through lanes are projected to continuously block the right-turn lane traffic in all scenarios. The only scenario where the right-turn lane is modeled to actually back up past the 280 feet of storage is in the AM Build with Pedestrian Phasing where the queue is projected to extend the full length of the storage bay for approximately 1% of the peak hour. Based on these findings, the Build-out volumes are not projected to add significantly to the future queueing when compared to future No-Build peak hour queuing conditions.

A left-turn lane warrant analysis for the northbound approach of Turner Drive at Benns Church Boulevard was completed for Scenario 4. Scenario 4 proposes the reconfiguration of the northbound approach to consist of an exclusive left-turn lane and a shared through/right-tun lane. The proposed left-turn lane will consist of approximately 200 feet of full width storage and a 100-foot taper. Per the requirements stated in the *Appendix F* guidelines, a minimum of 100 feet of storage is required for this movement.

For the eastbound approach of Benns Church Boulevard at the proposed RI/RO Site Access Driveway # 1 it was determined that a full-width right-turn lane and taper would be required to accommodate the future development traffic under all future Build conditions. Per the requirements stated in the *Appendix F* guidelines and through conversations with VDOT while preparing this study, the proposed right-turn lane should consist of 200 feet of full width storage and a 100-foot taper.

It was determined that an exclusive left-turn lane along southbound Turner Drive would be required to accommodate the future development traffic entering the site via Site Access Driveway # 2 under all future Build scenarios. Per the requirements stated in the *Appendix F* guidelines and through conversations with VDOT while preparing this study, the proposed left-turn lane should consist of 200 feet of full width storage and a 200-foot taper.

However, based on the operational analysis findings (e.g., vehicle arrival during peak hour conditions, queuing results for the left-turn movement, etc.), efforts to avoid significant geometric modifications (e.g., horizontal curvature) to the existing shared through/left-turn lane, and concerns over the significant construction costs associated with reconstructing approximately 800 feet to 1,000 feet of Turner Drive to accommodate the proposed southbound left-turn lane, it is recommended that the left-turn lane be configured to consist of 150 feet of storage and a 100-foot taper to serve this movement. With the adjustments to the intersection and left-turn lane spacing, the queues are expected to be contained fully within the storage lane and the overall intersection is anticipated to operate at a LOS A, with no impacts to the upstream signalized intersection of Benns Church Boulevard and Turner Drive.

5.2 INTERSECTION OPERATIONAL ANALYSIS

Capacity analyses for all study intersections were performed under weekday AM and weekday PM peak hour conditions for the following scenarios:

- 2021 Existing Conditions (Scenario 1)
- 2023 Future Year No Build (Scenario 2)
- 2023 Future Year Build (Scenario 3)
- 2023 Future Year Build with No School (Scenario 4)
- 2023 Future Year Build with pedestrian phasing (Scenario 5)

All signalized and unsignalized intersection capacity analyses were completed using *Synchro Professional (Version 11)* and *SimTraffic*, which is the microsimulation companion tool of *Synchro*. For future conditions analyses, traffic signal timings were optimized to account for increases in future traffic volumes (i.e., either due to background traffic growth or additional development related traffic) and/or changes in travel/turning movement patterns. Two (2) measures of effectiveness (MOE) were analyzed in the intersection capacity analyses – average vehicle delay (in seconds per vehicle) and maximum queue lengths (in feet, rounded up to the nearest five (5) feet). Average vehicle delays were obtained using *2000 Highway Capacity Manual (HCM)* methodologies contained within *Synchro*, while maximum queue lengths were obtained by averaging results from 10 individual *SimTraffic* simulation runs.

Accompanying HCM vehicle delays are HCM level of service (LOS) designations. LOS ranges from A to F— “A” indicating a condition of little or no congestion and “F” a condition with severe congestion, unstable traffic flow, and stop-and-go conditions. **Table 5** summarizes LOS thresholds by vehicle delay for signalized and unsignalized intersections.

Throughout this chapter, average vehicle delay, LOS, and queue length results are presented in tabular format, while software output results are included in **Appendix D**. In each queuing result table, “Effective Storage Length” distances are also included. For exclusive turn lanes, the effective storage length distances reflect actual storage lengths (i.e., full-width storage length) plus half of the taper. For continuous lanes, the effective storage lengths reflect the distance to the next upstream intersection. These distances, when compared to maximum queue length results, help in identifying potential queueing concerns at study area intersections. In each queueing summary table, queue length values were **bolded** if they are anticipated to be equal to or greater than effective storage lengths.

AM and PM Queue Lengths are shown graphically in **Figure 10** and **Figure 11** for each build condition scenario.

Lastly, queue lengths that are expected to be less than 25 feet in length (approximately 1 vehicle) have been reported as “< 25” in the queue length tables.

Table 5: LOS Control Delay Thresholds

LOS	Signalized Intersections Control Delay Per Vehicle [sec/veh]	Unsignalized Intersections Average Control Delay [sec/veh]	Relative Delay
A	≤ 10	≤ 10	Short Delays
	Free-flow traffic operations at average travel speeds. Vehicles completely unimpeded in ability to maneuver. Minimal delay at signalized intersections.		
B	> 10 – 20	> 10 – 15	
	Reasonably unimpeded traffic operations at average travel speeds. Vehicle maneuverability slightly restricted. Low traffic delays.		
C	> 20 – 35	> 15 – 25	
	Stable traffic operations. Lane changes becoming more restricted. Travel speeds reduced to half of average free flow travel speeds. Longer intersection delays.		
D	>35 – 55	> 25 – 35	Moderate Delays
	Small increases in traffic flow can cause increased delays. Delays likely attributable to increase traffic, reduced signal progression and adverse timing.		
E	>55 – 80	> 35 – 50	
	Significant delays. Travel speeds reduced to one third of average free flow travel speed.		
F	> 80	> 50	Long Delays
	Extremely low speeds. Intersection congestion. Long delays. Extensive traffic queues at intersections.		

Source: Highway Capacity Manual, Transportation Research Board, Washington, D.C., 2010

Kimley»Horn	Wawa Development Benns Church Boulevard TIA	AM Build Queue Lengths	FIGURE 10

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NOT TO SCALE

Kimley»Horn	Wawa Development Benns Church Boulevard TIA	PM Build Queue Lengths	FIGURE 11

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5.3 BENNS CHURCH BOULEVARD AT TURNER DRIVE

Under existing conditions, this intersection currently operates with overall LOS B during the AM peak hour and LOS C during the PM peak hour. Individual movements under all existing scenarios are shown to operate at LOS D or better. Based on the model simulation, the eastbound, westbound, and northbound through queues are shown to periodically block the adjacent turn lanes during the AM and PM peak hours.

Under future 2023 No-Build conditions, this intersection is anticipated to operate at an overall LOS C in the AM and PM peak hours. Through movement queues are also projected to lengthen, resulting in more instances of access to the turn lanes being impeded during these peak periods.

With the addition of the proposed site traffic and proposed background school traffic in 2023, this intersection is anticipated to operate with overall LOS D in the AM peak hour and LOS C in the PM peak hour. Compared to No Build conditions, the potential for queues blocking adjacent turn lanes is expected to increase by approximately 10% and 12% for eastbound and northbound through movements, respectively. While compared to No Build conditions, the AM queues are projected to decrease by approximately 13% and 1% for the westbound left and westbound through/right movements, respectively.

In Scenario 4 (i.e., Build with No Elementary School traffic), with the background plus proposed Wawa development traffic only, this intersection is anticipated to operate with an overall LOS C during both the AM and PM peak hours. Compared to Scenario 2 (i.e., No Build) all LOS movements are anticipated to remain consistent with No Build, except for the southbound left/through/right movement. Compared to Scenario 3 (i.e., Build with the proposed Elementary School), the westbound through and northbound left/through queueing in the AM Peak Hour is anticipated to decrease by approximately 300 ft and 150 feet, respectively. All other movement queues associated with Scenario 4 are anticipated to remain consistent with future No Build conditions.

One of the primary concerns initially expressed by VDOT is the location of proposed Site Access Driveway #2 being within the functional area of the intersection. Queuing associated with the northbound approach of Turner Drive at Benns Church Boulevard can periodically extend as far as 250 feet (i.e., the shared through/left-turn lane) to 305 feet (i.e., the exclusive right-turn lane) to the south of the intersection. With Scenario 4, queue lengths could increase to essentially a combined length of 308 feet (i.e., due to reducing the length of the exclusive right-turn lane to introduce the southbound exclusive left-turn lane) south of the Benns Church Boulevard intersection during the AM peak hour and have the potential for one to two vehicles to queue south of Site Driveway #2.

However, queuing south of the Site Access Driveway #2 under Scenario 4 is expected to be more of a product of northbound traffic stopping to provide gaps for traffic either attempting to exit the site or southbound traffic entering the site from the proposed exclusive left-turn lane. It is noted again that the proposed location of Site Access Driveway # 2 is approximately 450 feet south of the Benns Church signalized intersection (i.e., approximately 115 feet more than the minimum spacing requirement of 335 feet for a full access intersection). Therefore, it is anticipated that queue lengths will not extend as far south as the proposed Site Access Driveway #2 on any type of regularly basis throughout the day and with the proposed southbound left-turn lane it is expected that this full access intersection along Turner Driver will function safely and efficiently under peak and off-peak traffic conditions.

In Scenario 5, with added pedestrian phasing crossing Benns Church Boulevard on the west leg and Turner Drive on the south leg, overall LOS is anticipated to decrease to a LOS D in the AM and PM peak hour. Eastbound through queues are shown to block the adjacent turn lanes approximately 13% more in the AM peak hour and 6% more in the PM peak hour than Scenario 3 with no pedestrian phasing.

Currently, this signalized intersection operates with a cycle length of 130 seconds in the PM peak hour, while the intersection of Benns Church Boulevard and Cypress Run Drive operates with a cycle length of 120 seconds in the PM peak hour. For all future scenarios (i.e., No Build and Build) the cycle length time at the intersection of Benns Church Boulevard and Cypress Run Drive was updated to 130 seconds to optimize signal timing and traffic progression between the two intersections.

Results from the capacity and queuing analyses at this signalized intersection are shown in **Table 6** and **Table 7**, respectively.

Table 6: Benns Church Boulevard at Turner Drive Intersection LOS Summary

Scenario	Traffic Control	Overall LOS	Level of Service per Movement by Approach (Delay in sec/veh)							
			Eastbound			Westbound		Northbound		Southbound
			LT	TH	RT	LT	TH/RT	LT	TH/RT	LT/TH/RT
Weekday AM Peak Hour										
2021 Existing	Signal	(B) 16.7	(A) 7.3	(B) 12.7	(A) 3.4	(B) 11.2	(B) 11.7	(D) 49.1	(D) 38.2	(D) 38.0
			(B) 10.4			(B) 11.6		(D) 43.0		(D) 38.0
2023 No Build	Signal	(C) 24.4	(B) 12.8	(C) 24.7	(B) 19.1	(B) 19.8	(B) 15.6	(D) 47.9	(C) 33.5	(C) 32.5
			(C) 23.0			(B) 16.8		(D) 40.0		(C) 32.5
2023 Build	Signal	(D) 37.0	(B) 19.9	(D) 35.6	(C) 28.9	**(E) 55.2**	(B) 17.5	**(E) 71.1**	(C) 31.1	(C) 29.8
			(C) 33.5			(C) 31.6		(D) 52.2		(C) 29.8
2023 Build with Pedestrian Phasing	Signal	(D) 38.6	(B) 12.1	(D) 41.8	(D) 45.7	(D) 49.7	(B) 19.1	**(E) 56.6**	(C) 29.4	(C) 28.1
			(D) 42.7			(C) 30.5		(D) 43.8		(C) 28.1
Weekday PM Peak Hour										
2021 Existing	Signal	(C) 20.8	(B) 10.4	(C) 21.2	(B) 14.7	(B) 12.6	(B) 15.7	(D) 53.7	(D) 43.7	(D) 43.0
			(C) 20.3			(B) 15.3		(D) 49.3		(D) 43.0
2023 No Build	Signal	(C) 20.8	(A) 9.9	(B) 15.2	(C) 26.7	(B) 17.3	(B) 18.8	(D) 50.2	(D) 40.6	(D) 39.7
			(B) 16.4			(B) 18.6		(D) 45.9		(D) 39.7
2023 Build	Signal	(C) 31.6	(B) 11.5	(C) 32.3	(C) 28.6	(D) 44.6	(C) 22.7	(D) 54.8	(D) 36.6	(D) 55.0
			(C) 31.4			(C) 27.0		(D) 48.0		(D) 55.0
2023 Build with Pedestrian Phasing	Signal	(D) 37.1	(B) 15.5	(D) 42.0	(D) 36.9	(D) 53.2	(C) 28.4	(D) 43.9	(C) 32.0	(D) 48.9
			(D) 40.8			(C) 33.2		(D) 39.4		(D) 48.9
Weekday AM Peak Hour										
2023 Build with No School	Signal	(C) 25.2	(B) 15.2	(C) 27.3	(B) 14.1	(C) 23.7	(B) 16.4	(D) 41.4	(C) 32.0	(D) 54.2
			(C) 24.0			(B) 18.6		(D) 37.0		(D) 54.2
Weekday PM Peak Hour										
2023 Build with No School	Signal	(C) 26.3	(B) 19.2	(C) 21.0	(A) 5.3	(D) 40.0	(C) 24.9	(D) 48.3	(D) 35.7	(D) 54.5
			(B) 19.2			(C) 27.7		(D) 43.8		(D) 54.5

Table 7: Benns Church Boulevard at Turner Drive Intersection Maximum Queue Summary

Scenario	Traffic Control	Maximum Queue Length by Movement (feet)							
		Eastbound			Westbound		Northbound		Southbound
		LT	TH	RT	LT	TH/RT	LT/TH	RT	LT/TH/RT
Effective Storage Length (Existing/No Build)		140	Cont.	280	130	Cont.	Cont.	305	185
Effective Storage Length (Build and Build with Ped Phasing)		140	Cont.	280	450	Cont.	Cont.	250	185
Weekday AM Peak Hour									
2021 Existing	Signal	47	239 **(8%)	73	**134** ***(2%)**	168 **(1%)	213	109	74
2023 No Build	Signal	117	363 **(17%)	**280**	**151** ***(13%)**	324 **(7%)	314	254	91
2023 Build	Signal	109	397 **(27%)	**280**	376	556 **(6%) ^(6%)	412 **(22%) ^(12%)	**323** ***(2%)**	90
2023 Build with Pedestrian Phasing	Signal	103	588 **(39%)	**335** ***(1%)**	415	848 **(25%) ^(25%)	370 **(9%) ^(3%)	**250** ***(1%)**	97
Weekday PM Peak Hour									
2021 Existing	Signal	122	345 **(9%)	194	**143** ***(2%)**	294 **(5%)	233	108	36
2023 No Build	Signal	100	256 **(6%)	105	**153** ***(9%)**	418 **(9%)	256	166	29
2023 Build	Signal	139	414 **(17%)	**280**	335	440 **(1%) ^(1%)	320 **(2%)	237	31
2023 Build with Pedestrian Phasing	Signal	122	498 **(23%)	**309**	364	628 **(4%) ^(4%)	310 **(2%)	224	38
		LT	TH	RT	LT	TH/RT	LT	TH/RT	LT/TH/RT
Effective Storage Length (Build No School)		140	Cont.	280	450	Cont.	250	Cont.	185
Weekday AM Peak Hour									
2023 Build with No School	Signal	85	399 **(19%)	**280**	284	222	**261** ***(3%)**	332 **(1%) ^(1%)	97
Weekday PM Peak Hour									
2023 Build with No School	Signal	104	361 **(15%)	216	310	370	238 *(1%)	217	35

Notes:
**(X%) - Maximum queue extends full length of storage bay for X% of the analysis period*
***(Y%) - Queue in lane adjacent to storage bay extends beyond end of storage bay for Y% of the analysis period*
^(Z%) - Maximum queue extends back to upstream intersection for Z% of the analysis period

5.4 BENNS CHURCH BOULEVARD AT CYPRESS RUN DRIVE

Under existing conditions, this intersection is operating at an overall LOS B in the AM and PM peak hours. The major through movements along Benns Church Boulevard operate at a LOS B or better during AM and PM peak hours, while the Cypress Run Drive side street movements operate at a LOS E or better. Model simulation shows queue lengths blocking the adjacent turn lane in the eastbound movement approximately 10% of the time in the PM peak hour.

Under all future peak hour scenarios, this intersection is anticipated to operate at an overall LOS B for the AM peak hour. In the PM peak hour, this intersection is anticipated to operate at an overall LOS C for the No Build scenario and LOS B for all Build scenarios. Under all scenarios, traffic along Benns Church Boulevard is anticipated to operate with movements as LOS C or better and traffic along Cypress Run Drive and the existing residential driveway are anticipated to operate at LOS E or better. With the addition of the proposed future site traffic, vehicle delays are expected to experience only minor increases (i.e., approximately 20 seconds) in the PM peak hour for all movements except the westbound through/right movement in comparison to No Build conditions. The westbound through/right movement is anticipated to decrease approximately 80 seconds or more in all PM Build scenarios and approximately 10 seconds or more in all AM Build scenarios in comparison to No Build conditions.

Based on model simulation of all future scenarios, eastbound through queues along Benns Church Boulevard are projected to block the adjacent turn lanes less than 10% of the time during the PM peak hours and less than 1% of the time during AM peak hours. Therefore, the addition of the proposed Wawa traffic is anticipated to have minimal impacts to this intersection with no additional improvements required.

Results from the capacity and queuing analyses at this signalized intersection are shown in **Table 8** and **Table 9**, respectively.

Table 8: Benns Church Boulevard at Cypress Run Road Intersection LOS Summary

Scenario	Traffic Control	Overall LOS	Level of Service per Movement by Approach (Delay in sec/veh)							
			Eastbound			Westbound		Northbound		Southbound
			LT	TH	RT	LT	TH/RT	LT/TH	RT	LT/TH/RT
Weekday AM Peak Hour										
2021 Existing	Signal	(B) 11.2	(A) 5.1	(B) 10.9	(A) 6.6	(A) 9.2	(A) 9.1	(D) 53.4	(D) 51.8	**(E) 58.6**
			(B) 10.8			(A) 9.1		(D) 52.2		**(E) 58.6**
2023 No Build	Signal	(B) 11.3	(A) 5.2	(B) 11.6	(A) 6.6	(A) 9.3	(A) 8.3	(D) 53.4	(D) 51.8	**(E) 58.6**
			(B) 11.5			(A) 8.4		(D) 52.2		**(E) 58.6**
2023 Build	Signal	(B) 10.8	(A) 7.2	(B) 14.3	(A) 7.9	(A) 5.6	(A) 3.3	(D) 53.4	(D) 51.8	**(E) 60.2**
			(B) 14.2			(A) 3.4		(D) 52.2		**(E) 60.2**
2023 Build with Pedestrian Phasing	Signal	(B) 11.9	(A) 5.1	(B) 16.2	(A) 8.9	(A) 7.9	(A) 3.2	(D) 53.4	(D) 51.8	**(E) 60.2**
			(B) 16.0			(A) 3.5		(D) 52.2		**(E) 60.2**
Weekday PM Peak Hour										
2021 Existing	Signal	(B) 16.5	(A) 8.0	(B) 16.6	(B) 11.0	(B) 12.2	(B) 11.8	**(E) 55.3**	(D) 48.8	**(E) 62.7**
			(B) 16.0			(B) 11.9		(D) 52.1		**(E) 62.7**
2023 No Build	Signal	(C) 20.1	(A) 7.4	(B) 16.1	(B) 10.9	(C) 23.4	(B) 18.0	**(E) 61.0**	(D) 53.5	**(E) 68.6**
			(B) 15.6			(C) 18.7		**(E) 57.3**		**(E) 68.6**
2023 Build	Signal	(B) 14.4	(B) 13.2	(B) 15.9	(B) 10.6	(B) 11.2	(A) 7.2	**(E) 61.0**	(D) 53.5	**(E) 68.6**
			(B) 15.4			(A) 7.7		**(E) 57.3**		**(E) 68.6**
2023 Build with Pedestrian Phasing	Signal	(B) 13.7	(B) 13.2	(B) 15.9	(B) 10.6	(B) 15.3	(A) 4.9	**(E) 61.0**	(D) 53.5	**(E) 68.6**
			(B) 15.4			(A) 6.3		**(E) 57.3**		**(E) 68.6**
			LT	TH	RT	LT	TH/RT	LT	TH/RT	LT/TH/RT
Weekday AM Peak Hour										
2023 Build with No School	Signal	(B) 10.6	(A) 6.7	(B) 13.5	(A) 7.9	(A) 5.6	(A) 3.6	(D) 53.4	(D) 51.8	**(E) 60.2**
			(B) 13.4			(A) 3.7		(D) 52.2		**(E) 60.2**
Weekday PM Peak Hour										
2023 Build with No School	Signal	(B) 17.0	(A) 7.4	(C) 24.8	(B) 16.3	(B) 14.2	(A) 4.0	**(E) 61.0**	(D) 53.5	**(E) 68.6**
			(C) 23.9			(A) 5.4		**(E) 57.3**		**(E) 68.6**

Table 9: Benns Church Boulevard at Cypress Run Road Intersection Maximum Queue Summary

Scenario	Traffic Control	Maximum Queue Length by Movement (feet)							
		Eastbound			Westbound		Northbound		Southbound
		LT	TH	RT	LT	TH/RT	LT/TH	RT	LT/TH/RT
Effective Storage Length (Existing/No Build)		150	Cont.	245	255	Cont.	Cont.	180	Cont.
Effective Storage Length (Build)		150	Cont.	245	255	Cont.	Cont.	180	Cont.
Weekday AM Peak Hour									
2021 Existing	Signal	13	105	17	63	75	43	39	27
2023 No Build	Signal	20	201	41	91	113	82	68	48
2023 Build	Signal	22	190	36	86	85	58	73	31
2023 Build with Pedestrian Phasing	Signal	19	225 **(1%)	29	88	102	86	72	49
Weekday PM Peak Hour									
2021 Existing	Signal	32	317 **(6%)	82	184	243	160	114	27
2023 No Build	Signal	48	301 **(8%)	128	201	276	192	132	39
2023 Build	Signal	35	294 **(6%)	114	203	206	171	144	30
2023 Build with Pedestrian Phasing	Signal	48	321 **(7%)	134	219	188	173	128	32
Weekday AM Peak Hour									
2023 Build with No School	Signal	22	147	30	99	80	79	64	38
Weekday PM Peak Hour									
2023 Build with No School	Signal	26	318 **(10%)	154	210	195	149	116	38

Notes:
**(X%) - Maximum queue extends full length of storage bay for X% of the analysis period*
***(Y%) - Queue in lane adjacent to storage bay extends beyond end of storage bay for Y% of the analysis period*
^(Z%) - Maximum queue extends back to upstream intersection for Z% of the analysis period

5.5 BENNS CHURCH BOULEVARD AT PROPOSED SITE DRIVEWAY # 1

Under all peak hour scenarios, this intersection is anticipated to operate at an overall LOS A. Based on the model simulation, the northbound right-turn movement out of the proposed development is expected to experience queues of approximately 75 ft – 85 ft in both the AM and PM peak hours. Therefore, the addition of the proposed Wawa development traffic is anticipated to have minimal impacts to this intersection with no additional improvements required.

Results from the capacity and queuing analyses at this unsignalized intersection are shown in **Table 10** and **Table 11** respectively.

Table 10: Benns Church Boulevard at Proposed Site Driveway #1 Intersection LOS Summary

Scenario	Traffic Control	Overall LOS	Level of Service per Movement by Approach (Delay in sec/veh)			
			Eastbound		Westbound	Northbound
			TH	RT	TH	RT
Weekday AM Peak Hour						
2021 Existing	Unsignalized					
2023 No Build	Unsignalized					
2023 Build	Unsignalized	(A) 0.4	(A) 0.0	(A) 0.0	(A) 0.0	(A) 9.9
			(A) 0.0		(A) 0.0	(A) 9.9
2023 Build with No School	Unsignalized	(A) 0.4	(A) 0.0	(A) 0.0	(A) 0.0	(A) 9.8
			(A) 0.0		(A) 0.0	(A) 9.8
2023 Build with Pedestrian Phasing	Unsignalized	(A) 0.4	(A) 0.0	(A) 0.0	(A) 0.0	(B) 10.0
			(A) 0.0		(A) 0.0	(B) 10.0
Weekday PM Peak Hour						
2021 Existing	Unsignalized					
2023 No Build	Unsignalized					
2023 Build	Unsignalized	(A) 0.3	(A) 0.0	(A) 0.0	(A) 0.0	(B) 10.2
			(A) 0.0		(A) 0.0	(B) 10.2
2023 Build with No School	Unsignalized	(A) 0.3	(A) 0.0	(A) 0.0	(A) 0.0	(A) 10.0
			(A) 0.0		(A) 0.0	(A) 10.0
2023 Build with Pedestrian Phasing	Unsignalized	(A) 0.3	(A) 0.0	(A) 0.0	(A) 0.0	(B) 10.3
			(A) 0.0		(A) 0.0	(B) 10.3

Table 11: Benns Church Boulevard at Proposed Site Driveway #1 Intersection Maximum Queue Summary

Scenario	Traffic Control	Maximum Queue Length by Movement (feet)			
		Eastbound		Westbound	Northbound
		TH	RT	TH	RT
Effective Storage Length (Existing/No Build)		Cont.	N/A	Cont.	150
Effective Storage Length (Build)		Cont.	250	Cont.	150
Weekday AM Peak Hour					
2021 Existing	Unsignalized				
2023 No Build	Unsignalized				
2023 Build	Unsignalized	0	0	0	84
2023 Build with No School	Unsignalized	0	0	0	88
2023 Build with Pedestrian Phasing	Unsignalized	0	0	0	81
Weekday PM Peak Hour					
2021 Existing	Unsignalized				
2023 No Build	Unsignalized				
2023 Build	Unsignalized	0	0	0	83
2023 Build with No School	Unsignalized	0	0	27	68
2023 Build with Pedestrian Phasing	Unsignalized	0	0	0	84

Notes:
**(X%) - Maximum queue extends full length of storage bay for X% of the analysis period*
***(Y%) - Queue in lane adjacent to storage bay extends beyond end of storage bay for Y% of the analysis period*
^(Z%) - Maximum queue extends back to upstream intersection for Z% of the analysis period

5.6 TURNER DRIVE AT PROPOSED SITE DRIVEWAY # 2

Under all peak hour scenarios, this intersection is anticipated to operate at an overall LOS A. The westbound movement out of the proposed development is expected to experience a LOS D or better in the AM peak hour and LOS B in the PM peak hour. Based on the Build model simulation, the northbound through/left-turn right movement on Turner Drive is expected to experience queues of approximately 300 ft in AM peak hour and 40 ft in the PM peak hour. When compared to the Build scenario with No Elementary School volumes, the anticipated queues drop down to approximately 30 ft in the AM and 15 ft in the PM. Therefore, the addition of the proposed Wawa traffic is anticipated to have minimal impacts to this intersection with no additional improvements required beyond those proposed/recommended.

Results from the capacity and queuing analyses at this unsignalized intersection are shown in **Table 12** and **Table 13**, respectively.

Table 12: Turner Drive at Proposed Site Driveway #2 Intersection LOS Summary

Scenario	Traffic Control	Overall LOS	Level of Service per Movement by Approach (Delay in sec/veh)			
			Westbound	Northbound	Southbound	
			LT/RT	TH/RT	LT	TH
Weekday AM Peak Hour						
2021 Existing	Unsignalized					
2023 No Build	Unsignalized					
2023 Build	Unsignalized	(A) 3.7	(D) 27.3	(A) 0.0	(A) 9.3	(A) 0.0
			(D) 27.3	(A) 0.0	(A) 1.5	
2023 Build with No School	Unsignalized	(A) 3.2	(C) 16.8	(A) 0.0	(A) 8.7	(A) 0.0
			(C) 16.8	(A) 0.0	(A) 1.8	
2023 Build with Pedestrian Phasing	Unsignalized	(A) 3.7	(D) 27.5	(A) 0.0	(A) 9.3	(A) 0.0
			(D) 27.5	(A) 0.0	(A) 1.5	
Weekday PM Peak Hour						
2021 Existing	Unsignalized					
2023 No Build	Unsignalized					
2023 Build	Unsignalized	(A) 2.6	(B) 12.7	(A) 0.0	(A) 8.3	(A) 0.0
			(B) 12.7	(A) 0.0	(A) 1.8	
2023 Build with No School	Unsignalized	(A) 2.8	(B) 12.0	(A) 0.0	(A) 8.1	(A) 0.0
			(B) 12.0	(A) 0.0	(A) 2.0	
2023 Build with Pedestrian Phasing	Unsignalized	(A) 2.6	(B) 12.7	(A) 0.0	(A) 8.3	(A) 0.0
			(B) 12.7	(A) 0.0	(A) 1.8	

Table 13: Turner Drive at Proposed Site Driveway #2 Intersection Maximum Queue Summary

Scenario	Traffic Control	Maximum Queue Length by Movement (feet)			
		Westbound	Northbound	Southbound	
		LT/RT	TH/RT	LT	TH
Effective Storage Length (Existing/No Build)		N/A	Cont.	Cont.	
Effective Storage Length (Build)		150	Cont.	200	Cont.
Weekday AM Peak Hour					
2021 Existing	Unsignalized				
2023 No Build	Unsignalized				
2023 Build	Unsignalized	138	301	73	0
2023 Build with No School	Unsignalized	112	82	79	0
2023 Build with Pedestrian Phasing	Unsignalized	127	196	88	0
Weekday PM Peak Hour					
2021 Existing	Unsignalized				
2023 No Build	Unsignalized				
2023 Build	Unsignalized	94	38	69	0
2023 Build with No School	Unsignalized	87	14	60	0
2023 Build with Pedestrian Phasing	Unsignalized	93	24	85	0

Notes:
**(X%) - Maximum queue extends full length of storage bay for X% of the analysis period*
***(Y%) - Queue in lane adjacent to storage bay extends beyond end of storage bay for Y% of the analysis period*
^(Z%) - Maximum queue extends back to upstream intersection for Z% of the analysis period

6.0 CONCLUSIONS AND RECOMMENDATIONS

This traffic impact analysis examined the potential impacts associated with the proposed Wawa Convenience Market and Fuel Sales in Isle of Wight County, Virginia. The proposed Wawa will consist of a 6,049-square foot (sf) convenience market with 16 fueling positions. The proposed development site is bounded by Benns Church Boulevard (State Route 10) to the north, Turner Drive (State Route 644) to the west, Smithfield High School and Smithfield Middle School to the south, and residential/agricultural properties to the east/southeast.

Based on the results of the traffic analysis, the future impacts associated with the proposed development are anticipated to be minimal overall, with some deterioration in operations anticipated at the signalized intersection of Benns Church Boulevard at Turner Drive. This study reviewed potential improvements for this signalized intersection by modifying the existing timings, phasing, and splits as well as by modifying the existing laneage along Turner Drive and at the intersection of Benns Church Boulevard and Turner Drive to better accommodate the additional traffic generated by the proposed development.

Based on the findings of this analysis and input provided by VDOT, it is recommended that the westbound left-turn lane along Benns Church Boulevard at the intersection of Benns Church Boulevard and Turner Drive be improved to consist of 350 feet of storage and a 200-foot taper. It is also recommended that a left-turn lane be added along southbound Turner Drive to serve traffic accessing the proposed Wawa Development via Site Access Driveway # 2 and to mitigate potential left-turn queuing from impacting through movement traffic operations.

Traffic signal timing plans (i.e., cycle lengths, splits, offsets, and coordination for the AM and PM peak periods) should also be updated to account for this change in traffic volume demand and general intersection operations. Traffic signal coordination along Benns Church Boulevard should consist of both the Turner Drive and Cypress Run Drive intersections to facility traffic progression.

To accommodate the projected traffic volumes accessing the development directly from eastbound Benns Church Boulevard, an exclusive right-turn lane will be constructed at the proposed right-in/right-out (RIRO) Only Site Access Driveway (i.e., Site Access Driveway # 1). Based on the requirements of the VDOT Road Design Manual: *Appendix F – Access Management Design Standards for Entrances and Intersections* and through conversation with VDOT, it is recommended that the right-turn lane should consist of a minimum 200 feet of full width storage and a 100-foot taper.

As documented in the TIA, Scenario 4 was included to focus specifically on the potential impacts associated with just the proposed Wawa development as a part of the CUP application. It was initially identified that a proposed site access driveway along Turner Drive would like within the functional area of the Benns Church Boulevard/Turner Drive signalized intersection. In an effort to mitigate this concern and in collaboration with VDOT and the County, the proposed Site Access Driveway # 2 has been located approximately 450 feet south of the Benns Church signalized intersection (i.e., approximately 115 feet more than the minimum spacing requirement of 335 feet for a full access intersection). The location of Site Driveway # 2 is also complemented with the installation of a proposed exclusive left-turn lane to serve southbound traffic attempting to accessing the site and to ensure through traffic flow is not impeded. Therefore, it is anticipated that queue lengths will not extend as far south as the proposed Site Access Driveway #2 on any type of regularly basis throughout the day and with the proposed southbound left-turn lane it is expected that this full access intersection along Turner Driver will function safely and efficiently under peak and off-peak traffic conditions.

The recommended off-site roadway/intersection improvements are summarized below:

Benns Church Boulevard

- VDOT should continue to monitor and optimize traffic signal phasing and timing plans to accommodate peak hour/off-peak traffic volumes along Benns Church Boulevard
  - Coordinated signal timing optimization for the Turner Drive and Cypress Run intersections should occur following construction and approximately 90-days of operation and occupancy of the Wawa Convenience Market to account for the changes in traffic volumes/travel patterns
  - Signal coordination improvements should facilitate the progression of traffic along Benns Church Boulevard from Cypress Run Drive to Turner Drive

Benns Church Boulevard at Turner Drive

Benns Church Boulevard Westbound Approach

- Lengthen the westbound left-turn lane on Benns Church Boulevard to consist of 350 feet of storage and a 200-foot taper

Turner Drive Northbound Approach

- Reconfigure the existing shared through/left-turn lane to an exclusive left-turn lane consisting of 200 feet of storage and a 100-foot taper
- Extend, modify, and reconfigure the existing exclusive right-turn lane serve as a shared through/right-turn lane
- Construct/install the necessary traffic signal infrastructure (e.g., signal heads, signage, wiring, etc.) improvements to serve the new lane use designations/movements associated with the northbound Turner Drive approach to the intersection

Benns Church Boulevard at Cypress Run Drive

- VDOT should optimize existing signal timing plans (both AM and PM) and implement cycle lengths that are consistent with cycle lengths at the Turner Drive intersection to enhance traffic operations at the Cypress Run Drive intersection as well as better facilitate traffic progression along Benns Church Boulevard

Benns Church Boulevard at Proposed Wawa Site Driveway # 1

- Site access will function as Right-In/Right-Out (RIRO) Only
- Construct one exclusive right-turn lane, along eastbound Benns Church Boulevard consisting of 200 feet of storage and a 100-foot taper.
- The proposed Wawa site driveway will consist of one inbound lane and one outbound lane
- Install/provide STOP control for outbound movements (i.e., approach to Benns Church Boulevard)

Turner Drive at Proposed Wawa Site Driveway # 2

- Site access will function as Full Access/Full Movement
- Install supplemental signage and pavement markings to consist of the following:
  - “DO NOT BLOCK INTERSECTION” signage
  - Intersection pavement markings delineating the area not to block (i.e., the box)
  - Supplement with signage reflecting a potential fine for those observed/caught impeding intersection operations

- Widen Turner Drive to the south of the proposed Wawa Site Driveway # 2 for a distance of approximately 300 feet to provide the roadway transition necessary to support the introduction of the proposed southbound exclusive left-turn lane serving the Wawa development site.
    - Widening will extend from the Wawa Site Driveway # 2 intersection to a tie-in point with the existing three-lane section/transition portion of Turner Drive associated with the southbound left-turn lane serving the Smithfield High School site access driveway.

It is noted that the existing right-of-way (ROW) along this segment of Turner Drive is approximately 40-feet in width. Therefore, the proposed widening of Turner Drive is intended to be implemented within the existing ROW and match the existing cross section.

Proposed Wawa Site Driveway # 2 Westbound Approach

- Site driveway will consist of one inbound lane and one outbound lane
- Install/provide STOP control for outbound (driveway) approach

Turner Drive Southbound Approach

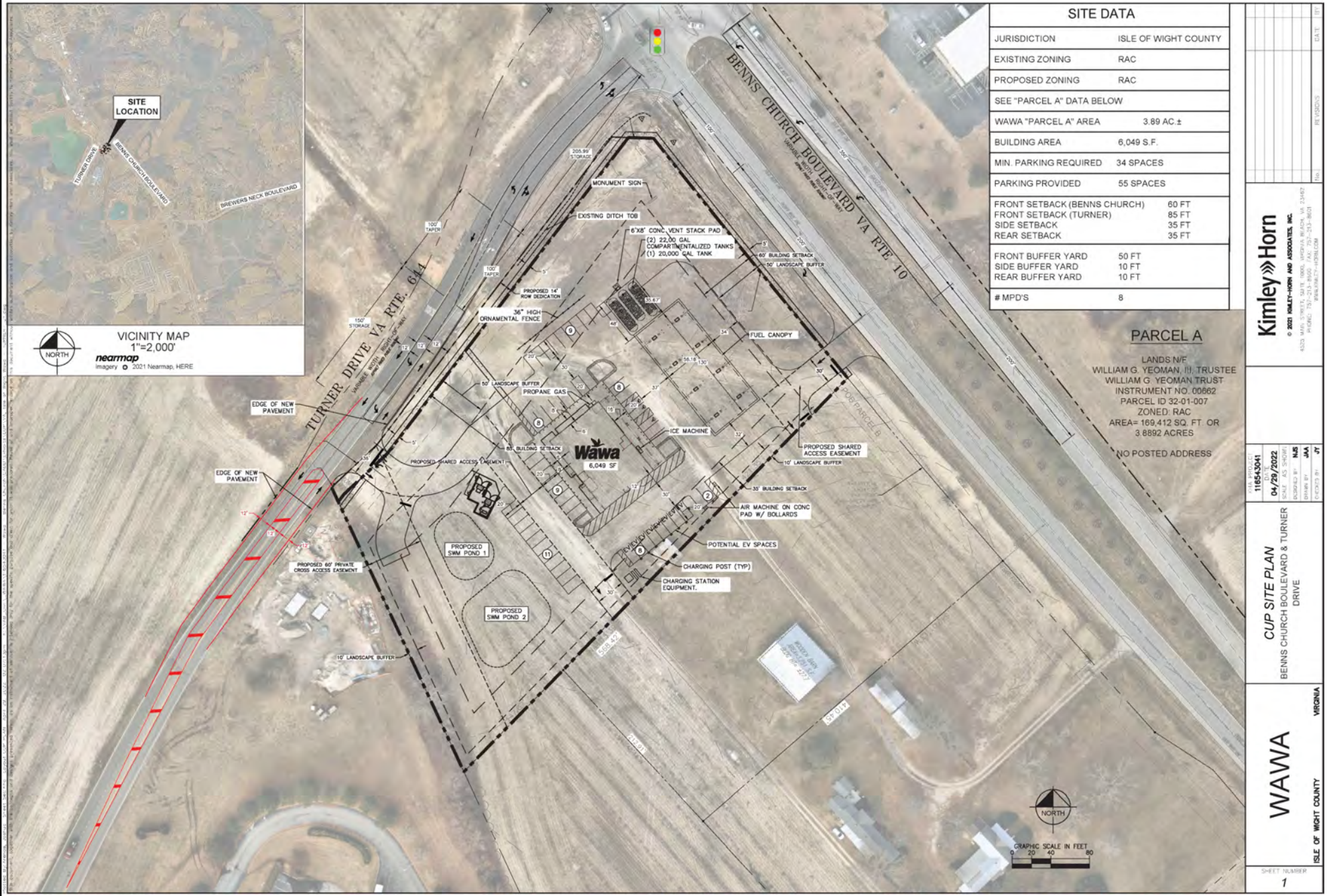
- Construct/delineate one exclusive left-turn lane consisting of 150 feet of storage and a 100-foot taper

Turner Drive Northbound Approach

- Construct a new travel lane along the east side of Turner Drive to account for/accommodate the proposed southbound left-turn lane

Figure 12 reflects the physical location and geometric configuration of the proposed off-site improvements.

Beyond the above-mentioned improvements, no other off-site geometric or traffic control improvements are recommended as part of the proposed Wawa Convenience Market development.



Kimley»Horn	Wawa Development Benns Church Boulevard TIA	Conceptual Site Plan with Proposed Off-Site Improvements	FIGURE 12

THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.

Appendix A
TIA Assumptions Document

The following documentation outlines the traffic impact analysis (TIA) assumptions for the proposed Wawa Convenience Market with Fuel development located in Isle of Wight County, Virginia. The development consists of a 6,049 square foot (SF) convenience market with 16 fueling positions. (See **Attachment A**). The proposed Wawa Convenience Market with Fuel site is located in the southwest quadrant of the Benns Church Boulevard (U.S. Route 258/State Route 10) at Turner Drive (State Route 644) intersection.

Study Area

The study area for the TIA and the associated proposed development site consists of the following existing intersections:

- Benns Church Boulevard (U.S. Route 258/State Route 10) at Turner Drive (State Route 644) *(Signalized)*
- Benns Church Boulevard at Cypress Run Drive *(Signalized)*

The following proposed site driveways are also included in the study area as shown in **Attachment B**.

- Benns Church Boulevard at Site Driveway # 1:
    - *Right-In/Right-Out (RI/RO) only*
- Turner Drive at Site Driveway # 2 (*Full Movement*)

Data Collection

Kimley-Horn requests that Isle of Wight County and/or VDOT provide any recent intersection or roadway traffic count data from studies previously completed within the study area. Turning movement count (TMC) data will also be collected during the AM peak hour (6:30 AM – 8:30 AM) and the PM peak hour (3:30 PM – 6:30 PM). Kimley-Horn's subconsultant, The Data Collection Group, will collect existing TMC data during weekday (Tuesday, Wednesday, or Thursday) operations at the following two (2) intersections:

- Benns Church Boulevard at Turner Drive *(Signalized)*
- Benns Church Boulevard at Cypress Run Dr *(Signalized)*

Current traffic signal timing and phasing data will be provided by VDOT for all signalized intersections in the study area.

The peak hours for this intersection were determined by looking at the school hours of both Smithfield Middle and Smithfield High School combined with the historic traffic volume data from 2016 and 2017 collected by VDOT and/or Kimley-Horn. With this information the AM peak hour was determined to occur from 7:00 AM to 8:00 AM and the PM peak hour occurs from 4:45 PM to 5:45 PM.

Analysis Years

The proposed development is anticipated to be completed in 2023. Therefore, the following analysis scenarios for the AM and PM peak hours will be studied as part of this TIA.

- **Scenario 1** – Existing (2021) traffic conditions
- **Scenario 2** – Future Year (2023) No-Build conditions – Opening year traffic conditions with a future growth rate applied to approved base year traffic volumes plus background development trips (i.e., approved historical growth rate plus approved adjacent development traffic if applicable) but without traffic volumes generated by the proposed Wawa Convenience Market with Fuel development
    - Background traffic will also assume a New 600 Pupil Elementary School located along Turner Drive adjacent to Smithfield Middle School and Smithfield High School

- **Scenario 3** – Future Year (2023) Build-out conditions – Opening year traffic conditions with a future growth rate applied to approved base year traffic volumes plus background development trips (i.e., approved historical growth rate plus approved adjacent development traffic if applicable), with traffic volumes generated by the proposed Wawa Convenience Market with Fuel development.
    - Background traffic will include the proposed new 600 pupil Elementary School located along Turner Drive adjacent to Smithfield Middle School and Smithfield High School
- **Scenario 4** – Future Year (2023) Build-out No Elementary School conditions – Opening year traffic conditions with a future growth rate applied to approved base year traffic volumes plus background development trips (i.e., approved historical growth rate plus approved adjacent development traffic if applicable), with traffic volumes generated by the proposed Wawa Convenience Market with Fuel development.
    - Same as Scenario 3, however it does not include traffic volume estimates for a proposed New 600 Pupil Elementary School to the south of Smithfield High School along Turner Drive
    - Unlike Scenario 3 and 5, the northbound approach of Turner Drive at Benns Church Boulevard will consist of an exclusive left-turn lane and a shared though/right-turn lane
- **Scenario 5** – Future Year (2023) Build-out conditions – Opening year traffic conditions with a future growth rate applied to approved base year traffic volumes plus background development trips (i.e., approved historical growth rate plus approved adjacent development traffic if applicable), with traffic volumes generated by the proposed Wawa Convenience Market with Fuel development.
    - Same as Scenario 3 and will include a dedicated pedestrian phase at the signalized intersection of Benns Church Boulevard and Turner Drive

Volume Development

It is proposed that a growth rate of 1.0% per year (applied exponentially) be used for adjusting the projected background traffic volumes, to opening year 2023 for all turning movements. This growth rate was determined by reviewing the County average growth rate from VDOT as well as input from Isle of Wight County. In addition, other known developments approved for construction (i.e., if applicable) will be included as part of the future background traffic volumes. Kimley-Horn will coordinate with Isle of Wight County staff to identify any approved developments and/or obtain the associated traffic studies with relevant data that should be included in the development of future background volumes.

The known planned development for background traffic volumes is a new 600 Pupil Elementary School located along Turner Drive.

Table 1 reflects historical traffic volume trends of adjacent roadways within the study area over five (5) years (i.e., 2015 to 2019) The overall growth of traffic from 2015 to 2019 on Benns Church Boulevard within the study area (i.e., from southern corporate limits of the Town of Smithfield to Brewers Neck Boulevard) is around 0.1%.

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Table 1: Study Area Roadway Historic AAWDT

VDOT Historical Daily Traffic Volumes AAWDT						
Location	**2015**	**2016**	**2017**	**2018**	**2019**	**Average Annual Growth**
Southern Corporate Limits of the Town of Smithfield to Brewers Neck Boulevard	27,000	28,000	26,000	26,000	27,000	0.102%
					Average Annual Growth Rate	**0.10%**
					Proposed Annual Growth Rate	**1.0%**

Proposed Land Use

A conceptual site layout of the Wawa Convenience Market with Fuel development is included with these assumptions in **Attachment A.** Kimley-Horn will use *ITE Trip Generation 10th Edition* (2017) Trip Generation Rates and Land Uses for the proposed Wawa Convenience Market with Fuel development. Trip generation estimates were developed and compared based on the number of fueling stations, convenience market square footage, and calculating the average using the volumes associated with fueling stations and square footage.

It is proposed that the average of the trip generation rates based on the two independent variables (i.e., square footage and fueling positions) be used to evaluate the potential impacts to traffic operations as a result of the proposed development. Trip generation calculations for the proposed Wawa Convenience Market with Fuel development are shown in **Table 2**.

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Table 2: Proposed Trip Generation for the Proposed Development

ITE Code	ITE Description	Density	Unit	Daily	AM Peak Hour			PM Peak Hour		
					Total	In	Out	Total	In	Out
Trip Generation Based on Fueling Stations										
960	Super Convenience Market/Gas Station	16	Fueling Stations	3,688	449	225	224	367	184	183
*Convenience Market w/ Gasoline Pumps Pass-By (63% AM, 66% PM)				0	-283	-142	-141	-242	-121	-121
New Site Trips				3,688	166	83	83	125	63	63
Trip Generation Based on Square Footage										
960	Super Convenience Market/Gas Station	6,049	Square Feet	5,067	566	283	283	419	210	209
*Convenience Market w/ Gasoline Pumps Pass-By (63% AM, 66% PM)				0	-357	-178	-178	-277	-139	-138
New Site Trips				5,067	209	105	105	142	71	71
Average Convenience with Fuel Trip Generation										
960	Super Convenience Market/Gas Station	*Average*		*4,378*	*508*	*254*	*254*	*393*	*197*	*196*
*Convenience Market w/ Gasoline Pumps Pass-By (63% AM, 66% PM)				0	-320	-160	-160	-259	-130	-129
Net New Site Trips				*4,378*	*188*	*94*	*94*	*134*	*67*	*67*
Proposed Development Driveway Trips				*4,378*	*508*	*254*	*254*	*393*	*197*	*249*
Planned Elementary School Trip Generation										
520	Elementary School	600	Students	*1,134*	*402*	*217*	*185*	*102*	*49*	*53*
Net New Site Trips				*1,134*	*402*	*217*	*185*	*102*	*49*	*53*
TOTAL New Trips				*5,512*	*590*	*311*	*279*	*236*	*116*	*120*

Source: ITE Trip Generation Manual, 10th Edition, (2017)
**Pass-by percentages using Code 853 in ITE Trip Generation Handbook, 3rd Edition (2017)*

Site Access and Turn-Lane Warrant Analyses

As shown in the attached conceptual site layout (**Attachment A**), access to/from the proposed Wawa Convenience Market with Fuel development will occur at the following locations:

- Benns Church Boulevard at Site Driveway # 1:
  - *Right-In/Right-Out (RI/RO) only*
- Turner Drive at Site Driveway # 2 (*Full Movement*)

A left-turn lane warrant analysis will be conducted at the proposed Wawa site entrance intersection along Turner Drive as well as a right-turn lane warrant analysis at the proposed Wawa site entrance intersection along Benns Church Boulevard as required by VDOT. Turn-lane warrant analyses will be conducted using methodologies consistent with *Appendix F of the VDOT Road Design Manual*.

An Access Management Exception (AM-E) will be completed and recorded as an Appendix in the report.

Site Trip Distributions

Site trip distributions were preliminarily determined from available traffic data, anticipated routes for vehicles entering and exiting the proposed development site, and a general familiarity of the study area. At the regional level it is anticipated that the majority of traffic will be traveling to/from Benns Church Boulevard

located northeast of the project site. Proposed regional trip distributions determined for the Wawa Convenience Market with Fuel development are listed below.

- To/from the west on Turner Drive – **20%**
- To/from the north on Benns Church Boulevard – **40%**
- To/from the south on Benns Church Boulevard – **40%**

Detailed site driveway trip distributions are provided in **Attachment C**.

Traffic Operations Analysis

Operational analyses for the study area intersections will be conducted using traffic analysis tools (e.g., *Synchro 10.1 Professional*, SimTraffic 10.1) and Highway Capacity Manual (HCM) methodologies. The future conditions analyses will confirm the need and define the geometric configurations necessary for the proposed roadway and intersection operational or capacity improvements (e.g., signal timing adjustments, exclusive turn-lane storage and taper, etc.).

Measures of effectiveness that will be reported for each scenario will consist of delay per vehicle, level of service (LOS), and maximum queue lengths. These measures of effectiveness will be presented in tables and figures. Vehicle delay and LOS will be summarized by movement, approach, and overall intersection, while maximum queue lengths will be summarized for each movement.

Reporting

A TIA report with an accompanying technical appendix (including all analysis files) will be prepared that summarizes the analysis methodology and results. There will be two (2) electronic submittals of the technical report – DRAFT and FINAL (including supporting analytical files). One round of comprehensive comments will be addressed with each report submittal through conference call. This study assumes that all deliverables will be electronic submittals (PDF report and all supporting analytical files).

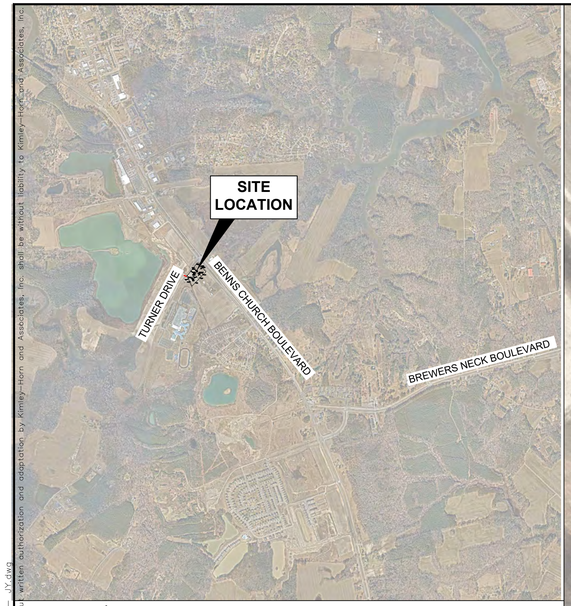
Attachments

Attachment A – Conceptual Site Layout

Attachment B – Study Area

Attachment C – Proposed Regional and Site Driveway Trip Distribution Percentages

Attachment A – Conceptual Site Layout



NORTH

VICINITY MAP
1"=2,000'

nearmap
Imagery © 2021 Nearmap, HERE

SITE DATA

JURISDICTION	ISLE OF WIGHT COUNTY
EXISTING ZONING	RAC
PROPOSED ZONING	RAC
SEE "PARCEL A" DATA BELOW	
WAWA "PARCEL A" AREA	3.89 AC.±
BUILDING AREA	6,049 S.F.
MIN. PARKING REQUIRED	34 SPACES
PARKING PROVIDED	55 SPACES
FRONT SETBACK (BENNS CHURCH) FRONT SETBACK (TURNER) SIDE SETBACK REAR SETBACK	60 FT 85 FT 35 FT 35 FT
FRONT BUFFER YARD SIDE BUFFER YARD REAR BUFFER YARD	50 FT 10 FT 10 FT
# MPD'S	8

PARCEL A

LANDS N/F
WILLIAM G. YEOMAN, III, TRUSTEE
WILLIAM G. YEOMAN TRUST
INSTRUMENT NO. 00662
PARCEL ID 32-01-007
ZONED: RAC
AREA= 169,412 SQ. FT. OR
3.8892 ACRES

NO POSTED ADDRESS

NORTH

GRAPHIC SCALE IN FEET
0 20 40 80

No.	REVISIONS	DATE	BY

Kimley»Horn
© 2021 KIMLEY-HORN AND ASSOCIATES, INC.
4525 MAIN STREET, SUITE 1000, VIRGINIA BEACH, VA 23462
PHONE: 757-213-8600 FAX: 757-213-8601
WWW.KIMLEY-HORN.COM

KHA PROJECT 116543041
DATE 04/29/2022
SCALE AS SHOWN
DESIGNED BY NJS
DRAWN BY JAA
CHECKED BY JY

CUP SITE PLAN
BENNS CHURCH BOULEVARD & TURNER DRIVE

WAWA
VIRGINIA
ISLE OF WIGHT COUNTY

SHEET NUMBER
1

Plotted By: Arenas, Joshua Sheet Set: Kha Layout: CUP PLAN April 29, 2022 02:07:13pm K:\VAB_Civil_WAWA\116543041 - Wawa - Benns Church\CADD\Exhibits\CUP\VA_Isle of Wight Wawa - TURNER - JY.dwg
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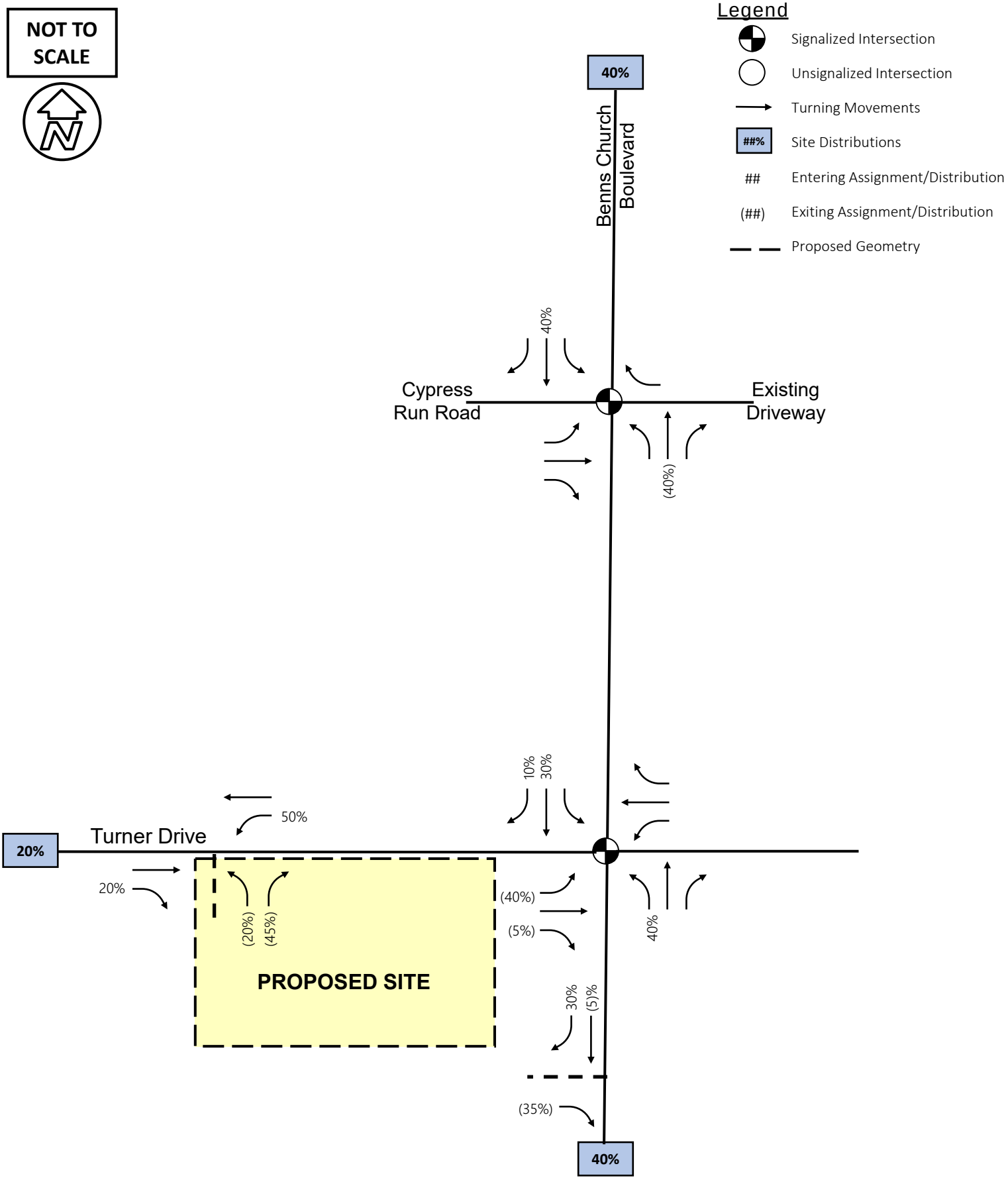
Attachment B – Project Study Area

Kimley»Horn	Wawa Development Benns Church Boulevard TIA	Project Study Area	ATTACHMENT B

THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.

Attachment C – Proposed Regional and Site Driveway Trip Distribution Percentages



Kimley»Horn	Wawa Development Benns Church Boulevard TIA	Proposed Trip Distributions	ATTACHMENT C

THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.

Appendix B
Data Collection

Data Collection Group

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LSmith@DataCollectionGroup.net

File Name : Benns Church and Turner
Site Code :
Start Date : 8/11/2021
Page No : 1

Groups Printed- Passenger Veh - Trucks

	Benns Church From North				Driveway From East				Benns Church From South				Turner From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
06:30 AM	5	197	2	204	0	0	0	0	1	147	4	152	17	0	5	22	378
06:45 AM	10	185	1	196	0	0	0	0	1	141	9	151	23	0	7	30	377
Total	15	382	3	400	0	0	0	0	2	288	13	303	40	0	12	52	755
07:00 AM	5	159	0	164	0	0	1	1	0	101	10	111	31	0	16	47	323
07:15 AM	1	194	3	198	0	0	0	0	0	150	4	154	29	0	3	32	384
07:30 AM	9	197	1	207	0	0	1	1	0	143	12	155	24	0	9	33	396
07:45 AM	12	158	2	172	2	0	0	2	1	173	25	199	17	0	12	29	402
Total	27	708	6	741	2	0	2	4	1	567	51	619	101	0	40	141	1505
08:00 AM	12	154	3	169	0	0	0	0	0	137	20	157	16	0	10	26	352
08:15 AM	12	151	2	165	1	0	0	1	1	156	21	178	19	0	11	30	374
Total	24	305	5	334	1	0	0	1	1	293	41	335	35	0	21	56	726
03:30 PM	20	167	10	197	1	0	0	1	0	246	20	266	13	0	7	20	484
03:45 PM	21	209	3	233	0	0	1	1	1	258	36	295	20	0	16	36	565
Total	41	376	13	430	1	0	1	2	1	504	56	561	33	0	23	56	1049
04:00 PM	11	178	3	192	1	0	1	2	1	275	47	323	25	0	16	41	558
04:15 PM	22	238	9	269	1	0	1	2	0	264	53	317	23	0	18	41	629
04:30 PM	32	224	8	264	1	0	1	2	2	218	45	265	24	0	22	46	577
04:45 PM	37	225	4	266	1	0	0	1	1	280	50	331	30	0	28	58	656
Total	102	865	24	991	4	0	3	7	4	1037	195	1236	102	0	84	186	2420
05:00 PM	23	243	3	269	1	1	0	2	3	253	28	284	43	0	22	65	620
05:15 PM	24	205	5	234	1	0	1	2	1	268	38	307	22	0	14	36	579
05:30 PM	25	192	10	227	1	0	1	2	0	273	44	317	20	0	14	34	580
05:45 PM	21	180	6	207	0	0	0	0	0	254	29	283	16	0	14	30	520
Total	93	820	24	937	3	1	2	6	4	1048	139	1191	101	0	64	165	2299
06:00 PM	33	168	6	207	0	0	0	0	0	142	14	156	9	0	14	23	386
06:15 PM	23	120	2	145	0	0	0	0	0	231	25	256	20	0	12	32	433
Grand Total	358	3744	83	4185	11	1	8	20	13	4110	534	4657	441	0	270	711	9573
Apprch %	8.6	89.5	2		55	5	40		0.3	88.3	11.5		62	0	38		
Total %	3.7	39.1	0.9	43.7	0.1	0	0.1	0.2	0.1	42.9	5.6	48.6	4.6	0	2.8	7.4	
Passenger Veh	356	3620	83	4059	11	1	8	20	13	3983	527	4523	435	0	265	700	9302
% Passenger Veh	99.4	96.7	100	97	100	100	100	100	100	96.9	98.7	97.1	98.6	0	98.1	98.5	97.2
Trucks	2	124	0	126	0	0	0	0	0	127	7	134	6	0	5	11	271
% Trucks	0.6	3.3	0	3	0	0	0	0	0	3.1	1.3	2.9	1.4	0	1.9	1.5	2.8

Data Collection Group

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File Name : Benns Church and Turner
Site Code :
Start Date : 8/11/2021

	Benns Church From North				Driveway From East				Benns Church From South				Turner From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 12:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	1	194	**3**	198	0	0	0	0	0	150	4	154	**29**	0	3	32	384
07:30 AM	9	**197**	1	**207**	0	0	**1**	1	0	143	12	155	24	0	9	**33**	396
07:45 AM	**12**	158	2	172	**2**	0	0	**2**	**1**	**173**	**25**	**199**	17	0	**12**	29	**402**
08:00 AM	12	154	3	169	0	0	0	0	0	137	20	157	16	0	10	26	352
Total Volume	34	703	9	746	2	0	1	3	1	603	61	665	86	0	34	120	1534
% App. Total	4.6	94.2	1.2		66.7	0	33.3		0.2	90.7	9.2		71.7	0	28.3		
PHF	.708	.892	.750	.901	.250	.000	.250	.375	.250	.871	.610	.835	.741	.000	.708	.909	.954
Passenger Veh	34	662	9	705	2	0	1	3	1	574	57	632	86	0	33	119	1459
% Passenger Veh	100	94.2	100	94.5	100	0	100	100	100	95.2	93.4	95.0	100	0	97.1	99.2	95.1
Trucks	0	41	0	41	0	0	0	0	0	29	4	33	0	0	1	1	75
% Trucks	0	5.8	0	5.5	0	0	0	0	0	4.8	6.6	5.0	0	0	2.9	0.8	4.9

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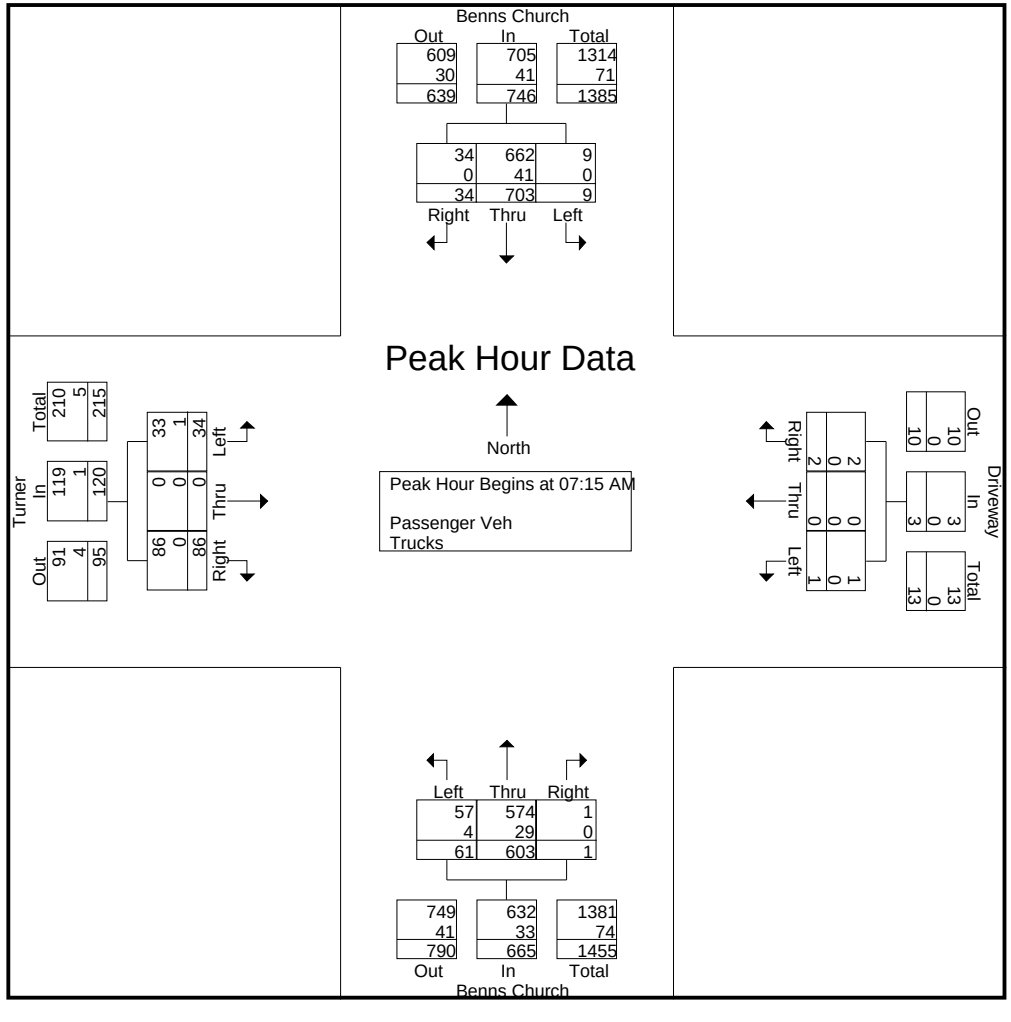
Site Code :
Start Date : 8/11/2021
Page No : 4



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File Name : Benns Church and Turner
Site Code :
Start Date : 8/11/2021

	Benns Church From North				Driveway From East				Benns Church From South				Turner From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 12:45 PM to 06:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	22	238	**9**	**269**	**1**	0	**1**	**2**	0	264	**53**	317	23	0	18	41	629
04:30 PM	32	224	8	264	1	0	1	2	2	218	45	265	24	0	22	46	577
04:45 PM	**37**	225	4	266	1	0	0	1	1	**280**	50	**331**	30	0	**28**	58	**656**
05:00 PM	23	**243**	3	269	1	**1**	0	2	**3**	253	28	284	**43**	0	22	**65**	620
Total Volume	114	930	24	1068	4	1	2	7	6	1015	176	1197	120	0	90	210	2482
% App. Total	10.7	87.1	2.2		57.1	14.3	28.6		0.5	84.8	14.7		57.1	0	42.9		
PHF	.770	.957	.667	.993	1.000	.250	.500	.875	.500	.906	.830	.904	.698	.000	.804	.808	.946
Passenger Veh	114	907	24	1045	4	1	2	7	6	993	175	1174	116	0	89	205	2431
% Passenger Veh	100	97.5	100	97.8	100	100	100	100	100	97.8	99.4	98.1	96.7	0	98.9	97.6	97.9
Trucks	0	23	0	23	0	0	0	0	0	22	1	23	4	0	1	5	51
% Trucks	0	2.5	0	2.2	0	0	0	0	0	2.2	0.6	1.9	3.3	0	1.1	2.4	2.1

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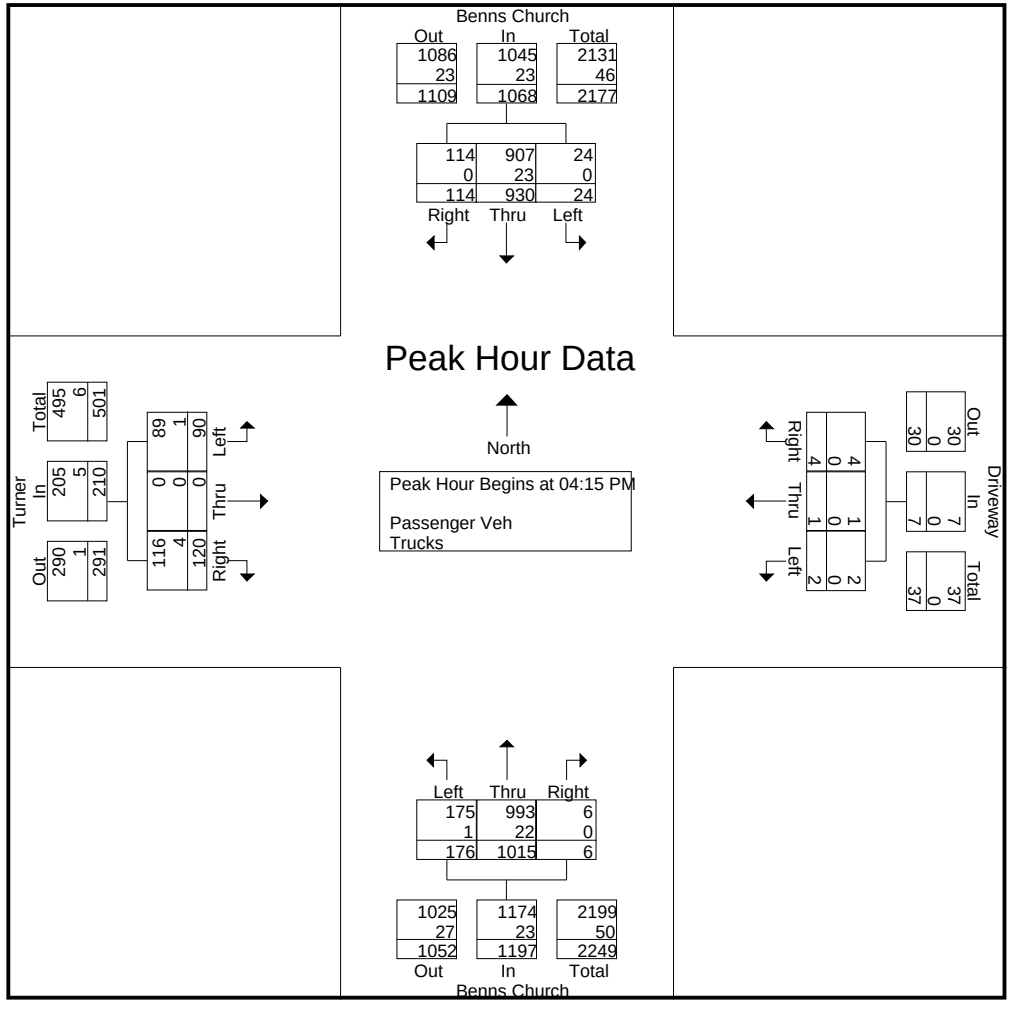
File Name : Benns Church and Turner
Site Code :
Start Date : 8/11/2021
Page No : 6



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File Name : Benns Church and Cypress Run
Site Code :
Start Date : 8/11/2021

Groups Printed- Passenger Veh - Trucks

	Benns Church From North				Driveway From East				Benns Church From South				Cypress Run From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
06:30 AM	4	208	0	212	0	0	0	0	0	148	4	152	1	0	1	2	366
06:45 AM	2	197	0	199	0	0	0	0	0	135	7	142	1	0	1	2	343
Total	6	405	0	411	0	0	0	0	0	283	11	294	2	0	2	4	709
07:00 AM	6	159	0	165	0	0	0	0	0	102	10	112	2	0	1	3	280
07:15 AM	4	186	0	190	0	0	0	0	0	155	11	166	4	0	4	8	364
07:30 AM	7	216	2	225	0	0	1	1	0	138	7	145	1	0	5	6	377
07:45 AM	5	165	1	171	0	0	0	0	0	188	10	198	4	0	2	6	375
Total	22	726	3	751	0	0	1	1	0	583	38	621	11	0	12	23	1396
08:00 AM	10	169	0	179	0	0	1	1	2	135	7	144	3	0	3	6	330
08:15 AM	4	171	0	175	2	0	0	2	0	161	14	175	4	0	3	7	359
Total	14	340	0	354	2	0	1	3	2	296	21	319	7	0	6	13	689
03:30 PM	22	178	0	200	1	0	0	1	0	218	33	251	20	1	20	41	493
03:45 PM	27	216	0	243	0	0	1	1	0	232	55	287	14	0	14	28	559
Total	49	394	0	443	1	0	1	2	0	450	88	538	34	1	34	69	1052
04:00 PM	24	176	1	201	0	0	0	0	0	244	34	278	13	0	29	42	521
04:15 PM	31	238	0	269	0	1	0	1	0	254	33	287	19	0	23	42	599
04:30 PM	12	248	0	260	0	0	0	0	0	228	34	262	17	0	15	32	554
04:45 PM	32	241	1	274	0	1	0	1	0	250	42	292	14	0	21	35	602
Total	99	903	2	1004	0	2	0	2	0	976	143	1119	63	0	88	151	2276
05:00 PM	31	249	1	281	0	0	0	0	0	260	29	289	18	0	15	33	603
05:15 PM	25	210	3	238	0	0	0	0	0	246	30	276	22	0	22	44	558
05:30 PM	32	203	0	235	0	0	0	0	0	249	27	276	16	0	15	31	542
05:45 PM	25	180	0	205	0	0	0	0	0	268	32	300	21	0	24	45	550
Total	113	842	4	959	0	0	0	0	0	1023	118	1141	77	0	76	153	2253
06:00 PM	20	169	2	191	0	0	0	0	0	157	17	174	19	0	23	42	407
06:15 PM	24	137	0	161	0	0	0	0	0	196	27	223	10	0	25	35	419
Grand Total	347	3916	11	4274	3	2	3	8	2	3964	463	4429	223	1	266	490	9201
Apprch %	8.1	91.6	0.3		37.5	25	37.5		0	89.5	10.5		45.5	0.2	54.3		
Total %	3.8	42.6	0.1	46.5	0	0	0	0.1	0	43.1	5	48.1	2.4	0	2.9	5.3	
Passenger Veh	339	3826	11	4176	3	2	2	7	2	3863	448	4313	223	1	260	484	8980
% Passenger Veh	97.7	97.7	100	97.7	100	100	66.7	87.5	100	97.5	96.8	97.4	100	100	97.7	98.8	97.6
Trucks	8	90	0	98	0	0	1	1	0	101	15	116	0	0	6	6	221
% Trucks	2.3	2.3	0	2.3	0	0	33.3	12.5	0	2.5	3.2	2.6	0	0	2.3	1.2	2.4

Data Collection Group

757.478.6761
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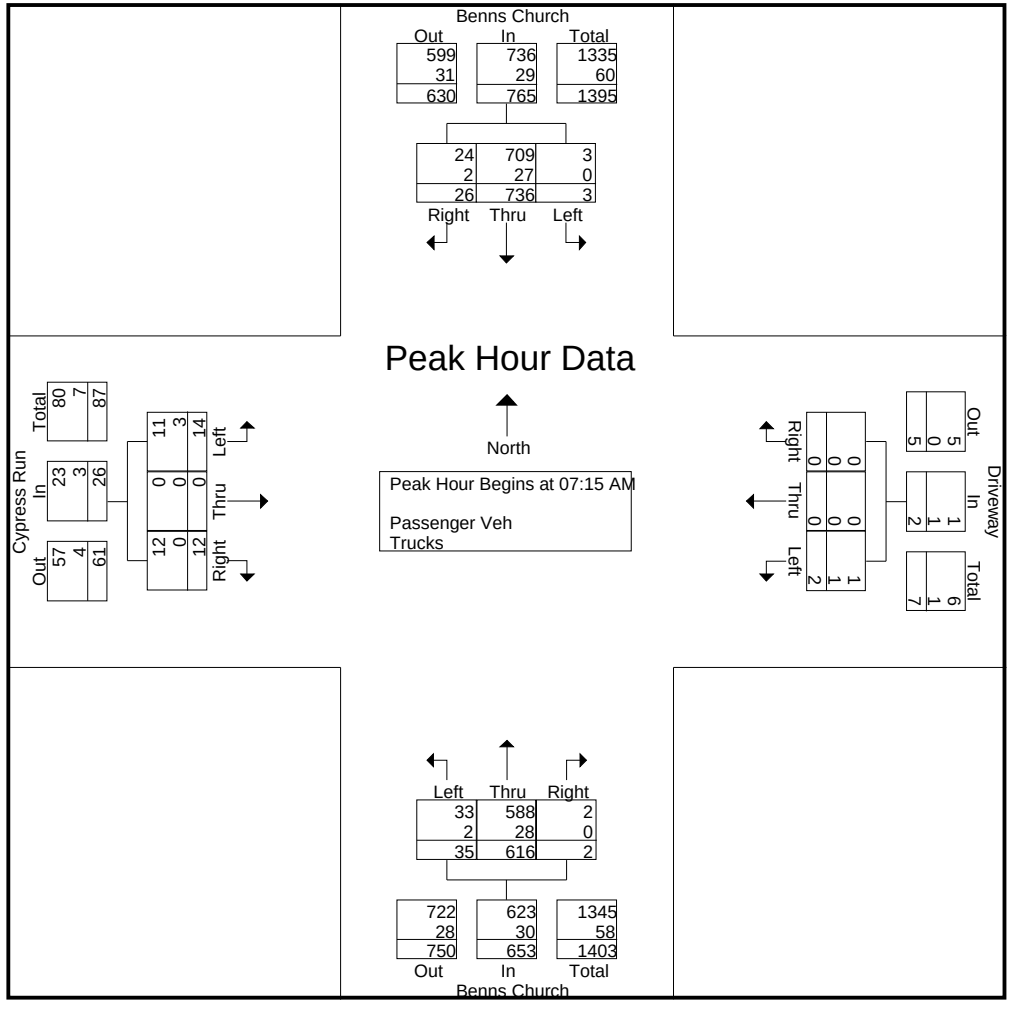
File Name : Benns Church and Cypress Run
Site Code :
Start Date : 8/11/2021

	Benns Church From North				Driveway From East				Benns Church From South				Cypress Run From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	4	186	0	190	0	0	0	0	0	155	**11**	166	**4**	0	4	**8**	364
07:30 AM	7	**216**	**2**	**225**	0	0	**1**	**1**	0	138	7	145	1	0	**5**	6	**377**
07:45 AM	5	165	1	171	0	0	0	0	0	**188**	10	**198**	4	0	2	6	375
08:00 AM	**10**	169	0	179	0	0	1	1	**2**	135	7	144	3	0	3	6	330
Total Volume	26	736	3	765	0	0	2	2	2	616	35	653	12	0	14	26	1446
% App. Total	3.4	96.2	0.4		0	0	100		0.3	94.3	5.4		46.2	0	53.8		
PHF	.650	.852	.375	.850	.000	.000	.500	.500	.250	.819	.795	.824	.750	.000	.700	.813	.959
Passenger Veh	24	709	3	736	0	0	1	1	2	588	33	623	12	0	11	23	1383
% Passenger Veh	92.3	96.3	100	96.2	0	0	50.0	50.0	100	95.5	94.3	95.4	100	0	78.6	88.5	95.6
Trucks	2	27	0	29	0	0	1	1	0	28	2	30	0	0	3	3	63
% Trucks	7.7	3.7	0	3.8	0	0	50.0	50.0	0	4.5	5.7	4.6	0	0	21.4	11.5	4.4

Data Collection Group

757.478.6761
LSmith@DataCollectionGroup.net

File Name : Benns Church and Cypress Run
Site Code :
Start Date : 8/11/2021
Page No : 4



Data Collection Group

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File Name : Benns Church and Cypress Run
Site Code :
Start Date : 8/11/2021

	Benns Church From North				Driveway From East				Benns Church From South				Cypress Run From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 06:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	31	238	0	269	0	**1**	0	**1**	0	254	33	287	**19**	0	**23**	**42**	599
04:30 PM	12	248	0	260	0	0	0	0	0	228	34	262	17	0	15	32	554
04:45 PM	**32**	241	**1**	274	0	1	0	1	0	250	**42**	**292**	14	0	21	35	602
05:00 PM	31	**249**	1	**281**	0	0	0	0	0	**260**	29	289	18	0	15	33	**603**
Total Volume	106	976	2	1084	0	2	0	2	0	992	138	1130	68	0	74	142	2358
% App. Total	9.8	90	0.2		0	100	0		0	87.8	12.2		47.9	0	52.1		
PHF	.828	.980	.500	.964	.000	.500	.000	.500	.000	.954	.821	.967	.895	.000	.804	.845	.978
Passenger Veh	105	956	2	1063	0	2	0	2	0	969	138	1107	68	0	74	142	2314
% Passenger Veh	99.1	98.0	100	98.1	0	100	0	100	0	97.7	100	98.0	100	0	100	100	98.1
Trucks	1	20	0	21	0	0	0	0	0	23	0	23	0	0	0	0	44
% Trucks	0.9	2.0	0	1.9	0	0	0	0	0	2.3	0	2.0	0	0	0	0	1.9

Data Collection Group

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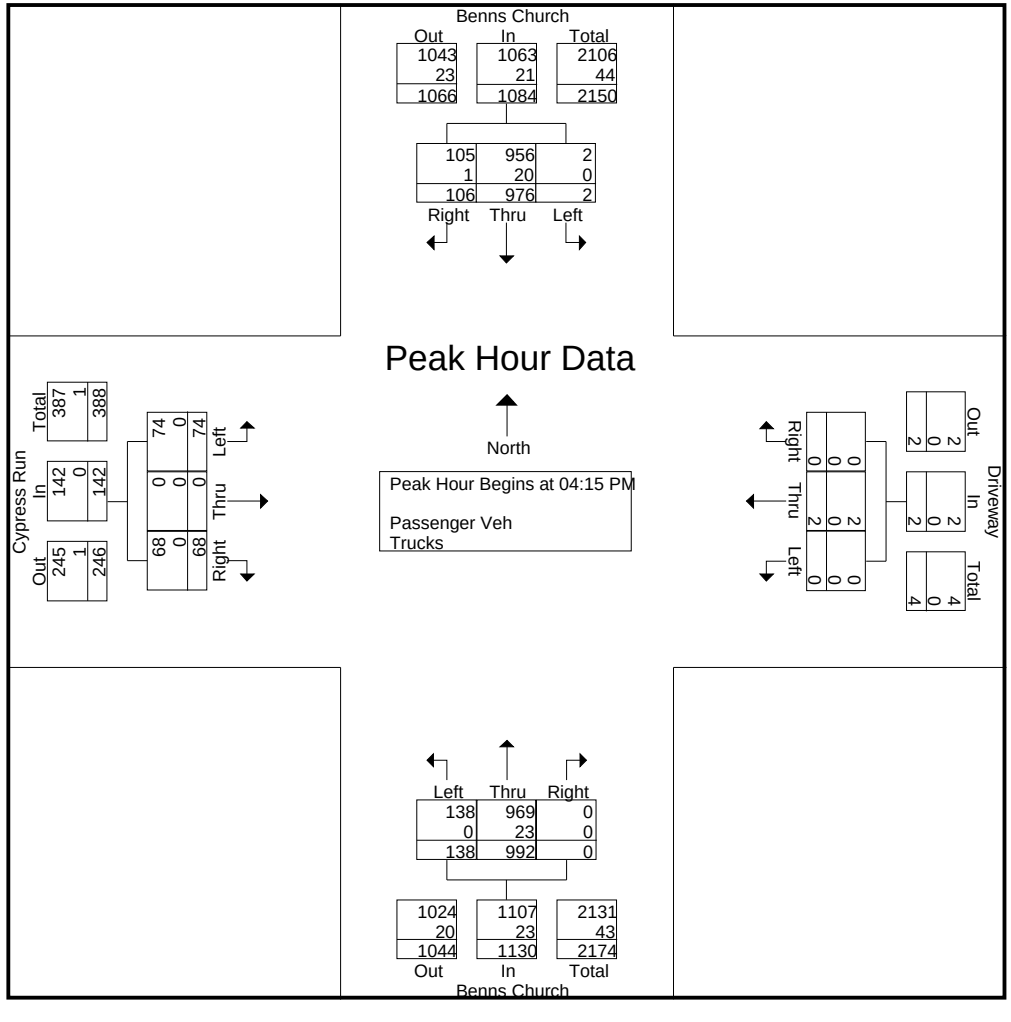
File Name : Benns Church and Cypress Run
Site Code :
Start Date : 8/11/2021
Page No : 6



Appendix C
Wawa Development Trip Generation

Based on Fueling Stations

ITE Code	ITE Descriptions	Density	Unit	Daily	AM Peak Hour Total	AM Peak Hour Enter	AM Peak Hour Exit	PM Peak Hour Total	PM Peak Hour Enter	PM Peak Hour Exit
960	Super Convenience Market/Gas Station	16	Fueling Positions	3,688	449	225	224	367	184	183
Pass-By				**0**	**(283)**	**(142)**	**(141)**	**(242)**	**(121)**	**(121)**
New Site Trips				***3,688***	***166***	***83***	***83***	***125***	***63***	***62***
Pass-by %				0%	63%	63%	63%	66%	66%	66%

Based on Square Footage

ITE Code	ITE Descriptions	Density	Unit	Daily	AM Peak Hour Total	AM Peak Hour Enter	AM Peak Hour Exit	PM Peak Hour Total	PM Peak Hour Enter	PM Peak Hour Exit
960	Super Convenience Market/Gas Station	6049	Sq Ft	5,067	566	283	283	419	210	209
Pass-By				**0**	**(357)**	**(178)**	**(178)**	**(277)**	**(139)**	**(138)**
New Site Trips				***5,067***	***209***	***105***	***105***	***142***	***71***	***71***
Pass-by %				0%	63%	63%	63%	66%	66%	66%

Average/Blended

ITE Code	ITE Descriptions			Daily	AM Peak Hour Total	AM Peak Hour Enter	AM Peak Hour Exit	PM Peak Hour Total	PM Peak Hour Enter	PM Peak Hour Exit
960	Super Convenience Market/Gas Station	Average		4,378	508	254	254	393	197	196
520	Elementary School	600	Students	1,134	402	217	185	102	49	53
Gas Station Pass-By				**0**	**(320)**	**(160)**	**(160)**	**(259)**	**(130)**	**(129)**
New Site Trips				***5,512***	***590***	***311***	***279***	***236***	***116***	***120***
Pass-by %				0%	63%	63%	63%	66%	66%	66%

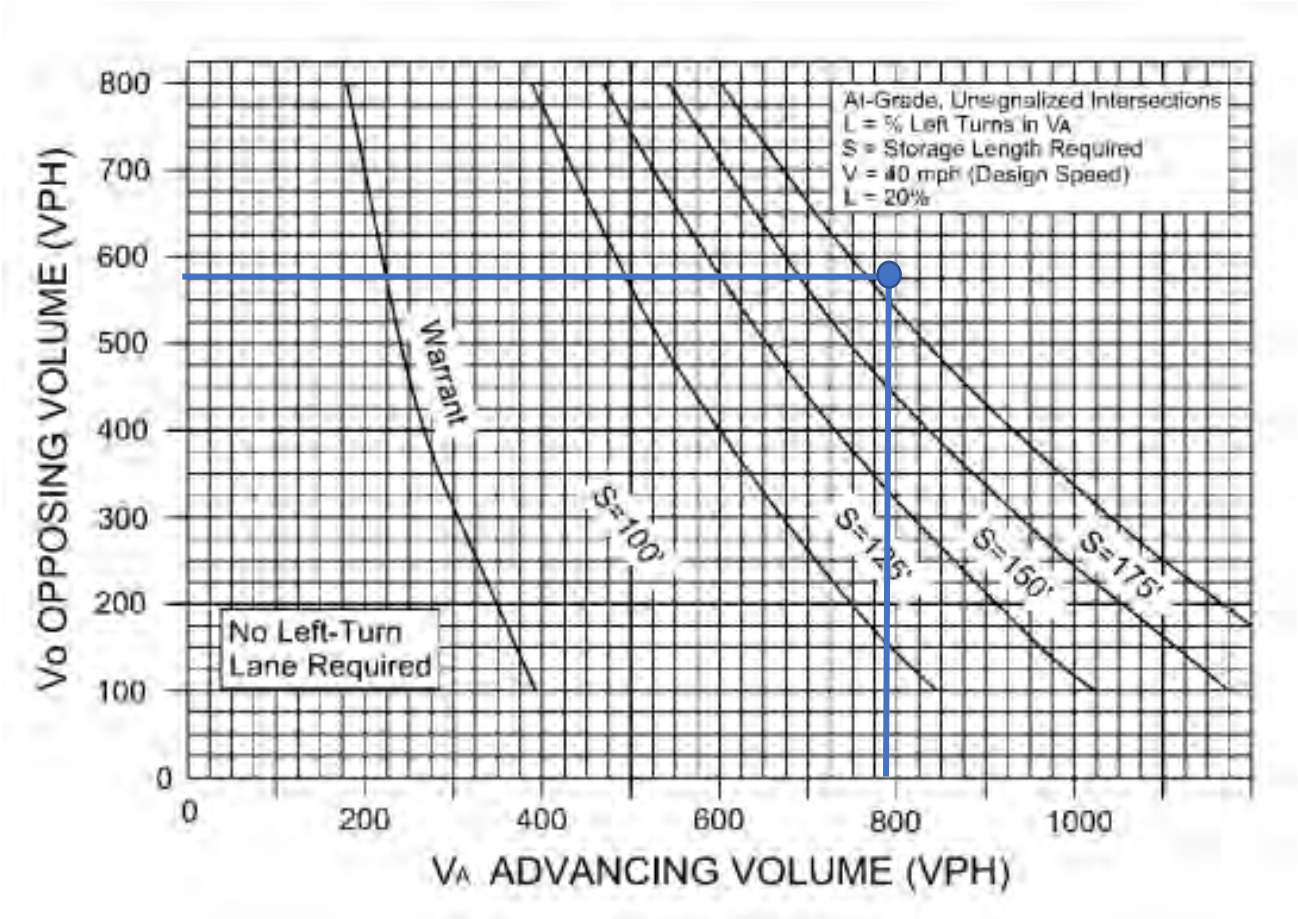
Appendix D
Turn-Lane Warrant Data Sheets

Left-Turn Lane Warrant Analysis for Site Driveway Access off Turner Drive for Build Scenarios 3 and 5

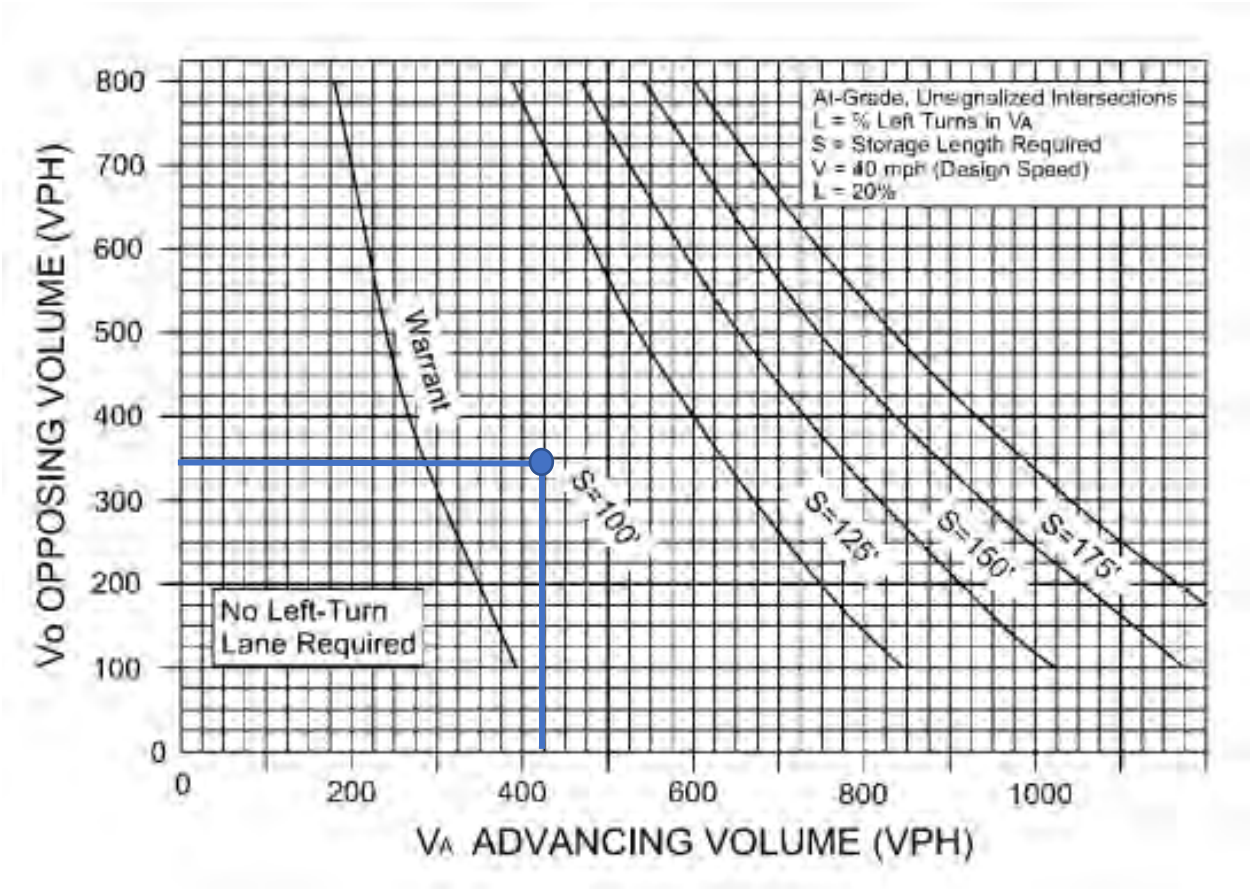
L = % Left Turns in Advancing Volume = 127 veh/795 veh (16%) in the AM and 98 veh/448 veh (22%) in the PM

V = 40 MPH

AM Peak Hour



PM Peak Hour

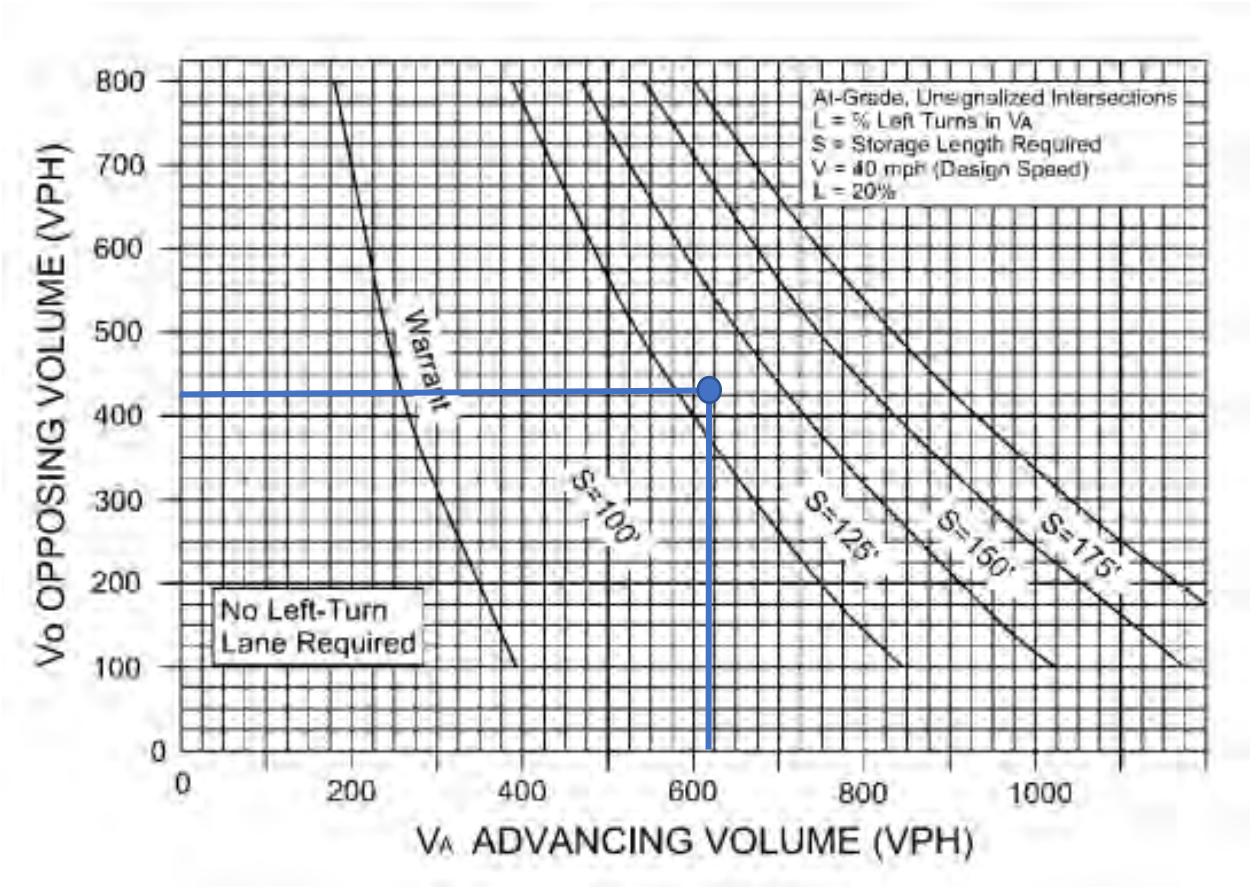

At-Grade, Unsignalized Intersections
L = % Left Turns in VA
S = Storage Length Required
V = 40 mph (Design Speed)
L = 20%
Warrant
S=100'
S=125'
S=150'
S=175'
No Left-Turn
Lane Required
Vo OPPOSING VOLUME (VPH)
VA ADVANCING VOLUME (VPH)
0
100
200
300
400
500
600
700
800
0
200
400
600
800
1000

Left-Turn Lane Warrant Analysis for Site Driveway Access off Turner Drive for Build Scenario 4

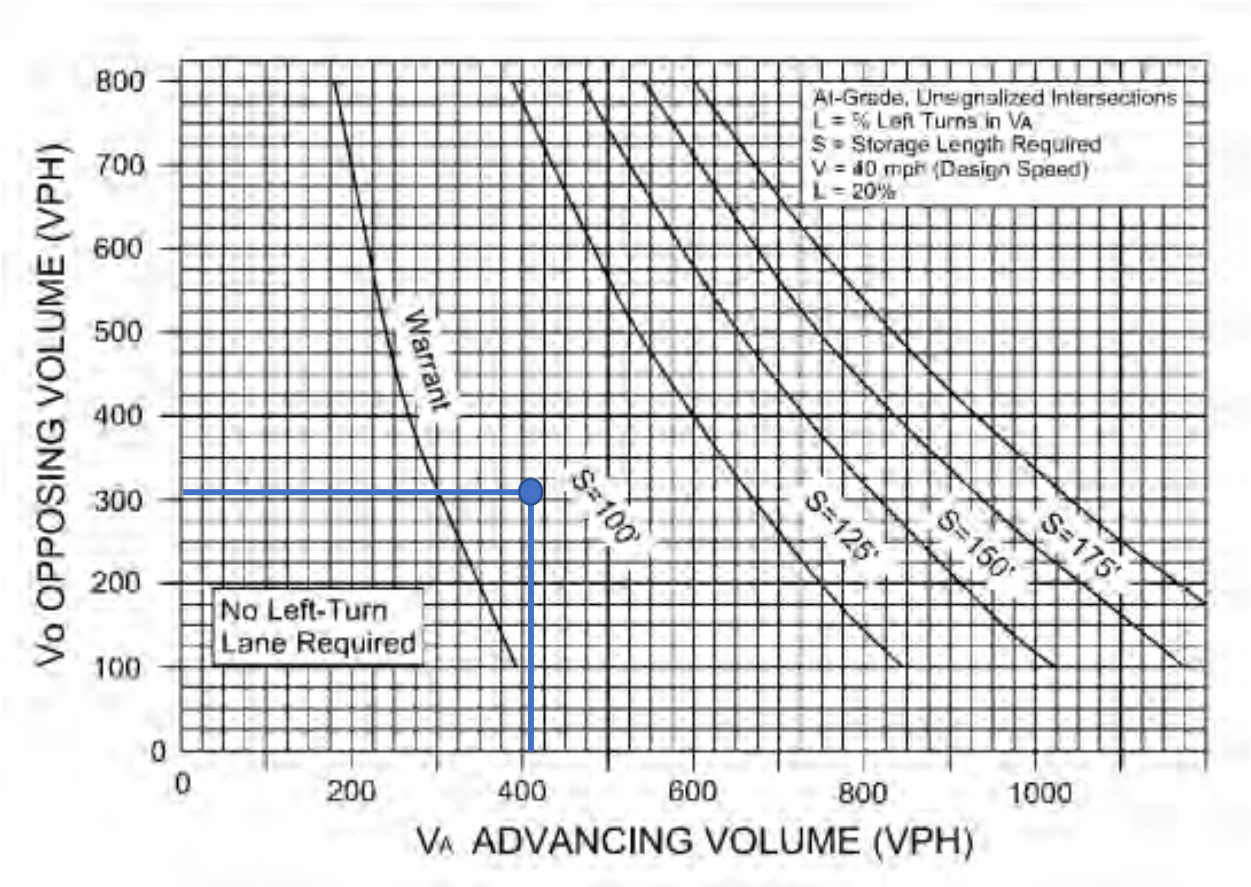
L = % Left Turns in Advancing Volume = 127 veh/621 veh (20%) in the AM and 98 veh/407 veh (24%) in the PM

V = 40 MPH

AM Peak Hour



PM Peak Hour

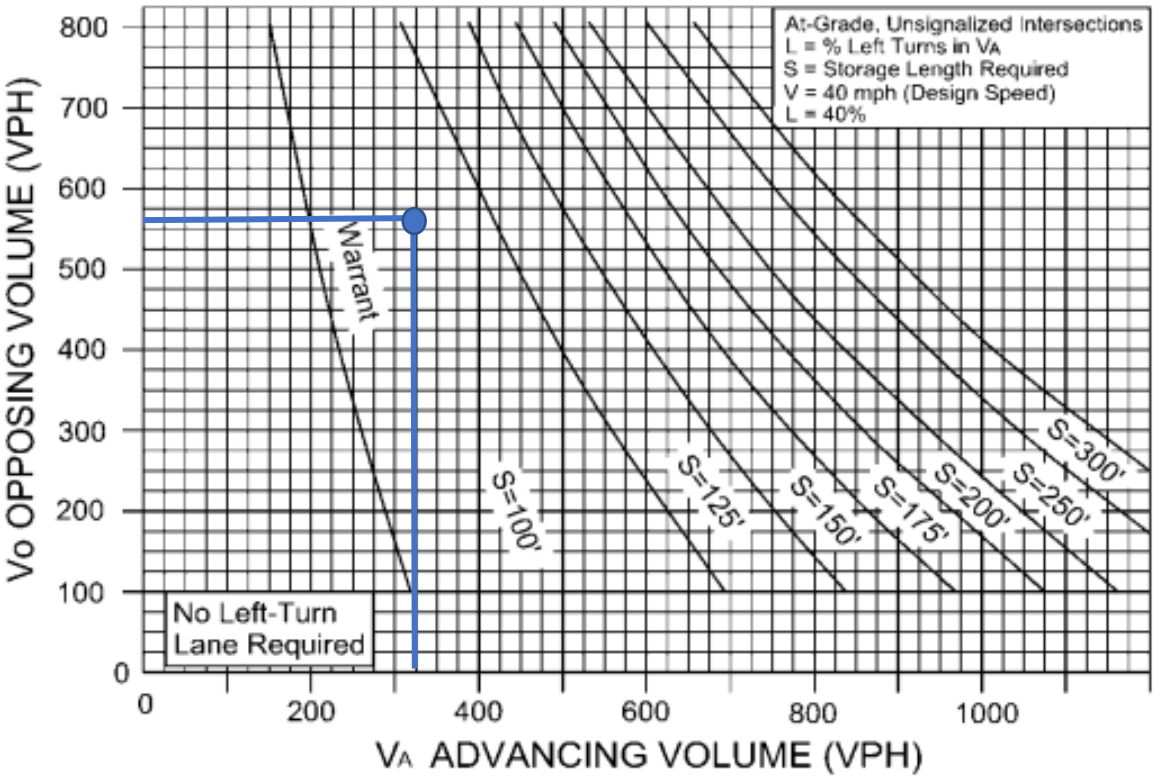

At-Grade, Unsignalized Intersections
L = % Left Turns in VA
S = Storage Length Required
V = 40 mph (Design Speed)
L = 20%
Warrant
S=100'
S=125'
S=150'
S=175'
No Left-Turn
Lane Required
Vo OPPOSING VOLUME (VPH)
VA ADVANCING VOLUME (VPH)
800
700
600
500
400
300
200
100
0
0
200
400
600
800
1000

Left-Turn Lane Warrant Analysis for Northbound Benns Church Boulevard at Turner Drive for Scenario 4

L = % Left Turns in Advancing Volume = 324 veh/567 veh (57%) in the AM and 243 veh/380 veh (64%) in the PM

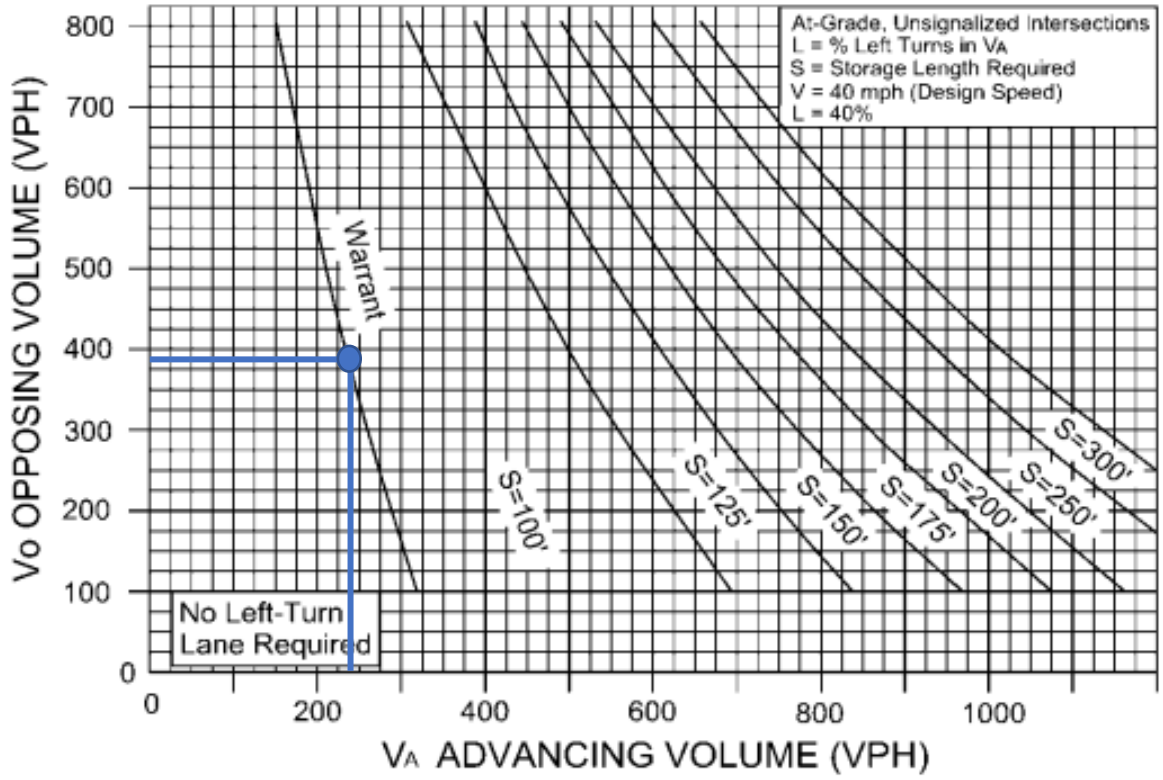
V = 40 MPH

AM Peak Hour



Left-Turn Lane Warrant Analysis for Eastbound Benns Church Boulevard at Turner Drive for Scenario 4

PM Peak Hour



Right Turn Lane Warrant Analysis for Site Driveway Access off of Benns Church Boulevard

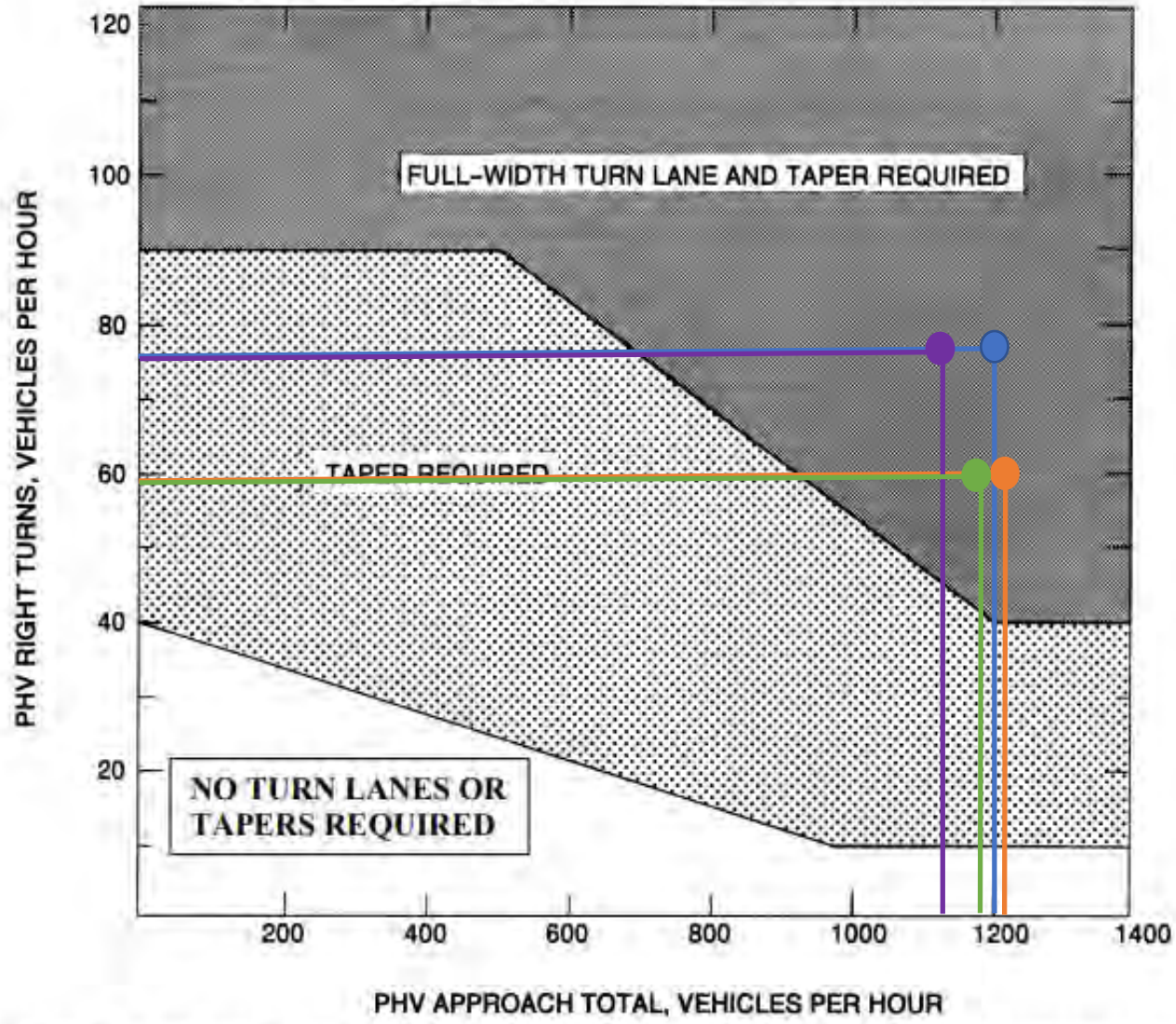


FIGURE 3-27 WARRANTS FOR RIGHT TURN TREATMENT (4-LANE HIGHWAY)

- AM Peak Hour – Scenario 3 & 5
- AM Peak Hour – Scenario 4
- PM Peak Hour – Scenario 3 & 5
- PM Peak Hour – Scenario 4

Right Turn Lane Warrant Analysis for No Build and Build Traffic Volumes on Eastbound Benns Church Boulevard at Turner Drive Intersection

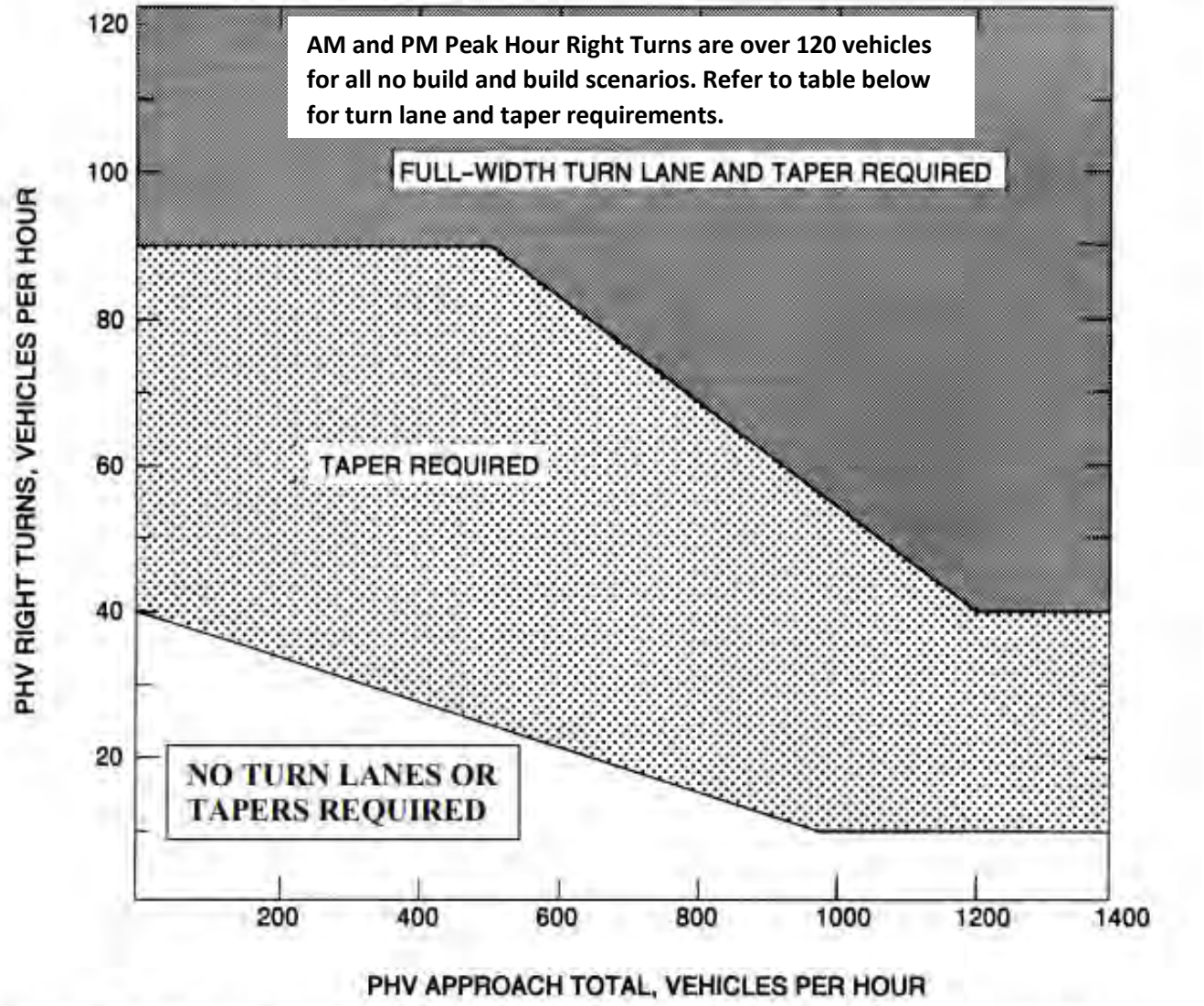


FIGURE 3-27 WARRANTS FOR RIGHT TURN TREATMENT (4-LANE HIGHWAY)

LENGTH OF STORAGE (*)		TAPER - Rural (*)	
Rural - For Design Speeds 50 MPH or Higher	*L - 200' min. (For 240 or fewer vehicles during peak hour, making turn)	- For Design Speeds 35 MPH or Higher	**T - 200' Min.
Rural - For Design Speeds 45 MPH or Less	*L - 100' min. (For 60 or fewer vehicles during peak hour, making turn)	- For Design Speeds 30 MPH or Less	**T - 100' Min. (single) **T - 200' Min. (dual)
*Distance L to be adjusted upward as determined by capacity analysis for Left and Right Turn Storage.		**Tapers are to be straight-line unless local policy requires reverse curves. In congested areas the taper length may be reduced to increase storage length. However, a design waiver shall be required.	
LENGTH OF STORAGE		TAPER - Urban	
Urban - Length determined by capacity analysis for Left and Right Turn Storage (100' Minimum)		- For Design Speeds 50 MPH or Higher	**T - 200' Min.
		- For Design Speeds 45 MPH or Less	**T - 100' Min. (single) **T - 150' Min. (dual)

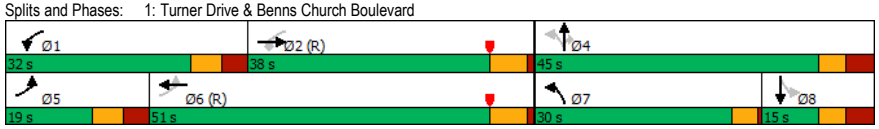
FIGURE 3-1 RIGHT AND LEFT TURN LANE CRITERIA FOR SINGLE AND DUAL LANES

Appendix E
Synchro/SimTraffic Reports

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	833	262	181	635	46	175	0	225	1	41	3
Future Volume (vph)	9	833	262	181	635	46	175	0	225	1	41	3
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.990				0.850		0.991	
Flt Protected	0.950			0.950				0.950			0.999	
Satd. Flow (prot)	1770	3406	1615	1805	3415	0	0	1787	1599	0	1842	0
Flt Permitted	0.347			0.247				0.726			0.994	
Satd. Flow (perm)	646	3406	1615	469	3415	0	0	1366	1599	0	1833	0
Satd. Flow (RTOR)			276		8				237		2	
Adj. Flow (vph)	9	877	276	191	668	48	184	0	237	1	43	3
Lane Group Flow (vph)	9	877	276	191	716	0	0	184	237	0	47	0
Turn Type	D.P+P	NA	Perm	D.P+P	NA		pm+pt	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6		7	4			8	
Permitted Phases	6		2	2			4		4	8		
Total Split (s)	19.0	38.0	38.0	32.0	51.0		30.0	45.0	45.0	15.0	15.0	
Total Lost Time (s)	7.5	6.0	6.0	7.5	6.0			7.5	7.5		7.5	
Act Effct Green (s)	75.6	57.7	57.7	69.6	75.9			22.9	22.9		22.9	
Actuated g/C Ratio	0.66	0.50	0.50	0.61	0.66			0.20	0.20		0.20	
v/c Ratio	0.02	0.51	0.29	0.44	0.32			0.68	0.47		0.13	
Control Delay	7.6	14.2	1.2	11.8	10.6			54.2	7.4		34.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0	0.0		0.0	
Total Delay	7.6	14.2	1.2	11.8	10.6			54.2	7.4		34.2	
LOS	A	B	A	B	B			D	A		C	
Approach Delay		11.1			10.9			27.9			34.2	
Approach LOS		B			B			C			C	

Intersection Summary		
Cycle Length: 115		
Actuated Cycle Length: 115		
Offset: 15 (13%), Referenced to phase 2:EBWB and 6:EBWB, Start of Yellow		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.68		
Intersection Signal Delay: 14.2	Intersection LOS: B	
Intersection Capacity Utilization 66.9%	ICU Level of Service C	
Analysis Period (min) 15		

Splits and Phases: 1: Turner Drive & Benns Church Boulevard



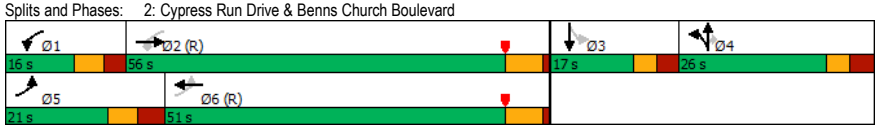
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	833	262	181	635	46	175	0	225	1	41	3
Future Volume (vph)	9	833	262	181	635	46	175	0	225	1	41	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	6.0	6.0	7.5	6.0			7.5	7.5		7.5	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95			1.00	1.00		1.00	
Frt	1.00	1.00	0.85	1.00	0.99			1.00	0.85		0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00		1.00	
Satd. Flow (prot)	1770	3406	1615	1805	3414			1787	1599		1843	
Flt Permitted	0.35	1.00	1.00	0.25	1.00			0.73	1.00		0.99	
Satd. Flow (perm)	646	3406	1615	468	3414			1366	1599		1834	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	9	877	276	191	668	48	184	0	237	1	43	3
RTOR Reduction (vph)	0	0	138	0	3	0	0	0	190	0	2	0
Lane Group Flow (vph)	9	877	138	191	713	0	0	184	47	0	45	0
Heavy Vehicles (%)	2%	6%	0%	0%	5%	0%	1%	0%	1%	0%	0%	33%
Turn Type	D.P+P	NA	Perm	D.P+P	NA		pm+pt	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6		7	4			8	
Permitted Phases	6		2	2			4		4	8		
Actuated Green, G (s)	71.1	57.7	57.7	71.1	69.8			22.9	22.9		22.9	
Effective Green, g (s)	71.1	57.7	57.7	71.1	69.8			22.9	22.9		22.9	
Actuated g/C Ratio	0.62	0.50	0.50	0.62	0.61			0.20	0.20		0.20	
Clearance Time (s)	7.5	6.0	6.0	7.5	6.0			7.5	7.5		7.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)	412	1708	810	445	2072			272	318		365	
v/s Ratio Prot	0.00	c0.26		c0.05	c0.21							
v/s Ratio Perm	0.01		0.09	0.22				c0.13	0.03		0.02	
v/c Ratio	0.02	0.51	0.17	0.43	0.34			0.68	0.15		0.12	
Uniform Delay, d1	8.6	19.2	15.6	10.6	11.2			42.6	38.0		37.8	
Progression Factor	0.85	0.61	0.19	1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	0.0	1.0	0.4	0.7	0.5			6.5	0.2		0.2	
Delay (s)	7.3	12.7	3.4	11.2	11.7			49.1	38.2		38.0	
Level of Service	A	B	A	B	B			D	D		D	
Approach Delay (s)		10.4			11.6			43.0			38.0	
Approach LOS		B			B			D			D	

Intersection Summary				
HCM 2000 Control Delay	16.7	HCM 2000 Level of Service	B	
HCM 2000 Volume to Capacity ratio	0.57			
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	25.0	
Intersection Capacity Utilization	66.9%	ICU Level of Service	C	
Analysis Period (min)	15			
c Critical Lane Group				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	1184	29	44	767	2	15	0	37	2	0	0
Future Volume (vph)	3	1184	29	44	767	2	15	0	37	2	0	0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850						0.850			
Flt Protected	0.950			0.950				0.950			0.950	
Satd. Flow (prot)	1805	3471	1509	1641	3374	0	0	1492	1495	0	1203	0
Flt Permitted	0.328			0.180				0.950				
Satd. Flow (perm)	623	3471	1509	311	3374	0	0	1492	1495	0	1267	0
Satd. Flow (RTOR)			157						152			
Adj. Flow (vph)	3	1233	30	46	799	2	16	0	39	2	0	0
Lane Group Flow (vph)	3	1233	30	46	801	0	0	16	39	0	2	0
Turn Type	D.P+P	NA	Perm	D.P+P	NA		Split	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6		4	4			3	
Permitted Phases	6		2	2					4	3		
Total Split (s)	21.0	56.0	56.0	16.0	51.0		26.0	26.0	26.0	17.0	17.0	
Total Lost Time (s)	7.5	6.0	6.0	7.0	6.0			6.5	6.5		6.0	
Act Effct Green (s)	91.8	85.3	85.3	88.2	93.4			7.5	7.5		7.3	
Actuated g/C Ratio	0.80	0.74	0.74	0.77	0.81			0.07	0.07		0.06	
v/c Ratio	0.01	0.48	0.03	0.15	0.29			0.17	0.16		0.03	
Control Delay	4.7	9.7	0.0	6.7	6.6			54.5	1.5		51.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0	0.0		0.0	
Total Delay	4.7	9.7	0.0	6.7	6.6			54.5	1.5		51.0	
LOS	A	A	A	A	A			D	A		D	
Approach Delay		9.4			6.6			16.9			51.0	
Approach LOS		A			A			B			D	

Intersection Summary			
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 6 (5%), Referenced to phase 2:EBWB and 6:EBWB, Start of Yellow			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.48			
Intersection Signal Delay: 8.5		Intersection LOS: A	
Intersection Capacity Utilization 59.8%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 2: Cypress Run Drive & Benns Church Boulevard



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	1184	29	44	767	2	15	0	37	2	0	0
Future Volume (vph)	3	1184	29	44	767	2	15	0	37	2	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	6.0	6.0	7.0	6.0			6.5	6.5		6.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95			1.00	1.00		1.00	
Frt	1.00	1.00	0.85	1.00	1.00			1.00	0.85		1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.95	
Satd. Flow (prot)	1805	3471	1509	1641	3373			1492	1495		1203	
Flt Permitted	0.33	1.00	1.00	0.18	1.00			0.95	1.00		1.00	
Satd. Flow (perm)	624	3471	1509	312	3373			1492	1495		1267	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	3	1233	30	46	799	2	16	0	39	2	0	0
RTOR Reduction (vph)	0	0	10	0	0	0	0	0	37	0	0	0
Lane Group Flow (vph)	3	1233	20	46	801	0	0	16	2	0	2	0
Heavy Vehicles (%)	0%	4%	7%	10%	7%	0%	21%	0%	8%	50%	0%	0%
Turn Type	D.P+P	NA	Perm	D.P+P	NA		Split	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6		4	4			3	
Permitted Phases	6		2	2					4	3		
Actuated Green, G (s)	81.2	76.5	76.5	81.7	80.0			6.1	6.1		1.7	
Effective Green, g (s)	81.2	76.5	76.5	81.7	80.0			6.1	6.1		1.7	
Actuated g/C Ratio	0.71	0.67	0.67	0.71	0.70			0.05	0.05		0.01	
Clearance Time (s)	7.5	6.0	6.0	7.0	6.0			6.5	6.5		6.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)	452	2308	1003	281	2346			79	79		18	
v/s Ratio Prot	0.00	c0.36		c0.01	c0.24			c0.01				
v/s Ratio Perm	0.00		0.01	0.11					0.00		c0.00	
v/c Ratio	0.01	0.53	0.02	0.16	0.34			0.20	0.03		0.11	
Uniform Delay, d1	5.1	10.0	6.5	6.2	7.0			52.1	51.6		55.9	
Progression Factor	1.00	1.00	1.00	1.44	1.25			1.00	1.00		1.00	
Incremental Delay, d2	0.0	0.9	0.0	0.3	0.4			1.3	0.1		2.7	
Delay (s)	5.1	10.9	6.6	9.2	9.1			53.4	51.8		58.6	
Level of Service	A	B	A	A	A			D	D		E	
Approach Delay (s)		10.8			9.1			52.2			58.6	
Approach LOS		B			A			D			E	

Intersection Summary					
HCM 2000 Control Delay	11.2	HCM 2000 Level of Service	B		
HCM 2000 Volume to Capacity ratio	0.49				
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	26.0		
Intersection Capacity Utilization	59.8%	ICU Level of Service	B		
Analysis Period (min)	15				
c Critical Lane Group					

Intersection: 1: Turner Drive & Benns Church Boulevard

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	LT	R	LTR
Maximum Queue (ft)	37	216	201	69	123	147	115	181	98	65
Average Queue (ft)	10	129	129	46	92	79	64	134	61	38
95th Queue (ft)	47	239	227	73	134	168	136	213	109	74
Link Distance (ft)		2175	2175			1928	1928	919		114
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	140			280	130				305	
Storage Blk Time (%)		8			2	1				
Queuing Penalty (veh)		1			7	3				

Intersection: 2: Cypress Run Drive & Benns Church Boulevard

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	LT	R	LTR
Maximum Queue (ft)	7	91	86	13	50	62	63	36	33	19
Average Queue (ft)	2	42	40	3	25	20	25	11	19	5
95th Queue (ft)	13	105	107	17	63	75	84	43	39	27
Link Distance (ft)		885	885			2175	2175	657		94
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	150			245	255				180	
Storage Blk Time (%)		0								
Queuing Penalty (veh)		0								

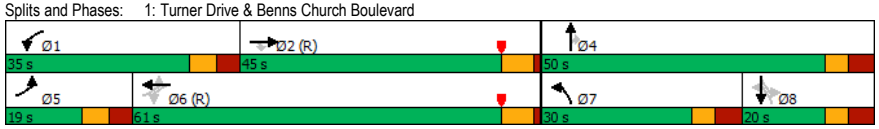
Network Summary

Network wide Queuing Penalty: 10

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	1025	119	187	1199	6	161	0	125	2	1	4
Future Volume (vph)	25	1025	119	187	1199	6	161	0	125	2	1	4
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.999				0.850		0.923	
Flt Protected	0.950			0.950				0.950			0.986	
Satd. Flow (prot)	1787	3539	1615	1805	3536	0	0	1787	1568	0	1729	0
Flt Permitted	0.157			0.165				0.753			0.929	
Satd. Flow (perm)	295	3539	1615	314	3536	0	0	1417	1568	0	1629	0
Satd. Flow (RTOR)			227						151		4	
Adj. Flow (vph)	26	1079	125	197	1262	6	169	0	132	2	1	4
Lane Group Flow (vph)	26	1079	125	197	1268	0	0	169	132	0	7	0
Turn Type	D.P+P	NA	Perm	pm+pt	NA		D.P+P	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6		7	4			8	
Permitted Phases	6		2	6			8		4	8		
Total Split (s)	19.0	45.0	45.0	35.0	61.0		30.0	50.0	50.0	20.0	20.0	
Total Lost Time (s)	7.5	6.0	6.0	7.5	6.0			7.5	7.5		7.5	
Act Effct Green (s)	86.1	70.0	70.0	90.6	83.7			24.4	24.4		24.4	
Actuated g/C Ratio	0.66	0.54	0.54	0.70	0.64			0.19	0.19		0.19	
v/c Ratio	0.10	0.57	0.13	0.51	0.56			0.64	0.32		0.02	
Control Delay	8.9	23.7	0.3	12.6	16.5			58.6	6.1		28.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0	0.0		0.0	
Total Delay	8.9	23.7	0.3	12.6	16.5			58.6	6.1		28.0	
LOS	A	C	A	B	B			E	A		C	
Approach Delay		21.0			16.0			35.5			28.0	
Approach LOS		C			B			D			C	

Intersection Summary		
Cycle Length: 130		
Actuated Cycle Length: 130		
Offset: 0 (0%), Referenced to phase 2:EBT and 6:EBWB, Start of Yellow		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.64		
Intersection Signal Delay: 20.0	Intersection LOS: C	
Intersection Capacity Utilization 71.8%	ICU Level of Service C	
Analysis Period (min) 15		

Splits and Phases: 1: Turner Drive & Benns Church Boulevard



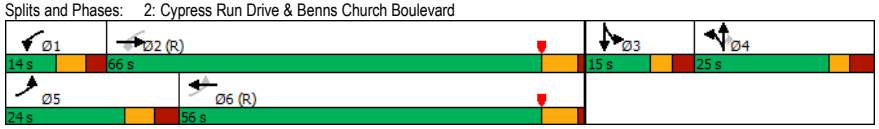
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	1025	119	187	1199	6	161	0	125	2	1	4
Future Volume (vph)	25	1025	119	187	1199	6	161	0	125	2	1	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	6.0	6.0	7.5	6.0			7.5	7.5		7.5	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95			1.00	1.00		1.00	
Frt	1.00	1.00	0.85	1.00	1.00			1.00	0.85		0.92	
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.99	
Satd. Flow (prot)	1787	3539	1615	1805	3537			1787	1568		1729	
Flt Permitted	0.16	1.00	1.00	0.16	1.00			0.75	1.00		0.93	
Satd. Flow (perm)	295	3539	1615	313	3537			1417	1568		1628	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	26	1079	125	197	1262	6	169	0	132	2	1	4
RTOR Reduction (vph)	0	0	58	0	0	0	0	0	107	0	3	0
Lane Group Flow (vph)	26	1079	67	197	1268	0	0	169	25	0	4	0
Heavy Vehicles (%)	1%	2%	0%	0%	2%	0%	1%	0%	3%	0%	0%	0%
Turn Type	D.P+P	NA	Perm	pm+pt	NA		D.P+P	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6		7	4			8	
Permitted Phases	6		2	6			8		4	8		
Actuated Green, G (s)	84.6	69.9	69.9	92.1	80.7			24.4	24.4		24.4	
Effective Green, g (s)	84.6	69.9	69.9	92.1	80.7			24.4	24.4		24.4	
Actuated g/C Ratio	0.65	0.54	0.54	0.71	0.62			0.19	0.19		0.19	
Clearance Time (s)	7.5	6.0	6.0	7.5	6.0			7.5	7.5		7.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)	236	1902	868	390	2195			265	294		305	
v/s Ratio Prot	0.00	0.30		c0.06	c0.36							
v/s Ratio Perm	0.07		0.04	0.30				c0.12	0.02		0.00	
v/c Ratio	0.11	0.57	0.08	0.51	0.58			0.64	0.08		0.01	
Uniform Delay, d1	10.2	20.0	14.5	11.6	14.6			48.7	43.6		43.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	0.2	1.2	0.2	1.0	1.1			5.0	0.1		0.0	
Delay (s)	10.4	21.2	14.7	12.6	15.7			53.7	43.7		43.0	
Level of Service	B	C	B	B	B			D	D		D	
Approach Delay (s)		20.3			15.3			49.3			43.0	
Approach LOS		C			B			D			D	

Intersection Summary			
HCM 2000 Control Delay	20.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	28.5
Intersection Capacity Utilization	71.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	1060	113	188	1176	0	97	0	93	0	4	0
Future Volume (vph)	3	1060	113	188	1176	0	97	0	93	0	4	0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850						0.850			
Flt Protected	0.950			0.950				0.950				
Satd. Flow (prot)	1805	3471	1553	1805	3539	0	0	1805	1615	0	1900	0
Flt Permitted	0.167			0.179				0.950				
Satd. Flow (perm)	317	3471	1553	340	3539	0	0	1805	1615	0	1900	0
Satd. Flow (RTOR)			150						214			
Adj. Flow (vph)	3	1152	123	204	1278	0	105	0	101	0	4	0
Lane Group Flow (vph)	3	1152	123	204	1278	0	0	105	101	0	4	0
Turn Type	D.P+P	NA	Perm	D.P+P	NA		Split	NA	Perm		NA	
Protected Phases	5	2		1	6		4	4		3	3	
Permitted Phases	6		2	2					4			
Total Split (s)	24.0	66.0	66.0	14.0	56.0		25.0	25.0	25.0	15.0	15.0	
Total Lost Time (s)	7.5	6.0	6.0	7.0	6.0			6.5	6.5		6.0	
Act Effct Green (s)	89.6	75.1	75.1	84.6	90.0			12.3	12.3		7.0	
Actuated g/C Ratio	0.75	0.63	0.63	0.70	0.75			0.10	0.10		0.06	
v/c Ratio	0.01	0.53	0.12	0.55	0.48			0.57	0.28		0.04	
Control Delay	6.3	15.2	1.6	11.8	8.9			62.7	2.0		54.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0	0.0		0.0	
Total Delay	6.3	15.2	1.6	11.8	8.9			62.7	2.0		54.2	
LOS	A	B	A	B	A			E	A		D	
Approach Delay		13.8			9.3			33.0			54.3	
Approach LOS		B			A			C			D	

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:EBWB and 6:EBWB, Start of Yellow			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.57			
Intersection Signal Delay: 13.0		Intersection LOS: B	
Intersection Capacity Utilization 68.0%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 2: Cypress Run Drive & Benns Church Boulevard



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	1060	113	188	1176	0	97	0	93	0	4	0
Future Volume (vph)	3	1060	113	188	1176	0	97	0	93	0	4	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	6.0	6.0	7.0	6.0			6.5	6.5		6.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95			1.00	1.00		1.00	
Frt	1.00	1.00	0.85	1.00	1.00			1.00	0.85		1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00		1.00	
Satd. Flow (prot)	1805	3471	1553	1805	3539			1805	1615		1900	
Flt Permitted	0.17	1.00	1.00	0.18	1.00			0.95	1.00		1.00	
Satd. Flow (perm)	316	3471	1553	340	3539			1805	1615		1900	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	1152	123	204	1278	0	105	0	101	0	4	0
RTOR Reduction (vph)	0	0	51	0	0	0	0	0	91	0	0	0
Lane Group Flow (vph)	3	1152	72	204	1278	0	0	105	10	0	4	0
Heavy Vehicles (%)	0%	4%	4%	0%	2%	0%	0%	0%	0%	0%	0%	0%
Turn Type	D.P+P	NA	Perm	D.P+P	NA		Split	NA	Perm		NA	
Protected Phases	5	2		1	6		4	4		3	3	
Permitted Phases	6		2	2					4			
Actuated Green, G (s)	80.3	70.3	70.3	80.8	79.1			12.3	12.3		1.4	
Effective Green, g (s)	80.3	70.3	70.3	80.8	79.1			12.3	12.3		1.4	
Actuated g/C Ratio	0.67	0.59	0.59	0.67	0.66			0.10	0.10		0.01	
Clearance Time (s)	7.5	6.0	6.0	7.0	6.0			6.5	6.5		6.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)	226	2033	909	357	2332			185	165		22	
v/s Ratio Prot	0.00	0.33		c0.05	c0.36			c0.06			c0.00	
v/s Ratio Perm	0.01		0.05	c0.33					0.01			
v/c Ratio	0.01	0.57	0.08	0.57	0.55			0.57	0.06		0.18	
Uniform Delay, d1	8.0	15.4	10.8	10.0	10.9			51.3	48.6		58.7	
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	0.0	1.2	0.2	2.2	0.9			4.0	0.2		4.0	
Delay (s)	8.0	16.6	11.0	12.2	11.8			55.3	48.8		62.7	
Level of Service	A	B	B	B	B			E	D		E	
Approach Delay (s)		16.0			11.9			52.1			62.7	
Approach LOS		B			B			D			E	

Intersection Summary				
HCM 2000 Control Delay	16.5	HCM 2000 Level of Service	B	
HCM 2000 Volume to Capacity ratio	0.58			
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	26.0	
Intersection Capacity Utilization	68.0%	ICU Level of Service	C	
Analysis Period (min)	15			
c Critical Lane Group				

Intersection: 1: Turner Drive & Benns Church Boulevard

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	LT	R	LTR
Maximum Queue (ft)	122	329	345	194	129	294	263	233	108	36
Average Queue (ft)	20	146	154	36	87	134	120	118	40	6
95th Queue (ft)	68	282	293	130	143	249	227	203	83	25
Link Distance (ft)		2172	2172			1930	1930	919		114
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	140			280	130				305	
Storage Blk Time (%)	0	9	1	0	2	5				
Queuing Penalty (veh)	0	2	1	0	12	10				

Intersection: 2: Cypress Run Drive & Benns Church Boulevard

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	LT	R	LTR
Maximum Queue (ft)	32	317	269	82	184	243	243	160	114	27
Average Queue (ft)	2	142	110	23	88	78	96	70	32	4
95th Queue (ft)	19	270	229	61	155	183	199	129	69	18
Link Distance (ft)		885	885			2172	2172	657		94
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	150			245	255				180	
Storage Blk Time (%)		6	0	0		0		0	0	
Queuing Penalty (veh)		0	0	0		0		0	0	

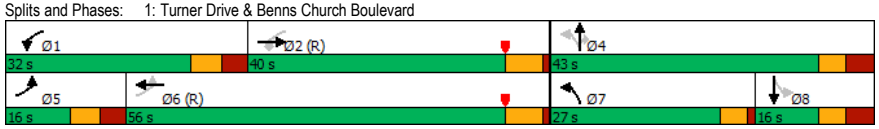
Network Summary

Network wide Queuing Penalty: 27

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	850	354	272	648	47	252	0	304	1	42	3
Future Volume (vph)	9	850	354	272	648	47	252	0	304	1	42	3
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.990				0.850		0.992	
Flt Protected	0.950			0.950				0.950			0.999	
Satd. Flow (prot)	1770	3406	1615	1805	3415	0	0	1787	1599	0	1845	0
Flt Permitted	0.325			0.187				0.726			0.994	
Satd. Flow (perm)	605	3406	1615	355	3415	0	0	1366	1599	0	1836	0
Satd. Flow (RTOR)			373		8				320		2	
Adj. Flow (vph)	9	895	373	286	682	49	265	0	320	1	44	3
Lane Group Flow (vph)	9	895	373	286	731	0	0	265	320	0	48	0
Turn Type	D.P+P	NA	Perm	D.P+P	NA		pm+pt	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6		7	4			8	
Permitted Phases	6		2	2			4		4	8		
Total Split (s)	16.0	40.0	40.0	32.0	56.0		27.0	43.0	43.0	16.0	16.0	
Total Lost Time (s)	7.5	6.0	6.0	7.5	6.0			7.5	7.5		7.5	
Act Effct Green (s)	68.7	45.3	45.3	62.7	68.9			29.8	29.8		29.8	
Actuated g/C Ratio	0.60	0.39	0.39	0.55	0.60			0.26	0.26		0.26	
v/c Ratio	0.02	0.67	0.43	0.66	0.36			0.75	0.49		0.10	
Control Delay	12.3	27.1	4.0	23.8	13.9			52.1	6.0		29.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0	0.0		0.0	
Total Delay	12.3	27.1	4.0	23.8	13.9			52.1	6.0		29.3	
LOS	B	C	A	C	B			D	A		C	
Approach Delay		20.2			16.7			26.9			29.3	
Approach LOS		C			B			C			C	

Intersection Summary			
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 42 (37%), Referenced to phase 2:EBWB and 6:EBWB, Start of Yellow			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.75			
Intersection Signal Delay: 20.5		Intersection LOS: C	
Intersection Capacity Utilization 76.7%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 1: Turner Drive & Benns Church Boulevard



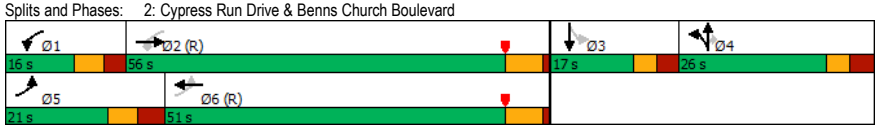
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	850	354	272	648	47	252	0	304	1	42	3
Future Volume (vph)	9	850	354	272	648	47	252	0	304	1	42	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	6.0	6.0	7.5	6.0			7.5	7.5		7.5	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95			1.00	1.00		1.00	
Frt	1.00	1.00	0.85	1.00	0.99			1.00	0.85		0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00		1.00	
Satd. Flow (prot)	1770	3406	1615	1805	3414			1787	1599		1844	
Flt Permitted	0.33	1.00	1.00	0.19	1.00			0.73	1.00		0.99	
Satd. Flow (perm)	606	3406	1615	355	3414			1365	1599		1835	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	9	895	373	286	682	49	265	0	320	1	44	3
RTOR Reduction (vph)	0	0	226	0	4	0	0	0	237	0	1	0
Lane Group Flow (vph)	9	895	147	286	727	0	0	265	83	0	47	0
Heavy Vehicles (%)	2%	6%	0%	0%	5%	0%	1%	0%	1%	0%	0%	33%
Turn Type	D.P+P	NA	Perm	D.P+P	NA		pm+pt	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6		7	4			8	
Permitted Phases	6		2	2			4		4	8		
Actuated Green, G (s)	64.2	45.3	45.3	64.2	62.9			29.8	29.8		29.8	
Effective Green, g (s)	64.2	45.3	45.3	64.2	62.9			29.8	29.8		29.8	
Actuated g/C Ratio	0.56	0.39	0.39	0.56	0.55			0.26	0.26		0.26	
Clearance Time (s)	7.5	6.0	6.0	7.5	6.0			7.5	7.5		7.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)	351	1341	636	436	1867			353	414		475	
v/s Ratio Prot	0.00	c0.26		c0.11	0.21							
v/s Ratio Perm	0.01		0.09	0.26				c0.19	0.05		0.03	
v/c Ratio	0.03	0.67	0.23	0.66	0.39			0.75	0.20		0.10	
Uniform Delay, d1	11.6	28.7	23.2	16.2	15.0			39.2	33.3		32.4	
Progression Factor	1.11	0.78	0.79	1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	0.0	2.3	0.7	3.5	0.6			8.7	0.2		0.1	
Delay (s)	12.8	24.7	19.1	19.8	15.6			47.9	33.5		32.5	
Level of Service	B	C	B	B	B			D	C		C	
Approach Delay (s)		23.0			16.8			40.0			32.5	
Approach LOS		C			B			D			C	

Intersection Summary				
HCM 2000 Control Delay	24.4	HCM 2000 Level of Service	C	
HCM 2000 Volume to Capacity ratio	0.73			
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	25.5	
Intersection Capacity Utilization	76.7%	ICU Level of Service	D	
Analysis Period (min)	15			
c Critical Lane Group				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	1295	30	45	856	2	15	0	38	2	0	0
Future Volume (vph)	3	1295	30	45	856	2	15	0	38	2	0	0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850						0.850			
Flt Protected	0.950			0.950				0.950			0.950	
Satd. Flow (prot)	1805	3471	1509	1641	3374	0	0	1492	1495	0	1203	0
Flt Permitted	0.293			0.152				0.950				
Satd. Flow (perm)	557	3471	1509	263	3374	0	0	1492	1495	0	1267	0
Satd. Flow (RTOR)			157						152			
Adj. Flow (vph)	3	1349	31	47	892	2	16	0	40	2	0	0
Lane Group Flow (vph)	3	1349	31	47	894	0	0	16	40	0	2	0
Turn Type	D.P+P	NA	Perm	D.P+P	NA		Split	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6		4	4			3	
Permitted Phases	6		2	2					4	3		
Total Split (s)	21.0	56.0	56.0	16.0	51.0		26.0	26.0	26.0	17.0	17.0	
Total Lost Time (s)	7.5	6.0	6.0	7.0	6.0			6.5	6.5		6.0	
Act Effct Green (s)	91.8	85.2	85.2	88.2	93.4			7.5	7.5		7.3	
Actuated g/C Ratio	0.80	0.74	0.74	0.77	0.81			0.07	0.07		0.06	
v/c Ratio	0.01	0.52	0.03	0.17	0.33			0.17	0.17		0.03	
Control Delay	4.7	10.3	0.0	6.4	6.0			54.5	1.5		51.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0	0.0		0.0	
Total Delay	4.7	10.3	0.0	6.4	6.0			54.5	1.5		51.0	
LOS	A	B	A	A	A			D	A		D	
Approach Delay		10.1			6.0			16.7			51.0	
Approach LOS		B			A			B			D	

Intersection Summary			
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 38 (33%), Referenced to phase 2:EBWB and 6:EBWB, Start of Yellow			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.52			
Intersection Signal Delay: 8.7		Intersection LOS: A	
Intersection Capacity Utilization 62.9%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 2: Cypress Run Drive & Benns Church Boulevard



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	1295	30	45	856	2	15	0	38	2	0	0
Future Volume (vph)	3	1295	30	45	856	2	15	0	38	2	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	6.0	6.0	7.0	6.0			6.5	6.5		6.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95			1.00	1.00		1.00	
Frt	1.00	1.00	0.85	1.00	1.00			1.00	0.85		1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.95	
Satd. Flow (prot)	1805	3471	1509	1641	3373			1492	1495		1203	
Flt Permitted	0.29	1.00	1.00	0.15	1.00			0.95	1.00		1.00	
Satd. Flow (perm)	557	3471	1509	262	3373			1492	1495		1267	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	3	1349	31	47	892	2	16	0	40	2	0	0
RTOR Reduction (vph)	0	0	10	0	0	0	0	0	38	0	0	0
Lane Group Flow (vph)	3	1349	21	47	894	0	0	16	2	0	2	0
Heavy Vehicles (%)	0%	4%	7%	10%	7%	0%	21%	0%	8%	50%	0%	0%
Turn Type	D.P+P	NA	Perm	D.P+P	NA		Split	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6		4	4			3	
Permitted Phases	6		2	2					4	3		
Actuated Green, G (s)	81.2	76.5	76.5	81.7	80.0			6.1	6.1		1.7	
Effective Green, g (s)	81.2	76.5	76.5	81.7	80.0			6.1	6.1		1.7	
Actuated g/C Ratio	0.71	0.67	0.67	0.71	0.70			0.05	0.05		0.01	
Clearance Time (s)	7.5	6.0	6.0	7.0	6.0			6.5	6.5		6.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)	406	2308	1003	248	2346			79	79		18	
v/s Ratio Prot	0.00	c0.39		c0.01	c0.27			c0.01				
v/s Ratio Perm	0.01		0.01	0.13					0.00		c0.00	
v/c Ratio	0.01	0.58	0.02	0.19	0.38			0.20	0.03		0.11	
Uniform Delay, d1	5.2	10.5	6.5	6.8	7.2			52.1	51.6		55.9	
Progression Factor	1.00	1.00	1.00	1.32	1.09			1.00	1.00		1.00	
Incremental Delay, d2	0.0	1.1	0.0	0.3	0.4			1.3	0.1		2.7	
Delay (s)	5.2	11.6	6.6	9.3	8.3			53.4	51.8		58.6	
Level of Service	A	B	A	A	A			D	D		E	
Approach Delay (s)		11.5			8.4			52.2			58.6	
Approach LOS		B			A			D			E	

Intersection Summary				
HCM 2000 Control Delay	11.3	HCM 2000 Level of Service	B	
HCM 2000 Volume to Capacity ratio	0.53			
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	26.0	
Intersection Capacity Utilization	62.9%	ICU Level of Service	B	
Analysis Period (min)	15			
c Critical Lane Group				

Intersection: 1: Turner Drive & Benns Church Boulevard

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	LT	R	LTR
Maximum Queue (ft)	117	330	363	280	129	324	288	314	254	91
Average Queue (ft)	11	182	181	98	114	156	123	158	92	32
95th Queue (ft)	60	297	303	223	151	288	236	268	197	75
Link Distance (ft)		2172	2172			1930	1930	919		114
Upstream Blk Time (%)										0
Queuing Penalty (veh)										0
Storage Bay Dist (ft)	140			280	130				305	
Storage Blk Time (%)	0	17	1	0	13	7		0	0	
Queuing Penalty (veh)	0	2	4	1	44	20		1	0	

Intersection: 2: Cypress Run Drive & Benns Church Boulevard

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	LT	R	LTR
Maximum Queue (ft)	20	201	183	41	91	102	113	82	68	48
Average Queue (ft)	1	49	43	3	28	19	25	16	21	4
95th Queue (ft)	10	136	122	19	67	67	80	55	51	25
Link Distance (ft)		885	885			2172	2172	657		94
Upstream Blk Time (%)										0
Queuing Penalty (veh)										0
Storage Bay Dist (ft)	150			245	255				180	
Storage Blk Time (%)		0	0							
Queuing Penalty (veh)		0	0							

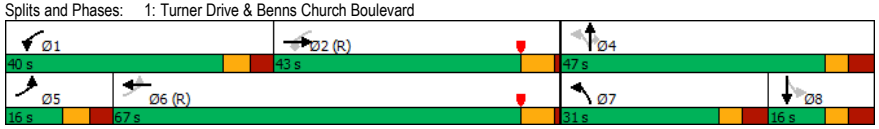
Network Summary

Network wide Queuing Penalty: 71

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	1046	141	207	1223	6	186	0	149	2	1	4
Future Volume (vph)	26	1046	141	207	1223	6	186	0	149	2	1	4
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.999				0.850		0.923	
Flt Protected	0.950			0.950				0.950			0.986	
Satd. Flow (prot)	1787	3539	1615	1805	3536	0	0	1787	1568	0	1729	0
Flt Permitted	0.140			0.155				0.753			0.932	
Satd. Flow (perm)	263	3539	1615	294	3536	0	0	1417	1568	0	1634	0
Satd. Flow (RTOR)			227						157		4	
Adj. Flow (vph)	27	1101	148	218	1287	6	196	0	157	2	1	4
Lane Group Flow (vph)	27	1101	148	218	1293	0	0	196	157	0	7	0
Turn Type	D.P+P	NA	Perm	D.P+P	NA		pm+pt	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6		7	4			8	
Permitted Phases	6		2	2			4		4	8		
Total Split (s)	16.0	43.0	43.0	40.0	67.0		31.0	47.0	47.0	16.0	16.0	
Total Lost Time (s)	7.5	6.0	6.0	7.5	6.0			7.5	7.5		7.5	
Act Effct Green (s)	82.0	63.5	63.5	79.0	79.5			28.5	28.5		28.5	
Actuated g/C Ratio	0.63	0.49	0.49	0.61	0.61			0.22	0.22		0.22	
v/c Ratio	0.11	0.64	0.16	0.58	0.60			0.63	0.34		0.02	
Control Delay	8.5	17.3	0.5	19.4	19.8			54.0	7.2		25.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0	0.0		0.0	
Total Delay	8.5	17.3	0.5	19.4	19.8			54.0	7.2		25.1	
LOS	A	B	A	B	B			D	A		C	
Approach Delay		15.1			19.7			33.2			25.1	
Approach LOS		B			B			C			C	

Intersection Summary			
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 49 (38%), Referenced to phase 2:EBWB and 6:EBWB, Start of Yellow			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.64			
Intersection Signal Delay: 19.4		Intersection LOS: B	
Intersection Capacity Utilization 74.9%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 1: Turner Drive & Benns Church Boulevard



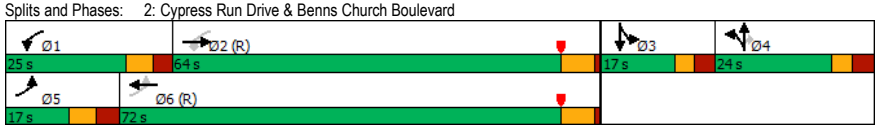
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	1046	141	207	1223	6	186	0	149	2	1	4
Future Volume (vph)	26	1046	141	207	1223	6	186	0	149	2	1	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	6.0	6.0	7.5	6.0			7.5	7.5		7.5	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95			1.00	1.00		1.00	
Frt	1.00	1.00	0.85	1.00	1.00			1.00	0.85		0.92	
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.99	
Satd. Flow (prot)	1787	3539	1615	1805	3537			1787	1568		1729	
Flt Permitted	0.14	1.00	1.00	0.15	1.00			0.75	1.00		0.93	
Satd. Flow (perm)	263	3539	1615	294	3537			1417	1568		1633	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	27	1101	148	218	1287	6	196	0	157	2	1	4
RTOR Reduction (vph)	0	0	76	0	0	0	0	0	123	0	3	0
Lane Group Flow (vph)	27	1101	72	218	1293	0	0	196	34	0	4	0
Heavy Vehicles (%)	1%	2%	0%	0%	2%	0%	1%	0%	3%	0%	0%	0%
Turn Type	D.P+P	NA	Perm	D.P+P	NA		pm+pt	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6		7	4			8	
Permitted Phases	6		2	2			4		4	8		
Actuated Green, G (s)	80.5	63.5	63.5	80.5	76.5			28.5	28.5		28.5	
Effective Green, g (s)	80.5	63.5	63.5	80.5	76.5			28.5	28.5		28.5	
Actuated g/C Ratio	0.62	0.49	0.49	0.62	0.59			0.22	0.22		0.22	
Clearance Time (s)	7.5	6.0	6.0	7.5	6.0			7.5	7.5		7.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)	209	1728	788	379	2081			310	343		358	
v/s Ratio Prot	0.00	0.31		c0.08	c0.37							
v/s Ratio Perm	0.08		0.04	0.28				c0.14	0.02		0.00	
v/c Ratio	0.13	0.64	0.09	0.58	0.62			0.63	0.10		0.01	
Uniform Delay, d1	12.5	24.7	17.8	15.2	17.4			46.0	40.5		39.7	
Progression Factor	0.78	0.55	1.49	1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	0.3	1.6	0.2	2.1	1.4			4.2	0.1		0.0	
Delay (s)	9.9	15.2	26.7	17.3	18.8			50.2	40.6		39.7	
Level of Service	A	B	C	B	B			D	D		D	
Approach Delay (s)		16.4			18.6			45.9			39.7	
Approach LOS		B			B			D			D	

Intersection Summary				
HCM 2000 Control Delay	20.8	HCM 2000 Level of Service	C	
HCM 2000 Volume to Capacity ratio	0.70			
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	28.5	
Intersection Capacity Utilization	74.9%	ICU Level of Service	D	
Analysis Period (min)	15			
c Critical Lane Group				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	1101	115	192	1221	0	99	0	95	0	4	0
Future Volume (vph)	3	1101	115	192	1221	0	99	0	95	0	4	0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850						0.850			
Flt Protected	0.950			0.950				0.950				
Satd. Flow (prot)	1805	3471	1553	1805	3539	0	0	1805	1615	0	1900	0
Flt Permitted	0.180			0.191				0.950				
Satd. Flow (perm)	342	3471	1553	363	3539	0	0	1805	1615	0	1900	0
Satd. Flow (RTOR)			201						197			
Adj. Flow (vph)	3	1123	117	196	1246	0	101	0	97	0	4	0
Lane Group Flow (vph)	3	1123	117	196	1246	0	0	101	97	0	4	0
Turn Type	D.P+P	NA	Perm	D.P+P	NA		Split	NA	Perm		NA	
Protected Phases	5	2		1	6		4	4		3	3	
Permitted Phases	6		2	2					4			
Total Split (s)	17.0	64.0	64.0	25.0	72.0		24.0	24.0	24.0	17.0	17.0	
Total Lost Time (s)	7.5	6.0	6.0	7.0	6.0			6.5	6.5		6.0	
Act Effct Green (s)	99.3	83.3	83.3	94.3	99.7			12.6	12.6		7.0	
Actuated g/C Ratio	0.76	0.64	0.64	0.73	0.77			0.10	0.10		0.05	
v/c Ratio	0.01	0.51	0.11	0.49	0.46			0.58	0.29		0.04	
Control Delay	6.0	15.5	0.2	16.4	13.5			68.7	2.2		59.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0	0.0		0.0	
Total Delay	6.0	15.5	0.2	16.4	13.5			68.7	2.2		59.2	
LOS	A	B	A	B	B			E	A		E	
Approach Delay		14.1			13.9			36.1			59.3	
Approach LOS		B			B			D			E	

Intersection Summary			
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 35 (27%), Referenced to phase 2:EBWB and 6:EBWB, Start of Yellow			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.58			
Intersection Signal Delay: 15.6		Intersection LOS: B	
Intersection Capacity Utilization 69.5%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 2: Cypress Run Drive & Benns Church Boulevard



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	1101	115	192	1221	0	99	0	95	0	4	0
Future Volume (vph)	3	1101	115	192	1221	0	99	0	95	0	4	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	6.0	6.0	7.0	6.0			6.5	6.5		6.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95			1.00	1.00		1.00	
Frt	1.00	1.00	0.85	1.00	1.00			1.00	0.85		1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00		1.00	
Satd. Flow (prot)	1805	3471	1553	1805	3539			1805	1615		1900	
Flt Permitted	0.18	1.00	1.00	0.19	1.00			0.95	1.00		1.00	
Satd. Flow (perm)	341	3471	1553	364	3539			1805	1615		1900	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	3	1123	117	196	1246	0	101	0	97	0	4	0
RTOR Reduction (vph)	0	0	46	0	0	0	0	0	88	0	0	0
Lane Group Flow (vph)	3	1123	71	196	1246	0	0	101	9	0	4	0
Heavy Vehicles (%)	0%	4%	4%	0%	2%	0%	0%	0%	0%	0%	0%	0%
Turn Type	D.P+P	NA	Perm	D.P+P	NA		Split	NA	Perm		NA	
Protected Phases	5	2		1	6		4	4		3	3	
Permitted Phases	6		2	2					4			
Actuated Green, G (s)	90.0	78.4	78.4	90.5	88.8			12.6	12.6		1.4	
Effective Green, g (s)	90.0	78.4	78.4	90.5	88.8			12.6	12.6		1.4	
Actuated g/C Ratio	0.69	0.60	0.60	0.70	0.68			0.10	0.10		0.01	
Clearance Time (s)	7.5	6.0	6.0	7.0	6.0			6.5	6.5		6.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)	249	2093	936	387	2417			174	156		20	
v/s Ratio Prot	0.00	c0.32		c0.05	c0.35			c0.06			c0.00	
v/s Ratio Perm	0.01		0.05	0.31					0.01			
v/c Ratio	0.01	0.54	0.08	0.51	0.52			0.58	0.06		0.20	
Uniform Delay, d1	7.4	15.1	10.7	9.1	10.1			56.2	53.3		63.7	
Progression Factor	1.00	1.00	1.00	2.46	1.72			1.00	1.00		1.00	
Incremental Delay, d2	0.0	1.0	0.2	0.9	0.6			4.9	0.2		4.9	
Delay (s)	7.4	16.1	10.9	23.4	18.0			61.0	53.5		68.6	
Level of Service	A	B	B	C	B			E	D		E	
Approach Delay (s)		15.6			18.7			57.3			68.6	
Approach LOS		B			B			E			E	

Intersection Summary					
HCM 2000 Control Delay		20.1	HCM 2000 Level of Service		C
HCM 2000 Volume to Capacity ratio		0.55			
Actuated Cycle Length (s)		130.0	Sum of lost time (s)		26.0
Intersection Capacity Utilization		69.5%	ICU Level of Service		C
Analysis Period (min)		15			
c Critical Lane Group					

Intersection: 1: Turner Drive & Benns Church Boulevard

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	LT	R	LTR
Maximum Queue (ft)	100	240	256	105	129	418	385	256	166	29
Average Queue (ft)	19	119	121	27	104	179	160	126	53	6
95th Queue (ft)	59	203	207	72	153	332	307	213	117	25
Link Distance (ft)		2172	2172			1930	1930	919		114
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	140			280	130				305	
Storage Blk Time (%)	0	6	0	0	9	9		0	0	
Queuing Penalty (veh)	0	2	0	0	55	19		0	0	

Intersection: 2: Cypress Run Drive & Benns Church Boulevard

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	LT	R	LTR
Maximum Queue (ft)	48	301	289	128	201	253	276	192	132	39
Average Queue (ft)	3	157	127	25	85	92	110	74	32	4
95th Queue (ft)	30	275	243	80	154	199	219	144	78	20
Link Distance (ft)		885	885			2172	2172	657		94
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	150			245	255				180	
Storage Blk Time (%)	0	8	0	0	0	0		1	0	
Queuing Penalty (veh)	0	0	0	0	0	0		1	0	

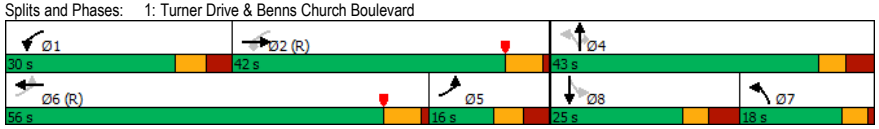
Network Summary

Network wide Queuing Penalty: 78

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	877	379	374	584	47	354	0	317	1	42	3
Future Volume (vph)	9	877	379	374	584	47	354	0	317	1	42	3
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.989				0.850		0.992	
Flt Protected	0.950			0.950				0.950			0.999	
Satd. Flow (prot)	1770	3406	1615	1770	3412	0	0	1787	1599	0	1845	0
Flt Permitted	0.349			0.125				0.726			0.993	
Satd. Flow (perm)	650	3406	1615	233	3412	0	0	1366	1599	0	1834	0
Satd. Flow (RTOR)			399		9				334		2	
Adj. Flow (vph)	9	923	399	394	615	49	373	0	334	1	44	3
Lane Group Flow (vph)	9	923	399	394	664	0	0	373	334	0	48	0
Turn Type	D.P+P	NA	Perm	D.P+P	NA		pm+pt	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6		7	4			8	
Permitted Phases	6		2	2			4		4	8		
Total Split (s)	16.0	42.0	42.0	30.0	56.0		18.0	43.0	43.0	25.0	25.0	
Total Lost Time (s)	7.5	6.0	6.0	7.5	6.0			7.5	7.5		7.5	
Act Effct Green (s)	65.2	37.8	37.8	59.2	65.0			33.3	33.3		33.3	
Actuated g/C Ratio	0.57	0.33	0.33	0.51	0.57			0.29	0.29		0.29	
v/c Ratio	0.02	0.83	0.50	0.92	0.34			0.94	0.48		0.09	
Control Delay	13.8	36.7	5.0	59.9	15.3			73.4	5.7		28.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0	0.0		0.0	
Total Delay	13.8	36.7	5.0	59.9	15.3			73.4	5.7		28.1	
LOS	B	D	A	E	B			E	A		C	
Approach Delay		27.0			31.9			41.4			28.1	
Approach LOS		C			C			D			C	

Intersection Summary			
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 2 (2%), Referenced to phase 2:EBWB and 6:EBWB, Start of Yellow			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay: 31.9		Intersection LOS: C	
Intersection Capacity Utilization 87.5%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 1: Turner Drive & Benns Church Boulevard



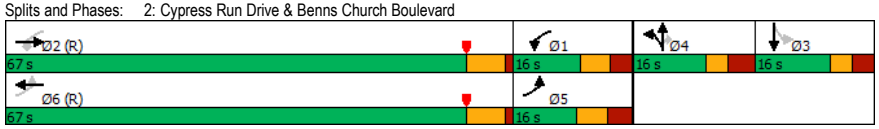
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	877	379	374	584	47	354	0	317	1	42	3
Future Volume (vph)	9	877	379	374	584	47	354	0	317	1	42	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	6.0	6.0	7.5	6.0			7.5	7.5		7.5	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95			1.00	1.00		1.00	
Frt	1.00	1.00	0.85	1.00	0.99			1.00	0.85		0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00		1.00	
Satd. Flow (prot)	1770	3406	1615	1770	3412			1787	1599		1844	
Flt Permitted	0.35	1.00	1.00	0.12	1.00			0.73	1.00		0.99	
Satd. Flow (perm)	649	3406	1615	233	3412			1365	1599		1834	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	9	923	399	394	615	49	373	0	334	1	44	3
RTOR Reduction (vph)	0	0	268	0	4	0	0	0	237	0	1	0
Lane Group Flow (vph)	9	923	131	394	660	0	0	373	97	0	47	0
Heavy Vehicles (%)	2%	6%	0%	2%	5%	0%	1%	0%	1%	0%	0%	33%
Turn Type	D.P+P	NA	Perm	D.P+P	NA		pm+pt	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6		7	4			8	
Permitted Phases	6		2	2			4		4	8		
Actuated Green, G (s)	60.7	37.8	37.8	60.7	59.0			33.3	33.3		33.3	
Effective Green, g (s)	60.7	37.8	37.8	60.7	59.0			33.3	33.3		33.3	
Actuated g/C Ratio	0.53	0.33	0.33	0.53	0.51			0.29	0.29		0.29	
Clearance Time (s)	7.5	6.0	6.0	7.5	6.0			7.5	7.5		7.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)	359	1119	530	429	1750			395	463		531	
v/s Ratio Prot	0.00	0.27		c0.18	0.19							
v/s Ratio Perm	0.01		0.08	c0.30				c0.27	0.06		0.03	
v/c Ratio	0.03	0.82	0.25	0.92	0.38			0.94	0.21		0.09	
Uniform Delay, d1	16.8	35.6	28.2	30.9	16.9			39.9	30.9		29.8	
Progression Factor	1.18	0.83	0.99	1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	0.0	6.1	1.0	24.3	0.6			31.1	0.2		0.1	
Delay (s)	19.9	35.6	28.9	55.2	17.5			71.1	31.1		29.8	
Level of Service	B	D	C	E	B			E	C		C	
Approach Delay (s)		33.5			31.6			52.2			29.8	
Approach LOS		C			C			D			C	

Intersection Summary			
HCM 2000 Control Delay	37.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	25.5
Intersection Capacity Utilization	87.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	1333	30	45	894	2	15	0	38	2	0	0
Future Volume (vph)	3	1333	30	45	894	2	15	0	38	2	0	0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850						0.850			
Flt Protected	0.950			0.950				0.950			0.950	
Satd. Flow (prot)	1805	3471	1509	1641	3374	0	0	1492	1495	0	1203	0
Flt Permitted	0.280			0.133				0.950				
Satd. Flow (perm)	532	3471	1509	230	3374	0	0	1492	1495	0	1267	0
Satd. Flow (RTOR)			161						157			
Adj. Flow (vph)	3	1389	31	47	931	2	16	0	40	2	0	0
Lane Group Flow (vph)	3	1389	31	47	933	0	0	16	40	0	2	0
Turn Type	D.P+P	NA	Perm	D.P+P	NA		Split	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6		4	4			3	
Permitted Phases	6		2	2					4	3		
Total Split (s)	16.0	67.0	67.0	16.0	67.0		16.0	16.0	16.0	16.0	16.0	
Total Lost Time (s)	7.5	6.0	6.0	7.0	6.0			6.5	6.5		6.0	
Act Effct Green (s)	92.3	86.1	86.1	88.5	93.7			7.5	7.5		7.0	
Actuated g/C Ratio	0.80	0.75	0.75	0.77	0.81			0.07	0.07		0.06	
v/c Ratio	0.01	0.53	0.03	0.19	0.34			0.17	0.16		0.03	
Control Delay	4.3	9.8	0.0	3.3	2.3			54.5	1.4		51.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0	0.0		0.0	
Total Delay	4.3	9.8	0.0	3.3	2.3			54.5	1.4		51.5	
LOS	A	A	A	A	A			D	A		D	
Approach Delay		9.6			2.3			16.6			51.5	
Approach LOS		A			A			B			D	

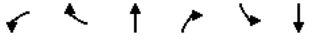
Intersection Summary			
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 19 (17%), Referenced to phase 2:EBWB and 6:EBWB, Start of Yellow			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.53			
Intersection Signal Delay: 6.9		Intersection LOS: A	
Intersection Capacity Utilization 63.9%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 2: Cypress Run Drive & Benns Church Boulevard



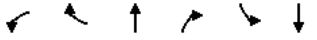
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	1333	30	45	894	2	15	0	38	2	0	0
Future Volume (vph)	3	1333	30	45	894	2	15	0	38	2	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	6.0	6.0	7.0	6.0			6.5	6.5		6.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95			1.00	1.00		1.00	
Frt	1.00	1.00	0.85	1.00	1.00			1.00	0.85		1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.95	
Satd. Flow (prot)	1805	3471	1509	1641	3373			1492	1495		1203	
Flt Permitted	0.28	1.00	1.00	0.13	1.00			0.95	1.00		1.00	
Satd. Flow (perm)	531	3471	1509	230	3373			1492	1495		1267	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	3	1389	31	47	931	2	16	0	40	2	0	0
RTOR Reduction (vph)	0	0	11	0	0	0	0	0	38	0	0	0
Lane Group Flow (vph)	3	1389	20	47	933	0	0	16	2	0	2	0
Heavy Vehicles (%)	0%	4%	7%	10%	7%	0%	21%	0%	8%	50%	0%	0%
Turn Type	D.P+P	NA	Perm	D.P+P	NA		Split	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6		4	4			3	
Permitted Phases	6		2	2					4	3		
Actuated Green, G (s)	81.5	72.8	72.8	82.0	80.4			6.1	6.1		1.4	
Effective Green, g (s)	81.5	72.8	72.8	82.0	80.4			6.1	6.1		1.4	
Actuated g/C Ratio	0.71	0.63	0.63	0.71	0.70			0.05	0.05		0.01	
Clearance Time (s)	7.5	6.0	6.0	7.0	6.0			6.5	6.5		6.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)	388	2197	955	276	2358			79	79		15	
v/s Ratio Prot	0.00	c0.40		c0.01	c0.28			c0.01				
v/s Ratio Perm	0.01		0.01	0.11					0.00		c0.00	
v/c Ratio	0.01	0.63	0.02	0.17	0.40			0.20	0.03		0.13	
Uniform Delay, d1	7.2	12.9	7.8	15.8	7.2			52.1	51.6		56.2	
Progression Factor	1.00	1.00	1.00	0.34	0.40			1.00	1.00		1.00	
Incremental Delay, d2	0.0	1.4	0.0	0.2	0.4			1.3	0.1		4.0	
Delay (s)	7.2	14.3	7.9	5.6	3.3			53.4	51.8		60.2	
Level of Service	A	B	A	A	A			D	D		E	
Approach Delay (s)		14.2			3.4			52.2			60.2	
Approach LOS		B			A			D			E	

Intersection Summary					
HCM 2000 Control Delay	10.8	HCM 2000 Level of Service	B		
HCM 2000 Volume to Capacity ratio	0.56				
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	26.0		
Intersection Capacity Utilization	63.9%	ICU Level of Service	B		
Analysis Period (min)	15				
c Critical Lane Group					



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	19	146	525	51	127	668
Future Volume (vph)	19	146	525	51	127	668
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.881		0.988			
Flt Protected	0.994				0.950	
Satd. Flow (prot)	1647	0	1840	0	1787	1881
Flt Permitted	0.994				0.950	
Satd. Flow (perm)	1647	0	1840	0	1787	1881
Adj. Flow (vph)	20	154	553	54	134	703
Lane Group Flow (vph)	174	0	607	0	134	703
Sign Control	Stop		Free			Free

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 57.8%		ICU Level of Service B	
Analysis Period (min) 15			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	19	146	525	51	127	668
Future Volume (Veh/h)	19	146	525	51	127	668
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	20	154	553	54	134	703
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						450
pX, platoon unblocked	0.82					
vC, conflicting volume	1551	580			607	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1562	580			607	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	77	70			86	
cM capacity (veh/h)	88	516			976	

Direction, Lane #	WB 1	NB 1	SB 1	SB 2
Volume Total	174	607	134	703
Volume Left	20	0	134	0
Volume Right	154	54	0	0
cSH	331	1700	976	1700
Volume to Capacity	0.53	0.36	0.14	0.41
Queue Length 95th (ft)	72	0	12	0
Control Delay (s)	27.3	0.0	9.3	0.0
Lane LOS	D		A	
Approach Delay (s)	27.3	0.0	1.5	
Approach LOS	D			

Intersection Summary				
Average Delay		3.7		
Intersection Capacity Utilization		57.8%	ICU Level of Service	B
Analysis Period (min)		15		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1119	76	0	1005	0	89
Future Volume (vph)	1119	76	0	1005	0	89
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt		0.850				0.865
Flt Protected						
Satd. Flow (prot)	3471	1615	0	3438	0	1611
Flt Permitted						
Satd. Flow (perm)	3471	1615	0	3438	0	1611
Adj. Flow (vph)	1178	80	0	1058	0	94
Lane Group Flow (vph)	1178	80	0	1058	0	94
Sign Control	Free			Free	Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 43.1%		ICU Level of Service A	
Analysis Period (min) 15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1119	76	0	1005	0	89
Future Volume (Veh/h)	1119	76	0	1005	0	89
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	1178	80	0	1058	0	94
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	Raised			Raised		
Median storage veh)	1			1		
Upstream signal (ft)	431					
pX, platoon unblocked			0.76		0.76	0.76
vC, conflicting volume			1258		1707	589
vC1, stage 1 conf vol					1178	
vC2, stage 2 conf vol					529	
vCu, unblocked vol			700		1293	0
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	89
cM capacity (veh/h)			686		260	821

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1
Volume Total	589	589	80	529	529	94
Volume Left	0	0	0	0	0	0
Volume Right	0	0	80	0	0	94
cSH	1700	1700	1700	1700	1700	821
Volume to Capacity	0.35	0.35	0.05	0.31	0.31	0.11
Queue Length 95th (ft)	0	0	0	0	0	10
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	9.9
Lane LOS						A
Approach Delay (s)	0.0			0.0		9.9
Approach LOS						A

Intersection Summary				
Average Delay	0.4			
Intersection Capacity Utilization	43.1%	ICU Level of Service		A
Analysis Period (min)	15			

Intersection: 1: Turner Drive & Benns Church Boulevard

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	LT	R	LTR
Maximum Queue (ft)	109	360	397	280	352	371	314	354	250	90
Average Queue (ft)	12	220	229	131	241	161	125	281	197	34
95th Queue (ft)	63	329	356	273	376	364	279	412	323	72
Link Distance (ft)		2164	2164			355	355	340		116
Upstream Blk Time (%)					5	6	0	12		0
Queuing Penalty (veh)					0	31	1	82		0
Storage Bay Dist (ft)	140			280	450				250	
Storage Blk Time (%)	0	27	2	0	5	6		22	2	
Queuing Penalty (veh)	0	2	9	1	15	23		69	5	

Intersection: 2: Cypress Run Drive & Benns Church Boulevard

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	LT	R	LTR
Maximum Queue (ft)	22	167	190	36	86	67	85	58	73	31
Average Queue (ft)	2	43	42	3	28	11	17	14	22	2
95th Queue (ft)	13	121	126	18	67	43	56	46	54	17
Link Distance (ft)		890	890			2164	2164	641		181
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	150			245	255				180	
Storage Blk Time (%)		0	0							
Queuing Penalty (veh)		0	0							

Intersection: 3: Proposed Driveway & Turner Drive

Movement	WB	NB	SB
Directions Served	LR	TR	L
Maximum Queue (ft)	125	301	73
Average Queue (ft)	82	79	36
95th Queue (ft)	138	264	64
Link Distance (ft)	102	358	
Upstream Blk Time (%)	31	2	
Queuing Penalty (veh)	0	0	
Storage Bay Dist (ft)			200
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: Proposed Driveway & Benns Church Boulevard

Movement	WB	WB	NB
Directions Served	T	T	R
Maximum Queue (ft)	184	128	84
Average Queue (ft)	35	20	35
95th Queue (ft)	185	136	68
Link Distance (ft)	1102	1102	79
Upstream Blk Time (%)			1
Queuing Penalty (veh)			0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

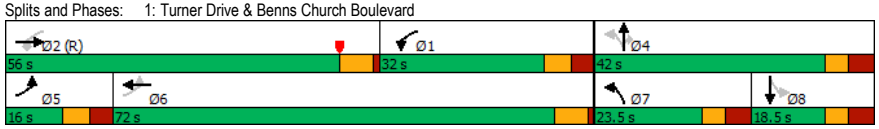
Network Summary

Network wide Queuing Penalty: 239

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	1053	161	286	1172	6	264	0	158	2	1	4
Future Volume (vph)	26	1053	161	286	1172	6	264	0	158	2	1	4
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.999				0.850		0.923	
Flt Protected	0.950			0.950				0.950			0.986	
Satd. Flow (prot)	1805	3539	1615	1787	3536	0	0	1787	1568	0	1729	0
Flt Permitted	0.136			0.085				0.609			0.839	
Satd. Flow (perm)	258	3539	1615	160	3536	0	0	1146	1568	0	1471	0
Satd. Flow (RTOR)			164		1				166		4	
Adj. Flow (vph)	27	1108	169	301	1234	6	278	0	166	2	1	4
Lane Group Flow (vph)	27	1108	169	301	1240	0	0	278	166	0	7	0
Turn Type	D.P+P	NA	Perm	D.P+P	NA		pm+pt	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6		7	4			8	
Permitted Phases	6		2	2			4		4	8		
Total Split (s)	16.0	56.0	56.0	32.0	72.0		23.5	42.0	42.0	18.5	18.5	
Total Lost Time (s)	7.5	6.0	6.0	7.5	6.0			7.5	7.5		7.5	
Act Effct Green (s)	76.0	50.0	50.0	73.0	73.5			34.5	34.5		11.0	
Actuated g/C Ratio	0.58	0.38	0.38	0.56	0.57			0.27	0.27		0.08	
v/c Ratio	0.12	0.81	0.23	0.76	0.62			0.73	0.31		0.05	
Control Delay	8.3	28.5	5.1	55.0	21.7			54.0	7.0		41.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0	0.0		0.0	
Total Delay	8.3	28.5	5.1	55.0	21.7			54.0	7.0		41.6	
LOS	A	C	A	E	C			D	A		D	
Approach Delay		25.0			28.2			36.4			41.6	
Approach LOS		C			C			D			D	

Intersection Summary			
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 42 (32%), Referenced to phase 2:EBWB, Start of Yellow			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.81			
Intersection Signal Delay: 28.1		Intersection LOS: C	
Intersection Capacity Utilization 83.7%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 1: Turner Drive & Benns Church Boulevard



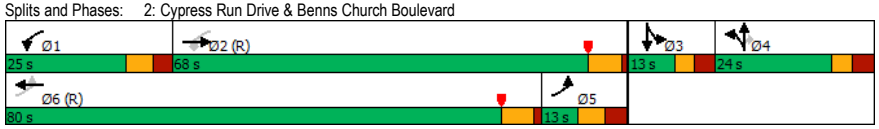
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	1053	161	286	1172	6	264	0	158	2	1	4
Future Volume (vph)	26	1053	161	286	1172	6	264	0	158	2	1	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	6.0	6.0	7.5	6.0			7.5	7.5		7.5	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95			1.00	1.00		1.00	
Frt	1.00	1.00	0.85	1.00	1.00			1.00	0.85		0.92	
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.99	
Satd. Flow (prot)	1805	3539	1615	1787	3537			1787	1568		1729	
Flt Permitted	0.14	1.00	1.00	0.09	1.00			0.61	1.00		0.84	
Satd. Flow (perm)	259	3539	1615	160	3537			1146	1568		1471	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	27	1108	169	301	1234	6	278	0	166	2	1	4
RTOR Reduction (vph)	0	0	105	0	0	0	0	0	122	0	4	0
Lane Group Flow (vph)	27	1108	64	301	1240	0	0	278	44	0	3	0
Heavy Vehicles (%)	0%	2%	0%	1%	2%	0%	1%	0%	3%	0%	0%	0%
Turn Type	D.P+P	NA	Perm	D.P+P	NA		pm+pt	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6		7	4			8	
Permitted Phases	6		2	2			4		4	8		
Actuated Green, G (s)	74.5	47.0	47.0	74.5	70.5			34.5	34.5		11.0	
Effective Green, g (s)	74.5	47.0	47.0	74.5	70.5			34.5	34.5		11.0	
Actuated g/C Ratio	0.57	0.36	0.36	0.57	0.54			0.27	0.27		0.08	
Clearance Time (s)	7.5	6.0	6.0	7.5	6.0			7.5	7.5		7.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)	195	1279	583	435	1918			383	416		124	
v/s Ratio Prot	0.00	c0.31		0.15	c0.35			c0.09				
v/s Ratio Perm	0.07		0.04	0.25				c0.10	0.03		0.00	
v/c Ratio	0.14	0.87	0.11	0.69	0.65			0.73	0.11		0.03	
Uniform Delay, d1	15.2	38.6	27.6	39.9	21.0			43.4	36.1		54.6	
Progression Factor	0.74	0.65	1.02	1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	0.3	7.3	0.3	4.7	1.7			11.4	0.5		0.4	
Delay (s)	11.5	32.3	28.6	44.6	22.7			54.8	36.6		55.0	
Level of Service	B	C	C	D	C			D	D		D	
Approach Delay (s)		31.4			27.0			48.0			55.0	
Approach LOS		C			C			D			D	

Intersection Summary				
HCM 2000 Control Delay	31.6	HCM 2000 Level of Service	C	
HCM 2000 Volume to Capacity ratio	0.84			
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	28.5	
Intersection Capacity Utilization	83.7%	ICU Level of Service	E	
Analysis Period (min)	15			
c Critical Lane Group				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	1128	115	192	1248	0	99	0	95	0	4	0
Future Volume (vph)	3	1128	115	192	1248	0	99	0	95	0	4	0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850						0.850			
Flt Protected	0.950			0.950				0.950				
Satd. Flow (prot)	1805	3471	1553	1805	3539	0	0	1805	1615	0	1900	0
Flt Permitted	0.173			0.185				0.950				
Satd. Flow (perm)	329	3471	1553	352	3539	0	0	1805	1615	0	1900	0
Satd. Flow (RTOR)			138						197			
Adj. Flow (vph)	3	1151	117	196	1273	0	101	0	97	0	4	0
Lane Group Flow (vph)	3	1151	117	196	1273	0	0	101	97	0	4	0
Turn Type	D.P+P	NA	Perm	D.P+P	NA		Split	NA	Perm		NA	
Protected Phases	5	2		1	6		4	4		3	3	
Permitted Phases	6		2	2					4			
Total Split (s)	13.0	68.0	68.0	25.0	80.0		24.0	24.0	24.0	13.0	13.0	
Total Lost Time (s)	7.5	6.0	6.0	7.0	6.0			6.5	6.5		6.0	
Act Effct Green (s)	99.3	84.1	84.1	94.3	99.7			12.6	12.6		7.0	
Actuated g/C Ratio	0.76	0.65	0.65	0.73	0.77			0.10	0.10		0.05	
v/c Ratio	0.01	0.51	0.11	0.51	0.47			0.58	0.29		0.04	
Control Delay	6.0	15.2	1.9	9.5	5.4			68.7	2.2		59.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0	0.0		0.0	
Total Delay	6.0	15.2	1.9	9.5	5.4			68.7	2.2		59.2	
LOS	A	B	A	A	A			E	A		E	
Approach Delay		14.0			5.9			36.1			59.3	
Approach LOS		B			A			D			E	

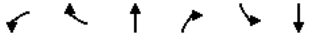
Intersection Summary			
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 0 (0%), Referenced to phase 2:EBWB and 6:EBWB, Start of Yellow			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.58			
Intersection Signal Delay: 11.5		Intersection LOS: B	
Intersection Capacity Utilization 70.2%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 2: Cypress Run Drive & Benns Church Boulevard



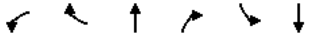
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	1128	115	192	1248	0	99	0	95	0	4	0
Future Volume (vph)	3	1128	115	192	1248	0	99	0	95	0	4	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	6.0	6.0	7.0	6.0			6.5	6.5		6.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95			1.00	1.00		1.00	
Frt	1.00	1.00	0.85	1.00	1.00			1.00	0.85		1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00		1.00	
Satd. Flow (prot)	1805	3471	1553	1805	3539			1805	1615		1900	
Flt Permitted	0.17	1.00	1.00	0.18	1.00			0.95	1.00		1.00	
Satd. Flow (perm)	329	3471	1553	351	3539			1805	1615		1900	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	3	1151	117	196	1273	0	101	0	97	0	4	0
RTOR Reduction (vph)	0	0	46	0	0	0	0	0	88	0	0	0
Lane Group Flow (vph)	3	1151	71	196	1273	0	0	101	9	0	4	0
Heavy Vehicles (%)	0%	4%	4%	0%	2%	0%	0%	0%	0%	0%	0%	0%
Turn Type	D.P+P	NA	Perm	D.P+P	NA		Split	NA	Perm		NA	
Protected Phases	5	2		1	6		4	4		3	3	
Permitted Phases	6		2	2					4			
Actuated Green, G (s)	90.0	79.2	79.2	90.5	88.9			12.6	12.6		1.4	
Effective Green, g (s)	90.0	79.2	79.2	90.5	88.9			12.6	12.6		1.4	
Actuated g/C Ratio	0.69	0.61	0.61	0.70	0.68			0.10	0.10		0.01	
Clearance Time (s)	7.5	6.0	6.0	7.0	6.0			6.5	6.5		6.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)	240	2114	946	370	2420			174	156		20	
v/s Ratio Prot	0.00	c0.33		0.05	c0.36			c0.06			c0.00	
v/s Ratio Perm	0.01		0.05	0.32					0.01			
v/c Ratio	0.01	0.54	0.08	0.53	0.53			0.58	0.06		0.20	
Uniform Delay, d1	13.2	14.9	10.4	9.3	10.1			56.2	53.3		63.7	
Progression Factor	1.00	1.00	1.00	1.09	0.64			1.00	1.00		1.00	
Incremental Delay, d2	0.0	1.0	0.2	1.1	0.6			4.9	0.2		4.9	
Delay (s)	13.2	15.9	10.6	11.2	7.2			61.0	53.5		68.6	
Level of Service	B	B	B	B	A			E	D		E	
Approach Delay (s)		15.4			7.7			57.3			68.6	
Approach LOS		B			A			E			E	

Intersection Summary					
HCM 2000 Control Delay		14.4	HCM 2000 Level of Service		B
HCM 2000 Volume to Capacity ratio		0.57			
Actuated Cycle Length (s)		130.0	Sum of lost time (s)		26.0
Intersection Capacity Utilization		70.2%	ICU Level of Service		C
Analysis Period (min)		15			
c Critical Lane Group					



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	13	114	308	39	98	350
Future Volume (vph)	13	114	308	39	98	350
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.879		0.985			
Flt Protected	0.995				0.950	
Satd. Flow (prot)	1629	0	1867	0	1805	1900
Flt Permitted	0.995				0.950	
Satd. Flow (perm)	1629	0	1867	0	1805	1900
Adj. Flow (vph)	14	120	324	41	103	368
Lane Group Flow (vph)	134	0	365	0	103	368
Sign Control	Stop		Free			Free

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 41.8%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	13	114	308	39	98	350
Future Volume (Veh/h)	13	114	308	39	98	350
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	14	120	324	41	103	368
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						450
pX, platoon unblocked	0.89					
vC, conflicting volume	918	344			365	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	849	344			365	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	95	83			91	
cM capacity (veh/h)	271	698			1205	

Direction, Lane #	WB 1	NB 1	SB 1	SB 2
Volume Total	134	365	103	368
Volume Left	14	0	103	0
Volume Right	120	41	0	0
cSH	599	1700	1205	1700
Volume to Capacity	0.22	0.21	0.09	0.22
Queue Length 95th (ft)	21	0	7	0
Control Delay (s)	12.7	0.0	8.3	0.0
Lane LOS	B		A	
Approach Delay (s)	12.7	0.0	1.8	
Approach LOS	B			

Intersection Summary				
Average Delay		2.6		
Intersection Capacity Utilization		41.8%	ICU Level of Service	A
Analysis Period (min)		15		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1154	59	0	1464	0	68
Future Volume (vph)	1154	59	0	1464	0	68
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt		0.850				0.865
Flt Protected						
Satd. Flow (prot)	3539	1615	0	3539	0	1611
Flt Permitted						
Satd. Flow (perm)	3539	1615	0	3539	0	1611
Adj. Flow (vph)	1215	62	0	1541	0	72
Lane Group Flow (vph)	1215	62	0	1541	0	72
Sign Control	Free			Free	Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 43.8%		ICU Level of Service A	
Analysis Period (min) 15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1154	59	0	1464	0	68
Future Volume (Veh/h)	1154	59	0	1464	0	68
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	1215	62	0	1541	0	72
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	Raised			Raised		
Median storage veh)	1			1		
Upstream signal (ft)	434					
pX, platoon unblocked			0.71		0.71	0.71
vC, conflicting volume			1277		1986	608
vC1, stage 1 conf vol					1215	
vC2, stage 2 conf vol					770	
vCu, unblocked vol			570		1569	0
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	91
cM capacity (veh/h)			718		226	769

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1
Volume Total	608	608	62	770	770	72
Volume Left	0	0	0	0	0	0
Volume Right	0	0	62	0	0	72
cSH	1700	1700	1700	1700	1700	769
Volume to Capacity	0.36	0.36	0.04	0.45	0.45	0.09
Queue Length 95th (ft)	0	0	0	0	0	8
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	10.2
Lane LOS						B
Approach Delay (s)	0.0			0.0		10.2
Approach LOS						B

Intersection Summary				
Average Delay	0.3			
Intersection Capacity Utilization	43.8%	ICU Level of Service		A
Analysis Period (min)	15			

Intersection: 1: Turner Drive & Benns Church Boulevard

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	LT	R	LTR
Maximum Queue (ft)	139	399	414	280	335	372	349	320	237	31
Average Queue (ft)	30	232	246	101	198	209	195	173	80	6
95th Queue (ft)	94	365	384	280	314	332	309	287	198	26
Link Distance (ft)		2169	2169			358	358	340		115
Upstream Blk Time (%)					0	1	0	0		
Queuing Penalty (veh)					0	5	1	2		
Storage Bay Dist (ft)	140			280	450				250	
Storage Blk Time (%)	0	17	4	0	0	1		2	0	
Queuing Penalty (veh)	0	4	6	2	1	2		3	0	

Intersection: 2: Cypress Run Drive & Benns Church Boulevard

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	LT	R	LTR
Maximum Queue (ft)	35	294	269	114	203	196	206	171	144	30
Average Queue (ft)	2	145	120	25	95	47	63	73	34	4
95th Queue (ft)	20	262	240	83	171	131	153	135	80	20
Link Distance (ft)		885	885			2169	2169	657		94
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	150			245	255				180	
Storage Blk Time (%)		6	0	0	0			0	0	
Queuing Penalty (veh)		0	1	0	0			0	0	

Intersection: 3: Proposed Driveway & Turner Drive

Movement	WB	NB	SB
Directions Served	LR	TR	L
Maximum Queue (ft)	94	38	69
Average Queue (ft)	44	3	24
95th Queue (ft)	77	27	55
Link Distance (ft)	102	388	
Upstream Blk Time (%)	0		
Queuing Penalty (veh)	0		
Storage Bay Dist (ft)			200
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: Proposed Driveway & Benns Church Boulevard

Movement	WB	WB	NB
Directions Served	T	T	R
Maximum Queue (ft)	68	40	83
Average Queue (ft)	4	1	30
95th Queue (ft)	43	29	64
Link Distance (ft)	1102	1102	78
Upstream Blk Time (%)			1
Queuing Penalty (veh)			0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

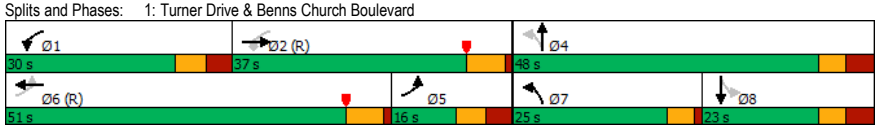
Network Summary

Network wide Queuing Penalty: 28

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	877	292	287	584	47	280	5	243	1	42	3
Future Volume (vph)	9	877	292	287	584	47	280	5	243	1	42	3
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.989			0.853			0.992	
Flt Protected	0.950			0.950			0.950				0.999	
Satd. Flow (prot)	1770	3406	1615	1805	3412	0	1787	1605	0	0	1845	0
Flt Permitted	0.353			0.158			0.620				0.983	
Satd. Flow (perm)	658	3406	1615	300	3412	0	1166	1605	0	0	1815	0
Satd. Flow (RTOR)			307		8			256			2	
Adj. Flow (vph)	9	923	307	302	615	49	295	5	256	1	44	3
Lane Group Flow (vph)	9	923	307	302	664	0	295	261	0	0	48	0
Turn Type	D.P+P	NA	Perm	D.P+P	NA		pm+pt	NA		Perm	NA	
Protected Phases	5	2		1	6		7	4			8	
Permitted Phases	6		2	2			4			8		
Total Split (s)	16.0	37.0	37.0	30.0	51.0		25.0	48.0		23.0	23.0	
Total Lost Time (s)	7.5	6.0	6.0	7.5	6.0		4.5	7.5			7.5	
Act Effct Green (s)	68.5	43.9	43.9	62.5	68.3		33.0	30.0			8.3	
Actuated g/C Ratio	0.60	0.38	0.38	0.54	0.59		0.29	0.26			0.07	
v/c Ratio	0.02	0.71	0.38	0.71	0.33		0.67	0.43			0.36	
Control Delay	11.3	29.1	3.2	29.5	14.3		41.9	6.2			55.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	
Total Delay	11.3	29.1	3.2	29.5	14.3		41.9	6.2			55.9	
LOS	B	C	A	C	B		D	A			E	
Approach Delay		22.6			19.1			25.2			55.9	
Approach LOS		C			B			C			E	

Intersection Summary			
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 112 (97%), Referenced to phase 2:EBWB and 6:EBWB, Start of Yellow			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.71			
Intersection Signal Delay: 22.5		Intersection LOS: C	
Intersection Capacity Utilization 79.8%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 1: Turner Drive & Benns Church Boulevard



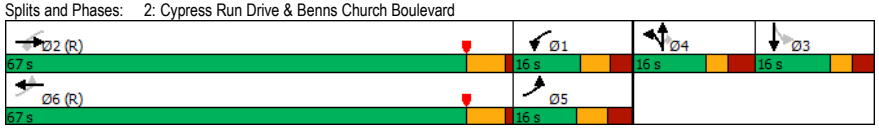
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	877	292	287	584	47	280	5	243	1	42	3
Future Volume (vph)	9	877	292	287	584	47	280	5	243	1	42	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	6.0	6.0	7.5	6.0		4.5	7.5			7.5	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	1.00			1.00	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	0.85			0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00			1.00	
Satd. Flow (prot)	1770	3406	1615	1805	3412		1787	1605			1844	
Flt Permitted	0.35	1.00	1.00	0.16	1.00		0.62	1.00			0.98	
Satd. Flow (perm)	658	3406	1615	300	3412		1166	1605			1815	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	9	923	307	302	615	49	295	5	256	1	44	3
RTOR Reduction (vph)	0	0	194	0	4	0	0	186	0	0	2	0
Lane Group Flow (vph)	9	923	113	302	660	0	295	75	0	0	46	0
Heavy Vehicles (%)	2%	6%	0%	0%	5%	0%	1%	0%	1%	0%	0%	33%
Turn Type	D.P+P	NA	Perm	D.P+P	NA		pm+pt	NA		Perm	NA	
Protected Phases	5	2		1	6		7	4			8	
Permitted Phases	6		2	2			4			8		
Actuated Green, G (s)	62.6	42.5	42.5	62.6	60.9		31.4	31.4			7.2	
Effective Green, g (s)	62.6	42.5	42.5	62.6	60.9		31.4	31.4			7.2	
Actuated g/C Ratio	0.54	0.37	0.37	0.54	0.53		0.27	0.27			0.06	
Clearance Time (s)	7.5	6.0	6.0	7.5	6.0		4.5	7.5			7.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	374	1258	596	426	1806		424	438			113	
v/s Ratio Prot	0.00	c0.27		c0.12	0.19		c0.12	0.05				
v/s Ratio Perm	0.01		0.07	0.26			c0.07				0.03	
v/c Ratio	0.02	0.73	0.19	0.71	0.37		0.70	0.17			0.41	
Uniform Delay, d1	15.5	31.4	24.6	18.3	15.8		36.5	31.9			51.9	
Progression Factor	0.97	0.76	0.55	1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2	0.0	3.4	0.6	5.3	0.6		4.9	0.2			2.4	
Delay (s)	15.2	27.3	14.1	23.7	16.4		41.4	32.1			54.2	
Level of Service	B	C	B	C	B		D	C			D	
Approach Delay (s)		24.0			18.6			37.0			54.2	
Approach LOS		C			B			D			D	

Intersection Summary					
HCM 2000 Control Delay	25.2	HCM 2000 Level of Service	C		
HCM 2000 Volume to Capacity ratio	0.75				
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	25.5		
Intersection Capacity Utilization	79.8%	ICU Level of Service	D		
Analysis Period (min)	15				
c Critical Lane Group					

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	1246	30	45	820	2	15	0	38	2	0	0
Future Volume (vph)	3	1246	30	45	820	2	15	0	38	2	0	0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850						0.850			
Flt Protected	0.950			0.950				0.950			0.950	
Satd. Flow (prot)	1805	3471	1509	1641	3374	0	0	1492	1495	0	1203	0
Flt Permitted	0.308			0.155				0.950				
Satd. Flow (perm)	585	3471	1509	268	3374	0	0	1492	1495	0	1267	0
Satd. Flow (RTOR)			161						157			
Adj. Flow (vph)	3	1298	31	47	854	2	16	0	40	2	0	0
Lane Group Flow (vph)	3	1298	31	47	856	0	0	16	40	0	2	0
Turn Type	D.P+P	NA	Perm	D.P+P	NA		Split	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6		4	4			3	
Permitted Phases	6		2	2					4	3		
Total Split (s)	16.0	67.0	67.0	16.0	67.0		16.0	16.0	16.0	16.0	16.0	
Total Lost Time (s)	7.5	6.0	6.0	7.0	6.0			6.5	6.5		6.0	
Act Effct Green (s)	92.3	86.1	86.1	88.5	93.7			7.5	7.5		7.0	
Actuated g/C Ratio	0.80	0.75	0.75	0.77	0.81			0.07	0.07		0.06	
v/c Ratio	0.01	0.50	0.03	0.17	0.31			0.17	0.16		0.03	
Control Delay	4.3	9.3	0.0	3.2	2.5			54.5	1.4		51.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0	0.0		0.0	
Total Delay	4.3	9.3	0.0	3.2	2.5			54.5	1.4		51.5	
LOS	A	A	A	A	A			D	A		D	
Approach Delay		9.1			2.6			16.6			51.5	
Approach LOS		A			A			B			D	

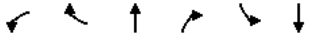
Intersection Summary			
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 10 (9%), Referenced to phase 2:EBWB and 6:EBWB, Start of Yellow			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.50			
Intersection Signal Delay: 6.7		Intersection LOS: A	
Intersection Capacity Utilization 61.5%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 2: Cypress Run Drive & Benns Church Boulevard



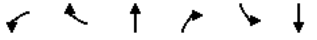
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	1246	30	45	820	2	15	0	38	2	0	0
Future Volume (vph)	3	1246	30	45	820	2	15	0	38	2	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	6.0	6.0	7.0	6.0			6.5	6.5		6.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95			1.00	1.00		1.00	
Frt	1.00	1.00	0.85	1.00	1.00			1.00	0.85		1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.95	
Satd. Flow (prot)	1805	3471	1509	1641	3373			1492	1495		1203	
Flt Permitted	0.31	1.00	1.00	0.15	1.00			0.95	1.00		1.00	
Satd. Flow (perm)	585	3471	1509	267	3373			1492	1495		1267	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	3	1298	31	47	854	2	16	0	40	2	0	0
RTOR Reduction (vph)	0	0	11	0	0	0	0	0	38	0	0	0
Lane Group Flow (vph)	3	1298	20	47	856	0	0	16	2	0	2	0
Heavy Vehicles (%)	0%	4%	7%	10%	7%	0%	21%	0%	8%	50%	0%	0%
Turn Type	D.P+P	NA	Perm	D.P+P	NA		Split	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6		4	4			3	
Permitted Phases	6		2	2					4	3		
Actuated Green, G (s)	81.5	72.8	72.8	82.0	80.4			6.1	6.1		1.4	
Effective Green, g (s)	81.5	72.8	72.8	82.0	80.4			6.1	6.1		1.4	
Actuated g/C Ratio	0.71	0.63	0.63	0.71	0.70			0.05	0.05		0.01	
Clearance Time (s)	7.5	6.0	6.0	7.0	6.0			6.5	6.5		6.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)	426	2197	955	300	2358			79	79		15	
v/s Ratio Prot	0.00	c0.37		c0.01	c0.25			c0.01				
v/s Ratio Perm	0.00		0.01	0.10					0.00		c0.00	
v/c Ratio	0.01	0.59	0.02	0.16	0.36			0.20	0.03		0.13	
Uniform Delay, d1	6.7	12.4	7.8	13.9	7.0			52.1	51.6		56.2	
Progression Factor	1.00	1.00	1.00	0.39	0.46			1.00	1.00		1.00	
Incremental Delay, d2	0.0	1.2	0.0	0.2	0.4			1.3	0.1		4.0	
Delay (s)	6.7	13.5	7.9	5.6	3.6			53.4	51.8		60.2	
Level of Service	A	B	A	A	A			D	D		E	
Approach Delay (s)		13.4			3.7			52.2			60.2	
Approach LOS		B			A			D			E	

Intersection Summary				
HCM 2000 Control Delay	10.6	HCM 2000 Level of Service	B	
HCM 2000 Volume to Capacity ratio	0.52			
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	26.0	
Intersection Capacity Utilization	61.5%	ICU Level of Service	B	
Analysis Period (min)	15			
c Critical Lane Group				



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	19	146	382	51	127	494
Future Volume (vph)	19	146	382	51	127	494
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.881		0.984			
Flt Protected	0.994				0.950	
Satd. Flow (prot)	1647	0	1833	0	1787	1881
Flt Permitted	0.994				0.950	
Satd. Flow (perm)	1647	0	1833	0	1787	1881
Adj. Flow (vph)	20	154	402	54	134	520
Lane Group Flow (vph)	174	0	456	0	134	520
Sign Control	Stop		Free			Free

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 50.3%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	19	146	382	51	127	494
Future Volume (Veh/h)	19	146	382	51	127	494
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	20	154	402	54	134	520
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						450
pX, platoon unblocked	0.90					
vC, conflicting volume	1217	429			456	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1184	429			456	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	88	75			88	
cM capacity (veh/h)	165	628			1110	

Direction, Lane #	WB 1	NB 1	SB 1	SB 2
Volume Total	174	456	134	520
Volume Left	20	0	134	0
Volume Right	154	54	0	0
cSH	475	1700	1110	1700
Volume to Capacity	0.37	0.27	0.12	0.31
Queue Length 95th (ft)	41	0	10	0
Control Delay (s)	16.9	0.0	8.7	0.0
Lane LOS	C		A	
Approach Delay (s)	16.9	0.0	1.8	
Approach LOS	C			

Intersection Summary				
Average Delay		3.2		
Intersection Capacity Utilization		50.3%	ICU Level of Service	A
Analysis Period (min)		15		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1045	76	0	918	0	89
Future Volume (vph)	1045	76	0	918	0	89
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt		0.850				0.865
Flt Protected						
Satd. Flow (prot)	3471	1615	0	3438	0	1611
Flt Permitted						
Satd. Flow (perm)	3471	1615	0	3438	0	1611
Adj. Flow (vph)	1100	80	0	966	0	94
Lane Group Flow (vph)	1100	80	0	966	0	94
Sign Control	Free			Free	Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 41.1%		ICU Level of Service A	
Analysis Period (min) 15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1045	76	0	918	0	89
Future Volume (Veh/h)	1045	76	0	918	0	89
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	1100	80	0	966	0	94
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	Raised			Raised		
Median storage veh)	1			1		
Upstream signal (ft)	431					
pX, platoon unblocked			0.77		0.77	0.77
vC, conflicting volume			1180		1583	550
vC1, stage 1 conf vol					1100	
vC2, stage 2 conf vol					483	
vCu, unblocked vol			646		1167	0
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	89
cM capacity (veh/h)			734		288	838

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1
Volume Total	550	550	80	483	483	94
Volume Left	0	0	0	0	0	0
Volume Right	0	0	80	0	0	94
cSH	1700	1700	1700	1700	1700	838
Volume to Capacity	0.32	0.32	0.05	0.28	0.28	0.11
Queue Length 95th (ft)	0	0	0	0	0	9
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	9.8
Lane LOS						A
Approach Delay (s)	0.0			0.0		9.8
Approach LOS						A

Intersection Summary				
Average Delay		0.4		
Intersection Capacity Utilization		41.1%	ICU Level of Service	A
Analysis Period (min)		15		

Intersection: 1: Turner Drive & Benns Church Boulevard

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	L	TR	LTR
Maximum Queue (ft)	85	372	399	280	284	222	190	249	332	97
Average Queue (ft)	11	198	203	88	145	89	87	175	111	43
95th Queue (ft)	56	325	338	218	241	176	163	261	256	87
Link Distance (ft)		2164	2164			365	365		340	116
Upstream Blk Time (%)						0			1	0
Queuing Penalty (veh)						0			4	0
Storage Bay Dist (ft)	140			280	450			250		
Storage Blk Time (%)	0	19	2	0		0		3	1	
Queuing Penalty (veh)	0	2	6	1		0		7	2	

Intersection: 2: Cypress Run Drive & Benns Church Boulevard

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	LT	R	LTR
Maximum Queue (ft)	20	173	159	29	71	97	86	76	59	42
Average Queue (ft)	1	45	40	3	23	13	18	18	21	3
95th Queue (ft)	11	122	116	16	54	52	60	53	47	20
Link Distance (ft)		890	890			2164	2164	641		181
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	150			245	255				180	
Storage Blk Time (%)		0	0							
Queuing Penalty (veh)		0	0							

Intersection: 3: Proposed Driveway & Turner Drive

Movement	WB	NB	SB
Directions Served	LR	TR	L
Maximum Queue (ft)	108	48	82
Average Queue (ft)	53	3	33
95th Queue (ft)	92	24	66
Link Distance (ft)	102	358	
Upstream Blk Time (%)	1		
Queuing Penalty (veh)	0		
Storage Bay Dist (ft)			200
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: Proposed Driveway & Benns Church Boulevard

Movement	NB
Directions Served	R
Maximum Queue (ft)	88
Average Queue (ft)	34
95th Queue (ft)	70
Link Distance (ft)	79
Upstream Blk Time (%)	1
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

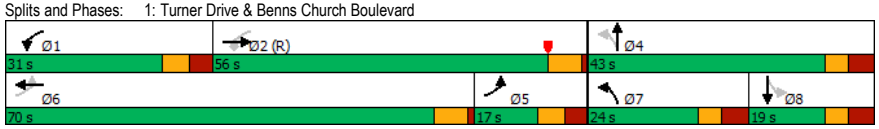
Network Summary

Network wide Queuing Penalty: 22

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	1053	141	266	1172	6	243	5	137	2	1	4
Future Volume (vph)	26	1053	141	266	1172	6	243	5	137	2	1	4
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.999			0.855			0.923	
Flt Protected	0.950			0.950			0.950				0.986	
Satd. Flow (prot)	1805	3539	1615	1787	3536	0	1787	1579	0	0	1729	0
Flt Permitted	0.128			0.111			0.613				0.881	
Satd. Flow (perm)	243	3539	1615	209	3536	0	1153	1579	0	0	1545	0
Satd. Flow (RTOR)			164		1			144			4	
Adj. Flow (vph)	27	1108	148	280	1234	6	256	5	144	2	1	4
Lane Group Flow (vph)	27	1108	148	280	1240	0	256	149	0	0	7	0
Turn Type	D.P+P	NA	Perm	D.P+P	NA		pm+pt	NA		Perm	NA	
Protected Phases	5	2		1	6		7	4			8	
Permitted Phases	6		2	2			4			8		
Total Split (s)	17.0	56.0	56.0	31.0	70.0		24.0	43.0		19.0	19.0	
Total Lost Time (s)	7.5	6.0	6.0	7.5	6.0		7.5	7.5			7.5	
Act Effct Green (s)	75.0	53.8	53.8	72.0	70.8		35.5	35.5			11.5	
Actuated g/C Ratio	0.58	0.41	0.41	0.55	0.54		0.27	0.27			0.09	
v/c Ratio	0.12	0.76	0.19	0.79	0.64		0.65	0.28			0.05	
Control Delay	8.6	21.6	1.1	43.9	24.1		49.0	7.6			41.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	
Total Delay	8.6	21.6	1.1	43.9	24.1		49.0	7.6			41.0	
LOS	A	C	A	D	C		D	A			D	
Approach Delay		19.0			27.7			33.8			41.0	
Approach LOS		B			C			C			D	

Intersection Summary			
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 32 (25%), Referenced to phase 2:EBWB, Start of Yellow			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay: 25.0		Intersection LOS: C	
Intersection Capacity Utilization 81.5%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 1: Turner Drive & Benns Church Boulevard



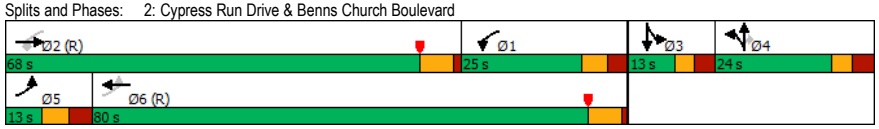
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	1053	141	266	1172	6	243	5	137	2	1	4
Future Volume (vph)	26	1053	141	266	1172	6	243	5	137	2	1	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	6.0	6.0	7.5	6.0		7.5	7.5			7.5	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	1.00			1.00	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.86			0.92	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00			0.99	
Satd. Flow (prot)	1805	3539	1615	1787	3537		1787	1579			1729	
Flt Permitted	0.13	1.00	1.00	0.11	1.00		0.61	1.00			0.88	
Satd. Flow (perm)	243	3539	1615	210	3537		1153	1579			1544	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	27	1108	148	280	1234	6	256	5	144	2	1	4
RTOR Reduction (vph)	0	0	87	0	0	0	0	105	0	0	4	0
Lane Group Flow (vph)	27	1108	61	280	1240	0	256	44	0	0	3	0
Heavy Vehicles (%)	0%	2%	0%	1%	2%	0%	1%	0%	3%	0%	0%	0%
Turn Type	D.P+P	NA	Perm	D.P+P	NA		pm+pt	NA		Perm	NA	
Protected Phases	5	2		1	6		7	4			8	
Permitted Phases	6		2	2			4			8		
Actuated Green, G (s)	73.5	53.8	53.8	73.5	67.8		35.5	35.5			11.5	
Effective Green, g (s)	73.5	53.8	53.8	73.5	67.8		35.5	35.5			11.5	
Actuated g/C Ratio	0.57	0.41	0.41	0.57	0.52		0.27	0.27			0.09	
Clearance Time (s)	7.5	6.0	6.0	7.5	6.0		7.5	7.5			7.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	205	1464	668	357	1844		395	431			136	
v/s Ratio Prot	0.01	0.31		0.12	c0.35		c0.08	0.03				
v/s Ratio Perm	0.07		0.04	c0.32			c0.09				0.00	
v/c Ratio	0.13	0.76	0.09	0.78	0.67		0.65	0.10			0.02	
Uniform Delay, d1	30.3	32.5	23.2	29.2	22.9		40.3	35.3			54.1	
Progression Factor	0.62	0.55	0.22	1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2	0.3	3.3	0.2	10.8	2.0		8.0	0.5			0.3	
Delay (s)	19.2	21.0	5.3	40.0	24.9		48.3	35.8			54.5	
Level of Service	B	C	A	D	C		D	D			D	
Approach Delay (s)		19.2			27.7			43.7			54.5	
Approach LOS		B			C			D			D	

Intersection Summary					
HCM 2000 Control Delay	26.4	HCM 2000 Level of Service	C		
HCM 2000 Volume to Capacity ratio	0.79				
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	28.5		
Intersection Capacity Utilization	81.5%	ICU Level of Service	D		
Analysis Period (min)	15				
c Critical Lane Group					

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	1108	115	192	1227	0	99	0	95	0	4	0
Future Volume (vph)	3	1108	115	192	1227	0	99	0	95	0	4	0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850						0.850			
Flt Protected	0.950			0.950				0.950				
Satd. Flow (prot)	1805	3471	1553	1805	3539	0	0	1805	1615	0	1900	0
Flt Permitted	0.178			0.156				0.950				
Satd. Flow (perm)	338	3471	1553	296	3539	0	0	1805	1615	0	1900	0
Satd. Flow (RTOR)			138						197			
Adj. Flow (vph)	3	1131	117	196	1252	0	101	0	97	0	4	0
Lane Group Flow (vph)	3	1131	117	196	1252	0	0	101	97	0	4	0
Turn Type	D.P+P	NA	Perm	D.P+P	NA		Split	NA	Perm		NA	
Protected Phases	5	2		1	6		4	4		3	3	
Permitted Phases	6		2	2					4			
Total Split (s)	13.0	68.0	68.0	25.0	80.0		24.0	24.0	24.0	13.0	13.0	
Total Lost Time (s)	7.5	6.0	6.0	7.0	6.0			6.5	6.5		6.0	
Act Effct Green (s)	99.3	77.3	77.3	94.3	99.7			12.6	12.6		7.0	
Actuated g/C Ratio	0.76	0.59	0.59	0.73	0.77			0.10	0.10		0.05	
v/c Ratio	0.01	0.55	0.12	0.46	0.46			0.58	0.29		0.04	
Control Delay	6.0	18.4	2.0	10.8	3.0			68.7	2.2		59.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0	0.0		0.0	
Total Delay	6.0	18.4	2.0	10.8	3.0			68.7	2.2		59.2	
LOS	A	B	A	B	A			E	A		E	
Approach Delay		16.9			4.1			36.1			59.3	
Approach LOS		B			A			D			E	

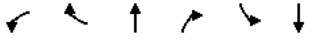
Intersection Summary			
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 16 (12%), Referenced to phase 2:EBWB and 6:EBWB, Start of Yellow			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.58			
Intersection Signal Delay: 11.9		Intersection LOS: B	
Intersection Capacity Utilization 69.7%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 2: Cypress Run Drive & Benns Church Boulevard



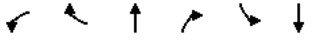
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	1108	115	192	1227	0	99	0	95	0	4	0
Future Volume (vph)	3	1108	115	192	1227	0	99	0	95	0	4	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	6.0	6.0	7.0	6.0			6.5	6.5		6.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95			1.00	1.00		1.00	
Frt	1.00	1.00	0.85	1.00	1.00			1.00	0.85		1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00		1.00	
Satd. Flow (prot)	1805	3471	1553	1805	3539			1805	1615		1900	
Flt Permitted	0.18	1.00	1.00	0.16	1.00			0.95	1.00		1.00	
Satd. Flow (perm)	339	3471	1553	296	3539			1805	1615		1900	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	3	1131	117	196	1252	0	101	0	97	0	4	0
RTOR Reduction (vph)	0	0	57	0	0	0	0	0	88	0	0	0
Lane Group Flow (vph)	3	1131	60	196	1252	0	0	101	9	0	4	0
Heavy Vehicles (%)	0%	4%	4%	0%	2%	0%	0%	0%	0%	0%	0%	0%
Turn Type	D.P+P	NA	Perm	D.P+P	NA		Split	NA	Perm		NA	
Protected Phases	5	2		1	6		4	4		3	3	
Permitted Phases	6		2	2					4			
Actuated Green, G (s)	90.0	66.5	66.5	90.5	88.9			12.6	12.6		1.4	
Effective Green, g (s)	90.0	66.5	66.5	90.5	88.9			12.6	12.6		1.4	
Actuated g/C Ratio	0.69	0.51	0.51	0.70	0.68			0.10	0.10		0.01	
Clearance Time (s)	7.5	6.0	6.0	7.0	6.0			6.5	6.5		6.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)	247	1775	794	484	2420			174	156		20	
v/s Ratio Prot	0.00	c0.33		0.07	c0.35			c0.06			c0.00	
v/s Ratio Perm	0.01		0.04	0.21					0.01			
v/c Ratio	0.01	0.64	0.08	0.40	0.52			0.58	0.06		0.20	
Uniform Delay, d1	7.4	23.0	16.1	26.6	10.1			56.2	53.3		63.7	
Progression Factor	1.00	1.00	1.00	0.52	0.34			1.00	1.00		1.00	
Incremental Delay, d2	0.0	1.8	0.2	0.4	0.6			4.9	0.2		4.9	
Delay (s)	7.4	24.8	16.3	14.2	4.0			61.0	53.5		68.6	
Level of Service	A	C	B	B	A			E	D		E	
Approach Delay (s)		23.9			5.4			57.3			68.6	
Approach LOS		C			A			E			E	

Intersection Summary				
HCM 2000 Control Delay	17.0	HCM 2000 Level of Service	B	
HCM 2000 Volume to Capacity ratio	0.62			
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	26.0	
Intersection Capacity Utilization	69.7%	ICU Level of Service	C	
Analysis Period (min)	15			
c Critical Lane Group				



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	13	114	271	39	98	310
Future Volume (vph)	13	114	271	39	98	310
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.879		0.983			
Flt Protected	0.995				0.950	
Satd. Flow (prot)	1629	0	1863	0	1805	1900
Flt Permitted	0.995				0.950	
Satd. Flow (perm)	1629	0	1863	0	1805	1900
Adj. Flow (vph)	14	120	285	41	103	326
Lane Group Flow (vph)	134	0	326	0	103	326
Sign Control	Stop		Free			Free

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 39.8%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	13	114	271	39	98	310
Future Volume (Veh/h)	13	114	271	39	98	310
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	14	120	285	41	103	326
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						450
pX, platoon unblocked	0.92					
vC, conflicting volume	838	306			326	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	777	306			326	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	95	84			92	
cM capacity (veh/h)	307	734			1245	

Direction, Lane #	WB 1	NB 1	SB 1	SB 2
Volume Total	134	326	103	326
Volume Left	14	0	103	0
Volume Right	120	41	0	0
cSH	641	1700	1245	1700
Volume to Capacity	0.21	0.19	0.08	0.19
Queue Length 95th (ft)	20	0	7	0
Control Delay (s)	12.1	0.0	8.2	0.0
Lane LOS	B		A	
Approach Delay (s)	12.1	0.0	2.0	
Approach LOS	B			

Intersection Summary				
Average Delay		2.8		
Intersection Capacity Utilization		39.8%	ICU Level of Service	A
Analysis Period (min)		15		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1133	59	0	1444	0	68
Future Volume (vph)	1133	59	0	1444	0	68
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt		0.850				0.865
Flt Protected						
Satd. Flow (prot)	3539	1615	0	3539	0	1611
Flt Permitted						
Satd. Flow (perm)	3539	1615	0	3539	0	1611
Adj. Flow (vph)	1193	62	0	1520	0	72
Lane Group Flow (vph)	1193	62	0	1520	0	72
Sign Control	Free			Free	Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 43.2%		ICU Level of Service A	
Analysis Period (min) 15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1133	59	0	1444	0	68
Future Volume (Veh/h)	1133	59	0	1444	0	68
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	1193	62	0	1520	0	72
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	Raised			Raised		
Median storage veh)	1			1		
Upstream signal (ft)	434					
pX, platoon unblocked			0.73		0.73	0.73
vC, conflicting volume			1255		1953	596
vC1, stage 1 conf vol					1193	
vC2, stage 2 conf vol					760	
vCu, unblocked vol			620		1572	0
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	91
cM capacity (veh/h)			712		225	795

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1
Volume Total	596	596	62	760	760	72
Volume Left	0	0	0	0	0	0
Volume Right	0	0	62	0	0	72
cSH	1700	1700	1700	1700	1700	795
Volume to Capacity	0.35	0.35	0.04	0.45	0.45	0.09
Queue Length 95th (ft)	0	0	0	0	0	7
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	10.0
Lane LOS						A
Approach Delay (s)	0.0			0.0		10.0
Approach LOS						A

Intersection Summary				
Average Delay		0.3		
Intersection Capacity Utilization		43.2%	ICU Level of Service	A
Analysis Period (min)		15		

Intersection: 1: Turner Drive & Benns Church Boulevard

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	L	TR	LTR
Maximum Queue (ft)	104	344	361	216	310	370	343	238	217	35
Average Queue (ft)	24	159	172	47	168	213	204	148	62	6
95th Queue (ft)	69	282	294	151	279	322	309	238	146	26
Link Distance (ft)		2169	2169			366	366		340	115
Upstream Blk Time (%)					0	0	0		0	
Queuing Penalty (veh)					0	2	1		1	
Storage Bay Dist (ft)	140			280	450			250		
Storage Blk Time (%)	0	15	1	0	0	0		1	0	
Queuing Penalty (veh)	0	4	2	0	0	1		1	0	

Intersection: 2: Cypress Run Drive & Benns Church Boulevard

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	LT	R	LTR
Maximum Queue (ft)	48	327	298	208	172	191	194	168	131	38
Average Queue (ft)	4	176	145	35	87	69	86	75	33	4
95th Queue (ft)	35	303	274	114	149	155	166	136	77	22
Link Distance (ft)		885	885			2169	2169	657		94
Upstream Blk Time (%)										0
Queuing Penalty (veh)										0
Storage Bay Dist (ft)	150			245	255				180	
Storage Blk Time (%)	0	10	1	0		0		0	0	
Queuing Penalty (veh)	0	0	1	0		0		0	0	

Intersection: 3: Proposed Driveway & Turner Drive

Movement	WB	NB	SB
Directions Served	LR	TR	L
Maximum Queue (ft)	84	14	58
Average Queue (ft)	42	1	21
95th Queue (ft)	69	12	51
Link Distance (ft)	103	388	
Upstream Blk Time (%)	0		
Queuing Penalty (veh)	0		
Storage Bay Dist (ft)			200
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: Proposed Driveway & Benns Church Boulevard

Movement	WB	WB	NB
Directions Served	T	T	R
Maximum Queue (ft)	60	16	77
Average Queue (ft)	2	1	28
95th Queue (ft)	24	11	60
Link Distance (ft)	1102	1102	78
Upstream Blk Time (%)			1
Queuing Penalty (veh)			0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

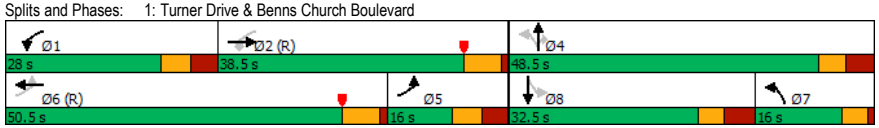
Network Summary

Network wide Queuing Penalty: 13

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	877	379	374	584	47	354	0	317	1	42	3
Future Volume (vph)	9	877	379	374	584	47	354	0	317	1	42	3
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.989				0.850		0.992	
Flt Protected	0.950			0.950				0.950			0.999	
Satd. Flow (prot)	1770	3406	1615	1805	3412	0	0	1787	1599	0	1845	0
Flt Permitted	0.342			0.118				0.726			0.994	
Satd. Flow (perm)	637	3406	1615	224	3412	0	0	1366	1599	0	1836	0
Satd. Flow (RTOR)			399		8				334		3	
Adj. Flow (vph)	9	923	399	394	615	49	373	0	334	1	44	3
Lane Group Flow (vph)	9	923	399	394	664	0	0	373	334	0	48	0
Turn Type	D.P+P	NA	Perm	D.P+P	NA		pm+pt	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6		7	4			8	
Permitted Phases	6		2	2			4		4	8		
Total Split (s)	16.0	38.5	38.5	28.0	50.5		16.0	48.5	48.5	32.5	32.5	
Total Lost Time (s)	7.5	6.0	6.0	7.5	6.0			7.5	7.5		7.5	
Act Effct Green (s)	62.8	34.0	34.0	56.8	62.6			35.7	35.7		35.7	
Actuated g/C Ratio	0.55	0.30	0.30	0.49	0.54			0.31	0.31		0.31	
v/c Ratio	0.02	0.92	0.53	0.89	0.36			0.88	0.46		0.08	
Control Delay	9.3	43.2	7.0	55.1	17.3			59.5	5.0		24.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0	0.0		0.0	
Total Delay	9.3	43.2	7.0	55.1	17.3			59.5	5.0		24.8	
LOS	A	D	A	E	B			E	A		C	
Approach Delay		32.1			31.4			33.8			24.8	
Approach LOS		C			C			C			C	

Intersection Summary		
Cycle Length: 115		
Actuated Cycle Length: 115		
Offset: 55 (48%), Referenced to phase 2:EBWB and 6:EBWB, Start of Yellow		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.92		
Intersection Signal Delay: 32.1	Intersection LOS: C	
Intersection Capacity Utilization 87.5%	ICU Level of Service E	
Analysis Period (min) 15		

Splits and Phases: 1: Turner Drive & Benns Church Boulevard



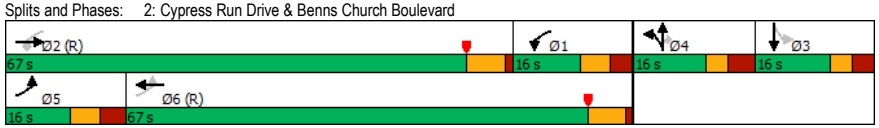
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	877	379	374	584	47	354	0	317	1	42	3
Future Volume (vph)	9	877	379	374	584	47	354	0	317	1	42	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	6.0	6.0	7.5	6.0			7.5	7.5		7.5	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95			1.00	1.00		1.00	
Frt	1.00	1.00	0.85	1.00	0.99			1.00	0.85		0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00		1.00	
Satd. Flow (prot)	1770	3406	1615	1805	3412			1787	1599		1844	
Flt Permitted	0.34	1.00	1.00	0.12	1.00			0.73	1.00		0.99	
Satd. Flow (perm)	638	3406	1615	224	3412			1365	1599		1834	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	9	923	399	394	615	49	373	0	334	1	44	3
RTOR Reduction (vph)	0	0	281	0	4	0	0	0	230	0	2	0
Lane Group Flow (vph)	9	923	118	394	660	0	0	373	104	0	46	0
Heavy Vehicles (%)	2%	6%	0%	0%	5%	0%	1%	0%	1%	0%	0%	33%
Turn Type	D.P+P	NA	Perm	D.P+P	NA		pm+pt	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6		7	4			8	
Permitted Phases	6		2	2			4		4	8		
Actuated Green, G (s)	58.3	34.0	34.0	58.3	56.6			35.7	35.7		35.7	
Effective Green, g (s)	58.3	34.0	34.0	58.3	56.6			35.7	35.7		35.7	
Actuated g/C Ratio	0.51	0.30	0.30	0.51	0.49			0.31	0.31		0.31	
Clearance Time (s)	7.5	6.0	6.0	7.5	6.0			7.5	7.5		7.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)	340	1006	477	447	1679			423	496		569	
v/s Ratio Prot	0.00	c0.27		c0.19	0.19							
v/s Ratio Perm	0.01		0.07	0.26				c0.27	0.06		0.03	
v/c Ratio	0.03	0.92	0.25	0.88	0.39			0.88	0.21		0.08	
Uniform Delay, d1	18.5	39.1	30.8	31.6	18.4			37.6	29.2		28.0	
Progression Factor	0.66	0.74	1.45	1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	0.0	12.7	1.1	18.1	0.7			18.9	0.2		0.1	
Delay (s)	12.1	41.8	45.7	49.7	19.1			56.6	29.4		28.1	
Level of Service	B	D	D	D	B			E	C		C	
Approach Delay (s)		42.7			30.5			43.8			28.1	
Approach LOS		D			C			D			C	

Intersection Summary			
HCM 2000 Control Delay	38.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	25.5
Intersection Capacity Utilization	87.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	1333	30	45	894	2	15	0	38	2	0	0
Future Volume (vph)	3	1333	30	45	894	2	15	0	38	2	0	0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850						0.850			
Flt Protected	0.950			0.950				0.950			0.950	
Satd. Flow (prot)	1805	3471	1509	1641	3374	0	0	1492	1495	0	1203	0
Flt Permitted	0.280			0.126				0.950				
Satd. Flow (perm)	532	3471	1509	218	3374	0	0	1492	1495	0	1267	0
Satd. Flow (RTOR)			157						223			
Adj. Flow (vph)	3	1389	31	47	931	2	16	0	40	2	0	0
Lane Group Flow (vph)	3	1389	31	47	933	0	0	16	40	0	2	0
Turn Type	D.P+P	NA	Perm	D.P+P	NA		Split	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6		4	4			3	
Permitted Phases	6		2	2					4	3		
Total Split (s)	16.0	67.0	67.0	16.0	67.0		16.0	16.0	16.0	16.0	16.0	
Total Lost Time (s)	7.5	6.0	6.0	7.0	6.0			6.5	6.5		6.0	
Act Effct Green (s)	92.1	83.5	83.5	89.9	93.7			7.5	7.5		7.0	
Actuated g/C Ratio	0.80	0.73	0.73	0.78	0.81			0.07	0.07		0.06	
v/c Ratio	0.01	0.55	0.03	0.17	0.34			0.17	0.13		0.03	
Control Delay	4.3	11.5	0.0	3.8	2.3			54.5	0.9		51.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0	0.0		0.0	
Total Delay	4.3	11.5	0.0	3.8	2.3			54.5	0.9		51.5	
LOS	A	B	A	A	A			D	A		D	
Approach Delay		11.2			2.3			16.2			51.5	
Approach LOS		B			A			B			D	

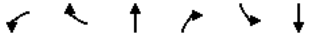
Intersection Summary			
Cycle Length: 115			
Actuated Cycle Length: 115			
Offset: 56 (49%), Referenced to phase 2:EBWB and 6:EBWB, Start of Yellow			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.55			
Intersection Signal Delay: 7.8		Intersection LOS: A	
Intersection Capacity Utilization 63.9%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 2: Cypress Run Drive & Benns Church Boulevard



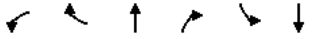
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	1333	30	45	894	2	15	0	38	2	0	0
Future Volume (vph)	3	1333	30	45	894	2	15	0	38	2	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	6.0	6.0	7.0	6.0			6.5	6.5		6.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95			1.00	1.00		1.00	
Frt	1.00	1.00	0.85	1.00	1.00			1.00	0.85		1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.95	
Satd. Flow (prot)	1805	3471	1509	1641	3373			1492	1495		1203	
Flt Permitted	0.28	1.00	1.00	0.13	1.00			0.95	1.00		1.00	
Satd. Flow (perm)	531	3471	1509	217	3373			1492	1495		1267	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	3	1389	31	47	931	2	16	0	40	2	0	0
RTOR Reduction (vph)	0	0	12	0	0	0	0	0	38	0	0	0
Lane Group Flow (vph)	3	1389	19	47	933	0	0	16	2	0	2	0
Heavy Vehicles (%)	0%	4%	7%	10%	7%	0%	21%	0%	8%	50%	0%	0%
Turn Type	D.P+P	NA	Perm	D.P+P	NA		Split	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6		4	4			3	
Permitted Phases	6		2	2					4	3		
Actuated Green, G (s)	81.5	70.1	70.1	82.0	80.3			6.1	6.1		1.4	
Effective Green, g (s)	81.5	70.1	70.1	82.0	80.3			6.1	6.1		1.4	
Actuated g/C Ratio	0.71	0.61	0.61	0.71	0.70			0.05	0.05		0.01	
Clearance Time (s)	7.5	6.0	6.0	7.0	6.0			6.5	6.5		6.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)	389	2115	919	302	2355			79	79		15	
v/s Ratio Prot	0.00	c0.40		0.02	c0.28			c0.01				
v/s Ratio Perm	0.01		0.01	0.09					0.00		c0.00	
v/c Ratio	0.01	0.66	0.02	0.16	0.40			0.20	0.03		0.13	
Uniform Delay, d1	5.1	14.6	8.9	16.8	7.2			52.1	51.6		56.2	
Progression Factor	1.00	1.00	1.00	0.46	0.39			1.00	1.00		1.00	
Incremental Delay, d2	0.0	1.6	0.0	0.2	0.4			1.3	0.1		4.0	
Delay (s)	5.1	16.2	8.9	7.9	3.2			53.4	51.8		60.2	
Level of Service	A	B	A	A	A			D	D		E	
Approach Delay (s)		16.0			3.5			52.2			60.2	
Approach LOS		B			A			D			E	

Intersection Summary					
HCM 2000 Control Delay		11.9	HCM 2000 Level of Service		B
HCM 2000 Volume to Capacity ratio		0.60			
Actuated Cycle Length (s)		115.0	Sum of lost time (s)		26.0
Intersection Capacity Utilization		63.9%	ICU Level of Service		B
Analysis Period (min)		15			
c Critical Lane Group					



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	19	146	525	51	127	668
Future Volume (vph)	19	146	525	51	127	668
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.881		0.988			
Flt Protected	0.994				0.950	
Satd. Flow (prot)	1647	0	1840	0	1787	1881
Flt Permitted	0.994				0.950	
Satd. Flow (perm)	1647	0	1840	0	1787	1881
Adj. Flow (vph)	20	154	553	54	134	703
Lane Group Flow (vph)	174	0	607	0	134	703
Sign Control	Stop		Free			Free

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 57.8%		ICU Level of Service B	
Analysis Period (min) 15			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	19	146	525	51	127	668
Future Volume (Veh/h)	19	146	525	51	127	668
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	20	154	553	54	134	703
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						449
pX, platoon unblocked	0.82					
vC, conflicting volume	1551	580			607	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1562	580			607	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	77	70			86	
cM capacity (veh/h)	87	516			976	

Direction, Lane #	WB 1	NB 1	SB 1	SB 2
Volume Total	174	607	134	703
Volume Left	20	0	134	0
Volume Right	154	54	0	0
cSH	330	1700	976	1700
Volume to Capacity	0.53	0.36	0.14	0.41
Queue Length 95th (ft)	73	0	12	0
Control Delay (s)	27.5	0.0	9.3	0.0
Lane LOS	D		A	
Approach Delay (s)	27.5	0.0	1.5	
Approach LOS	D			

Intersection Summary				
Average Delay		3.7		
Intersection Capacity Utilization		57.8%	ICU Level of Service	B
Analysis Period (min)		15		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1119	76	0	1005	0	89
Future Volume (vph)	1119	76	0	1005	0	89
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt		0.850				0.865
Flt Protected						
Satd. Flow (prot)	3471	1615	0	3438	0	1611
Flt Permitted						
Satd. Flow (perm)	3471	1615	0	3438	0	1611
Adj. Flow (vph)	1178	80	0	1058	0	94
Lane Group Flow (vph)	1178	80	0	1058	0	94
Sign Control	Free			Free	Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 43.1%		ICU Level of Service A	
Analysis Period (min) 15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1119	76	0	1005	0	89
Future Volume (Veh/h)	1119	76	0	1005	0	89
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	1178	80	0	1058	0	94
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	Raised			Raised		
Median storage veh)	1			1		
Upstream signal (ft)	433					
pX, platoon unblocked			0.75		0.75	0.75
vC, conflicting volume			1258		1707	589
vC1, stage 1 conf vol					1178	
vC2, stage 2 conf vol					529	
vCu, unblocked vol			663		1265	0
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	88
cM capacity (veh/h)			697		266	808

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1
Volume Total	589	589	80	529	529	94
Volume Left	0	0	0	0	0	0
Volume Right	0	0	80	0	0	94
cSH	1700	1700	1700	1700	1700	808
Volume to Capacity	0.35	0.35	0.05	0.31	0.31	0.12
Queue Length 95th (ft)	0	0	0	0	0	10
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	10.0
Lane LOS						B
Approach Delay (s)	0.0			0.0		10.0
Approach LOS						B

Intersection Summary				
Average Delay	0.4			
Intersection Capacity Utilization	43.1%	ICU Level of Service		A
Analysis Period (min)	15			

Intersection: 1: Turner Drive & Benns Church Boulevard

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	LT	R	LTR
Maximum Queue (ft)	103	546	588	280	356	417	356	352	250	97
Average Queue (ft)	12	281	292	185	295	268	187	237	160	34
95th Queue (ft)	59	464	496	335	415	498	383	370	300	76
Link Distance (ft)		2164	2164			356	356	339		115
Upstream Blk Time (%)					15	21	0	3		0
Queuing Penalty (veh)					0	105	2	22		0
Storage Bay Dist (ft)	140			280	450				250	
Storage Blk Time (%)	0	39	8	1	15	21		9	1	
Queuing Penalty (veh)	0	3	31	4	44	78		28	3	

Intersection: 2: Cypress Run Drive & Benns Church Boulevard

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	LT	R	LTR
Maximum Queue (ft)	19	225	223	29	88	90	102	86	72	49
Average Queue (ft)	1	50	47	2	26	13	20	17	20	4
95th Queue (ft)	11	156	147	13	66	56	70	57	51	25
Link Distance (ft)		890	890			2164	2164	641		181
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	150			245	255				180	
Storage Blk Time (%)		1	0							
Queuing Penalty (veh)		0	0							

Intersection: 3: Proposed Driveway & Turner Drive

Movement	WB	NB	SB
Directions Served	LR	TR	L
Maximum Queue (ft)	127	196	88
Average Queue (ft)	71	22	40
95th Queue (ft)	123	112	74
Link Distance (ft)	102	358	
Upstream Blk Time (%)	9		
Queuing Penalty (veh)	0		
Storage Bay Dist (ft)			200
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: Proposed Driveway & Benns Church Boulevard

Movement	WB	WB	NB
Directions Served	T	T	R
Maximum Queue (ft)	350	304	81
Average Queue (ft)	108	62	32
95th Queue (ft)	330	243	63
Link Distance (ft)	1102	1102	78
Upstream Blk Time (%)			0
Queuing Penalty (veh)			0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

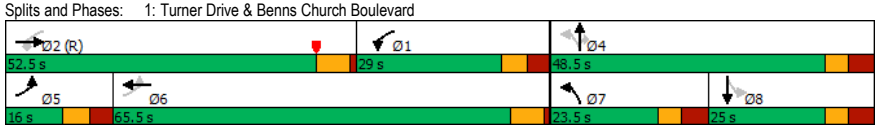
Network Summary

Network wide Queuing Penalty: 320

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	1053	161	286	1172	6	264	0	158	2	1	4
Future Volume (vph)	26	1053	161	286	1172	6	264	0	158	2	1	4
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.999				0.850		0.923	
Flt Protected	0.950			0.950				0.950			0.986	
Satd. Flow (prot)	1805	3539	1615	1787	3536	0	0	1787	1568	0	1729	0
Flt Permitted	0.114			0.092				0.647			0.888	
Satd. Flow (perm)	217	3539	1615	173	3536	0	0	1217	1568	0	1557	0
Satd. Flow (RTOR)			164						166		4	
Adj. Flow (vph)	27	1108	169	301	1234	6	278	0	166	2	1	4
Lane Group Flow (vph)	27	1108	169	301	1240	0	0	278	166	0	7	0
Turn Type	D.P+P	NA	Perm	D.P+P	NA		pm+pt	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6		7	4			8	
Permitted Phases	6		2	2			4		4	8		
Total Split (s)	16.0	52.5	52.5	29.0	65.5		23.5	48.5	48.5	25.0	25.0	
Total Lost Time (s)	7.5	6.0	6.0	7.5	6.0			7.5	7.5		7.5	
Act Effct Green (s)	69.5	46.5	46.5	66.5	66.9			41.0	41.0		17.5	
Actuated g/C Ratio	0.53	0.36	0.36	0.51	0.51			0.32	0.32		0.13	
v/c Ratio	0.14	0.88	0.25	0.85	0.68			0.61	0.27		0.03	
Control Delay	11.3	34.9	6.5	66.7	27.2			43.0	5.9		36.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0	0.0		0.0	
Total Delay	11.3	34.9	6.5	66.7	27.2			43.0	5.9		36.6	
LOS	B	C	A	E	C			D	A		D	
Approach Delay		30.7			34.9			29.1			36.6	
Approach LOS		C			C			C			D	

Intersection Summary			
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 44 (34%), Referenced to phase 2:EBWB, Start of Yellow			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay: 32.5		Intersection LOS: C	
Intersection Capacity Utilization 83.7%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 1: Turner Drive & Benns Church Boulevard



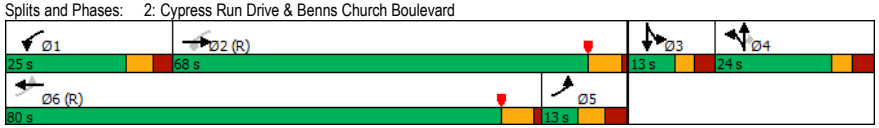
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	1053	161	286	1172	6	264	0	158	2	1	4
Future Volume (vph)	26	1053	161	286	1172	6	264	0	158	2	1	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	6.0	6.0	7.5	6.0			7.5	7.5		7.5	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95			1.00	1.00		1.00	
Frt	1.00	1.00	0.85	1.00	1.00			1.00	0.85		0.92	
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.99	
Satd. Flow (prot)	1805	3539	1615	1787	3537			1787	1568		1729	
Flt Permitted	0.11	1.00	1.00	0.09	1.00			0.65	1.00		0.89	
Satd. Flow (perm)	217	3539	1615	173	3537			1217	1568		1556	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	27	1108	169	301	1234	6	278	0	166	2	1	4
RTOR Reduction (vph)	0	0	109	0	0	0	0	0	114	0	3	0
Lane Group Flow (vph)	27	1108	60	301	1240	0	0	278	52	0	4	0
Heavy Vehicles (%)	0%	2%	0%	1%	2%	0%	1%	0%	3%	0%	0%	0%
Turn Type	D.P+P	NA	Perm	D.P+P	NA		pm+pt	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6		7	4			8	
Permitted Phases	6		2	2			4		4	8		
Actuated Green, G (s)	68.0	43.5	43.5	68.0	63.9			41.0	41.0		17.5	
Effective Green, g (s)	68.0	43.5	43.5	68.0	63.9			41.0	41.0		17.5	
Actuated g/C Ratio	0.52	0.33	0.33	0.52	0.49			0.32	0.32		0.13	
Clearance Time (s)	7.5	6.0	6.0	7.5	6.0			7.5	7.5		7.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)	163	1184	540	394	1738			453	494		209	
v/s Ratio Prot	0.01	c0.31		0.14	c0.35			c0.08				
v/s Ratio Perm	0.08		0.04	0.26				c0.12	0.03		0.00	
v/c Ratio	0.17	0.94	0.11	0.76	0.71			0.61	0.11		0.02	
Uniform Delay, d1	19.1	41.9	29.9	44.6	25.9			37.8	31.5		48.8	
Progression Factor	0.79	0.68	1.22	1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	0.4	13.5	0.4	8.5	2.5			6.1	0.4		0.1	
Delay (s)	15.5	42.0	36.9	53.2	28.4			43.9	32.0		48.9	
Level of Service	B	D	D	D	C			D	C		D	
Approach Delay (s)		40.8			33.2			39.4			48.9	
Approach LOS		D			C			D			D	

Intersection Summary					
HCM 2000 Control Delay	37.1	HCM 2000 Level of Service	D		
HCM 2000 Volume to Capacity ratio	0.84				
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	28.5		
Intersection Capacity Utilization	83.7%	ICU Level of Service	E		
Analysis Period (min)	15				
c Critical Lane Group					

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	1128	115	192	1248	0	99	0	95	0	4	0
Future Volume (vph)	3	1128	115	192	1248	0	99	0	95	0	4	0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850						0.850			
Flt Protected	0.950			0.950				0.950				
Satd. Flow (prot)	1805	3471	1553	1805	3539	0	0	1805	1615	0	1900	0
Flt Permitted	0.173			0.185				0.950				
Satd. Flow (perm)	329	3471	1553	352	3539	0	0	1805	1615	0	1900	0
Satd. Flow (RTOR)			138						197			
Adj. Flow (vph)	3	1151	117	196	1273	0	101	0	97	0	4	0
Lane Group Flow (vph)	3	1151	117	196	1273	0	0	101	97	0	4	0
Turn Type	D.P+P	NA	Perm	D.P+P	NA		Split	NA	Perm		NA	
Protected Phases	5	2		1	6		4	4		3	3	
Permitted Phases	6		2	2					4			
Total Split (s)	13.0	68.0	68.0	25.0	80.0		24.0	24.0	24.0	13.0	13.0	
Total Lost Time (s)	7.5	6.0	6.0	7.0	6.0			6.5	6.5		6.0	
Act Effct Green (s)	99.3	84.1	84.1	94.3	99.7			12.6	12.6		7.0	
Actuated g/C Ratio	0.76	0.65	0.65	0.73	0.77			0.10	0.10		0.05	
v/c Ratio	0.01	0.51	0.11	0.51	0.47			0.58	0.29		0.04	
Control Delay	6.0	15.2	1.9	11.6	3.7			68.7	2.2		59.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0	0.0		0.0	
Total Delay	6.0	15.2	1.9	11.6	3.7			68.7	2.2		59.2	
LOS	A	B	A	B	A			E	A		E	
Approach Delay		14.0			4.7			36.1			59.3	
Approach LOS		B			A			D			E	

Intersection Summary			
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 0 (0%), Referenced to phase 2:EBWB and 6:EBWB, Start of Yellow			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.58			
Intersection Signal Delay: 10.9		Intersection LOS: B	
Intersection Capacity Utilization 70.2%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 2: Cypress Run Drive & Benns Church Boulevard



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	1128	115	192	1248	0	99	0	95	0	4	0
Future Volume (vph)	3	1128	115	192	1248	0	99	0	95	0	4	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	6.0	6.0	7.0	6.0			6.5	6.5		6.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95			1.00	1.00		1.00	
Frt	1.00	1.00	0.85	1.00	1.00			1.00	0.85		1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00		1.00	
Satd. Flow (prot)	1805	3471	1553	1805	3539			1805	1615		1900	
Flt Permitted	0.17	1.00	1.00	0.18	1.00			0.95	1.00		1.00	
Satd. Flow (perm)	329	3471	1553	351	3539			1805	1615		1900	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	3	1151	117	196	1273	0	101	0	97	0	4	0
RTOR Reduction (vph)	0	0	46	0	0	0	0	0	88	0	0	0
Lane Group Flow (vph)	3	1151	71	196	1273	0	0	101	9	0	4	0
Heavy Vehicles (%)	0%	4%	4%	0%	2%	0%	0%	0%	0%	0%	0%	0%
Turn Type	D.P+P	NA	Perm	D.P+P	NA		Split	NA	Perm		NA	
Protected Phases	5	2		1	6		4	4		3	3	
Permitted Phases	6		2	2					4			
Actuated Green, G (s)	90.0	79.2	79.2	90.5	88.9			12.6	12.6		1.4	
Effective Green, g (s)	90.0	79.2	79.2	90.5	88.9			12.6	12.6		1.4	
Actuated g/C Ratio	0.69	0.61	0.61	0.70	0.68			0.10	0.10		0.01	
Clearance Time (s)	7.5	6.0	6.0	7.0	6.0			6.5	6.5		6.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)	240	2114	946	370	2420			174	156		20	
v/s Ratio Prot	0.00	c0.33		0.05	c0.36			c0.06			c0.00	
v/s Ratio Perm	0.01		0.05	0.32					0.01			
v/c Ratio	0.01	0.54	0.08	0.53	0.53			0.58	0.06		0.20	
Uniform Delay, d1	13.2	14.9	10.4	9.3	10.1			56.2	53.3		63.7	
Progression Factor	1.00	1.00	1.00	1.53	0.42			1.00	1.00		1.00	
Incremental Delay, d2	0.0	1.0	0.2	1.0	0.6			4.9	0.2		4.9	
Delay (s)	13.2	15.9	10.6	15.3	4.9			61.0	53.5		68.6	
Level of Service	B	B	B	B	A			E	D		E	
Approach Delay (s)		15.4			6.3			57.3			68.6	
Approach LOS		B			A			E			E	

Intersection Summary					
HCM 2000 Control Delay		13.7	HCM 2000 Level of Service		B
HCM 2000 Volume to Capacity ratio		0.57			
Actuated Cycle Length (s)		130.0	Sum of lost time (s)		26.0
Intersection Capacity Utilization		70.2%	ICU Level of Service		C
Analysis Period (min)		15			
c Critical Lane Group					

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	13	114	308	39	98	350
Future Volume (vph)	13	114	308	39	98	350
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.879		0.985			
Flt Protected	0.995				0.950	
Satd. Flow (prot)	1629	0	1867	0	1805	1900
Flt Permitted	0.995				0.950	
Satd. Flow (perm)	1629	0	1867	0	1805	1900
Adj. Flow (vph)	14	120	324	41	103	368
Lane Group Flow (vph)	134	0	365	0	103	368
Sign Control	Stop		Free			Free

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 41.8%		ICU Level of Service A	
Analysis Period (min) 15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	13	114	308	39	98	350
Future Volume (Veh/h)	13	114	308	39	98	350
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	14	120	324	41	103	368
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						451
pX, platoon unblocked	0.89					
vC, conflicting volume	918	344			365	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	845	344			365	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	95	83			91	
cM capacity (veh/h)	270	698			1205	

Direction, Lane #	WB 1	NB 1	SB 1	SB 2
Volume Total	134	365	103	368
Volume Left	14	0	103	0
Volume Right	120	41	0	0
cSH	599	1700	1205	1700
Volume to Capacity	0.22	0.21	0.09	0.22
Queue Length 95th (ft)	21	0	7	0
Control Delay (s)	12.7	0.0	8.3	0.0
Lane LOS	B		A	
Approach Delay (s)	12.7	0.0	1.8	
Approach LOS	B			

Intersection Summary				
Average Delay		2.6		
Intersection Capacity Utilization		41.8%	ICU Level of Service	A
Analysis Period (min)		15		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1154	59	0	1464	0	68
Future Volume (vph)	1154	59	0	1464	0	68
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt		0.850				0.865
Flt Protected						
Satd. Flow (prot)	3539	1615	0	3539	0	1611
Flt Permitted						
Satd. Flow (perm)	3539	1615	0	3539	0	1611
Adj. Flow (vph)	1215	62	0	1541	0	72
Lane Group Flow (vph)	1215	62	0	1541	0	72
Sign Control	Free			Free	Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 43.8%		ICU Level of Service A	
Analysis Period (min) 15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1154	59	0	1464	0	68
Future Volume (Veh/h)	1154	59	0	1464	0	68
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	1215	62	0	1541	0	72
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	Raised			Raised		
Median storage veh)	1			1		
Upstream signal (ft)	433					
pX, platoon unblocked			0.70		0.70	0.70
vC, conflicting volume			1277		1986	608
vC1, stage 1 conf vol					1215	
vC2, stage 2 conf vol					770	
vCu, unblocked vol			528		1544	0
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	90
cM capacity (veh/h)			732		230	756

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1
Volume Total	608	608	62	770	770	72
Volume Left	0	0	0	0	0	0
Volume Right	0	0	62	0	0	72
cSH	1700	1700	1700	1700	1700	756
Volume to Capacity	0.36	0.36	0.04	0.45	0.45	0.10
Queue Length 95th (ft)	0	0	0	0	0	8
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	10.3
Lane LOS						B
Approach Delay (s)	0.0			0.0		10.3
Approach LOS						B

Intersection Summary				
Average Delay		0.3		
Intersection Capacity Utilization		43.8%	ICU Level of Service	A
Analysis Period (min)		15		

Intersection: 1: Turner Drive & Benns Church Boulevard

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	LT	R	LTR
Maximum Queue (ft)	122	484	498	280	354	398	372	310	224	38
Average Queue (ft)	29	272	284	120	238	257	237	162	71	6
95th Queue (ft)	91	431	451	309	364	392	359	268	161	26
Link Distance (ft)		2169	2169			358	358	341		116
Upstream Blk Time (%)					2	4	1	0		
Queuing Penalty (veh)					0	29	4	1		
Storage Bay Dist (ft)	140			280	450				250	
Storage Blk Time (%)	0	23	7	0	2	4		2	0	
Queuing Penalty (veh)	0	6	12	2	9	11		3	0	

Intersection: 2: Cypress Run Drive & Benns Church Boulevard

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	LT	R	LTR
Maximum Queue (ft)	48	321	302	134	219	181	188	173	128	32
Average Queue (ft)	4	149	125	24	103	34	45	74	33	4
95th Queue (ft)	28	281	254	78	184	114	125	139	76	21
Link Distance (ft)		885	885			2169	2169	657		94
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	150			245	255				180	
Storage Blk Time (%)	0	7	1	0	0	0		0	0	
Queuing Penalty (veh)	0	0	1	0	1	0		0	0	

Intersection: 3: Proposed Driveway & Turner Drive

Movement	WB	NB	SB
Directions Served	LR	TR	L
Maximum Queue (ft)	93	24	85
Average Queue (ft)	45	1	26
95th Queue (ft)	76	17	61
Link Distance (ft)	102	388	
Upstream Blk Time (%)	0		
Queuing Penalty (veh)	0		
Storage Bay Dist (ft)			200
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: Proposed Driveway & Benns Church Boulevard

Movement	WB	WB	NB
Directions Served	T	T	R
Maximum Queue (ft)	230	156	84
Average Queue (ft)	32	18	31
95th Queue (ft)	175	126	66
Link Distance (ft)	1102	1102	78
Upstream Blk Time (%)			1
Queuing Penalty (veh)			0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 81

Appendix F
Access Management Exception (AM-E)

Virginia Department of Transportation

February 2015

ACCESS MANAGEMENT EXCEPTION REQUEST: AM-E

ACCESS MANAGEMENT REGULATIONS 24 VAC 30-73

SECTION 120

Submitted by:		**Date:**
Email Address:		**Phone:**
Address:		
Project Name:	**Rte #**	**Locality:**
Description of Project:		
VDOT District:	**Area Land Use Engineer:**	

NOTES:
(1). Submit this form and any attachments to one of the District's Area Land Use Engineers.
(2). See Section 120 of the Regulations for details on the requirements, exceptions, and exception request review process.
(3). Attach additional information as necessary to justify the exception request(s).
(4). If a traffic engineering study is required, the decision on the request will be based on VDOT engineering judgment.
(5). Use the LD-440 Design Exception or the LD-448 Design Waiver forms for *design and engineering standards*, e.g. radius, grade, sight distance. See IIM-LD-227 on VDOT web site for additional instructions.

Select the Exception(s) Being Requested

☐ **Exception to the shared commercial entrance requirement.** (Access M. Regulations Section 120 C.2)

Reason for exception:

☐ **A. An agreement to share the entrance could not be reached with adjoining property owner.**

☐ **Attached:** Written evidence that adjoining property owner will not share the entrance.

☐ **B. Physical constraints: topography, adjacent hazardous land use, stream, wetland, other.**

☐ **Specify constraint:**

☐ **Attached:** Documentation of constraint such as aerial photo or topographic map.

☐ **Exception to the vehicular connection to adjoining undeveloped property requirement.** (Section 120 C.4)

Reason for exception:

☐ **A. Physical constraints: topography, adjacent hazardous land use, stream, wetland, other.**

☐ **Specify constraint:**

☐ **Attached:** Documentation of constraint such as aerial photo or topographic map.

☐ **B. Other reason:**

☐ **Exception to the commercial entrance shall not be located within the functional area of an intersection requirement.** (See Regulation Section 120 C. 1; Appendix F, Rd Design Manual)

☐ **Attached:** A traffic engineering study documenting that the operation of the intersection and public safety will not be adversely impacted.

☐ **EXCEPTION TO THE SPACING STANDARDS FOR:**

- **Commercial entrances; intersections/median crossovers (Table 2-2);**
- **Commercial entrances/intersections near interchange ramps (Tables 2-3, 2-4);** or
- **Corner clearance (Figure 4-4).** Appendix F, Road Design Manual

Information on the Exception Request

☐ **ON A STATE HIGHWAY**

Functional classification: Principal Arterial: ☐ Minor Arterial: ☐ Collector: ☐ Local: ☐

Posted speed limit: _____mph

☐ **NEAR AN INTERCHANGE RAMP** (Submittal of a traffic engineering study required)

☐ **CORNER CLEARANCE** (Submittal of a traffic engineering study required)

Type of intersection/entrance: Signalized ☐ Unsignalized ☐ Full Access ☐ Partial Access ☐

Required spacing distance _____ft

Proposed spacing distance _____ft

Requested exception: Reduction in required spacing _____**ft**

REASON FOR EXCEPTION:

☐ **A. To be located on an older, established business corridor along a highway where existing spacing did not meet the standards prior to 7/1/08 or 10/14/09.** (Regulation Section 120 C.3.c)

☐ **Attached:** Dated aerial photo of corridor identifying proposed entrance/intersection location.

☐ **B. Not enough property frontage to meet spacing standard, but the applicant does not want a partial access right-in/right-out entrance.** (Section 120 C.3.f)

☐ **Attached:** A traffic engineering study documenting that left turn movements at the entrance will not have a negative impact on highway operation or safety.

☐ **C. To be located within a new urbanism mixed use type development.** (Section 120 C.3.d)

☐ **Attached:** The design of the development and compliance with intersection sight distance.

☐ **D. The proposed entrance meets the signal warrants but does not meet the signalized intersection spacing standard. The applicant requests an exception to the spacing standard.**

☐ **Attached:** A traffic engineering study that (i) evaluates the location's suitability for a roundabout and (ii) provides documentation that the proposed signal will not impact safety and traffic flow. (Section 120 C.5)

☐ **E. The development's 2nd (or additional) entrance does not meet the spacing standards but is necessary for the streets to be accepted into the secondary system.** (Section 120 C.3.e)

☐ **Attached:** Information on the development that identifies the location of entrances.

☐ **F. To be located within the limits of a VDOT and locality approved access management corridor plan.**

☐ **Attached:** Aerial photo of corridor identifying proposed entrance/intersection location. (Sect 120 C.3.b)

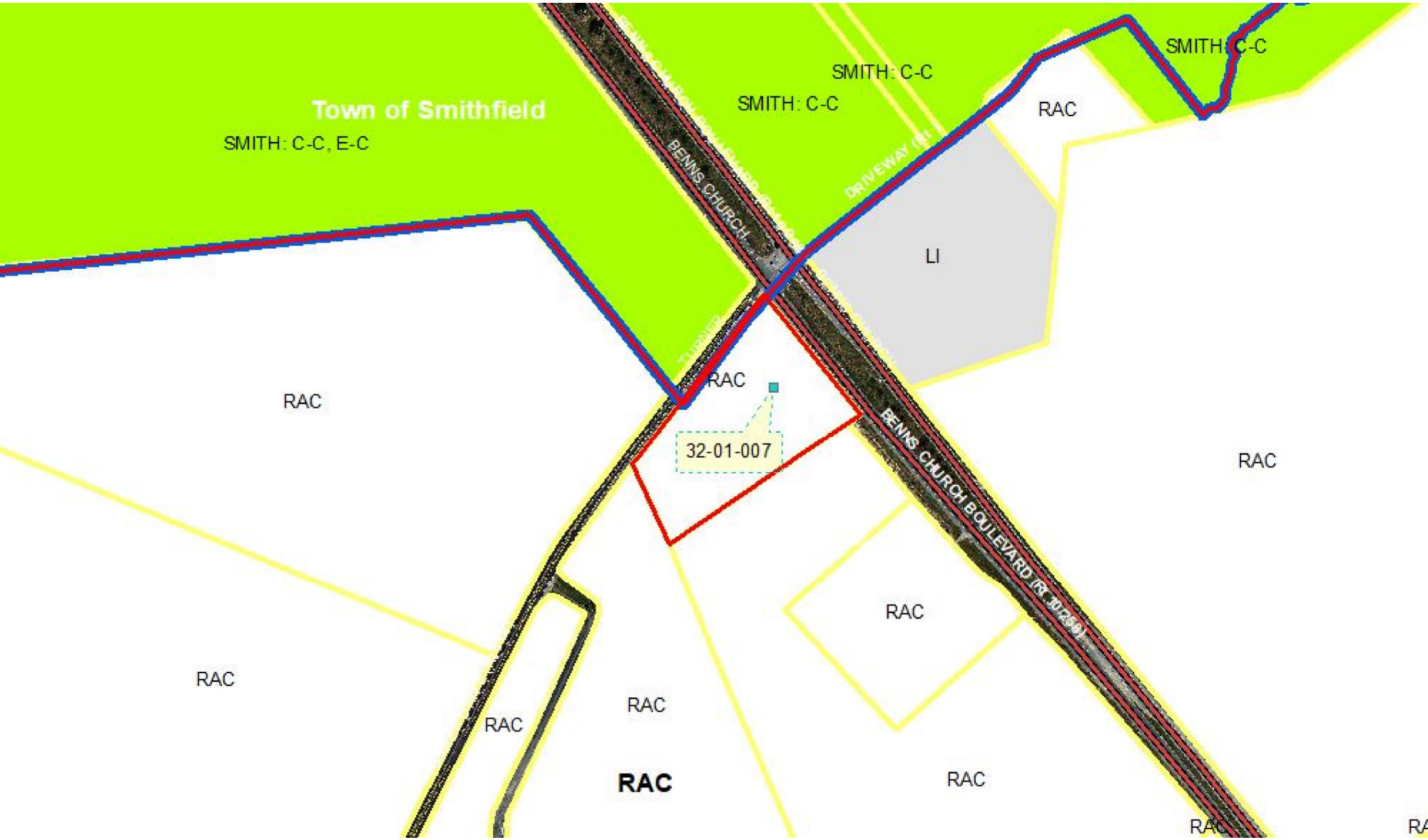
FOR VDOT USE ONLY

Recommendation on Exception Request: Approve ☐ Deny ☐	**Date:**
Area Land Use Engineer or:	**Name**
Remarks:	

Exception Request Action: Approved ☐ Denied ☐	**Date:**
District Administrator or Designee: **Name (and position if Designee)**	
Remarks:	

District Staff: Please email copy to Bradley.Shelton@VDOT.Virginia.gov

Town of Smithfield
BENNS CHURCH
DRIVEWAY (R)
TURNER
32-01-007
BENNS CHURCH BOULEVARD (R 30'ROW)
DRIVEWAY
DRIVEWAY (R)
CHURCH


Town of Smithfield
SMITH: C-C, E-C
SMITH: C-C
SMITH: C-C
SMITH: C-C
RAC
BENNS CHURCH
DRIVEWAY (R
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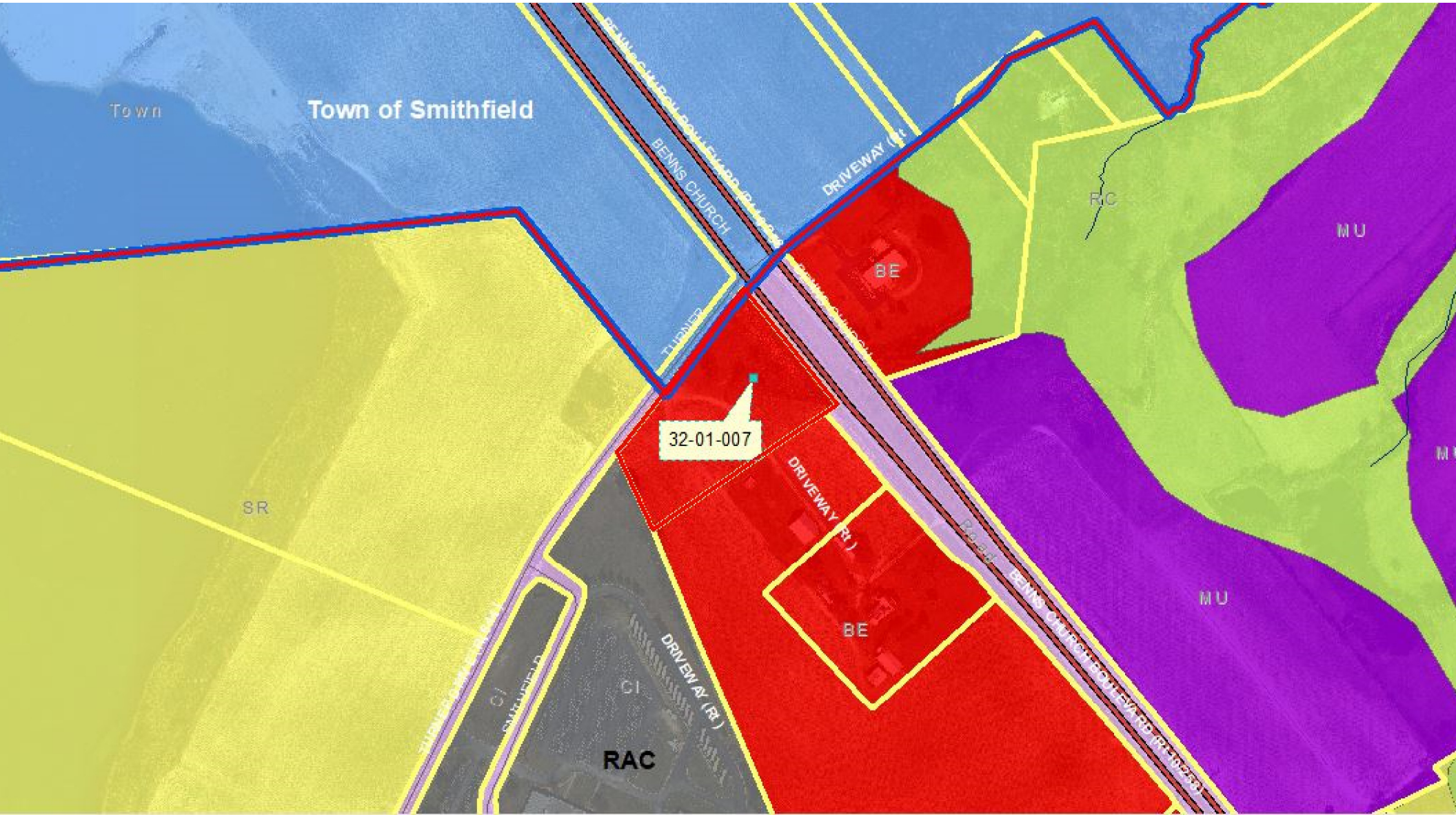

Town
Town of Smithfield
BENNS CHURCH BOULEVARD (R)
BENNS CHURCH
DRIVEWAY (R)
RC
MU
BE
32-01-007
SR
DRIVEWAY (R)
BE
MU
CI
CI
DRIVEWAY (R)
RAC

COMMONWEALTH of VIRGINIA

DEPARTMENT OF TRANSPORTATION
23116 Meherrin Road
COURTLAND, VIRGINIA 23837

June 15, 2022

Amy Ring, Director
Planning and Zoning
Isle of Wight County
P. O. Box 80
Isle of Wight, VA 23397

RE: CUP-08-21 WAWA
Route 10 (Benns Church Blvd)
TM #32-01-007

The Residency has completed its review of the submitted Traffic Impact Analysis (TIA) associated with the Conditional Use Permit application dated April 2022 and received by the VDOT Land Development Office on May 6, 2022 for the new WAWA. We offer the following comments:

General Comments

1) During peak hours, the existing Northbound Movements (coming from the school) at the intersection of Benn's Church Blvd and Turner Drive experience delays categorized as Level of Service (LOS) "D". With the additional traffic of the WAWA development it is projected that this LOS "D" remains.

2) During peak hours, the existing Westbound Left Turn Movements at the intersection of Benn's Church Blvd and Turner Drive experience delays categorized as LOS "B". Even with the improvements proposed in the TIA, with the additional traffic of the WAWA development it is projected that this movement will be reduced to LOS "D", adding an additional 20 seconds of delay. Mitigating this delay will require additional lanes on Turner Drive.

3) The entrance from Turner Drive to the WAWA is proposed with a "Do Not Block the Intersection" configuration, which will depend on enforcement by local police in order to function as proposed. If the entrance becomes blocked, there is a potential for traffic to back onto Benn's Church Blvd. There is also a potential for sight distance to be obstructed for vehicles making a left from the entrance headed toward the school. An alternate intersection design may be a safer option at this entrance.

4) Review and comments are focused on Scenario 4, which provides a build condition for the WAWA and background growth to account for approved development, but does not include a future elementary school. Introduction of the proposed future elementary school, (Scenario 3), or elementary school with

pedestrian phasing (Scenario 5), lead to extensive queuing and severe degradation of the Benn's Church/Turner Drive intersection operations.

5) The proposed change at the Turner Drive/Benn's Church Blvd. intersection will alter the dedicated right turn lane recently installed as part of a County LAP project from a dedicated right turn lane with 255' of storage and 120' of taper to a shared through/right lane. The through/left lane will transition to being a dedicated left, with 206' of storage and 100' taper. This change effectively increases the right turn/through storage to unlimited, but effectively reduces the left turn lane storage by 49' in storage and a 20' reduction in taper.

6) At the Northbound approach to Benn's Church Blvd, (coming from the school) the proposed through/right lane queues beyond the provided storage for the left lane in some model runs, blocking vehicles from accessing the left turn lane in peak conditions.

7) The concept plan is not dimensioned for analysis of the acceptability of the proposed roadway geometric changes. Lane transitions, curve geometry, etc. must comply with the VDOT Road Design Manual and receive approval during the site plan review process.

Entrance 1/Benn's Grant Blvd. Intersection

8) The proposed "shared access" entrance as shown in Figure 2 should be shown located on the property line, with half on each property, and an easement across the entirety. If an agreement cannot be reached with the adjacent property owner, then documentation of the property owner's declining to share an entrance shall be provided, and an easement can be recorded to the adjacent property to provide cross-parcel access. Comment response is acknowledged as to the shown entrance being the preferred alignment, however cross-parcel access requirements require the documentation of declined shared entrance on the property line be provided. This requirement can be handled during the site plan process.

Entrance 2/Turner Drive Intersection

9) The analysis shows and acknowledges the potential for queuing from the Benn's Church Blvd./Turner Drive intersection past the proposed full access Turner Drive entrance for limited times in all scenarios. The analysis relies on "Do Not Block Intersection" signage to assist drivers in not blocking the intersection.

10) The proposed connection across the rear of the property from the Turner Drive entrance does not appear to have sufficient throat distance from the intersection of Entrance 2 with Turner Drive. The connection will also frequently be blocked based on the queuing report at the Turner Drive/Entrance 2 intersection.

If you have any questions, please contact me at 757-346-3084 or Jason.fowler@vdot.virginia.gov.

Sincerely,

Jason C. Fowler, PE

Jason C. Fowler, PE
Area Land Use Engineer
Virginia Department of Transportation

Amy Ring

From: Jamie Oliver
Sent: Tuesday, June 14, 2022 11:33 AM
To: Amy Ring
Cc: Jason.Fowler@VDOT.Virginia.gov; Norris, Joshua (VDOT); Julie Boswell; Tony Wilson
Subject: Transportation Division Wawa CUP-08-21 Comments
Attachments: 22-0603 Wawa Turner Drive Comments.pdf

Good morning Amy,

I'm sorry this is so late getting to you. I was out several days recently for my daughter's high school graduation. Please see comments from the Transportation Division below…

1. We concur with VDOT's comments regarding the finding in the submitted TIA.

2. The Transportation Division has recently completed a turn lane project at the Turner Dr/Rt 10 intersection (UPC 103021). This project has provided the County with a in-depth understanding of the extensive utility operations in the area, which limit the operational improvements which can be achieved without significant utility relocations. *Without extensive relocation efforts, the functional capacity of the intersection is limited.*

3. As highlighted in VDOT's comments, when Wawa's traffic is added, the intersection's Level of Service (LOS) drops to and/or remains at a "D" and, through several TIA iterations proposing different solutions, has not been improved significantly. This is not normally a preferred outcome. The continuing challenge is that mitigating the delay would likely required adding additional lanes, and additional lane width may be uneconomical for the applicant due to utility relocation costs.

4. If the Wawa is accepted as proposed, please note, there is little to no remaining functional capacity at the intersection for any future public or commercial development utilizing Turner Dr. This could include future school growth and/or development on the north side of Turner Drive.

5. As noted in VDOT's comments, possible future school growth at the existing Smithfield High School/Middle School campus—which is included in the County's CIP--was not adequately accounted for in the TIA. Adding future school traffic volumes would degrade the projected Turner Dr/Route 10 intersection function further. Adding a secondary public ingress/egress for school traffic to have additional access to Route 10 could help alleviate the traffic volumes and delay at the Turner Drive intersection *as currently proposed*, as well as allowing capacity for future growth needs in the corridor.

6. Entrance 2/Turner Drive full access Intersection continues to be problematic in the analysis, with the TIA showing excessive queuing for certain periods in all scenarios. Considering both the volume of traffic and the character of traffic in the area (buses, teen drivers, etc.) the Transportation Division has significant concerns about both safety and functionality at this entrance.

    a. The "Do Not Block Intersection" Or Don't Block the Box scenarios are generally unenforceable unless the Sherriff's Office is actually on-site regularly to supervise traffic flow. This is an unrealistic option for the County.
    b. In this location, if "the Box" *is* blocked, queuing/gridlock would mean you could not get to the location to provide enforcement until the infraction was resolved.
    c. Currently, the most effective scenarios (outside of Virginia) seem to include the use of camera-ticket-enforcement.

d. These challenges only become more pronounced if you give consideration to any future development on the north side of Turner Drive which may want to use the existing road network.
e. An alternative intersection design, such as a single lane roundabout, may function as a safter and more efficient solution in this location, while allowing more capacity for future growth. It would need to be analyzed within the TIA.

7. Based on the submission, I am not clear if the pedestrian accommodations provided meet the requirements and expectations of the County's Bike and Pedestrian plan, or provide for cost sharing of future pedestrian improvements at the key intersection locations as adjacent improvements come online. It would be helpful for the project team to explain how they see this parcel contributing to the future multi-modal needs developing between the school campus, their parcel, the shopping center, and the residential communities further down Rt 10.
    a. Are their facilities 5' sidewalks, or 10' multi-use trails?
    b. Are their facilities providing functional connection to the adjacent school, or only extended to the property line?
    c. Are they providing driveway crosswalks and functional pedestrian access from the perimeter infrastructure to the store at the center of the parcel for non-vehicular, non-fuel customers?
    d. As a major intersection anchor, are they providing a plan or proposal for future "fair share" contributions to pedestrian accommodations at the Turner Dr/Route 10 intersection?

Thank you for giving our comments consideration, and please let me know if I can provide any revisions or clarifications for staff, since I am late providing them to you.

Jamie L. Oliver, Transportation Administrator
joliver@isleofwightus.net
(757) 365-1653……office
(757) 846-8600……cell

Isle of Wight County
Public Works—Transportation
PO BOX 80
Isle of Wight, VA 23397

From: Fowler, Jason <jason.fowler@vdot.virginia.gov>
Sent: Friday, June 3, 2022 3:32 PM
To: Amy Ring <aring@isleofwightus.net>
Cc: Jamie Oliver <joliver@isleofwightus.net>; Joshua Norris <joshua.norris@vdot.virginia.gov>
Subject: WAWA

See attached.

Jason Fowler
Franklin Residency / Hampton Roads District
23116 Meherrin Road
Courtland, VA 23837
757.346.3084 Office

TOWN OF SMITHFIELD

Friday, November 19th, 2021

Isle of Wight County Planning and Zoning
C/O Amy Ring, AICP
17140 Monument Circle #201
Isle of Wight, VA 23397

Re: Conditional Use Permit Application of Wawa Convenience Store and Gasoline Station – Southwest Corner of Turner Drive and Benn's Church, Isle of Wight County
KHA #116543041

Mrs. Ring,

The Town of Smithfield Community Development and Planning Department is in receipt of the letters and conceptual plans from Kimely Horn, dated Monday, October 25th, 2021, concerning the Conditional Use Permit Application submitted to Isle of Wight County for the proposed Wawa Convenience and Gasoline Station located at the southwest corner of Turner Drive and Benn's Church Boulevard (TPIN: 32-01-007) in Isle of Wight County (see Enclosures 1).

At its Tuesday, November 9th, 2021 meeting, the Smithfield Planning Commission discussed the proposed entrance for the Wawa off of Turner Drive. Their discussion centered around reconfiguring the entrance from Turner Drive so that it functioned more as a defined roadway at the rear of the property, which would extend across the back of the property and provide access to the parking lot. They were concerned about cars cutting through the parking lot to access Benn's Church without traveling to the traffic light and making a right turn.

Please contact me at 1-(757)-365-4200 or tclary@smithfieldva.gov with any questions.

Sincerely,

Tammie

Tammie Clary
Community Development & Planning Director

Cc: File

Enclosures:
(1) Letter, Ring to Clary, 2021-10-25

Local Roots, Global Reach

ISLE OF WIGHT COUNTY, VIRGINIA

DEPARTMENT OF COMMUNITY DEVELOPMENT

MEMORANDUM

TO: Don Jennings, Utility Services
Joshua Norris, VDOT
Jamie Oliver, Transportation Manager
Steve Henson, Emergency Services
Jennifer England, Isle of Wight County Museum
Chris Morello, Economic Development
Tammie Clary, Town of Smithfield ✓

FROM: Amy Ring, Director

RE: Wawa Gasoline Station and Convenience Store Conditional Use Permit Application (CUP-08-21) on Benns Church Boulevard (Rte. 10) with tax parcel number 32-01-007

DATE: October 29, 2021

Please find attached a copy of the Conditional Use Permit (CUP) application for the proposed Wawa gasoline station and associated convenience store located at the intersection of Benns Church Boulevard and Turner Drive (munis project number 25060).

Please find copies of the following application documents attached:

1. CUP application received on October 25, 2021;
2. Statement of reasons for seeking the permit;
3. Narrative description of the properties;
4. Building and canopy elevations;and
5. Conceptual plans.

Please review the attached documents and send me any comments or concerns you may have by Friday, November 19, 2021.

As always, please feel free to give me a call at 365-6210, or by email at aring@iwus.net, if you have any questions.

Kimley»Horn

October 25, 2021

Amy Ring, AICP
Director of Community Development
Isle of Wight County
17140 Monument Circle
Suite 101
Isle of Wight County, VA 23397

RE: Conditional Use Permit Application of Wawa Convenience Store and Gasoline Station – Southwest Corner of Turner Drive and Benns Church, Isle of Wight County
KHA #: 116543041

Dear Ms. Ring:

Enclose please find Conditional Use Permit Application that we file on behalf of Frontier Development with respect to the proposed Wawa Convenience Store and Gasoline Station located at southwest corner of Turner Drive and Benns Church Blvd., in Isle of Wight County, VA. Please accept these materials and place these items on the next available Planning Commission agenda.

Thank you for your assistance with this matter.

Sincerely,

Jeremy Yee, PE

Enclosures

Kimley»Horn

Statement of Reason – Conditional Use Permit

The property lies within the Rural Agricultural Conservation (RAC) District. The purpose of the Conditional Use Permit is to allow the proposed Wawa convenience store and gasoline station. The project will comply with the standards as listed in section 5-5000 supplementary use regulations, specifically for item K. Convenience Store and item P. Gasoline Station, except for the following modifications:

Item K. Convenience Store, 1.b. – The outdoor display of goods for sale shall prohibited except for the ice machine and propane gas as shown on site plan prepared by Kimley-Horn, dated 10-22-2021.

Item P. Gasoline Station, 1.j. – The gasoline station canopy measurements shall be consistent with the canopy elevations prepared by Cuhaci and Peterson, dated 10-20-2021.

Kimley»Horn

Narrative Description of The Property – Conditional Use Permit

The property, Parcel A, is the lands of William G. Yeoman, III, Trust as recorded in instrument number 00662 having a parcel identification of 32-01-007. The total site area is 169,412 square feet or 3.8892 acres. The property is zoned Rural Agricultural Conservation (RAC).

Local Roots, Global Reach

ISLE OF WIGHT COUNTY, VIRGINIA

DEPARTMENT OF PLANNING AND ZONING

SUBMITTAL CHECKLIST FOR CONDITIONAL / SPECIAL USE PERMITAPPLICATIONS

In conjunction with Section 1-1017, *Conditional Uses*, and Section 1-1018, *Special Uses Permits for Uses Not Provided For*, of the Isle of Wight County Zoning Ordinance, as amended, the following information shall be submitted for a Conditional / Special Use Permit Application. Please note that it is the applicant's responsibility to ensure that the application is in compliance with all Federal, State and County regulations.

No application for a Conditional / Special Use shall be certified as complete unless the following information is provided, unless the Zoning Administrator reduces the number of required copies.

X 1. Fifteen (15) copies of the original, executed application and one (1) original executed application. Both the applicant(s) and the property owner(s) must have their signature(s) notarized on page No. 2 of the application.

X 2. The appropriate fees have been submitted with the application. Checks should be made payable to: Treasurer, Isle of Wight County.

X 3. Fifteen (15) copies of a statement of the reasons for seeking such permit, and if applicable, a statement of conditions.

X 4. Fifteen (15) copies) of a narrative description of the property which shall include the Tax Parcel Identification Number.

X 5. One (1) copy of the most recent deed(s) for the property(s) associated with the application.

X 6. A concept plan of the property showing all existing and proposed physical improvements and such other information as is necessary to clearly indicate to the Planning Commission and Board of Supervisors that adequate provisions shall be made for compliance with all standards for that particular use and the extent of the property to be so used on a given parcel or parcels. Such document shall be drawn to scale and shall include the following information:

- A vicinity map at a scale of no less than one (1) inch equals two thousand (2,000) feet
- Title of drawing
- Date of drawing
- Existing wood line
- North arrow
- Scale bar
- Current zoning of parcel(s) to be rezoned, including tax map number(s) and owner(s)
- Current zoning of adjacent parcel(s), including tax map number(s) and owner(s)
- Street names including route number and width(s) of the right-of-way(s)
- Fifteen (15) full size copies, with one (1) reduced 11 inch X 17 inch copy shall be submitted
- Please note that additional information on the site layout may be requested by the Zoning Administrator during the review process in order to more effectively review the application and prepare the staff reports for the Planning Commission and Board of Supervisors.

X 7. Fifteen (15) copies of such supplemental material as may be necessitated by the proposal itself or the district in which located or proposed to be located, and in accordance with Section 5-5000, *Supplementary Use Regulations,* of the Isle of Wight County Zoning Ordinance.

X 8. All real estate taxes must be paid and current at the time of submittal; otherwise, the submittal will be refused at the counter. Proof of the most recent tax payment to the County must accompany the application.

I, the undersigned, certify that this application is complete, accurate and contains all required and requested information, documents and other submittals, and that all statements made herein are, to the best of my knowledge, true and correct. I further certify that I have exercised due diligence to obtain the most recent, complete and correct information available. I understand that any section not completed in its entirety may delay processing of this application and the date of the Planning Commission public hearing and that the submittal of a complete application does not guarantee the application will be placed on the next available Planning Commission agenda.

JEREMY YEE
Printed or Typed Name

Signature

10/25/2021
Date

Local Roots, Global Reach

ISLE OF WIGHT
COUNTY, VIRGINIA
DEPARTMENT OF PLANNING AND ZONING

APPLICATION FOR CONDITIONAL / SPECIAL USE PERMIT

This application should be used to petition for a permit for certain uses which, because of their unique characteristics or potential impacts on adjacent land uses, are not generally permitted in certain zoning districts as a matter of right, but which may, under the right set of circumstances and conditions be acceptable in certain specific locations. The following application requirements are consistent with the procedures set forth in Section 1-1017, *Conditional Uses,* and Section 1-1018, *Special Use Permits for Uses Not Provided For,* of the Isle of Wight County Zoning Ordinance, as amended.

A. APPLICATION FOR (CHECK ALL THAT APPLY):

[X] Conditional Use Permit (Are applicant proposed conditions attached?): X Yes _____ No

The proposed use or activity is listed as a conditional use in the RAC zoning district as per Section 4-2003 in Article IV of the Isle of Wight County Zoning Ordinance.

[X] Special Use Permit (Are applicant proposed conditions attached?): X Yes _____ No

Proposed Use or Activity: To allow convenience store and gas station

B. PROJECT DESCRIPTION:

Project Name: Wawa convenience store with gas station

Property Address (if any): Southwest corner of Turner Drive and Benns Church Blvd

Election District: Windsor

Comprehensive Plan Designation: Business & Employment

The use permit will apply to 3.8892 acres out of 3.8892 total acres

Tax Parcel Identification # 32-01-007 Number of acres to be effected: 3.8892

Tax Parcel Identification # _____ Number of acres to be effected: _____

Tax Parcel Identification # _____ Number of acres to be effected: _____

Proposed Utilities (check all that apply): Public Water X Private Well _____

Public Sewer X Private Septic _____

C. **APPLICATION INFORMATION:**

Applicant(s) Name(s): ~~Frontier Companies~~ Frontier Development

Address: ~~4801 SW 3rd Avenue, Suite 590~~ 2950 SW 27th Avenue, Suite 300

City, State, Zip Code: ~~Miami, Florida 33129~~ Miami, Florida 33133

Phone No.: 305-692-9992 Email: jleach@fdllc.com Fax No.:

Property Owner(s) Name(s): Yeoman William G III Trustee William G Y

Address: C/O Henry E Layden PO Box 231

City, State, Zip Code: Smithfield VA 23431

Phone No.: 757-438-3160 Email: henry.layden1@gmail.com Fax No.: N/A

Applicants/Owners Affidavit (including compliance with all deed restrictions and covenants)

This application must be signed by the owner(s) of the subject property or must have attached written evidence of the owner's consent, which may be in the form of a binding contract of sale with the owner's signature or a letter signed by the owner(s), containing written authorization to act with full authority on the owner(s) behalf in filing this use permit application. Signing this application shall certify the owner's compliance with all deed restrictions and covenants, and shall constitute the granting of authority of the County to enter onto the property for the purpose of conducting site analyses and compliance with Federal, State and County regulations.

Applicant: Remus Brustur
Printed or Typed Name

Applicant: _____ Date: 10/12/2021
Signature

County of ~~Isle of Wight, Commonwealth of Virginia~~ MIAMI-DADE STATE OF FLORIDA

Subscribed and sworn to before me Jennifer Zurita,
A Notary Public in and for the County of ~~Isle of Wight, Commonwealth of Virginia~~ MIAMI-DADE STATE OF FLORIDA, this 12 day of Oct., 2021

_____
Notary Public

My Commission Expires _____

JENNIFER ZURITA
Notary Public-State of Florida
Commission # HH 109084
My Commission Expires
March 24, 2025

Owner: HENRY LAYDEN
Printed or Typed Name

Owner: _____ Date: 10/20/21
Signature

County of Isle of Wight, Commonwealth of Virginia

Subscribed and sworn to before me Elizabeth Dixon Jones
A Notary Public in and for the County of Isle of Wight, Commonwealth of Virginia, this 20th day of Oct, 2021

_____
Notary Public

My Commission Expires December 31, 2022

ELIZABETH DIXON JONES
NOTARY PUBLIC
Commonwealth of Virginia
Reg. # 7767629
Com. Exp. Dec. 31, 2022

Owner: _____
Printed or Typed Name

Owner: _____ Date: _____
Signature

County of Isle of Wight, Commonwealth of Virginia

Subscribed and sworn to before me _____,
A Notary Public in and for the County of Isle of Wight, Commonwealth of Virginia, this ___ day of _____, 20___

_____
Notary Public

My Commission Expires _____

Owner: _____
Printed or Typed Name

Owner: _____ Date: _____
Signature

County of Isle of Wight, Commonwealth of Virginia

Subscribed and sworn to before me _____,
A Notary Public in and for the County of Isle of Wight, Commonwealth of Virginia, this ___ day of _____, 20___

_____
Notary Public

My Commission Expires _____

NOTICE: THE ATTACHED CHECKLIST MUST BE COMPLETED, CERTIFIED, AND SUBMITTED OR THE APPLICATION WILL BE CONSIDERED INCOMPLETE.

Remit Application to: Isle of Wight County Central Permitting, 17140 Monument Circle, Suite 100
P. O. Box 80, Isle of Wight, Virginia 23397

FOR OFFICE USE ONLY:

Complete Application Received On: _____ Fees Paid: _____
Tax Query: [ ] Current [ ] Delinquent Distribution Date: _____
Posted/Date to Post: _____

AGENCIES REFERRALS:

_____ Department of Conservation & Recreation
_____ Economic Development
_____ Emergency Services
_____ General Services
_____ Environmental Planner
_____ Health Department
_____ Transportation Manager
_____ Commission of Revenue
_____ Other _____

_____ Inspections
_____ Sheriff's Office
_____ Town of Smithfield
_____ Town of Windsor
_____ VDOT
_____ Schools
_____ Budget & Finance
_____ County Attorney

Verified By: _____ Date: _____

Revised August 13, 2014

COUNTY OF ISLE OF WIGHT
DISCLOSURE OF REAL ESTATE HOLDINGS

Applicant Remus Brustur

Address 2950 SW 27th Avenue, Suite 300
Street

Miami | Florida | 33133
City | State | Zip

REAL ESTATE HOLDINGS TO BE AFFECTED

Location or Address	Description

OTHER OWNERS OF AFFECTED REAL ESTATE

(Not Required for Corporation whose stock is traded on a national or local stock exchange or having more than 500 shareholders.)

Name of Individuals Corporation/Partnership Business Association	Address

Does any member of the Isle of Wight County Planning Commission or governing body have any interest in such property, either individually, by ownership of stock in a corporation owning such land, partnership, as the beneficiary of a trust, or the settlor of a revocable trust, or whether a member of the immediate household of any member of the Planning Commission or governing body has any such interest? Yes No

If yes, names of members:

I do solemnly swear that the foregoing statement(s) and attachments(s), if any, are complete, correct and true.

Applicant: Remus Brustur (Printed or Typed Name) Applicant: _____ (Signature) Date: 10/12/2021

~~Commonwealth of Virginia~~ STATE OF FLORIDA
County of ~~Isle of Wight~~ MIAMI DADE

Subscribed and sworn to before me Jennifer Zurita,
A Notary Public in and for the County of ~~Isle of Wight, Commonwealth of Virginia~~ MIAMI-DADE, STATE OF FLORIDA, this 12 day of Oct., 2021.

_____
Notary Public

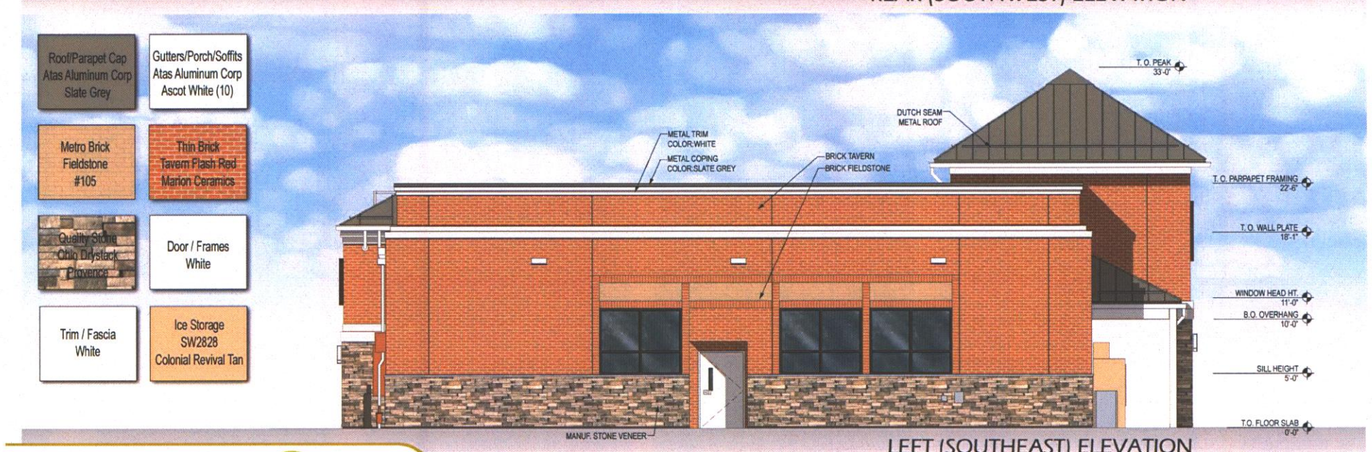
My Commission Expires _____

JENNIFER ZURITA
Notary Public-State of Florida
Commission # HH 109084
My Commission Expires
March 24, 2025

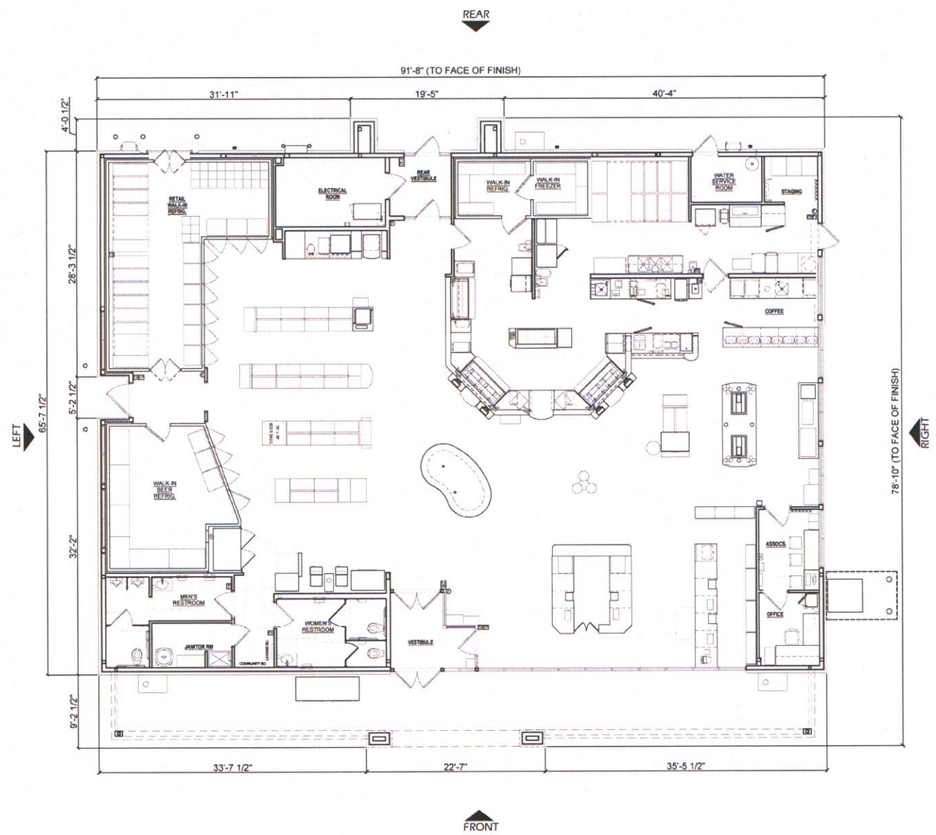
RIGHT (NORTHWEST) ELEVATION (TURNER DR.)

FRONT (NORTHEAST) ELEVATION (BENNS CHURCH BLVD.)

REAR (SOUTHWEST) ELEVATION



LEFT (SOUTHEAST) ELEVATION



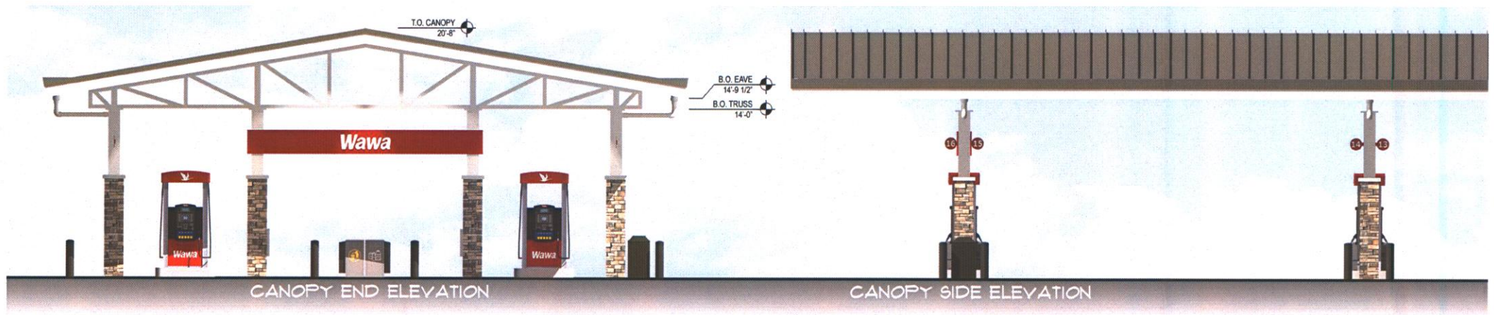
FLOOR PLAN

NOTE:
SIGNAGE IS SHOWN FOR REFERENCE ONLY
SEPARATE PERMIT REQUIRED

Cuhaci & Peterson
Architects Engineers Planners
ORLANDO • PHILADELPHIA

WAWA W50 FB VA M_v.2021.1

Benns Chruch & Turner Dr., Isle of Wight, VA • C&P Project #2210807 • 10-20-2021



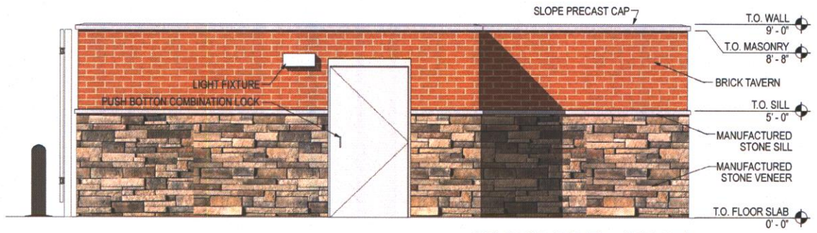
CANOPY END ELEVATION

CANOPY SIDE ELEVATION

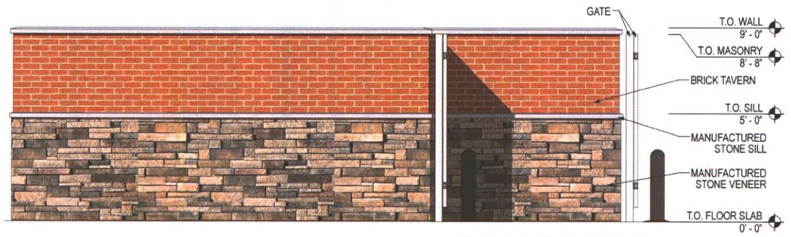
CANOPY PERSPECTIVE VIEW

The Wawa fuel canopy is a registered service mark in the U.S. Patent and Trademark Office. The fuel canopy, as well as Wawa's brand names, slogans, logos, service marks, and other trademarks of Wawa's goods, services, and promotions belong exclusively to Wawa, Inc. and/or, Wild Goose Holding Co., Inc. and are protected from copying and simulation under national and international trademark and copyright laws and treaties throughout the world.

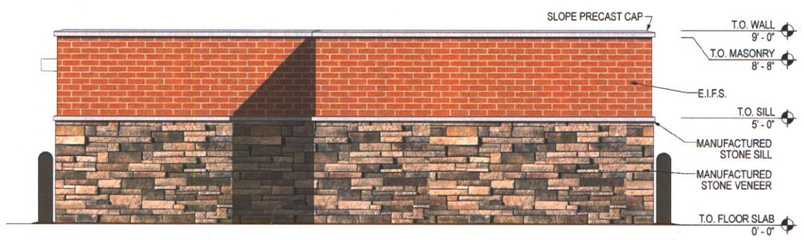
FRONT ELEVATION



RIGHT ELEVATION



LEFT ELEVATION



REAR ELEVATION

Cuhaci & Peterson
Architects Engineers Planners

WAWA GAS CANOPY® STACKED 8 - A-FRAME - TRASH COMPOUND MAOF17-R

Benns Church & Turner Dr., Isle of Wight, VA • C&P Project #2210807 • 10-20-2021

Plotted By:Mathews, Joe Sheet Set:Kha Layout:CUP LANDSCAPE PLAN October 25, 2021 09:55:32am K:\VAB_Civil_WAWA\116543041 – Wawa Benns Church\CADD\Exhibits\CUP\VA, Isle of Wight Wawa – CUP Site Plan.dwg
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

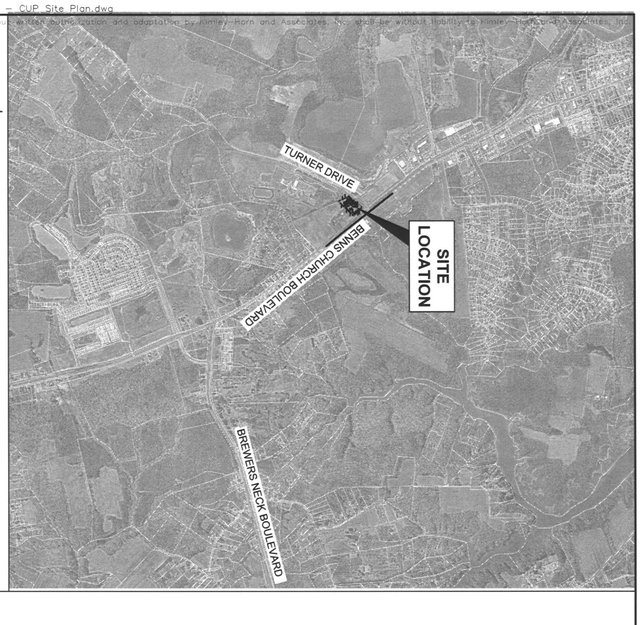
GRAPHIC SCALE IN FEET
0 20 40 80

NORTH

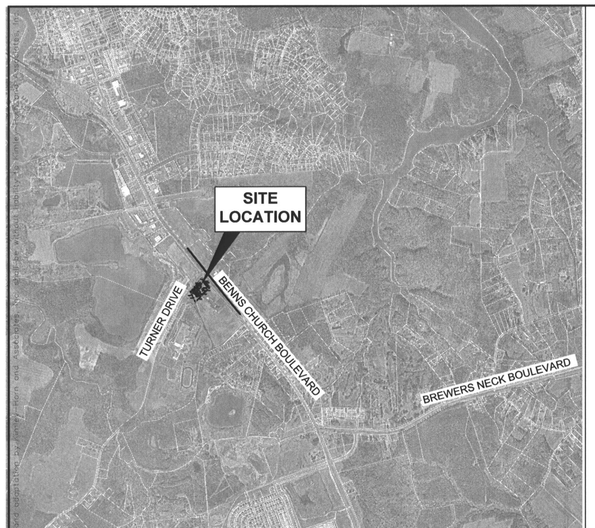
NORTH

VICINITY MAP
1"=2,000'

nearmap
Imagery © 2021 Nearmap, HERE



TURNER DRIVE VA RTE. 644
VARIABLE WIDTH RIGHT-OF-WAY
(OPEN / PAVED PUBLIC ROADS)
EDGE OF PAVEMENT
SOLID WHITE LINE
DOUBLE YELLOW LINE
SOLID WHITE LINE
EDGE OF PAVEMENT
24" RCP
MH=42.59
MH=44.43
MH=42.59
MH=44.21
MH=41.22
MH=38.73
MH=39.00
MH=38.43
MH=41.22
MH=42.59
24" RCP
24" RCP
24" RCP



NORTH

VICINITY MAP
1"=2,000'

nearmap
Imagery © 2021 Nearmap, HERE

SITE DATA		
JURISDICTION	ISLE OF WIGHT COUNTY	
EXISTING ZONING	RAC	
PROPOSED ZONING	RAC	
SEE "PARCEL A" DATA BELOW		
WAWA "PARCEL A" AREA	3.89 AC.±	
BUILDING AREA	6,049 S.F.	
MIN. PARKING REQUIRED	34 SPACES	
PARKING PROVIDED	55 SPACES	
FRONT SETBACK (BENNS CHURCH)		60 FT
FRONT SETBACK (TURNER)		85 FT
SIDE SETBACK		35 FT
REAR SETBACK		35 FT
FRONT BUFFER YARD		50 FT
SIDE BUFFER YARD		10 FT
REAR BUFFER YARD		10 FT
# MPD'S	8	

PARCEL A

LANDS N/F
WILLIAM G. YEOMAN, III, TRUSTEE
WILLIAM G. YEOMAN TRUST
INSTRUMENT NO. 00662
PARCEL ID 32-01-007
ZONED: RAC
AREA= 169,412 SQ. FT. OR
3.8892 ACRES

NO POSTED ADDRESS

NORTH

GRAPHIC SCALE IN FEET
0 20 40 80

Kimley»Horn AND ASSOCIATES, INC.
© 2021 KIMLEY-HORN AND ASSOCIATES, INC.
4525 MAIN STREET, SUITE 1000, VIRGINIA BEACH, VA 23462
PHONE: 757-213-8600 FAX: 757-213-8601
WWW.KIMLEY-HORN.COM

NO.	REVISIONS	DATE	BY

KHA PROJECT 116543041
DATE 10/22/2021
SCALE AS SHOWN
DESIGNED BY NJS
DRAWN BY NJS
CHECKED BY JY

CUP SITE PLAN
BENNS CHURCH BOULEVARD & TURNER DRIVE

WAWA
VIRGINIA
ISLE OF WIGHT COUNTY

SHEET NUMBER
1

Plotted By:Mathews, Joe Sheet Set:Kha Layout:CUP PLAN October 25, 2021 09:55:11am K:\VAB_Civil_WAWA\116543041 – Wawa Benns Church\CADD\Exhibits\CUP\VA, Isle of Wight Wawa – CUP Site Plan.dwg
Xrefs: Boundary Survey.dwg
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TOWN OF SMITHFIELD

Friday, November 19th, 2021

Isle of Wight County Planning and Zoning
C/O Amy Ring, AICP
17140 Monument Circle #201
Isle of Wight, VA 23397

Re: Conditional Use Permit Application of Wawa Convenience Store and Gasoline Station – Southwest Corner of Turner Drive and Benn's Church, Isle of Wight County
KHA #116543041

Mrs. Ring,

The Town of Smithfield Community Development and Planning Department is in receipt of the letters and conceptual plans from Kimely Horn, dated Monday, October 25th, 2021, concerning the Conditional Use Permit Application submitted to Isle of Wight County for the proposed Wawa Convenience and Gasoline Station located at the southwest corner of Turner Drive and Benn's Church Boulevard (TPIN: 32-01-007) in Isle of Wight County (see Enclosures 1).

At its Tuesday, November 9th, 2021 meeting, the Smithfield Planning Commission discussed the proposed entrance for the Wawa off of Turner Drive. Their discussion centered around reconfiguring the entrance from Turner Drive so that it functioned more as a defined roadway at the rear of the property, which would extend across the back of the property and provide access to the parking lot. They were concerned about cars cutting through the parking lot to access Benn's Church without traveling to the traffic light and making a right turn.

Please contact me at 1-(757)-365-4200 or tclary@smithfieldva.gov with any questions.

Sincerely,

Tammie

Tammie Clary
Community Development & Planning Director

Cc: File

Enclosures:
(1) Letter, Ring to Clary, 2021-10-25

Local Roots, Global Reach

ISLE OF WIGHT COUNTY, VIRGINIA

DEPARTMENT OF COMMUNITY DEVELOPMENT

MEMORANDUM

TO: Don Jennings, Utility Services
Joshua Norris, VDOT
Jamie Oliver, Transportation Manager
Steve Henson, Emergency Services
Jennifer England, Isle of Wight County Museum
Chris Morello, Economic Development
Tammie Clary, Town of Smithfield ✓

FROM: Amy Ring, Director

RE: Wawa Gasoline Station and Convenience Store Conditional Use Permit Application (CUP-08-21) on Benns Church Boulevard (Rte. 10) with tax parcel number 32-01-007

DATE: October 29, 2021

Please find attached a copy of the Conditional Use Permit (CUP) application for the proposed Wawa gasoline station and associated convenience store located at the intersection of Benns Church Boulevard and Turner Drive (munis project number 25060).

Please find copies of the following application documents attached:

1. CUP application received on October 25, 2021;
2. Statement of reasons for seeking the permit;
3. Narrative description of the properties;
4. Building and canopy elevations;and
5. Conceptual plans.

Please review the attached documents and send me any comments or concerns you may have by Friday, November 19, 2021.

As always, please feel free to give me a call at 365-6210, or by email at aring@iwus.net, if you have any questions.

Kimley»Horn

October 25, 2021

Amy Ring, AICP
Director of Community Development
Isle of Wight County
17140 Monument Circle
Suite 101
Isle of Wight County, VA 23397

RE: Conditional Use Permit Application of Wawa Convenience Store and Gasoline Station – Southwest Corner of Turner Drive and Benns Church, Isle of Wight County
KHA #: 116543041

Dear Ms. Ring:

Enclose please find Conditional Use Permit Application that we file on behalf of Frontier Development with respect to the proposed Wawa Convenience Store and Gasoline Station located at southwest corner of Turner Drive and Benns Church Blvd., in Isle of Wight County, VA. Please accept these materials and place these items on the next available Planning Commission agenda.

Thank you for your assistance with this matter.

Sincerely,

Jeremy Yee, PE

Enclosures

Kimley»Horn

Statement of Reason – Conditional Use Permit

The property lies within the Rural Agricultural Conservation (RAC) District. The purpose of the Conditional Use Permit is to allow the proposed Wawa convenience store and gasoline station. The project will comply with the standards as listed in section 5-5000 supplementary use regulations, specifically for item K. Convenience Store and item P. Gasoline Station, except for the following modifications:

Item K. Convenience Store, 1.b. – The outdoor display of goods for sale shall prohibited except for the ice machine and propane gas as shown on site plan prepared by Kimley-Horn, dated 10-22-2021.

Item P. Gasoline Station, 1.j. – The gasoline station canopy measurements shall be consistent with the canopy elevations prepared by Cuhaci and Peterson, dated 10-20-2021.

Kimley»Horn

Narrative Description of The Property – Conditional Use Permit

The property, Parcel A, is the lands of William G. Yeoman, III, Trust as recorded in instrument number 00662 having a parcel identification of 32-01-007. The total site area is 169,412 square feet or 3.8892 acres. The property is zoned Rural Agricultural Conservation (RAC).

Local Roots, Global Reach

ISLE OF WIGHT COUNTY, VIRGINIA

DEPARTMENT OF PLANNING AND ZONING

SUBMITTAL CHECKLIST FOR CONDITIONAL / SPECIAL USE PERMITAPPLICATIONS

In conjunction with Section 1-1017, *Conditional Uses*, and Section 1-1018, *Special Uses Permits for Uses Not Provided For*, of the Isle of Wight County Zoning Ordinance, as amended, the following information shall be submitted for a Conditional / Special Use Permit Application. Please note that it is the applicant's responsibility to ensure that the application is in compliance with all Federal, State and County regulations.

No application for a Conditional / Special Use shall be certified as complete unless the following information is provided, unless the Zoning Administrator reduces the number of required copies.

X 1. Fifteen (15) copies of the original, executed application and one (1) original executed application. Both the applicant(s) and the property owner(s) must have their signature(s) notarized on page No. 2 of the application.

X 2. The appropriate fees have been submitted with the application. Checks should be made payable to: Treasurer, Isle of Wight County.

X 3. Fifteen (15) copies of a statement of the reasons for seeking such permit, and if applicable, a statement of conditions.

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- A vicinity map at a scale of no less than one (1) inch equals two thousand (2,000) feet
- Title of drawing
- Date of drawing
- Existing wood line
- North arrow
- Scale bar
- Current zoning of parcel(s) to be rezoned, including tax map number(s) and owner(s)
- Current zoning of adjacent parcel(s), including tax map number(s) and owner(s)
- Street names including route number and width(s) of the right-of-way(s)
- Fifteen (15) full size copies, with one (1) reduced 11 inch X 17 inch copy shall be submitted
- Please note that additional information on the site layout may be requested by the Zoning Administrator during the review process in order to more effectively review the application and prepare the staff reports for the Planning Commission and Board of Supervisors.

X 7. Fifteen (15) copies of such supplemental material as may be necessitated by the proposal itself or the district in which located or proposed to be located, and in accordance with Section 5-5000, *Supplementary Use Regulations,* of the Isle of Wight County Zoning Ordinance.

X 8. All real estate taxes must be paid and current at the time of submittal; otherwise, the submittal will be refused at the counter. Proof of the most recent tax payment to the County must accompany the application.

I, the undersigned, certify that this application is complete, accurate and contains all required and requested information, documents and other submittals, and that all statements made herein are, to the best of my knowledge, true and correct. I further certify that I have exercised due diligence to obtain the most recent, complete and correct information available. I understand that any section not completed in its entirety may delay processing of this application and the date of the Planning Commission public hearing and that the submittal of a complete application does not guarantee the application will be placed on the next available Planning Commission agenda.

JEREMY YEE
Printed or Typed Name

Signature

10/25/2021
Date

Local Roots, Global Reach

ISLE OF WIGHT
COUNTY, VIRGINIA
DEPARTMENT OF PLANNING AND ZONING

APPLICATION FOR CONDITIONAL / SPECIAL USE PERMIT

This application should be used to petition for a permit for certain uses which, because of their unique characteristics or potential impacts on adjacent land uses, are not generally permitted in certain zoning districts as a matter of right, but which may, under the right set of circumstances and conditions be acceptable in certain specific locations. The following application requirements are consistent with the procedures set forth in Section 1-1017, *Conditional Uses,* and Section 1-1018, *Special Use Permits for Uses Not Provided For,* of the Isle of Wight County Zoning Ordinance, as amended.

A. APPLICATION FOR (CHECK ALL THAT APPLY):

[X] Conditional Use Permit (Are applicant proposed conditions attached?): X Yes _____ No

The proposed use or activity is listed as a conditional use in the RAC zoning district as per Section 4-2003 in Article IV of the Isle of Wight County Zoning Ordinance.

[X] Special Use Permit (Are applicant proposed conditions attached?): X Yes _____ No

Proposed Use or Activity: To allow convenience store and gas station

B. PROJECT DESCRIPTION:

Project Name: Wawa convenience store with gas station

Property Address (if any): Southwest corner of Turner Drive and Benns Church Blvd

Election District: Windsor

Comprehensive Plan Designation: Business & Employment

The use permit will apply to 3.8892 acres out of 3.8892 total acres

Tax Parcel Identification # 32-01-007 Number of acres to be effected: 3.8892

Tax Parcel Identification # _____ Number of acres to be effected: _____

Tax Parcel Identification # _____ Number of acres to be effected: _____

Proposed Utilities (check all that apply): Public Water X Private Well _____

Public Sewer X Private Septic _____

C. **APPLICATION INFORMATION:**

Applicant(s) Name(s): ~~Frontier Companies~~ Frontier Development

Address: ~~4801 SW 3rd Avenue, Suite 590~~ 2950 SW 27th Avenue, Suite 300

City, State, Zip Code: ~~Miami, Florida 33129~~ Miami, Florida 33133

Phone No.: 305-692-9992 Email: jleach@fdllc.com Fax No.:

Property Owner(s) Name(s): Yeoman William G III Trustee William G Y

Address: C/O Henry E Layden PO Box 231

City, State, Zip Code: Smithfield VA 23431

Phone No.: 757-438-3160 Email: henry.layden1@gmail.com Fax No.: N/A

Applicants/Owners Affidavit (including compliance with all deed restrictions and covenants)

This application must be signed by the owner(s) of the subject property or must have attached written evidence of the owner's consent, which may be in the form of a binding contract of sale with the owner's signature or a letter signed by the owner(s), containing written authorization to act with full authority on the owner(s) behalf in filing this use permit application. Signing this application shall certify the owner's compliance with all deed restrictions and covenants, and shall constitute the granting of authority of the County to enter onto the property for the purpose of conducting site analyses and compliance with Federal, State and County regulations.

Applicant: Remus Brustur
Printed or Typed Name

Applicant: _____ Date: 10/12/2021
Signature

County of ~~Isle of Wight, Commonwealth of Virginia~~ MIAMI-DADE STATE OF FLORIDA

Subscribed and sworn to before me Jennifer Zurita,
A Notary Public in and for the County of ~~Isle of Wight, Commonwealth of Virginia~~ MIAMI-DADE STATE OF FLORIDA, this 12 day of Oct., 2021

_____
Notary Public

My Commission Expires _____

JENNIFER ZURITA
Notary Public-State of Florida
Commission # HH 109084
My Commission Expires
March 24, 2025

Owner: HENRY LAYDEN
Printed or Typed Name

Owner: _____ Date: 10/20/21
Signature

County of Isle of Wight, Commonwealth of Virginia

Subscribed and sworn to before me Elizabeth Dixon Jones
A Notary Public in and for the County of Isle of Wight, Commonwealth of Virginia, this 20th day of Oct, 2021

_____
Notary Public

My Commission Expires December 31, 2022

ELIZABETH DIXON JONES
NOTARY PUBLIC
Commonwealth of Virginia
Reg. # 7767629
Com. Exp. Dec. 31, 2022

Owner: _____
Printed or Typed Name

Owner: _____ Date: _____
Signature

County of Isle of Wight, Commonwealth of Virginia

Subscribed and sworn to before me _____,
A Notary Public in and for the County of Isle of Wight, Commonwealth of Virginia, this ___ day of _____, 20___

_____
Notary Public

My Commission Expires _____

Owner: _____
Printed or Typed Name

Owner: _____ Date: _____
Signature

County of Isle of Wight, Commonwealth of Virginia

Subscribed and sworn to before me _____,
A Notary Public in and for the County of Isle of Wight, Commonwealth of Virginia, this ___ day of _____, 20___

_____
Notary Public

My Commission Expires _____

NOTICE: THE ATTACHED CHECKLIST MUST BE COMPLETED, CERTIFIED, AND SUBMITTED OR THE APPLICATION WILL BE CONSIDERED INCOMPLETE.

Remit Application to: Isle of Wight County Central Permitting, 17140 Monument Circle, Suite 100
P. O. Box 80, Isle of Wight, Virginia 23397

FOR OFFICE USE ONLY:

Complete Application Received On: _____ Fees Paid: _____
Tax Query: [ ] Current [ ] Delinquent Distribution Date: _____
Posted/Date to Post: _____

AGENCIES REFERRALS:

_____ Department of Conservation & Recreation
_____ Economic Development
_____ Emergency Services
_____ General Services
_____ Environmental Planner
_____ Health Department
_____ Transportation Manager
_____ Commission of Revenue
_____ Other _____

_____ Inspections
_____ Sheriff's Office
_____ Town of Smithfield
_____ Town of Windsor
_____ VDOT
_____ Schools
_____ Budget & Finance
_____ County Attorney

Verified By: _____ Date: _____

Revised August 13, 2014

COUNTY OF ISLE OF WIGHT
DISCLOSURE OF REAL ESTATE HOLDINGS

Applicant Remus Brustur

Address 2950 SW 27th Avenue, Suite 300
Street

Miami | Florida | 33133
City | State | Zip

REAL ESTATE HOLDINGS TO BE AFFECTED

Location or Address	Description

OTHER OWNERS OF AFFECTED REAL ESTATE

(Not Required for Corporation whose stock is traded on a national or local stock exchange or having more than 500 shareholders.)

Name of Individuals Corporation/Partnership Business Association	Address

Does any member of the Isle of Wight County Planning Commission or governing body have any interest in such property, either individually, by ownership of stock in a corporation owning such land, partnership, as the beneficiary of a trust, or the settlor of a revocable trust, or whether a member of the immediate household of any member of the Planning Commission or governing body has any such interest? Yes No

If yes, names of members:

I do solemnly swear that the foregoing statement(s) and attachments(s), if any, are complete, correct and true.

Applicant: Remus Brustur (Printed or Typed Name) Applicant: _____ (Signature) Date: 10/12/2021

~~Commonwealth of Virginia~~ STATE OF FLORIDA
County of ~~Isle of Wight~~ MIAMI DADE

Subscribed and sworn to before me Jennifer Zurita,
A Notary Public in and for the County of ~~Isle of Wight, Commonwealth of Virginia~~ MIAMI-DADE, STATE OF FLORIDA, this 12 day of Oct., 2021.

_____
Notary Public

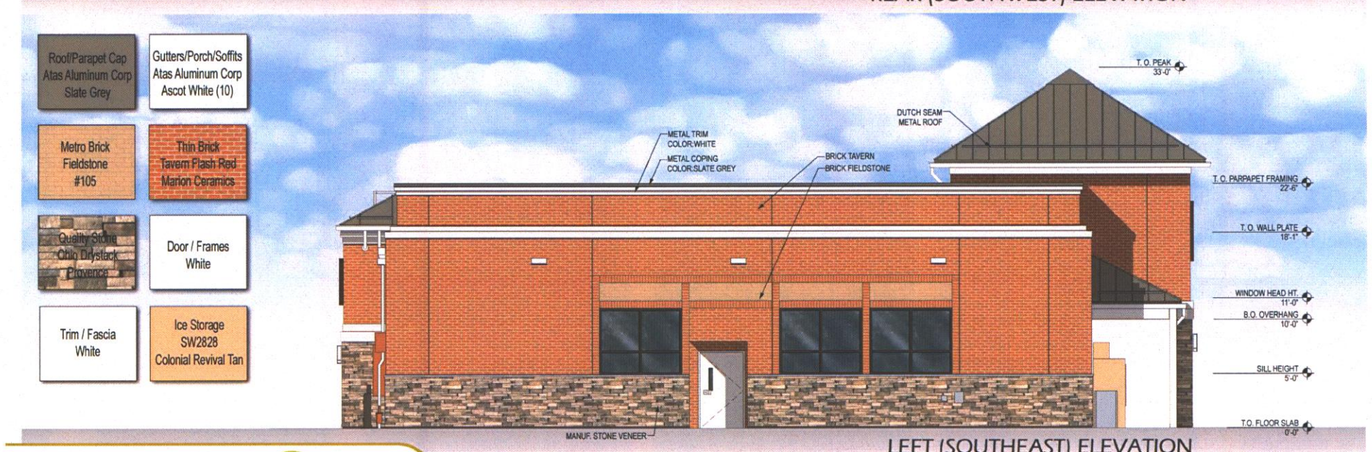
My Commission Expires _____

JENNIFER ZURITA
Notary Public-State of Florida
Commission # HH 109084
My Commission Expires
March 24, 2025

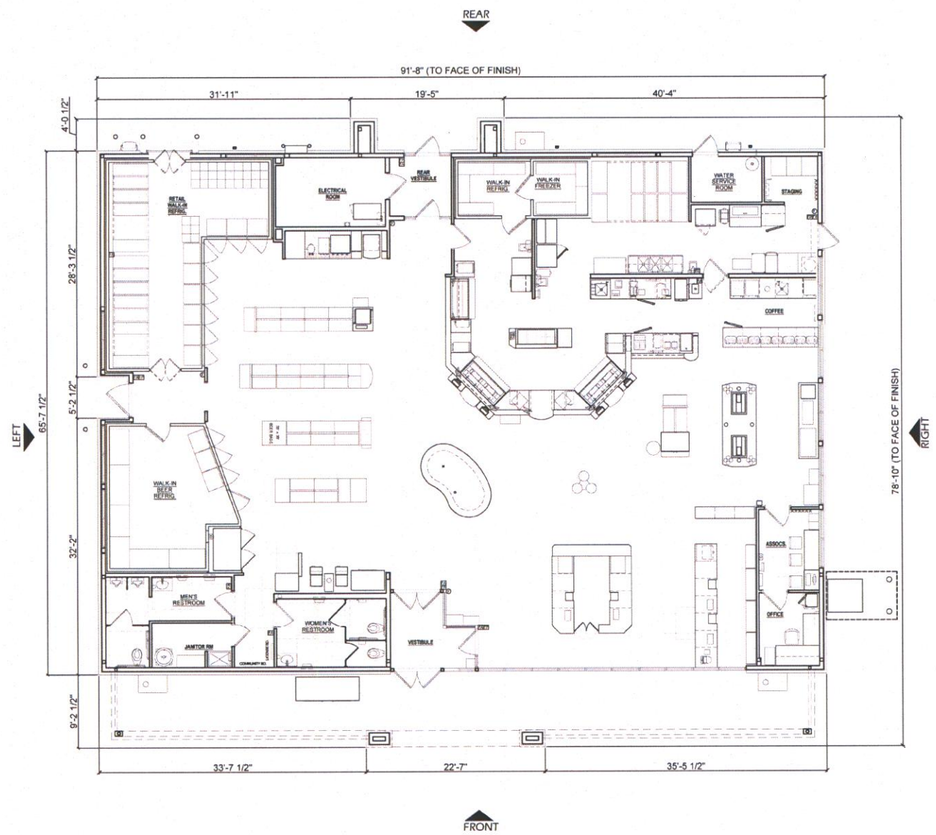
RIGHT (NORTHWEST) ELEVATION (TURNER DR.)

FRONT (NORTHEAST) ELEVATION (BENNS CHURCH BLVD.)

REAR (SOUTHWEST) ELEVATION



LEFT (SOUTHEAST) ELEVATION



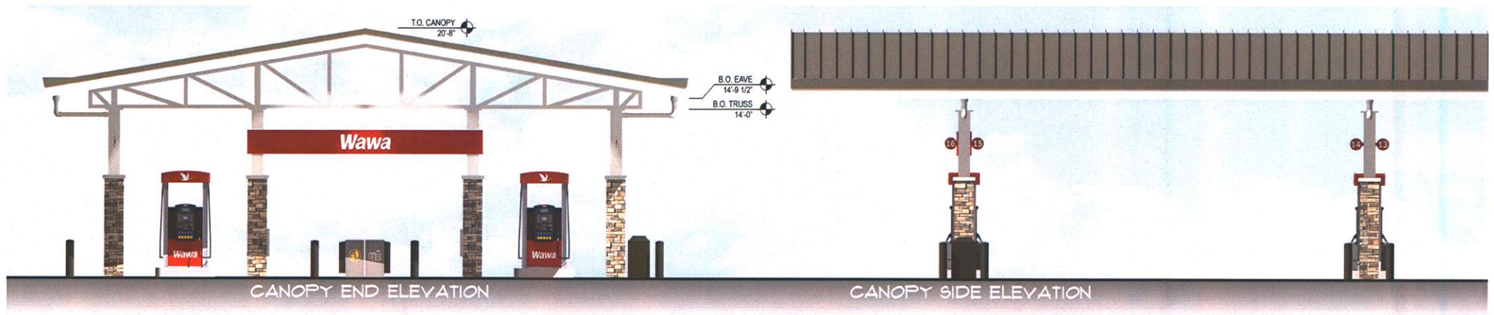
FLOOR PLAN

NOTE:
SIGNAGE IS SHOWN FOR REFERENCE ONLY
SEPARATE PERMIT REQUIRED

Cuhaci & Peterson
Architects Engineers Planners
ORLANDO • PHILADELPHIA

WAWA W50 FB VA M_v.2021.1

Benns Chruch & Turner Dr., Isle of Wight, VA • C&P Project #2210807 • 10-20-2021



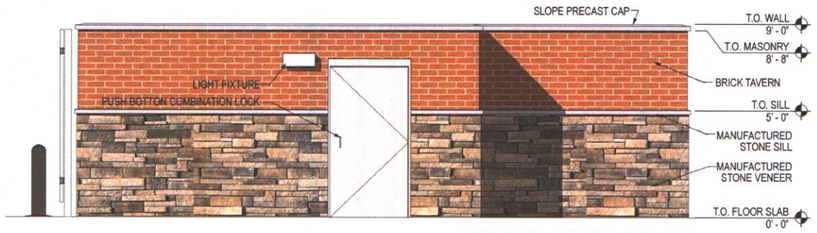
CANOPY END ELEVATION

CANOPY SIDE ELEVATION

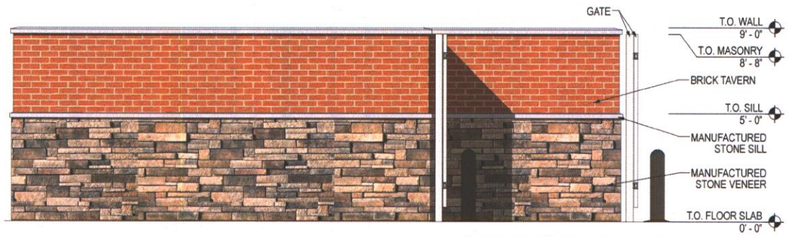
CANOPY PERSPECTIVE VIEW

The Wawa fuel canopy is a registered service mark in the U.S. Patent and Trademark Office. The fuel canopy, as well as Wawa's brand names, slogans, logos, service marks, and other trademarks of Wawa's goods, services, and promotions belong exclusively to Wawa, Inc. and/or, Wild Goose Holding Co., Inc. and are protected from copying and simulation under national and international trademark and copyright laws and treaties throughout the world.

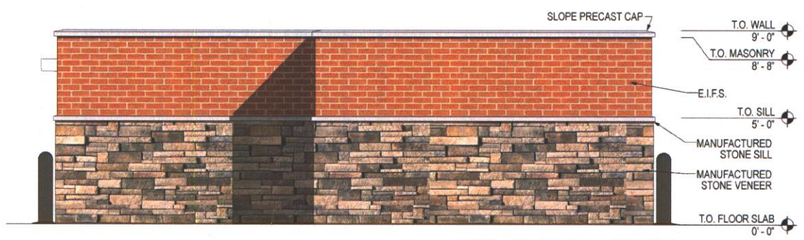
FRONT ELEVATION



RIGHT ELEVATION



LEFT ELEVATION



REAR ELEVATION

Cuhaci & Peterson
Architects Engineers Planners

WAWA GAS CANOPY® STACKED 8 - A-FRAME - TRASH COMPOUND MAOF17-R

Benns Church & Turner Dr., Isle of Wight, VA • C&P Project #2210807 • 10-20-2021

Plotted By:Mathews, Joe Sheet Set:Kha Layout:CUP LANDSCAPE PLAN October 25, 2021 09:55:32am K:\VAB_Civil_WAWA\116543041 – Wawa Benns Church\CADD\Exhibits\CUP\VA, Isle of Wight Wawa – CUP Site Plan.dwg
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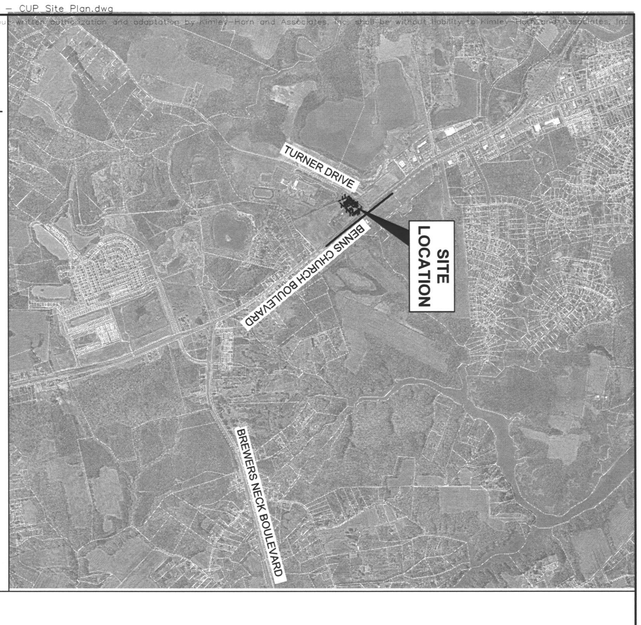
GRAPHIC SCALE IN FEET
0 20 40 80

NORTH

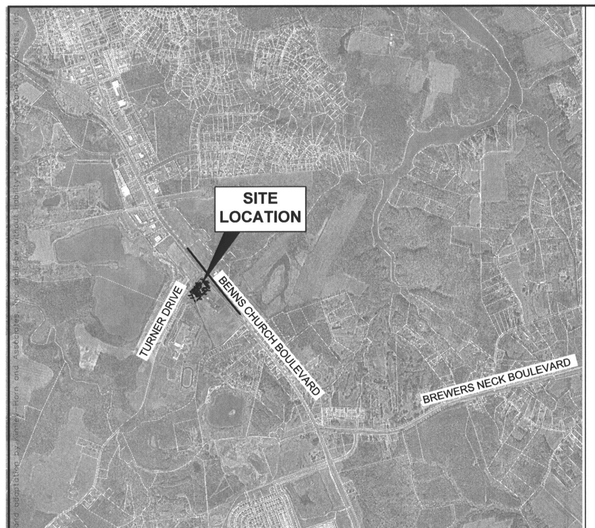
NORTH

VICINITY MAP
1"=2,000'

nearmap
Imagery © 2021 Nearmap, HERE



TURNER DRIVE VA RTE. 644
VARIABLE WIDTH RIGHT-OF-WAY
(OPEN / PAVED PUBLIC ROADS)
EDGE OF PAVEMENT
SOLID WHITE LINE
DOUBLE YELLOW LINE
SOLID WHITE LINE
EDGE OF PAVEMENT
24" RCP
MH=42.59
MH=44.43
MH=42.59
MH=44.21
MH=41.22
MH=38.73
MH=39.00
MH=38.43
MH=41.22
MH=42.59
24" RCP
24" RCP
24" RCP



NORTH

VICINITY MAP
1"=2,000'

nearmap
Imagery © 2021 Nearmap, HERE

SITE DATA		
JURISDICTION	ISLE OF WIGHT COUNTY	
EXISTING ZONING	RAC	
PROPOSED ZONING	RAC	
SEE "PARCEL A" DATA BELOW		
WAWA "PARCEL A" AREA	3.89 AC.±	
BUILDING AREA	6,049 S.F.	
MIN. PARKING REQUIRED	34 SPACES	
PARKING PROVIDED	55 SPACES	
FRONT SETBACK (BENNS CHURCH)		60 FT
FRONT SETBACK (TURNER)		85 FT
SIDE SETBACK		35 FT
REAR SETBACK		35 FT
FRONT BUFFER YARD		50 FT
SIDE BUFFER YARD		10 FT
REAR BUFFER YARD		10 FT
# MPD'S	8	

PARCEL A

LANDS N/F
WILLIAM G. YEOMAN, III, TRUSTEE
WILLIAM G. YEOMAN TRUST
INSTRUMENT NO. 00662
PARCEL ID 32-01-007
ZONED: RAC
AREA= 169,412 SQ. FT. OR
3.8892 ACRES

NO POSTED ADDRESS

NORTH

GRAPHIC SCALE IN FEET
0 20 40 80

Kimley»Horn AND ASSOCIATES, INC.
© 2021 KIMLEY-HORN AND ASSOCIATES, INC.
4525 MAIN STREET, SUITE 1000, VIRGINIA BEACH, VA 23462
PHONE: 757-213-8600 FAX: 757-213-8601
WWW.KIMLEY-HORN.COM

NO.	REVISIONS	DATE	BY

KHA PROJECT 116543041
DATE 10/22/2021
SCALE AS SHOWN
DESIGNED BY NJS
DRAWN BY NJS
CHECKED BY JY

CUP SITE PLAN
BENNS CHURCH BOULEVARD & TURNER DRIVE

WAWA
VIRGINIA
ISLE OF WIGHT COUNTY

SHEET NUMBER
1

Plotted By:Mathews, Joe Sheet Set:Kha Layout:CUP PLAN October 25, 2021 09:55:11am K:\VAB_Civil_WAWA\116543041 – Wawa Benns Church\CADD\Exhibits\CUP\VA, Isle of Wight Wawa – CUP Site Plan.dwg
Xrefs: Boundary Survey.dwg
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

Kimley»Horn

June 16, 2022

Amy Ring
Community Development Director
Isle of Wight County, Virginia
301 Jericho Road
Smithfield, VA 23430

RE: ***CUP-08-21 WAWA***
Route 10 (Benns Church Blvd)
Kimley-Horn #116947000
TM #32-01-007

Dear Ms. Ring,

In response to the Residency's review comments on the above-referenced project received by Kimley-Horn from Isle of Wight County on June 15, 2022, we offer the following responses.

Comment Responses

1. We concur with VDOT's comments regarding the finding in the submitted TIA.
   - *Acknowledge. Understood.*
2. The Transportation Division has recently completed a turn lane project at the Turner Dr/Rt 10 intersection (UPC 103021). This project has provided the County with a in-depth understanding of the extensive utility operations in the area, which limit the operational improvements which can be achieved without significant utility relocations. *Without extensive relocation efforts, the functional capacity of the intersection is limited.*
   - *Acknowledge. Understood.*
3. As highlighted in VDOT's comments, when Wawa's traffic is added, the intersection's Level of Service (LOS) drops to and/or remains at a "D" and, through several TIA iterations proposing different solutions, has not been improved significantly. This is not normally a preferred outcome. The continuing challenge is that mitigating the delay would likely require adding additional lanes, and additional lane width may be uneconomical for the applicant due to utility relocation costs.
   - *Acknowledge. Understood and concur.*
4. If the Wawa is accepted as proposed, please note, there is little to no remaining functional capacity at the intersection for any future public or commercial development utilizing Turner Dr. This could include future school growth and/or development on the north side of Turner Drive.
   - *Comment acknowledged.*

5. As noted in VDOT's comments, possible future school growth at the existing Smithfield High School/Middle School campus—which is included in the County's CIP--was not adequately accounted for in the TIA. Adding future school traffic volumes would degrade the projected Turner Dr/Route 10 intersection function further. Adding a secondary public ingress/egress for school traffic to have additional access to Route 10 could help alleviate the traffic volumes and delay at the Turner Drive intersection *as currently proposed*, as well as allowing capacity for future growth needs in the corridor.
   - *At the initiation of the TIA the new school was proposed but it was our understanding that the school project at the time was not officially approved nor was it a funded project.*
   - *We acknowledge and understand that with the school related traffic it is the desire of the County and/or IOW Schools Public schools to pursue the implementation of secondary ingress/egress access point to the school site.*

6. Entrance 2/Turner Drive full access Intersection continues to be problematic in the analysis, with the TIA showing excessive queuing for certain periods in all scenarios. Considering both the volume of traffic and the character of traffic in the area (buses, teen drivers, etc.) the Transportation Division has significant concerns about both safety and functionality at this entrance.
   a. The "Do Not Block Intersection" Or Don't Block the Box scenarios are generally unenforceable unless the Sherriff's Office is actually on-site regularly to supervise traffic flow. This is an unrealistic option for the County.
      - *Adherence to the signage and the associated guidance to "not block the box" is not intended to be monitored at all times by County law enforcement resources. It is anticipated/proposed that County Law enforcement resources periodically observe the intersection during peak times and throughout the day to enforce the restriction and address violations as/when needed.*
      - *Depending on driver behavior, etiquette, and/or courtesies there may always be the potential that queued vehicles could block the intersection and impede vehicles from making a left-turn movement from southbound Turner Drive into the site.*

   b. In this location, if "the Box" *is* blocked, queuing/gridlock would mean you could not get to the location to provide enforcement until the infraction was resolved.
      - *This proposed striping of "Do Not Block the Box" will reduce the likelihood of drivers blocking the driveway to the proposed Wawa development. Alternative measures, including camera-ticket-enforcement, can be considered in conjunction with the proposed striping.*

   c. Currently, the most effective scenarios (outside of Virginia) seem to include the use of camera-ticket-enforcement.
      - *"Do Not Block the Box" would be the recommended measure, however, if installing camera-ticket-enforcement is feasible, this could be a more effective solution to mitigate this issue. This would be considered with the*

understanding that once installed, it would be the responsibility of the County to maintain.

d. These challenges only become more pronounced if you give consideration to any future development on the north side of Turner Drive which may want to use the existing road network.
   - *Acknowledge.*

e. An alternative intersection design, such as a single lane roundabout, may function as a safter and more efficient solution in this location, while allowing more capacity for future growth. It would need to be analyzed within the TIA.
   - *Consideration is being given to an alternative intersection/traffic control (e.g., a roundabout) concept at this intersection location to mitigate operational and/or safety concerns. The acquisition of right-of-way (ROW) from properties along both sides of the roadway (i.e., Turner Drive) will be critical to the ability to implement any alternative intersection concepts under consideration.*

7. Based on the submission, I am not clear if the pedestrian accommodations provided meet the requirements and expectations of the County's Bike and Pedestrian plan, or provide for cost sharing of future pedestrian improvements at the key intersection locations as adjacent improvements come online. It would be helpful for the project team to explain how they see this parcel contributing to the future multi-modal needs developing between the school campus, their parcel, the shopping center, and the residential communities further down Rt 10.
   a. Are their facilities 5' sidewalks, or 10' multi-use trails?
      - *The Wawa development is planning to design and install 5' paved sidewalk along both street frontages of the site on Benns Church Boulevard and Turner Drive. The development would consider the cost sharing option with the County to help implement the County's Bike and Pedestrian Plan and include 10' multi-use trails on both street frontages of the site.*

   b. Are their facilities providing functional connection to the adjacent school, or only extended to the property line?
      - *Assuming this is referring to a pedestrian connection, it seems unnecessary for a private development to have a private pedestrian connection to a public school. The sidewalk or multi-use trail on Turner Drive should meet the intention of public pedestrian connection.*

   c. Are they providing driveway crosswalks and functional pedestrian access from the perimeter infrastructure to the store at the center of the parcel for non-vehicular, non-fuel customers?
      - *Designated crosswalks will be provided to the pedestrian from public sidewalk to the store.*

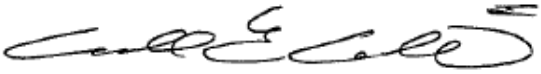
d. As a major intersection anchor, are they providing a plan or proposal for future "fair share" contributions to pedestrian accommodations at the Turner Dr/Route 10 intersection?

- *The developer will need to understand the details of "fair share" contributions before being able to provide a response.*

Please contact me at (757) 213-8616 or carroll.collins@kimley-horn.com should you have any questions or need additional information.

Sincerely,

KIMLEY-HORN AND ASSOCIATES



Carroll E. Collins, AICP
Project Manager

Cc: James Leach, Frontier Companies
Jeremy Yee, P.E., Kimley-Horn and Associates

ORDINANCE NUMBER _____

AN ORDINANCE TO ISSUE A CONDITIONAL USE PERMIT, CUP-8-21, TO ALLOW A CONVENIENCE STORE AND GASOLINE STATION ON 5.69 ACRES ON PROPERTY WITH TAX MAP PARCEL 32-01-007 IN THE RURAL AGRICULTURAL CONSERVATION ZONING DISTRICT

WHEREAS, Remus Brustur of Frontier Development, applicant, and the William G. Yeoman, III, Trust, property owner, have requested issuance of a conditional use permit for a portion of a certain tract of land with tax parcel number 32-01-007 which land is depicted on Exhibit "B"; and,

WHEREAS, the procedural requirements of Appendix B, Zoning Ordinance, of the Code of Isle of Wight County, Virginia, 2005 (as amended), have been followed; and,

WHEREAS, in acting upon this request, the Planning Commission and Board of Supervisors have considered the matters enunciated in Section 15.2-2284 of the Code of Virginia (1950), as amended, and Section 1-1017 of the Isle of Wight County Zoning Ordinance with respect to the purposes stated in Code of Virginia (1950), as amended, Section 15.2-2200 and 15.2 2283; and,

WHEREAS, the Planning Commission has made a recommendation of approval with conditions as stated in Exhibit "A;"

NOW, THEREFORE, BE IT ORDAINED by the Isle of Wight County Board of Supervisors of Isle of Wight County, Virginia, that:

Section 1. Exhibits.

Exhibit "A", "Planning Commission Recommendation" and Exhibit "B", "Property Map" which are attached hereto, are hereby incorporated as part of this ordinance.

Section 2. Findings.

The Board of Supervisors finds that the proposal for a conditional use permit (CUP-8-21), as submitted or modified with conditions herein, the expressed purpose of which is to permit a convenience store and gasoline station, is in conformity with the standards of the Isle of Wight County Zoning Ordinance, and that it will have no more adverse effects on the health, safety or comfort of persons living or working in or driving through the neighborhood, and will be no more injurious to property or improvements in the neighborhood than would any other use generally permitted in the same district, taking into consideration the location, type and height of buildings or structures, the type and extent of landscaping and screening on site and whether the use is consistent with any theme, action, policy or map of the Comprehensive Plan with the conditions set forth below.

These findings are based upon the consideration for the existing use and character of the property, the Comprehensive Plan, the suitability of the property for various uses, the trends of growth or change, the current and future requirements of the community as to land for various purposes as determined by population and economic studies and other studies, the transportation requirements of the community, the requirements of airports, housing, schools, parks, playgrounds, recreation areas and other public services, the conservation of natural resources, the preservation floodplains, the preservation of agricultural and forestal land, the conservation of properties and

their values, and the encouragement of the most appropriate use of land throughout the County.

These findings are based upon a determination that most reasonable and limited way of avoiding the adverse impacts of a major utility service is by the imposition of the conditions provided herein.

Section 3. Permit Granted.

The conditional use permit for the property be, and is hereby approved for the property with the attached conditions and the general conditions set forth in Section 4 hereof. The conditional use permit specifically allows for a convenience store and gasonline station in compliance with the County Zoning Ordinance.

Section 4. Severability.

It is the intention of the Board of Supervisors that the provisions, sections, paragraphs, sentences, clauses, and phrases of this ordinance are severable; and if any phrase, clause, sentence, paragraph, section, and provision of this ordinance hereby adopted shall be declared unconstitutional or otherwise invalid by the valid judgement or decree of a court of competent jurisdiction, such unconstitutionality or invalidity shall not affect any of the remaining phrase, clauses, sentences, paragraphs, sections, and provisions of this ordinance, to the extent that they can be enforced notwithstanding such determination

Section 5. Effective Date

This ordinance shall be effective upon passage and shall not be published or codified. The conditional use authorized by this permit shall be implemented within two (2) years from that date of approval by the Board of Supervisors and shall terminate if not initiated within that time period.

This ordinance shall be effective upon passage and shall not be published or codified.

DATE: _____

READ AND PASSED: _____
Chairman, Board of Supervisors

TESTE: _____
Clerk, Board of Supervisors

Approved as to Form:

_____
Robert W. Jones Jr, County Attorney

EXHIBIT A

RESOLUTION NUMBER PC-22-10

ISLE OF WIGHT COUNTY PLANNING COMMISSION
A RESOLUTION TO PRESENT A REPORT AND RECOMMENDATION TO THE BOARD OF SUPERVISORS RELATING TO CONDITIONAL USE PERMIT REQUEST CUP-8-21 TO ALLOW A CONVENIENCE STORE AND GASOLINE STATION ON 5.69 ACRES ON PROPERTY WITH TAX MAP PARCEL 32-01-007

WHEREAS, Remus Brustur of Frontier Development, applicant, and the William G. Yeoman, III, Trust, property owner, have requested issuance of a conditional use permit for a portion of a certain tract of land with tax parcel number 32-01-007 situated in Isle of Wight County; and

WHEREAS, the specific request is to permit a convenience store and gasoline station in accordance with sections 1-1017 of the Zoning Ordinance; and

WHEREAS the procedural requirements for the consideration of this request by the Planning Commission have been met.

NOW, THEREFORE, BE IT RESOLVED by the Planning Commission of Isle of Wight County, that:

Section 1. Findings.

✓ A. The Isle of Wight County Planning Commission finds that the proposed conditional use permit is reasonable and warranted due to a change in circumstances affecting the property and has considered the following factors and finds that the proposed conditional use permit does not conflict with:

1. the existing use and character of property within the County;
2. the Comprehensive Plan;
3. the suitability of the property for various uses;
4. the trends of growth or change;
5. the current or future requirements of the community as to land for various purposes as determined by population and economic studies and other studies;
6. the transportation requirements of the community;
7. the requirements for airports, housing, schools, parks, playgrounds, recreation areas and other public services;
8. the conservation of natural resources;
9. the preservation of floodplains;
10. the preservation of agricultural and forestal land;

11. the conservation of properties and their values: and

12. the encouragement of the most appropriate use of land throughout the County.

____ B. The Isle of Wight County Planning Commission does not find that the proposed conditional use permit is reasonable based on the consideration of the factors listed herein.

Section 2. Recommendation to Board of Supervisors.

The Planning Commission recommends to the Board of Supervisors that the request, CUP-8-21, be:

__ a Granted as submitted, and that the Board of Supervisors adopt the proposed Ordinance without modification.

__ b. Denied, and that Board of Supervisors not adopt the proposed Ordinance.

✓ c. Granted with the modifications set forth on the attached listing of specific recommendations, and that the Board of Supervisors adopt the proposed Ordinance with such modifications.

DATE: 6·08·22

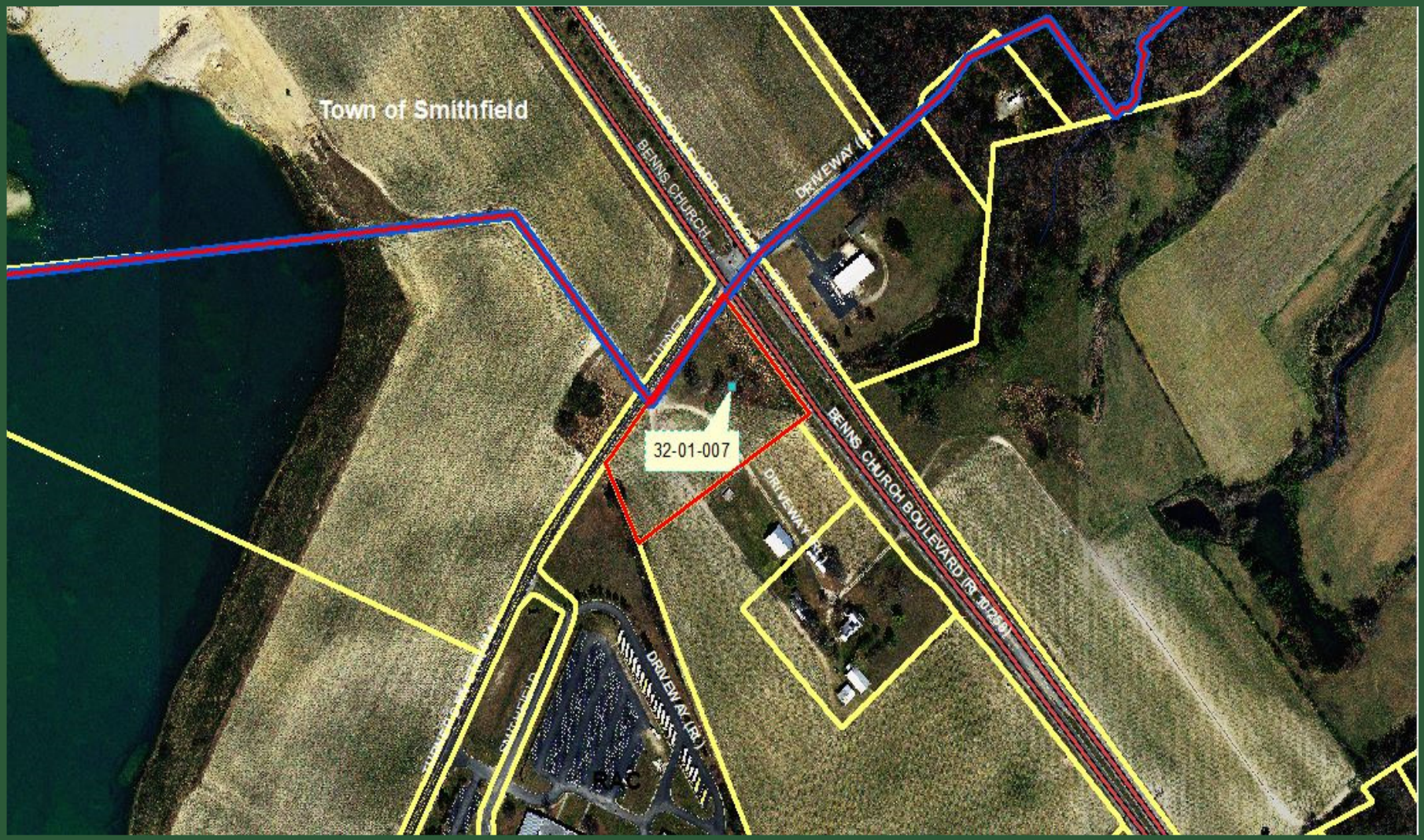
READ AND PASSED: _____
Chairman, Isle of Wight County Planning Commission

TESTE: _____
Secretary, Isle of Wight County Planning Commission

Approved as to Form:

_____
Robert W. Jones, Jr., County Attorney

EXHIBIT B



PROPERTY LOCATION

ISSUE:

Approval of Apparent Low Bid for Phase II - Route 10 Waterline

BACKGROUND:

Bids for construction of Phase II of the Route 10 water main extension were recently received. The Board may wish to award the project to the apparent low bidder.

BUDGETARY IMPACT:

To be determined.

RECOMMENDATION:

Approve and accept the low bid for construction of Phase II of the Route 10 water main extension project.

ATTACHMENTS:

Description	Type	Upload Date
Bid Tabulation Form	Backup Material	10/20/2022

TABULATION FORM

IFB Phase II Route 10 Water Main Extension

IFB# 23-4510-083

Bidders	Base Bid	Alternate Bid
Peters & White Construction	$2,520,029	$2,499,999
Bridgeman Civil	$3,657,760	$3,647,745
Henry Branscome	$3,270,252	$3,270,252

ISSUE:

Adoption of the 2023 Legislative Priorities List

BACKGROUND:

At its regular meeting on September 15, 2022, the Board discussed its proposed legislative priorities for the 2023 General Assembly Session.

Recommended items for inclusion in the list of legislative priorities are:

- Additional Sales Tax for Educational Purposes
- Education Funding Support from the Commonwealth
- Limited Residential Lodging Act
- Unfunded Mandates
- Transportation Funding
- Proffer/Impact Fee Legislation
- Support for Second Amendment
- Public Notice Advertisement
- Compensation Board Funding

BUDGETARY IMPACT:

None

RECOMMENDATION:

Adopt a resolution to approve the legislative priorities for the 2023 General Assembly Session. Adopt a resolution requesting the Governor's assistance with the "Additional Sales Tax for Educational Purposes".

ATTACHMENTS:

Description	Type	Upload Date
Resolution	Resolution	10/13/2022
Proposed 2023 Legislative Priorities	Backup Material	10/19/2022
Resolution - Governor's Support	Resolution	10/13/2022

RESOLUTION ESTABLISHING ISLE OF WIGHT COUNTY'S LEGISLATIVE PRIORITIES FOR THE 2023 SESSION OF THE GENERAL ASSEMBLY

WHEREAS, the General Assembly considers numerous issues that affect local governments both directly and indirectly; and,

WHEREAS, the County of Isle of Wight, Virginia has specific interest in matters dealing generally with local governments, as well as matters directly impacting the County of Isle of Wight; and,

WHEREAS, such interest should be shared with Isle of Wight County's General Assembly Delegation so that it may know of the County's position on these important issues.

NOW, THEREFORE, BE IT AND IT IS HEREBY RESOLVED that the Board of Supervisors of the County of Isle of Wight, Virginia endorses the attached legislative proposals for the 2023 General Assembly Session and directs that both this resolution and the legislative priorities be forwarded to Isle of Wight County's General Assembly Delegation and that staff work with and assist the Delegation as appropriate.

Adopted this 20th day of October, 2022.

_____
Rudolph Jefferson, Chairman

_____
Carey Mills Storm, Clerk

Approved as to form:

_____
Robert W. Jones, Jr., County Attorney

PROPOSED 2023 LEGISLATIVE PRIORITY LIST

LOCAL ISSUES

- Additional Sales Tax for Educational Purposes
- Education Funding Support from the Commonwealth
- Limited Residential Lodging Act
- Unfunded Mandates
- Transportation Funding
- Proffer/Impact Fee Legislation
- Support for Second Amendment
- Public Notice Advertisement
- Compensation Board Funding

ADDITIONAL SALES TAX FOR EDUCATION PURPOSES

ISSUE:

The Code of Virginia authorizes "the qualifying locality" to impose an additional local sales and use tax at a rate not to exceed one percent, as determined by the governing body, if initiated by a resolution of the local governing body and **approved by the voters at a referendum**. The bill requires the governing body to specify in the enacting ordinance the time period, not to exceed 20 years, for which the tax would be imposed. Revenue from the tax shall be used solely for capital projects for new construction or major renovation of schools in the locality enacting the tax.

The bill removes the limit on the amount that "the qualifying locality" may appropriate to an incorporated town that has not complied with the provisions of its charter relating to the elections of local officials. Under current law, such amount is limited to the amount the town would have received from local sales and use tax for educational purposes if such election had been held.

In the Code of Virginia, § 58.1-602, "qualifying locality" currently means Charlotte County, Gloucester County, Halifax County, Henry County, Mecklenburg County, Northampton County, Patrick County, Pittsylvania County, or the City of Danville.

COUNTY POSITION:

Isle of Wight County urges the General Assembly to adopt legislation to amend the Code of Virginia (§ 58.1-602) to add "Isle of Wight County" as a qualifying locality for the purpose of imposing an additional local sales and use tax at a rate not to exceed one percent, as determined by the governing body to be used solely for capital projects for new construction or major renovation of schools.

EDUCATION FUNDING SUPPORT FROM THE COMMONWEALTH

ISSUE:

The Joint Legislative Audit and Review Commission (JLARC) has previously produced reports relative to state and local funding of the Standard of Quality (SOQ) for primary and secondary education in Virginia. In this regard, the Isle of Wight County remains concerned about the following issues:

- Localities pay 100 percent of the cost of teachers and other instructional expenses beyond the minimum requirements of the state Standards of Quality, which represents significant costs to localities.
- School divisions spend significantly less to operate and maintain facilities than in the past due to unfunded mandates from the State.

It is essential for the state to fully fund its constitutional responsibilities and all mandates associated with K-12 public education. Full state funding should be achieved without reduction to other parts of state public education budgets or to the other core services. Should state general funding diminish, local autonomy should be increased and state education mandates reduced.

COUNTY POSITION:

Isle of Wight County supports full State funding for public education, including the Standards of Quality (SOQ) as previously recommended by the Board of Education, where these recommendations coincide with prevailing local practice; targeted incentive programs; capital and maintenance support; and teacher salaries. Full State funding should be achieved without reduction to other parts of State public education budgets or to other core services. The State must recognize that local school divisions continue to spend billions of dollars above the required local effort.

The County opposes proposals to divert State or local education funds from local school divisions.

LIMITED RESIDENTIAL LODGING ACT

ISSUE:

The Limited Residential Lodging Act (the Act) allows persons to rent out their primary residences or portions thereof for charge for periods of less than 30 consecutive days or do so through a hosting platform. Localities are preempted from adopting ordinances or zoning restriction prohibiting such short-term rentals, but authorized to adopt ordinances requiring persons renting their primary residences to have a minimum of $500,000 of liability insurance, prohibiting persons from renting their primary residences if they fail to pay applicable taxes, and requiring persons renting their primary residences to register with the locality. A hosting platform must register with the Department of Taxation to collect and remit all applicable taxes on behalf of the property owner using the hosting platform. The bill defines "limited residential lodging," "booking transaction," and "hosting platform" and provides for penalties for violations of the Act. The bill contains a reenactment clause and directs the Virginia Housing Commission to convene a work group to further study the issues presented in the bill and make recommendations for consideration by the 2017 Session of the General Assembly.

COUNTY POSITION:

The General Assembly should adopt legislation that provides localities the ability to ensure the safety, well-being and use of property by persons renting properties, as well as adjacent and neighboring property owners.

Isle of Wight County is **opposed** to any legislation that would exempt short-term rental rooms or entire residences through booking platforms such as AirBnB from local zoning regulations.

UNFUNDED MANDATES

ISSUE:

Unfunded mandates placed on localities by the State have detrimentally affected local tax rates and the ability of local governments to address local needs and priorities.

There are many programs required by the State to be implemented at the local level. Several of these programs are inadequately funded or not funded at all by the State. Unfunded mandates place a financial burden on localities to implement those programs. The problem is further exacerbated when existing funding from the State to provide programs is unexpectedly reduced or eliminated, but the requirement to provide the program still exists.

When funding for a mandated program is altered, the mandate should be suspended until full funding is restored. When legislation with a cost to localities is passed by the General Assembly, the cost should be borne by the Commonwealth, and the legislation should contain a sunset clause providing that the mandate is not binding on localities until funding by the Commonwealth is provided.

The General Assembly has previously adopted legislation mandating that local governments fund the Line of Duty Act (LODA) as a means of providing public safety personnel with death or disability benefits resulting from the performance of their duties.

Local governments had no input into the design of the LODA program, but are required to fund the program now that cost have exceeded what the State wants to pay for. **This is an unfunded mandate.**

Per the provisions of Section 3.2-6553 of the Code of Virginia, Isle of Wight County was required to compensate a citizen $11,400 for livestock killed by dogs. No funding was provided for this requirement, nor is there a mechanism for reimbursement from the State.

COUNTY POSITION:

The County requests that the General Assembly adequately fund the State's share for required programs that must be implemented at the local level.

The County of Isle of Wight requests that the General Assembly adopt legislation to amend the Code of Virginia to make LODA coverage optional at the local level or provide local governments the option to only pay basic death benefits under LODA.

Additionally, LODA should be fully funded by the State and administration of the program should fall under the State Worker's Compensation Commission, not the State Comptroller's Office.

The County requests that the General Assembly adequately fund the State's share for required programs that must be implemented at the local level and/or eliminate the service requirement of the mandate.

TRANSPORTATION FUNDING

ISSUE:

Isle of Wight County appreciates the funding provided by the State as a significant step towards addressing the transportation needs of the Commonwealth; however, it did not fully address the needs of Virginia's highway system, where more funding is needed in the immediate future for our roadways, especially secondary roads.

COUNTY POSITION:

The General Assembly should take the appropriate actions necessary to restore funding for the Six-Year Secondary Road Plan to pre- recession levels, adjusted for inflation.

The General Assembly should closely monitor and evaluate the implementation of "Smart Scale" and all other processes employed in recent years for distributing transportation funds.

Isle of Wight County supports a fuel tax floor to ensure sufficient funding to address transportation construction and maintenance needs throughout the Commonwealth.

PROFFER/IMPACT FEES

ISSUE:

Many localities in the Commonwealth have used voluntary proffers as a means of ensuring that the impacts of new residential developments on public infrastructure and public services are not borne solely by existing residents of the impacted community.

In 2016, the General Assembly adopted legislation that provides that *no locality shall (i) request or accept any unreasonable proffer in connection with a rezoning or a proffer condition amendment as a condition of approval of a new residential development or new residential use or (ii) deny any rezoning application or proffer condition amendment for a new residential development or new residential use where such denial is based in whole or in part on an applicant's failure or refusal to submit an unreasonable proffer or proffer condition amendment.*

During the 2019 General Assembly Session, language was added to clarify that nothing should be interpreted to prohibit communications between an applicant or owner and the locality or to prohibit presentation, analysis, or discussion of the potential impacts of new residential development or other new residential use on the locality's public facilities.

COUNTY POSITION:

Isle of Wight County supports changes to the conditional zoning law to allow greater flexibility in the process for determining impacts (operational and capital) to be addressed when considering an application for development. Isle of Wight County also supports legislation that grants localities additional tools to adequately meet increasing needs for public services driven by new development without burdening current residents with the cost of new growth through increased real estate taxes. Such additional tools may include broad impact fee authority for all counties, and adequate public facilities provisions.

AFFIRMATION OF SECOND AMENDMENT RIGHTS

ISSUE:

The Second Amendment to the United States Constitution was ratified on December 15, 1791 and provides for the "Right to Bear Arms". It establishes that "A well regulated Militia, being necessary to the security of a free State, the right of the people to keep and bear Arms, shall not be infringed".

Article I, Section 13, of the Constitution of Virginia provides "That a well regulated militia, composed of the body of the people, trained to arms, is the proper, natural, and safe defense of a free state, therefore, the right of the people to keep and bear arms shall not be infringed; that standing armies, in time of peace, should be avoided as dangerous to liberty; and that in all cases the military should be under strict subordination to, and governed by, the civil power."

The Isle of Wight County Board of Supervisors has previously adopted a resolution declaring Isle of Wight County as a "Constitutional County" which affirms its support of the rights ensured and protected by the Constitutions of the United States and Virginia. In this regard, it is the right of the people to keep and bear arms to defend life, liberty, and property as well as to derive benefit from safe forms of firearms recreation, hunting, and shooting using all types of firearms allowable by the United States Constitution.

COUNTY POSITION:

Isle of Wight County opposes the enactment of any legislation that would unconstitutionally infringe upon the right of law-abiding citizens to keep and bear arms. The County further urges the General Assembly to support that right.

PUBLIC NOTICE ADVERTISEMENT

ISSUE:

The Code of Virginia requires localities to utilize a "newspaper of general circulation" in that locality as the primary source for public notification. Many public notices are "wordy" and relatively lengthy because of statutorily required language and the annual costs associated with public notifications are significant.

As subscriptions to hard-copy newspapers continue to decline and the use of electronic media (websites, social media, etc.) increases, electronic means of communication offer more options and a greater reach for public notification.

COUNTY POSITION:

The County requests the General Assembly to adopt legislation to authorize the use of electronic media as the primary source for public notification or amend the statutory requirements for the language used in newspaper ads such that a brief description could be provided in newspapers with a more complete description/notification provided on the locality's website.

COMPENSATION BOARD FUNDING

ISSUE:

The Commonwealth provides operational funding for certain Constitutional required governmental functions via the State Compensation Board. In this regard, the Compensation Board establishes minimum salaries for certain positions funded by the State. As competition for qualified employees has intensified at the State and local levels, so has the need to adjust salaries and the funding for those Compensation Board funded positions.

The funding provided to localities by to compensate Compensation Board for many positions at the local level is woefully inadequate, particularly those positions assigned to law enforcement functions within the local Sheriff's offices.

COUNTY POSITION:

The County requests that the General Assembly review and appropriate increased funding for Compensation Board funded positions, particularly those positions assigned to law enforcement functions within the local Sheriff's offices.

RESOLUTION REQUESTING SUPPORT TO BE ADDED AS A QUALIFYING LOCALITY IN § 58.1-602 OF THE CODE OF VIRGINIA

WHEREAS, the Isle of Wight County Board of Supervisors and School Board have jointly identified the need for construction of new elementary schools; and,

WHEREAS, the construction costs of school facilities are continuing to rise at accelerating rates; and,

WHEREAS, § 58.1-602 of the Code of Virginia authorizes "the qualifying locality" to impose an additional local sales and use tax at a rate not to exceed one percent, as determined by the governing body, if initiated by a resolution of the local governing body and approved by the voters at a referendum; and,

WHEREAS, § 58.1-602 of the Code of Virginia affords local citizens the ability to directly communicate its desires relative to funding the debt service of the new construction or major renovation of school facilities.

NOW, THEREFORE, BE IT AND IT IS HEREBY RESOLVED that the Board of Supervisors of the County of Isle of Wight, Virginia the support of the Governor of the Commonwealth of Virginia and the General Assembly relative to its request to be added to § 58.1-602 of the Code of Virginia as a "qualifying locality".

Adopted this 20th day of October, 2022.

_____
Rudolph Jefferson, Chairman

_____
Carey Mills Storm, Clerk

Approved as to form:

_____
Robert W. Jones, Jr., County Attorney

ISSUE:

Resolution to Amend the Budget and Appropriate Fair Fund Contribution ($70,478)

BACKGROUND:

In May of 2021, the Board authorized the construction of three metal buildings at Heritage Park as a means of reducing, and possibly eliminating, some of the rising annual costs associated with tent rentals during the annual County Fair. After installation of the buildings, needed improvements in lighting and site work have been identified.

In addition to the $424,500 cost of the buildings, improvement costs of $295,000 have been identified. Heritage Bathroom funds have recently been utilized to assist with the upgrades until other funds can be identified.

In FY2022, the County Fair fund had an excess of $70,428. Staff is requesting that these funds be used to support the cost of the upgrades to the Heritage Park canopy structures.

BUDGETARY IMPACT:

The Fair Fund and Capital Fund budget will increase by $70,428.

RECOMMENDATION:

Adopt a resolution to amend the budget and appropriate funding for Heritage Park improvements.

ATTACHMENTS:

Description	Type	Upload Date
Resolution	Resolution	10/14/2022

RESOLUTION TO AMEND THE FY 2022-2023 BUDGET AND APPROPRIATE FUNDING FOR HERITAGE PARK IMPROVEMENT PROJECTS

WHEREAS, the Isle of Wight County Fair Fund has excess funds in the amount of $70,428; and,

WHEREAS, the Isle of Wight County Board of Supervisors desires these funds be used to provide improvements to recently constructed Heritage Park canopy buildings; and,

WHEREAS, the Isle of Wight County Board of Supervisors needs to budget and appropriate the $70,428 fund balance to be transferred from the County Fair Fund to the Capital Projects Fund for improvements to the Heritage Park canopy buildings.

NOW, THEREFORE, BE IT AND IT IS HEREBY RESOLVED by the Board of Supervisors of Isle of Wight County, Virginia that the FY 2022-2023 Budget is hereby amended, and funds appropriated in the amount of $70,428 fund balance to be transferred from the County Fair Fund to the Capital Projects Fund for improvements to the Heritage Park canopy buildings.

BE IT FURTHER RESOLVED that the County Administrator of Isle of Wight County, Virginia is authorized to make the appropriate accounting adjustments and to do all things necessary to give this resolution effect.

Adopted this 20th day of October, 2022.

_____
Rudolph Jefferson, Chairman

_____
Carey Mills Storm, Clerk

Approved as to Form:

_____
Robert W. Jones Jr., County Attorney

ISSUE:

Discussion of the Nike AJAX Missile at Nike Park

BACKGROUND:

The Board may wish to discuss options for completion/renovation of the Nike AJAX Missile.

BUDGETARY IMPACT:

None.

RECOMMENDATION:

Per the Board's discussion.

ISSUE:

Request of KS Carrollton, LLC, Property Owner, to Amend the Conditions of Approval of a Height Exception for the Heritage Apartments Located at 23321 Sugar Hill Road in Order to Allow Required Trees to be a Minimum of Ten Feet at Planting Instead of Twelve Feet at Planting

BACKGROUND:

The property is located at 23321 Sugar Hill Road adjacent to the Carrollton Meadows subdivision and Finley's General Store.

The property owner received approval by the Board of Supervisors at its regular meeting on December 13, 2018, for a zoning change from General Commercial (GC) to Urban Residential (UR) to allow for a 12-unit multifamily building on a previously undeveloped site.

In March 2022, the Board also approved a height exception for an additional 2.25 feet in height for the apartment building subject to the following conditions:

1. Privacy screens are to be installed on the balcony sides facing the single family homes on the adjacent property of a design approved by the zoning administrator, following review by the owners of lots 1 through 4, to address privacy concerns;
2. A revised landscaping plan submitted by the property owner to include trees with a minimum height of 25 feet at maturity and a minimum height of 12 feet at planting to be installed adjacent to the rear property lines of lots 1 through 4 of the adjacent Carrollton Meadows subdivision to be approved by the zoning administrator, following review by the owners of lots 1 through 4, to address privacy concerns; and
3. No windows shall be allowed on the east side of the apartment building.

The property owner requests an amendment to the previously approved conditions of their height exception to allow required trees to be a minimum of ten feet at planting instead of twelve feet at planting. The property owner asserts that they have been unable to find twelve foot tall trees to plant in the side bufferyard adjacent to the Carrollton Meadows subdivision. The attached email from the property owner details their unsuccessful search for the required trees. As a result of their inability to find trees of the required minimum height, they are now requesting that the minimum height be reduced to ten feet at planting.

A full analysis of the consistency of the application with the County's Plans and Ordinances is provided in the attached Planning Commission staff report.

BUDGETARY IMPACT:

None.

RECOMMENDATION:

The Planning Commission recommended approval of the exception amendment with the condition that the property owner engage the Carrollton Meadows Homeowners Association on the proposed change by a vote of nine in favor of the motion and one voting against.

Based on the ability of trees with a minimum height of ten feet a planting to provide enhanced screening benefits, staff also recommends approval of the request.

ATTACHMENTS:

Description	Type	Upload Date
September 27, 2022 Planning Commission Staff Report	Backup Material	10/10/2022
Exception Request Application	Backup Material	9/20/2022
Height Exception Approval Conditions	Backup Material	9/20/2022
Landscape Supplier History Email	Backup Material	9/20/2022

PLANNING REPORT

APPLICATION:

Request of KS Carrollton, LLC, property owner, to amend the conditions of approval of a Height Exception for the Heritage Apartments located at 23321 Sugar Hill Road with tax parcel number 34-01-106B in order to allow required trees to be a minimum of ten feet minimum at planting instead of twelve feet at planting

ELECTION DISTRICT:

D3

LOCATION:

The property is located at 23321 Sugar Hill Road adjacent to the Carrollton Meadows subdivision and Finley's General Store.

BACKGROUND:

The property owner received approval by the Board of Supervisors at its regular meeting on December 13, 2018, for a zoning change from General Commercial (GC) to Urban Residential (UR) to allow for a 12-unit multifamily building on a previously undeveloped site.

In March 2022, the Board also approved a height exception for an additional 2.25 feet in height for the apartment building subject to the following conditions:

1. Privacy screens are to be installed on the balcony sides facing the single family homes on the adjacent property of a design approved by the zoning administrator, following review by the owners of lots 1 through 4, to address privacy concerns;
2. A revised landscaping plan submitted by the property owner to include trees with a minimum height of 25 feet at maturity and a minimum height of 12 feet at planting to be installed adjacent to the rear property lines of lots 1 through 4 of the adjacent Carrollton Meadows subdivision to be approved by the zoning administrator, following review by the owners of lots 1 through 4, to address privacy concerns; and
3. No windows shall be allowed on the east side of the apartment building.

DESCRIPTION:

The property owner requests an amendment to the previously approved conditions of their height exception to allow required trees to be a minimum of ten feet at planting instead of twelve feet at planting. The property owner asserts that they have been unable to find twelve foot tall trees to plant in the side bufferyard adjacent to the Carrollton Meadows subdivision. The attached email from the property owner details their unsuccessful search for the required trees. As a result of their inability to find trees of the required minimum height, they are now requesting that the minimum height be reduced to ten feet at planting.

COMPREHENSIVE LAND USE PLAN:

The height exception amendment request does not necessitate a comprehensive plan consistency review.

ORDINANCE REVIEW:

The Board of Supervisors, with a recommendation by the planning commission, may authorize an exemption to the height regulations according to Section 5-2000.D.5. In granting exceptions, the board of supervisors with a recommendation by the planning commission may impose reasonable conditions.

AGENCY REVIEW:

The application did not require outside agency or department review.

STAFF CONCLUSIONS:

Strengths:

Installing trees with a minimum of ten feet in height at planting would still provide screening that would extend four feet above the privacy fences along the rear property lines of the adjacent residences.

Weaknesses:

It will take longer for trees to reach the desired height at maturity.

STAFF RECOMMENDATION:

Based on the ability of trees with a minimum height of ten feet a planting to provide enhanced screening benefits, staff recommends approval of the request.

ATTACHMENTS:

Description	Type	Upload Date
Exception Request Application	Backup Material	9/20/2022
Height Exception Approval Conditions	Backup Material	9/20/2022
Landscape Supplier History Email	Backup Material	9/20/2022

ORIGINAL

Revised 04/11/2022

Local Roots, Global Reach
ISLE OF WIGHT
COUNTY, VIRGINIA
DEPARTMENT OF COMMUNITY DEVELOPMENT

RECEIVED
SEP 02 2022
BY: ANS

#21565
EXC-2-22

APPLICATION FOR EXCEPTIONS AND MISECLLANEOUS APPEALS

A. APPLICATION FOR (CHECK ALL THAT APPLY):

[ ] Chesapeake Bay Preservation Area Ordinance Exception

[ ] Newport Development Service Overlay District Exception

[ ] Highway Corridor Overlay District Exception

[ ] Signage Exception

[ ] Subdivision Ordinance Waiver or Appeal

[X] Other (please list) Adjustment to Exception condition Sec 4-4005

The proposal is a request to Section (s) N.A. of the Chesapeake Bay Preservation Area Ordinance, the Isle of Wight County Zoning Ordinance, or the Isle of Wight County Subdivision Ordinance.

Proposed Use or Activity: Planting 10 Foot Thuja Green Giant Inpps 1.5o 12' Foot As per Board of Supervisors Condition

B. PROJECT DESCRIPTION:

Project Name: The Heritage

Property Address (if any): 23321 Sugar Hill Rd. Carrollton

Comprehensive Plan Designation: Newport Distr.

The exception will apply to 1 acres out of 1 total acres

Tax Parcel Identification # 34-01-106B Number of acres to be effected: 1

Proposed Utilities (check all that apply): Public Water X Private Well _____

Public Sewer X Private Septic _____

NOTICE: THE ATTACHED CHECKLIST MUST BE COMPLETED, CERTIFIED, AND SUBMITTED OR THE APPLICATION WILL BE CONSIDERED INCOMPLETE.

Remit Application to: Isle of Wight County Central Permitting, 17140 Monument Circle, Suite 100
P. O. Box 80, Isle of Wight, Virginia 23397

9/2/22

Applicant Signature **Date**

Owner Signature *if different* **Date**

FOR OFFICE USE ONLY:

Complete Application Received On: 9/6/22 Fees Paid: $250.00

Tax Query: [ ] Current [ ] Delinquent Distribution Date: N/A

Posted/Date to Post: _____

N/A

AGENCIES REFERRALS:

_____Department of Conservation & Recreation
_____Economic Development
_____Emergency Services
_____General Services
_____Environmental Planner
_____Health Department
_____Transportation Manager
_____Commission of Revenue
_____Other _____

_____Inspections
_____Sheriff's Office
_____Town of Smithfield
_____Town of Windsor
_____VDOT
_____Schools
_____Budget & Finance
_____County Attorney

Verified By: Amy M. Bry Date: 9/6/22

Revised August 13, 2014

COUNTY OF ISLE OF WIGHT
DISCLOSURE OF REAL ESTATE HOLDINGS

Applicant K S. Carrollton LLC

Address 214 Shivers Mill Lane
Street

Carrollton VA 23314
City State Zip

REAL ESTATE HOLDINGS TO BE AFFECTED

Location or Address	Description
23321 Sugar Hill Rd.	12 UNIT APARTMENT
Carrollton VA 23314	W. DETACHED CLUBHOUSE
	AND OFFICE

OTHER OWNERS OF AFFECTED REAL ESTATE

(Not Required for Corporation whose stock is traded on a national or local stock exchange or having more than 500 shareholders.)

Name of Individuals Corporation/Partnership Business Association	Address

Does any member of the Isle of Wight County Planning Commission or governing body have any interest in such property, either individually, by ownership of stock in a corporation owning such land, partnership, as the beneficiary of a trust, or the settlor of a revocable trust, or whether a member of the immediate household of any member of the Planning Commission or governing body has any such interest? Yes No X

If yes, names of members:

I do solemnly swear that the foregoing statement(s) and attachments(s), if any, are complete, correct and true.

Applicant: X Lucy Kooiman Applicant: X _____ Date: _____
Printed or Typed Name Signature

SANDRA W. ROBINSON NOTARY PUBLIC REG # 150490 COMMONWEALTH OF VIRGINIA

Commonwealth of Virginia
County of Isle of Wight

Subscribed and sworn to before me Sandra Walker Robinson,
A Notary Public in and for the County of Isle of Wight, Commonwealth of Virginia, this 2 day of Sept, 2022.

Sandra Walker Robinson
Notary Public

My Commission Expires 08/31/2024

Revised December 16, 2021

Local Roots, Global Reach

ISLE OF WIGHT COUNTY, VIRGINIA

SUBMITTAL CHECKLIST FOR EXCEPTION APPLICATIONS

In accordance with Section 5002, *Exceptions,* of the Chesapeake Bay Preservation Area Ordinance, and in accordance with Section 6-1015, *Exceptions*, Section 6-2011, *Exceptions*, and Section 9-1013, *Exceptions*, of the Isle of Wight County Zoning Ordinance, the following information shall be submitted for an exception application. Please note that it is the applicant's responsibility to ensure that the application is in compliance with all Federal, State and County regulations.

No application for an exception shall be certified as complete unless the following information and minimum number of copies are provided, unless the number of required copies is reduced by the Zoning Administrator:

1. ☑ Ten (10) copies of the original, executed application and one (1) original executed application. Both the applicant(s) and the property owner(s) must have their signature(s) notarized on page 2 of the application.
2. ☑ The appropriate fees have been submitted with the application. Checks should be made payable to: Treasurer, Isle of Wight County.
3. ☑ Ten (10) copies of a statement of the reasons for seeking such exception.
4. ☐ N/A Ten (10) copies of a narrative description of the property which shall include the Tax Parcel Identification Number.
5. ☑ One (1) copy of the most recent deed(s) for the property(s) associated with the application.
6. ☐ N/A A concept plan of the site to show all existing and proposed physical improvements and such other information as is necessary to clearly indicate to the reviewing body that adequate provisions have been made for compliance with all standards for that particular use, the extent of the property to be so used on a given parcel or parcels, and information defining the requested exceptions. The plan shall be prepared by the appropriate authorized design professional licensed to practice in Virginia. No person shall prepare or certify design elements of site plans which are outside the limits of their professional expertise and license. Such document shall be drawn to scale and shall include the following information:
   - A vicinity map at a scale of no less than one (1) inch equals two thousand (2,000) feet
   - Title of drawing
   - Date of drawing
   - Existing wood line
   - North arrow
   - Scale bar
   - Current zoning of parcel(s), including tax map number(s) and owner(s)
   - Current zoning of adjacent parcel(s), including tax map number(s) and owner(s)
   - Street names including route number and width(s) of the right-of-way(s)
   - Ten (10) full size copies, with one (1) reduced 11-inch X 17 inch copy shall be submitted
   - Please note that additional information on the site layout may be requested by the Zoning Administrator during the review process in order to more effectively review the application and prepare the staff reports for the appropriate reviewing body.

N/A

- ☐ 7. **For CBPA Exception applications, a major water quality impact assessment which meets the criteria in Section 4003 of the Chesapeake Bay Preservation Area Ordinance must be submitted at the time of application.**

- ☐ 8. Such other information as may be necessary to demonstrate compliance with all other applicable federal, state and County standards and regulations.

- ☐ 9. All real estate taxes must be paid and current at the time of submittal; otherwise, the submittal will be refused at the counter. Proof of the most recent tax payment to the County must accompany the application.

I, the undersigned, certify that this application is complete, accurate and contains all required and requested information, documents and other submittals, and that all statements made herein are, to the best of my knowledge, true and correct. I further certify that I have exercised due diligence to obtain the most recent, complete and correct information available. I understand that any section not completed in its entirety may delay processing of this application.

Lucy Koonce
Printed or Typed Name

Signature

9/2/22
Date

Prepared by: Stephen J. DeBoer, VSB #78424
Plumlee & Overton, PC
620 Cedar Road, Chesapeake, VA 23322
Return to: Advance Title & Abstract,
1428A Kempsville Road, Chesapeake, VA 23320

Map/Parcel No.: 34-01-106B
Title Insurance Underwriter:
Stewart Title Guaranty Company
Consideration: $130,000.00
Assessed Value: $100,000.00

DEED OF BARGAIN AND SALE

THIS DEED is made this 16th day of January, 2019, by and between **J. NATHAN FORREST, JR., Trustee of the J. Nathan Forrest, Jr., Revocable Living Trust, dated November 6, 2014**, Grantor, party of the first part, and **KS CARROLLTON, LLC**, Grantee, party of the second part, whose mailing address is: 214 Shivers Mill Lane, Carrollton, VA 23314

WITNESSETH:

THAT FOR and in consideration of the sum of Ten Dollars ($10.00) and other good and valuable consideration, the receipt of which is hereby acknowledged, the said party of the first part does hereby grant and convey, with GENERAL WARRANTY and ENGLISH COVENANTS OF TITLE, unto the said party of the second part, the following described property, towit:

ALL THAT certain parcel of land situate, lying and being in the Newport Magisterial District of the County of Isle of Wight, Virginia, being known and designated as the property of 'JAMES S. DICK', containing 1.00 acre by survey, as shown on that certain plat entitled, "PLAT OF THE PROPERTY OF JAMES S. DICK, FORMERLY (FORMALLY) THE PROPERTY OF KENNETH E. WILLIAMS, DEED BOOK 249, PAGE 222, LOCATED IN NEWPORT MAGISTERIAL DISTRICT, ISLE OF WIGHT COUNTY, VIRGINIA, EMIN B. HOLLEY, JR., CERTIFIED LAND SURVEYOR, SMITHFIELD, VIRGINIA, SCALE: 1" = 50' MARCH 1, 1985", which said plat is duly recorded in the Clerk's Office of the Circuit Court of the County of Isle of Wight, Virginia in Deed Book 305, Page 216.

Together with that certain Drainage Easement as reference in instrument recorded in Deed Book 305 at Pages 211 thru 217.

IT BEING the same property conveyed to J. Nathan Forrest, Jr., Trustee of the J. Nathan Forrest, Jr., Revocable Living Trust, dated November 6, 2014, by deed from Jack N. Forrest, Jr., dated October 14, 2015, and recorded November 3, 2015, in the aforesaid Clerk's Office as Instrument Number 150004646.

The said property is conveyed subject to all unexpired conditions, restrictions, reservations and easements of record, if any, constituting constructive notice, and all matters visible upon inspection.

WITNESS the following signature and seal:

J. Nathan Forrest Jr. (SEAL)
J. NATHAN FORREST, JR., Trustee of the J. Nathan Forrest, Jr., Revocable Living Trust, dated November 6, 2014

STATE OF VIRGINIA
CITY OF Suffolk, to-wit:

I, the undersigned, Notary Public in and for the City and State aforesaid, do hereby certify that **J. Nathan Forrest, Jr., Trustee of the J. Nathan Forrest, Jr., Revocable Living Trust, dated November 6, 2014**, whose name is signed to the foregoing Instrument, has acknowledged the same before me in my City and State aforesaid and is either personally known to me or has produced a state issued driver's license as identification.

GIVEN under my hand this 16th day of January, 2019.

Mary Lou Reue
NOTARY PUBLIC

My commission expires: 9-30-2022
Notary Registration No.: 7793178

MARY LOU REUE
NOTARY PUBLIC
Commonwealth of Virginia
Reg. #7793178
My Commission Expires

STATEMENT OF REASONS 9/6/22

As you recall, The Heritage Apartment Building was given an exception for its height with two conditions one of which was to plant trees up to 25 feet tall at maturity, adjacent to the neighbor's lots 1-4. We agreed on Thuja Green Giant Trees which grow up to 40 feet tall an additional 15 feet than the required minimum. The ruling stated the trees had to be a minimum of 12 feet at planting. Both Mr. Keaton and Jefferson raised a great question, " What if the trees are not found at that height?" As it turns out, the concern was valid and poses as a real challenge.

Since March, we have engaged over 15 farms, both local and distant, online sellers and none hold12 feet trees. They are difficult to find and most sellers also are weary of selling such a mature tree. On 3/16/22, we paid a deposit to Watkins Nursery in Midlothian for 30 8-10 feet, the tallest they had, hoping they would hold them until early fall when we would be done with construction site and also ideal time of year to plant. The trees were and remain in high demand and holding them for that long was not possible.

Fortunately, on May 3rd, Lily Farms a local nursery, understood our dilemma and agreed to work with us, They allowed us to personally tag the tallest trees in their farm (most at 9 -10 feet) and are holding them until September. We would hate for him to sell them to a ready buyer after September and need to hear back from you at your earliest convenience. These are fast growing trees with an average of 3 feet per year.

At the March 17th Board of Supervisor Work Session meeting, it was agreed if the availability of the trees was an issue, then we were to present the concern back to the Board. This is where we are and hope this can be resolved soonest.

PS We are able to provide numbers of all places we have contacted and their responses.

Local Roots, Global Reach

ISLE OF WIGHT COUNTY, VIRGINIA

DEPARTMENT OF COMMUNITY DEVELOPMENT

REVISED March 9, 2022

K.S. Carrollton LLC
Attn: Jerry Kooiman
214 Shivers Mill Lane
Carrollton, VA 23314

SUBJECT: Request of Jerry Kooiman on behalf of KS Carrollton, LLC, property owner, for a height exception for the Heritage Apartment building located at 23321 Sugar Hill Road on property with tax map number 34-01-106B to allow the building to exceed the maximum height limit of 35 feet permitted in the Urban Residential district by 2.25 feet. The total building height requested is 37.25 feet.

Dear Mr. Kooiman,

Please be advised that at its meeting on March 3, 2022, the Isle of Wight County Board of Supervisors approved your height exception request for an additional 2.25 feet above the maximum height requirement for a total height of 37.25 feet contingent upon the following conditions:

1. Privacy screens are to be installed on the balcony sides facing the single family homes on the adjacent property of a design approved by the zoning administrator, following review by the owners of lots 1 through 4, to address privacy concerns;
2. A revised landscaping plan submitted by the property owner to include trees with a minimum height of 25 feet at maturity and a minimum height of 12 feet at planting to be installed adjacent to the rear property lines of lots 1 through 4 of the adjacent Carrollton Meadows subdivision to be approved by the zoning administrator, following review by the owners of lots 1 through 4, to address privacy concerns; and
3. No windows shall be allowed on the east side of the apartment building.

Please note that all conditions must be met prior to issuance of a certificate of occupancy for the apartment building. If you have any questions, you may contact me at (757) 365-6210 or by email at aring@iwus.net.

Sincerely,

Amy Ring
Community Development Director

P. O. Box 80
17140 Monument Circle
Isle of Wight, VA 23397
(757) 357-9206
www.co.isle-of-wight.va.us

Amy Ring

From: Lucy Rotich <lwmunyi@yahoo.com>
Sent: Friday, August 19, 2022 12:37 PM
To: Rudolph Jefferson; William M. McCarty, Sr; Randy Keaton
Cc: Amy Ring
Subject: Fw: Thuja Green Giant Trees/ Heritage Apartments

Caution: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Mr.Keaton, Mr. Jefferson and Mr. McCarthy

As you recall, The Heritage Apartment Building was given an exception for its height with two conditions one of which was to plant trees up to 25 feet tall at maturity, adjacent to the neighbors lots 1-4. We agreed on Thuja Green Giant Trees which grow up to 40 feet tall an additional 15 feet than the required minimum. The ruling stated the trees had to be a minimum of 12 feet at planting. Both Mr. Keaton and Jefferson raised a great question, " What if the trees are not found at that height?" As it turns out, the concern was valid and poses as a real challenge.

Since March, we have engaged over 15 farms, both local and distant, online sellers and none hold12 feet trees. They are difficult to find and most sellers also are weary of selling such a mature tree. On 3/16/22, we paid a deposit to Watkins Nursery in Midlothian for 30 8-10 feet, the tallest they had, hoping they would hold them until early fall when we would be done with construction site and also ideal time of year to plant. The trees were and remain in high demand and holding them for that long was not possible.

Fortunately on May 3rd, Lily Farms a local nursery, understood our dilemma and agreed to work with us, They allowed us to personally tag the tallest trees in their farm (most at 9 -10 feet) and are holding them until September. We would hate for him to sell them to a ready buyer after September and need to hear back from you at your earliest convenience. These are fast growing trees with an average of 3 feet per year.

At the March 17th Board of Supervisor Work Session meeting, it was agreed if the availability of the trees was an issue, then we were to present the concern back to the Board. This is where we are and hope this can be resolved soonest.

PS We are able to provide numbers of all places we have contacted and their responses.

Please let us know how to proceed.

Thank you for your time.

Lucy Kooiman

ISSUE:

Conditional Zoning Amendment Request to Amend Proffered Conditions for the Archer's Meade Mixed-Use Planned Development Conditional Zoning Approval for the Development of 63 Single-Family Residential Units and Commercial Uses with Proffered Conditions on Approximately 24.33 Acres Located on the East Side of Carrollton Boulevard (Route 17)

BACKGROUND:

This is a Conditional Zoning Amendment request to amend proffered conditions for the Archer's Meade mixed-use Planned Development conditional zoning approval, which were previously amended on February 28, 2019. The Archer's Meade conditional zoning approval allows for the development of 63 single-family residential units and commercial uses with proffered conditions on approximately 24.33 acres located on the east side of Carrollton Boulevard (Route 17) in the Newport Development Service District. The subject Tax Map parcels are: 34-01-087, 34-01-086, 34-01-086A, a portion of 34-01-055, 34-01-050B, 34-01-066, and 54-01-053.

This proffer amendment seeks to amend condition "V. Transportation" to eliminate the median (crossover) improvements initially proffered in accordance with the Traffic Impact Analysis dated April 30, 2014. The applicant states that the conceptual engineering design of a crossover at the previously proffered location resulted in a vertical elevation difference between northbound and southbound lanes on Carrollton Boulevard (Route 17) that is undesirable. The amendment establishes a right-in and right-out entrance into Archer's Meade with a 200 foot right turn lane with a 200 foot taper constructed on northbound Route 17 into the site, in lieu of relocating and improving the median crossover, as previously proffered, and closes the existing median crossover.

Section 1-1016 of the Isle of Wight County Zoning Ordinance allows for the Board of Supervisors to waive the requirements of a public hearing when such amendment to Conditional Zoning does not affect conditions of use or density. No change affecting conditions of use or density is proposed with this application.

The conditional zoning for Archer's Meade was originally approved by the Board of Supervisors on June 19, 2014, and amended on February 8, 2019. Existing proffered condition "V. Transportation" reads as follows:

"The Owner, at is sole cost and expense, shall cause to be constructed the following transportation improvements in accordance with the recommended improvements contained in the Traffic Impact Analysis for Archers Meade dated April 30, 2014.

1. Intersection of Route 17 & Clay Sawyer Property Entrance - The developer shall provide the following improvements at this location:
   a. The relocation of the crossover will be done by Archers Meade Developers if Bridgepoint Commons has not started construction. This entrance shall align with the proposed relocated crossover for the Bridge Point Commons project.
   b. This entrance shall have 2-existing lanes (1-left-thru & 1-right and 1 entering lane).
   c. A 200' right turn lane with 200' taper shall be constructed on northbound Route 17.
   d. A 200' left turn lane with a 200' taper shall be constructed on southbound Route 17."

The new proposed proffer would read as follows:

"1. Intersection of Route 17 & Clay Sawyer Property Entrance- The owner shall provide the following improvements at this location:

A. In lieu of relocating the existing crossover, the Owner shall close and eradicate the crossover and install a right-in and right-out entrance into Archer's Meade constructed to VDOT requirements.

B. A 200' right turn lane with 200' taper shall be constructed on northbound Route 17 into the site."

Staff Analysis

At this time, the approved Bridgepoint Commons mixed use development on the west side of Carrollton Boulevard (Route 17), located directly across from the planned Archer's Meade development, has not started construction.

VDOT stated in its review of this request that the result of the proffer amendment will be to restrict traffic generated by the development to access Route 17 southbound via the development's entrance on Channell Way to utilize the Channell Way median break to turn left. The Department and the County are currently considering modifications to the median break at Channell Way which could restrict left turns from Channell Way. If this occurs, this would force all

access to southbound Route 17 from the development to make a right onto northbound Route 17 and then make a U-turn at the Brewer's Neck/Carrollton Boulevard intersection onto southbound Route 17.

The existing proffers for both Archer's Meade and Bridgepoint Commons include relocating the existing median break to line up with the entrances of both Archer's Meade and Bridgepoint Commons, whoever develops first. As discussed with the applicant, part of the relocation of the median break included the closure and eradication of the existing median break. If the median break is not relocated, then the median can be closed with a right-in/right-out only entrance at Archer's Meade. Should the Bridgepoint Commons development occur, those property owners would be responsible for constructing the new median break with necessary turn lanes at that time. VDOT has stated that a median break would be allowed under current regulations.

County staff and VDOT encouraged the applicants to demonstrate due diligence with the Bridgepoint Commons developer, relative to the proposed change in access improvements contained in the existing proffered conditions for each development. The applicants have indicated they have reached out to representatives of Bridgepoint Commons, who have expressed that they are in agreement with this request, however staff has not received anything directly from the Bridgepoint Commons property owner.

BUDGETARY IMPACT:

None.

RECOMMENDATION:

Staff recommends approval of this request with the condition that VDOT finds the revised proffer statement dated and received October 10, 2010, to be acceptable.

ATTACHMENTS:

Description	Type	Upload Date
ZA-3-22 Revised Application	Backup Material	10/11/2022
ZA-3-22 Proffer Statement	Backup Material	10/11/2022
Archers Meade 2019 Proffer Statement	Backup Material	10/12/2022
Location Map	Backup Material	10/10/2022

AUG 0 5 2022

Initial: CBO

ISLE OF WIGHT
COUNTY, VIRGINIA

26534
ZA-3-22
JRP

APPLICATION FOR REZONING/CONDITIONAL ZONING AMENDMENT

This application should be used to petition for a change to the Official Zoning Map or for an amendment of zoning conditions. The following application requirements are consistent with the procedures set forth in Section 1-1015, *Amendments*, of the Isle of Wight County Zoning Ordinance, as amended.

[ ] Rezoning

[ ] Conditional Rezoning (Are voluntary proffered conditions attached?):_____Yes _____ No

Request to change the subject property(s) from the_____to the_____zoning district.

Proposed Use or Activity: _____

_____

[X] Amendment to Conditional Zoning

Request to change conditional zoning as follows (Attach current and proposed conditions): _____

Amend Condition V. Transportation

B. PROJECT DESCRIPTION:

Project Name:Archer's Meade

Property Address (if any):N/A

Election District:Newport

Comprehensive Plan Designation: SR

The rezoning will apply to 21.822 acres out of 21.822 total acres

Tax Parcel Identification # See attached Number of Acres to be Rezoned: N/A

Requesting Zoning District Change from:_____to _____

Tax Parcel Identification #_____Number of Acres to be Rezoned: _____

Requesting Zoning District Change from:_____to _____

Tax Parcel Identification #_____Number of Acres to be Rezoned: _____

Requesting Zoning District Change from:_____to _____

Proposed Utilities (check all that apply): Public Water X Private Well _____

Public Sewer X Private Septic _____

C. **APPLICATION INFORMATION:**

Applicant(s) Name(s): W. C. Sawyer & Archer L. Jones II

Address: 1600 South Church Street

City, State, Zip Code: Smithfield VA 23430

Phone No.: 757-357-2187 Email: joneslaw@jandjpc.com Fax No.: 757-357-0994

Property Owner(s) Name(s): Same as above

Address: _____

City, State, Zip Code: _____

Phone No.: _____ Email: _____ Fax No.: _____

Archer Jones W C Sawyer 8/31/22

Applicant Signature Date

Archer Jones W C Sawyer 8/31/2022

Owner Signature *if different* Date

NOTICE: THE ATTACHED CHECKLIST MUST BE COMPLETED, CERTIFIED, AND SUBMITTED OR THE APPLICATION WILL BE CONSIDERED INCOMPLETE.

Remit Application to: Isle of Wight County Central Permitting, 17140 Monument Circle, Suite 100
P. O. Box 80, Isle of Wight, Virginia 23397

FOR OFFICE USE ONLY:

Complete Application Received On: 8/31/22 Fees Paid: Yes

Tax Query: | | Current | | Delinquent Distribution Date: 8/30/22

Posted/Date to Post: _____

AGENCIES REFERRALS:

_____ Department of Conservation & Recreation
_____ Economic Development
_____ Emergency Services
_____ General Services
_____ Environmental Planner
_____ Health Department
✓ Transportation Manager
_____ Commission of Revenue
_____ Other _____

_____ Inspections
_____ Sheriff's Office
_____ Town of Smithfield
_____ Town of Windsor
✓ VDOT
_____ Schools
_____ Budget & Finance
_____ County Attorney

Verified By: Jay Lou Phillips Date: 8/31/22

COUNTY OF ISLE OF WIGHT
DISCLOSURE OF REAL ESTATE HOLDINGS

Applicant W. C. Sawyer& Archer L. Jones II

Address 1600 South Church Street
Street

Smithfield VA 23430
City State Zip

REAL ESTATE HOLDINGS TO BE AFFECTED

Location or Address	Description
See attached property list	

OTHER OWNERS OF AFFECTED REAL ESTATE
(Not Required for Corporation whose stock is traded on a national or local stock exchange or having more than 500 shareholders.)

Name of Individuals Corporation/Partnership Business Association	Address
N/A	

Does any member of the Isle of Wight County Planning Commission or governing body have any interest in such property, either individually, by ownership of stock in a corporation owning such land, partnership, as the beneficiary of a trust, or the settlor of a revocable trust, or whether a member of the immediate household of any member of the Planning Commission or governing body has any such interest? Y Yes X No
If yes, names of members:

I do solemnly swear that the foregoing statement(s) and attachments(s), if any, are complete, correct, and true.

Applicant: W C Sawyer Applicant: Archer Jones Date: 8/5/22
Printed or Typed Name Signature

8/5/2022

Commonwealth of Virginia
County of Isle of Wight

Subscribed and sworn to before me Tina Louise Ozmer
A Notary Public in and for the County of Isle of Wight, Commonwealth of Virginia, this 5th day of August, 2022

Tina Louise Ozmer
Notary Public

My Commission Expires 2/28/2023

Tina Louise Ozmer
Commonwealth of Virginia
Notary Public
Commission No. 7815116
My Commission Expires 2/28/2023

Archer's Meade

Property List approved under application #ZA-01-014

Map #	Zoned Acreage	
	PDR	GC
34-01-087	3.259	N/A
34-01-086	5.383	N/A
34-01-086A	1.456	N/A
34-01-055	6.949	1.594
34-01-050B	.392	.203
34-01-066	4.383	N/A
54-01-053	N/A	.712
Acreage Sub-total:	21.822	2.509

Acreage Total: 24.331

October 10, 2022

Mrs. Amy Ring
Director of Planning and Zoning
P. O. Box 80
Isle of Wight, VA 23397

RE: Archer's Meade Amended Zoning Request under Section 1-1016(G) of the Isle of Wight County Ordinance

Dear Mrs. Ring:

Per comments received from Jeryl Phillips dated October 6, 2022 in response the above-referenced application originally filed on August 4, 2022, please find the revised proffer statement to include the closure and eradication of the existing crossover.

Please also allow W. C. Sawyer and I to reiterate that we are seeking an amendment to Conditional Planned Development Residential (C-PD-R) and Conditional General Commercial (C-GC) Zoning granted by the Isle of Wight Board of Supervisors on June 19, 2014, amended February 8, 2019 for the proposed Archer's Meade planned development. The purpose of the currently approved zoning is to allow for the proposed Archer's Meade planned development consisting of 63 single-family residential units and commercial uses on approximately 24.33 acres. The property is located on the east side of Carrollton Boulevard (Route 17), in the Newport Election District.

This proffer amendment seeks to amend condition V.Transportation to eliminate the median (crossover) improvements initially proffered in accordance with the Traffic Impact Analysis dated April 30, 2014. The conceptual engineering design of a crossover at the previously proffered location resulted in a vertical elevation difference between northbound and southbound lanes that is undesirable. Furthermore, we have met with the Virginia Department of Transportation (VDOT) and County staff and based upon those meetings and a restoration study of Route 17 conducted by VDOT, it is our understanding that neither VDOT or the County wants the previously proffered crossover. Therefore, an amendment to the proffer became the next logical step.

We also acknowledge per VDOT that the result of the proffer amendment may restrict development access in such a way as to force all desired Route 17 southbound traffic to access Route 17 southbound via the Channel Way median break, and that VDOT and the County are currently considering modifications to the median break at Channel Way to restrict left turns from Channel Way. This will force all access to southbound Route 17 from the development to make a right onto northbound Route 17 and then make a "u-turn" at the Brewer's Neck/Carrollton Boulevard intersection onto southbound Route 17.

Please be further advised that per staff comments, we have reached out to representatives of Bridgepoint Commons and they have expressed that they are in agreement to eliminate "relocation" of the existing median crossover; and to eradicate the existing crossover for the reasons provided above. They advised that they will confirm in writing directly to you.

We request that this amendment be processed in accordance with Section 1-1016 of the Isle of Wight County Zoning Ordinance which allows for the Board of Supervisors to waive the requirements of a public hearing when such amendment to Conditional Zoning does not affect conditions of use or density. Section 1-1016 (G) reads as follows:

> "There shall be no amendment or variation of proffered conditions as part of an approved rezoning until after a public hearing before the board of supervisors advertised pursuant to the provisions of this ordinance. However, where an amendment to the proffered conditions is requested by the applicant, and where such amendment does not affect conditions of use or density, the board of supervisors may waive the requirements of a public hearing. Once so amended, the proffered conditions shall continue to be an amendment to the ordinance and may be enforced by the zoning administrator pursuant to the provisions of the ordinance."

Also attached are the required application documents prescribed by the County, along with the proposed revised proffer statement.

Should you have any questions or require anything further, Mr. Sawyer and I have contracted with Beverly Walkup, Planning Consultant to represent the requested amendment. Ms. Walkup can be reached for questions and/or additional information with regard to this request at (757) 651-4843.

Sincerely,

Archer L. Jones II, Owner

Attachment(s)

COUNTY OF ISLE OF WIGHT
PROFFER STATEMENT

Applicant's name(s): W. C. Sawyer and Archer L. Jones II

Owner's name(s): Same as above

Project name: Archers Meade

Date: February 7, 2014, revised June 4.2014, ~~and~~ February 28, 2019 and October 10, 2022

Parcel-Tax Map Numbers and deed book reference: 34-01-053, 34-01-055, 34-01-066, 34-01-086, 34-01-086A, 34-01-087 and Part of 34-01-050B

These proffers are made as of the 7th day of February, 2014, revised the 4th day of June, 2014 and February 28, 2019 by W.C. Sawyer and Archer L. Jones II collectively "Owner", of Tax Map Number 34-010-53, 34-01-55, 34-01-066, 34-01-086, 34-01-086A, 34-01-087 and Part of 34-01-050B, containing approximately 24.33 acres of land which is referred to herein as the "Property". Owner filed a rezoning application with the Isle of Wight County Planning and Zoning Department requesting a change in the zoning of the Property from RAC and LI, to Conditional PD-R and Conditional GC which was approved by the Isle of Wight County Board of Supervisors on June 19, 2014 and amended on February28, 2019 to rezone .888 acres from GC to C-PDR. Owner voluntarily proffered that the development of the Property proposed for rezoning under the application shall be in strict accordance with the conditions set forth below, and as hereby revised on October 10, 2022~~February 28, 2019~~ to amend condition V (Transportation) ~~the zoning of .888 acres of land zoned Conditional General Commercial (C-GC) approved June 19, 2014 to Conditional Planned Development Residential (C-PD-R)~~ under this Conditional Zoning Amendment ~~filed with the Department of Planning on August 4, 2022January 8, 2019~~.

These proffered conditions ("Proffers") are the only conditions offered on this rezoning, and any prior proffered conditions on the Property are hereby superseded by these proffers and any and all previous proffers on the Property are hereby void and of no further force and effect.

All improvements, land, easements, dedications, gifts, proffers and other conveyances to the County shall be in fee simple, without cloud of title or encumbrance of any kind.

I. Development of the Property

1. Development of the Property associated with this rezoning application shall be generally consistent as determined by the reviewing authority with the Conceptual Master Plan prepared by Commonwealth Engineering Group Ltd. dated 4-25-14 and revised 06-04-14, and as further revised on the attached Zoning Exhibit prepared by Timothy M. Fallon seal dated 1-7-19, revised 2-26-19, submitted as

part of this revised application and as may be determined during preliminary and final site plan approval and/or preliminary and final subdivision construction plan approval.

2. The amount of commercial development shall not exceed 20,000 square feet.
3. The maximum number of residential units shall not exceed 63 single family home units.
4. Owner shall cause to be constructed the following recreational areas for residences of the development: 1.0 acre of open space and 0.8 acre of parks to include the following improvements. One swing set and a set of spring riders or other comparable amenities as may be deemed appropriate by the owner.

II. Land Use

1. The Property shall be used as permitted under the respective C-PD-R and C-GC districts, and more specifically for the following uses; dwelling, single family, and all commercial uses as may be accommodated under the site requirements as regulated by the Zoning Ordinance, except: Club, Crisis Center; Modular Classroom; Park and Ride Facility; Rehabilitation Service; Construction Sales and Service; Contractor Office and Storage Facility; Lawn and Garden Services; Marina; Motor Vehicle Repair Service/Major; Custom Manufacturing; and Amateur Radio Tower.

III. Cash Proffers

1. Residential Units
   A. Single Family Units - The Owner agrees to make cash proffers of $5,000 per unit for the 63 single family detached home lots.

   B. At the time of the recordation of the subdivision plat for a phase of development, the total agreed amount of Residential Cash Proffer for said phase shall be evidenced by a Demand Note of Applicant to County, without interest. The Note shall be secured by a deed of trust ("Cash Proffer Deed of Trust") on all residential units in such phase and this Cash Proffer Deed of Trust will be secondary to all acquisition, development and construction loans obtained by Owner and the County shall execute such subordination or other agreements as may be necessary.
   C. Releases by County under the Cash Proffer Deed of Trust shall be made upon payment of the applicable cash contribution for the released lots. Payment for releases shall be made prior to the issuance of a final occupancy permit.

IV. Archaeology

1. A Phase I Archaeological Study for the Property shall cause to be prepared and submitted to the Zoning Administrator for their review and approval prior to

final site plan approval. A treatment plan shall be submitted to, and approved by, the Zoning Administrator for all sites in the Phase I study that are recommended for a Phase II evaluation, and/or identified as being eligible for inclusion on the National Register of Historic Places. If a Phase II study is undertaken, such a study shall be approved by the Zoning Administrator and a treatment plan for said sites shall be submitted to, and approved by, the Zoning Administrator for sites that are determined to be eligible for inclusion on the National Register of Historic Places and/or those sites that require a Phase III study. If in the Phase II study, a site is determined eligible for nomination to the National Register of Historic Places and said site is to be preserved in place, the treatment plan shall include nomination of the site to the National Register of Historic Places. If a Phase III study is undertaken for said sites, such studies shall be approved by the Zoning Administrator prior to land disturbance within the study area. All Phase I, Phase II and Phase III studies shall meet the Virginia Department of Historic Resources Guidelines for Preparing Archaeological Resource Management Reports and the Secretary of the Interior's Standard and Guidelines for Archaeological Documentation, as applicable, and shall be conducted under the supervision of a qualified archaeologist who meets the qualifications set forth in the Secretary of the Interior's Professional Qualification Standards. All approved treatment plans shall be incorporated into the plan of development for the site and shall be adhered to during the clearing, grading and construction activities thereon.

V. Transportation

The Owner, at its sole cost and expense, shall cause to be constructed the following transportation improvements in accordance with the recommended improvements contained in the Traffic Impact Analysis for Archers Meade dated April 30, 2014.

1. Intersection of Route 17 & Clay Sawyer Property Entrance- The owner shall provide the following improvements at this location:
   A. In lieu of relocating the existing crossover, the Owner shall close and eradicate the crossover and install ~~The entrance shall consist of~~ a right-in and right-out entrance into Archer's Meade constructed to VDOT requirements.~~The relocation of the crossover will be done by Archers Meade owners if Bridgepoint Commons has not started construction. This entrance shall align with the proposed relocated crossover for the Bridge Point Commons project.~~

   ~~B. This entrance shall have 2 existing lanes (1 left thru & 1 right and 1 entering lane.~~

   ~~C~~B. A 200' right turn lane with 200' taper shall be constructed on northbound Route 17 into the site.

   ~~D. A 200' left turn lane with a 200' taper shall be constructed on southbound Route 17.~~

VI. Water and Sewer Improvements

1. All parcels within the development shall be served by public water and sewer. All public water and sewer systems shall be constructed in conformance with the Isle of Wight County Master Water and Sewer Plan or as directed by the Board of Supervisors. The size of water and sewer lines interior to the development shall be determined as part of the final engineering approval. The owner, at its sole cost and expense, shall cause to be constructed the following offsite improvements: A gravity sewer main of adequate size as approved by Public Utilities, to connect to the closest existing manhole.

VII. Easements, Rights-of-Way and Buffers

1. The Owner, at its sole cost and expense, shall dedicate a twelve (12) foot easement to the County for public access for recreational purposes to the multipurpose trail to be located adjacent to the Route 17 Right of Way.
2. The Owner, at its sole cost and expense, shall cause to be constructed in accordance with County specifications a ten (10) foot wide asphalt multipurpose trail. The trail shall be located adjacent to the Route 17 Right of Way and shall be connected to sidewalks which shall be constructed adjacent to all internal roads, and within the road right-of-way when possible, and along building frontages within the development to provide internal access between uses.
3. In order to provide connectivity between adjacent parcels the new west to east entrance street has a temporary cul-de-sac at the property line to east.

VIII. Property Owners Association and Restrictive Covenants

1. The Owner shall form a Homeowners Association, which may also include sub-associations, in accordance with Virginia law, with the preparation and execution of a Declaration of Covenants, Conditions and Restrictions (the "Declaration") with the owners thereof being the residential owners or commercial owners of property within Archer's Meade. The Declaration shall provide for the conveyance from the Owners of all of the common areas, open spaces, green areas, recreation areas and facilities and the stormwater management system of the subject property to the Association. Every property owner shall be a voting member of the Association and be subject to assessments as set forth in the Declaration. The Declaration shall be subject to the approval of the County Attorney and upon approval shall be duly recorded in the Clerk's Office for the Circuit Court of Isle of Wight County. The Declaration shall be recorded prior to recordation of the first final subdivision plat.
2. The Owner agrees that it shall retain sole responsibility for the maintenance of the stormwater management system and all of the amenities, including but not limited

to improvements and open space of the Property until such time as 80% of the lots shown on the final subdivision plat or overall subdivision, if phased, have building permits issued to individual lot owners for the construction of units thereon, at which time the obligation shall be assigned to the property owners' association.

IX. General

1. Successors and Assigns - This Proffer Agreement shall be binding upon and shall inure to the benefit of the parties hereto, and their respective heirs, successors and/or assigns. Any obligation(s) of Owner hereunder shall be binding upon and enforceable against any subsequent owner or owners of the Property or any portion thereof.
2. Severability - In the event that any clause, sentence, paragraph, subparagraph, section or subsection of these Proffers shall be judged by any court of competent jurisdiction to be invalid or unenforceable for any reason, including a declaration that it is contrary to the Constitution of the Commonwealth of Virginia or of the United States, or if the application thereof to any owner of any portion of the Property or to any government agency is held invalid, such judgment or holding shall he confined in its operation to the clause, sentence, paragraph, subparagraph, section or subsection hereof, or the specific application thereof directly involved in the controversy in which the judgment or holding shall have been rendered or made, and shall not in any way affect the validity of any other clause, sentence, paragraph, subparagraph, section or provision hereof.
3. Void if Application is not approved - In the event that the Application is not approved by the County, these Proffers shall be null and void.

SIGNATURE PAGE

Applicant/Owner: W. C. Sawyer
Printed or Typed Name
Applicant/Owner: Date:

Signature

Commonwealth of Virginia
County of Isle of Wight:

Subscribed and sworn to before me

A Notary Public in and for the County of Isle of Wight, Commonwealth of Virginia, this _____day of _____, 2022~~19~~

Notary Public
My Commission Expires

Applicant/Owner: Archer L. Jones II
Printed or Typed Name
Applicant/Owner: Date:

Signature

Commonwealth of Virginia
County of Isle of Wight:

Subscribed and sworn to before me

A Notary Public in and for the County of Isle of Wight, Commonwealth of Virginia, this _____day of _____, 2022~~19~~

Notary Public

My Commission Expires

_____

COUNTY OF ISLE OF WIGHT
PROFFER STATEMENT

Applicant's name(s): W. C. Sawyer and Archer L. Jones II

Owner's name(s): Same as above

Project name: Archers Meade

Date: February 7, 2014, revised June 4.2014, February 28, 2019 and October 10, 2022

Parcel-Tax Map Numbers and deed book reference: 34-01-053, 34-01-055, 34-01-066, 34-01-086, 34-01-086A, 34-01-087 and Part of 34-01-050B

These proffers are made as of the 7th day of February, 2014, revised the 4th day of June, 2014 and February 28, 2019 by W.C. Sawyer and Archer L. Jones Il collectively "Owner", of Tax Map Number 34-010-53, 34-01-55, 34-01-066, 34-01-086, 34-01-086A, 34-01-087 and Part of 34-01-050B, containing approximately 24.33 acres of land which is referred to herein as the "Property". Owner filed a rezoning application with the Isle of Wight County Planning and Zoning Department requesting a change in the zoning of the Property from RAC and LI, to Conditional PD-R and Conditional GC which was approved by the Isle of Wight County Board of Supervisors on June 19, 2014 and amended on February 28, 2019 to rezone .888 acres from GC to C-PDR. Owner voluntarily proffered that the development of the Property proposed for rezoning under the application shall be in strict accordance with the conditions set forth below, and as hereby revised on October 10, 2022 to amend condition V (Transportation) under this Conditional Zoning Amendment.

These proffered conditions ("Proffers") are the only conditions offered on this rezoning, and any prior proffered conditions on the Property are hereby superseded by these proffers and any and all previous proffers on the Property are hereby void and of no further force and effect.

All improvements, land, easements, dedications, gifts, proffers and other conveyances to the County shall be in fee simple, without cloud of title or encumbrance of any kind.

I. Development of the Property

1. Development of the Property associated with this rezoning application shall be generally consistent as determined by the reviewing authority with the Conceptual Master Plan prepared by Commonwealth Engineering Group Ltd. dated 4-25-14 and revised 06-04-14, and as further revised on the attached Zoning Exhibit prepared by Timothy M. Fallon seal dated 1-7-19, revised 2-26-19, submitted as part of this revised application and as may be determined during preliminary and

final site plan approval and/or preliminary and final subdivision construction plan approval.

2. The amount of commercial development shall not exceed 20,000 square feet.
3. The maximum number of residential units shall not exceed 63 single family home units.
4. Owner shall cause to be constructed the following recreational areas for residences of the development: 1.0 acre of open space and 0.8 acre of parks to include the following improvements. One swing set and a set of spring riders or other comparable amenities as may be deemed appropriate by the owner.

II. Land Use

1. The Property shall be used as permitted under the respective C-PD-R and C-GC districts, and more specifically for the following uses; dwelling, single family, and all commercial uses as may be accommodated under the site requirements as regulated by the Zoning Ordinance, except: Club, Crisis Center; Modular Classroom; Park and Ride Facility; Rehabilitation Service; Construction Sales and Service; Contractor Office and Storage Facility; Lawn and Garden Services; Marina; Motor Vehicle Repair Service/Major; Custom Manufacturing; and Amateur Radio Tower.

III. Cash Proffers

1. Residential Units
   A. Single Family Units - The Owner agrees to make cash proffers of $5,000 per unit for the 63 single family detached home lots.

   B. At the time of the recordation of the subdivision plat for a phase of development, the total agreed amount of Residential Cash Proffer for said phase shall be evidenced by a Demand Note of Applicant to County, without interest. The Note shall be secured by a deed of trust ("Cash Proffer Deed of Trust") on all residential units in such phase and this Cash Proffer Deed of Trust will be secondary to all acquisition, development and construction loans obtained by Owner and the County shall execute such subordination or other agreements as may be necessary.
   C. Releases by County under the Cash Proffer Deed of Trust shall be made upon payment of the applicable cash contribution for the released lots. Payment for releases shall be made prior to the issuance of a final occupancy permit.

IV. Archaeology

1. A Phase I Archaeological Study for the Property shall cause to be prepared and submitted to the Zoning Administrator for their review and approval prior to final site plan approval. A treatment plan shall be submitted to, and approved

by, the Zoning Administrator for all sites in the Phase I study that are recommended for a Phase Il evaluation, and/or identified as being eligible for inclusion on the National Register of Historic Places. If a Phase Il study is undertaken, such a study shall be approved by the Zoning Administrator and a treatment plan for said sites shall be submitted to, and approved by, the Zoning Administrator for sites that are determined to be eligible for inclusion on the National Register of Historic Places and/or those sites that require a Phase Ill study. If in the Phase Il study, a site is determined eligible for nomination to the National Register of Historic Places and said site is to be preserved in place, the treatment plan shall include nomination of the site to the National Register of Historic Places. If a Phase Ill study is undertaken for said sites, such studies shall be approved by the Zoning Administrator prior to land disturbance within the study area. All Phase I, Phase Il and Phase Ill studies shall meet the Virginia Department of Historic Resources Guidelines for Preparing Archaeological Resource Management Reports and the Secretary of the Interior's Standard and Guidelines for Archaeological Documentation, as applicable, and shall be conducted under the supervision of a qualified archaeologist who meets the qualifications set forth in the Secretary of the Interior's Professional Qualification Standards. All approved treatment plans shall be incorporated into the plan of development for the site and shall be adhered to during the clearing, grading and construction activities thereon.

V. Transportation

The Owner, at its sole cost and expense, shall cause to be constructed the following transportation improvements in accordance with the recommended improvements contained in the Traffic Impact Analysis for Archers Meade dated April 30, 2014.

1. Intersection of Route 17 & Clay Sawyer Property Entrance- The owner shall provide the following improvements at this location:
   A. In lieu of relocating the existing crossover, the Owner shall close and eradicate the crossover and install a right-in and right-out entrance into Archer’s Meade constructed to VDOT requirements.
   B. A 200' right turn lane with 200' taper shall be constructed on northbound Route 17 into the site.

VI. Water and Sewer Improvements

1. All parcels within the development shall be served by public water and sewer. All public water and sewer systems shall be constructed in conformance with the Isle of Wight County Master Water and Sewer Plan or as directed by the Board of Supervisors. The size of water and sewer lines interior to the development shall be determined as part of the final engineering approval. The owner, at its sole cost and expense, shall cause to be constructed the following

offsite improvements: A gravity sewer main of adequate size as approved by Public Utilities, to connect to the closest existing manhole.

VII. Easements, Rights-of-Way and Buffers

1. The Owner, at its sole cost and expense, shall dedicate a twelve (12) foot easement to the County for public access for recreational purposes to the multipurpose trail to be located adjacent to the Route 17 Right of Way.
2. The Owner, at its sole cost and expense, shall cause to be constructed in accordance with County specifications a ten (10) foot wide asphalt multipurpose trail. The trail shall be located adjacent to the Route 17 Right of Way and shall be connected to sidewalks which shall be constructed adjacent to all internal roads, and within the road right-of-way when possible, and along building frontages within the development to provide internal access between uses.
3. In order to provide connectivity between adjacent parcels the new west to east entrance street has a temporary cul-de-sac at the property line to east.

VIII. Property Owners Association and Restrictive Covenants

1. The Owner shall form a Homeowners Association, which may also include sub-associations, in accordance with Virginia law, with the preparation and execution of a Declaration of Covenants, Conditions and Restrictions (the "Declaration") with the owners thereof being the residential owners or commercial owners of property within Archer's Meade. The Declaration shall provide for the conveyance from the Owners of all of the common areas, open spaces, green areas, recreation areas and facilities and the stormwater management system of the subject property to the Association. Every property owner shall be a voting member of the Association and be subject to assessments as set forth in the Declaration. The Declaration shall be subject to the approval of the County Attorney and upon approval shall be duly recorded in the Clerk's Office for the Circuit Court of Isle of Wight County. The Declaration shall be recorded prior to recordation of the first final subdivision plat.
2. The Owner agrees that it shall retain sole responsibility for the maintenance of the stormwater management system and all of the amenities, including but not limited to improvements and open space of the Property until such time as 80% of the lots shown on the final subdivision plat or overall subdivision, if phased, have building permits issued to individual lot owners for the construction of units thereon, at which time the obligation shall be assigned to the property owners' association.

IX. General

1. Successors and Assigns - This Proffer Agreement shall be binding upon and shall inure to the benefit of the parties hereto, and their respective heirs, successors and/or assigns. Any obligation(s) of Owner hereunder shall be binding upon and

enforceable against any subsequent owner or owners of the Property or any portion thereof.

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

SIGNATURE PAGE

Applicant/Owner: ___W. C. Sawyer_____
Printed or Typed Name
Applicant/Owner: Date:

_____ _____
Signature

Commonwealth of Virginia
County of Isle of Wight:

Subscribed and sworn to before me

_____

A Notary Public in and for the County of Isle of Wight, Commonwealth of Virginia, this _____day of _____, 2022

_____
Notary Public
My Commission Expires

_____

Applicant/Owner: ___Archer L. Jones II_____
Printed or Typed Name
Applicant/Owner: Date:

_____ _____
Signature

Commonwealth of Virginia
County of Isle of Wight:

Subscribed and sworn to before me

_____

A Notary Public in and for the County of Isle of Wight, Commonwealth of Virginia, this _____day of _____, 2022

_____
Notary Public
My Commission Expires

_____

COUNTY OF ISLE OF WIGHT
PROFFER STATEMENT

Applicant's name(s): W. C. Sawyer and Archer L. Jones II

Owner's name(s): Same as above

Project name: Archers Meade

Date: February 7, 2014, revised June 4.2014 and February 28, 2019

Parcel-Tax Map Numbers and deed book reference: 34-01-053, 34-01-055, 34-01-066, 34-01-086, 34-01-086A, 34-01-087 and Part of 34-01-050B

These proffers are made as of the 7th day of February, 2014, revised the 4th day of June, 2014 and February 28, 2019 by W.C. Sawyer and Archer L. Jones II collectively "Owner", of Tax Map Number 34-010-53, 34-01-55, 34-01-066, 34-01-086, 34-01-086A, 34-01-087 and Part of 34-01-050B, containing approximately 24.33 acres of land which is referred to herein as the "Property". Owner filed a rezoning application with the Isle of Wight County Planning and Zoning Department requesting a change in the zoning of the Property from RAC and LI, to Conditional PD-R and Conditional GC which was approved by the Isle of Wight County Board of Supervisors on June 19, 2014. Owner voluntarily proffered that the development of the Property proposed for rezoning under the application shall be in strict accordance with the conditions set forth below, and as hereby revised on February 28, 2019 to amend the zoning of .888 acres of land zoned Conditional General Commercial (C-GC) approved June 19, 2014 to Conditional Planned Development-Residential (C-PD-R) under this Conditional Zoning Amendment filed with the Department of Planning on January 8, 2019.

These proffered conditions ("Proffers") are the only conditions offered on this rezoning, and any prior proffered conditions on the Property are hereby superseded by these proffers and any and all previous proffers on the Property are hereby void and of no further force and effect.

All improvements, land, easements, dedications, gifts, proffers and other conveyances to the County shall be in fee simple, without cloud of title or encumbrance of any kind.

I. Development of the Property

1. Development of the Property associated with this rezoning application shall be generally consistent as determined by the reviewing authority with the Conceptual Master Plan prepared by Commonwealth Engineering Group Ltd. dated 4-25-14 and revised 06-04-14, and as further revised on the attached Zoning Exhibit prepared by Timothy M. Fallon seal dated 1-7-19, revised 2-26-19, submitted as part of this revised application and as may be determined

during preliminary and final site plan approval and/or preliminary and final subdivision construction plan approval.

2. The amount of commercial development shall not exceed 20,000 square feet.
3. The maximum number of residential units shall not exceed 63 single family home units.
4. Owner shall cause to be constructed the following recreational areas for residences of the development: 1.0 acre of open space and 0.8 acre of parks to include the following improvements. One swing set and a set of spring riders or other comparable amenities as may be deemed appropriate by the owner.

II. Land Use

1. The Property shall be used as permitted under the respective C-PD-R and C-GC districts, and more specifically for the following uses; dwelling, single family, and all commercial uses as may be accommodated under the site requirements as regulated by the Zoning Ordinance, except: Club, Crisis Center; Modular Classroom; Park and Ride Facility; Rehabilitation Service; Construction Sales and Service; Contractor Office and Storage Facility; Lawn and Garden Services; Marina; Motor Vehicle Repair Service/Major; Custom Manufacturing; and Amateur Radio Tower.

III. Cash Proffers

1. Residential Units
   A. Single Family Units - The Owner agrees to make cash proffers of $5,000 per unit for the 63 single family detached home lots.

   B. At the time of the recordation of the subdivision plat for a phase of development, the total agreed amount of Residential Cash Proffer for said phase shall be evidenced by a Demand Note of Applicant to County, without interest. The Note shall be secured by a deed of trust ("Cash Proffer Deed of Trust") on all residential units in such phase and this Cash Proffer Deed of Trust will be secondary to all acquisition, development and construction loans obtained by Owner and the County shall execute such subordination or other agreements as may be necessary.
   C. Releases by County under the Cash Proffer Deed of Trust shall be made upon payment of the applicable cash contribution for the released lots. Payment for releases shall be made prior to the issuance of a final occupancy permit.

IV. Archaeology

1. A Phase I Archaeological Study for the Property shall cause to be prepared and submitted to the Zoning Administrator for their review and approval prior

to final site plan approval. A treatment plan shall be submitted to, and approved by, the Zoning Administrator for all sites in the Phase I study that are recommended for a Phase II evaluation, and/or identified as being eligible for inclusion on the National Register of Historic Places. If a Phase II study is undertaken, such a study shall be approved by the Zoning Administrator and a treatment plan for said sites shall be submitted to, and approved by, the Zoning Administrator for sites that are determined to be eligible for inclusion on the National Register of Historic Places and/or those sites that require a Phase III study. If in the Phase II study, a site is determined eligible for nomination to the National Register of Historic Places and said site is to be preserved in place, the treatment plan shall include nomination of the site to the National Register of Historic Places. If a Phase III study is undertaken for said sites, such studies shall be approved by the Zoning Administrator prior to land disturbance within the study area. All Phase I, Phase II and Phase III studies shall meet the Virginia Department of Historic Resources Guidelines for Preparing Archaeological Resource Management Reports and the Secretary of the Interior's Standard and Guidelines for Archaeological Documentation, as applicable, and shall be conducted under the supervision of a qualified archaeologist who meets the qualifications set forth in the Secretary of the Interior's Professional Qualification Standards. All approved treatment plans shall be incorporated into the plan of development for the site and shall be adhered to during the clearing, grading and construction activities thereon.

V. Transportation

The Owner, at its sole cost and expense, shall cause to be constructed the following transportation improvements in accordance with the recommended improvements contained in the Traffic Impact Analysis for Archers Meade dated April 30, 2014.

1. Intersection of Route 17 & Clay Sawyer Property Entrance- The owner shall provide the following improvements at this location:
   A. The relocation of the crossover will be done by Archers Meade owners if Bridgepoint Commons has not started construction. This entrance shall align with the proposed relocated crossover for the Bridge Point Commons project.
   B. This entrance shall have 2-existing lanes (1-left-thru & 1-right and 1 entering lane.
   C. A 200' right turn lane with 200' taper shall be constructed on northbound Route 17.
   D. A 200' left turn lane with a 200' taper shall be constructed on southbound Route 17.

VI. Water and Sewer Improvements

1. All parcels within the development shall be served by public water and sewer. All public water and sewer systems shall be constructed in conformance with the Isle of Wight County Master Water and Sewer Plan or as directed by the Board of Supervisors. The size of water and sewer lines interior to the development shall be determined as part of the final engineering approval. The owner, at its sole cost and expense, shall cause to be constructed the following offsite improvements: A gravity sewer main of adequate size as approved by Public Utilities, to connect to the closest existing manhole.

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1. The Owner, at its sole cost and expense, shall dedicate a twelve (12) foot easement to the County for public access for recreational purposes to the multipurpose trail to be located adjacent to the Route 17 Right of Way.
2. The Owner, at its sole cost and expense, shall cause to be constructed in accordance with County specifications a ten (10) foot wide asphalt multipurpose trail. The trail shall be located adjacent to the Route 17 Right of Way and shall be connected to sidewalks which shall be constructed adjacent to all internal roads, and within the road right-of-way when possible, and along building frontages within the development to provide internal access between uses.
3. In order to provide connectivity between adjacent parcels the new west to east entrance street has a temporary cul-de-sac at the property line to east.

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2. The Owner agrees that it shall retain sole responsibility for the maintenance of the stormwater management system and all of the amenities, including but not limited to improvements and open space of the Property until such time as 80% of the lots shown on the final subdivision plat or overall subdivision, if phased, have building permits issued to individual lot owners for the construction of

units thereon, at which time the obligation shall be assigned to the property owners' association.

IX. General

1. Successors and Assigns - This Proffer Agreement shall be binding upon and shall inure to the benefit of the parties hereto, and their respective heirs, successors and/or assigns. Any obligation(s) of Owner hereunder shall be binding upon and enforceable against any subsequent owner or owners of the Property or any portion thereof.
2. Severability - In the event that any clause, sentence, paragraph, subparagraph, section or subsection of these Proffers shall be judged by any court of competent jurisdiction to be invalid or unenforceable for any reason, including a declaration that it is contrary to the Constitution of the Commonwealth of Virginia or of the United States, or if the application thereof to any owner of any portion of the Property or to any government agency is held invalid, such judgment or holding shall he confined in its operation to the clause, sentence, paragraph, subparagraph, section or subsection hereof, or the specific application thereof directly involved in the controversy in which the judgment or holding shall have been rendered or made, and shall not in any way affect the validity of any other clause, sentence, paragraph, subparagraph, section or provision hereof.
3. Void if Application is not approved - In the event that the Application is not approved by the County, these Proffers shall be null and void.

SIGNATURE PAGE

Applicant/Owner: W. C. Sawyer
Printed or Typed Name

Applicant/Owner: _____ Date: 2/28/19
Signature

Commonwealth of Virginia
County of Isle of Wight:

Subscribed and sworn to before me

A Notary Public in and for the County of Isle of Wight, Commonwealth of Virginia, this 28th day of February, 2019

Stephanie F. Hoesly
Notary Public

My Commission Expires 9/30/20

Stephanie F. Hoesly
Commonwealth of Virginia
Notary Public
Commission No. 7682999
My Commission Expires _____

Applicant/Owner: Archer L. Jones II
Printed or Typed Name

Applicant/Owner: _____ Date: 2/28/19
Signature

Commonwealth of Virginia
County of Isle of Wight:

Subscribed and sworn to before me Laura Jo Sullivan

A Notary Public in and for the County of Isle of Wight, Commonwealth of Virginia, this 28th day of February, 2019

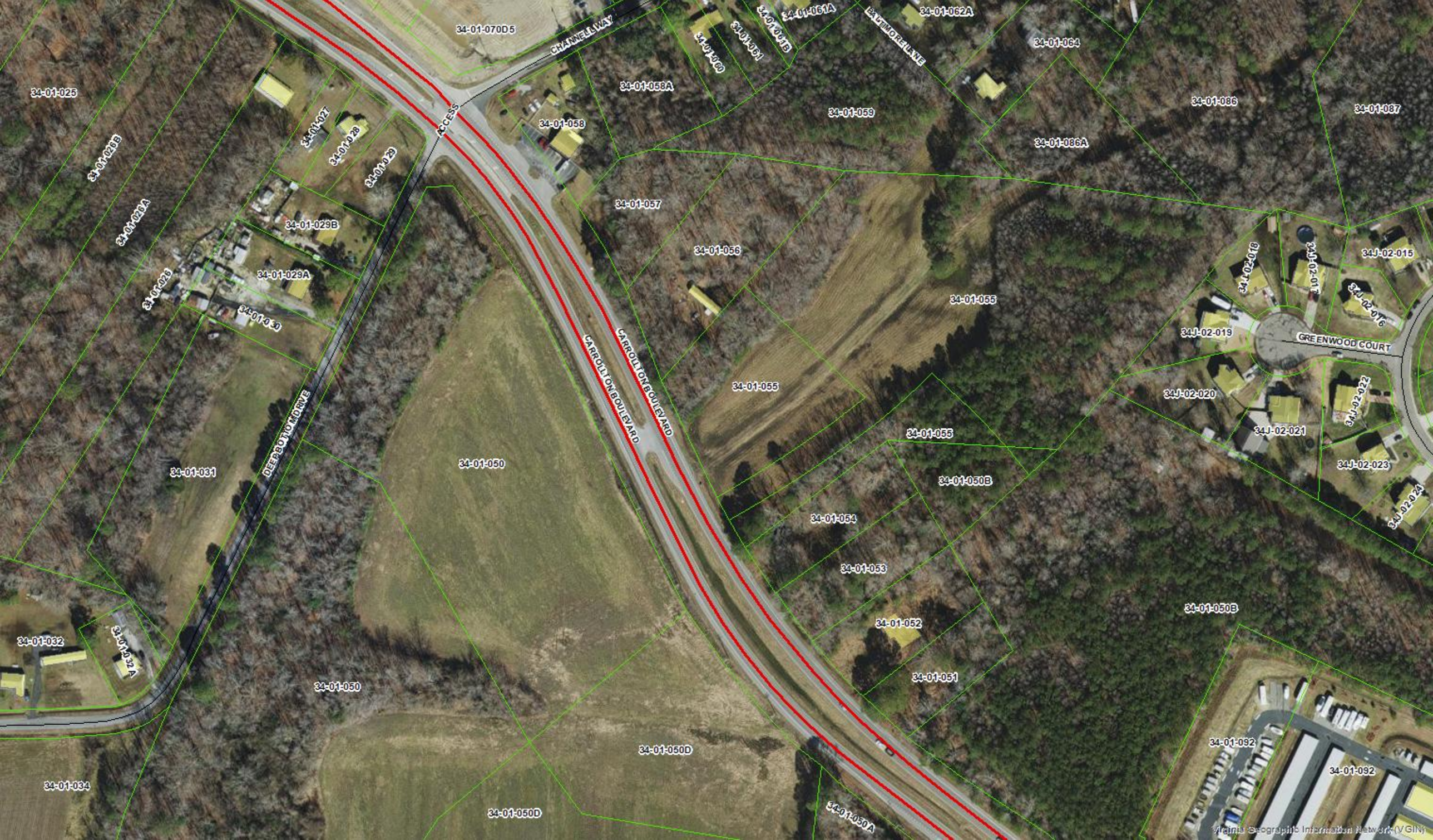
Laura Jo Sullivan

Laura Jo Sullivan
Commonwealth of Virginia
Notary Public
Commission No. 312859
My Commission Expires 6/30/2021

Notary Public

My Commission Expires

_____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34-01-034
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34-01-050A
Virginia Geographic Information Network (VGIN)

ISSUE:

Resolution to Adopt a Title VI Program

BACKGROUND:

Title VI of the Civil Rights Act of 1964 provides that no person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance.

The County has been notified by VDOT that all agencies (including the County) receiving federal funding or federal financial assistance for any activity are required to have a policy/program to prohibit discrimination under Title VI of the Civil Rights Act of 1964.

BUDGETARY IMPACT:

None.

RECOMMENDATION:

Adopt a resolution to adopt the Title VI Program.

ATTACHMENTS:

Description	Type	Upload Date
Resolution	Resolution	10/19/2022
Title VI Program	Backup Material	10/19/2022

RESOLUTION TO ADOPT A TITLE VI PROGRAM FOR ISLE OF WIGHT COUNTY, VIRGINIA

WHEREAS, in 1964, Congress enacted the Civil Rights Act of 1964, which included that section labeled Title VI which prohibits discrimination in any activity which is financed by federal funds or receives federal financial assistance; and,

WHEREAS, since the adoption of Title VI, additional federal regulations and court decisions have further refined the definition of "federal financial assistance" and what entities are affected and controlled by Title VI; and,

WHEREAS, the Isle of Wight County, Virginia has no formal policy in place for defining and preventing discrimination in the activities and for the entities Title VI affects; and,

WHEREAS, the interpretation and application are not intuitive or readily understood, requiring an understanding of what "federal financial assistance" might be in any particular situation and what persons or entities must comply with Title VI; and,

WHEREAS, a policy and procedure for reporting violations will provide guidelines for the County, County Departments and private persons and companies doing business with the County and receiving federal financial assistance.

NOW THEREFORE, BE IT RESOLVED by the Board of Supervisors of Isle of Wight County, Virginia, that the Title VI Program is hereby adopted

BE IT FURTHER RESOLVED that the County Administrator is hereby authorized and directed to implement the Title VI Program in compliance with Federal Law.

Adopted this 20th day of October, 2022.

Rudolph Jefferson, Chairman

Carey Mills Storm, Clerk

Approved as to form:

Robert W. Jones, Jr., County Attorney

TITLE VI PROGRAM
FOR
ISLE OF WIGHT COUNTY, VIRGINIA

Adopted: _____, 2022

ISLE OF WIGHT COUNTY, VIRGINIA TITLE VI PROGRAM

Title VI of the Civil Rights Act of 1964 prohibits discrimination based on race, color, or national origin in programs and activities receiving Federal financial assistance. Specifically, Title VI provides that "no person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." (42 U.S.C. Section 2000d).

The Civil Rights Restoration Act of 1987 clarified the intent of Title VI to include all programs and activities of Federal aid recipients, sub-recipients, and contractors even where those programs and activities are not federally funded. Recently, the Federal Transit Administration (FTA) has placed renewed emphasis on Title VI issues, including providing meaningful access to persons with Limited English Proficiency (LEP).

Isle of Wight County ("the County") receives federal funding from multiple federal agencies; such funding is both direct and indirect through pass-through grants. The County receives public transportation funding from FTA and the Virginia Department of Rail and Public Transportation (DRPT); the Department of Social Services administers federal funding from the U.S. Department of Agriculture and the Social Security Administration; the Departments of Planning and Development Services receive funding from the Federal Highway Administration (FHWA). As a recipient and/or sub-recipient of federal funds, the County has developed policies, programs, and practices that ensure that such funds are used in a manner that is nondiscriminatory as required under Title VI.

This Title VI Plan document ("the Plan") details how the County incorporates nondiscrimination and accessibility policies and procedures into the County's Title VI Plan and its appendices and attachments. In accord with the mandates of 49 CFR 21.7(a), the County will submit annual Certifications and Assurances to the Virginia Department of Transportation (VDOT) and FTA. The County also requires annual training for all Directors and Department heads on anti-discrimination policies, including Title VI, related federal regulations, and the Virginia Values Act. The Plan will be updated periodically as changes in law and circumstances warrant.

I. General Policy Statement

The County of Isle of Wight is committed to ensuring that no person is excluded from participation in or denied the benefits of its services on the basis of race, color or national origin, as provided by Title VI of the Civil Rights Act of 1964, as amended. Toward this end, it is County's objective to:

- Ensure that the level and quality of service is provided without regard to race, color or national origin;
- Identify and address, as appropriate, disproportionately high and adverse human health and environmental effects, including social and economic effects of programs and activities on minority populations and low-income populations;
- Promote the full and fair participation of all affected populations in decision making;
- Prevent the denial, reduction or delay in benefits related to programs and activities that benefit minority populations or low-income populations and;
- Ensure meaningful access to programs and activities by persons with limited English proficiency ("LEP").

The County Administrator and all County employees share the responsibility for carrying out the County's commitment to Title VI. The County's organizational chart is attached in Appendix A.

II. Annual Assurances that the County of Isle of Wight Is Complying with Title VI of the Civil Rights Act of 1964

The County has signed the certifications and assurances document required by FHWA and FTA, and has forwarded it to the primary recipients such VDOT as required by the subrecipient agreements signed between VDOT and the County.

III. Notice to the Public

The County has posted notices regarding its Title VI obligations and the protections afforded to the public by Title VI. See Appendix B for a copy of the notice. The notice indicates that the County complies with Title VI, and informs members of the public of the protections against discrimination afforded to them by Title VI.

IV. Complaint Procedures

See Appendix C for a copy of the County's instructions to the public regarding how to file a Title VI discrimination complaint and a copy of the complaint form.

V. Previous Investigations, Complaints, and Lawsuits

The County has had no Title VI Complaints.

VI. Public Participation Plan

The County will continue to seek out and consider viewpoints of minority, low-income, and Limited English Proficiency persons in the course of its public outreach and involvement activities. The County will continue to consider the composition of the population affected by the project, the type of practical public outreach to be undertaken and the resources available to the County. The County will continue to seek to overcome linguistic, institutional, cultural, economic, historical or other barriers that might prevent minority and low-income people from effectively participating in the County's decision-making process. To that end, the County will continue to:

- Provide opportunities for individuals and groups in these communities who can assist the County in communication;
- Maintain portions of the County's website in audio format and include other best practices to keep the website accessible to persons with disabilities compliant with federal, state, and local requirements;
- Advertise new County programs and initiatives in non-English publications and media outlets;
- Conduct meetings at locations and times convenient to low-income and minority populations and accessible to persons with disabilities;
- Employing different meeting sizes and formats; and
- Coordinating with community and faith-based organizations, educational institutions, and other organizations to implement public engagement strategies that reach out specifically to members of affected minority and/or LEP communities.

All public meetings will be advertised to the public at large. For each meeting, reasonable accommodations for persons with disabilities will be available All County meeting minutes and project information materials are publicly available on the website and accessible through reasonable accommodation requests for any type of disability, from the County.

VII. Meaningful Access for LEP Persons

LEP is a term that defines any individual not proficient in the use of the English language. The establishment and operation of an LEP program meets objectives set forth in Title VI of the Civil Rights Act and Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency (LEP). This Executive Order requires federal agencies receiving financial assistance to address the needs of non-English speaking persons. The Executive Order also establishes compliance standards to ensure that the programs and activities that are provided by a transportation provider in English are accessible to LEP communities. This includes providing meaningful access to individuals who are limited in their use of English. The following LEP language implementation plan is based on FTA guidelines.

The County has developed a written LEP Plan (below). Using the most recent American Community Survey (ACS) Census information, found at www.census.gov. the County has evaluated data to determine the extent of need for translation services of its vital documents and materials.

Four Factor Analysis

The County has performed a US DOT Four-Factor analysis of its program to encourage LEP people to become more involved in the process of planning transportation services. This analysis consists of these four factors:

1. The number or proportion of LEP persons eligible to be served or likely to be encountered by a program, activity, or service of the grantee;
2. The frequency with which LEP individuals come into contact with the County's plans, programs, and activities;
3. The nature and importance of the program, activity, or service provided by the County to the LEP population; and
4. The resources available to the County and overall cost to provide LEP assistance.

Factor 1. The number or proportion of LEP persons eligible to be served or likely to be encountered by a program, activity, or service of the grantee.

The following data comes from the 2015-2019 American Community Survey 5-year estimates. This data is collected by the U.S. Census.

English – 95.2% (33,076) of the population of the County speaks only English at home.
Asian and Pacific Islanders languages are spoken at home by 0.6% (206) of the population,
Spanish is spoken at home by 2.2% (750) of the population.
Other Indo-European languages are spoken at home by 1.6% (549) of the population.
People speaking other languages at home, constitute 0.4% (154) of the population.

Factor 2. The frequency with which the LEP individuals come into contact with the County's plans, programs, and activities.

The County provides translation and interpretation services through contracted services. The County does not have a documented count of how many LEP individuals interface with the County.

Factor 3. The nature and importance of the program, activity, or service provided by the County to the LEP population.

The County serves individuals throughout the County in a variety of ways including managing water, sewer, police, fire, elections, and other services to citizens of the County and individuals from outside of the County, such as visitors and those traversing the state. The nature of the services that the County provides is very important to an individual's day-to-day life. Therefore, the denial of services to an LEP individual could have a significant detrimental effect. Although the LEP population in the County is small, we will ensure accessibility to all of our programs, services, and activities.

Factor 4. The resources available to the County and overall cost to provide LEP assistance.

The following language assistance and outreach efforts are currently being provided by the County:

Multilingual technology - there is a translation link from Google prominently displayed on www.co.isle-of-wight.va.us/

The County will continue to invest in language interpretation and document translation as necessary per year. The County will continue to adhere to its LEP plan and ADA policies.

LEP Implementation Plan

Through the four-factor analysis, the County has determined that the following types of language assistance are most needed and feasible:

- Attempt to hire bilingual staff with competency in other languages.
- Language Line Translation Services for telephone contacts.
- In-person translation
- Google translate feature on Isle of Wight County webpage

1. Staff Access to Language Assistance Services
   County staff who meet LEP persons can access language services transferring a call to bilingual staff or through translation services. All staff will be provided with a list of available language assistance services and additional information and referral resources. This list will be updated at least annually.

2. Responding to LEP Callers
   Staff who answer calls from the public, respond to LEP customers as follows: Reach out to the appropriate bilingual staff or translation services to assist with interpretation.

3. Responding to Written Communications from LEP Persons
   The following procedures are followed when responding to written communications from LEP persons: Reach out to the appropriate bilingual staff or translators for translation. Volunteers, family and friends may be utilized, if requested by the customer.

4. Responding to LEP Individuals in Person
   The following procedures are followed when an LEP person visits our customer service and administrative office: Contact appropriate bilingual staff or translation services.

5. Staff Training
   As noted previously, County staff are provided with a list of available language assistance services and referral resources, updated annually.

6. Providing Notice to LEP Persons
   LEP persons are notified of the availability of language assistance through the following approaches:

   - following our Title VI policy statement included on vital County documents.
   - County website utilizes Google translation feature.
   - through signs posted in County buildings and facilities.

7. Monitoring/updating the plan
   This plan will be updated on a periodic basis (at least every three years), based on feedback, updated demographic data, and changes in applicable law.

   As part of ongoing outreach to community organizations, the County will solicit feedback on the effectiveness of language assistance provided, unmet needs, and any other challenges or barriers citizens may face when trying to access County services.

   Based on the feedback received from community members and department employees, the County will make changes as warranted and feasible to the resources provided as well as to their staff training and community outreach programs. The cost of proposed changes and the available resources will affect the enhancements that can be made, and therefore the County will attempt to identify the most cost-effective approaches.

County facilities post Appendix B: Public Notice for the County's Title VI Program. Moreover, the County's website provides website translator service that is powered by Google translate for LEP Persons.

The County does not have a documented count of how many LEP individuals interface with the County. However, the County keeps maintaining contracts and updating employee training materials with the most current editions of Local, State, and Federal requirements for providing language access to LEP Persons.

VIII. Membership of Non-Elected Committees

Title 49 CFR Section 21.5(b)(l)(vii) states that a recipient may not, on the grounds of race, color, or national origin, "deny a person the opportunity to participate as a member of a planning, advisory, or similar body which is an integral part of the program."

The County will make reasonable efforts to ensure that appointed, non-elected planning boards, advisory councils or committees reflect the demographic makeup of the County population.

IX. Requirement to Collect Demographic Data

The County is not a transit service provider and therefore is not required to collect demographic data.

X. Monitoring of Subrecipients

The County is a recipient and does monitor any subrecipients of federal funds.

XI. Equity Analysis of Facilities

The County is not a transit provider and has not constructed any facilities requiring an equity analysis.

XII. Resolution Approving this Policy

Attached as Appendix D, you will find the resolution from the Board of Supervisors authorizing Isle of Wight County's Title VI program.

Appendix A: County Organizational Chart

Appendix B: Notice to the Public

Local Roots, Global Reach
ISLE OF WIGHT
COUNTY, VIRGINIA

Isle of Wight County Title VI Program

Title VI of the Civil Rights Act of 1964 prohibits discrimination on the basis of race, color, or national origin in programs and activities receiving Federal financial assistance. Specifically, Title VI provides that "no person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance" (42 U.S.C. Section 2000d).

The County of Isle of Wight is committed to ensuring that no person is excluded from participation in or denied the benefits of its services on the basis of race, color or national origin, as provided by Title VI of the Civil Rights Act of 1964, as amended. Toward this end, it is County's objective to:

- Ensure that the level and quality of service is provided without regard to race, color or national origin;
- Identify and address, as appropriate, disproportionately high and adverse human health and environmental effects, including social and economic effects of programs and activities on minority populations and low-income populations;
- Promote the full and fair participation of all affected populations in decision making;
- Prevent the denial, reduction or delay in benefits related to programs and activities that benefit minority populations or low-income populations and;
- Ensure meaningful access to programs and activities by persons with limited English proficiency ("LEP").

The County Administrator and all County employees share the responsibility for carrying out the County's commitment to Title VI.

Public Notice

The County of Isle of Wight, Virginia operates its programs and services without regard to race, color, and national origin in accordance with Title VI of the Civil Rights Act. Any person who believes he or she has been aggrieved by any unlawful discriminatory practice under Title VI may file a complaint with the County of Isle of Wight.

For more information on the County of Isle of Wight's civil rights program, and the procedures to file a complaint, contact (757) 365-6266; email: hrdept@isleofwightus.net; or visit our administrative office at 17090 Monument Circle, Isle of Wight, Virginia 23397.

A person may file a complaint directly with the Federal Transit Administration by filing a complaint with the Civil Rights Division, Attention Complaint Team, East Building, 5th Floor-TCR, 1200 New Jersey Ave., SE Washington, DC 20590.

A person may file a complaint directly with the Federal Highway Administration by filing a complaint with the Office of Civil Rights, 8th Floor E81-105, 1200 New Jersey Ave, SE, Washington, DC 20590.

Complaint Procedures

Any person who believes she or he has been discriminated against on the basis of race, color, or national origin by the Isle of Wight County ("herein referred to as "the County") may file a Title VI complaint by completing and submitting the agency's Title VI Complaint Form. Complaints may be filed with the County, VDOT, DRPT, FHWA Office of Civil Rights, or FTA office of Civil Rights. If the Complaint is filed with the County, the County will report the complaint to DRPT, VDOT or other applicable agency within the required time frame; thereafter, DRPT or VDOT will forward the complaint to the appropriate federal agency. The County will not investigate complaints filed against it; the County will follow guidance and directives from applicable state and federal agencies. All Title VI complaints and their resolution will be logged and reported to DRPT, VDOT or other agencies as required. The County's Title VI Complaint Form is attached hereto.

A. Procedures for Filing a Title VI Complaint

1. Any individual, group, or entity that believes they have been subjected to discrimination based on race, color, or national origin may file a written complaint with the County. The complaint is to be filed in the following manner:

a. A formal complaint must be filed within 180 calendar days of the alleged occurrence.

b. The complaint shall be in writing and signed by the complainant(s).

c. The complaint should include:

- the complainant's name, address, and contact information (i.e.,
- telephone number, email address, etc.)
- the date(s) of the alleged act of discrimination (if multiple days, include the date when the complainant(s) became aware of the alleged discrimination and the date on which the alleged discrimination was discontinued or the latest instance)
- a description of the alleged act of discrimination
- the location(s) of the alleged act of discrimination
- explanation of why the complainant believes the act to have been discriminatory based on race, color, or national origin
- if known, the names and/or job titles of those individuals involved in the incident
- names and contact information for any witnesses
- indication of any related complaint activity (i.e., was the complaint also submitted to DRPT or FTA?)
- The complaint shall be submitted to the Human Resources Director, Isle of Wight County, P.O. Box 80, 17090 Monument Circle, Isle of Wight, Virginia 23397, (757) 365-6266 or via email at hrdept@isleofwightus.net.

d. Complaints received by any other County employee will be promptly forwarded to the Human Resources Director.

e. In the case where a complainant is unable or incapable of providing a written statement, a verbal complaint of discrimination may be made to the Human Resources Director. Under these circumstances, the complainant will be interviewed, and the Human Resources Director will record or memorialize the interview.

2. Upon receipt of a complaint, the County will promptly:
   a. notify DRPT, VDOT or other appropriate state or federal agency;
   b. notify the County Administrator;
   c. ensure that the complaint is entered in the complaint database.

B. How Are Complaints Routed?

FHWA Division Offices do not investigate Title VI complaints. Likewise, State DOTs and its sub-recipients do not investigate complaints filed against themselves. Finally, FHWA is responsible for all decisions regarding whether a complaint should be accepted, dismissed, or referred to another agency.

With this understanding, complaints should be routed in the following ways:

1. All complaints will be routed to the FHWA Headquarters Office of Civil Rights (HCR) for processing. HCR is responsible for all determinations regarding whether to accept, dismiss, or transfer Title VI complaints filed against the County (a subrecipient of Federal financial assistance).

2. Complaints should be forwarded from the initial receiving agency through the Federal aid highway oversight hierarchy until the complaint reaches HCR. For example, if a complaint is filed with the County, the County will forward the complaint to VDOT, which will forward the complaint to the VDOT's FHWA Division Office, which will forward the complaint to HCR. If a complaint is filed with VDOT, VDOT will forward the complaint to the VDOT's FHWA Division Office, which should forward the complaint to HCR.

3. VDOT and County will log all complaints received.

4. When HCR decides on whether to accept, dismiss, or transfer the complaint, HCR will notify the Complainant, the FHWA Division Office, VDOT, and the County.

5. Complaints may also be sent to HCR directly at:

Postal Mail	Federal Highway Administration U.S. Department of Transportation Office of Civil Rights 1200 New Jersey Avenue, SE 8th Floor E81-105 Washington, DC 20590
Email	CivilRights.FHWA@dot.gov
Fax	(202) 366-1599
Questions?	(202) 366-0693

C. What are the potential outcomes for processing a complaint?

There are four (4) potential outcomes for processing complaints:

1. Accept: if a complaint is timely filed, contains sufficient information to support a claim under Title VI, and concerns matters under FHWA's jurisdiction, then HCR will send to the complainant, the respondent agency, and the FHWA Division Office a written notice that it has accepted the complaint for investigation.

2. Preliminary review: if it is unclear whether the complaint allegations are sufficient to support a claim under Title VI, then HCR may (1) dismiss it or (2) engage in a preliminary review to acquire additional information from the complainant and/or respondent before deciding whether to accept, dismiss, or refer the complaint.

3. Procedural Dismissal: if a complaint is not timely filed, is not in writing and signed, or features other procedural/practical defects, then HCR will send the complainant, respondent, and FHWA Division Office a written notice that it is dismissing the complaint.

4. Referral/Dismissal: if the complaint is procedurally sufficient but FHWA (1) lacks jurisdiction over the subject matter or (2) lacks jurisdiction over the respondent entity, then HCR will either dismiss the complaint or refer it to another agency that does have jurisdiction. If HCR dismisses the complaint, it will send the complainant, respondent, and FHWA Division Office a copy of the written dismissal notice. For referrals, FHWA will send a written referral notice with a copy of the complaint to the proper Federal agency and a copy to the USDOT Departmental Office of Civil Rights.

The HCR is responsible for conducting all investigations of State DOTs and other primary Recipients. In the case of a complaint filed against a sub-recipient, HCR may either conduct the investigation itself, or it may delegate the investigation to VDOT. If HCR chooses to delegate the investigation of a sub-recipient, HCR will communicate its acceptance of the complaint to the complainant and respondent, but VDOT will conduct all data requests, interviews, and analysis.

VDOT will then create a Report of Investigation (ROI), which it will send to HCR. Finally, HCR will review the ROI and compose a Letter of Finding based on the ROI.
Complaint form in English

Title VI Complaint Form

ISLE OF WIGHT COUNTY TITLE VI DISCRIMINATION COMPLAINT FORM

Instructions: Please fill out this form completely in blue or black ink or type. Sign and submit to the Human Resources Director, Isle of Wight County, P.O. Box 80, 17090 Monument Circle, Isle of Wight, Virginia 23397.

For assistance please call (757) 365-6266.

THIS FORM IS OPTIONAL AND IS PROVIDED FOR YOUR CONVENIENCE.

Complainant Name: _____

Address: _____ E-mail: _____

Home Telephone: _____ Work: _____ Cell: _____

If an authorized representative is filing this complaint on behalf of another person, his/her personal information must also be included:

Representative Name: _____

Address: _____ E-mail: _____

Home Telephone: _____ Work: _____ Cell: _____

Please tell us why you believe the discrimination occurred: Race, Color, National Origin, Other (Specify):

_____

Date of Incident: _____ Time of Incident: _____

Location or Address of Incident: _____

Describe your complaint: _____

_____

_____

What type of corrective action would you like to see be taken? _____

_____

If the incident involved a Isle of Wight County employee, please list his/her name: _____

Names and contact information of witnesses: _____

_____

If your complaint is being filed on behalf of another person or group of people, all complaints must be identified by name: _____

Complainant Signature: _____ Date: _____

Authorized Representative Signature: _____ Date: _____

Appendix C: Resolution Approving this Policy

TITLE VI ASSURANCES (STANDARD DOT TITLE VI ASSURANCES – USDOT 1050.2A

ISLE OF WIGHT COUNTY, VIRGINIA
TITLE VI / NONDISCRIMINATION ASSURANCE
(DOT Order No. 1050.2A)

Isle of Wight County, (herein referred to as the "Recipient"), HEREBY AGREES THAT, as a condition to receiving any Federal financial assistance from the U.S. Department of Transportation (DOT), through the *Federal Highway Administration,* is subject to and will comply with the following:

Statutory/Regulatory Authorities

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d *et seq.*, 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin);
- 49 C.F.R. Part 21 (entitled *Nondiscrimination In Federally-Assisted Programs Of The Department Of Transportation – Effectuation Of Title VI Of The Civil Rights Act Of 1964);*
- 28 C.F.R. section 50.3 (U.S. Department of Justice Guidelines for Enforcement of Title VI of the Civil Rights Act of 1964);

The preceding statutory and regulatory cites hereinafter are referred to as the "Acts" and "Regulations," respectively.

General Assurance

In accordance with the Acts, the Regulations, and other pertinent directives, circulars, policy, memoranda, and/or guidance, the Recipient hereby gives assurance that it will promptly take any measures necessary to ensure that:

> *"No person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity," for which the Recipient receives Federal financial assistance from DOT, including the Federal Highway Administration.*

The Civil Rights Restoration Act of 1987 clarified the original intent of Congress, with respect to Title VI and other Nondiscrimination requirements (The Age Discrimination Act of 1975, and Section 504 of the Rehabilitation Act of 1973), by restoring the broad, institutional-wide scope and coverage of these nondiscrimination statutes and requirements to include all programs and activities of the Recipient, so long as any portion of the program is Federally assisted.

Specific Assurances

More specifically, and without limiting the above general Assurance, the Recipient agrees with and gives the following Assurances with respect to its federally assisted Highway Program:

1. The Recipient agrees that each "activity," "facility," or "program," as defined in §§ 21.23 (b) and 21.23 (e) of 49 C.F.R. § 21 will be (with regard to an "activity") facilitated, or will be (with regard to a "facility") operated, or will be (with regard to a "program") conducted in compliance with all requirements imposed by, or pursuant to the Acts and the Regulations.

2. The Recipient will insert the following notification in all solicitations for bids, Requests For Proposals for work, or material subject to the Acts and the Regulations made in connection with all Federal-Aid Highway Program and, in adapted form, in all proposals for negotiated agreements regardless of funding source:

"Isle of Wight County, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 US.C.§§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award."

3. The Recipient will insert the clauses of Appendix A and E of this Assurance in every contract or agreement subject to the Acts and the Regulations.

4. The Recipient will insert the clauses of Appendix B of this Assurance, as a covenant running with the land, in any deed from the United States effecting or recording a transfer of real property, structures, use, or improvements thereon or interest therein to a Recipient.

5. That where the Recipient receives Federal financial assistance to construct a facility, or part of a facility, the Assurance will extend to the entire facility and facilities operated in connection therewith.

6. That where the Recipient receives Federal financial assistance in the form, or for the acquisition of real property or an interest in real property, the Assurance will extend to rights to space on, over, or under such property.

7. That the Recipient will include the clauses set forth in Appendix C and Appendix D of this Assurance, as a covenant running with the land, in any future deeds, leases, licenses, permits, or similar instruments entered into by the Recipient with other parties:

a. for the subsequent transfer of real property acquired or improved under the applicable activity, project, or program; and

b. for the construction or use of, or access to, space on, over, or under real property acquired or improved under the applicable activity, project, or program.

8. That this Assurance obligates the Recipient for the period during which Federal financial assistance is extended to the program, except where the Federal financial assistance is to provide, or is in the form of, personal property, or real property, or interest therein, or structures or improvements thereon, in which case the Assurance obligates the Recipient, or any transferee for the longer of the following periods:

a. the period during which the property is used for a purpose for which the Federal financial assistance is extended, or for another purpose involving the provision of similar services or benefits; or

b. the period during which the Recipient retains ownership or possession of the property.

9. The Recipient will provide for such methods of administration for the program as are found by the Secretary of Transportation or the official to whom he/she delegates specific authority to give reasonable guarantee that it, other recipients, sub-recipients, sub-grantees, contractors, subcontractors, consultants, transferees, successors in interest, and other participants of Federal financial assistance under such program will comply with all requirements imposed or pursuant to the Acts, the Regulations, and this Assurance.

10. The Recipient agrees that the United States has a right to seek judicial enforcement with regard to any matter arising under the Acts, the Regulations, and this Assurance.

By signing this ASSURANCE, Isle of Wight County also agrees to comply (and require any sub-recipients, sub-grantees, contractors, successors, transferees, and/or assignees to comply) with all applicable provisions governing the *USDOT* access to records, accounts, documents, information, facilities, and staff. You also recognize that you must comply with any program or compliance reviews, and/or complaint investigations conducted by the *USDOT*. You must keep records, reports, and submit the material for review upon request to *USDOT*, or its designee in a timely, complete, and accurate way. Additionally, you must comply with all other reporting, data collection, and evaluation requirements, as prescribed by law or detailed in program guidance.

The Isle of Wight County gives this ASSURANCE in consideration of and for obtaining any Federal grants, loans, contracts, agreements, property, and/or discounts, or other Federal-aid and Federal financial assistance extended after the date hereof to the recipients by the U.S. Department of Transportation under the *Federal-Aid Highway Program*. This ASSURANCE is binding on the *Commonwealth of Virginia*, other recipients, sub-recipients, sub-grantees, contractors, subcontractors and their subcontractors, transferees, successors in interest, and any other participants in the *Federal-Aid Highway Program*. The person(s) signing below is authorized to sign this ASSURANCE on behalf of the Recipient.

Isle of Wight County, Virginia

by_____

Randy R. Keaton, County Administrator

APPENDIX A
Contractor/ Consultant/Supplier Agreement: U.S. DOT 1050.2A -- Appendix A

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

1. Compliance with Regulations: The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Nondiscrimination in Federally-assisted programs of the U.S. Department of Transportation, the Federal Highway Administration, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.

2. Nondiscrimination: The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.

3. Solicitations for Subcontracts, Including Procurements of Materials and Equipment: In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to Nondiscrimination on the grounds of race, color, or national origin.

4. Information and Reports: The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the Federal Highway Administration to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the Recipient or the Federal Highway Administration, as appropriate, and will set forth what efforts it has made to obtain the information.

5. Sanctions for Noncompliance: In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to:

a. withholding payments to the contractor under the contract until the contractor complies; and/or

b. cancelling, terminating, or suspending a contract, in whole or in part.

6. Incorporation of Provisions: The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the Recipient or the Federal Highway Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect

the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

APPENDIX B
CLAUSES FOR DEEDS TRANSFERRING UNITED STATES PROPERTY

The following clauses will be included in deeds effecting or recording the transfer of real property, structures, or improvements thereon, or granting interest therein from the United States pursuant to the provisions of Assurance 4:

NOW, THEREFORE, the U.S. Department of Transportation as authorized by law and upon the condition that Isle of Wight County will accept title to the lands and maintain the project constructed thereon in accordance with the Virginia General Assembly, the Regulations for the Administration of the Federal-Aid Highway Program and the policies and procedures prescribed by the *Federal Highway Administration* of the U.S. Department of Transportation in accordance and in compliance with all requirements imposed by Title 49, Code of Federal Regulations, U.S. Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Nondiscrimination in Federally-assisted programs of the U.S Department of Transportation pertaining to and effectuating the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252; 42 U.S.C. § 2000d to 2000d-4), does hereby remise, release, quitclaim and convey unto Isle of Wight County all the right, title and interest of the U.S. Department of Transportation in and to said lands described in Exhibit A attached hereto and made a part hereof.

(HABENDUM CLAUSE)

TO HAVE AND TO HOLD said lands and interests therein unto Isle of Wight County and its successors forever, subject, however, to the covenants, conditions, restrictions and reservations herein contained as follows, which will remain in effect for the period during which the real property or structures are used for a purpose for which Federal financial assistance is extended or for another purpose involving the provision of similar services or benefits and will be binding on Isle of Wight County, its successors and assigns.

Isle of Wight County, in consideration of the conveyance of said lands and interests in lands, does hereby covenant and agree as a covenant running with the land for itself, its successors and assigns, that (1) no person will on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination with regard to any facility located wholly or in part on, over, or under such lands hereby conveyed [,] [and]* (2) that Isle of Wight County will use the lands and interests in lands and interests in lands so conveyed, in compliance with all requirements imposed by or pursuant to Title 49, Code of Federal Regulations, U.S. Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Nondiscrimination in Federally-assisted programs of the U.S. Department of Transportation, Effectuation of Title VI of the Civil Rights Act of 1964, and as said Regulations and Acts may be amended[, and (3) that in the event of breach of any of the abovementioned non-discrimination conditions, the Department will have a right to enter or re-enter said lands and facilities on said land, and that above described land and facilities will thereon revert to and vest in and become the absolute property of the U.S. Department of Transportation and its assigns as such interest existed prior to this instruction].*

(*Reverter clause and related language to be used only when it is determined that such a clause is necessary in order to make clear the purpose of Title VI.)

APPENDIX C THE ACTIVITY, FACILITY, OR PROGRAM
CLAUSES FOR TRANSFER OF REAL PROPERTY ACQUIRED OR IMPROVED UNDER

The following clauses will be included in deeds, licenses, leases, permits, or similar instruments entered into by Isle of Wight County pursuant to the provisions of Assurance 7(a):

A. The (grantee, lessee, permittee, etc. as appropriate) for himself/herself, his/her heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree [in the case of deeds and leases add "as a covenant running with the land"] that:

1. In the event facilities are constructed, maintained, or otherwise operated on the property described in this (deed, license, lease, permit, etc.) for a purpose for which a U.S. Department of Transportation activity, facility, or program is extended or for another purpose involving the provision of similar services or benefits, the (grantee, licensee, lessee, permittee, etc.) will maintain and operate such facilities and services in compliance with all requirements imposed by the Acts and Regulations (as may be amended) such that no person on the grounds of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities.

B. With respect to licenses, leases, permits, etc., in the event of breach of any of the above Nondiscrimination covenants, Isle of Wight County will have the right to terminate the (lease, license, permit, etc.) and to enter, re-enter, and repossess said lands and facilities thereon, and hold the same as if the (lease, license, permit, etc.) had never been made or issued.*

C. With respect to a deed, in the event of breach of any of the above Nondiscrimination covenants, Isle of Wight County will have the right to enter or re-enter the lands and facilities thereon, and the above described lands and facilities will there upon revert to and vest in and become the absolute property of Isle of Wight County and its assigns.*

(*Reverter clause and related language to be used only when it is determined that such a clause is necessary to make clear the purpose of Title VI.)

APPENDIX D
CLAUSES FOR CONSTRUCTION/USE/ACCESS TO REAL PROPERTY ACQUIRED UNDER THE ACTIVITY, FACILITY OR PROGRAM

The following clauses will be included in deeds, licenses, permits, or similar instruments/agreements entered into by Isle of Wight County pursuant to the provisions of Assurance 7(b):

A. The (grantee, licensee, permittee, etc., as appropriate) for himself/herself, his/her heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree (in the case of deeds and leases add, "as a covenant running with the land") that (1) no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities, (2) that in the construction of any improvements on, over, or under such land, and the furnishing of services thereon, no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or otherwise be subjected to discrimination, (3) that the (grantee, licensee, lessee, permittee, etc.) will use the premises in compliance with all other requirements imposed by or pursuant to the Acts and Regulations, as amended, set forth in this Assurance.

B. With respect to (licenses, leases, permits, etc.), in the event of breach of any of the above Nondiscrimination covenants, Isle of Wight County will have the right to terminate the (license, permit, etc., as appropriate) and to enter or re-enter and repossess said land and the facilities thereon, and hold the same as if said (license, permit, etc., as appropriate) had never been made or issued.*

C. With respect to deeds, in the event of breach of any of the above Non-discrimination covenants, Isle of Wight County will there upon revert to and vest in and become the absolute property of Isle of Wight County and its assigns.*

(*Reverter clause and related language to be used only when it is determined that such a clause is necessary to make clear the purpose of Title VI.)

APPENDIX E

Contractor/ Consultant/Supplier Agreements: U.S. DOT 1050.2A -- Appendix E

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees to comply with the following nondiscrimination statutes and authorities; including but not limited to:

Pertinent Nondiscrimination Authorities:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d *et seq*., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21;
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 *et seq*.), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 *et seq*.), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 *et seq*.), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federalaid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131 -- 12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
- The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq).

ISSUE:

Motion to Designate the County's Voting Delegate and Alternate Delegate Authorized to Vote at the VACo Annual Business Meeting

BACKGROUND:

The 2022 Annual Business Meeting of the Virginia Association of Counties (VACo) will be held at 10:00 a.m. on November 15, 2022 at the Greater Richmond Convention Center, Richmond, Virginia. In order to vote, a County must have paid its membership dues in full, and must submit a completed Voting Credentials Form or a Proxy Statement to VACo by November 7, 2022.

BUDGETARY IMPACT:

None

RECOMMENDATION:

Adopt a motion to designate the County's Voting Delegate and Alternate Delegate authorized to vote at the VACo Annual Business Meeting.

ATTACHMENTS:

Description	Type	Upload Date
Correspondence from VACo	Backup Material	9/21/2022

Virginia Association of Counties

Connecting County Governments since 1934

President
Meg Bohmke
Stafford County

President-Elect
Jason D. Bellows
Lancaster County

First Vice President
Ann H. Mallek
Albemarle County

Second Vice President
Ruth Larson
James City County

Secretary-Treasurer
Donald L. Hart, Jr.
Accomack County

Immediate Past President
Jeffrey C. McKay
Fairfax County

Executive Director
Dean A. Lynch, CAE

General Counsel
Phyllis A. Errico, Esq., CAE

TO: Chairs, County Board of Supervisors
County Administrators

FROM: Dean A. Lynch, CAE
Executive Director

SUBJECT: Voting Credentials for the 2022 VACo Annual Business Meeting

DATE: September 21, 2022

The 2022 Annual Business Meeting of the Virginia Association of Counties will be held on Tuesday, November 15, at 10:00 a.m. at the Greater Richmond Convention Center, Richmond, VA.

Article VI, VACo Bylaws, states that each county shall designate a representative of its board of supervisors to cast its vote(s) at the Annual Business Meeting.

However, if a member of the board of supervisors cannot be present for this meeting, the Association's Bylaws allow a county to designate a non-elected official from your county or a member of a board of supervisors from another county to cast a proxy vote(s) for your county.

For your county to be certified to vote at the Annual Business Meeting, a completed Voting Credentials Form or a Proxy Statement must be submitted to VACo by November 7, 2022.

We look forward to your participation at the VACo Annual Conference November 13-15, 2021.

1207 E. Main St., Suite 300
Richmond, Va. 23219-3627

Phone: 804.788.6652
Fax: 804.788.0083

Email: mail@vaco.org
Website: www.vaco.org

VACo 2022 Annual Meeting
Voting Credentials Form
Form may be returned by mail, fax (804-788-0083) or email vrussell@vaco.org

Voting Delegate:
(Supervisor)

Name_____

Title _____

Locality_____

Alternate Delegate:
(Supervisor)

Name _____

Title _____

Locality _____

Certified by:
(Clerk of the Board)

Name _____

Title _____

Locality _____

VACo 2022 Annual Meeting
Proxy Statement

_____ County authorizes the following person to cast its vote at the 2022 Annual Meeting of the Virginia Association of Counties on November 13, 2022.

_____, a non-elected official of this county.

-OR-

_____ a supervisor from _____ County.

This authorization is:

☐ Uninstructed. The proxy may use his/her discretion to cast _____ County's votes on any issue to come before the annual meeting.

☐ Instructed. The proxy is limited in how he/she may cast _____ County's votes. The issues on which he/she may cast those votes and how he/she should vote are:
(List issues and instructions on the back of this form)

Certified by: Name_____

Title _____

Locality _____

ISSUE:

Discussion of Land Use Options for Energy Production

BACKGROUND:

The Board may wish to discuss its desires relative to the creation of a task force to investigate land use options for the production of renewal energy.

BUDGETARY IMPACT:

None.

RECOMMENDATION:

Per the Board's discussion.

ISSUE:

Discussion of Workforce Housing and Equity within Development Service Districts

BACKGROUND:

The Board may wish to discuss the creation of a task force to investigate opportunities for workforce housing within the County's Development Service Districts.

BUDGETARY IMPACT:

None.

RECOMMENDATION:

Per the Board's discussion.

ISSUE:

Discussion of Options for Consideration at the Intersection of Sugar Hill Road and Route 17

BACKGROUND:

The Board may wish to discuss concerns expressed by citizens relative to the intersection of Sugar Hill Road and Route 17.

BUDGETARY IMPACT:

None.

RECOMMENDATION:

Per the Board's discussion.