#### MINI-STORAGE DEVELOPMENT

#### Located at 1055 Plantation Road

### PLANNED COMMERCIAL DISTRICT CONDITIONAL USE PERMIT

Located in:

#### Town of Blacksburg, Virginia

Prepared For:

Broad Street Partners LLC 148 River Street., Suite 205 Greenville, SC 29601

Project Number: 3322.0

Date: October 3, 2022 Revised: January 5, 2023 **Revised: Match 1, 2023** 



ENGINEERING • LAND PLANNING • SURVEYING 1260 Radford Street · Christiansburg, Virginia 24073 540.381.6011 office · 540.381.2773 fax www.foresightdesignservices.com

#### **TABLE OF CONTENTS**

APPLICAT	ON	3
NARRATIV	'E	7
APPENDIC	ES	10
A.	ORIGINAL AND MODIFIED PCD BOUNDARY MAPS	11
В.	SITE PLAN	14
C.	UTILITY PLAN & STORMWATER CONCEPT PLAN	17
D.	LANDSCAPE PLAN	21
E.	BUILDING ELEVATIONS/PLANS	23
F.	ADJACENT PROPERTY OWNERS	30
G.	EXISTING ZONING MAP & EXISTING LAND USE MAP	31
H.	FUTURE LAND USE MAP	33
I.	MIXED USE AREA MAP	35
J.	URBAN DEVELOPMENT AREA MAP	37
K.	BT TRANSIT STOPS MAP	39
L.	NEIGHBORHOOD, EMPLOYMENT, & SERVICES MAP	41
M.	PATHS TO THE FUTURE MAP	43
N.	EXISTING SURVEY	45
0.	LETTER REGARDING PRE-SUBMITTAL MEETINGS WITH TOWN STAFF	64
P.	TRAFFIC IMPACT ANALYSIS	68
Q.	3D RENDERING VIEWS/PERSPECTIVES	101
R.	RETAINING WALL DETAILS	109
S.	SIGNAGE DETAILS	113
T.	VARIANCE REQUEST LETTERS	115
- 11	RUSINESS OPERATIONS DETAILS	119

#### **APPLICATION**

#### TOWN OF BLACKSBURG CONDITIONAL USE PERMIT APPLICATION

This application and all accompanying information must be submitted in full before the Conditional Use Permit can be accepted by Town staff. Once the Planning and Building Department accept, the application, it will be referred to the Planning Commission and Town Council for consideration. The application and all accompanying information will become conditions of approval. Any conditions of approval are binding. Other conditions may apply. Please contact the Planning and Building Department at (540) 443-1300 for application deadline or questions, or to schedule the required pre-submittal meeting.

The following items MUST accompany this application for the Town of Blacksburg to accept this application for processing and review. Any items submitted cannot be larger than 11x17 in size:

- 1) Digital copies (PDF) of all application materials are required at the time of submittal, or within 5 working days of the submittal date.
- 2) Written, signed consent of the property owner. If the applicant is the contract purchaser, the written consent of the property owner is required (§1182)
- 3) Concept plan with surveyed boundaries for the property showing the lot, existing and proposed structures, site improvements, parking areas and spaces, and any other information necessary to determine the ability to meet the Zoning Ordinance site development standards, Use & Design standards, and compatibility with the neighborhood. A stormwater management concept plan with calculations is required. Application should also include projected water and sewer flows to determine impact to Town infrastructure
- 4) Vicinity map showing surrounding uses, zoning districts, buildings and other improvements
- 5) Building elevations for all proposed buildings, or elevations showing any changes to existing buildings
- 6) Sketch depicting any proposed signage including size, location, and materials
- 7) Completed Town of Blacksburg VDOT TIA Supplemental Form, and any other til affic information required by Town Staff as identified in the pre-submittal meeting
- 8) A list of adjacent property owners (including properties across a street) and their addresses. Reimbursement to the Town for Certified First Class Mail will be required upor Town verification of recipients and postage necessary to mail the application to all adjacent property owners.
- 9) Fee of \$500 for Conditional Use Permit or amendments to existing Conditional (special) Use Permits.
- 10) Proof of pre-submittal meeting between Town staff and applicant/agent (email correspondence or calendar appointment is sufficient) (§1182)
- 11) Prior to the initiation of an application for Conditional Use Permit, or prior to the issuance of final approval, the applicant shall produce satisfactory evidence that any delinquent real estate taxes owed, which have been properly assessed against the subject property, have been paid (§1182)
- 12) Any applicant for a Conditional Use Permit shall make complete disclosure of the equitable ownership of the real estate to be affected including, in the case of corporate ownership, the names of stockholders, officers and directors, and in any case the names and addresses of all of the real parties of interest. The requirement of listing names of stockholders shall not apply to a corporation whose stock is traded on a

national or local stock exchange, and which corporation has mo	re than 500 sh	areno	iders (31110)
GNATURE OF APPLICANT/CONTACT PERSON + PRINTED NAME:			
CRAIG A. STIPES	DATE:	9	28 22
y signing this application, I affirm that this application is complete  GNATURE OF PROPERTY OWNER + PRINTED NAME:			
John W. News	COMBDATE:	91	29/22
y signing this application, I affirm that this application is complete	and all require	d iten	ns are included

1055 Plantation Road, Blacksk	•	mit:
Tax Parcel Number(s): 254-A	-18 (Parcel ID: 014114)	
Acreage		
Present Zoning District: Planne	ed Commercial (PC)	
Present Use of Property: Vaca	ant	
Proposed Use for the Property	Mini-Warehouse	
Conditional Use Requested:	/lini-Warehouse	Code Section151 (b)
		onal (Special) Use Permit? No
Previous Conditional (Special)	Use Permit Number/Reso	olution Number
APPLICANT/CONTACT PERSON (  NAME: Broadstreet Partners, L  148 River Street, Su  ADDRESS: Greenville, SC 29601	LC (c/o Craig Stipes)	
·		craig@broadstreetcre.com
PROPERTY OWNER(s) (If propert Signatures may be obtained and NAME:  Blacksburgs Green BL 898 Triangle Street Blacksburg, VA 24060  PHONE:  [540] 443-8421	submitted on a separate she	
PHONE: \\		EMAIL: 1 005
ENGINEER/ARCHITECT (optional NAME: Foresight Design Servi ADDRESS: 1260 Radford Street Christiansburg, VA 24073	ices (c/o John T. Neel)	
PHONE: (540) 381-6011		info@foresightdesignservices.com EMAIL:

Please provide the following information - attach separate pages if necessary:
Description of the proposed use including any site modification See attached narrative.
Please demonstrate how the proposed use, when complemented with additional measures, if any, will be in harmony with the purposes of the specific district in which it will be placed.  See attached narrative.
Please demonstrate how there will be no undue adverse impacts on the surrounding neighborhood in terms of public health, safety, or general welfare, and show the mitigation of impacts to achieve the goals.  See attached narrative.
Any modifications or exceptions to Use and Design Standards or Development Standards must also be requested at the time of CUP evaluation. Identify and provide a justification for modification/exception See attached narrative.
If the application is an amendment to an existing approved S/CUP, provide an identification of any proposed changes requested below and on a plan, and a strike-through and italic edit of any conditions proposed to be changed  See attached narrative.

NARRATIVE

### Planned Commercial District – 1055 Plantation Road Conditional Use Permit for Mini-Storage Development

#### Description of the proposed use (or site modification)

The site is a 4.573 acre parcel located at 1055 Plantation Road in the Town of Blacksburg, Virginia. The site is currently contained within an existing Planned Commercial District and this application is to request a Conditional Use Permit to allow for Mini-Storage use type within this PC district.

The existing site is currently vacant with an existing old parking lot on the south side of the parcel adjacent to Prices Fork Road. This parking lot is from a previous development that has since been abandoned. The proposed development will create a new entrance off of the existing Plantation Road cul-de-sac to access the site and also complete a cross-connection to Crisp Road in The Retreat student housing development directly to the west of this parcel. This proposed roadway will be private with a dedicated public access easement to allow for public traffic to utilize the cross-connection. The development will be comprised of an approximate 100,000 square foot multi-story climate controlled storage facility with office space attached, associated parking and drive aisles, as well as the necessary utilities and stormwater management to serve the building. An approximately 1.15 acre-commercial parcel shall be reserved along the frontage of Prices Fork Road for future development.

Please demonstrate how the proposed use, when complemented with additional measures, if any, will be in harmony with the purpose of the specific district in which it will be placed.

The proposed development is for the construction of a mini-storage facility within an existing Planned Commercial District. The location of this storage facility directly adjacent to The Retreat, a large student housing development, as well as other student housing and residential neighborhoods in the vicinity of this parcel, will make it a prime location for these storage services.

Please demonstrate how there will be no undue adverse impacts on the surrounding neighborhood in terms of public health, safety, or general welfare, and show the mitigation impacts to achieve the goals.

As a mini-storage facility, the impacts to public health, safety and general welfare of surrounding neighborhoods will be extremely minimal. The facility will require minimal public utilities service and therefore pose little-to-no impact on the Town's water and sanitary sewer facilities. From a traffic standpoint, a TIA has been provided with this submittal demonstrating minimal impact to the Town's transportation infrastructure and the adjacent signals, intersections and roadways. Furthermore, a cross-connection is being proposed to directly connect to Crisp Road at The Retreat to the west, allowing for ease of access of these storage facilities without the need to exit onto Prices Fork Road, mitigating additional traffic on this roadway. This cross connection will also improve the overall transportation network and

connectivity between the Hotel, Convenience Store, Proposed Mini-Storage, Future Commercial Parcel, and The Retreat.

Any modifications or exceptions to Use and Design Standards or Development Standards must also be requested at the time of the CUP evaluation. Identify and provide a justification for modification/exception.

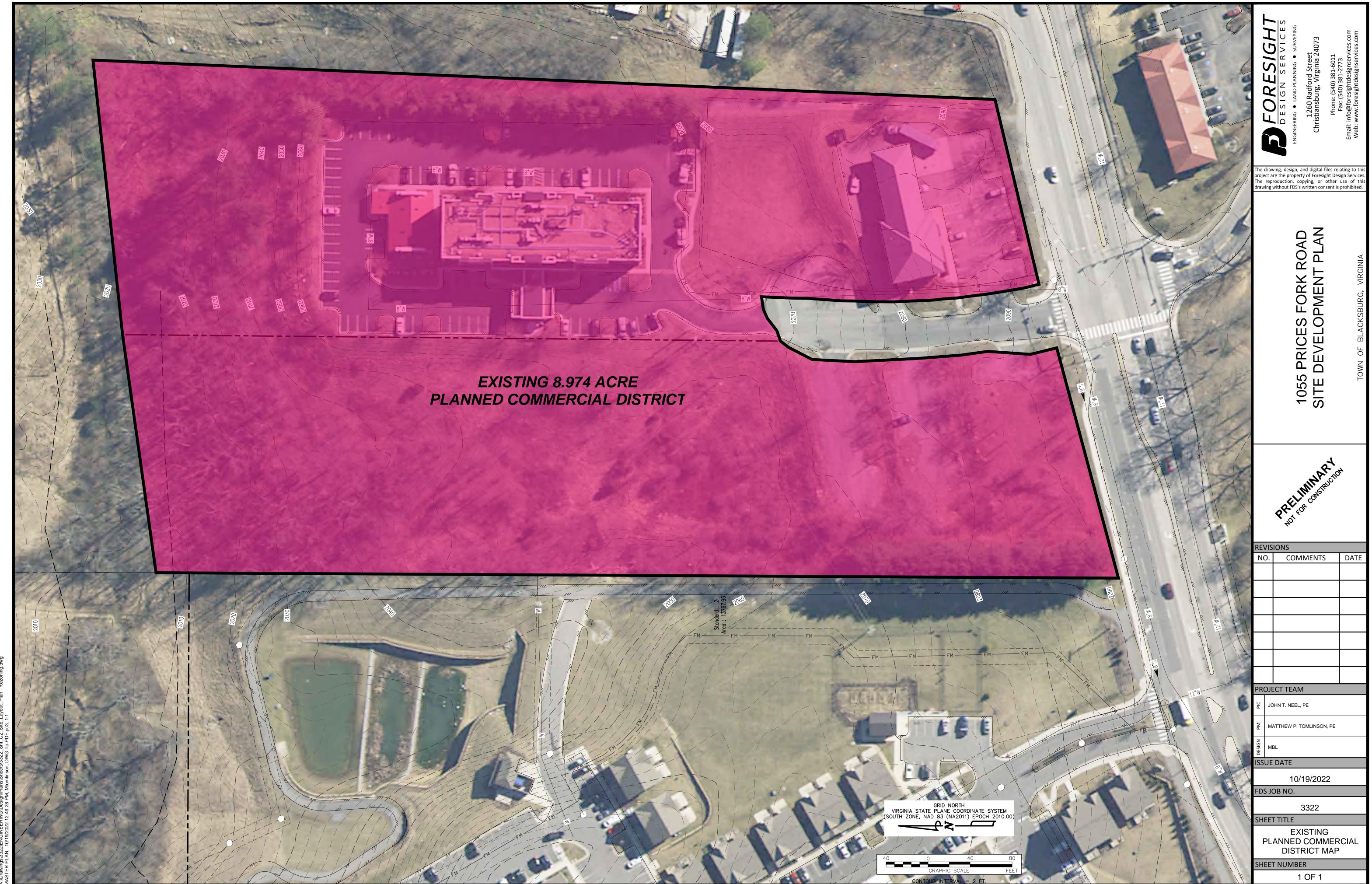
Several exceptions to the existing use and design standards and/or development standards are proposed for the proposed development including variance requests for: doors for any rental unit facing residentially zoned property, sanitary sewer being served by gravity and private laterals crossing private property, as well as a bike lane extension. Variance request letters for each of these items have been included with this submittal.

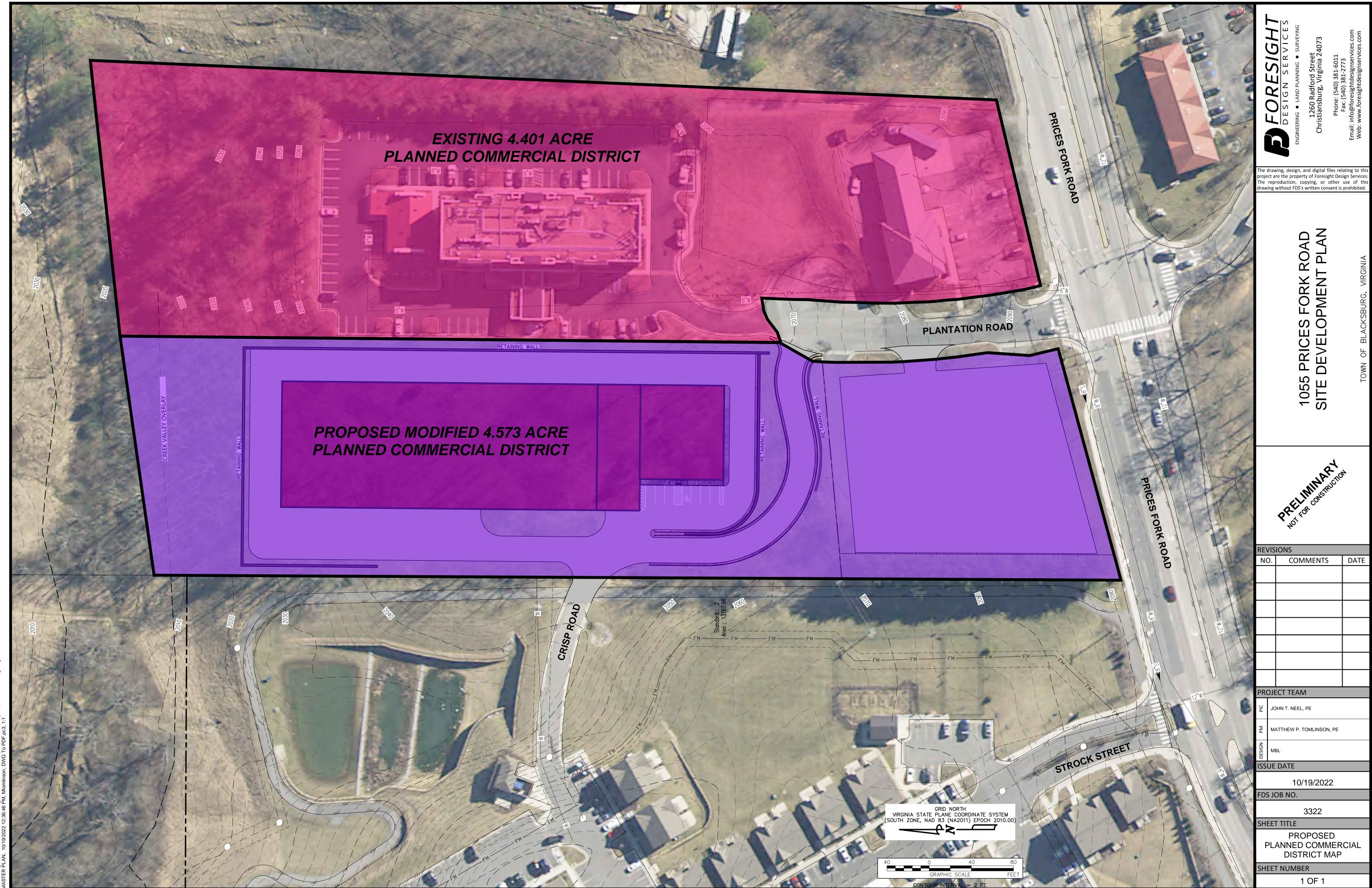
If the application is an amendment to an existing application S/CUP, provide an identification of any proposed changes requested below and on a plan, and a strike-through and italic edit or any conditions proposed to be changed.

This application is a Conditional Use Permit request for the existing Planned Commercial District. The amendment to the existing Planned Commercial District is being handled in a separate application package.

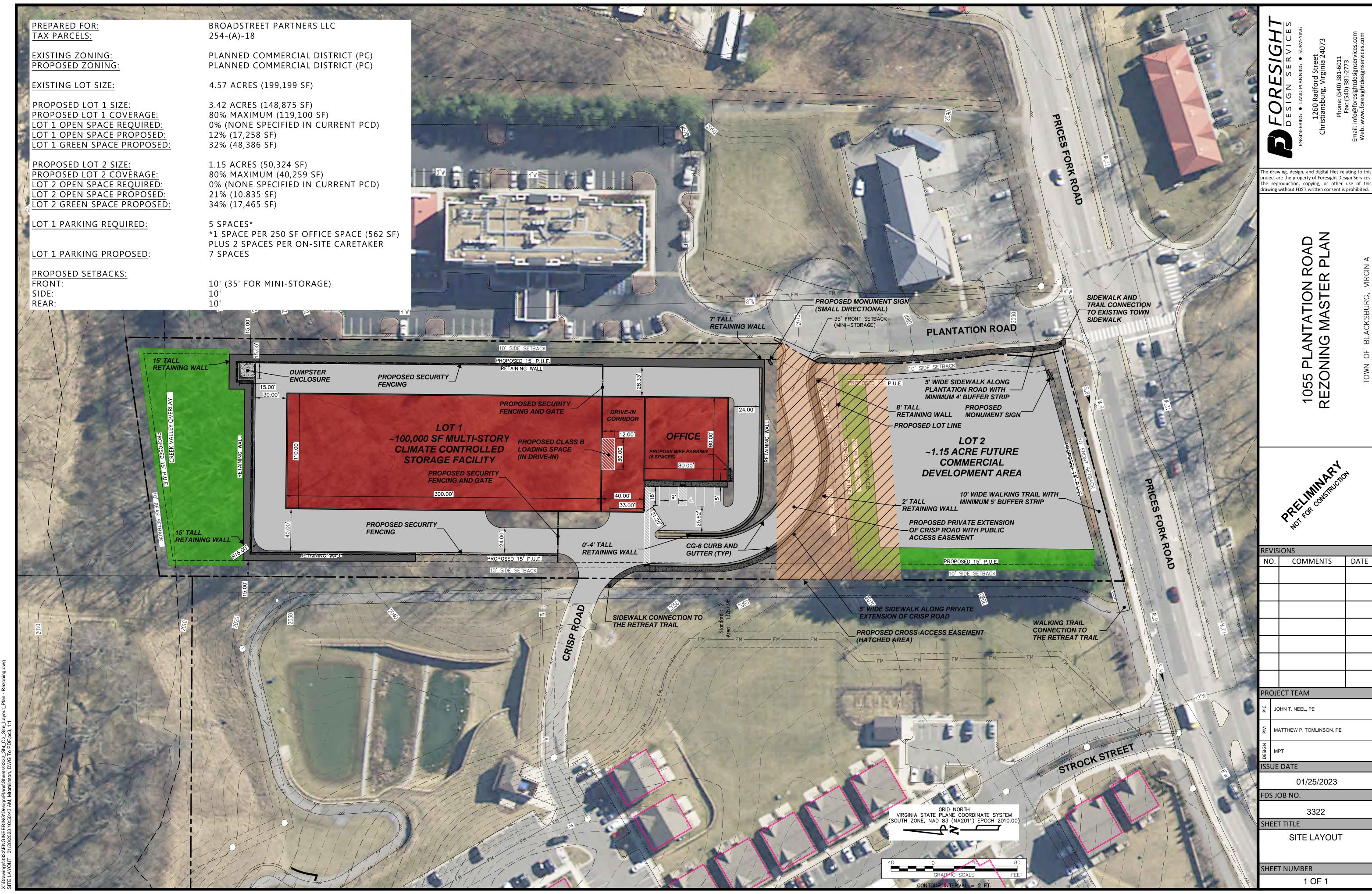
#### **APPENDICES**

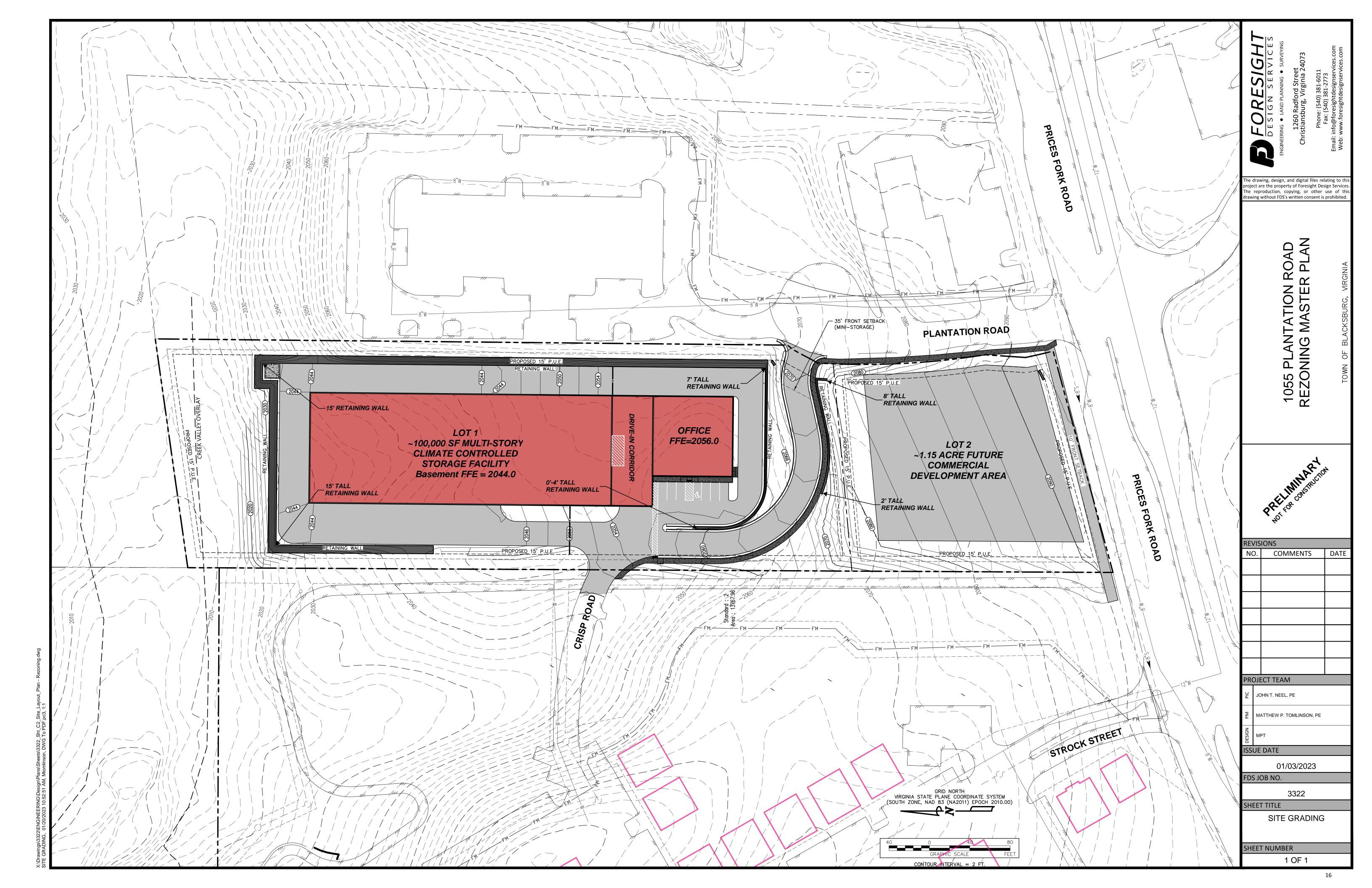
APPENDIX A – ORIGINAL AND MODIFIED PCD BOUNDARY MAPS



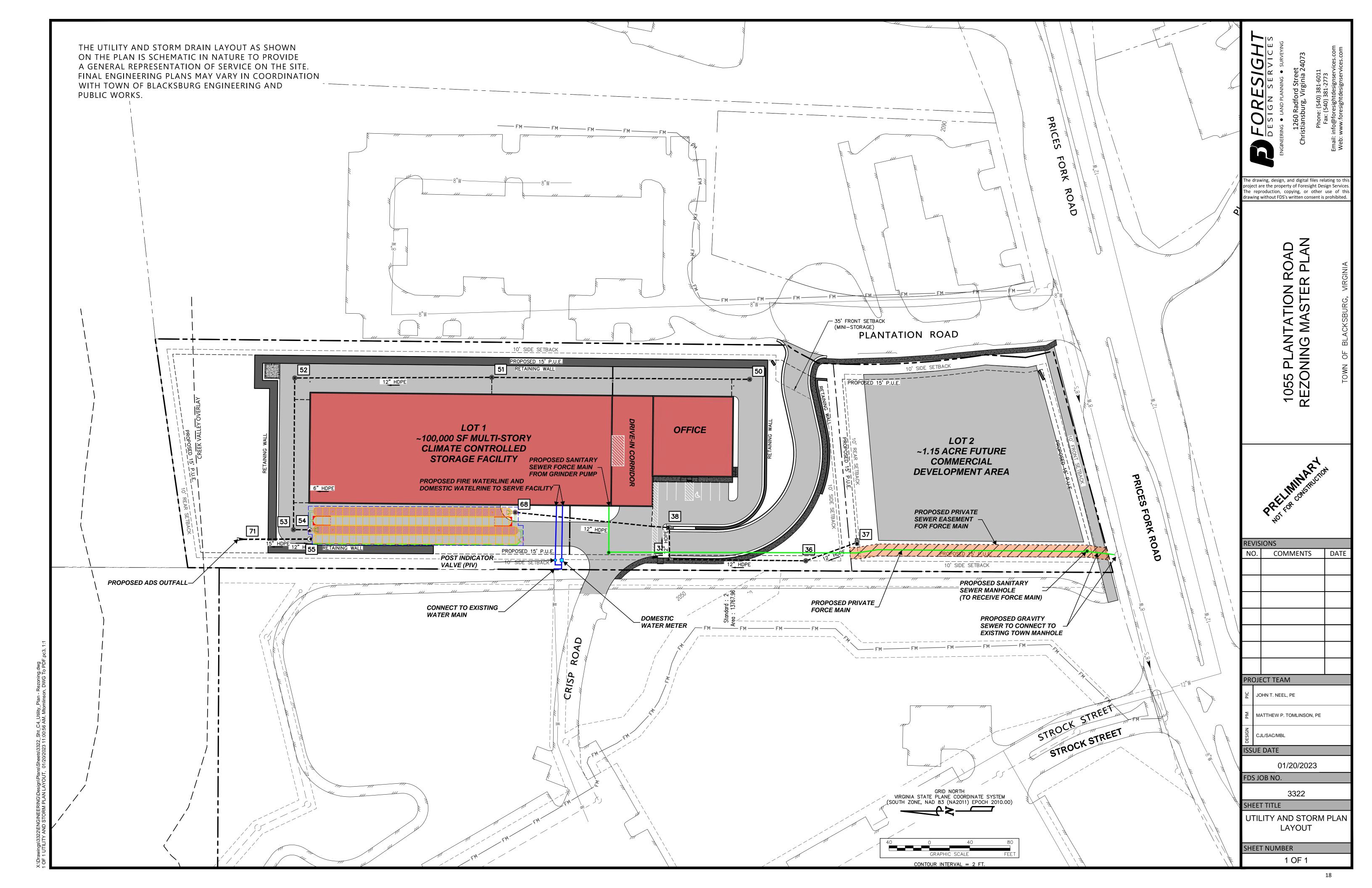


APPENDIX B – SITE PLAN





APPENDIX C – UTILITY PLAN & STORMWATER PLAN







January 11, 2023

Foresight Design Services Attn: John Neel 1260 Radford Street Christiansburg, VA 24073

### RE: CUP22-0006/RZN22-0003 Plantation Road Mini Storage CUP Request and Amendment to the Rezoning – Letter of Approval

Dear Mr. John Neel:

The Engineering Department has completed the second review of the 1055 Plantation Road Stormwater Concept Plan submitted on January 6, 2023. The SWM Concept Plan is **approved** at this time. This 4.57 acre site sits at the Prices Fork and Plantation Road intersection and drains into the Toms Creek Basin watershed. This site is proposing to develop a mini-storage facility in addition to a commercial pad for future development. The stormwater management design incorporates an ADS StormTech underground detention facility with Isolator Row to serve as both water quantity and water quality measures.

#### Water Quantity:

The stormwater quantity design includes an ADS underground detention system to meet the volume requirements. The volume of the existing stormwater facility that is being eradicated is being added to the volume of the proposed facility to account for this existing stormwater benefit. Pre-development rates are being reduced to meet channel protection and flood protection requirements.

Study Point	Pre	-Developm	ent	Target	Pos	t-Developn	elopment	
	1-Year		10-Year	1-Year	1-Year		10-Year	
	Runoff (cfs)	Volume (cf)	Runoff (cfs)	Runoff (cfs)	25. 0.3 5.35	Volume (cf)	Runoff (cfs)	
1	0.73	3,093	7.79	0.07	0.06	24,872	5.29	

Concerns exist regarding an appropriate horizontal clearance from the buildings foundation. Since the project proposes the option of two facilities instead of one, this clearance can be resolved during the site plan process.

#### Water Quality:

The stormwater management mitigation is provided by a proprietary ADS underground detention system on-site to meet about half of the water quality requirements (3.06 lb/yr). The purchase of **2.99 lbs/year** of off-site nutrient credits is the proposed method to meet the remainder of the water quality requirements which complies with the local water quality regulations, but will not provide any benefits within the Town of Blacksburg. The Town **recommends** that this development provide more on-site stormwater quality treatment instead of using off-site methods for 50% of the treatment. Additional on-site treatment will provide lasting beneficial water quality value to the Toms Creek watershed, whereas the current layout may degrade our local water quality.

#### Items Needed to Address at Site Plan Approval:

1. The pre-development drainage areas shown must be revised to illustrate the two drainage areas described in the narrative and to include the BP fuel station. This site also drains to the proposed site.

- 2. Additional access to the underground stormwater facility will need to be addressed.
- 3. Appropriate clearance from the building.
- 4. Confirmation of Nutrient Bank Availability must be confirmed.
- 5. VSMP permit coverage will be required for this site.
- 6. **Note:** The Town of Blacksburg Town has implemented a stormwater utility fee based on total impervious lot coverage. This proposed development area would generate a stormwater fee of \$227.27 dollars per month for this site.

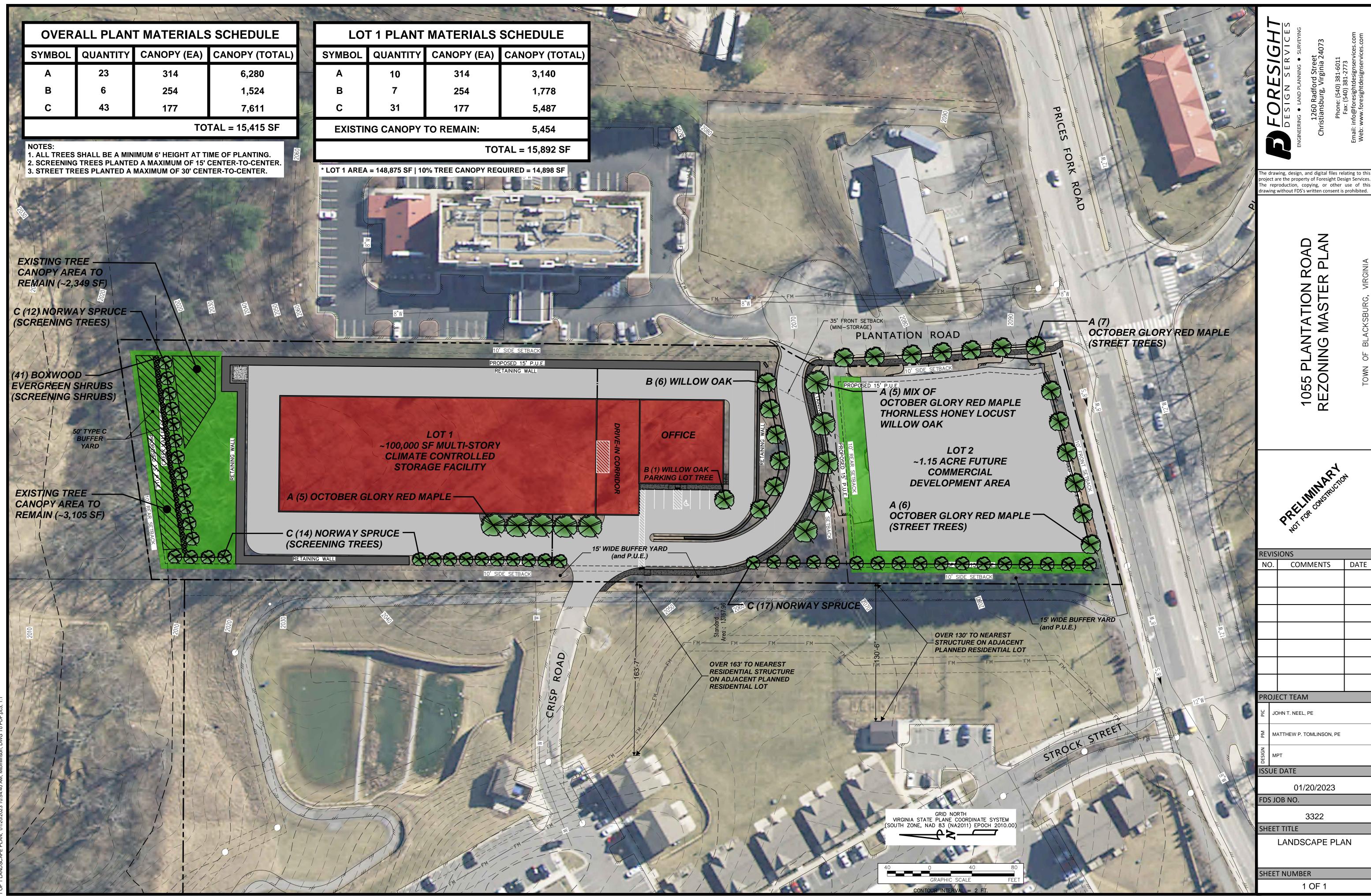
Please feel free to contact Kafi Howard with the Engineering Department at (540) 443-1354 or via email <a href="mailto:khoward@blacksburg.gov">khoward@blacksburg.gov</a>, if you have questions or concern regarding this review.

Sincerely,

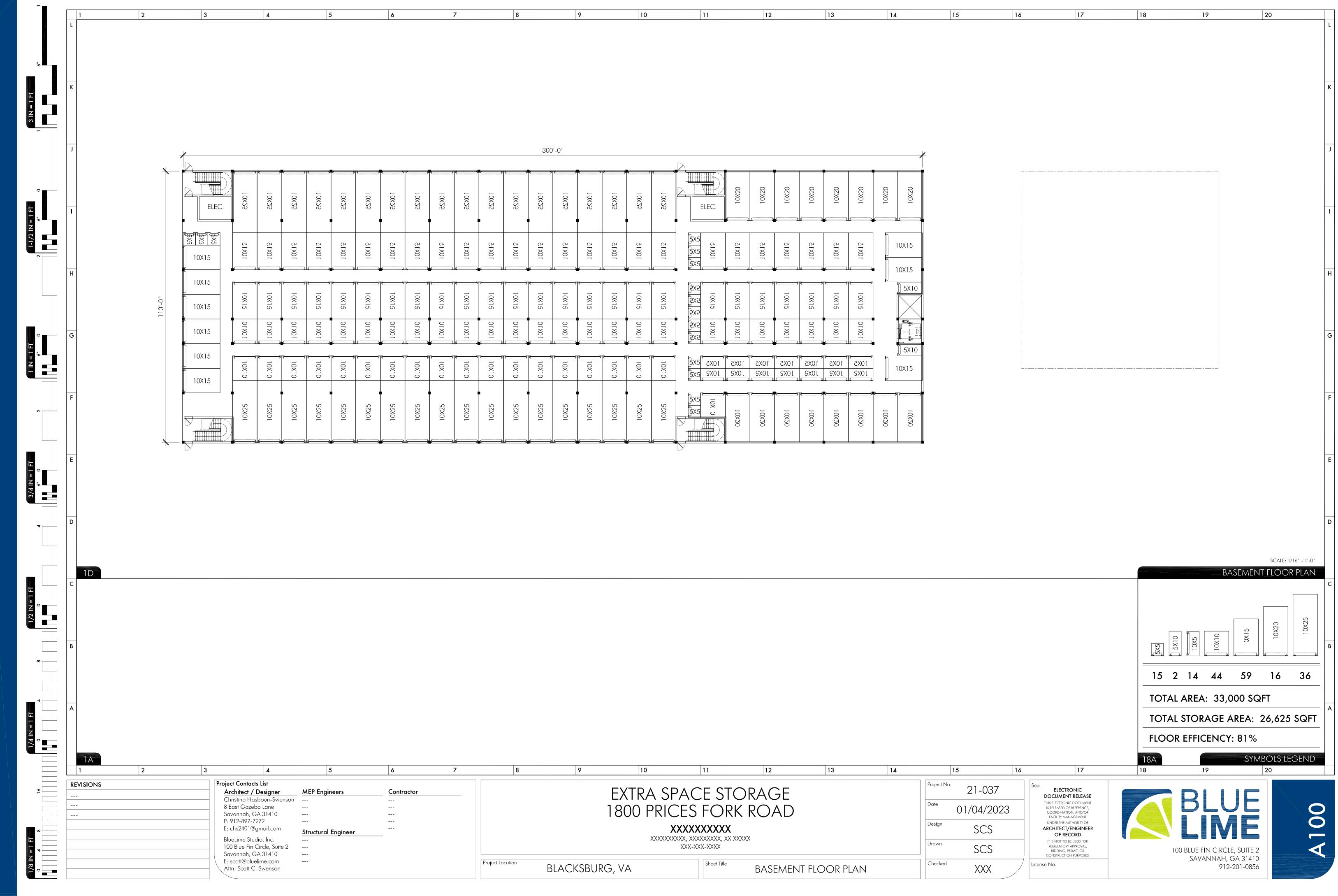
#### Kafi Howard, Town Engineer

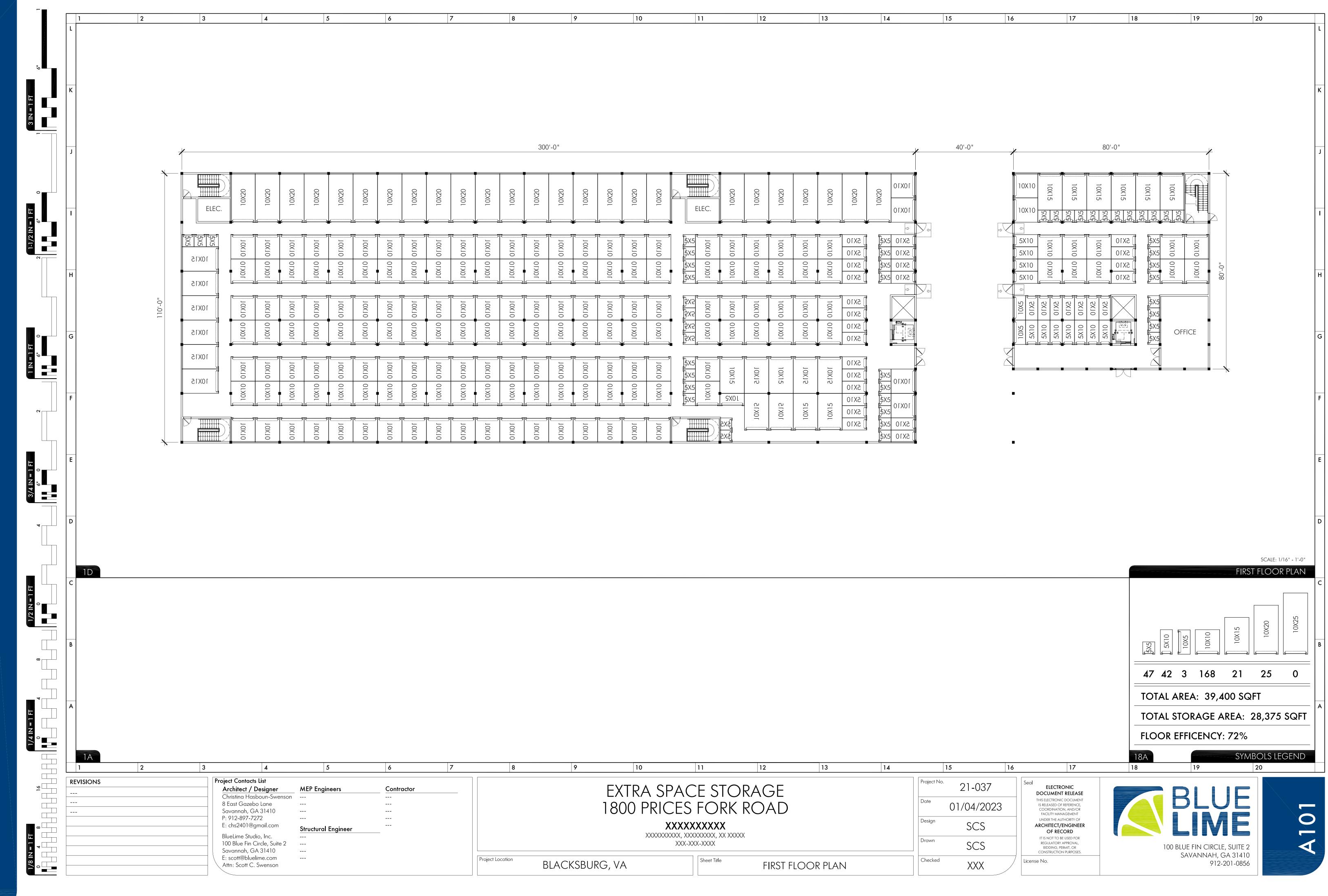
Town of Blacksburg 400 S Main St Blacksburg, VA 24060 khoward@blacksburg.gov (540) 443-1354

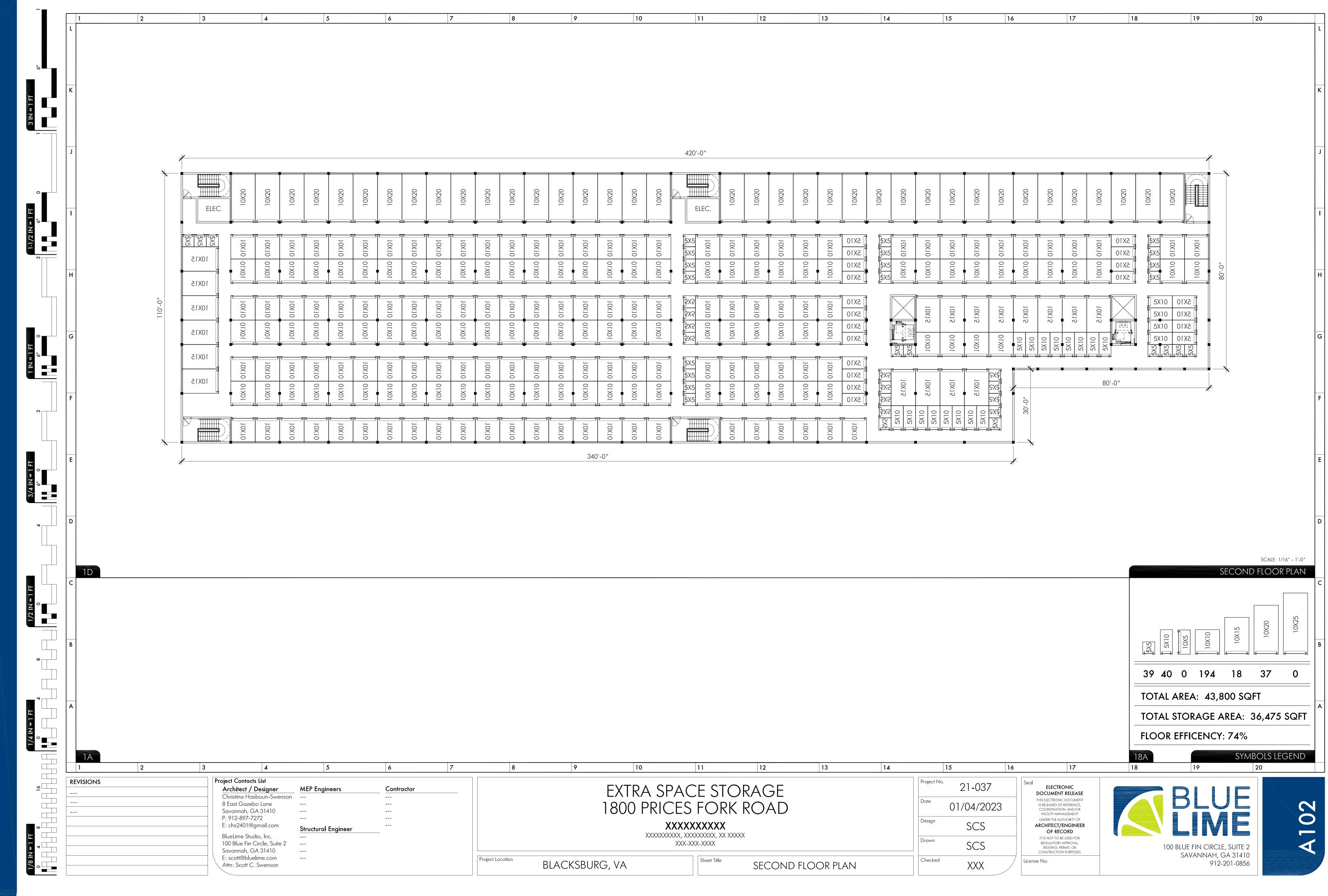
APPENDIX D – LANDSCAPE PLAN

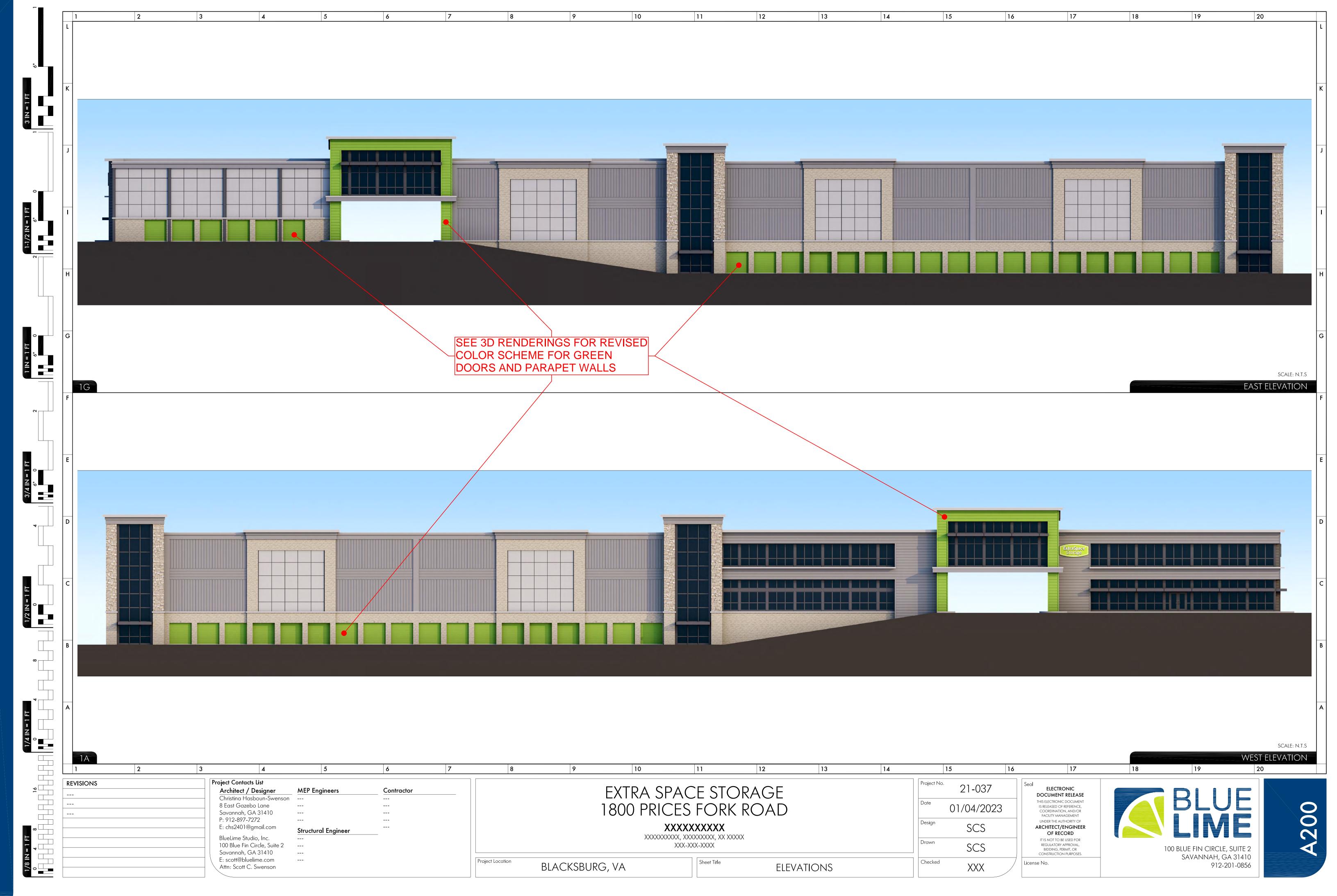


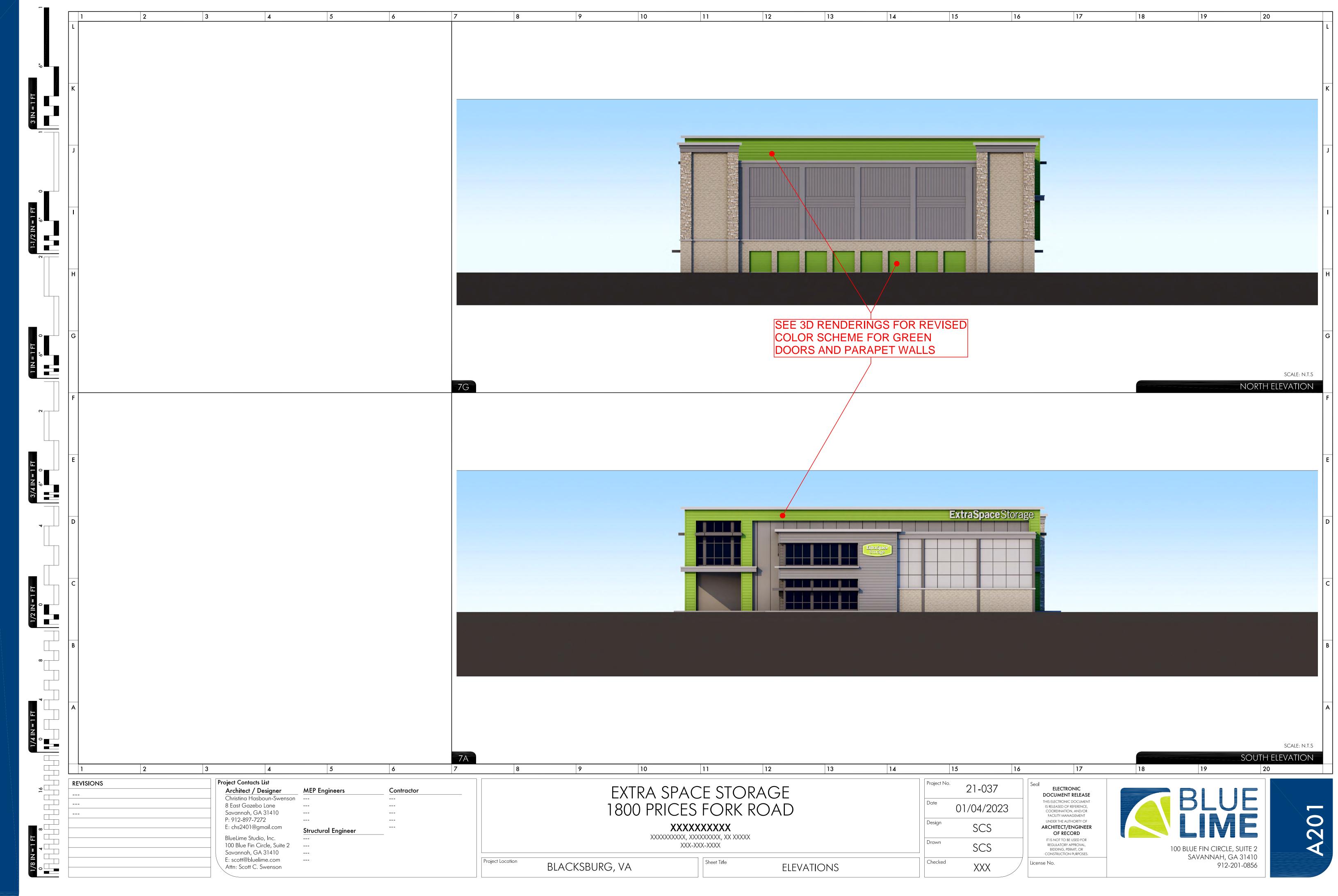
APPENDIX E – BUILDING ELEVATIONS/PLANS

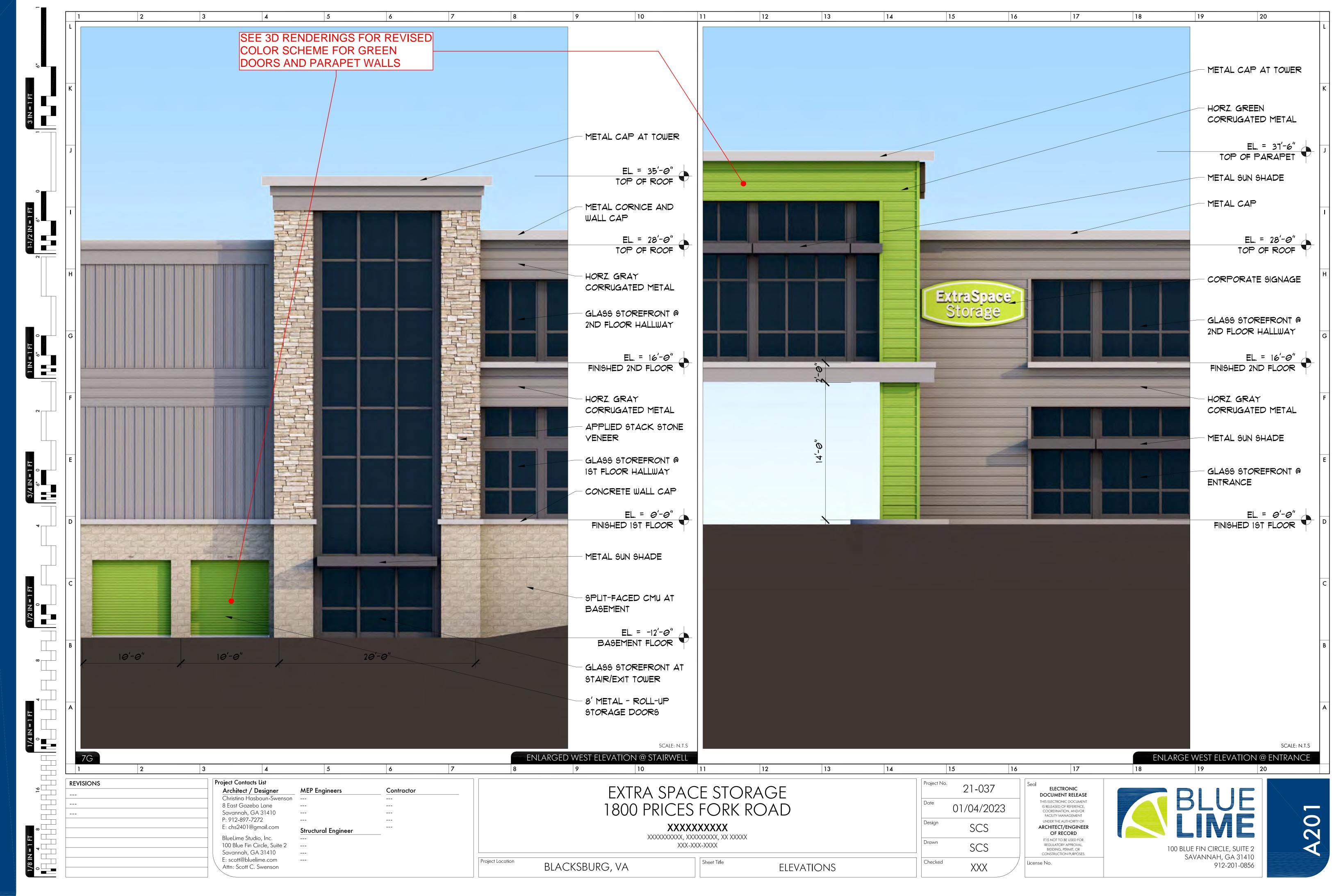












#### APPENDIX F – ADJACENT PROPERTY OWNERS

1920 Prices Fork Road Map Number: 254-A-19A

Owner: Retreat at Blacksburg LLC C/O Caruthers & Assoc Inc.

2075 Madison Ave Memphis, TN 38104

1020 Plantation Road Map Number: 254-8-2

Owner: Blacksburg Hospitality Grp LLC C/O Holiday Lodge Inc

510 B S Main St

Blacksburg, VA 24060

Prices Fork Road

Map Number: 256-A-1 Owner: VPI Bldgs & Land

615 Southgate Dr

Blacksburg

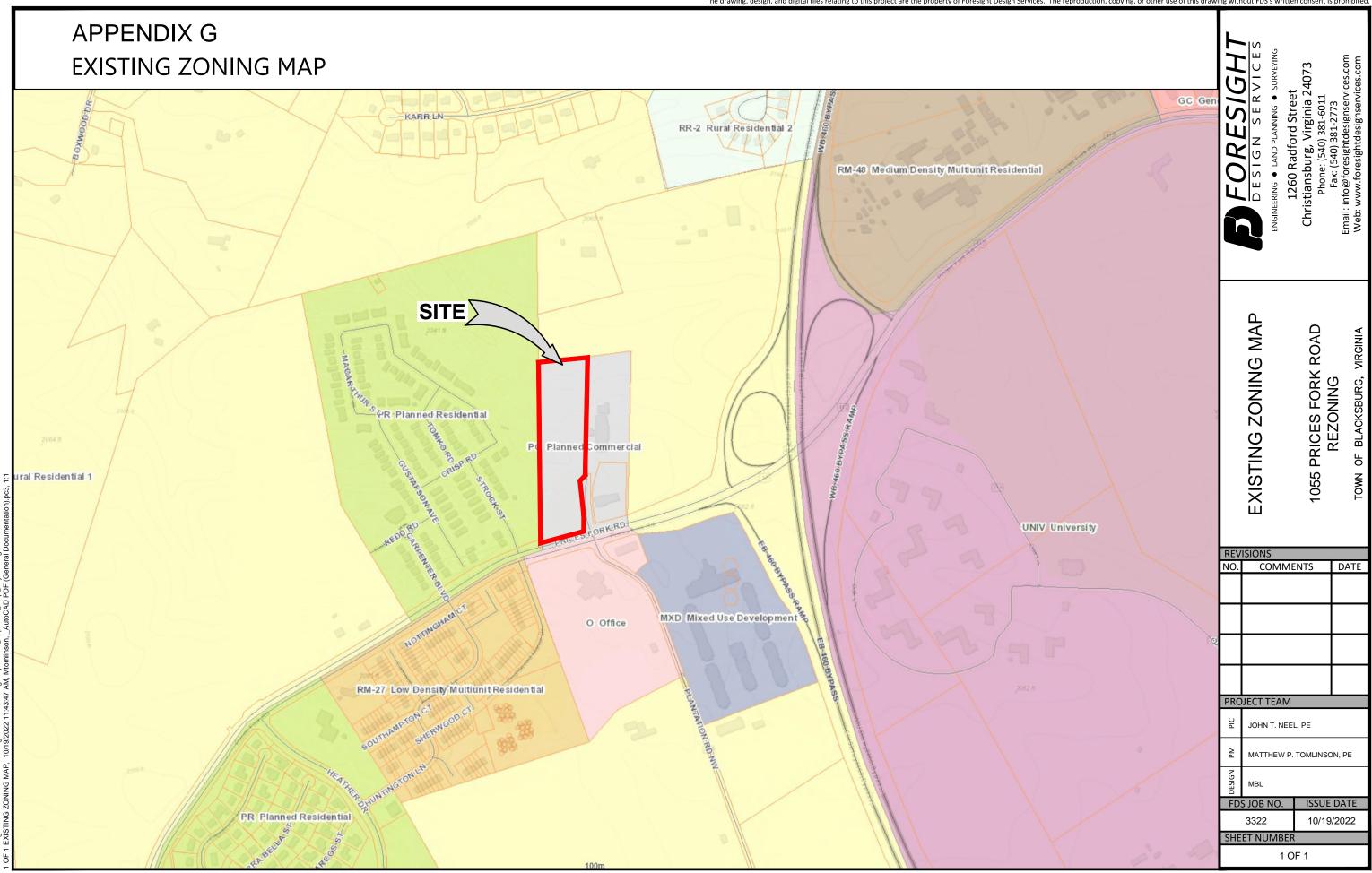
901 Plantation Road Map Number: 254-A-27A

Owner: Carilion Clinic Properties LLC

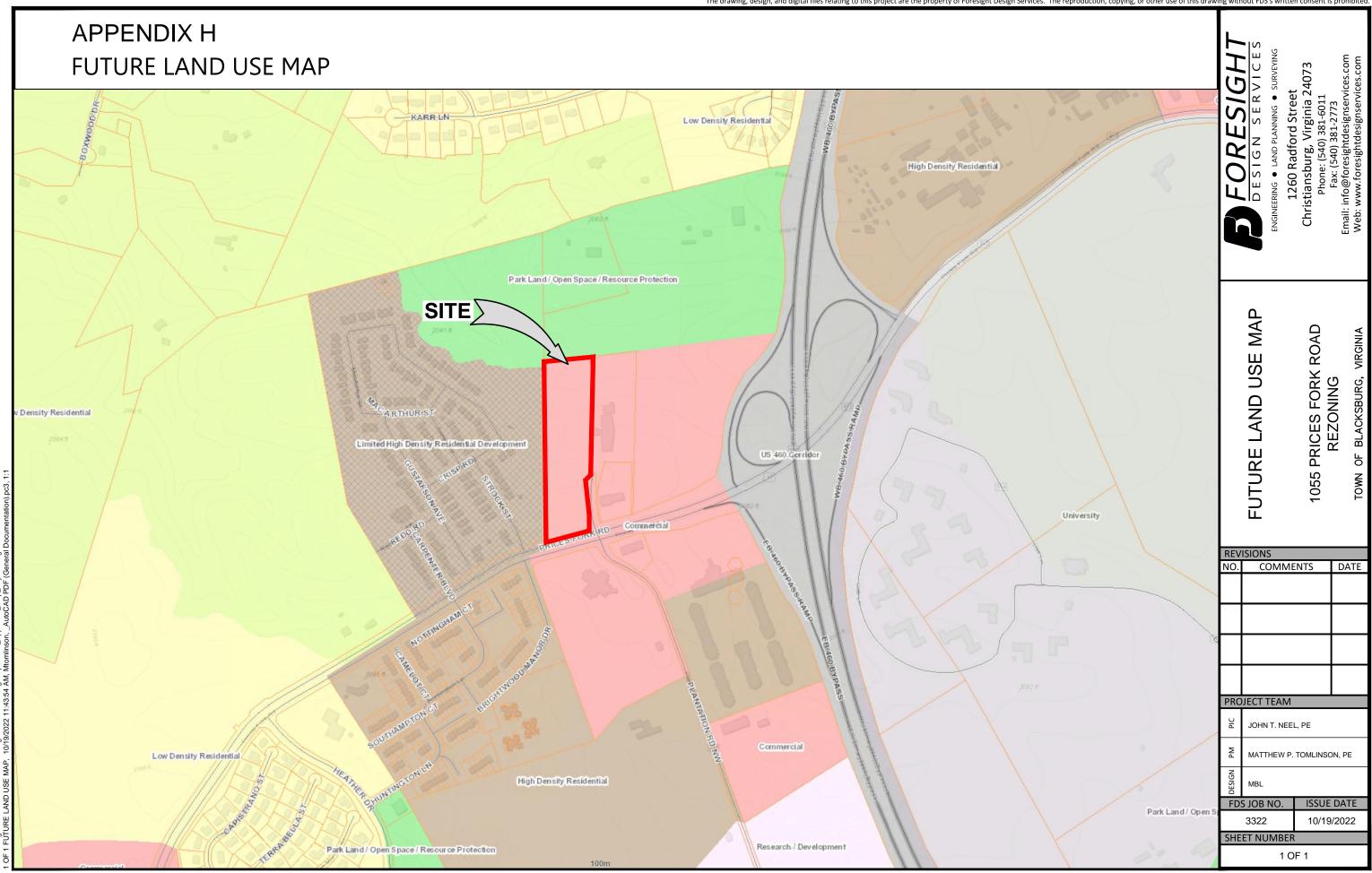
PO Box 12385

Roanoke, VA 24025-2385

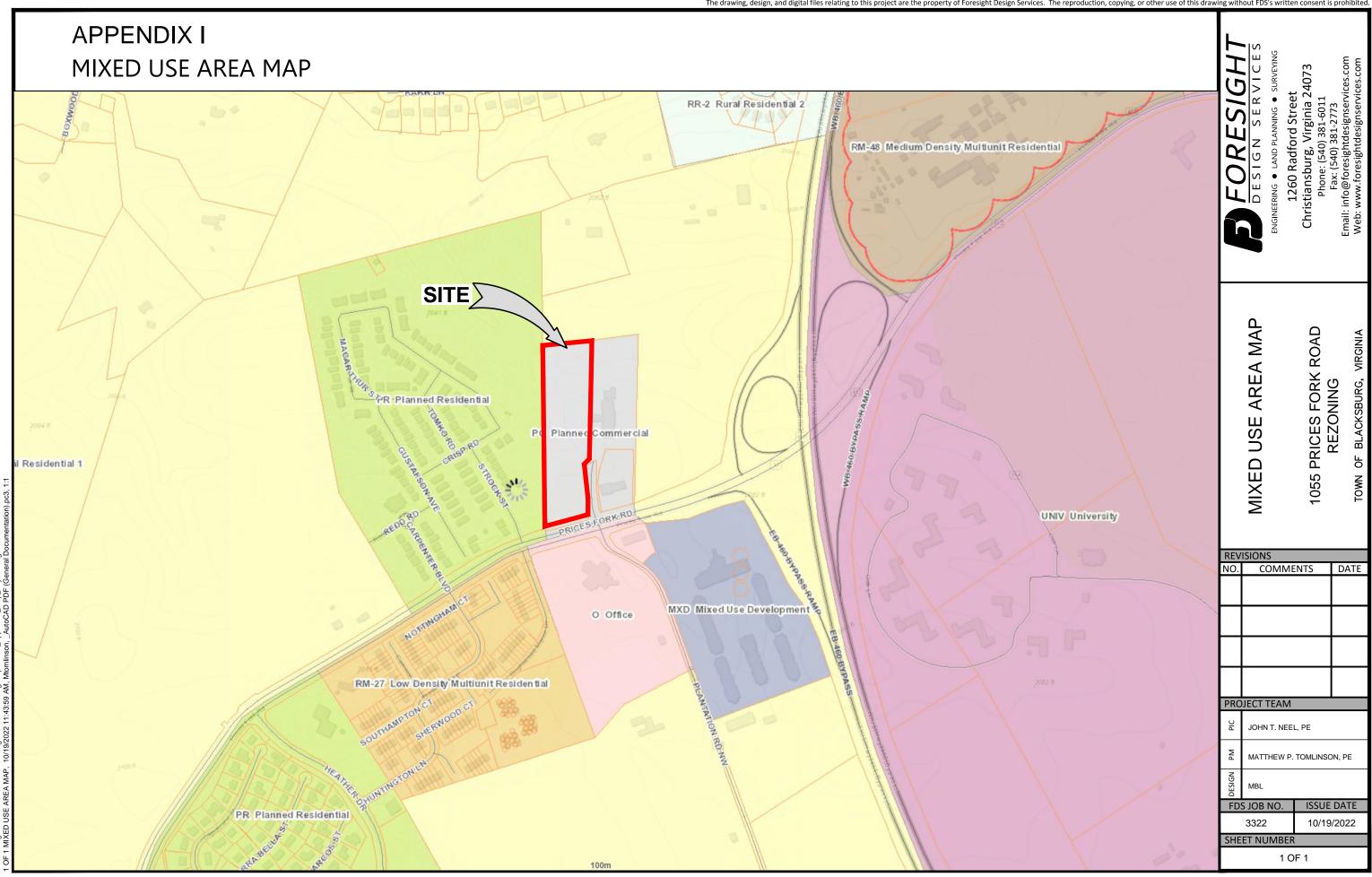
APPENDIX G – EXISTING ZONING MAP & EXISTING LAND USE MAP



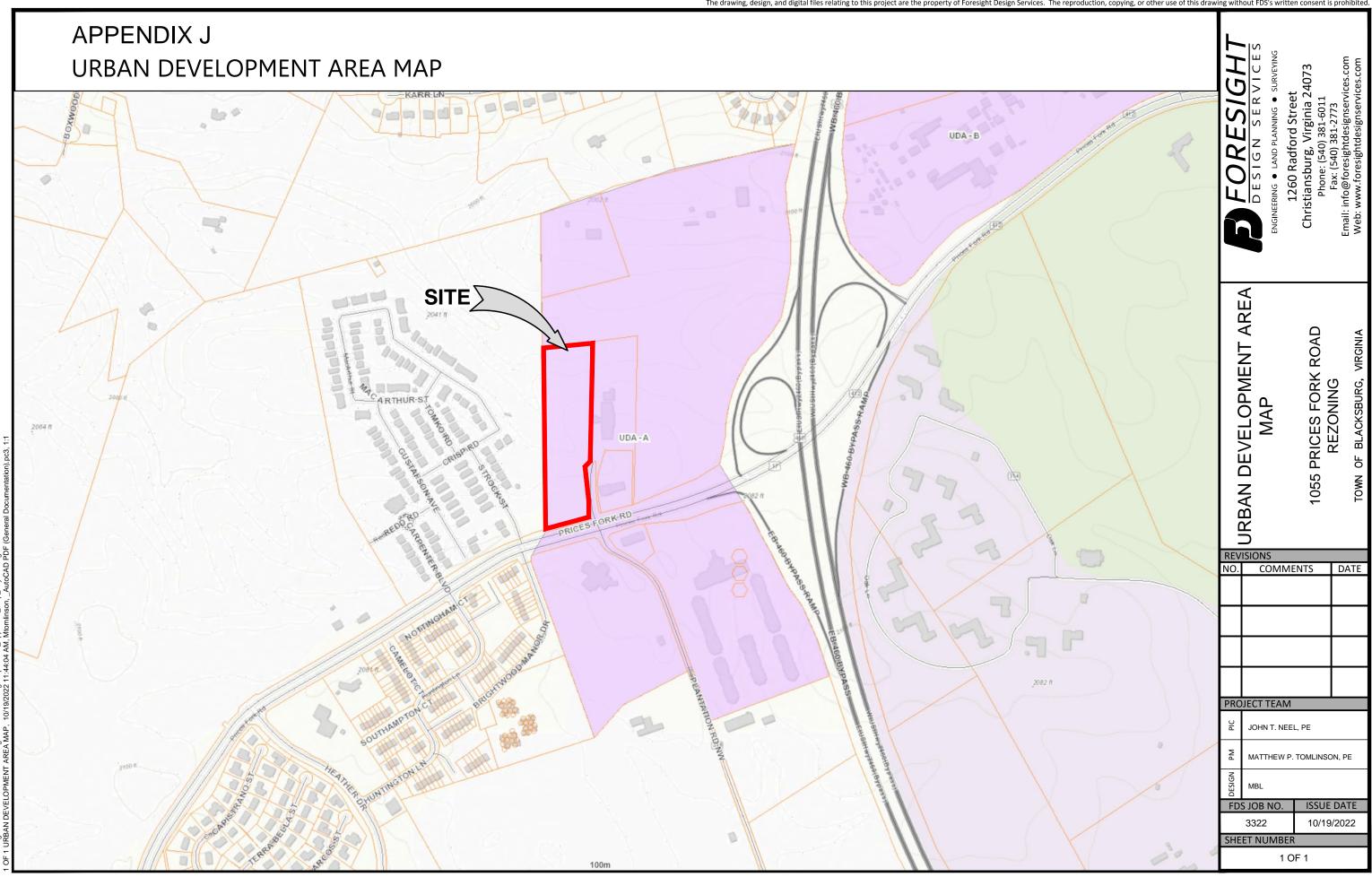
APPENDIX H – FUTURE LAND USE MAP



APPENDIX I – MIXED USE AREA MAP



APPENDIX J – URBAN DEVELOPMENT AREA MAP



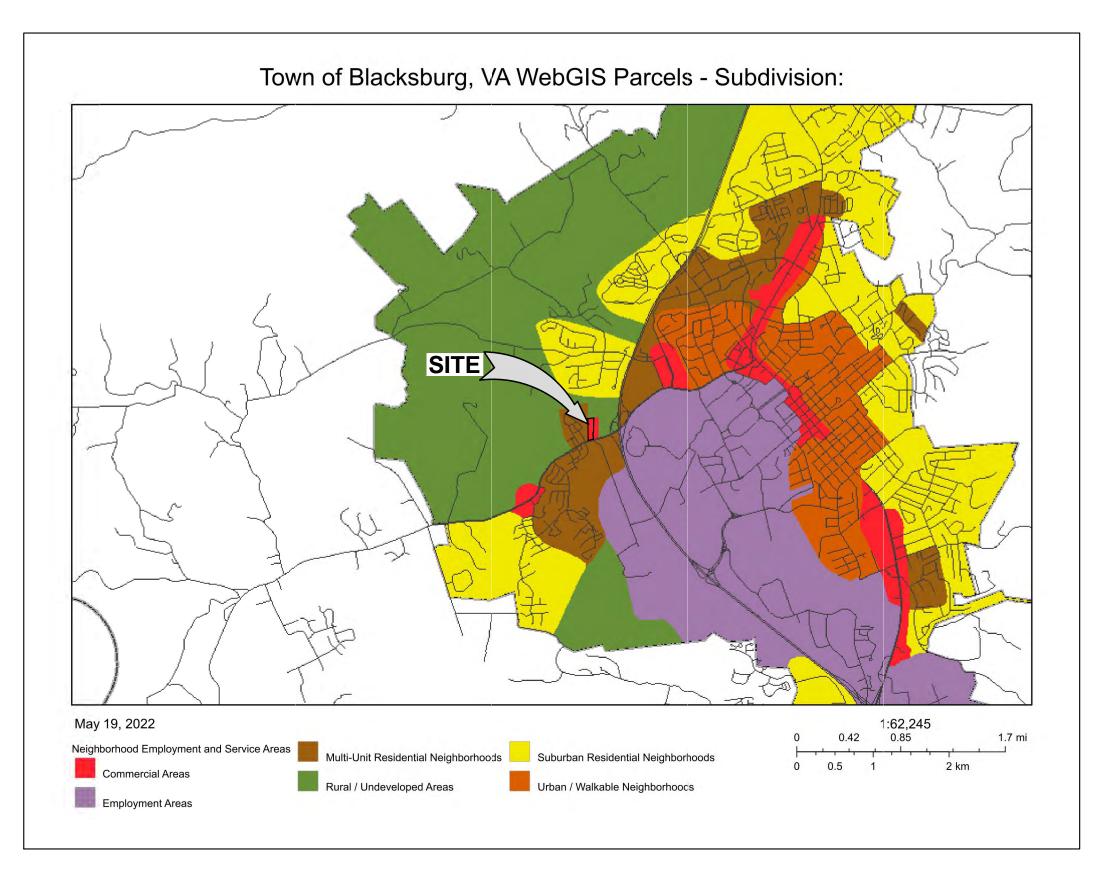
APPENDIX K – BT TRANSIT STOPS MAP

# APPENDIX K BT BUS STOP MAP



APPENDIX L – NEIGHBORHOOD, EMPLOYMENT, & SERVICES MAP

## APPENDIX L NEIGHBORHOOD, EMPLOYMENT, AND SERVICE MAP



LZOU RAUIOTU S. Christiansburg, Virgir Phone: (540) 381-6 Fax: (540) 381-27 Email: info@foresightdesign

NEIGHBORHOOD,
EMPLOYMENT, AND SERVICE
MAP
1055 PRICES FORK ROAD
REZONING

PROJECT TEAM

☐ JOHN T. NEEL, PE

MATTHEW P. TOMLINSON, PE

NO STATE

MBL

FDS JOB NO. ISSUE DATE

3322 10/19/2022

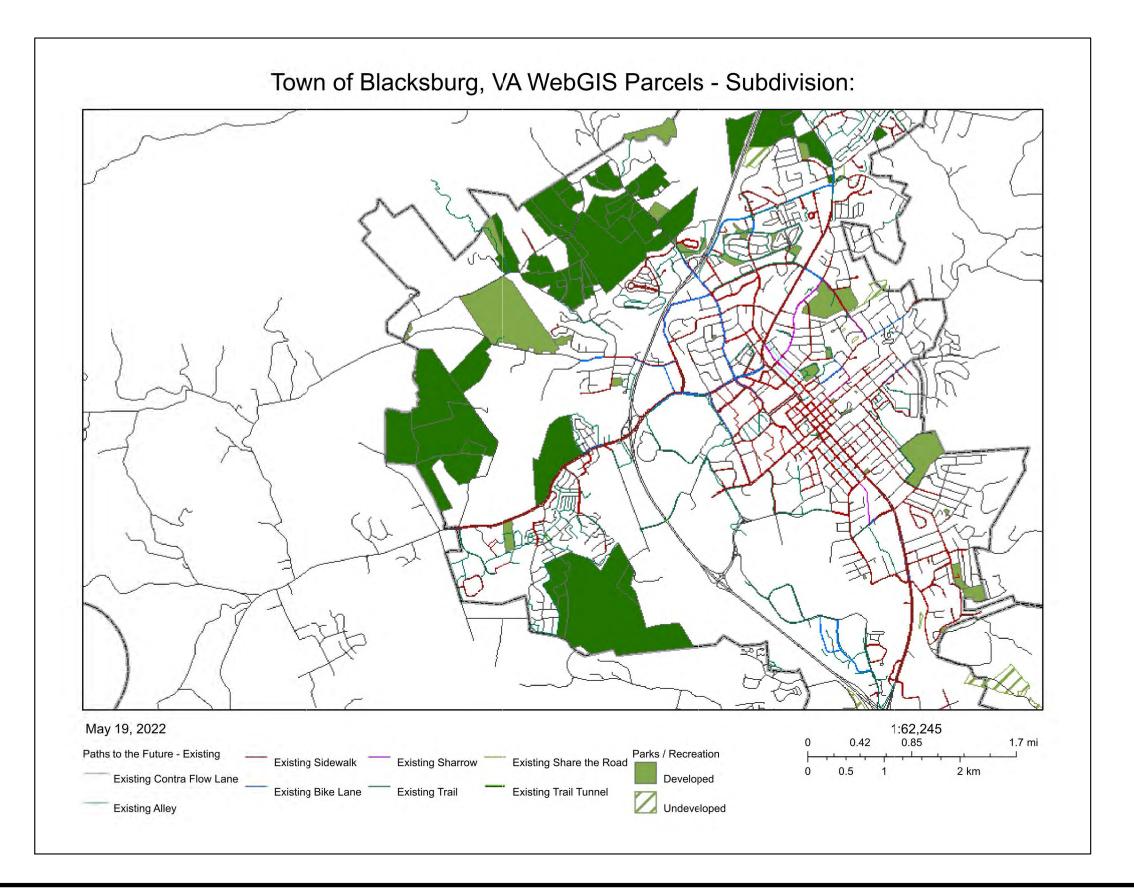
1 OF 1

SHEET NUMBER

COMMENTS

APPENDIX M — PATHS TO THE FUTURE MAP

# APPENDIX M PATHS TO THE FUTURE



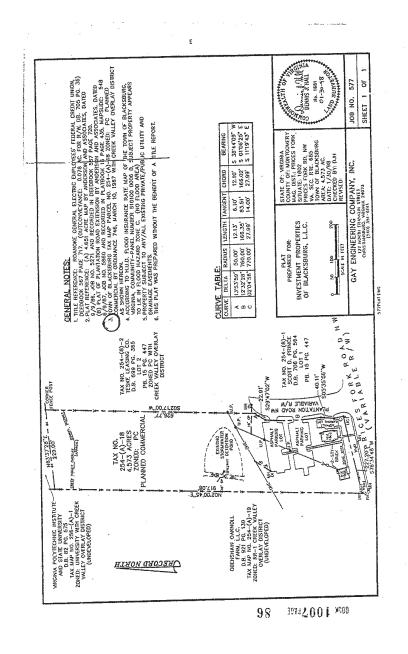
# PATHS TO THE FUTURE

REVISIONS

NO.	COMME	DATE				
PROJECT TEAM						
DIG	JOHN T. NEEL, PE					
PM	MATTHEW P. TOMLINSON, PE					
DESIGN	MBL					
FDS JOB NO. ISSUE DAT						
3322		10/19/2022				
SHE	ET NUMBER					

1 OF 1

APPENDIX N — EXISTING SURVEY



Danied J Mullins 6-24-91

THIS AGREEMENT, made and entered into this 25th day of April, 1991, by and between Teske Leasing Company, a Virginia Corporation, hereinafter referred to as Teske, and Roanoke General Electric Employees Federal Credit Union, a Virginia Corporation, hereinafter referred to as Credit Union;

# WITNESSETH:

WHEREAS, the parties hereto are owners of adjacent parcels of real estate located at the intersection of Price's Fork Road and Plantation Road, in the Town of Blacksburg, in the Price's Fork Magisterial District of Montgomery County, Virginia; and,

WHEREAS, the parties wish to reach an agreement on the possible future extension of Plantation Road in order to benefit their respective properties;

NOW, THEREFORE, in consideration of the mutual benefits which will accrue to each, and in further consideration of the covenants and conditions set out herein, the parties agree as follows:

- 1. The parties agree that any future extension of said Plantation Road shall be as shown on the attached plat of survey entitled "PLANTATION ROAD EXTENSION BLACKSBURG VIRGINIA", dated 17 APR 91, designated as Document No. 08616004, and drawn by Anderson and Associates, Inc.
- 2. The parties acknowledge that the exact location of said street may vary slightly from said plat due to topographic considerations; however, it is the intention of the parties that the boundary line between their properties shall serve as the approximate centerline for said street and future cul-de-sac as shown on said plat.
- 3. This agreement shall in no way bind either party to in fact build and improve said street extension, but shall instead operate as an agreement in principle as to the location of said street if and when constructed. Unless the parties shall

Recorded in Plat Book

DAVID T. MULLINS
ATTORNEY AT LAW
108 WILSON AVENUE
BLACKSBURG, VA 24060
P. O. BOX ES

707 PAGE 375

subsequently agree otherwise, Teske shall be solely responsible for the cost of said street extension.

- Upon making any such future extension of Plantation Road, Teske shall reimburse Credit Union for one-half of its expenses previously incurred in constructing and engineering the turn-in from Price's Fork Road and extending sewer service to the parcels owned by the parties, said one-half cost amounting to \$33,030.00. Said sum shall be paid by Teske to Credit Union upon the sale of the rear portion of its parcel, but in no event later than the completion of the Plantation Road Extension.
- 5. This agreement shall be binding upon the succesors and assigns of the parties.

WITNESS the following signatures and seals:

TESKE LEASING COMPANY, a Virginia Corporation

A. Frank Teske, Jr.

President

(SEAL)

SEAL)

ROANOKE GENERAL ELECTRIC EMPLOYEES FEDERAL CREDIT UNION

Charles Perkins

General Manager and

Assistant Treasurer

STATE OF VIRGINIA AT LARGE,

COUNTY OF MONTGOMERY, to-wit:

The foregoing instrument was acknowledged before me this

3rd day of May 1991, by A. Frank Teske, Jr.,

President of Teske Leasing Company, a Virginia Corporation, on behalf of the corporation.

Notary Public Angela D. Higginbotham

My Commission Expires: November 30, 1993.

STATE OF VIRGINIA AT LARGE,

COUNTY OF MONTGOMERY, to-wit:

The foregoing instrument was acknowledged before me this <a href="https://linear.com/lin

Notary Public Angela D. Higginbotham

My Commission Expires: November 30, 1993.

> By DOWN B. MYERS, JR., CLERK D.C.

707 PAGE 377

B00K

BLACKSBURG, VA 24060 705 0036

JUN 0 4 31

BOOK . 7 0 5 PAGE 036

THIS DEED OF DEDICATION, made and entered into this 16th day of April, 1991, by and between ROANOKE GENERAL ELECTRIC EMPLOYEES FEDERAL CREDIT UNION, a Virginia Corporation, and TESKE LEASING COMPANY, a Virginia Corporation, Grantors, and TOWN OF BLACKSBURG, VIRGINIA, a Municipal Corporation, Grantee;

### WITNESSETH:

That for and in consideration of the sum of One (\$1.00) Dollar, and other good and valuable consideration, all cash in hand paid by the Grantee to the Grantors, the receipt of which is hereby acknowledged, the said Grantors do bargain, grant, sell and convey with covenants of GENERAL WARRANTY of Title, unto the said Town of Blacksburg, Virginia, a Municipal Corporation, Grantee, all of those certain tracts or parcels of land situate, lying and being in the Town of Blacksburg, in the Price's Fork Magisterial District of Montgomery County, Virginia, as follows:

- (1) The Roanoke General Electric Employees Federal Credit Union grants and conveys that certain tract or parcel of real estate described as Area "A", as shown on a plat of survey entitled "PLAT SHOWING PLANTATION ROAD EXTENSION TOWN OF BLACKSBURG PRICES FORK MAG. DIST. MONTGOMERY CO. VA", dated 9 JUN 87, revised 23 July '87, designated J.N. 5860, and drawn by Anderson and Associates, Inc., which plat of survey is attached hereto and made a part of this deed.
- (2) Teske Leasing Company, a Virginia Corporation, grants and conveys that certain tract or parcel of real estate described as Area "B", as shown on the said plat of survey recorded with this Deed of Dedication.
- (3) Teske Leasing Company, a Virginia Corporation, further grants and conveys a temporary easement and right-of-way for a temporary cul-de-sac at the end of Plantation Road Extension as to that tract or parcel of real estate shown as Area "C", as shown on the said plat of survey recorded with this Deed of

Dedication. The parties understand and agree that Area "C" shall revert back to Teske Leasing Company upon the further extension and dedication of Plantation Road.

The property herein conveyed by the Roanoke General Electric Employees Federal Credit Union is a portion of the same property acquired from Susan Pascoe Farrell et al., by deed dated March 13, 1987, and of record in the Clerk's Office of the Circuit Court of Montgomery County, Virginia, in Deed Book 567, Page 717. The property herein conveyed by Teske Leasing Company, a Virginia Corporation, is a portion of the same property acquired from Montgomery Farms, Inc., a Virginia Corporation, by deed dated February 13, 1991, and of record in the said Clerk's Office in Deed Book 699, Page 365.

This conveyance is made subject to all easements, reservations, restrictions and conditions of record affecting the hereinabove described property.

This conveyance is made with English covenants of title.

Exemption from recordation taxes is claimed under Section 58.1-811A(3), Code of Virginia, 1950, as amended.

WITNESS the following signatures and seals:

ROANOKE GENERAL ELECTRIC EMPLOYEES FEDERAL CREDIT UNION

BY: Kell Halian (SE)
Charles Perkins

ITS: Sen I Man it ast Museum

TESKE LEASING COMPANY, a Virginia Corporation

002200000

Y: A Frank Teske, Jr.

A. Frank Teske, Jr.

BOCK

705PAGE 037

705 PAGE U38 BOOK STATE OF VIRGINIA AT LARGE, COUNTY OF MONTGOMERY, to-wit: The foregoing instrument was acknowledged before me this <u>lst</u> day of <u>May</u>, 1991, by Charles Perkins, General Manager and Assistant Treasurer of Roanoke General Electric Employees Federal Credit Union, a Virginia Corporation, on behalf of the corporation. Notary Public Angela D. Higginbotham Commission Expires: November 30, 1993. STATE OF VIRGINIA AT LARGE, COUNTY OF MONTGOMERY, to-wit: The foregoing instrument was acknowledged before me this 3rd day of May , 1991, by A. Frank Teske, Jr., President of Teske Leasing Company, a Virginia Corporation, on behalf of the corporation. Angela D. Higginbotham

Angela D. Higginbotham mission Expires: November 30, 1993. VIRIGINIA: In the Office of the Circuit Court of Montgomery County

NHW 598 ROANDKE GENERAL ELECTRIC E F C P O BOX 1999 CALEM VA 24150

2-24-88

THIS DEED OF EASEMENT, made and entered into this 9th day of December, 1987, by and between SAMUEL S. <u>OBDISHAIN</u> and JOSEPHINE D. <u>OBDISHAIN</u>, hasband and wife (Grantor), parties of the first part, <u>ROANOKE GENERAL ELECTRIC EMPLOYEES' FEDERAL CREDIT UNION</u>, party of the second part, and the <u>TOWN OF BLACKSBURG, VIRGINIA</u>, A Municipal Corporation, party of the third part;

### WITNESSETE:

That for and in consideration of the sum of One Dollar (\$1.00) and other good and valuable consideration, all cash in hand paid by the party of the second part and the party of the third part to the Grantor, the receipt of which is hereby acknowledged, the said Grantor does bargain, grant, sell and convey with covenants of GENERAL WARRANTY of Title, unto the said Roanoke General Electric Employees' Federal Credit Union, party of the second part, an easement and right of way over, through, across and under certain property of the Grantor, lying in the Town of Blacksburg, Price's Fork Magisterial District of Montgomery County, Virginia, and being the right to lay and construct, within a ten (10) foot permanent easement and an adjacent fifteen (15) foot temporary construction easement, an 8-inch gravity sanitary sewer line. The boundaries of the said easements are as shown on a plat entitled "CREDIT UNION OF VA. TECH PRICES FORK ROAD BLACKSBURG, VIRGINIA", dated June 29, 1987, revised October 26, 1987 and October 27, 1987, prepared by Anderson and Associates, Inc., and designated J.N. 5860, (Sheet 4 of 8), a copy of which plat is attached hereto and made a part hereof by reference.

The Grantor does further bargain, grant, sell and convey, with covenants of General Warranty of Title, unto the Town of Elacksburg, Virginia, a Municipal Corporation, party of the third part, a permanent easement, ten (10) feet in width for the maintenance of the above

DAVID T. MULLINS
ATTORNEY AT LAW
TOS WILSON AVENUE
ELACKSBURG, VA 24860
P. O. BOX ZE

593

698

53

PLAT orded in Plat Book

594

described gravity sanitary sewer line. The boundaries of the said easement are as shown in the above referenced plat, a copy of which is attached hereto and made a part hereof by reference.

As part of the consideration for this easement, the party of the second part and the party of the third part covenant that in the construction, use, repair, replacement and removal of the said easement, they shall repair, replace, reseed and restore, insofar as possible, grass, gardens and driveways affected by the utility work in the easement area.

As additional consideration for this easement, the party of the second part agrees as follows:

- 1. That it will respect the Appalachian Power Company electric line easement that is in place close to the area for this sewer line.
- That it will move the first row of pine trees recently planted along the common property line with the Grantor to prevent interference with the property line and line fence to be installed by the Grantor.
- 3. That it will provide a "stub out" on the aforesaid sewer line and access to the pumping station to be built at the rear of its property so as to provide future access to both by the Grantor and Grantor's heirs, successors and assigns.
- 4. That it will reseed the easement area with orchard grass and red clover. Prior to that, for the winter of 1987-88, it will plant winter rye and mulch the area to be reseeded.

Exemption from recordation taxes is claimed under Section 58.1-811A(3), Code of Virginia (1950), as amended.

WITNESS the following signatures and seals:

Samuel S. Ohenelow (SEAL)

Josephine D. Obenshain (SEA)

ROANOKE GENERAL ELECTRIC EMPLOYEES'
FEDERAL CREDIT UNION

BY: Kall (SE)
Charles Perkins

STATE OF VIRGINIA, COUNTY OF MONIGOMERY, to-wit: The foregoing instrument was acknowledged before me this  $26^{+1}$ day ( // Acultic , 1988, by Samuel S. Obenshain and Josephine D. Obenshain, his wife. STATE OF VIRGINIA, COUNTY OF MONTGOMERY, to-wit: The foregoing instrument was acknowledged before me this  $\underline{\mathcal{I}_{b}}$ day of Lifting, 1988, by Charles Perkins, General Manager/CED, for Roanoke General Electric Employees' Federal Credit Union. My Commission Expires: / VIRGINIA In the Office of the Circuit Court of Mortgomery Counts day of 11 and 14 19 The foregoing instrument was this day p 12 13 and office and with certificate annexed admitted to reco. 4

595

381

way.

Ellennoto H. U.

Murphy Keister et als to F. H. Flanagan et als.

It h is Deed, made and entered into on this 10th day of June, 1930, by and between Murphy Keister, single, Charles T. Pascoe and Pearl G. Pascoe, his wife, M. B. Ywykuna Linkous and Mary B. Linkous, his wife, F. C. Linkous, widower, H. M. Linkous, single, F. H. Flanagan and Alma E. Flanagan, his wife, parties of the first part, and F. H. Flanagan and F. C. Linkous, parties of the second part, and J.  $\overline{v}$ . Kitts, party of the third part, all of Montgomery County, Virginia,

Witnesseth:

That for and in consideration of the sum of \$1.00 and other good and valuable considerations hereinafter set forth, the receipt whereof is hereby acknowledged, the said parties of the first part hereby grant and convey to the parties of the second part, their heirs and assigns, a perpetual easement, or right of way, of sufficient width for the complete use and enjoyment of said easement, with the right, privilege and authority to the said parties of the second part, their heirs and assigns, lessees and tenants, to construct, erect, operate and maintain an electric light and power transmission line or lines for the purpose of transmitting electric current for light and power in, on, along, over, through and across the following described lands, situ and being in Blacksburg Magisterial District, in the County of Montgomery, State of Virginia, the center line of said easement or right of way through the lands of the parties of the first part being described as follows:

Beginning at a point in the line of Murphy Keister where a line in the easement granted to the parties of the second part by the Board of Vistors of the Agricultural and Mechanical College and Polytechnic Institute on the 10th day of June. 1980, inter sects with the line dividing the said lands of Murphy Keister and the lands of the said Virginia Polytechnic Institute; thence running a stright line through the lands of the parties of the first part S. 59°45' W. 272 feet through the lands of Murphy Reister, 273 feet through the lands of Chas. T. Pascoe, 3,318 feet through the lands of M. B. Linkous, 1,364 fest through the land of F. C. and H. M. Linkous that adjoins the said land of the said M. B. Linkous, 1,823 feet through the lands of F. H. Flanegan and 420 feet through the lands of F. C. and H. M. Linkous that adjoin the said land of F. E. Flanagan to a point near the dwelling house on the lands of the said F. C. and H.M. Tinkous.

Together with the right to the said parties of the second part, their heirs am assigns, to place, erect, maintain and inspect poles, cross-arms and fixtures, and string wires and cables across, through and over the above described premises; to cut trim and remove from said premises and on either side thereof, any trees, overhanging branches, or other obstructions which may endanger the safety or interfere with the use of said poles, fixtures, cross-warms, or wires, attached thereto, and the right o ingress and egress to and from and over said above described premises at any and all times for the purpose of patrolling the line, repairing or renewaing the poles, fixtures, cross-arms and wires, forf for doing anything necessary or useful or convenien for the enjoyment of the easement herein granted; also the privilege of removing at any time any or all of said improvements located upon, over, under, in or on said land; together with the rights, easements, privileges and appurtenances in or about said lands which may be required for the full enjoyment of the rights herein granted.

The further consideration for the grant of the easement and rights and privileges hereinbefore set forth is that the parties of the second part agree to furnish the poles, wires, cross-arms and other necessary material and equipment and erect the said transmission line and put the same in condition for use, with the right to each of th parties of the first part to connect with the said transmission line for the purpose of procuring light and power therefrom, for which privilege of so connecting with the

OBal

suid power line so erected and constructed by the parties of the second part each of the said parties of the first part is to pay to the parties of the second part the sur of \$100.00, which sum is to be paid when the connection with the said power line so constructed by the parties of the second part is made, and each of the said parties of the first part and the party of the third part is to pay to the Virginia Folytechnic Institute its charges for the electricity used by each of said parties for light and power.

When said line has been erected and concetions made and put in operation for the benefit and use of the parties of the first part the expenses for future maintaining, repairing and keeping said line in proper condition is to be borne equally by the parties maintaining connection with said line.

The poles to be used in the construction of the said line are to be not less than thirty-two feet in length with a minimum diameter of eight inches at the top, and the said line is to be constructed and put in operation and maintained under specifications and the supervision of the electrician of the Virginia Polytechnic Institute.

It is agreed, if not objected to by the Virginia Polytechnic Institute, and J. W. Kitts is to have the right to connect with the said line and power line for power and light, and that in consideration of his right to connect with said lines he agrees and binds himself to haul 100 poles from Floyd County where the parties of the second part have contracted for said poles.

Witness the following signatures and seals, the day and year above written:

Chas. T. Pascoe (SEAL)
Pearl G. Pascoe (SEAL)
M. B. Linkous (SEAL)
Mary V. Linkous (SEAL)
T. H. Flansgan (SEAL)
Alme E. Flansgan (SEAL)
H. K. Linkous (SEAL)
F. C. Linkous (SEAL)

(SEAL)

Murphy Keister

State of Virginia, County of Montgomery, to-wit:

I, E. W. Summer a Notary Public in and for the County and State aforesaid, do certify that Murphy Keister, Charles F. Pascoe and Pearl G. Pascoe, M. B. Linkous and Mary B. Linkous, F. C. Linkous, H. M. Linkous, F. H. Flanagan and Alma E. Flanagan whose names are signed to the foregoing and hereto annexed writing, bearing date on the 10th day of June, 1930, this day personally appeared before me and acknowledged the same before me in my County and State aforesaid.

Given under my hand on this 26 day of June, 1930. My commission expires on t 12 day of Feb., 1934.

E. W. Sumner, Notary Public.

Virginia: In the Clerk's Offise of the Circuit Court of Montgomery County 1st day of July, 1950. The foregoing deed was this day presented in said office and with certificate annexed admitted to record at 10 alclock A. M.

Teste: Anh. P. Johnson Olerk.

Virgie O. Smith & husband to Mrs. M. M. Williams.

This Deed, made this the 19th day of November, 1929, between Virgie O. Smith and B. C. Smith, her husband, parties of the first part and Mrs. M. M. Williams party of the second part:

SUPE TES RIGHROKE GENERAL SLECTRIC SWPLOYEES & I o D BOX 1999 SALEM VA 24153

2-24-88

....596

599/596

THIS DEED OF EASEMENT, made and entered into this 9th day of December, 1987, by and between <u>FOANOKE GENERAL ELECTRIC EMPLOYEES'</u>
FEDERAL CREDIT UNION, party of first part, and SAMUEL S. <u>OBENSHAIN</u> and JOSEPHINE D. <u>OBENSHAIN</u>, husband and wife parties of the second part;

### WITNESSETH:

That for and in consideration of the sum of One Dollar (\$1.00) and other good and valuable consideration, all cash in hand paid by the parties of the second part to the party of the first, the receipt of which is hereby acknowledged, the said party of the first part does bargain, grant, sell and convey with covenants of GENERAL WARRANTY of Title, unto the said Samuel S. Obenshain and Josephine D. Obenshain, his wife, parties of the second part, their heirs, successors and assigns a perpetual easement and right of way, fifteen (15) feet in width, over, through, across and under certain property of the party of the first part, lying in the Town of Blacksburg, Price's Fork Magisterial District of Montgomery County, Virginia, for the purpose of installing, connecting, repairing and maintaining a sewer line to the pumping station to be constructed on the rear portion of the said property of the party of the first part. The said right of way shall run on the most direct route possible between the property of the parties of the second part and said pumping station, in a path which is perpendicular to the common property line.

As part of the consideration for this easement, the parties of the second part covenant that in the construction, use, repair, replacement and removal of the said easement, they shall repair, replace, reseed and restore, insofar as possible, grass, gardens and driveways affected by the utility work in the easement area.

DAVID T. MULLING ATTOWNEY AT LAW 108 WILSON AVENUE LACKEBURG, VA 2406 P. O. 802 ES

WITNESS the following signatures and seals: ROANOKE GENERAL ELECTRIC EMPLOYEES'
FEDERAL CREDIT UNION arles Perkins neral Manager/CEO STATE OF VIRGINIA, COUNTY OF MONTGOMERY, to-wit: The foregoing instrument was acknowledged before me this  $\underline{\mathcal{ILIU}}$ day of Charles Perkins, General Manager/ CEO, for Roanoke General Electric Employees' Federal Credit Union. My Commission Expires: STATE OF VIRGINIA, COUNTY OF MONTGOMERY, to-wit: The foregoing instrument was acknowledged before me this .. 2644day of \_\_\_\_\_\_, 1988, by Samuel S. Obenshain and Josephine D. Obenshain, his write. 597

OBal

said power line so erected and constructed by the parties of the second part each of the said parties of the first part is to pay to the parties of the second part the sur of \$100.00, which sum is to be paid when the connection with the said power line so constructed by the parties of the second part is made, and each of the said parties of the first part and the party of the third part is to pay to the Virginia Folytechnic Institute its changes for the electricity used by each of said parties for light and power.

When said line has been erected and concetions made and put in operation for the benefit and use of the parties of the first part the expenses for future maintaining, repairing and keeping said line in proper condition is to be borne equally by the parties maintaining connection with said line.

The poles to be used in the construction of the said line are to be not less than thirty-two feet in length with a minimum diameter of eight inches at the top, and the said line is to be constructed and put in operation and maintained under specifications and the supervision of the electrician of the Virginia Polytechnic Institute.

It is agreed, if not objected to by the Virginia Polytechnic Institute, and J. W. Kitts is to have the right to connect with the said line and power line for power and light, and that in consideration of his right to connect with said lines he agrees and binds himself to haul 100 poles from Floyd County where the parties of the second part have contracted for said poles.

Witness the following signatures and seals, the day and year above written:

Chas. T. Pascoe (SEAL)
Pearl G. Pascoe (SEAL)
M. B. Linkous (SEAL)
Mary V. Linkous (SEAL)
T. H. Flansgan (SEAL)
Alme E. Flansgan (SEAL)
H. K. Linkous (SEAL)
F. C. Linkous (SEAL)

(SEAL)

Murphy Keister.

State of Virginia, County of Montgomery, to-wit:

I, E. W. Summer a Notary Public in and for the County and State aforesaid, do certify that Murphy Keister, Charles T. Pascoe and Pearl G. Pascoe, M. B. Linkous and Mary B. Linkous, F. O. Linkous, H. M. Linkous, F. H. Flanagan and Alma E. Flanagan whose names are signed to the foregoing and hereto annexed writing, bearing date on the 10th day of June, 1930, this day personally appeared before me and acknowledged the same before me in my County and State aforesaid.

Given under my hand on this 26 day of June, 1930. My commission expires on t 12 day of Feb., 1934.

E. W. Sumner, Notary Public.

Virginia: In the Clerk's Offise of the Circuit Court of Montgomery County 1st day of July, 1950. The foregoing deed was this day presented in said office and with certificate annexed admitted to record at 10 alclock A. M.

Teste: Anh. P. Johnson Olerk.

Virgie O. Smith & husband to Mrs. M. M. Williams.

This Deed, made this the 19th day of November, 1929, between Virgie O. Smith and B. C. Smith, her husband, parties of the first part and Mrs. M. M. Williams party of the second part:

Page 2

\*\*\* This Deed of Conveyance was prepared without the benefit or request of a title search by this office. \*\*\*

THIS DEED made and entered into this 20 day of October, 2005, by and between JOHN B. <u>DÓWDY</u> and **DENNIS M.**<u>DOWDY</u>, parties of the first part and <u>BLACKSBURG'S GREEN</u>

<u>BUILDING, LLC</u>, party of the second part:

### WITNESSETH:

That for and in consideration of the sum of Ten Dollars (\$10.00) cash in hand paid to the parties of the first part by the party of the second part, and other good and valuable consideration, the receipt of all of which is hereby expressly acknowledged, the said parties of the first part do hereby bargain, sell, grant and convey with General Warranty and English Covenants of Title unto the said Blacksburg's Green Building, LLC, in fee simple, all that certain tract or parcel of land, with all improvements thereon and appurtenances thereunto belonging, situate, lying and being in the Town of Blacksburg, Prices Fork Magisterial District of Montgomery County, Virginia, and more particularly described as follows:

All that certain lot containing **4.573 acres** as shown on a plat of same dated January 30, 1998, prepared by Dennis J. Hall, L. S., and further designated as Job No. 577, which plat is recorded in the Clerk's Office of the Circuit Court of Montgomery County, Virginia, in Deed Book 1007, Page 86.



### Tax Map Number: 254-(A) 18

Being all the same property conveyed the grantors herein by deed dated December 12, 2001, from Motel Investments of Blacksburg I, L.L.C., which deed is recorded in the aforesaid Clerk's Office in Deed Book 1242, Page 673.

The land hereby conveyed may not be used or developed for motels, hotels, inns or any other type of commercial lodging facility.

This is a perpetual covenant and runs with the land hereby conveyed.

By the recordation of this instrument, the grantee indicates its acceptance and acknowledgement of the foregoing restriction and agrees that same will be binding upon its assigns, heirs or any successor in title.

This conveyance is made subject to all restrictions, easements and rights of way of record.

DENNIS M. DOWDY

-2-

JOHN B. DOWDY (SEAL)

WITNESS the following signatures and seals.

COMMONWEALTH OF VIRGINIA :
CITY/COUNTY OF Montagomery : to-wit:
The foregoing instrument was acknowledged before me this  Acknowledged before me this  Acknowledged before me this  Acknowledged before me this  By day of Setober, 2005, by John B. Dowdy.  My commission expires: /0/3/1/07
Annue V Mouses NOTARY PUBLIC
COMMONWEALTH OF VIRGINIA :  CITY/COUNTY OF MM Tymenyo-wit:
The foregoing instrument was acknowledged before me this
day of October, 2005, by Dennis M. Dowdy.
My commission expires: 3/ Intumy 300
RECORDED IN THE CLERK'S OFFICE OF MONTGOMERY COUNTY ON NOVEMBER 15, 2005 AT 03:01PM \$750.00 GRANTOR TAX MAS PAID AS REGULRED BY SEC 58.1-820 OF THE VA. CODE

RECORDED BY: TLA

APPENDIX O – LETTER REGARDING PRE-SUBMITTAL MEETINGS WITH TOWN STAFF

### **Matt Tomlinson**

From: Kali Casper < KCasper@blacksburg.gov>
Sent: Wednesday, April 13, 2022 1:28 PM

To: John Neel; Anne McClung; Kinsey O'Shea; Kafi Howard; Randy Formica; Joshua

Middleton; Margaret Dean; Lori Lester

**Cc:** Craig Stipes; Matt Tomlinson

Subject: RE: Prices Fork Road - Planned Commercial Amendment/CUP(JN3322)

Hi John,

With respect to the lot frontage requirements, we do agree that the requirement applies to the overall Planned Commercial District. Individual lot frontage is not specified for the District but would be reviewed along with the proposed layout as part of the amendment to the Planned Commercial District. Please let us know if you have any further questions. Thank you,

Kali

Kali Casper, AICP, ENV SP Assistant Planning Director Town of Blacksburg 540.443.1300 kcasper@blacksburg.gov http://www.blacksburg.gov

From: Kali Casper

Sent: Friday, April 8, 2022 2:31 PM

**To:** 'John Neel' <jneel@gayandneel.com>; Anne McClung <amcclung@blacksburg.gov>; Kinsey O'Shea <KOShea@blacksburg.gov>; Kafi Howard <KHoward@blacksburg.gov>; Randy Formica <RFormica@blacksburg.gov>; Joshua Middleton <JMiddleton@blacksburg.gov>; Margaret Dean <MDean@blacksburg.gov>; Lori Lester <LLester@blacksburg.gov>

Cc: Craig Stipes <craig@broadstreetcre.com>; Matt Tomlinson <mtomlinson@gayandneel.com>

Subject: RE: Prices Fork Road - Planned Commercial Amendment/CUP(JN3322)

Hi John,

A few notes on your summary – I've responded below in blue. Please let me know if you have questions. Thank you,

Kali

Kali Casper, AICP, ENV SP Assistant Planning Director Town of Blacksburg 540.443.1300 kcasper@blacksburg.gov http://www.blacksburg.gov From: John Neel

**Sent:** Tuesday, March 22, 2022 10:07 AM

**To:** Anne McClung <amcclung@blacksburg.gov>; Kinsey O'Shea <a href="koshea@blacksburg.gov">koshea@blacksburg.gov">koshea@blacksburg.gov</a>; Kafi Howard <a href="koshea@blacksburg.gov">koshea@blacksburg.gov</a>; Kafi Howard <a href="koshea@blacksburg.gov">koshea@blacksburg.gov</a>; Kafi Howard <a href="koshea@blacksburg.gov">koshea@blacksburg.gov</a>; Randy Formica (RFormica@blacksburg.gov) <a href="koshea@blacksburg.gov">koshea@blacksburg.gov</a>; Joshua Middleton (<a href="middleton@blacksburg.gov">jmiddleton@blacksburg.gov</a>); Joshua Middleton (<a href="middleton@blacksburg.gov">jmiddleton@blacksburg.gov</a>); Lori Lester (<a href="middleton@blacksburg.gov">llester@blacksburg.gov</a>); Lori Lester (<a href="middleton@blacksburg.gov">llester@blacksburg.gov</a>)

Cc: Craig Stipes <craig@broadstreetcre.com>; Matt Tomlinson <mtomlinson@gayandneel.com>

Subject: Prices Fork Road - Planned Commercial Amendment/CUP(JN3322)

All – Thanks for the meeting last week to discuss the Prices Fork Road property. I wanted to provide the following summary for everyone as well as hopefully get a few questions resolved for us to move forward with the Planned Commercial Zoning Amendment.

- The overall project consists of the following:
  - Development of an approximately 100,000 sq. ft. multi-story climate controlled storage facility catering to individuals/companies needing storage space. The facility will have an office attached to the storage facility.
  - o Crisp Lane from The Retreat will be extended and connect to Plantation Road. The connection will be private but have a public access easement over the travel way.
  - An approximately 1 acre commercial parcel shall be reserved along the frontage of Prices Fork Road for future development.
    - We have modified the permitted uses section of the Town's PC District as attached. We would remove all the lined out uses from the district via proffer.
- It is my understanding that the preferred method of revision to the existing Planned Commercial District is to revise the full district(including the BP station and the Hotel). The submittal would denote the existing uses and the application would be signed by those property owners as well.
  - Blacksburg Hospitality Group LLC(Hotel)
  - Nellies Cave LLC(BP)
  - The Town would reach out to these property Owner's to request the signatures. The Town can reach out to the property owners and notify them that you are considering this process. We can also provide contact information to you all but further discussion and requesting signatures would be your and your client's responsibility.
  - The second alternative if those property owner's are unwilling to join in the PC Amendment would be to acknowledge the existing properties but only modify the PC District for the Blacksburg Green BLD LLC property.
- During our meeting, we discussed a few questions that we would like to resolve prior to submitting the PC
   Amendment
  - Requirement for a TIA
    - Our proposed development today is for a storage facility and undeveloped commercial lot. We would like to confirm that no TIA will be required for the rezoning at this time. We understand, and can acknowledge that a TIA may be required in the future for development of the 1 acre commercial parcel. As you are requesting a CUP for the mini-warehouses, a traffic analysis is required at the time of submittal by the Town to determine the impacts of the proposed use. For the mini-warehouses, the requirements and assumptions of this traffic analysis should be coordinated with Engineering staff and agreed upon prior to the application submittal.

We understand the challenges of further analyzing transportation impacts when a specific use has not been identified (for the undeveloped commercial lot). However, design decisions that are made now (for the mini-warehouse use) with respect to circulation, connectivity, etc. could impact the undeveloped parcel and potentially limit uses/options, make it less desirable, or perhaps unviable. As we mentioned in the meeting, it is important to consider the implications of the design decisions on the other parcel. If analysis is not provided at the time of submittal, the Town would look for a commitment to analyze and mitigate transportation impacts at the time of development, whether the development is a conditional use or a by-right use. This is particularly important as several new uses are being added that were not previously allowed.

- o Storm Water Management
  - Currently there is a storm water management pond on site that will need to be removed/relocated during the development. As a part of developing our SWM Concept Plan for the PC Amendment, we would like to get a copy of the calculations for this pond including the drainage area maps, pond routing, etc. Could you please provide this from the Town's records?
- Lot Frontage
  - There appears to be some conflicting language in the PC District Section 3162. We would like to confirm that a subdivision of this property into the rear storage parcel and the front approximately 1 acre parcel would not have 75 feet of frontage required on a public street. We are working on a response to this one and will update you next week.
    - 3162(a) speaks to the minimum district size.
    - 3162(b) speaks to the minimum frontage of the district required for rezoning to PC.
    - 3162(c) speaks to 'lots internal to the site' and the 'master plan'.

Please do not hesitate to call and/or email me with any questions or concerns you may have.

Thanks, John

### John T. Neel jneel@gayandneel.com (540) 239-8174 (cell)





APPENDIX P – TRAFFIC IMPACT ANALYSIS



### TRAFFIC IMPACT ANALYSIS

Joshua Middleton, P.E.

Town of Blacksburg

Cc: Craig Stipes

Broadstreet Partners, LLC

John Neel, P.E.

Foresight Design Services

From: Carl Hultgren, P.E., PTOE

Gorove Slade

Date:

September 20, 2022

Subject: 1800 Prices Fork Road - Self-Storage Facility - Traffic Impact Analysis



### Introduction

Broadstreet Partners, LLC is proposing to construct a self-storage facility at 1800 Prices Fork Road in Blacksburg, Virginia. The proposed plan consists of 100,000 square feet (s.f.) of mini-warehouse space on the northern portion of the property with an anticipated build-out year of 2024. The access plan includes connecting to Plantation Road, and extending Crisp Road from the west into the site. The southern portion of the property might be developed with a commercial use in the future.

The purpose of this analysis is to estimate the traffic impact that the proposed self-storage facility will have on the Prices Fork Road at Plantation Road intersection. The analysis is based on our meetings with you on May 12 and August 18. Figure 1 shows the site location and study intersection.

### Existing (2022) Conditions

### Existing Roadway Network

Existing lane configurations and turn lane storage lengths were collected in the field by Gorove Slade and signal timing information was provided by the Town. A description of the major roadways within the study area is presented below in Table 1 and the existing lane configuration is shown in Figure 2.

**Table 1: Existing Roadway Network** 

Roadway	RTE#	VDOT Classification	Posted Speed Limit(mph)	AADT (vpd)	Road S	egment Between:	k-factor
Prices Fork Road	412	Major Collector	40	23,000	Heather Dr	US 460	9.2%
Plantation Road	150-0	Local	25	1,900	Smithfield Rd	Prices Fork Rd	9.5%

### Existing (2022) Traffic Volumes

Burns Service, Inc. performed 12-hour (7:00 AM to 7:00 PM) turning movement traffic counts at the study intersection on September 6 and 7, which are the baseline for this analysis. Figure 3 shows the 2022 traffic volumes at the study intersection. Note that the AM and PM peak hour traffic volumes were slightly higher on September 7, so we used those volumes to be conservative.

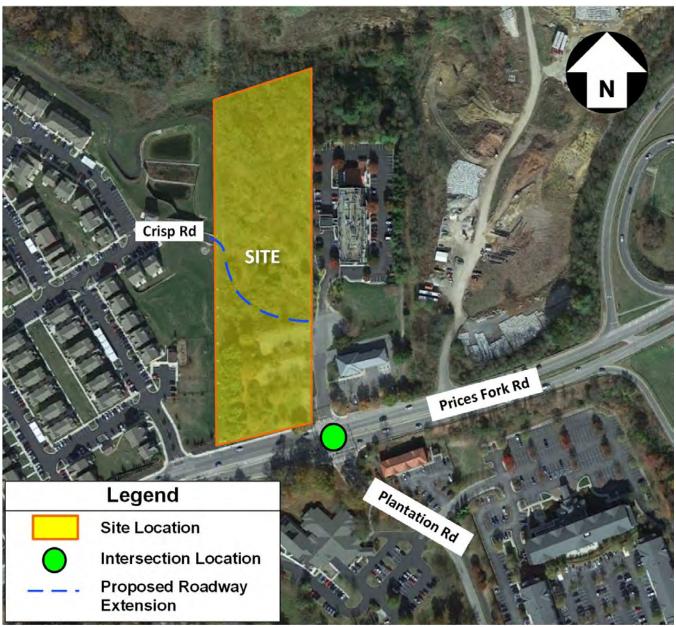


Figure 1: Site Location and Study Intersection

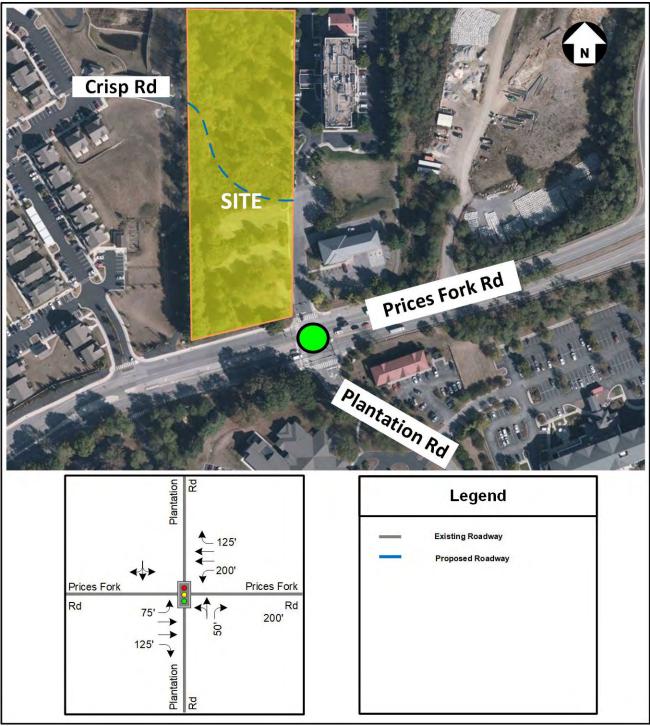


Figure 2: Existing Lane Configuration

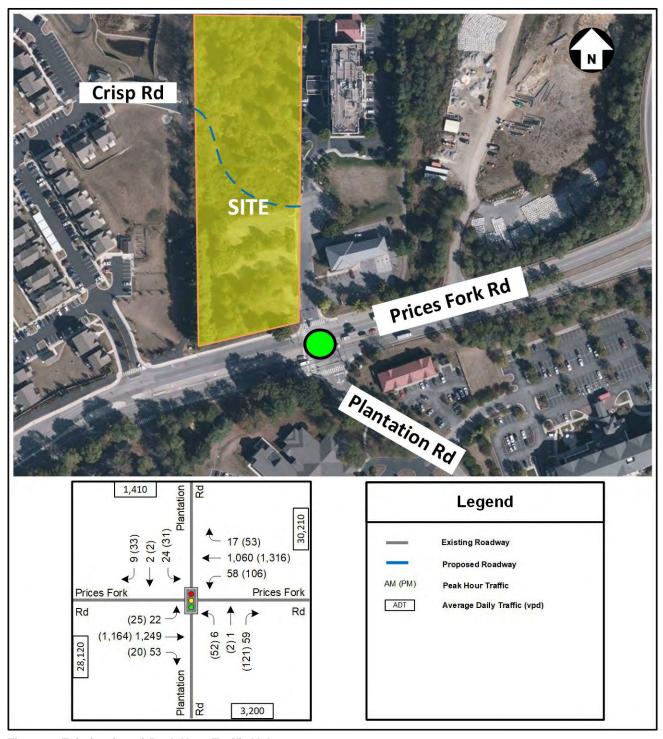


Figure 3: Existing (2022) Peak Hour Traffic Volumes

## Future (2024) Conditions

## **Background Traffic Growth**

The anticipated project build-out year is 2024. Regional growth was added to the existing traffic volumes to estimate the future without development (2024) traffic volumes.

Table 3 shows the total approach volume at the study intersection based on the 2013 traffic counts that were performed for The Retreat TIA, and the traffic counts we performed in September 2022. The volumes at the study intersection have increased by just 2.4% since 2013. This is an annual growth rate of just 0.3%, and this includes the trips generated by The Retreat neighborhood. To be conservative, this analysis assumes an annual growth rate of 1.0% per year.

**Table 3: Traffic Volume Comparison** 

Traffic Count Date	AM Total Intersection Approach Volume	PM Total Intersection Approach Volume	Total AM + PM Intersection Approach Volume
April 2013	2,410	2,993	5,403
September 2022	2,560	2,925	5,485

Figure 4 shows the projected 2024 no-build traffic volumes at the study intersection with the 1.0% annual growth rate.

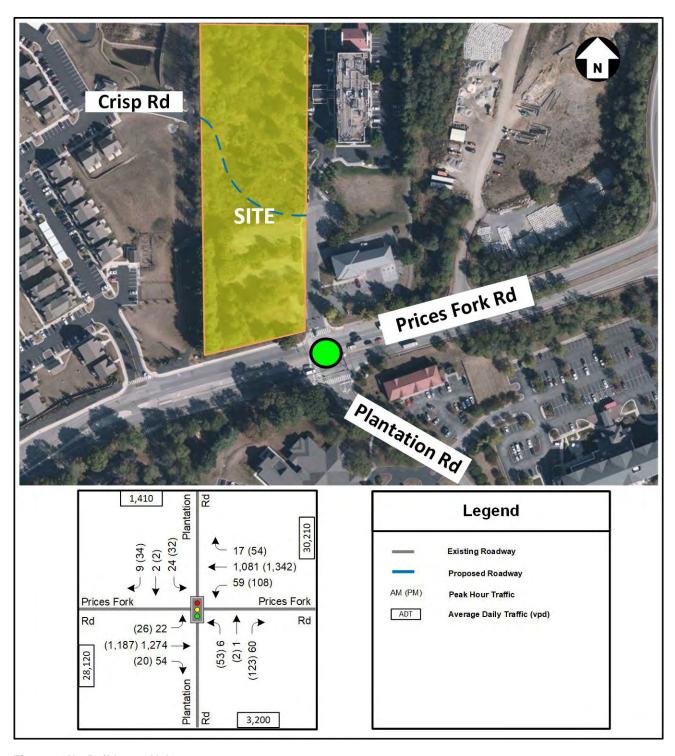


Figure 4: No-Build 2024 Volumes

#### **Diverted Traffic Volumes from The Retreat**

The Retreat neighborhood currently has two access points on Prices Fork Road – one full-movement signalized driveway and one right-in / right-out driveway. As part of the proposed self-storage facility, Crisp Road will be extended to connect to Plantation Road. Therefore, it was assumed that a portion of residents living in The Retreat will use this connection to access Plantation Road. Figure 5 shows the revised trip distribution based in The Retreat TIA.

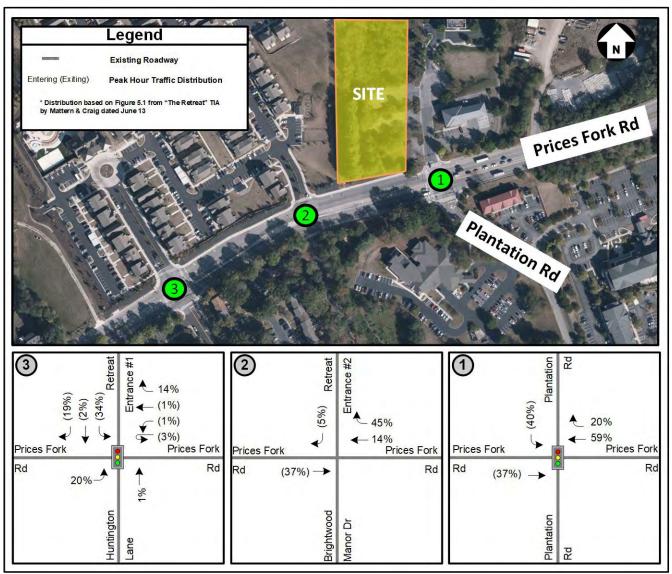


Figure 5: The Retreat – New Trip Distribution

Based on discussion with the Town, it was assumed that 20% of The Retreat trips will enter on Plantation Road, and 40% of The Retreat trips will exit on Plantation Road. Figure 6 shows the anticipated redistribution of The Retreat trips.

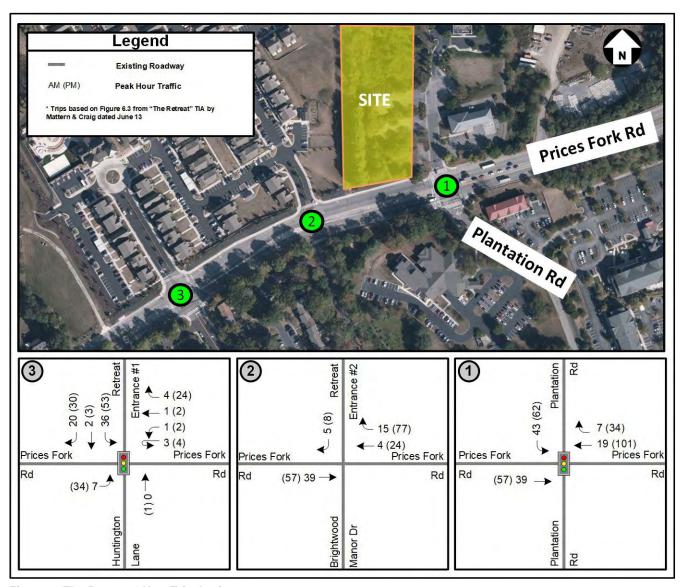


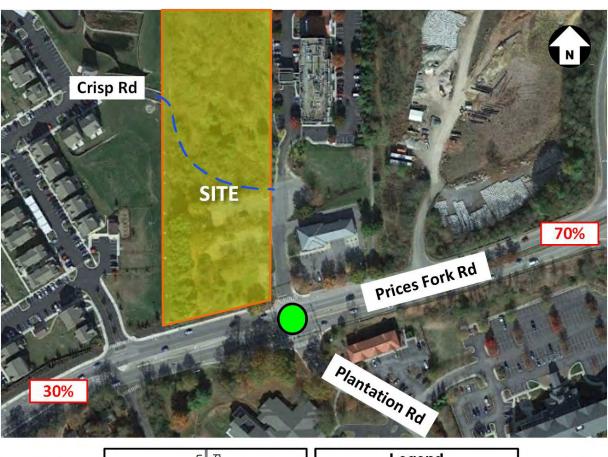
Figure 6: The Retreat – New Trip Assignment

### Site Generated Trips

The proposed self-storage facility consists of 100,000 s.f. of mini-warehouse space. The trip generation potential of the proposed facility is shown in Table 2 and the proposed site trip distribution and assignment are shown in Figure 7.

Table 2: ITE Trip Generation – Typical Weekday – 11th Edition

Land Use (ITE Land Use Code)	Size	Tra	je Daily iffic od)	AM Pea (vp		PM Pea (vp	
(**= ======;		Enter	Exit	Enter	Exit	Enter	Exit
Mini-Warehouse (151)	100,000 s.f.	73	73	5	4	7	8



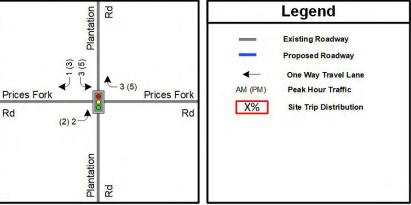


Figure 7: Site Trip Distribution and Assignment

Figure 8 shows the estimated traffic volumes for 2024 including The Retreat's diverted trips and the proposed self-storage trips.

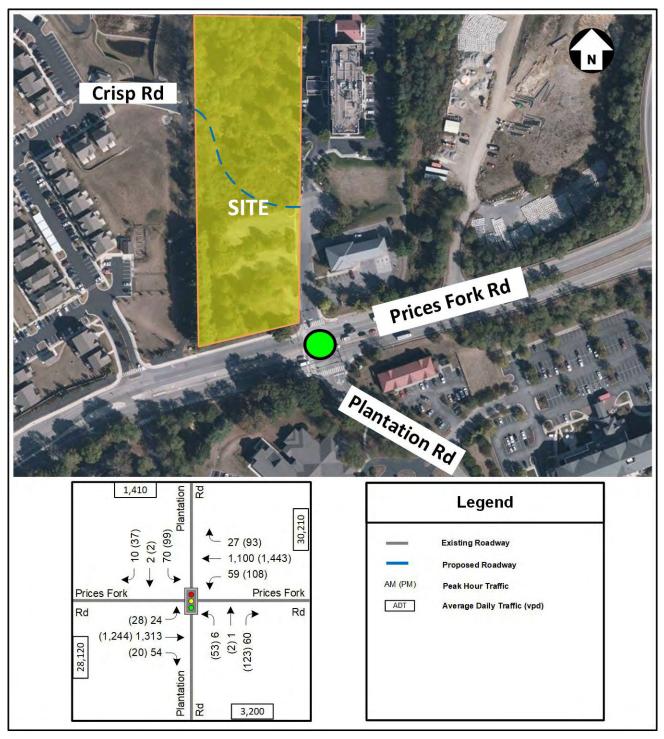


Figure 8: Build 2024 Volumes

#### Traffic Capacity Analysis

Capacity analysis was performed at the study intersection during the weekday morning and evening peak hours under existing conditions. Synchro Version 11 was used to analyze the study intersections based on the <u>Highway Capacity Manual</u> (HCM) 6<sup>th</sup> methodology and includes level of service (LOS), delay, and queue length comparisons for the turning movements analyzed. HCM 2000 methodology was used to generate capacity and queuing results if HCM 6<sup>th</sup> was not applicable at a study intersection.

Signal timings provided by the Town were used as a base for the existing analysis. Existing peak hour factors found in the field were used, except where the field peak hour factor was lower than 0.85, in which case a minimum value of 0.85 was used consistent with VDOT analysis guidelines. Heavy vehicle percentages determined by existing traffic counts were used for analysis. Pedestrian volumes were also collected during the intersection traffic counts and were included in the analysis.

The results of the intersection analysis are presented in Table 4, and are expressed in LOS and delay (seconds per vehicle) per lane group. The 95th percentile queue results for each intersection are also presented in Table 4 and are expressed in feet. The detailed analysis worksheets are included in the Appendix.

Table 4: Capacity Analysis Results - Prices Fork Road / Plantation Road

Table 4. Capacity	linary or o	tocurre !	110001					D. 4	<u> </u>	
	1	Lane		AM	Peak Hou	ır		РМ	Peak Hou	r
Condition	Lane Group	Storage (ft.)	LOS	Delay (sec)	Queue (ft.)	Overall LOS	LOS	Delay (sec)	Queue (ft.)	Overall LOS
Existing (2022) Traffic Conditions	EBL EBT EBR WBL WBT WBR NBL/T NBR SBL/T/R	75 - 125 200 - - - 50	A B A B A E A E	4.8 16.4 0.1 7.6 14.8 0.1 70.8 4.4 63.1	13 502 0 27 418 0 24 0 65	B (15.5 sec)	A B B B E B E	7.0 18.5 0.1 10.2 19.5 0.1 77.5 14.4 55.6	19 512 0 58 613 0 104 51	B (19.8 sec)
No-Build (2024) Traffic Conditions	EBL EBT EBR WBL WBT WBR NBL/T NBR SBL/T/R	75 - 125 200 - - - 50	A B A B A E A E	4.8 16.8 0.1 7.8 15.0 0.1 70.8 4.5 63.1	13 521 0 28 430 0 24 0 65	B (15.8 sec)	A C A C A E B D	7.1 21.1 0.1 9.7 20.9 0.1 77.5 14.9 54.0	19 580 0 60 687 0 105 52 95	C (21.5 sec)
Build (2024) Traffic Conditions	EBL EBT EBR WBL WBT WBR NBL/T NBR SBL/T/R	75 - 125 200 - - - 50	A C A B B A E A E	6.6 22.5 0.1 11.1 19.3 0.0 70.8 4.5 75.9	17 621 0 34 497 0 24 0	C (21.5 sec)	B C A B C A E B E	10.4 28.3 0.1 14.6 28.8 1.5 77.5 14.9 74.3	25 714 0 74 943 15 105 52 202	C (29.3 sec)

The analysis shows that the study intersection currently operates at LOS B during the AM and PM peak hours. In the no-build condition, the intersection is projected to operate at LOS B during the AM peak hour and LOS C during the PM peak hour. For the build condition, the intersection is projected to operate at LOS C during the AM and PM peak hours with all movements operating at LOS E or better.

Note that The Retreat is expected to add 50 vehicles to Plantation Road in the AM peak hour and 96 vehicles in the PM peak hour. The proposed self-storage facility will add just 9 vehicles to Plantation Road in the AM peak hour (one every 7 minutes) and only 15 vehicles in the PM peak hour (one every 4 minutes).

No improvements are warranted or recommended at build-out of the project.

## **APPENDIX**

Traffic Count Data

Traffic Signal Timing Plans

Synchro Output



File Name: Blacksburg(Price Fork Rd and Plantation Rd) 09-06-22

Site Code:

Start Date : 9/6/2022

										Grou	ps Pri	nted-	Cars -	+ - Trı	ucks										
		F	Planta	tion F	₹d			F	Price	Fork F	₹d			F	lanta	tion F	₹d			F	Price F	ork F	₹d		
			South	boun	d				West	boun	d				North	boun	d				Eastl	oounc	l		
Start Time	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Int. Total
07:00 AM	4	0	1	0	0	5	4	107	6	0	0	117	8	0	1	0	0	9	0	141	2	0	0	143	274
07:15 AM	1	0	4	0	0	5	4	233	7	0	0	244	9	0	2	0	0	11	9	220	1	0	1	231	491
07:30 AM	2	0	6	0	0	8	3	386	13	0	0	402	9	0	5	0	0	14	12	331	4	0	3	350	774
07:45 AM	4	0	6	0	0	10	5	287	31	3	0	326	21	0	2	0	0	23	14	434	4	0	0	452	811
Total	11	0	17	0	0	28	16	1013	57	3	0	1089	47	0	10	0	0	57	35	1126	11	0	4	1176	2350
08:00 AM	2	0	3	0	0	5	2	127	19	0	0	148	19	1	0	0	0	20	7	290	2	0	0	299	472
08:15 AM	0	0	5	0	1	6	1	155	10	0	0	166	18	0	3	0	0	21	4	207	6	0	1	218	411
08:30 AM	1	0	8	0	0	9	6	187	10	0	0	203	20	0	4	0	0	24	6	230	1	0	3	240	476
08:45 AM	3	2	7_	0	0	12	4	161	13	1_	0	179	11	1_	1_	0	2	15	13	355	3	0	1_	372	578
Total	6	2	23	0	1	32	13	630	52	1	0	696	68	2	8	0	2	80	30	1082	12	0	5	1129	1937
09:00 AM	7	3	7	0	0	17	10	116	18	2	0	146	31	0	6	0	2	39	24	289	4	0	3	320	522
09:15 AM	3	0	3	0	0	6	2	138	22	1	0	163	16	1	4	0	2	23	5	205	3	0	2	215	407
09:30 AM	4	1	3	0	0	8	7	141	12	0	0	160	13	0	3	0	1	17	5	161	5	0	10	181	366
09:45 AM	3	1_	5_	0	0	9	7_	121	9	0_	0_	137	13	0	5_	0	0	18	2	189	4_	0_	1_	196	360
Total	17	5	18	0	0	40	26	516	61	3	0	606	73	1	18	0	5	97	36	844	16	0	16	912	1655
40.00 414		_	•	_	4	40		400	40	^	^	444	١ ٥	_		^	^	40		4.40	^	^	_	455	004
10:00 AM 10:15 AM	3	0	8	0	1	12	2	100	12	0	0	114	9	0	4	0	0	13	4	142	6	0	3	155	294
	2	1	1	0	2	6	3	109	11	0	0	123	11	0	6	0	0	17	9	165	0	0	1	175	321
10:30 AM 10:45 AM	3	0 1	5	0	0	8 5	5 6	109 144	12	0 1	0	126	19   17	0	2 5	0	2 2	23 24	11	164 152	3	0	1 3	179 163	336
Total	9		<u>2</u> 16	0	1_ 4	31	16	462	9 44	<del>-</del>	0	160 523	56	0	17	0	<u> </u>	<u> 24</u> 77	32	623	9	0	<u> </u>	672	352 1303
i Otai	) 3		10	U	4	31	10	402	44	'	U	323	30	U	17	U	4	,,	32	023	9	U	0	072	1303
11:00 AM	1	1	4	0	1	7	3	180	23	0	0	206	15	1	9	0	1	26	6	138	4	0	5	153	392
11:15 AM	2	0	5	0	0	7	3	148	12	1	0	164	18	1	6	0	1	26	4	108	1	Ö	1	114	311
11:30 AM	6	0	3	0	1	10	2	125	9	0	2	138	16	1	1	0	4	22	3	137	4	0	1	145	315
11:45 AM	4	Ö	3	0	0	7	8	130	19	1	0	158	20	0	6	0	0	26	6	183	2	Ö	2	193	384
Total	13	1	15	0	2	31	16	583	63		2	666	69	3	22	0	6	100	19	566	11	0	9	605	1402
		-		-	_					_	_			_		-	-					-	_		ı
12:00 PM	3	0	5	0	0	8	10	157	22	0	0	189	24	0	6	0	2	32	7	178	4	0	3	192	421
12:15 PM	7	1	4	0	2	14	2	177	19	0	0	198	27	0	9	0	3	39	5	167	1	0	1	174	425
12:30 PM	4	0	2	0	0	6	9	181	22	2	0	214	18	0	8	0	2	28	6	181	1	0	7	195	443
12:45 PM	9	0	7	0	0	16	13	189	28	2	0	232	19	0	2	0	1	22	7	185	8	0	3	203	473
Total	23	1	18	0	2	44	34	704	91	4	0	833	88	0	25	0	8	121	25	711	14	0	14	764	1762
01:00 PM	8	1	9	0	0	18	8	163	14	1	0	186	19	0	3	0	0	22	6	143	5	0	1	155	381
01:15 PM	3	3	3	0	2	11	7	150	11	0	0	168	15	2	1	0	2	20	8	182	2	0	1	193	392
01:30 PM	2	0	8	0	0	10	4	151	17	1	0	173	20	2	3	0	1	26	8	204	4	0	1	217	426
01:45 PM	3	1	6	0	2	12	9	184	12	0	0	205	22	2	10	0	0	34	5	173	3	0	6	187	438
Total	16	5	26	0	4	51	28	648	54	2	0	732	76	6	17	0	3	102	27	702	14	0	9	752	1637



File Name: Blacksburg(Price Fork Rd and Plantation Rd) 09-06-22

Site Code:

Start Date : 9/6/2022

Sum   Fine   F											Grou		· Z inted- (	Care -	L _ Tri	ucke										
Signt Time   Right   Throu   Left   UTIM   Pegs   Right   Throu   Left   UTIM   Peg			F	Planta	ation F	3.4			F				iiileu-	Cais -			tion F	Sq			F	Price F	ork F	3.4		1
Sun Time   Right   Time   Right   Time   Left   Urm   Peeks   Assertion   Right   Time   Right									•																	
December   Total   T	Start Time	Right					Ann Total	Right	Thru				Ann Total	Right					Ann Total	Right	Thru				Ann Total	Int. Total
02:30 PM			2	5					206	22					0	13					153	3				1
Total 13 3 22 0 3 6 0 7 9 182 16 0 0 207 27 0 5 0 0 32 3 208 4 0 2 217 463  Total 13 3 22 0 3 41 27 799 73 3 0 902 76 1 30 0 1 108 21 654 11 0 19 705 1756  03:00 PM 2 0 10 0 0 12 1 159 20 2 0 182 25 1 8 0 3 3 37 9 409 7 0 0 425 656  03:15 PM 0 1 9 0 1 111 6 227 10 0 0 0 243 14 0 13 0 1 28 9 245 2 0 6 262 544  03:30 PM 6 1 8 0 3 18 9 291 23 0 0 323 23 1 15 0 3 42 2 199 5 0 12 218 601  03:45 PM 5 1 5 0 0 111 8 217 12 3 0 240 12 0 4 0 2 18 5 246 5 0 7 263 532  Total 13 3 32 0 4 5 2 24 89 65 5 0 988 74 2 4 0 0 9 125 25 1009 19 0 25 1168 2333  04:00 PM 9 1 9 0 0 2 21 14 245 13 0 0 277 18 2 5 0 1 26 4 212 3 0 1 205 168 2334  04:00 PM 9 1 9 0 0 2 21 14 245 13 0 0 277 18 2 5 0 1 26 4 212 3 0 1 22 0 2 265 585 04:30 PM 14 0 0 0 0 14 11 261 13 3 3 0 288 19 0 11 0 0 30 3 270 2 0 3 278 610  04:45 PM 6 0 3 0 4 13 13 247 20 2 0 282 20 1 15 0 0 36 3 255 1 0 6 305 636  Total 36 1 20 0 6 63 46 1004 58 7 0 1115 81 3 38 0 2 124 11 1030 9 0 12 1068 2370  05:00 PM 10 3 14 0 0 1 28 16 369 22 4 0 411 27 1 23 0 2 2 5 5 0 1 2 2 5 10 0 0 3 2 3 3 70 6 3 3 2 5 5 1 0 6 300 636  Total 36 1 20 0 6 63 46 1004 58 7 0 1115 81 3 38 0 2 124 11 1030 9 0 12 1068 2370  05:00 PM 8 0 6 0 1 15 15 13 361 18 1 0 393 21 1 10 0 0 0 32 7 306 3 0 2 318 758  05:45 PM 5 0 4 0 0 9 10 273 11 2 0 296 15 1 8 0 1 25 27 30 0 2 2 13 2 5 2 7 0 0 2 3 278  06:00 PM 7 2 6 0 0 15 1 13 361 18 1 0 393 21 1 10 0 0 0 32 7 306 3 0 2 318 758  05:45 PM 6 0 2 0 1 9 8 269 15 1 0 293 11 1 7 0 4 23 5 207 1 0 5 218 543  06:00 PM 7 2 6 0 0 15 7 7 76 20 0 0 303 16 0 10 0 0 0 2 5 277 4 0 0 2 21 136 287  Total 32 4 29 0 2 67 50 1400 71 11 0 1532 85 3 51 0 0 31 120 29 1168 233  06:00 PM 8 0 4 0 1 13 10 242 21 2 0 275 19 0 13 0 0 9 124 19 1083 12 0 0 2 21 136 287  Total 32 4 29 0 2 67 50 1400 71 11 0 1532 85 3 51 10 0 3 11 10 0 0 32 7 306 3 0 1 246 590  06:05 PM 6 0 2 0 1 1 9 8 269 15 1 0 293 11 1 7 0 2 20 1 12 12 12 12 1168 233 11 1 1 0 0 1 15 889 15 0 15 934 2234	02:15 PM	1		_	_			l	194	14	_	-		_	_	_	_				154		-			_
Total 13 3 22 0 3 41 27 799 73 3 0 902 76 1 30 0 1 108 21 654 11 0 19 705 1756  03:00 PM	02:30 PM	2	1	8	0	0	11	8	217	21	1	0	247	8	1	6	0	0	15	12	139	3	0	3	157	430
03:00 PM	02:45 PM	2	0	5	0	0	7	9	182	16	0	0	207	27	0	5	0	0	32	3	208	4	0	2	217	463
03:15 PM 0 1 9 0 1 11 6 227 10 0 0 0 243 14 0 13 0 1 28 9 245 2 0 6 262 544 03:30 PM 6 1 8 0 3 18 9 291 23 0 0 323 23 1 15 0 3 42 2 199 5 0 12 218 601 03:45 PM 5 1 5 0 0 11 8 217 12 3 0 240 12 0 4 0 2 18 5 246 5 0 7 263 532 Total 13 3 32 0 4 52 24 894 65 5 0 988 74 2 40 0 9 125 25 1099 19 0 25 1168 2333 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Total	13	3	22	0	3	41	27	799	73	3	0	902	76	1	30	0	1	108	21	654	11	0	19	705	1756
03:15 PM 0 1 9 0 1 11 6 227 10 0 0 0 243 14 0 13 0 1 28 9 245 2 0 6 262 544 03:30 PM 6 1 8 0 3 18 9 291 23 0 0 323 23 1 15 0 3 42 2 199 5 0 12 218 601 03:45 PM 5 1 5 0 0 11 8 217 12 3 0 240 12 0 4 0 2 18 5 246 5 0 7 263 532 Total 13 3 32 0 4 52 24 894 65 5 0 988 74 2 40 0 9 125 25 1099 19 0 25 1168 2333 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0																										
03:30 PM	03:00 PM	2	0	10	0	0	12	1	159	20	2	0	182	25	1		0	3	37	9	409	7	0	0	425	656
O3:45 PM   S   1   5   0   0   11   8   217   12   3   0   240   12   0   4   0   2   18   5   246   5   0   7   263   532	03:15 PM	0	1	9	0	1	11	6	227	_	0	0	_		0	_	0	1	-	9	245	2	0		-	544
Total 13 3 32 0 4 52 24 894 65 5 0 988 74 2 40 0 9 125 25 1099 19 0 25 1166 2333  04:00 PM 9 1 9 0 2 21 14 245 13 0 0 272 18 2 5 0 1 26 4 212 3 0 1 220 539 04:15 PM 7 0 8 0 0 15 8 251 12 2 0 273 24 0 7 0 1 32 1 259 3 0 2 265 585 04:30 PM 14 0 0 0 0 14 11 261 13 3 0 288 19 0 11 0 0 30 3 270 2 0 3 278 610 04:45 PM 6 0 3 0 4 13 13 247 20 2 0 282 20 1 15 0 0 36 3 295 1 0 6 305 636 Total 36 1 20 0 6 63 46 1004 58 7 0 1115 81 3 38 0 2 124 11 1036 9 0 12 1068 2370  05:00 PM 10 3 14 0 1 28 16 369 22 4 0 411 27 1 23 0 2 53 5 250 4 0 6 265 757 05:15 PM 9 1 5 0 0 15 11 397 20 4 0 432 22 0 10 0 0 32 5 217 3 0 8 233 712 05:30 PM 8 0 6 0 1 15 13 361 18 1 0 393 21 1 10 0 0 32 5 217 3 0 8 233 712 05:30 PM 8 0 6 0 1 15 13 361 18 1 0 393 21 1 10 0 0 32 7 306 3 0 2 318 758 05:45 PM 5 0 4 0 0 9 10 273 11 2 0 296 15 1 8 0 1 25 2 310 2 0 6 320 650 Total 32 4 29 0 2 67 50 1400 71 11 0 1532 85 3 51 0 3 142 19 1083 12 0 22 1136 2877  06:00 PM 7 2 6 0 0 15 7 276 20 0 0 303 16 0 10 0 0 26 5 237 3 0 1 246 590 06:15 PM 6 0 2 0 1 9 8 269 15 1 0 293 11 1 7 0 0 4 23 5 207 1 0 5 218 543 06:30 PM 8 0 4 0 1 13 10 242 21 2 0 275 19 0 13 0 0 32 4 218 7 0 0 229 549 06:45 PM 6 0 2 0 1 9 8 269 15 1 0 293 11 1 7 0 0 4 23 5 207 1 0 5 218 543 06:30 PM 8 0 4 0 1 13 10 242 21 2 0 275 19 0 13 0 0 32 4 218 7 0 0 229 549 06:45 PM 4 2 4 0 0 10 7 237 32 5 0 281 11 0 7 0 0 2 20 1 277 4 0 9 241 552 06:45 PM 4 2 4 0 0 10 7 237 32 5 0 281 11 0 7 7 0 2 20 1 277 4 0 9 241 552 06:45 PM 4 2 4 0 0 10 7 237 32 5 0 281 11 0 7 7 0 2 20 1 277 4 0 9 241 552 06:45 PM 4 2 4 0 0 10 7 237 32 5 0 281 11 0 7 7 0 2 20 1 277 4 0 9 241 552 06:45 PM 4 2 4 0 0 10 7 237 32 5 0 281 11 0 0 30 31 1208 292 1042 151 0 155 10740 23023 11 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	03:30 PM	6	1	_	0	3	18	9	291		0	0	323	23	1	15	0	_		1	199	_	0		-	
04:00 PM 9 1 9 0 2 21 14 245 13 0 0 272 18 2 5 0 1 26 4 212 3 0 1 220 539 04:15 PM 7 0 8 0 0 15 8 251 12 2 0 273 24 0 7 0 1 32 1 259 3 0 2 265 585 04:30 PM 14 0 0 0 0 0 14 11 261 13 3 0 288 19 0 11 0 0 30 3 270 2 0 3 278 610 04:45 PM 6 0 3 0 4 13 13 247 20 2 0 282 20 1 15 0 0 36 3 295 1 0 6 305 636  Total 36 1 20 0 6 63 46 1004 58 7 0 1115 81 3 38 0 2 124 11 1036 9 0 12 1068 2370 05:00 PM 10 3 14 0 1 28 16 369 22 4 0 411 27 1 23 0 2 53 5 250 4 0 6 265 757 05:15 PM 9 1 5 0 0 15 11 397 20 4 0 432 22 0 10 0 0 32 5 25 27 3 0 8 233 712 05:30 PM 8 0 6 0 1 15 13 361 18 1 0 393 21 1 10 0 0 32 5 27 306 3 0 2 2 318 758 06:05 PM 5 0 4 0 0 9 10 273 11 2 0 296 15 1 8 0 1 25 2 310 2 0 6 320 650  Total 32 4 29 0 2 67 50 1400 71 11 0 1532 85 3 51 0 3 142 19 1083 12 0 22 1136 2877  06:05 PM 6 0 2 0 1 9 8 269 15 1 0 293 11 1 7 0 4 23 5 207 1 0 5 218 543 06:30 PM 8 0 4 0 1 13 10 242 21 2 0 275 19 0 13 0 0 32 4 218 7 0 0 229 1436 2877  06:06 PM 7 2 6 0 0 0 15 7 276 20 0 0 303 16 0 10 0 0 26 5 237 3 0 1 2 20 22 1136 2877  06:05 PM 6 0 2 0 1 9 8 269 15 1 0 293 11 1 7 0 4 23 5 207 1 0 5 218 543 06:30 PM 8 0 4 0 1 13 10 242 21 2 0 275 19 0 13 0 0 32 4 218 7 0 0 229 1436 2877  06:06 PM 7 2 6 0 0 0 10 7 237 32 5 0 281 11 0 7 0 2 20 1 227 4 0 9 241 552  Total 25 4 16 0 2 47 32 1024 88 8 0 1152 57 1 37 0 6 101 15 889 15 0 15 934 2334  06:30 PM 8 0 4 0 1 1 3 10 242 21 2 0 275 19 0 13 0 0 32 4 218 7 0 0 229 549 06:45 PM 4 2 4 0 0 10 7 237 32 5 0 281 11 0 7 0 2 20 1 227 4 0 9 241 552  Total 25 4 16 0 2 47 32 1024 88 8 0 1152 57 1 37 0 6 101 15 889 15 0 15 934 2334  06:30 PM 8 0 4 0 5.9 47.8 0 5.7 3 89.3 7.2 0.5 0 68.9 1.8 254 0 4 2 27 94.5 1.4 0 1.4  Apprich % 40.6 5.9 47.8 0 5.7 3 89.3 7.2 0.5 0 68.9 1.8 254 0 4 2 27 94.5 1.4 0 1.4  Fotal % 6.9 0.1 1.1 0 0.1 2.2 1.4 41 3.3 0.2 0 45.9 3.6 0.1 1.3 0 0.2 5.2 1.2 44.1 0.6 0 0.7 46.7  Cars + 212 28 248 0 23 511 322 9418 772 50 2 10684 846 22 309 0 31 1208 292 1042 151 0 155 10740 23023  Which was a second of the complete of the comp		_	<u> </u>					_												_	246			<u> </u>		
04:15 PM 7 0 8 0 0 15 8 251 12 2 0 273 24 0 7 0 1 32 1 259 3 0 2 265 585 04:30 PM 14 0 0 0 0 14 11 261 13 3 0 288 19 0 11 0 0 30 3 270 2 0 3 278 610 04:45 PM 6 0 3 0 4 13 13 247 20 2 0 282 20 1 15 0 0 36 3 295 1 0 6 305 636 Total 36 1 20 0 6 63 46 1004 58 7 0 1115 81 3 38 0 2 124 11 1096 9 0 12 1068 2370 05:00 PM 10 3 14 0 1 28 16 369 22 4 0 411 27 1 23 0 2 53 5 250 4 0 6 265 757 05:45 PM 9 1 5 0 0 15 11 397 20 4 0 432 22 0 10 0 0 32 5 217 3 0 8 233 712 05:30 PM 8 0 6 0 1 15 13 361 18 1 0 393 21 1 10 0 0 0 32 5 217 3 0 8 233 712 05:30 PM 8 0 6 0 1 15 13 361 18 1 0 393 21 1 10 0 0 0 32 7 306 3 0 2 318 758 05:45 PM 5 0 4 0 0 9 10 273 11 2 0 296 15 1 8 0 1 25 2 310 2 0 6 320 650 Total 32 4 29 0 2 67 50 1400 71 11 0 1532 85 3 51 0 3 142 19 1083 12 0 22 1136 2877 06:45 PM 6 0 2 0 1 9 8 269 15 1 0 293 11 1 7 0 0 4 23 5 207 1 0 5 218 543 06:30 PM 8 0 4 0 1 13 10 242 21 2 0 275 19 0 13 0 0 32 4 218 7 0 0 229 549 06:45 PM 4 2 4 0 0 10 7 237 32 2 5 0 285 11 0 0 3 2 4 218 7 0 0 229 549 06:45 PM 4 2 4 0 0 10 7 237 32 5 0 281 11 0 7 0 2 2 20 1 227 4 0 9 241 552 06:45 PM 4 2 4 0 0 10 7 237 32 5 0 281 11 0 7 0 2 2 20 1 227 4 0 9 241 552 06:45 PM 4 2 4 0 0 10 7 237 32 5 0 281 11 0 7 0 2 2 20 1 227 4 0 9 241 552 06:45 PM 4 2 4 0 0 10 7 237 32 5 0 281 11 0 7 0 2 2 20 1 227 4 0 9 241 552 06:45 PM 4 2 2 4 0 0 10 7 237 32 5 0 281 11 0 7 0 2 20 1 227 4 0 9 241 552 06:45 PM 4 2 2 4 0 0 10 7 237 32 5 0 281 11 0 7 0 2 2 20 1 227 4 0 9 241 552 06:45 PM 4 2 2 4 0 0 10 7 237 32 5 0 281 11 0 7 0 2 20 1 227 4 0 9 241 552 06:45 PM 4 2 2 4 0 0 10 7 237 32 5 0 281 11 0 7 0 2 2 20 1 227 4 0 9 241 552 06:45 PM 4 2 2 4 0 0 10 7 237 32 5 0 281 11 0 7 0 2 20 1 227 4 0 9 241 552 06:45 PM 4 2 2 4 0 0 10 7 237 32 5 0 281 11 0 0 7 0 2 20 1 227 4 0 9 241 552 06:45 PM 4 2 2 4 0 0 10 7 7 237 32 5 0 281 11 0 0 7 0 2 20 1 128 104 106 0 0.7 46.7 PM 4 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Total	13	3	32	0	4	52	24	894	65	5	0	988	74	2	40	0	9	125	25	1099	19	0	25	1168	2333
04:15 PM 7 0 8 0 0 15 8 251 12 2 0 273 24 0 7 0 1 32 1 259 3 0 2 265 585 04:30 PM 14 0 0 0 0 14 11 261 13 3 0 288 19 0 11 0 0 30 3 270 2 0 3 278 610 04:45 PM 6 0 3 0 4 13 13 247 20 2 0 282 20 1 15 0 0 36 3 295 1 0 6 305 636 Total 36 1 20 0 6 63 46 1004 58 7 0 1115 81 3 38 0 2 124 11 1096 9 0 12 1068 2370 05:00 PM 10 3 14 0 1 28 16 369 22 4 0 411 27 1 23 0 2 53 5 250 4 0 6 265 757 05:45 PM 9 1 5 0 0 15 11 397 20 4 0 432 22 0 10 0 0 32 5 217 3 0 8 233 712 05:30 PM 8 0 6 0 1 15 13 361 18 1 0 393 21 1 10 0 0 0 32 5 217 3 0 8 233 712 05:30 PM 8 0 6 0 1 15 13 361 18 1 0 393 21 1 10 0 0 0 32 7 306 3 0 2 318 758 05:45 PM 5 0 4 0 0 9 10 273 11 2 0 296 15 1 8 0 1 25 2 310 2 0 6 320 650 Total 32 4 29 0 2 67 50 1400 71 11 0 1532 85 3 51 0 3 142 19 1083 12 0 22 1136 2877 06:45 PM 6 0 2 0 1 9 8 269 15 1 0 293 11 1 7 0 0 4 23 5 207 1 0 5 218 543 06:30 PM 8 0 4 0 1 13 10 242 21 2 0 275 19 0 13 0 0 32 4 218 7 0 0 229 549 06:45 PM 4 2 4 0 0 10 7 237 32 2 5 0 285 11 0 0 3 2 4 218 7 0 0 229 549 06:45 PM 4 2 4 0 0 10 7 237 32 5 0 281 11 0 7 0 2 2 20 1 227 4 0 9 241 552 06:45 PM 4 2 4 0 0 10 7 237 32 5 0 281 11 0 7 0 2 2 20 1 227 4 0 9 241 552 06:45 PM 4 2 4 0 0 10 7 237 32 5 0 281 11 0 7 0 2 2 20 1 227 4 0 9 241 552 06:45 PM 4 2 4 0 0 10 7 237 32 5 0 281 11 0 7 0 2 2 20 1 227 4 0 9 241 552 06:45 PM 4 2 2 4 0 0 10 7 237 32 5 0 281 11 0 7 0 2 20 1 227 4 0 9 241 552 06:45 PM 4 2 2 4 0 0 10 7 237 32 5 0 281 11 0 7 0 2 2 20 1 227 4 0 9 241 552 06:45 PM 4 2 2 4 0 0 10 7 237 32 5 0 281 11 0 7 0 2 20 1 227 4 0 9 241 552 06:45 PM 4 2 2 4 0 0 10 7 237 32 5 0 281 11 0 7 0 2 2 20 1 227 4 0 9 241 552 06:45 PM 4 2 2 4 0 0 10 7 237 32 5 0 281 11 0 7 0 2 20 1 227 4 0 9 241 552 06:45 PM 4 2 2 4 0 0 10 7 237 32 5 0 281 11 0 0 7 0 2 20 1 227 4 0 9 241 552 06:45 PM 4 2 2 4 0 0 10 7 7 237 32 5 0 281 11 0 0 7 0 2 20 1 128 104 106 0 0.7 46.7 PM 4 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1																				l .						
04:30 PM		_	•		_					_		-		_				1	-				_	-	-	
Ocided   Part   Ocided   Oci			-	_	-	-	-	_				-	_		-	-	-	•	-			_	-			
Total 36 1 20 0 6 63 46 1004 58 7 0 1115 81 3 38 0 2 124 11 1036 9 0 12 1068 2370  05:00 PM 10 3 14 0 1 28 16 369 22 4 0 411 27 1 23 0 2 53 5 250 4 0 6 265 757  05:15 PM 9 1 5 0 0 15 11 397 20 4 0 432 22 0 10 0 0 32 5 217 3 0 8 233 712  05:30 PM 8 0 6 0 1 15 13 361 18 1 0 393 21 1 10 0 0 32 7 306 3 0 2 318 758  05:45 PM 5 0 4 0 0 9 10 273 11 2 0 296 15 1 8 0 1 25 2 310 2 0 6 320 650  Total 32 4 29 0 2 67 50 1400 71 11 0 1532 85 3 51 0 3 142 19 1083 12 0 22 1136 2877  06:00 PM 7 2 6 0 0 0 15 7 276 20 0 0 303 16 0 10 0 0 26 5 237 3 0 1 2 0 22 1136 2877  06:30 PM 8 0 4 0 1 13 10 242 21 2 0 275 19 0 13 0 0 32 4 218 7 0 0 229 549  06:45 PM 4 2 4 0 0 1 10 7 237 32 5 0 281 11 0 7 0 2 20 1 227 4 0 9 241 552  Total 25 4 16 0 2 47 32 1024 88 8 0 1152 57 1 37 0 6 101 15 889 15 0 15 934 2234  Grand Total 214 31 252 0 30 527 38 99.3 7.2 0.5 0 68.9 1.8 25.4 0 4 2.7 94.5 1.4 0 1.4  Total % 0.9 0.1 1.1 0 0.1 2.2 1.4 41 3.3 0.2 0 45.9 3.6 0.1 1.3 0 0.2 5.2 1.2 44.1 0.6 0 0.7 46.7  Cars + 212 28 248 0 23 511 322 9418 772 50 2 10564 846 22 309 0 31 1208 29 1042 151 0 155 10740 23023  **Cars + 99.1 90.3 98.4 0 76.7 97 98.2 97.3 99.4 100 100 97.5 99.5 100 98.7 0 63.3 97.9 99.7 99.7 98.7 97.5 97.5  Trucks 2 3 4 0 7 16 6 259 5 0 0 270 4 0 4 0 18 26 3 273 2 0 3 281 593			-	_	_	_				_		_		_	-		_	_		_			-	_	-	
05:00 PM								_														<u> </u>				
05:15 PM	I otal	36	1	20	0	6	63	46	1004	58	7	0	1115	81	3	38	Ü	2	124	11	1036	9	0	12	1068	2370
05:15 PM	05:00 DM	10	2	11	0	4	20	16	260	22	4	0	111	27	4	22	0	2	EO	<u>-</u>	250	4	0	c	265	757
05:30 PM 8 0 6 0 1 15 13 361 18 1 0 393 21 1 10 0 0 32 7 306 3 0 2 318 758 05:45 PM 5 0 4 0 0 9 10 273 11 2 0 296 15 1 8 0 1 25 2 310 2 0 6 320 650 Total 32 4 29 0 2 67 50 1400 71 11 0 1532 85 3 51 0 3 142 19 1083 12 0 22 1136 2877 06:00 PM 7 2 6 0 0 0 15 7 276 20 0 0 303 16 0 10 0 0 26 5 237 3 0 1 246 590 06:15 PM 6 0 2 0 1 9 8 269 15 1 0 293 11 1 7 0 4 23 5 207 1 0 5 218 543 06:30 PM 8 0 4 0 1 13 10 242 21 2 0 275 19 0 13 0 0 32 4 218 7 0 0 5 218 543 06:45 PM 4 2 4 0 0 10 7 237 32 5 0 281 11 0 7 0 2 20 1 227 4 0 9 241 552 Total 25 4 16 0 2 47 32 1024 88 8 0 1152 57 1 37 0 6 101 15 889 15 0 15 934 2234 06:40 5.9 47.8 0 5.7 3 89.3 7.2 0.5 0 45.9 1.8 25.4 0 4 2.7 2.7 24.0 0 1.4 23.0 233 98.4 0 76.7 97 98.2 97.3 99.4 100 100 97.5 99.5 100 98.7 0 63.3 97.9 99 97.4 98.7 0 98.1 97.5 97.5 Trucks 2 3 4 0 7 16 6 259 5 0 0 270 4 0 4 0 18 26 3 273 2 0 3 281 593		_			_		-	_				_			•	-				_			_			
05:45 PM         5         0         4         0         0         9         10         273         11         2         0         296         15         1         8         0         1         25         2         310         2         0         6         320         650           Total         32         4         29         0         2         67         50         1400         71         11         0         1532         85         3         51         0         3         142         19         1083         12         0         22         1136         2877           06:00 PM         7         2         6         0         0         15         7         276         20         0         0         303         16         0         10         0         0         26         5         237         3         0         1         246         590           06:15 PM         6         0         2         0         1         9         8         269         15         1         0         293         11         1         7         0         4         23         5         207		_	-	-	-	-				_		-	_		-		-	-	-	_			-	_		
Total 32 4 29 0 2 67 50 1400 71 11 0 1532 85 3 51 0 3 142 19 1083 12 0 22 1136 2877  06:00 PM 7 2 6 0 0 0 15 7 276 20 0 0 303 16 0 10 0 0 26 5 237 3 0 1 246 590 06:15 PM 6 0 2 0 1 9 8 269 15 1 0 293 11 1 7 0 4 23 5 207 1 0 5 218 543 06:30 PM 8 0 4 0 1 13 10 242 21 2 0 275 19 0 13 0 0 32 4 218 7 0 0 229 549 06:45 PM 4 2 4 0 0 10 7 237 32 5 0 281 11 0 7 0 2 20 1 227 4 0 9 241 552  Total 25 4 16 0 2 47 32 1024 88 8 0 1152 57 1 37 0 6 101 15 889 15 0 15 934 2234  Grand Total 214 31 252 0 30 527 328 9677 777 50 2 10834 850 22 313 0 49 1234 295 10415 153 0 158 11021 23616 Approch 6 40.6 5.9 47.8 0 5.7 3 89.3 7.2 0.5 0 68.9 1.8 25.4 0 4 27 94.5 1.4 0 1.4  Total 9 0.9 0.1 1.1 0 0.1 2.2 1.4 41 3.3 0.2 0 45.9 3.6 0.1 1.3 0 0.2 5.2 1.2 44.1 0.6 0 0.7 46.7  Cars + 212 28 248 0 23 511 322 9418 772 50 2 10564 846 22 309 0 31 1208 292 1042 151 0 155 10740 23023 9% Cars + 99.1 90.3 98.4 0 76.7 97 98.2 97.3 99.4 100 100 97.5 99.5 100 98.7 0 63.3 97.9 99 97.4 98.7 0 98.1 97.5 97.5  Trucks 2 3 4 0 7 16 6 259 5 0 0 270 4 0 4 0 18 26 3 273 2 0 3 281 593		_	-	_	_	-		_			-	-			•	_	_	-	-			_	-			
06:00 PM		_																								
06:15 PM 6 0 2 0 1 9 8 269 15 1 0 293 11 1 7 0 4 23 5 207 1 0 5 218 543 06:30 PM 8 0 4 0 1 13 10 242 21 2 0 275 19 0 13 0 0 32 4 218 7 0 0 229 549 06:45 PM 4 2 4 0 0 10 7 237 32 5 0 281 11 0 7 0 2 20 1 227 4 0 9 241 552 Total 25 4 16 0 2 47 32 1024 88 8 0 1152 57 1 37 0 6 101 15 889 15 0 15 934 2234 0 1 1 1 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1	Total	1 32	7	25	U	_	07	1 30	1400	, ,		U	1002	00	0	01	U	0	172	13	1000	12	U		1100	2011
06:15 PM 6 0 2 0 1 9 8 269 15 1 0 293 11 1 7 0 4 23 5 207 1 0 5 218 543 06:30 PM 8 0 4 0 1 13 10 242 21 2 0 275 19 0 13 0 0 32 4 218 7 0 0 229 549 06:45 PM 4 2 4 0 0 10 7 237 32 5 0 281 11 0 7 0 2 20 1 227 4 0 9 241 552 Total 25 4 16 0 2 47 32 1024 88 8 0 1152 57 1 37 0 6 101 15 889 15 0 15 934 2234 0 1 1 1 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1	06:00 PM	7	2	6	0	0	15	7	276	20	0	0	303	16	0	10	0	0	26	5	237	3	0	1	246	590
06:30 PM 8 0 4 0 1 13 10 242 21 2 0 275 19 0 13 0 0 32 4 218 7 0 0 229 549 06:45 PM 4 2 4 0 0 10 7 237 32 5 0 281 11 0 7 0 2 20 1 227 4 0 9 241 552  Total 25 4 16 0 2 47 32 1024 88 8 0 1152 57 1 37 0 6 101 15 889 15 0 15 934 2234  Grand Total 214 31 252 0 30 527 328 9677 777 50 2 10834 850 22 313 0 49 1234 295 1045 153 0 158 11021 23616  Apprich 40.6 5.9 47.8 0 5.7 3 89.3 7.2 0.5 0 68.9 1.8 25.4 0 4 2.7 94.5 1.4 0 1.4  Total 8 0.9 0.1 1.1 0 0.1 2.2 1.4 41 3.3 0.2 0 45.9 3.6 0.1 1.3 0 0.2 5.2 1.2 44.1 0.6 0 0.7 46.7  Cars + 212 28 248 0 23 511 322 9418 772 50 2 10564 846 22 309 0 31 1208 292 10142 151 0 155 10740 23023 8 1 1024 8 1 1024 10 10 10 10 10 10 10 10 10 10 10 10 10		6			-	-	-			_	-	-		_	-	-	-	-	-	_			-	5		
O6:45 PM         4         2         4         0         0         10         7         237         32         5         0         281         11         0         7         0         2         20         1         227         4         0         9         241         552           Total         25         4         16         0         2         47         32         1024         88         8         0         1152         57         1         37         0         6         101         15         889         15         0         15         934         2234           Grand Total         214         31         252         0         30         527         328         9677         777         50         2         10834         850         22         313         0         49         1234         295         10415         153         0         158         11021         23616           Apprich %         40.6         5.9         47.8         0         5.7         3         89.3         7.2         0.5         0         68.9         1.8         25.4         0         4         2.7         94.5         <	06:30 PM	_	-		_	-	-	_	242	_	-	-			0		_		-	_	218	-	-	_	-	
Total 25 4 16 0 2 47 32 1024 88 8 0 1152 57 1 37 0 6 101 15 889 15 0 15 934 2234  Grand Total 214 31 252 0 30 527 328 9677 777 50 2 10834 850 22 313 0 49 1234 295 10415 153 0 158 11021 23616  Apprich 40.6 5.9 47.8 0 5.7 3 89.3 7.2 0.5 0 68.9 1.8 25.4 0 4 2.7 94.5 1.4 0 1.4  Total 8 0.9 0.1 1.1 0 0.1 2.2 1.4 41 3.3 0.2 0 45.9 3.6 0.1 1.3 0 0.2 5.2 1.2 44.1 0.6 0 0.7 46.7  Cars + 212 28 248 0 23 511 322 9418 772 50 2 10564 846 22 309 0 31 1208 292 10142 151 0 155 10740 23023  % Cars + 99.1 90.3 98.4 0 76.7 97 98.2 97.3 99.4 100 100 97.5 99.5 100 98.7 0 63.3 97.9 99 97.4 98.7 0 98.1 97.5 97.5  Trucks 2 3 4 0 7 16 6 259 5 0 0 270 4 0 4 0 18 26 3 273 2 0 3 281 593	06:45 PM	4	2	4	0	0	10	7	237	32		0	281	11	0	7	0	2	20	1	227	4	0	9	241	552
Apprch %       40.6       5.9       47.8       0       5.7       3       89.3       7.2       0.5       0       68.9       1.8       25.4       0       4       2.7       94.5       1.4       0       1.4       1.4       0       1.4       0       1.4       0       1.4       0       1.4       0       1.4       0       1.4       0       1.4       0        0       0       0       0       0       0       0       0       0       0       0       0       0       0       0        0       0       0       0       0       0       0       0       0       0       0       0       0       0       0        0	Total	25	4	16	0		47	32	1024	88	8	0	1152	57	1	37	0	6	101	15	889	15	0	15	934	
Apprch %       40.6       5.9       47.8       0       5.7       3       89.3       7.2       0.5       0       68.9       1.8       25.4       0       4       2.7       94.5       1.4       0       1.4       1.4       0       1.4       0       1.4       0       1.4       0       1.4       0       1.4       0       1.4       0       1.4       0        0       0       0       0       0       0       0       0       0       0       0       0       0       0       0        0       0       0       0       0       0       0       0       0       0       0       0       0       0       0        0																										
Total % 0.9 0.1 1.1 0 0.1 2.2 1.4 41 3.3 0.2 0 45.9 3.6 0.1 1.3 0 0.2 5.2 1.2 44.1 0.6 0 0.7 46.7  Cars + 212 28 248 0 23 511 322 9418 772 50 2 10564 846 22 309 0 31 1208 292 10142 151 0 155 10740 23023  % Cars + 99.1 90.3 98.4 0 76.7 97 98.2 97.3 99.4 100 100 97.5 99.5 100 98.7 0 63.3 97.9 99 97.4 98.7 0 98.1 97.5 97.5  Trucks 2 3 4 0 7 16 6 259 5 0 0 270 4 0 4 0 18 26 3 273 2 0 3 281 593	Grand Total	214	31	252	0	30	527	328	9677	777	50	2	10834	850	22	313	0	49	1234	295	10415	153	0	158	11021	23616
Cars + 212 28 248 0 23 511 322 9418 772 50 2 10564 846 22 309 0 31 1208 292 10142 151 0 155 10740 23023 % Cars + 99.1 90.3 98.4 0 76.7 97 98.2 97.3 99.4 100 100 97.5 99.5 100 98.7 0 63.3 97.9 99 97.4 98.7 0 98.1 97.5 97.5 Trucks 2 3 4 0 7 16 6 259 5 0 0 270 4 0 4 0 18 26 3 273 2 0 3 281 593	Apprch %	40.6	5.9	47.8	0	5.7		3	89.3	7.2	0.5	0		68.9	1.8	25.4	0	4		2.7	94.5	1.4	0	1.4		
% Cars + 99.1 90.3 98.4 0 76.7 97 98.2 97.3 99.4 100 100 97.5 99.5 100 98.7 0 63.3 97.9 99 97.4 98.7 0 98.1 97.5 97.5  Trucks 2 3 4 0 7 16 6 259 5 0 0 270 4 0 4 0 18 26 3 273 2 0 3 281 593	_Total %	0.9	0.1	1.1	0	0.1	2.2	1.4	41	3.3	0.2	0	45.9	3.6	0.1	1.3	0	0.2	5.2	1.2	44.1	0.6	0	0.7	46.7	
Trucks 2 3 4 0 7 16 6 259 5 0 0 270 4 0 4 0 18 26 3 273 2 0 3 281 593		212	28	248	0	23	511	322	9418	772		2		846		309	0	31	1208		10142	151	0	155		
				98.4								100		99.5	100	98.7	0									
% Trucks   0.9 9.7 1.6 0 23.3 3   1.8 2.7 0.6 0 0 2.5   0.5 0 1.3 0 36.7 2.1   1 2.6 1.3 0 1.9 2.5   2.5		_	-	•	-	7	-	_		_	0	0	_		0	-	-	18	-	3			0	_	-	
	% Trucks	0.9	9.7	1.6	0	23.3	3	1.8	2.7	0.6	0	0	2.5	0.5	0	1.3	0	36.7	2.1	1	2.6	1.3	0	1.9	2.5	2.5

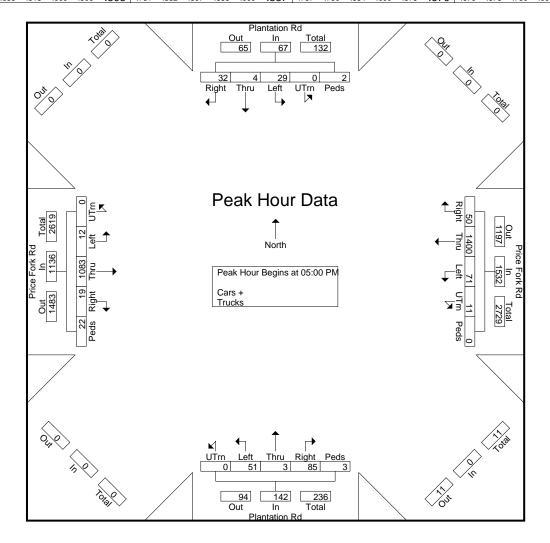


File Name: Blacksburg(Price Fork Rd and Plantation Rd) 09-06-22

Site Code:

Start Date : 9/6/2022

		F	Planta	tion F	₹d			F	rice I	Fork F	₹d			F	Planta	tion F	₹d			F	Price I	ork F	Rd		
			South	boun	d				West	boun	d				North	boun	d				East	bound	t		
Start Time	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Int. Total
Peak Hour	Anal	ysis F	rom (	07:00	AM t	o 06:4	5 PM	- Pea	k 1 o	f 1															
Peak Hour	for E	ntire	Inters	ectio	n Beg	ins at	05:00	PM																	
05:00 PM	10	3	14	0	1	28	16	369	22	4	0	411	27	1	23	0	2	53	5	250	4	0	6	265	757
05:15 PM	9	1	5	0	0	15	11	397	20	4	0	432	22	0	10	0	0	32	5	217	3	0	8	233	712
05:30 PM	8	0	6	0	1	15	13	361	18	1	0	393	21	1	10	0	0	32	7	306	3	0	2	318	758
05:45 PM	5	0	4	0	0	9	10	273	11	2	0	296	15	1	8	0	1	25	2	310	2	0	6	320	650
Total Volume	32	4	29	0	2	67	50	1400	71	11	0	1532	85	3	51	0	3	142	19	1083	12	0	22	1136	2877
% App. Total	47.8	6	43.3	0	3		3.3	91.4	4.6	0.7	0		59.9	2.1	35.9	0	2.1		1.7	95.3	1.1	0	1.9		
PHF	.800	.333	.518	.000	.500	.598	.781	.882	.807	.688	.000	.887	.787	.750	.554	.000	.375	.670	.679	.873	.750	.000	.688	.888	.949





File Name: Blacksburg(Price Fork Rd and Plantation Rd) 09-07-22

Site Code:

Start Date : 9/7/2022

												inted-	Cars ·												1
			Planta					F		Fork F					Planta					F	Price F				
	<u> </u>		South	boun	d				West	boun	d				North	boun	d				East	oounc	ł		
Start Time	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Int. Total
07:00 AM	2	2	7	0	0	11	9	114	8	0	0	131	6	0	1	0	1	8	1	167	2	0	0	170	320
07:15 AM	2	0	9	0	0	11	6	235	11	1	0	253	8	0	0	0	0	8	6	191	2	0	0	199	471
07:30 AM	1	2	9	0	2	14	4	386	7	0	0	397	15	0	5	0	0	20	21	332	8	0	2	363	794
07:45 AM	6	0	3	0	0	9	4	307	27	2	0	340	23	1	0	0	1_	25	16	388	3	0	1	408	782
Total	11	4	28	0	2	45	23	1042	53	3	0	1121	52	1	6	0	2	61	44	1078	15	0	3	1140	2367
08:00 AM	0	0	3	0	1	4	3	132	13	1	0	149	13	0	1	0	2	16	10	338	9	0	0	357	526
08:15 AM	4	0	8	0	0	12	3	145	16	0	0	164	22	0	5	0	0	27	10	213	3	0	1	227	430
08:30 AM	1	0	7	0	1	9	4	163	15	0	0	182	13	1	2	0	0	16	13	271	5	1	1	291	498
08:45 AM	4	1_	5_	0	0	10	6	180	29	0	0	215	22	0	2	0	3	27	7	335	3	0	1_	346	598
Total	9	1	23	0	2	35	16	620	73	1	0	710	70	1	10	0	5	86	40	1157	20	1	3	1221	2052
09:00 AM	3	0	4	0	0	7	3	145	15	2	0	165	24	0	9	0	2	35	4	195	3	0	3	205	412
09:15 AM	3	1	4	0	0	8	6	124	9	0	0	139	11	1	4	0	0	16	8	182	4	0	0	194	357
09:30 AM	3	1	9	0	0	13	3	112	17	0	0	132	31	0	1	0	0	32	15	200	2	0	0	217	394
09:45 AM	3	1	5_	0	0	9	5	121	15	1_	0	142	18	2	5	0	0	25	19	220	1_	0	3	243	419
Total	12	3	22	0	0	37	17	502	56	3	0	578	84	3	19	0	2	108	46	797	10	0	6	859	1582
10:00 AM	1	1	6	0	1	9	3	136	14	2	0	155	17	0	6	0	0	23	4	129	5	0	3	141	328
10:15 AM	2	0	5	0	0	7	0	143	16	0	0	159	18	0	6	0	0	24	3	152	4	0	2	161	351
10:30 AM	0	0	4	0	0	4	0	129	20	0	0	149	16	1	8	0	0	25	6	152	3	0	2	163	341
10:45 AM	1	0	9	0	0	10	8	109	13	4	0	134	15	0	2	0	1_	18	2	200	4	1_	3	210	372
Total	4	1	24	0	1	30	11	517	63	6	0	597	66	1	22	0	1	90	15	633	16	1	10	675	1392
11:00 AM	5	1	7	0	2	15	12	103	14	0	0	129	15	1	10	0	2	28	3	147	4	0	2	156	328
11:15 AM	2	3	2	0	0	7	4	153	17	1	0	175	19	0	5	0	0	24	4	158	0	0	9	171	377
11:30 AM	3	1	3	0	0	7	5	130	18	0	0	153	22	0	8	0	0	30	4	175	6	0	0	185	375
11:45 AM	6	1_	8_	0	0	15	9	144	21	1_	0	175	10	0	5_	0	1_	16	6	183	3	0	5	197	403
Total	16	6	20	0	2	44	30	530	70	2	0	632	66	1	28	0	3	98	17	663	13	0	16	709	1483
12:00 PM	1	0	4	0	0	5	3	181	13	2	0	199	30	0	5	0	1	36	7	162	3	0	1	173	413
12:15 PM	3	0	7	0	0	10	7	186	16	5	0	214	21	1	9	0	0	31	2	168	0	0	10	180	435
12:30 PM	3	0	2	0	0	5	3	165	31	1	0	200	25	0	9	0	2	36	1	170	4	0	1	176	417
12:45 PM	4	2	6	0	0	12	10	166	24	3_	0	203	23	1	3	0	0	27	7	198	2	0	2	209	451
Total	11	2	19	0	0	32	23	698	84	11	0	816	99	2	26	0	3	130	17	698	9	0	14	738	1716
01:00 PM	1	0	7	0	1	9	4	168	22	3	0	197	19	0	3	0	0	22	8	178	4	0	2	192	420
01:15 PM	3	0	6	0	0	9	8	165	20	0	0	193	28	0	7	0	1	36	9	165	1	0	6	181	419
01:30 PM	2	3	7	0	0	12	4	193	27	1	0	225	17	0	7	0	0	24	4	160	7	0	5	176	437
01:45 PM	6	1	8	0	1	16	7	140	24	2	0	173	20	0	7	0	0	27	8	185	3	0	3	199	415
Total	12	4	28	0	2	46	23	666	93	6	0	788	84	0	24	0	1	109	29	688	15	0	16	748	1691



File Name: Blacksburg(Price Fork Rd and Plantation Rd) 09-07-22

Site Code:

Start Date : 9/7/2022

										Grou		. ∠ inted-	Care .	⊾ . Tri	ucks										
		F	Planta	ation F	₹d			F		Fork F		inica				tion F	Rd			F	Price I	ork F	₹d		
				nbour						boun						boun						bound			
Start Time	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Int. Total
02:00 PM	3	0	0	0	0	3	3	164	25	0	0	192	17	0	8	0	0	25	9	164	2	0	0	175	395
02:15 PM	4	0	4	0	0	8	5	221	16	1	0	243	26	0	4	0	4	34	6	184	1	1	5	197	482
02:30 PM	4	1	3	0	0	8	12	243	12	1	0	268	16	0	11	0	3	30	4	156	2	0	10	172	478
02:45 PM	5	2	3	0	0	10	4	222	17	3_	0	246	11	1	6	0	0	18	3	206	2	0	2	213	487
Total	16	3	10	0	0	29	24	850	70	5	0	949	70	1	29	0	7	107	22	710	7	1	17	757	1842
	1 .					_	ı _																		
03:00 PM	1	0	7	0	0	8	5	224	19	1	0	249	30	0	11	0	1	42	6	415	3	1	1	426	725
03:15 PM	3	1	4	0	2	10	5	184	19	1	0	209	20	1	9	0	1	31	6	216	3	0	4	229	479
03:30 PM	1	1	4	0	0	6	10	219	19	1	0	249	18	1	3	0	0	22	7	232	1	0	5	245	522
03:45 PM	5	2	7	0	0	14	10	200	11		0	222	23	2	11	0_	1	37	8	325	3	0	2	338	611
Total	10	4	22	0	2	38	30	827	68	4	0	929	91	4	34	0	3	132	27	1188	10	1	12	1238	2337
04:00 PM	8	0	8	0	0	16	7	296	32	2	0	337	19	0	13	0	1	33	8	254	6	0	11	279	665
04:15 PM	5	0	14	0	3	22	11	276	13	0	0	300	36	2	11	0	0	49	3	210	8	0	5	226	597
04:30 PM	7	0	8	0	1	16	7	292	18	4	0	321	19	1	9	0	1	30	6	240	5	1	3	255	622
04:45 PM	11	2	7	0	Ö	20	16	258	14	3	0	291	20	2	13	0	1	36	5	291	6	0	4	306	653
Total	31	2	37	0	4	74	41	1122	77	9	0	1249	94	5	46	0	3	148	22	995	25	1	23	1066	2537
		_		-						-	_			_		-	_					-			ı
05:00 PM	12	1	5	0	0	18	17	296	20	1	0	334	42	1	18	0	1	62	3	262	6	0	6	277	691
05:15 PM	5	0	9	0	0	14	11	336	35	1	0	383	32	0	21	0	0	53	7	310	2	0	6	325	775
05:30 PM	10	1	2	0	0	13	15	372	31	1	0	419	28	1	8	0	2	39	7	311	8	0	5	331	802
05:45 PM	6	0	15	0	0	21	10	312	20	3	0	345	19	0	5	0	1	25	3	281	8	1	8	301	692
Total	33	2	31	0	0	66	53	1316	106	6	0	1481	121	2	52	0	4	179	20	1164	24	1	25	1234	2960
					_	2.4	۱								_	•			1		_			004	
06:00 PM	8	1	12	0	0	21	10	282	32	1	0	325	28	1	5	0	4	38	1	191	7	1	1	201	585
06:15 PM	6	1	8	0	0	15	15	250	22	1	0	288	17	1	7	0	2	27	6	226	5	0	3	240	570
06:30 PM 06:45 PM	6	0	4 5	0	0	10	10	238 237	23 31	2 6	0	273 281	22	0	9	0	0	31	3 11	254 242	3	0	2 5	262	576 576
Total	24	2 4	<u>5</u> 	0 0	0	11 57	42	1007	108	10	0	1167	19 86	0 2	<u>4</u> 25	0	<u>0</u>	23 119	21	913	<u>3</u> 	0 1	<u>5</u> 11	261 964	2307
TOTAL	24	4	29	U	U	57	42	1007	100	10	U	1107	00	2	25	U	O	119	21	913	10	'	11	904	2301
Grand Total	189	36	293	0	15	533	333	9697	921	66	0	11017	983	23	321	0	40	1367	320	10684	182	7	156	11349	24266
Apprch %	35.5	6.8	55	0	2.8		3	88	8.4	0.6	0		71.9	1.7	23.5	0	2.9		2.8	94.1	1.6	0.1	1.4		
Total %	0.8	0.1	1.2	Ö	0.1	2.2	1.4	40	3.8	0.3	Ö	45.4	4.1	0.1	1.3	Ö	0.2	5.6	1.3	44	0.8	0	0.6	46.8	
Cars +	187	36	290	0	10	523	329	9347	912	66	0	10654	970	23	318	0	24	1335	316	10333	179	7	150	10985	23497
% Cars +	98.9	100	99	0	66.7	98.1	98.8	96.4	99	100	0	96.7	98.7	100	99.1	0	60	97.7	98.8	96.7	98.4	100	96.2	96.8	96.8
Trucks	2	0	3	0	5	10	4	350	9	0	0	363	13	0	3	0	16	32	4	351	3	0	6	364	769
% Trucks	1.1	0	1	0	33.3	1.9	1.2	3.6	1	0	0	3.3	1.3	0	0.9	0	40	2.3	1.2	3.3	1.6	0	3.8	3.2	3.2

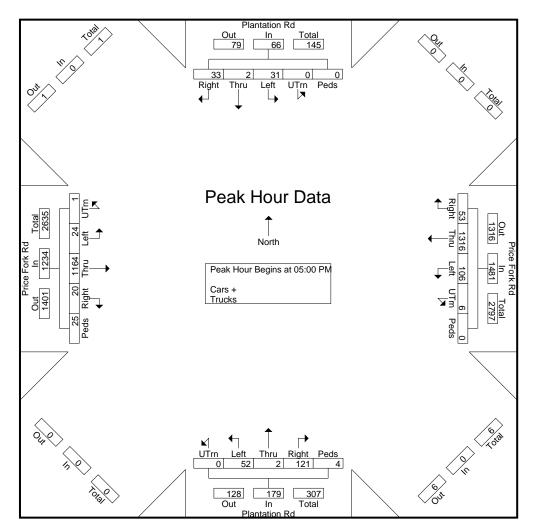


File Name: Blacksburg(Price Fork Rd and Plantation Rd) 09-07-22

Site Code:

Start Date : 9/7/2022

		F	Planta	tion F	Rd			F	Price I	Fork F	₹d			F	Planta	tion F	₹d			F	Price I	ork F	Rd		
			South	boun	d				West	boun	d				North	boun	d				East	bound	ł		
Start Time	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Int. Total
Peak Hour	Anal	ysis F	rom (	07:00	AM t	o 06:4	5 PM	- Pea	k 1 o	f 1															
Peak Hour	for E	ntire	Inters	ection	n Beg	ins at	05:00	PM																	
05:00 PM	12	1	5	0	0	18	17	296	20	1	0	334	42	1	18	0	1	62	3	262	6	0	6	277	691
05:15 PM	5	0	9	0	0	14	11	336	35	1	0	383	32	0	21	0	0	53	7	310	2	0	6	325	775
05:30 PM	10	1	2	0	0	13	15	372	31	1	0	419	28	1	8	0	2	39	7	311	8	0	5	331	802
05:45 PM	6	0	15	0	0	21	10	312	20	3	0	345	19	0	5	0	1	25	3	281	8	1	8	301	692
Total Volume	33	2	31	0	0	66	53	1316	106	6	0	1481	121	2	52	0	4	179	20	1164	24	1	25	1234	2960
% App. Total	50	3	47	0	0		3.6	88.9	7.2	0.4	0		67.6	1.1	29.1	0	2.2		1.6	94.3	1.9	0.1	2		1
PHF	.688	.500	.517	.000	.000	.786	.779	.884	.757	.500	.000	.884	.720	.500	.619	.000	.500	.722	.714	.936	.750	.250	.781	.932	.923



## Prices Fork Road & Plantation Road

Check/reset time clock

Check/verify standard Ring Structure

Input Traffic Events

Input Equate Data

Vehicle Recalls - Min for Phases 2 & 6

Lock/Non-Lock - Check settings

Check Dual Entry settings - 2, 6

Switch Phase: None

Detector Delay - 10 sec Phases 1, 3, 4, 5

		(	Coordinatio	n Settings			
OPER	MODE	MAX	CORR	OFST	FRCE	MX DWLL	YIELD
1 - AUTO	0 - PRM	0 - INH	2 - SW	1 - END	0 - PLAN	0	0

				Clearance	Intervals			
Phase	1 - WBL	2 - EBT	3 - NB	4 - SB	5 - EBL	6 - WBT	7 -	8 -
Min Green	5	15	5	5	15	5	Х	Х
Yellow	4.6	4.6	3.4	3.0	4.6	4.6	Х	Х
Red	3.8	3.8	3.1	3.6	3.8	3.8	Х	Х

			Ped	estrian Clea	arance Inter	vals		
Phase	1 - WBL	2 - EBT	3 - NB	4 - SB	5 - EBL	6 - WBT	7 -	8 -
Walk	Х	5	Х	5	Х	5	Х	Х
Flash D/W	Х	12	Х	23	Х	12	Х	Х

150s Cycle	Pat	tern 2/1/1 -	- Inbound P	eak		Offs	et: 4		
Phase	1 - WBL	2 - EBT	3 - NB	4 - SB	5 - EBL	6 - WBT	7 -	8 -	
Split	20	80	20	30	30 15 85 x				
Mode	0	1	0	0	0	1	Х	Х	

120s Cycle	Par	ttern 3/1/1	- Midday Po	eak		Offs	et: 8	
Phase	1 - WBL	2 - EBT	3 - NB	4 - SB	5 - EBL	6 - WBT	7 -	8 -
Split	20	55	20	25	15	60	Х	Х
Mode	0	1	0	0	0	1	Х	Х

150s Cycle	Patt	ern 2/2/1 -	Outbound I	Peak		Offse	t: 148	
Phase	1 - WBL	2 - EBT	3 - NB	4 - SB	5 - EBL	6 - WBT	7 -	8 -
Split	20	85	23	22	15	90	Х	Х
Mode	0	1	0	0	0	1	Х	Х

100s Cycle	I	Pattern 1/2,	/1 - Off Pea	k		Offs	et: 6	
Phase	1 - WBL	2 - EBT	3 - NB	4 - SB	5 - EBL	6 - WBT	7 -	8 -
Split	20	40	20	20	15	45	Х	Х
Mode	0	1	0	0	0	1	Х	Х

## **Local TBC Traffic Data**

Updated: 8-24-2016

## **Corridor: Prices Fork Road West**

Intersections: [Plantation Road, Huntington Lane, Heather Drive, Hethwood Boulevard]

Day	НН	MM	Pattern	Cycle Length (seconds)
1	0	00	Free	Max Times
1	9	00	1/2/1	100
1	11	00	2/1/1	120
1	18	00	1/2/1	100
1	20	00	Free	Max Times
2	0	00	Free	Max Times
2	06	30	2/1/1	150
2	11	00	3/1/1	120
2	14	30	2/1/1	150
2	16	00	2/2/1	150
2	19	00	1/2/1	100
2	21	00	Free	Max Times
6	0	00	Free	Max Times
6	06	30	2/1/1	150
6	11	00	2/2/1	150
6	14	30	2/1/1	150
6	16	00	2/2/1	150
6	19	00	1/2/1	100
6	21	00	Free	Max Times

	٠	<b>→</b>	•	•	<b>←</b>	•	4	<b>†</b>	<i>&gt;</i>	<b>/</b>	ļ	4
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	<b>†</b> †	7	ሻ	<b>†</b> †	7		4	7		4	
Traffic Volume (vph)	22	1249	53	58	1060	17	6	1	59	24	2	9
Future Volume (vph)	22	1249	53	58	1060	17	6	1	59	24	2	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		125	200		125	0		50	0		0
Storage Lanes	1		1	1		1	0		1	0		0
Taper Length (ft)	100			100			100			100		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	0	1785	1583	0	1736	0
Flt Permitted	0.156			0.111				0.958			0.966	
Satd. Flow (perm)	291	3539	1583	207	3539	1583	0	1785	1583	0	1736	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			135			135			148		10	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		485			727			669			617	
Travel Time (s)		8.3			12.4			18.2			16.8	
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Shared Lane Traffic (%)												
Lane Group Flow (vph)	27	1542	65	72	1309	21	0	8	73	0	43	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Split	NA	Perm	Split	NA	
Protected Phases	5	2		1	6		3	3		4	4	
Permitted Phases	2		2	6		6		_	3			
Detector Phase	5	2	2	1	6	6	3	3	3	4	4	
Switch Phase	45.0	45.0	45.0			- 0		<b>5</b> 0		- 0	<b>5</b> 0	
Minimum Initial (s)	15.0	15.0	15.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	23.4	25.4	25.4	13.4	25.4	25.4	16.0	16.0	16.0	34.6	34.6	
Total Split (s)	15.0	80.0	80.0	20.0	85.0	85.0	20.0	20.0	20.0	30.0	30.0	
Total Split (%)	10.0%	53.3%	53.3%	13.3%	56.7%	56.7%	13.3%	13.3%	13.3%	20.0%	20.0%	
Yellow Time (s)	4.6	4.6	4.6	4.6	4.6	4.6	3.4	3.4	3.4	3.0	3.0	
All-Red Time (s)	3.8	3.8	3.8	3.8	3.8	3.8	3.1	3.1	3.1	3.6	3.6	
Lost Time Adjust (s)	-2.4	-2.4	-2.4	-2.4	-2.4	-2.4		-0.5	-0.5		-0.6	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	Lood	6.0	6.0	Log	6.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead	Lead	Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes C-Min	Yes C Min	Yes	Yes	Yes	Yes	Yes None	
Recall Mode	None 118.1	C-Min 102.3	C-Min 102.3	None 111.6	104.6	C-Min 104.6	None	None 6.8	None 6.8	None	9.0	
Act Effct Green (s) Actuated g/C Ratio	0.79	0.68	0.68	0.74	0.70	0.70		0.05	0.05		0.06	
v/c Ratio	0.79	0.64	0.06	0.74	0.70	0.70		0.03	0.03		0.00	
Control Delay	4.8	16.4	0.00	7.6	14.8	0.02		70.8	4.4		63.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	
Total Delay	4.8	16.4	0.0	7.6	14.8	0.0		70.8	4.4		63.1	
LOS	4.0 A	В	Α	Α.	В	Α		70.0 E	Α		65.1 E	
Approach Delay	,,	15.5	,,	,,	14.2	/ \		10.9	/ \		63.1	
Approach LOS		13.3 B			В			В			65.1 E	
Queue Length 50th (ft)	5	431	0	14	386	0		8	0		32	
Queue Length 95th (ft)	13	502	0	27	418	0		24	0		65	
Internal Link Dist (ft)	10	405	0	_,	647	J		589	9		537	
Turn Bay Length (ft)	75	100	125	200	517	125		307	50		307	
Base Capacity (vph)	400	2412	1122	301	2467	1144		166	281		286	
Starvation Cap Reductn	0	0	0	0	0	0		0	0		0	

WBL **EBT EBR WBR** NBL Lane Group EBL **WBT** NBT **NBR SBL** SBT SBR 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 0.15 0.07 0.64 0.06 0.24 0.53 0.02 0.05 0.26

Intersection Summary

Area Type: Other

Cycle Length: 150 Actuated Cycle Length: 150

Offset: 4 (3%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

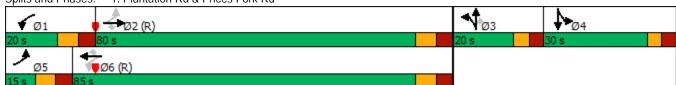
Natural Cycle: 120

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.64 Intersection Signal Delay: 15.5 Intersection Capacity Utilization 65.5%

Intersection LOS: B
ICU Level of Service C

Analysis Period (min) 15



	٠	<b>→</b>	•	•	<b>←</b>	•	4	<b>†</b>	<i>&gt;</i>	<b>/</b>	ļ	4
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	<b>†</b> †	7	ሻ	<b>†</b> †	7		4	7		4	
Traffic Volume (vph)	25	1164	20	106	1316	53	52	2	121	31	2	33
Future Volume (vph)	25	1164	20	106	1316	53	52	2	121	31	2	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		125	200		125	0		50	0		0
Storage Lanes	1		1	1		1	0		1	0		0
Taper Length (ft)	100			100			100			100		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	0	1777	1583	0	1696	0
Flt Permitted	0.120			0.157				0.954			0.977	
Satd. Flow (perm)	224	3539	1583	292	3539	1583	0	1777	1583	0	1696	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			135			135			148		27	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		485			727			669			617	
Travel Time (s)		8.3			12.4			18.2			16.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	27	1265	22	115	1430	58	0	59	132	0	72	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Split	NA	Perm	Split	NA	
Protected Phases	5	2		1	6		3	3		4	4	
Permitted Phases	2		2	6		6			3			
Detector Phase	5	2	2	1	6	6	3	3	3	4	4	
Switch Phase												
Minimum Initial (s)	15.0	15.0	15.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	23.4	25.4	25.4	13.4	25.4	25.4	16.0	16.0	16.0	34.6	34.6	
Total Split (s)	15.0	85.0	85.0	20.0	90.0	90.0	23.0	23.0	23.0	22.0	22.0	
Total Split (%)	10.0%	56.7%	56.7%	13.3%	60.0%	60.0%	15.3%	15.3%	15.3%	14.7%	14.7%	
Yellow Time (s)	4.6	4.6	4.6	4.6	4.6	4.6	3.4	3.4	3.4	3.0	3.0	
All-Red Time (s)	3.8	3.8	3.8	3.8	3.8	3.8	3.1	3.1	3.1	3.6	3.6	
Lost Time Adjust (s)	-2.4	-2.4	-2.4	-2.4	-2.4	-2.4		-0.5	-0.5		-0.6	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	1 1	6.0	6.0	1	6.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead	Lead	Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None	None	None	None	
Act Effet Green (s)	109.6	94.2	94.2	105.0	97.9	97.9 0.75		10.8	10.8		10.2	
Actuated g/C Ratio	0.73	0.63	0.63	0.70	0.65	0.65		0.07	0.07		0.07	
v/c Ratio	0.08	0.57	0.02	0.37	0.62	0.05		0.46	0.53		0.51	
Control Delay	7.0 0.0	18.5 0.0	0.1 0.0	10.2 0.0	19.5	0.1 0.0		77.5 0.0	14.4 0.0		55.6 0.0	
Queue Delay	7.0	18.5	0.0	10.2	0.0 19.5	0.0		77.5	14.4		55.6	
Total Delay LOS	7.0 A	16.5 B	Ο.1	10.2 B	19.5 B			77.3 E	14.4 B		33.0 E	
Approach Delay	A	17.9	А	Ь	18.1	А		33.9	Ь		55.6	
Approach LOS		17.9 B			10.1 B			33.9 C			55.0 E	
Queue Length 50th (ft)	6	354	0	28	493	0		56	0		43	
Queue Length 95th (ft)	6 19	512	0	58	613	0		104	51		43 95	
Internal Link Dist (ft)	17	405	U	50	647	U		589	31		537	
Turn Bay Length (ft)	75	403	125	200	047	125		J07	50		J31	
Base Capacity (vph)	332	2222	1044	344	2310	1080		201	310		205	
Starvation Cap Reductn	0	0	0	0	2310	0		0	0		0	
- Starvation Cap Neudelli	U	U	U	U	U	U		U	U		U	

**EBL EBT EBR WBL WBR** NBL Lane Group **WBT** NBT **NBR SBL** SBT SBR 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 0.35 0.08 0.57 0.02 0.33 0.62 0.05 0.29 0.43

Intersection Summary

Area Type: Other

Cycle Length: 150 Actuated Cycle Length: 150

Offset: 148 (99%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

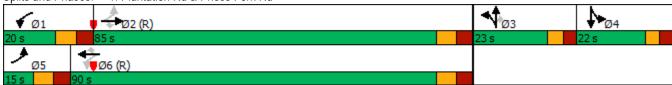
Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.62 Intersection Signal Delay: 19.8 Intersection Capacity Utilization 74.4%

Intersection LOS: B ICU Level of Service D

Analysis Period (min) 15



						_				_	_	
	•	-	•	•	•	•	1	<b>†</b>	~	-	ţ	4
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	<b>^</b>	7	ሻ	<b>^</b>	7		ની	7		4	
Traffic Volume (vph)	22	1274	54	59	1081	17	6	1	60	24	2	9
Future Volume (vph)	22	1274	54	59	1081	17	6	1	60	24	2	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		125	200		125	0		50	0		0
Storage Lanes	1		1	1		1	0		1	0		0
Taper Length (ft)	100		•	100		•	100		•	100		Ü
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	0	1785	1583	0	1736	0
Flt Permitted	0.150	0007	1000	0.105	0007	1000	Ü	0.958	1000	Ü	0.966	Ü
Satd. Flow (perm)	279	3539	1583	196	3539	1583	0	1785	1583	0	1736	0
Right Turn on Red	217	3337	Yes	170	3337	Yes	O	1700	Yes	O	1730	Yes
Satd. Flow (RTOR)			135			135			148		10	103
Link Speed (mph)		40	133		40	133		25	170		25	
Link Distance (ft)		485			727			669			617	
Travel Time (s)		8.3			12.4			18.2			16.8	
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Shared Lane Traffic (%)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	27	1573	67	73	1335	21	0	8	74	0	43	0
Lane Group Flow (vph)								o NA				U
Turn Type Protected Phases	pm+pt	NA	Perm	pm+pt	NA	Perm	Split		Perm	Split	NA	
	5	2	2	1	6	,	3	3	2	4	4	
Permitted Phases	2 5	2	2	6	,	6	2	2	3	4	4	
Detector Phase	5	2	2	1	6	6	3	3	3	4	4	
Switch Phase	15.0	15.0	15.0	г о	г о	г о	г о	г о	г о	г о	г о	
Minimum Initial (s)	15.0	15.0	15.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	23.4	25.4	25.4	13.4	25.4	25.4	16.0	16.0	16.0	34.6	34.6	
Total Split (s)	23.0	84.0	84.0	15.0	76.0	76.0	16.0	16.0	16.0	35.0	35.0	
Total Split (%)	15.3%	56.0%	56.0%	10.0%	50.7%	50.7%	10.7%	10.7%	10.7%	23.3%	23.3%	
Yellow Time (s)	4.6	4.6	4.6	4.6	4.6	4.6	3.4	3.4	3.4	3.0	3.0	
All-Red Time (s)	3.8	3.8	3.8	3.8	3.8	3.8	3.1	3.1	3.1	3.6	3.6	
Lost Time Adjust (s)	-2.4	-2.4	-2.4	-2.4	-2.4	-2.4		-0.5	-0.5		-0.6	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0		6.0	6.0		6.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead	Lead	Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None	None	None	None	
Act Effct Green (s)	118.0	102.2	102.2	111.7	104.6	104.6		6.8	6.8		9.0	
Actuated g/C Ratio	0.79	0.68	0.68	0.74	0.70	0.70		0.05	0.05		0.06	
v/c Ratio	0.07	0.65	0.06	0.29	0.54	0.02		0.10	0.35		0.38	
Control Delay	4.8	16.8	0.1	7.8	15.0	0.1		70.8	4.5		63.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	
Total Delay	4.8	16.8	0.1	7.8	15.0	0.1		70.8	4.5		63.1	
LOS	Α	В	Α	Α	В	Α		Е	Α		Е	
Approach Delay		15.9			14.4			10.9			63.1	
Approach LOS		В			В			В			Е	
Queue Length 50th (ft)	5	447	0	15	398	0		8	0		32	
Queue Length 95th (ft)	13	521	0	28	430	0		24	0		65	
Internal Link Dist (ft)		405			647			589			537	
Turn Bay Length (ft)	75		125	200		125			50			
Base Capacity (vph)	392	2410	1121	257	2467	1144		119	243		343	
Starvation Cap Reductn	0	0	0	0	0	0		0	0		0	

Timing Plan: AM Peak Hour

	۶	<b>→</b>	$\rightarrow$	•	•	•	4	<b>†</b>	<b>/</b>	<b>&gt;</b>	ļ	4
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
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	0.07	0.65	0.06	0.28	0.54	0.02		0.07	0.30		0.13	

Intersection Summary

Area Type: Other

Cycle Length: 150 Actuated Cycle Length: 150

Offset: 4 (3%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

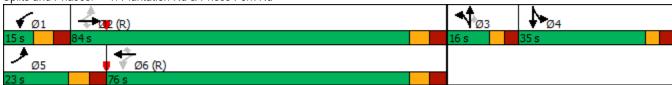
Natural Cycle: 120

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.65 Intersection Signal Delay: 15.8 Intersection Capacity Utilization 66.0%

Intersection LOS: B ICU Level of Service C

Analysis Period (min) 15



												<del>-</del>
	•	-	•	•	•	•	1	Ť		-	ţ	4
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	*	<b>^</b>	7	ሻ	<b>^</b>	7		ર્ન	7		4	
Traffic Volume (vph)	26	1187	20	108	1342	54	53	2	123	32	2	34
Future Volume (vph)	26	1187	20	108	1342	54	53	2	123	32	2	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		125	200		125	0		50	0		0
Storage Lanes	1		1	1		1	0		1	0		0
Taper Length (ft)	100		•	100		·	100		·	100		ŭ
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	0	1777	1583	0	1696	0
Flt Permitted	0.114			0.142			-	0.954		-	0.977	-
Satd. Flow (perm)	212	3539	1583	265	3539	1583	0	1777	1583	0	1696	0
Right Turn on Red	2.2	0007	Yes	200	0007	Yes	Ü		Yes	Ü	1070	Yes
Satd. Flow (RTOR)			135			135			148		30	100
Link Speed (mph)		40	100		40	100		25	110		25	
Link Distance (ft)		485			727			669			617	
Travel Time (s)		8.3			12.4			18.2			16.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Lane Group Flow (vph)	28	1290	22	117	1459	59	0	60	134	0	74	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Split	NA	Perm	Split	NA	U
Protected Phases	5	2	1 CIIII	1	6	1 Cilli	3	3	1 Cilli	3piit 4	4	
Permitted Phases	2	2	2	6	U	6	3	3	3	7	7	
Detector Phase	5	2	2	1	6	6	3	3	3	4	4	
Switch Phase	3	2	2	'	U	U	3	3	3	7	7	
Minimum Initial (s)	15.0	15.0	15.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	23.4	25.4	25.4	13.4	25.4	25.4	16.0	16.0	16.0	34.6	34.6	
Total Split (s)	24.0	63.0	63.0	20.0	59.0	59.0	32.0	32.0	32.0	35.0	35.0	
Total Split (%)	16.0%	42.0%	42.0%	13.3%	39.3%	39.3%	21.3%	21.3%	21.3%	23.3%	23.3%	
Yellow Time (s)	4.6	4.6	4.6	4.6	4.6	4.6	3.4	3.4	3.4	3.0	3.0	
All-Red Time (s)	3.8	3.8	3.8	3.8	3.8	3.8	3.1	3.1	3.1	3.6	3.6	
Lost Time Adjust (s)	-2.4	-2.4	-2.4	-2.4	-2.4	-2.4	0.1	-0.5	-0.5	0.0	-0.6	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0		6.0	6.0		6.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead	Lead	Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None	None	None	None	
Act Effct Green (s)	108.1	91.3	91.3	106.5	96.9	96.9	110110	10.9	10.9	110110	10.1	
Actuated g/C Ratio	0.72	0.61	0.61	0.71	0.65	0.65		0.07	0.07		0.07	
v/c Ratio	0.08	0.60	0.02	0.36	0.64	0.06		0.47	0.53		0.52	
Control Delay	7.1	21.1	0.1	9.7	20.9	0.1		77.5	14.9		54.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	
Total Delay	7.1	21.1	0.1	9.7	20.9	0.1		77.5	14.9		54.0	
LOS	A	С	A	A	C	A		E	В		D	
Approach Delay	,,	20.5	,,	,,	19.4	, ,		34.2	5		54.0	
Approach LOS		C			В			C			D	
Queue Length 50th (ft)	7	387	0	29	510	0		57	0		42	
Queue Length 95th (ft)	19	580	0	60	687	0		105	52		95	
Internal Link Dist (ft)	.,	405	Ŭ		647	ŭ		589	02		537	
Turn Bay Length (ft)	75	100	125	200	317	125		307	50		307	
Base Capacity (vph)	340	2154	1016	342	2285	1070		308	396		352	
Starvation Cap Reductn	0	0	0	0	0	0		0	0		0	
Starvation Sup Reductif	U	U	U	U	0	0		0	0		U	

	•	<b>→</b>	•	•	<b>←</b>	•	4	<b>†</b>	<b>/</b>	<b>&gt;</b>	<b>↓</b>	4
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
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	0.08	0.60	0.02	0.34	0.64	0.06		0.19	0.34		0.21	

Intersection Summary

Area Type: Other

Cycle Length: 150 Actuated Cycle Length: 150

Offset: 148 (99%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.64 Intersection Signal Delay: 21.5 Intersection Capacity Utilization 75.2%

Intersection LOS: C ICU Level of Service D

Analysis Period (min) 15



	۶	<b>→</b>	•	•	+	•	4	†	<i>&gt;</i>	<b>/</b>	<b>+</b>	4
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	<b>^</b>	7	ሻ	<b>†</b> †	7		ર્ન	7		4	
Traffic Volume (vph)	24	1313	54	59	1100	27	6	1	60	70	2	10
Future Volume (vph)	24	1313	54	59	1100	27	6	1	60	70	2	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		125	200		125	0		50	0		0
Storage Lanes	1		1	1		1	0		1	0		0
Taper Length (ft)	100			100			100			100		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	0	1785	1583	0	1758	0
Flt Permitted	0.132			0.083				0.958			0.959	
Satd. Flow (perm)	246	3539	1583	155	3539	1583	0	1785	1583	0	1758	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			135			135			148		4	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		485			727			669			617	
Travel Time (s)		8.3			12.4			18.2			16.8	
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Shared Lane Traffic (%)												
Lane Group Flow (vph)	30	1621	67	73	1358	33	0	8	74	0	100	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Split	NA	Perm	Split	NA	
Protected Phases	5	2		1	6		3	3		4	4	
Permitted Phases	2		2	6		6			3			
Detector Phase	5	2	2	1	6	6	3	3	3	4	4	
Switch Phase												
Minimum Initial (s)	15.0	15.0	15.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	23.4	25.4	25.4	13.4	25.4	25.4	16.0	16.0	16.0	34.6	34.6	
Total Split (s)	23.0	84.0	84.0	15.0	76.0	76.0	16.0	16.0	16.0	35.0	35.0	
Total Split (%)	15.3%	56.0%	56.0%	10.0%	50.7%	50.7%	10.7%	10.7%	10.7%	23.3%	23.3%	
Yellow Time (s)	4.6	4.6	4.6	4.6	4.6	4.6	3.4	3.4	3.4	3.0	3.0	
All-Red Time (s)	3.8	3.8	3.8	3.8	3.8	3.8	3.1	3.1	3.1	3.6	3.6	
Lost Time Adjust (s)	-2.4	-2.4	-2.4	-2.4	-2.4	-2.4		-0.5	-0.5		-0.6	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0		6.0	6.0		6.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead	Lead	Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None	None	None	None	
Act Effct Green (s)	110.5	94.6	94.6	104.1	97.0	97.0		6.8	6.8		14.2	
Actuated g/C Ratio	0.74	0.63	0.63	0.69	0.65	0.65		0.05	0.05		0.09	
v/c Ratio	0.08	0.73	0.06	0.33	0.59	0.03		0.10	0.35		0.59	
Control Delay	6.6	22.5	0.1	11.1	19.3	0.0		70.8	4.5		75.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	
Total Delay	6.6	22.5	0.1	11.1	19.3	0.0		70.8	4.5		75.9	
LOS	Α	С	Α	В	В	Α		Ε	Α		Ε	
Approach Delay		21.4			18.4			10.9			75.9	
Approach LOS		С			В			В			Ε	
Queue Length 50th (ft)	7	530	0	17	453	0		8	0		92	
Queue Length 95th (ft)	17	621	0	34	497	0		24	0		135	
Internal Link Dist (ft)		405			647			589			537	
Turn Bay Length (ft)	75		125	200		125			50			
Base Capacity (vph)	357	2231	1047	222	2289	1071		119	243		343	
Starvation Cap Reductn	0	0	0	0	0	0		0	0		0	
					•	•		•	•		ŭ	

	۶	<b>→</b>	•	•	<b>←</b>	•	4	<b>†</b>	<b>/</b>	<b>/</b>	<b>↓</b>	4
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
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	0.08	0.73	0.06	0.33	0.59	0.03		0.07	0.30		0.29	

Intersection Summary

Area Type: Other

Cycle Length: 150 Actuated Cycle Length: 150

Offset: 4 (3%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

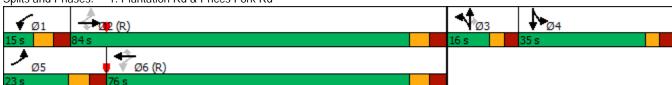
Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.73 Intersection Signal Delay: 21.5 Intersection Capacity Utilization 69.2%

Intersection LOS: C ICU Level of Service C

Analysis Period (min) 15



										_	_	
	•	-	•	•	•	•	1	<b>†</b>	~	-	ţ	4
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	*	<b>^</b>	7	- 1	<b>^</b>	7		र्स	7		4	
Traffic Volume (vph)	28	1244	20	108	1443	93	53	2	123	99	2	37
Future Volume (vph)	28	1244	20	108	1443	93	53	2	123	99	2	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		125	200		125	0		50	0		0
Storage Lanes	1		1	1		1	0		1	0		0
Taper Length (ft)	100		-	100			100		•	100		-
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	0	1777	1583	0	1733	0
Flt Permitted	0.072			0.109				0.954			0.965	-
Satd. Flow (perm)	134	3539	1583	203	3539	1583	0	1777	1583	0	1733	0
Right Turn on Red	101	0007	Yes	200	0007	Yes	Ü		Yes	Ü	1700	Yes
Satd. Flow (RTOR)			135			135			148		11	103
Link Speed (mph)		40	100		40	100		25	110		25	
Link Distance (ft)		485			727			669			617	
Travel Time (s)		8.3			12.4			18.2			16.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Lane Group Flow (vph)	30	1352	22	117	1568	101	0	60	134	0	150	0
Turn Type		1332 NA	Perm		NA	Perm	Split	NA	Perm	Split	NA	U
Protected Phases	pm+pt 5	2	reiiii	pm+pt	6	Fellii	Spiit 3	3	reiiii	• .	4	
Permitted Phases		Z	2	1	0	4	3	3	2	4	4	
	2 5	2	2	6 1	4	6	2	2	3	1	1	
Detector Phase	5	2	2	Į	6	6	3	3	3	4	4	
Switch Phase	15.0	15.0	1	ГΛ	5.0	5.0	ГΛ	ГΛ	ГΛ	ГΛ	ГΛ	
Minimum Initial (s)	15.0	15.0	15.0	5.0			5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	23.4	25.4	25.4	13.4	25.4	25.4	16.0	16.0	16.0	34.6	34.6	
Total Split (s)	24.0	73.0	73.0	18.0	67.0	67.0	24.0	24.0	24.0	35.0	35.0	
Total Split (%)	16.0%	48.7%	48.7%	12.0%	44.7%	44.7%	16.0%	16.0%	16.0%	23.3%	23.3%	
Yellow Time (s)	4.6	4.6	4.6	4.6	4.6	4.6	3.4	3.4	3.4	3.0	3.0	
All-Red Time (s)	3.8	3.8	3.8	3.8	3.8	3.8	3.1	3.1	3.1	3.6	3.6	
Lost Time Adjust (s)	-2.4	-2.4	-2.4	-2.4	-2.4	-2.4		-0.5	-0.5		-0.6	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0		6.0	6.0		6.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead	Lead	Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None	None	None	None	
Act Effct Green (s)	100.3	83.5	83.5	98.6	89.0	89.0		10.9	10.9		18.0	
Actuated g/C Ratio	0.67	0.56	0.56	0.66	0.59	0.59		0.07	0.07		0.12	
v/c Ratio	0.11	0.69	0.02	0.43	0.75	0.10		0.47	0.53		0.69	
Control Delay	10.4	28.3	0.1	14.6	28.8	1.5		77.5	14.9		74.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	
Total Delay	10.4	28.3	0.1	14.6	28.8	1.5		77.5	14.9		74.3	
LOS	В	С	Α	В	С	Α		Е	В		Е	
Approach Delay		27.4			26.4			34.2			74.3	
Approach LOS		С			С			С			Е	
Queue Length 50th (ft)	9	481	0	36	662	0		57	0		133	
Queue Length 95th (ft)	25	714	0	74	#943	15		105	52		202	
Internal Link Dist (ft)		405			647			589			537	
Turn Bay Length (ft)	75		125	200		125			50			
Base Capacity (vph)	286	1970	941	283	2100	994		213	320		343	
Starvation Cap Reductn	0	0	0	0	0	0		0	0		0	

	•	<b>→</b>	•	•	•	•	4	<b>†</b>	<b>/</b>	<b>\</b>	ļ	4
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
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	0.10	0.69	0.02	0.41	0.75	0.10		0.28	0.42		0.44	

Intersection Summary

Area Type: Other

Cycle Length: 150 Actuated Cycle Length: 150

Offset: 148 (99%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 140

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.75 Intersection Signal Delay: 29.3 Intersection Capacity Utilization 81.9%

Intersection LOS: C
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.



# Planned Commercial District Conditional Use Permit for Mini-Storage Development

APPENDIX Q – 3D RENDERING VIEWS/PERSPECTIVES

#### THESE RENDERINGS REFLECT THE TRUE COLOR OF THE PROPOSED DOORWAYS AND PARAPET WALLS



THESE RENDERINGS REFLECT THE TRUE COLOR OF THE PROPOSED DOORWAYS AND PARAPET WALLS





THESE RENDERINGS REFLECT THE TRUE COLOR OF THE PROPOSED DOORWAYS AND PARAPET WALLS



THESE RENDERINGS REFLECT THE TRUE COLOR OF THE PROPOSED DOORWAYS AND PARAPET WALLS





THESE RENDERINGS DO NOT REFLECT THE TRUE COLOR OF THE PROPOSED DOORWAYS AND PARAPET WALLS AND ARE ONLY MEANT TO PROVIDE PERSPECTIVE OF THE GRADES/ELEVATIONS OF THE SURROUNDING TERRAIN AND BUILDINGS.



THESE RENDERINGS <u>DO NOT</u> REFLECT THE TRUE COLOR OF THE PROPOSED DOORWAYS AND PARAPET WALLS AND ARE ONLY MEANT TO PROVIDE PERSPECTIVE OF THE GRADES/ELEVATIONS OF THE SURROUNDING TERRAIN AND BUILDINGS.



THESE RENDERINGS DO NOT REFLECT THE TRUE COLOR OF THE PROPOSED DOORWAYS AND PARAPET WALLS AND ARE ONLY MEANT TO PROVIDE PERSPECTIVE OF THE GRADES/ELEVATIONS OF THE SURROUNDING TERRAIN AND BUILDINGS.





THESE RENDERINGS DO NOT REFLECT THE TRUE COLOR OF THE PROPOSED DOORWAYS AND PARAPET WALLS AND ARE ONLY MEANT TO PROVIDE PERSPECTIVE OF THE GRADES/ELEVATIONS OF THE SURROUNDING TERRAIN AND BUILDINGS.



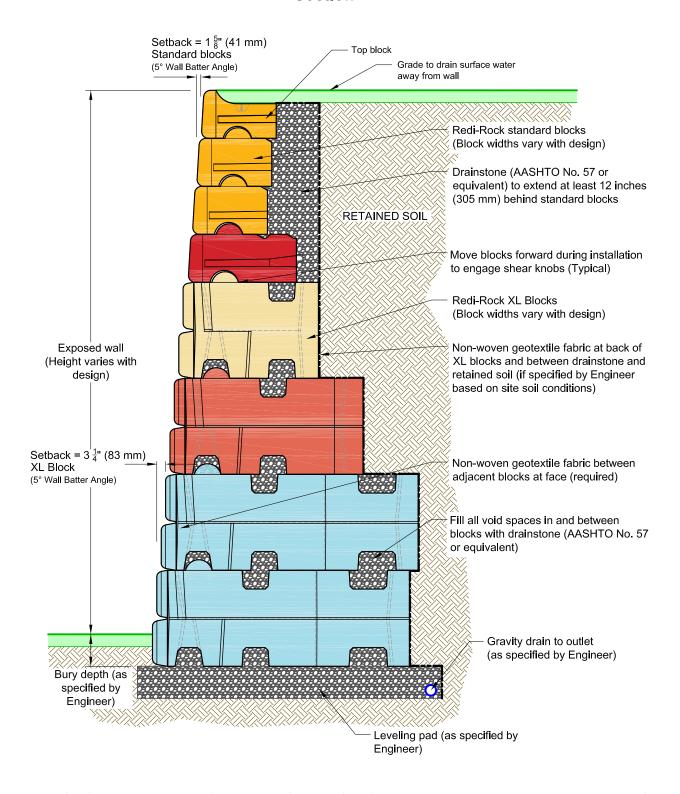


THESE RENDERINGS <u>DO NOT</u> REFLECT THE TRUE COLOR OF THE PROPOSED DOORWAYS AND PARAPET WALLS AND ARE ONLY MEANT TO PROVIDE PERSPECTIVE OF THE GRADES/ELEVATIONS OF THE SURROUNDING TERRAIN AND BUILDINGS.



APPENDIX R – RETAINING WALL DETAILS

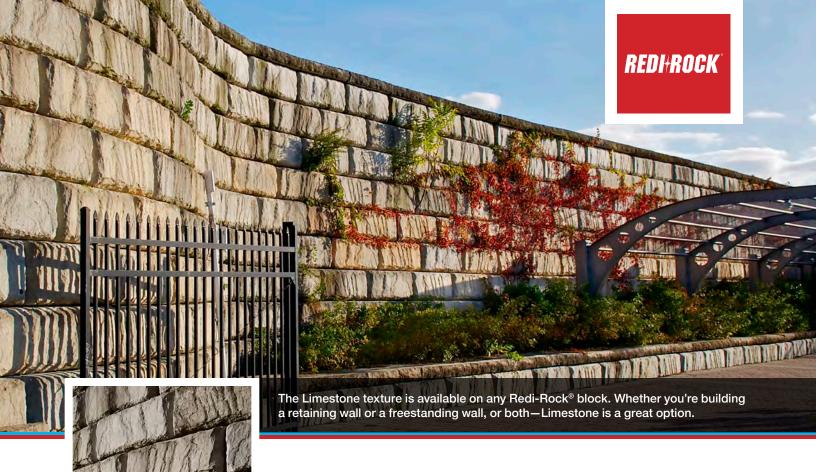
### Typical XL Gravity Wall Section



This drawing is for reference only. Determination of the suitability and/or manner of use of any details contained in this document is the sole responsibility of the design engineer of record. Final project designs, including all construction details, shall be prepared by a licensed professional engineer using the actual conditions of the proposed site.

DRAWN BY:	NWL	Typical Redi-Rock XL Block
APPROVED BY:	JRJ	
DATE:	20APR2018	Wall Section
SHEET:	1 of 1	FILE: Typical XL Section 041318.dwg





#### **REDI-ROCK TEXTURE:**

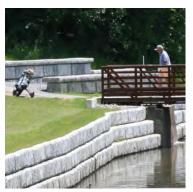
# LIMESTONE



Legos. You probably loved them as a kid. We still love them, which is why we created these one-ton Redi-Rock blocks that lock together using a knob and groove system, just like stacking Lego blocks. Now, who wouldn't want a giant block wall on their project?

The design of Redi-Rock blocks goes beyond function, though. These blocks also look great.

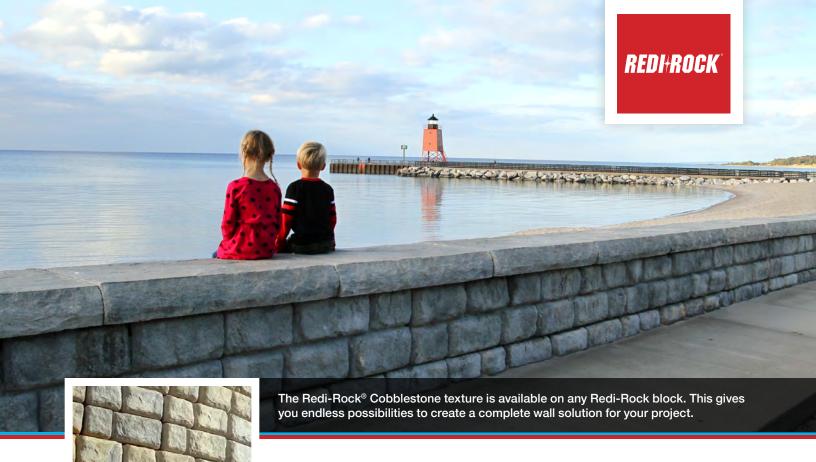
Redi-Rock Limestone blocks have a natural split limestone texture that beautifully mimics real quarried stone. These large-scale block faces are perfect for commercial and residential projects—or anything in between!



### **Limestone Block Specifications**

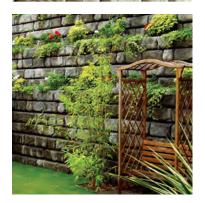
- Quarried stone texture
- 5.75 square feet (0.5 square meters) of face
- Four unique faces to give walls a random aesthetic
- Approximately 23 square feet (2 square meters) of non-repeating texture available
- Wet-cast concrete gives a greater level of detail and durability

Regional colors and coordinating accessories are available. Contact your local Redi-Rock retailer or visit **redi-rock.com** to learn more about the Redi-Rock Limestone face today!





# COBBLESTONE



Calling all blockheads! Redi-Rock Cobblestone blocks feature a double-whammy—engineering ingenuity *and* dashing good looks. The result is the best looking structural walls on the market.

Cobblestone blocks have a great stacked stone aesthetic. Each one-ton block features the appearance of six smaller blocks, making it a great look for projects that need a smaller-scale look.



### **Cobblestone Block Specifications**

- Stacked stone texture
- 5.75 square feet (0.5 square meters) of face
- Four unique faces to give walls a random aesthetic
- Up to 23 square feet (2 square meters) of non-repeating texture available
- Wet-cast concrete gives a greater level of detail and durability

Regional colors and coordinating accessories are available. Contact your local Redi-Rock retailer or visit **redi-rock.com** to learn more about the Redi-Rock Cobblestone face today!

APPENDIX P – SIGNAGE DETAILS



APPENDIX T – VARIANCE REQUEST LETTERS



ENGINEERING . LAND PLANNING . SURVEYING

January 20, 2023

Ms. Kali Casper Town of Blacksburg 400 South Main Street Blacksburg, VA 24062-9003

RE: 1055 Plantation Road CUP/RZN

Door Opening for Rental Units Waiver Request

Job No. 3322.0

Dear Ms. Casper:

Please consider this letter as a formal request for a waiver for the Town of Blacksburg's Use and Design Standards 4541 (3) & (4) for Mini Warehouses. The standards require that "(3) No door opening for any rental unit shall be constructed facing any residentially zoned property." and "(4) Door openings for rental units shall face the interior of the site unless impracticable."

Given the narrow geometry of the parcel being developed and the construction of only a single building, it would be impracticable to face all of the door openings for the rental storage units to the interior of the site. Of the 810 proposed storage units in the facility, only 50 units (~6% of the total) are facing towards the exterior of the site. The site has been designed to screen these doorways from neighboring properties as much as possible through the use of landscaped buffer yards. Furthermore, this is a modern facility that does not have standard rows of metal buildings and drive aisles. The proposed aesthetics of these doorways and indeed the entire building facade itself have been designed to be much more upscale than a typical mini warehouse so as to minimize any negative impacts to the viewshed of adjacent properties. The overhead doors on the west side of the facility are facing non-traditional residential uses in a PRD student housing complex in which the closest dwelling unit is 425 feet from the overhead doors. The doors on the north side of the facility are a minimum of 130 feet from the northern property line and an additional 100 feet from the northern boundary of the Creek Valley Overlay District. This district precludes any development so the closest a residence could be to the building is a minimum of 230 feet. Additionally, there is a significant grade/elevation difference (approximately 30 feet) between the proposed storage facility and the ground elevation on the adjacent residentially zoned property to the north. Given all of these items, there should be little concern over the impacts of these rental unit doors facing outward towards these properties.

Please do not hesitate to call and/or email me with any questions or concerns you may have.

Sincerely, Foresight Design Services

Matthew P. Tomlinson, P.E. Senior Project Manager



ENGINEERING . LAND PLANNING . SURVEYING

January 20, 2023

Ms. Kali Casper Town of Blacksburg 400 South Main Street Blacksburg, VA 24062-9003

RE: 1055 Plantation Road CUP/RZN

Sanitary Sewer Variance Request

Job No. 3322.0

Dear Ms. Casper:

Please consider this letter as a formal request for a waiver for the Town of Blacksburg's Subdivision Ordinance Section 5-701(a) for construction and design of sanitary sewer and Sewer Specifications Section 1.21(c) and (e). These standards require that "The sanitary sewer shall be designed and constructed so as to serve by gravity the lower floor elevation of proposed structures on all lots." and "Private laterals may only cross the property that they serve from the right of way or easement."

Given the existing topography of the site being developed, including the connectivity requirements between Plantation Road and Crisp Road in The Retreat, the finished floor elevation for the proposed mini-warehouse building precludes being able to connect to the Town's gravity sewer main in the public right-of-way along Peppers Ferry Road. Furthermore, while there is an adjacent pump station to the west on The Retreat property, the existing sewer lateral within the easement adjacent to the site is missing approximately 800 linear feet of gravity sewer needed to connect to the existing pump station. Constructing this gravity sewer would be extremely costly and intrude upon a fully occupied residential development. Given that the proposed mini-warehouse building will only have one small bathroom to serve the office and patrons of the establishment, the proposed small grinder pump and force main is a much more practical solution for serving the facility's sewer needs.

Additionally, connecting the proposed force main to the Town's gravity sewer along Peppers Ferry Road requires crossing the proposed Lot 2 on the south side of the site as there is no gravity sewer available along Plantation Road and the Town does not allow private force mains within the public right-of-way. As such, the development proposes to run the private force main lateral for the mini-warehouse on Lot 1 through Lot 2 within a private easement which would discharge to a gravity manhole on Lot 2 that ultimately drains by gravity into the Town's sanitary sewer main.

Please do not hesitate to call and/or email me with any questions or concerns you may have.

Sincerely, Foresight Design Services

Matthew P. Tomlinson, P.E. Senior Project Manager



ENGINEERING . LAND PLANNING . SURVEYING

January 25, 2023

Ms. Kali Casper Town of Blacksburg 400 South Main Street Blacksburg, VA 24062-9003

RE: 1055 Plantation Road CUP/RZN

Bike Lane Extension Variance Request

Job No. 3322.0

Dear Ms. Casper:

Please consider this letter as a formal request for a waiver for the Town of Blacksburg's Design Standard Section 5-321 for bicycle lanes. This standard requires that "All proposed collector and arterial streets within a subdivision shall be constructed with bicycle lanes. The bike lane width and intersection configuration shall meet current VDOT standards..." The Town's specific request is for the extension of the existing bike lane on Prices Fork Road through the intersection to connect at the corner of Plantation Road.

The proposed development for 1055 Plantation Road is providing multiple pedestrian and bicycle connectivity options including a sidewalk paralleling the new Crisp Road connection between The Retreat and Plantation Road, a sidewalk connection from the storage facility to the existing trail at The Retreat, as well as a new trail connection between the sidewalk on the corner of Plantation Road/Prices Fork Road and the existing trail at The Retreat. Additionally, there is significant physical infrastructure that would require relocation to construct this bike lane extension including a pedestrian signal/pedestal, under telecommunications pull boxes, a power pedestal and potentially the signal pole for this intersection. Furthermore, there is no existing bike lane on Plantation Road or across the intersection on Prices Fork Road so this proposed bike lane extension does not have anything to connect to. Given the constraints for constructing this connection and the interconnectivity options already being provided by the proposed development, we respectfully request a waiver for the construction of this bike lane extension.

Please do not hesitate to call and/or email me with any questions or concerns you may have.

Sincerely,

**Foresight Design Services** 

Matthew P. Tomlinson, P.E.

APPENDIX U – BUSINESS OPERATIONS DETAILS

### 1055 Plantation Road CUP/RZN

Mini-Warehouse Business Operation Summary

The proposed multi-story climate-controlled storage facility on Lot 1 of the proposed 1055 Plantation Road CUP/RZN development will be operated by a management company with extensive experience in managing these storage facilities.

#### **Hours of Operation**

- On-Site Management: Monday Saturday 9AM to 6PM
- After-Hours Access: 7 days a week 6AM to 9PM
  - Knox box access for fire trucks.

#### **Security / Circulation Access**

- Security fencing and gates are proposed on east and west sides of the building to prevent unauthorized access to the rear of the site after hours. These locations are also shown on the site layout plan.
- A sample image of the proposed type of fence/gate is shown in the picture below.
- Full circulation is provided with an access/drive aisle around the entirety of the building as well as a covered, drive-in corridor which connects the east and west drive aisles for the facility.
- Autoturn analysis has been completed to ensure fire trucks can safely navigate around the
  entirety of the building. Knox box access will be provided to the fire department for access beyond
  the security gates if required during and after-hours fire.

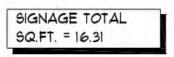


#### Lighting

- A lighting plan will be provided for the proposed development at the site plan stage which will
  meet the Town of Blacksburg's Standards for Exterior Lighting to provide a safe and secure
  nighttime environment around the site.
- The light sources will be full cutoff luminaries and not cast excessive light upon adjacent property or upon public right-of-way.
- The exterior lighting will also be designed at or below the average maintained horizontal illuminance levels required by the Town's ordinance.

#### Signage

• All signage for both lots shall meet the Town of Blacksburg's General Commercial District standards with the exception of a single monument sign to be place at Crisp Road Extension and Plantation Road that is referenced below. (See image below.)





- The proposed monument sign shown on Lot 2 of the site layout plan at the corner of Plantation Road and Prices Fork Road shall be placed outside of the sight distance triangle and outside of the proposed Public Utility Easements.
- Additionally, cut sheets have been provided for proposed signs including elevation views, dimensions, colors and materials.

#### Solid Waste / Recycling

- A single 8 cubic yard dumpster is proposed on the northeast corner of the development which is now shown on the updated site layout plan.
- This dumpster will be situated within a screening enclosure that meets the Town's zoning ordinance standards.
- This dumpster and enclosure will be locked to prevent access by patrons or the general public. It is only intended for use by the on-site management.