



**AGENDA**  
**BEDFORD COUNTY PLANNING COMMISSION**

**County Administration Board Room**  
**122 E. Main Street, Bedford, VA**  
**Tuesday, July 20, 2021**  
**7:00 p.m. – Regular meeting**

Comment(s) for the Citizen Comment Period can be sent to the following address if you are unable to attend: [pcpubliccomments@bedfordcountyva.gov](mailto:pcpubliccomments@bedfordcountyva.gov).

1. Approval of Agenda
2. Citizen Comment Period
3. Public Hearing: Rezoning RZ21-0003 TPB Enterprises  
C-1/C-2 to R-4
4. Old Business: Rezoning RZ21-0002 Cottontown Investments,  
LLC (PRD to R-4)
5. New Business: Comprehensive Plan Public Meeting Discussion
6. Adjourn

**REZONING APPLICATION**  
**RZ21-0003**  
**TPB Enterprises**

**Reclassification of property (ies) from**

**(C1) Office District & (C2) General  
Commercial**

**To**

**(R4) High Density Multi-Family Residential  
District**

**Presenter: Mariel Fowler**  
**540-586-7616 ext 1290**  
**540-586-2059 (fax)**  
**[mfowler@bedfordcountyva.gov](mailto:mfowler@bedfordcountyva.gov)**



# COUNTY OF BEDFORD, VIRGINIA


COUNTY ADMINISTRATION BUILDING  
122 EAST MAIN STREET, SUITE G-03  
BEDFORD, VIRGINIA 24523

JORDAN MITCHELL  
DIRECTOR

## DEPARTMENT OF COMMUNITY DEVELOPMENT DIVISION OF PLANNING

### STAFF REPORT

TO: Planning Commission, Board of Supervisors

FROM: Mariel Fowler, CZO, Planner 

DATE: July 1, 2021

SUBJECT: ***Rezoning Application #RZ21-0003: C-1 and C-2 to R-4, TPB Enterprises (Rustic Village Apartments)***

### SYNOPSIS

TPB Enterprises is requesting the rezoning of 9.51 acres to High Density Multi-Family Residential ("R-4") for the purpose of establishing 220 apartment units ("Dwelling, Multifamily" use). Tax Map Number 117-A-14 is 9.18 acres in size, located at 1227 Two Church Lane, and currently zoned Office District ("C-1"). The second parcel is a portion of the adjoining lot Tax Map Number 117-A-3A, 0.33 acres in size, and currently zoned General Commercial ("C-2"). These properties are located along Rustic Village Road (Route 609), approximately 410 feet south of its intersection with Forest Road (Route 221). The properties are located in Election District 4.

### BACKGROUND

#### Applicant/Developer

The applicant and developer is TPB Enterprises, represented by Daniel Cyrus, 1029 Cottontown Manor Dr, PO Box 148, Forest, VA 24551.

#### Owners

Tax Map Number 117-A-14 is currently owned by Ben and Jean Schowe, 1227 Two Church Lane, Forest, VA 24551-2229. Tax Map Number 117-A-3A is currently owned by the Forest Baptist Church, PO Box 478 Forest, VA 24551.

#### Engineer/Authorized Agent

The engineer and authorized agent for the applicant is Norm Walton, P.E. of Perkins & Orrison, Inc., 317 Brook Park Place, Forest, VA 24551.

#### Location

The subject parcels are located to the south of Forest Road (Route 221) and Rustic Village Road (Route 609) intersection in Forest. The total acreage is approximately 9.51.

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## DEPARTMENT OF COMMUNITY DEVELOPMENT DIVISION OF PLANNING

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### Proposed Change

The subject properties are currently zoned C-1 and C-2. The applicant is requesting to rezone 9.51 acres to R-4 for the construction of multi-family dwelling units (220 units, a density of 23.13 units per acre) in two (2) four-story buildings at a maximum height of 45 feet, 441 parking spaces, and a community courtyard with a pool as shown on the concept plan. A subdivision plat will need to be submitted for review, approved, and recorded to adjust the boundary lines and create one lot totaling 9.51 acres for this development.

## ANALYSIS

### Zoning/Land Use Compatibility

Tax Map Number 117-A-14 is zoned C-1 and currently being used for residential purposes (one single-family dwelling) and Tax Map Number 117-A-3A is zoned C-2 and vacant. The surrounding parcels are zoned C-1, C-2, C-2 with Corridor Overlay District ("CO"), and Low-Density Residential District ("R-1"). The parcels to the north across Route 221 are zoned Planned Commercial Development District ("PCD"). The CO district, while present on Tax Map Number 117-A-3A, is not on the portion of property that is subject to this rezoning request.

The surrounding uses include a mix of office (general office), civic (church, daycare), commercial (retail sales), and residential (single-family detached homes) uses while some remain undeveloped. Railroad tracks are located approximately 1,000 feet to the south. A registered historic home "009-0065 Rothsay" is approximately 1,300 feet away from the subject parcel.

### Comprehensive Plan

The Future Land Use map identifies the subject parcel and adjoining properties as "Mixed Use" and adjoins "Agricultural/Natural Resource Stewardship" designation to the north (other side of Forest Road/Goley Property). The "Mixed Use" designation is defined in the Bedford County 2030 Comprehensive Plan as:

Areas with a mixture of residential, commercial, light industrial, and civic uses located along major transportation corridors. The intention of these areas is to provide convenient services for neighborhoods and prevent strip development and multiple access points along major and secondary transportation corridors.

The Bedford County 2030 Comprehensive Plan contains goals and objectives that relate to this rezoning request. They include:

#### Land Use

*An orderly, efficient, and compatible growth and land use pattern that is sensitive to the natural environment.*

#### Housing

*A variety of safe, sanitary and affordable housing for all County residents.*

### Zoning Ordinance

The R-4 district regulations in Article III Section 30-46 provide the design standards for all properties in this district. Standards primarily include minimum lot sizes for allowable uses, minimum acreage requirements,

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## DEPARTMENT OF COMMUNITY DEVELOPMENT DIVISION OF PLANNING

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and criteria for open space (see attachment 7). Permitted uses in the R-4 district are regulated by the Permitted Use Table (Section 30-79).

The purpose of the R-4 district is to provide areas in the county within the urban service area where existing high density residential development (typically twelve (12) to eighteen (18) units per acre) has been established and land areas which generally appear to be appropriate for such development. R-4 areas should serve as a buffer between less intensive and more intensive districts. R-4 areas are designated based on direct access to major streets, and where sewer, water, and schools, and other public services have suitable capacity to accommodate development at the stated density. An additional consideration is that the parcel sizes allow for well planned residential development. A variety of housing densities and styles is encouraged in order to permit a diversity and flexibility in design and layout. Additional standards are established to provide for amenities in higher density developments.

The purpose of the C-1 district is to provide for the development of attractive and efficient office uses in the urban service area which serve both community and county-wide needs. The C-1 district allows for varying intensities of office development as part of either a planned office complex or, to a limited degree, small scale office uses. Retail uses are permitted, to a limited extent, where they are supportive of the office environment. The C-1 districts are most appropriately found along or near major arterial streets where existing commercial development has occurred and/or where commercial zoning has been established, or near existing residential development where it would serve as a logical buffer strip between conflicting land use types. Site development standards are intended to ensure compatibility with adjacent land uses.

The purpose of the C-2 district is to provide locations for a variety of commercial and service related activities within the urban service area serving a community of several neighborhoods or large areas of the county. This district is intended for general application throughout the county. General commercial districts are most appropriately found along major arterial thoroughfares which serve large segments of the county's population.

The applicant has submitted a concept plan and justification that propose to establish a "Multifamily Dwellings" use. The proposed use is defined below and is listed as a by-right use in the R-4 zoning district with additional design standards per Section 30-82-11 in Article IV (see Attachment 10):

*Dwelling, multifamily:* A building or portion thereof which contains three (3) or more dwelling units for permanent occupancy, regardless of the method of ownership. Included in the use type would be garden apartments, low and high rise apartments, and apartments for elderly housing.

The applicant states that the proposed rezoning of the property and subsequent uses will bring more diversity to the housing market in Forest. This development is "intended to be marketed, but not restricted to, as an age-restricted community to residents 55 and older. There are plans for amenities such as pools, recreational areas, and a community center with residents 55 and older in mind. This is not an assisted living facility, but strictly apartments. Some floors may have staff that will assist with minor assisted living needs such as medications."

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### Project Impacts

The Technical Review Committee ("TRC") meeting was held on May 25, 2021, with the regulatory agencies and the engineer. A site plan will be required to establish the new use per Articles IV and V guidelines of the Zoning Ordinance. The impacts on utilities, erosion and sediment control, stormwater management, and traffic per comments provided during TRC will need to be addressed. The development will be served by public water and sewer. All applicable land disturbing permits shall be obtained prior to any land-disturbing activity. The developer has prepared a Traffic Impact Analysis ("TIA") which found "that no mitigation would be necessary for the Rustic Village Road Apartments." VDOT's Traffic Engineering is currently reviewing the TIA and had initial questions that were addressed by the applicant's traffic engineer (see Attachment 11). The Bedford Residency provided initial comments that will need to be addressed during the site plan review (see Attachment 12). To mitigate the visual impacts, the Zoning Ordinance requires a "Type C" buffer yard between the properties that are zoned differently.

The subject parcels are zoned for Thomas Jefferson Elementary ("TJE"), Forest Middle School ("FMS"), and Jefferson Forest High School ("JFHS"). JFHS is projected to be at 83% capacity, FMS at 74% capacity, and TJE at 79% capacity for 2021-22. These three schools do not have any current limitations on enrollment.

### Voluntary Proffers

Voluntary proffers have not yet been offered by the applicant.

### Attachments

1. Location Map
2. Aerial Location Map
3. Zoning Map
4. Future Land Use Map
5. Applicant's Concept Plan and Rezoning Justification
6. Historic Site "009-0065 Rothsay" to Subject Parcel Map
7. Article III Section 30-46, R-4 High Density Multifamily Residential District
8. Article III Section 30-53, C-1 Office District
9. Article III Section 30-54, C-2 General Commercial District
10. Section 30-82-11 Additional Design Standards for Multi-Family Dwellings
11. Traffic Impact Analysis (without appendices) and Comments per VDOT's initial review
12. VDOT TRC review comments

# Location Map

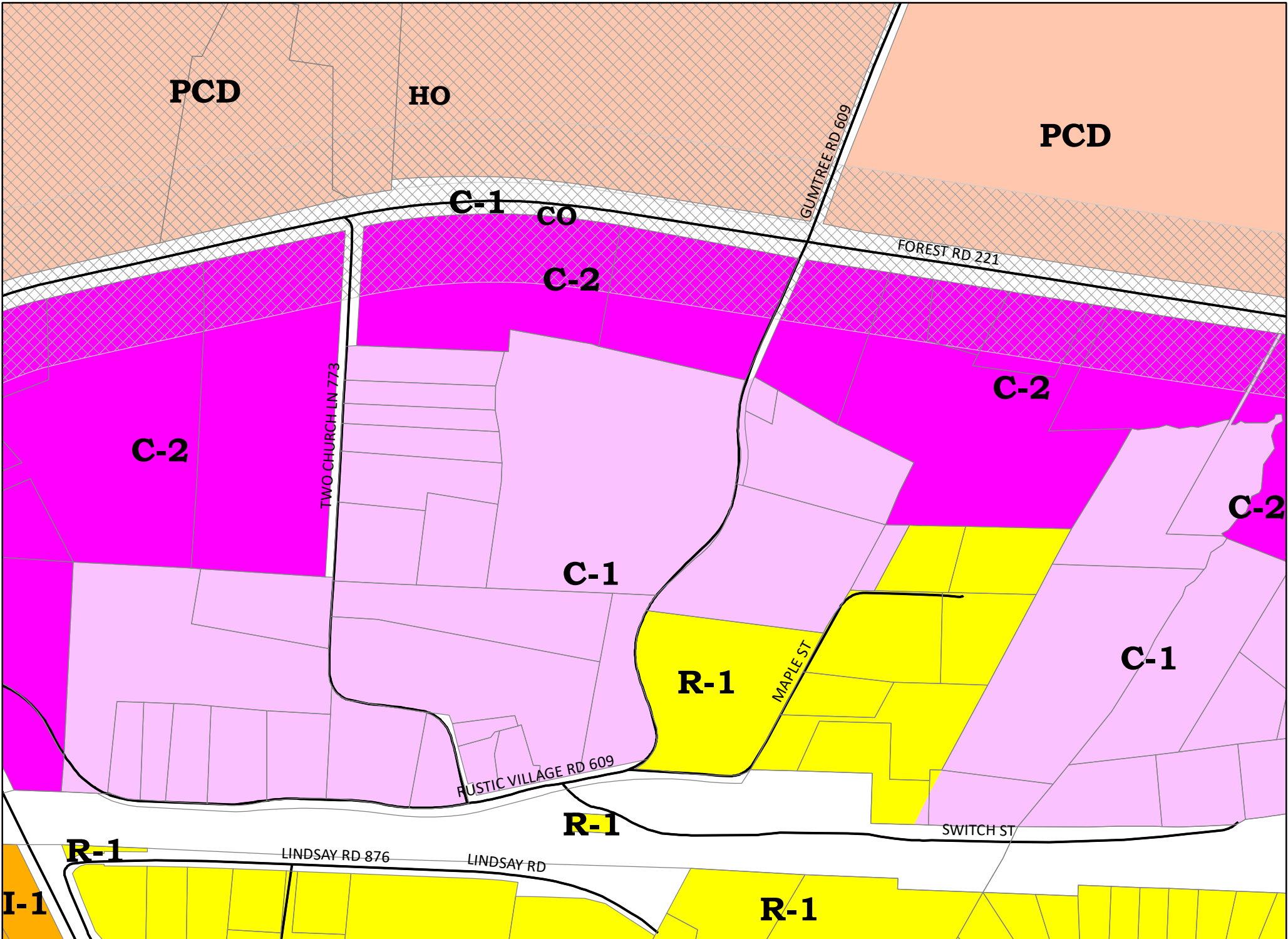


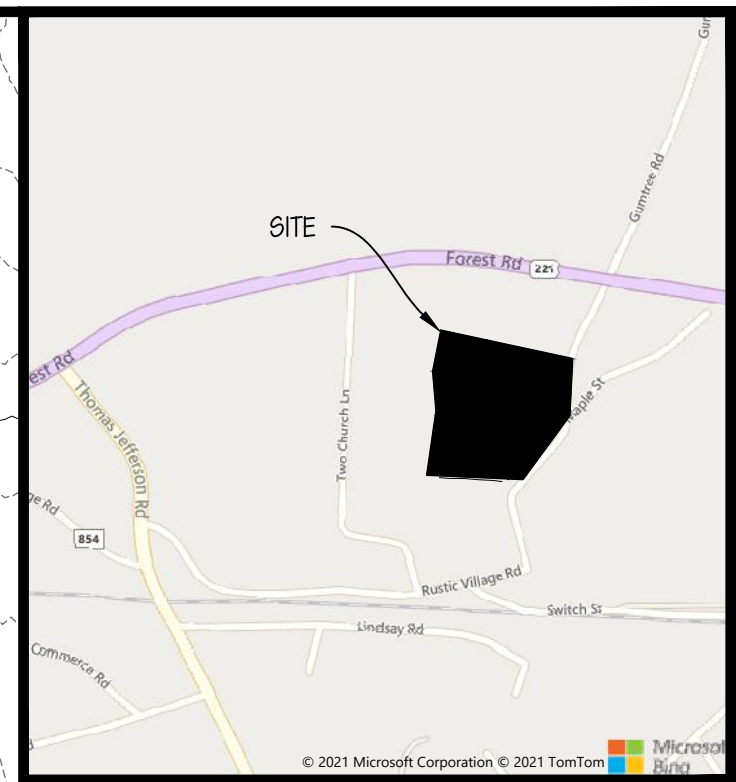
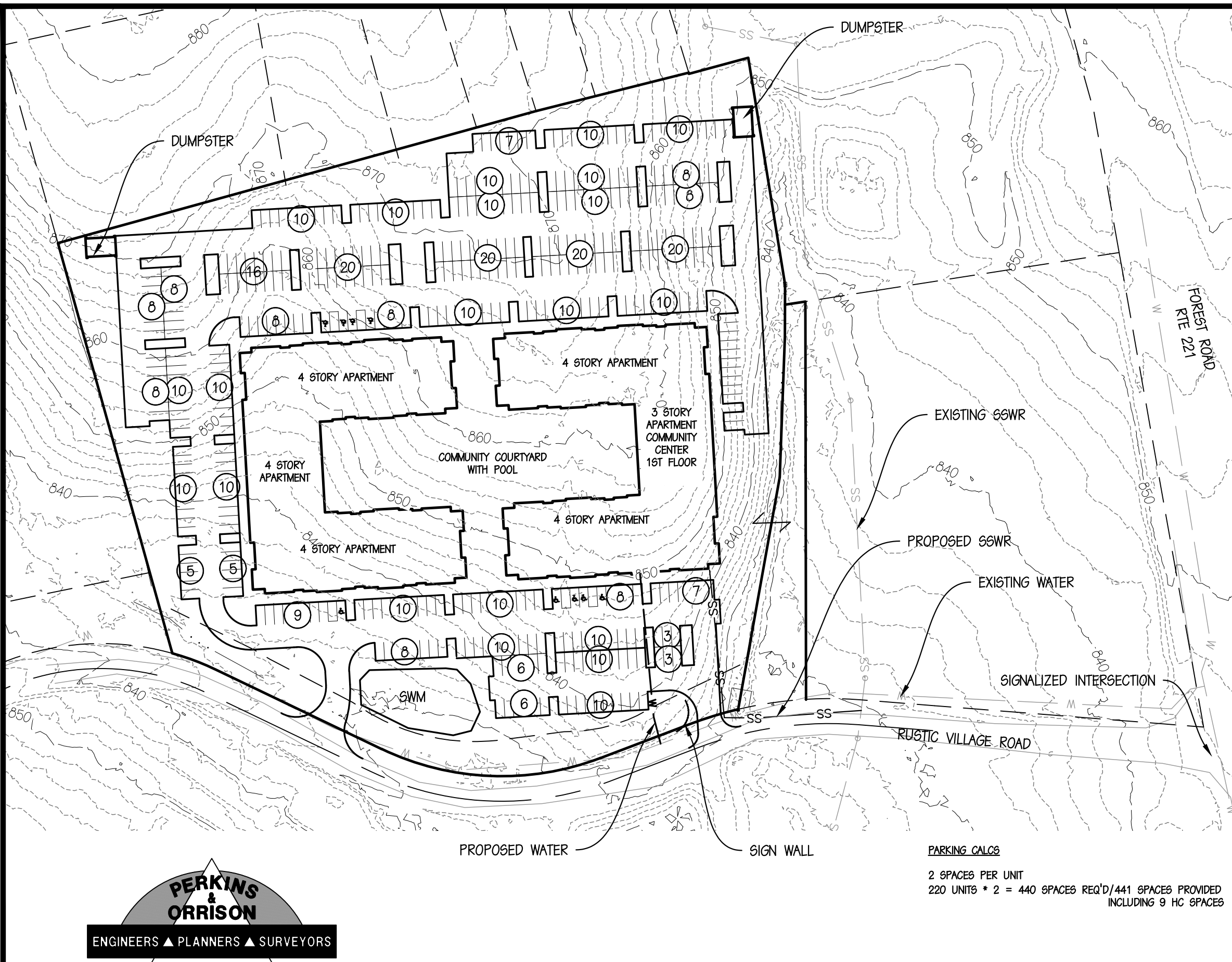
# Aerial Photograph (VGIN 2018)





# Zoning Map





VICINITY MAP - NOT TO SCALE

**NOTES:**

- OWNER: SCHOWE BEN F & JEAN L  
 DEVELOPER: TPB ENTERPRISES
1. TM#: 117-A-14
  2. ZONING:  
 EXISTING: C-1 (OFFICE DISTRICT)  
 EXISTING USE: SINGLE FAMILY DWELLING  
 PROPOSED: R-4 (HIGH DENSITY MULTI-FAMILY RESIDENTIAL DISTRICT)
  3. PROPOSED USE: MULTI-FAMILY DWELLINGS
  4. TOTAL ACREAGE IS 9.18± AC.
  5. THIS DEVELOPMENT SHALL BE SERVED BY PUBLIC WATER AND PUBLIC SANITARY SEWER BY BRWA
  6. SETBACKS/LOT REQUIREMENTS FOR R-4
    - a. FRONT YARD: 30 FEET
    - b. SIDE YARD: 10 FEET
    - c. REAR YARD: 10 FEET
    - d. MAXIMUM BUILDING HEIGHT - 45'
  - 5A. SETBACKS/LOT REQUIREMENTS FOR MULTI-FAMILY DWELLING
    - a. REAR YARD: 25 FEET
    - b. BUILDING SEPARATION - MIN OF 20 FEET
    - c. DENSITY - 24 DWELLING UNITS PER ACRE
    - d. MAXIMUM BUILDING HEIGHT - 45'
  6. BOUNDARY INFORMATION AND TOPOGRAPHY BASED UPON AVAILABLE RECORDS.
  7. STORMWATER MANAGEMENT WILL BE PROVIDED ONSITE IN AREAS LABELED "SWM".
  8. PROPERTY DOES NOT LIE IN THE 100-YEAR FLOODPLAIN (UNSHADED ZONE X). THE FIRM PANEL NUMBER IS: 51019C0360D, DATED 09/29/2010
  9. THIS PARCEL WAS CREATED PRIOR TO JULY 1, 2014.
  10. A TYPE C BUFFER WILL BE REQUIRED AND WILL BE SHOWN ON THE SITE PLAN.
  11. EMAIL LIST
    - a. NWALTON@PERKINS-ORRISON.COM
    - b. JDORMAN@PERKINS-ORRISON.COM
    - c. DCYRUS@THOMASBUILDERSOFVA.COM

**PARKING CALCS**

2 SPACES PER UNIT  
 220 UNITS \* 2 = 440 SPACES REQ'D/441 SPACES PROVIDED INCLUDING 9 HC SPACES

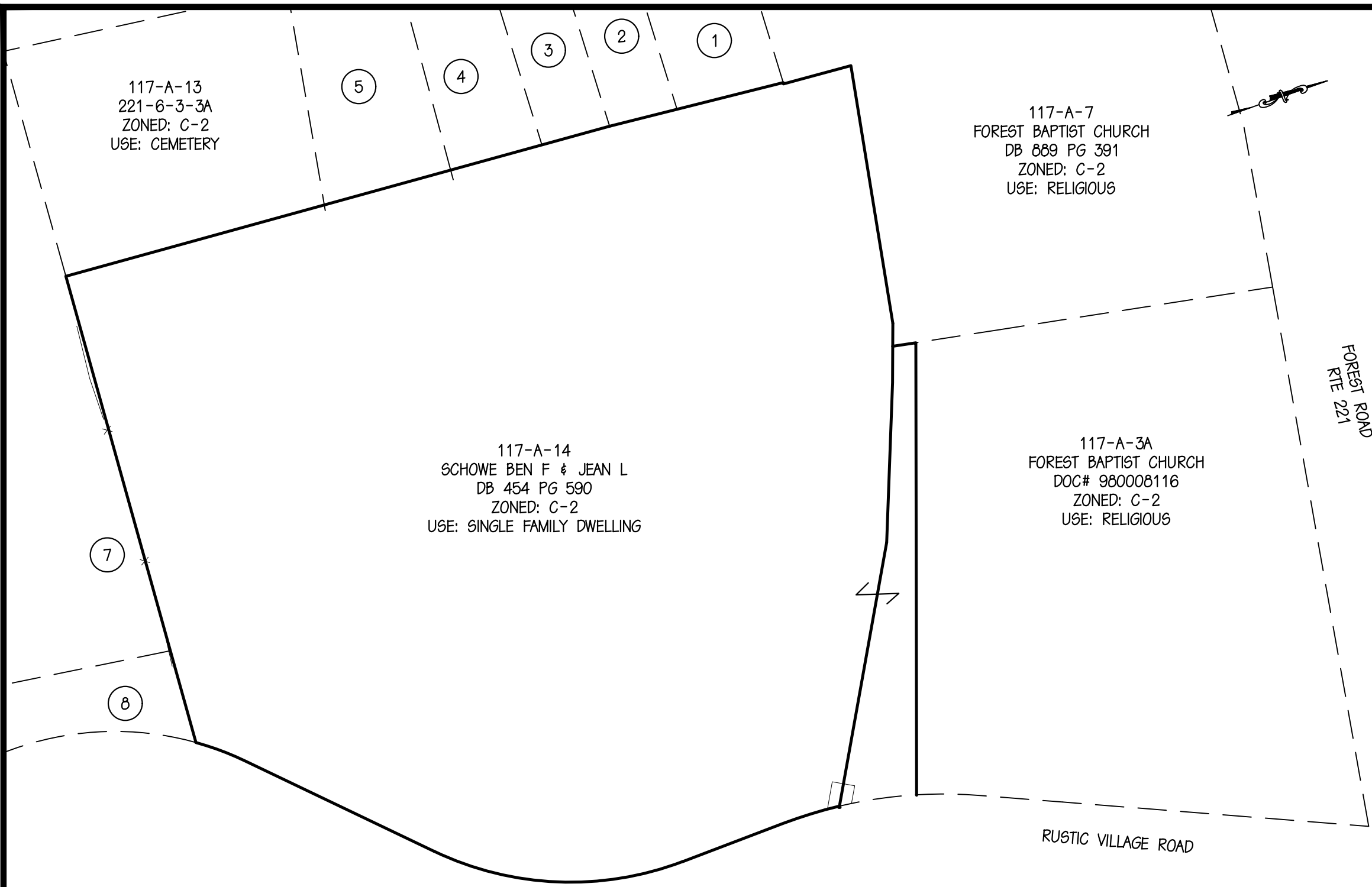


DATE: 05/07/21

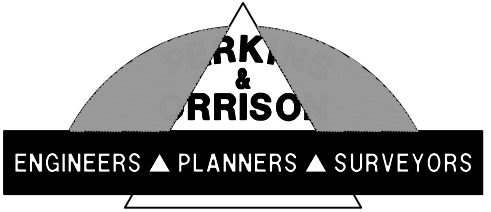
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 DWN: MJD

317 Brook Park Place  
 Forest, Virginia 24551

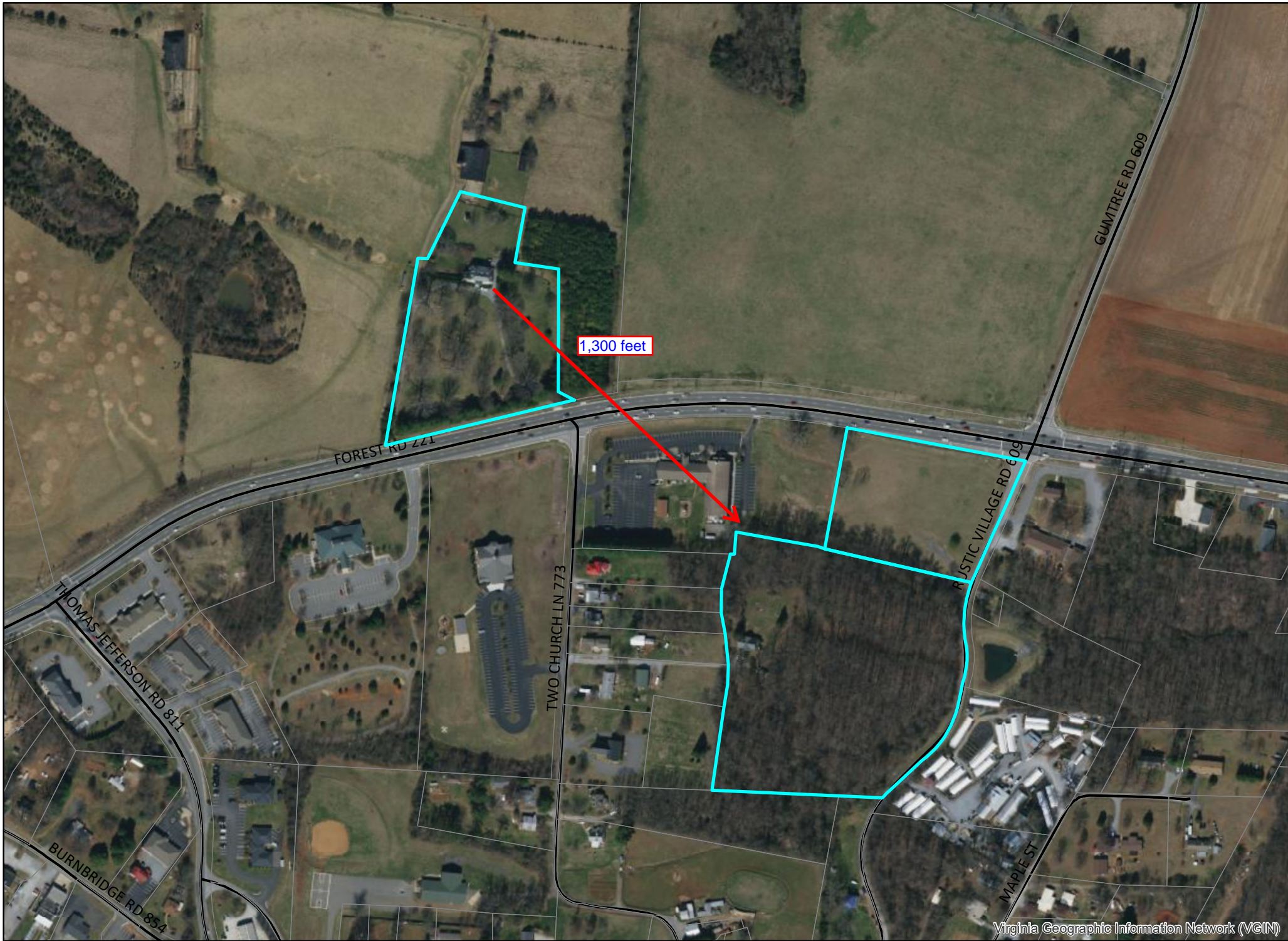
Office: 434-525-5985  
 Fax: 434-525-5986  
 E-Mail: pno@perkins-orrison.com  
 WEBSITE - http://www.perkins-orrison.net/



- ① 117-A-8  
MAYBERRY ROBERT E JR  
& DEBORAH L  
DB 739 PG 493  
ZONED: C-2  
USE: SINGLE FAMILY DWELLING
- ② 117-A-9  
JUDY S FRIEL FAMILY TRUST  
DOC# 070012386  
ZONED: C-2  
USE: SINGLE FAMILY DWELLING
- ③ 117-A-10  
HUNTER QUENTIN L  
& HUNTER RACHEL B  
DOC# 990009869  
ZONED: C-2  
USE: SINGLE FAMILY DWELLING
- ④ 117-A-11  
ABBOTT JOSEPH M  
& PENNY PARRISH  
DOC# 990003089  
ZONED: C-2  
USE: SINGLE FAMILY DWELLING
- ⑤ 117-A-12A  
HAMMER CREEK PROPERITES INC  
DOC# 190008038  
ZONED: C-2  
USE: SINGLE FAMILY DWELLING
- ⑥ 117-A-8  
MAYBERRY ROBERT E JR  
& DEBORAH L  
DB 739 PG 493  
ZONED: C-2  
USE: SINGLE FAMILY DWELLING
- ⑦ 117-A-17  
KLACYNSKI CHAD D  
& MILDRED E  
DB 715 PG 608  
ZONED: C-2  
USE: SINGLE FAMILY DWELLING



# Historic Home "009-0065 Rothsay" to Subject Parcels



**Sec. 30-46. - R-4 High density multifamily residential district.**

Sec. 30-46-1. Purpose.

The purpose of the R-4, High density multifamily residential district is to provide areas in the county within the urban service area where existing high density residential development (typically twelve (12) to eighteen (18) units per acre) has been established and land areas which generally appear to be appropriate for such development. R-4 areas should serve as a buffer between less intensive and more intensive districts. R-4 areas are designated based on direct access to major streets, and where sewer, water, and schools, and other public services have suitable capacity to accommodate development at the stated density. An additional consideration is that the parcel sizes allow for well planned residential development. A variety of housing densities and styles is encouraged in order to permit a diversity and flexibility in design and layout. Additional standards are established to provide for amenities in higher density developments.

Sec. 30-46-2. Permitted uses.

Permitted uses shall be as listed in section 30-79.

Sec. 30-46-3. Site development regulations.

General standards. For additional, modified, or more stringent standards for specific uses, see article IV, Use and Design Standards.

(a) Minimum lot requirements:

(1) Lots served by private well and sewage disposal system;

a. Area: One (1) acre (forty-three thousand five hundred sixty (43,560) square feet).

b. Frontage: One hundred (100) feet on a publicly owned and maintained street.

c. Lot width: One hundred (100) feet.

(2) Lots served by either public sewer or water:

a. Area: Twenty thousand (20,000) square feet.

b. Frontage: Seventy-five (75) feet on a publicly owned and maintained street.

c. Lot width: Seventy-five (75) feet.

(3) Lots served by both public sewer and water:

a. Area: Ten thousand (10,000) square feet.

b. Frontage: Sixty (60) feet on a publicly owned and maintained street.

c. Lot width: Sixty (60) feet.

(4) For minimum lot size and permitted densities for multifamily dwellings and townhouses refer to article IV, Use and Design Standards.

(b) Minimum setback requirements:

(1) Front yard:

a. Principal structures: Thirty (30) feet.

b. Accessory structures: Thirty (30) feet or behind the front building line, whichever distance is less.

(2) Side yard:

a. Principal structures: Ten (10) feet.

b. Accessory structures: Ten (10) feet when between front and rear building lines and three (3) feet when behind the rear building line and ten (10) feet when in front of the front building line.

(3) Rear yard:

a. Principal structures: Ten (10) feet.

b. Accessory structures: Three (3) feet.

(4) Where a lot fronts on more than one (1) street, front yard setbacks shall apply to all streets.

(c) Maximum height of structures:

(1) Height limitations:

a. Principal structures: Forty-five (45) feet. Principal structures may exceed the principal structure height limitation provided a special use permit is approved in accordance with section 30-19

b. Accessory structures: Fifteen (15) feet.

**Sec. 30-53. - C-1 Office district.**

Sec. 30-53-1. Purpose.

The purpose of the C-1 Office district is to provide for the development of attractive and efficient office uses in the urban service area which serve both community and county-wide needs. The C-1 district allows for varying intensities of office development as part of either a planned office complex or, to a limited degree, small scale office uses. Retail uses are permitted, to a limited extent, where they are supportive of the office environment.

The C-1 districts are most appropriately found along or near major arterial streets where existing commercial development has occurred and/or where commercial zoning has been established, or near existing residential development where it would serve as a logical buffer strip between conflicting land use types. Site development standards are intended to ensure compatibility with adjacent land uses.

Sec. 30-53-2. Permitted uses.

Permitted uses shall be as listed in section 30-79.

Sec. 30-53-3. - Site development regulations.

General standards. For additional, modified, or more stringent standards for specific uses, see article IV, Use and Design Standards.

(a) Minimum lot requirements:

(1) Lots served by private well and sewage disposal system:

- a. Area: One (1) acre (Forty-three thousand five hundred sixty (43,560) square feet).
- b. Frontage: One hundred (100) feet on a publicly owned and maintained street.

(2) Lots served by either public sewer or water, or both:

- a. Area: Fifteen (15,000) square feet.
- b. Frontage: Seventy-five (75) feet on a publicly owned and maintained street.

(b) Minimum setback requirements:

(1) Front yard:

- a. Principal structures: Thirty (30) feet, or twenty (20) feet when all parking is located behind the front building line.
- b. Accessory structures: Behind front building line.

(2) Side yard:

a. Principal structures: Ten (10) feet on any one (1) side, with a combined total on both sides of at least twenty-five (25) feet.

b. Accessory structures: Ten (10) feet behind the front building line, or three (3) feet behind rear building line.

(3) Rear yard:

a. Principal structures: Fifteen (15) feet.

b. Accessory structures: Three (3) feet.

(4) Where a lot fronts on more than one (1) street, front yard setbacks shall apply to all streets.

(c) Maximum height of structures:

(1) Height limitations:

a. Principal structures: Forty-five (45) feet. Principal structures may exceed the principal structure height limitation provided a special use permit is approved in accordance with section 30-19

b. Accessory structures: Fifteen (15) feet.

(d) Maximum coverage:

(1) Building coverage: Fifty (50) percent of the total lot area.

(2) Lot coverage: Eighty (80) percent of the total lot area.



**Sec. 30-54. - C-2 General Commercial district.**

Sec. 30-54-1. Purpose.

The purpose of the C-2 district is to provide locations for a variety of commercial and service related activities within the urban service area serving a community of several neighborhoods or large areas of the county. This district is intended for general application throughout the county. General commercial districts are most appropriately found along major arterial thoroughfares which serve large segments of the county's population. The C-2 district permits a wide variety of retail and service related uses. Site development regulations are designed to ensure compatibility with adjoining land uses.

Sec. 30-54-2. Permitted uses. Permitted uses shall be as listed in section 30-79.

Sec. 30-54-3. Site development regulations. General Standards. For additional, modified, or more stringent standards for specific uses, see article IV, Use and Design Standards.

(a) Minimum lot requirements:

(1) Lots served by private well and sewage disposal system;

- a. Area: One (1) acre (forty-three thousand five hundred sixty (43,560) square feet).
- b. Frontage: One hundred (100) feet on a publicly owned and maintained street.

(2) Lots served by either public sewer or water, or both:

- a. Area: Fifteen thousand (15,000) square feet.
- b. Frontage: Seventy-five (75) feet on a publicly owned and maintained street.

(b) Minimum setback requirements:

(1) Front yard:

- a. Principal structures: Thirty (30) feet, or twenty (20) feet when all parking is located behind the front building line.
- b. Accessory structures: Behind front building line.

(2) Side yard: None.

(3) Rear yard:

- a. Principal structures: Fifteen (15) feet.
- b. Accessory structures: Three (3) feet.

(4) Where a lot fronts on more than one (1) street, front yard setbacks shall apply to all streets.

(c) Maximum height of structures:

(1) Height limitations:

- a. Principal structures: Forty-five (45) feet. Principal structures may exceed the principal structure height limitation provided a special use permit is approved in accordance with section 30-19
- b. Accessory structures: actual height of principal structure.

(d) Maximum coverage:

- (1) Building coverage: Fifty (50) percent of the total lot area.
- (2) Lot coverage: Ninety (90) percent of the total lot area.

**Sec. 30-82-11. Multifamily dwelling.**

(a) Intent. The following minimum standards are intended to accommodate multifamily dwellings, ensuring adequate separation and other design characteristics to create a safe and healthy residential environment while protecting adjoining uses which are less intensive.

(b) General standards:

(1) Minimum front yard setback: Thirty (30) feet from any street right-of-way for all structures.

(2) Minimum side yard setback: Twenty (20) feet for principal structures.

(3) Additional setbacks in the form of a buffer yard shall be required in accordance with article V where the property adjoins a less intensive zoning district.

(4) Each multifamily building shall be separated by forty (40) feet between facing living areas. This separation may be reduced to twenty (20) feet when both multifamily buildings contain windowless walls.

(5) Where buildings are placed at right angles (ninety (90) degrees) to one another and both interior walls are windowless, the minimum separation of buildings shall be twenty (20) feet.

(6) Standards for open space and recreational areas required below:

a. Shall be in addition to any buffer yard required under article V of this ordinance;

b. Shall be in addition to, and not be located in, any required front, side or rear yard setback;

c. Shall have a horizontal dimension of at least fifty (50) feet, except that areas with a horizontal distance of not less than twenty (20) feet shall be counted as open space provided such areas contain facilities such as, but not limited to, bikeways, exercise trails, tot lots, gazebos, picnic tables, etc.;

d. Shall not include proposed street rights-of-ways, open parking areas, driveways, or sites reserved for other specific uses; and

e. Shall be of an appropriate nature and location to serve the residents of the multifamily development.

(7) One (1) structure may be permitted for tenants/property owners to wait for transportation (School Bus, Public Transit, etc.) that does not have to meet any setback requirements. This structure is limited to a maximum size of 500 square feet and must be placed in a location that is acceptable to the Virginia Department of Transportation.

(...)

(e) Additional standards in the R-4 district:

(1) Minimum lot size: Seven thousand two hundred (7,200) square feet for the first dwelling unit, plus one thousand eight hundred fifteen (1,815) square feet for each additional unit.

(2) Maximum density: Twenty-four (24) dwelling units per acre.

(3) The property shall be served by public sewer and water.

(4) Common open space and recreational areas required: Five (5) percent of the total lot area for parcels of two (2) to five (5) acres, and ten (10) percent for parcels over five (5) acres. No open space is required for parcels under two (2) acres.

(5) Minimum rear yard setback: Twenty five (25) feet for the principal structure(s). For property bordering Smith Mountain Lake, the distance will be measured from the recognized full pond level. Additionally, the principal structure shall be located a minimum of ten (10) feet from the eight-hundred foot (800') contour. Walkways and steps are exempt from rear yard requirements.

MEMORANDUM

TO: NORMAN WALTON, PE	FROM: BILL WUENSCH, P.E., PTOE; WEI HE
ORGANIZATION: PERKINS & ORRISON, INC.	DATE: MAY 19, 2021
PHONE NUMBER: 434-525-5985	SENDER'S REFERENCE NUMBER:
RE: RUSTIC VILLAGE ROAD APARTMENTS TRAFFIC IMPACT STUDY	YOUR REFERENCE NUMBER:

URGENT   
  FOR YOUR USE   
  PLEASE COMMENT   
  PLEASE REPLY   
  PLEASE RECYCLE

## Project Overview

This memorandum summarizes the traffic impact for the Rustic Village Road Apartments to be located on Rustic Village Road in Bedford County, Virginia. Access to site will be provided on Rustic Village Road south of Route 221/Rustic Village Road intersection. **Figure 1** illustrates the project location, conceptual site plan, and study intersection (Route 221/Rustic Village Road intersection).

As illustrated in the conceptual site plan, the project will consist of 220 apartments (over four-floor buildings) to be completed and occupied in 2023.

Included within this study are the traffic count data, traffic volume derivation and projections, traffic operations analyses, and a summary of the findings and conclusions.

## Traffic Volumes

### Traffic Count Data

Traffic counts were performed at Route 221/Rustic Village Road intersection on Tuesday, May 11th, 2021. The traffic count reports are attached in **Appendix A**. **Figure 2** illustrates the morning and afternoon peak hour traffic volumes at Route 221/Rustic Village Road intersection from the traffic count reports.

### Adjusted Existing Traffic Volumes

The morning and afternoon peak hour traffic volumes at Route 221/Rustic Village Road intersection from the traffic count reports were compared to the 2019 VDOT historical traffic data and the 2016 traffic volumes from *Route 811 Corridor Study* for calibration purpose.

**Table 1 Traffic Volume Comparison (Traffic Counts versus 2019 VDOT Historical Traffic Data)**

	2021 Morning (Traffic Count Reports)	2021 Afternoon (Traffic Count Reports)	2019 VDOT Historical Traffic Data
Peak Hour Traffic Volumes on Route 221 (West of Route 221/Rustic Village Road Intersection)	1975	2517	2125

**Table 1** above compares the morning and afternoon peak hour traffic volumes from the traffic count reports to the peak hour traffic volumes as calculated from the 2019 VDOT historical traffic data (AADT multiplying by K Factor) on Route 221 west of Route 221/Rustic Village Road intersection. The results

show that the morning peak hour traffic volumes from the traffic count reports are lower than and the afternoon peak hour traffic volumes from the traffic count reports are higher than the peak hour traffic volumes as calculated from the 2019 VDOT historical traffic data. This finding suggests that the afternoon peak hour traffic volumes from the traffic count reports are considered high enough for the analysis and the morning peak hour traffic volumes from the traffic count reports need to be calibrated.

In order to determine the adjustment rate for the calibration of the morning peak hour traffic volumes, **Table 2** below compares the morning and afternoon peak hour traffic volumes from the traffic count reports to the morning and afternoon peak hour traffic volumes from *Route 811 Corridor Study* on Route 221 west of Route 221/Rustic Village Road intersection.

**Table 2 Traffic Volume Comparison (Traffic Counts versus Traffic Volumes from Route 811 Corridor Study – Link Volumes)**

	Year 2016 (Route 811 Corridor Study)	Year 2021 (Traffic Count Reports)	Change
Morning Peak Hour	2072	1975	-4.7%
Afternoon Peak Hour	2390	2517	5.3%

The results in Table 2 show that the afternoon peak hour traffic volumes grew by 5.3% from Year 2016 to Year 2021. This memorandum suggests, to reflect the growth without Covid-19 impact, the morning peak hour traffic volumes should grow by 5.3% as well from 2072 in Year 2016 to 2182 in Year 2021. It is recommended **the adjustment rate of 10.5%**, which can adjust the morning peak hour traffic volumes from 1975 up to 2182, be used for the calibration of the morning peak hour traffic volumes.

The adjustment rate of 10.5% was used to factor up the morning peak hour traffic volumes from the traffic count reports. The resulting adjusted existing traffic volumes for the analysis are illustrated in **Figure 3**.

### 2023 No Build Traffic Volumes

The adjusted existing traffic volumes were factored up with the annual growth rates as provided in VDOT SPS traffic data (attached in **Appendix B**). The resulting 2023 no build traffic volumes are illustrated in **Figure 4**.

### Trip Generation

The project will consist of 220 apartments (over four-floor buildings) to be completed in 2023. The Institute of Transportation Engineers (ITE) Trip Generation Manual 10th Edition was used to estimate the trips generated by the proposed apartments. **Table 3** summarize the land use descriptions, ITE land use code, size, and anticipated trips.

**Table 3 Trip Generation**

Description	ITE Code	Qty	Daily	AM		PM	
				In	Out	In	Out
Apartment (mid-rise)	221	220	1197	20	59	59	38
		total	1197	79		97	

As indicated in Table 3, the Rustic Village Road Apartments will generate 79 morning and 97 afternoon peak hour trips.

## Site Trip Distribution and Assignment

The site trip distribution percentages were estimated as per the existing travel pattern and are illustrated in **Figure 5**.

The estimated site trips shown in Table 3 were assigned to the roadway network per the above distribution percentages and the resulting site trip assignment is illustrated in **Figure 6**.

## 2023 Build Traffic Volumes

The site trips as shown in Figure 6 were added to the 2023 no build traffic volumes as shown in Figure 4 and the resulting 2023 build traffic volumes are illustrated in **Figure 7**.

## Traffic Operations Analyses

Traffic operations analyses for this study were completed using Synchro/SimTraffic 11.0, a computer-based traffic operations model that replicates procedures from the Highway Capacity Manual (HCM). The average vehicle delays (in seconds) for the intersection overall and for each turning movement, as well as the Level of Service (LOS) on a scale of A (best) to F (worst) as defined in the HCM are reported in Synchro, and the maximum queue lengths (in feet) for each turning movement are reported in SimTraffic. Both the Synchro and SimTraffic analyses were performed based on the latest VDOT Traffic Operations and Safety Analysis Manual (TOSAM).

## Existing Conditions Analysis

The existing conditions Synchro models are based on the current intersection configuration, existing signal timings, adjusted existing traffic volumes, and the current VDOT TOSAM guidance. The Synchro HCM reports are provided in **Appendix C** and the SimTraffic queue reports in **Appendix D**. **Table 4** summarizes the existing delays, levels of service, and maximum queue lengths.

**Table 4 Existing Delays, Levels of Service, and Queues**

Approach	Movement	Storage Length (ft.)	Taper Length (ft.)	Effective Storage Length (ft.)	Existing AM			Existing PM		
					LOS	Delay	Maximum Queue (ft.)	LOS	Delay	Maximum Queue (ft.)
<i>Route 221/Rustic Village Road &amp; Gumtree Road</i>										
<i>Signalized</i>										
Route 221 EB	EBL	200	0	200	A	9.6	39	B	14.5	56
	EBT	-	-	-	C	20.6	242	B	13.6	173
	EBR	200	200	300	B	10.2	36	A	9.7	27
Route 221 WB	WBL	200	0	200	B	13.5	42	B	10.8	77
	WBT	-	-	-	B	15.4	183	C	22	372
	WBR	200	200	300	B	11.1	30	B	11.2	32
Rustic Village Road NB	NBL/T/R	-	-	-	D	43.3	60	D	47.8	79
Gumtree Road SB	SBL/T/R	-	-	-	D	40	66	D	43.8	128
Intersection					B	19.6		B	19.9	

As shown in Table 4, the study intersection and all Route 221 movements operate at LOS C or better and both side-streets operate at LOS D. The queuing analysis results indicate all queues are manageable within the provided storage lane.

## 2023 No Build Conditions Analysis

The 2023 no build conditions Synchro models are based on the current intersection configuration, existing signal timings, 2023 no build traffic volumes, and the current VDOT TOSAM guidance. The Synchro HCM reports are provided in **Appendix E** and the SimTraffic queue reports in **Appendix F. Table 5** summarize 2023 no build delays, levels of service, and maximum queue lengths.

**Table 5 2023 No Build Delays, Levels of Service, and Queues**

Approach	Movement	Storage Length (ft.)	Taper Length (ft.)	Effective Storage Length (ft.)	2023 No Build AM			2023 No Build PM		
					LOS	Delay	Maximum Queue (ft.)	LOS	Delay	Maximum Queue (ft.)
<i>Route 221/Rustic Village Road &amp; Gumtree Road</i>										
<i>Signalized</i>										
Route 221 EB	EBL	200	0	200	A	9.6	50	B	15.5	64
	EBT	-	-	-	C	20.5	221	B	13.8	181
	EBR	200	200	300	B	10.2	33	A	9.7	25
Route 221 WB	WBL	200	0	200	B	13.4	24	B	10.9	75
	WBT	-	-	-	B	15.4	168	C	23.2	383
	WBR	200	200	300	B	11.1	26	B	11.2	104
Rustic Village Road NB	NBL/T/R	-	-	-	D	43.3	66	D	47.8	68
Gumtree Road SB	SBL/T/R	-	-	-	D	40	72	D	43.8	106
Intersection					B	19.5		C	20.6	

*Note: 2023 no build morning peak hour traffic operation results are a little better than existing morning peak hour traffic operation results. This is due to the default TOSAM peak hour factor for future conditions (0.88) is higher than the existing morning peak hour peak hour factor (0.85).*

As shown in Table 5, similar to existing conditions, the study intersection and all Route 221 movements will operate at LOS C or better and both side-streets will operate at LOS D. The queuing analysis results indicate all queues will be manageable within the provided storage lane.

## 2023 Build Conditions Analysis

The 2023 build conditions Synchro models are based on the current intersection configuration, existing signal timings, 2023 build traffic volumes, and the current VDOT TOSAM guidance. The Synchro HCM reports are provided in **Appendix G** and the SimTraffic queue reports in **Appendix H. Table 6** summarize 2023 build delays, levels of service, and maximum queue lengths.

**Table 6 2023 Build Delays, Levels of Service, and Queues**

Approach	Movement	Storage Length (ft.)	Taper Length (ft.)	Effective Storage Length (ft.)	2023 Build AM			2023 Build PM		
					LOS	Delay	Maximum Queue (ft.)	LOS	Delay	Maximum Queue (ft.)
<i>Route 221/Rustic Village Road &amp; Gumtree Road</i>										
<i>Signalized</i>										
Route 221 EB	EBL	200	0	200	B	12.2	78	B	17.5	90
	EBT	-	-	-	C	28.3	252	B	17.4	222
	EBR	200	200	300	B	12.9	38	B	12.2	33
Route 221 WB	WBL	200	0	200	B	16.8	36	B	12.1	166
	WBT	-	-	-	B	18.7	185	C	28.4	423
	WBR	200	200	300	B	13.4	28	B	12.6	110
Rustic Village Road NB	NBL/T/R	-	-	-	D	40.9	103	D	45.5	102
Gumtree Road SB	SBL/T/R	-	-	-	D	41.4	80	D	43.4	123
Intersection					C	25.5		C	24.8	



As shown in Table 6, similar to existing conditions and 2023 no build conditions, the study intersection and all Route 221 movements will operate at LOS C or better and both side-streets will operate at LOS D. The queuing analysis results indicate all queues will be manageable within the provided storage lane.

### Findings and Recommendations

**Based on the analyses summarized in this memorandum, the principal findings are as followings –**

- The Rustic Village Road Apartments will generate 79 morning and 97 afternoon peak hour trips.
- Route 221/Rustic Village Road intersection and all Route 221 movements operate and will operate at LOS C or better and both side-streets operate and will operate at LOS D in existing conditions, 2023 no build conditions, and 2023 build conditions.
- All queues are and will be manageable within the provided storage lane in existing conditions, 2023 no build conditions, and 2023 build conditions.

**Based on the above findings, this study recommends that no mitigation would be necessary for the Rustic Village Road Apartments.**

**End of Memorandum**

### Appendices

Appendix A Traffic Count Reports

Appendix B VDOT SPS Traffic Data

Appendix C Existing HCM Reports

Appendix D Existing SimTraffic Queue Reports

Appendix E 2023 No Build HCM Reports

Appendix F 2023 No Build SimTraffic Queue Reports

Appendix G 2023 Build HCM Reports

Appendix H 2023 Build SimTraffic Queue Reports

**MEMORANDUM**

TO: JOHN (JP) MORRIS, P.E. / JAY KNIGHT, P.E.

FROM: BILL WUENSCH, P.E., PTOE;  
WEI HE

ORGANIZATION: VDOT

DATE: JUNE 22, 2021

PHONE NUMBER:

SENDER'S REFERENCE NUMBER:

RE: RUSTIC VILLAGE – RESPONSE TO TIA REVIEW  
COMMENTS

YOUR REFERENCE NUMBER:

URGENT     FOR YOUR USE     PLEASE COMMENT     PLEASE REPLY     PLEASE RECYCLE

*Comment 1: Page 3: “The site trip distribution percentages were estimated as per the existing travel pattern and are illustrated in Figure 5.” Describe in specific terms of site trip distribution percentage.*

*Response: the specific terms and calculations of site trip distribution are as following –*

- *Percentages of inbound site trips from east and west are the same as the percentages of adjusted traffic volumes approaching the intersection from east and west. As shown in Figure 3, Adjusted Existing Traffic Volumes –*
  - *In AM, there are 767 approaching the intersection from east and 1329 approaching the intersection from west, this translates to  $767/(767+1329) = 36.6\%$  inbound site trips are from east and  $1329/(767+1329) = 63.4\%$  inbound site trips are from west.*
  - *In PM, there are 1451 approaching the intersection from east and 1000 approaching the intersection from west, this translates to  $1451/(1451+1000) = 59.2\%$  inbound site trips are from east and  $1000/(1451+1000) = 40.8\%$  inbound site trips are from west.*
  
- *Percentages of outbound site trips to east and west are the same as the percentages of adjusted traffic volumes departing the intersection to east and west. As shown in Figure 3, Adjusted Existing Traffic Volumes –*
  - *In AM, there are 1286 departing the intersection to east and 852 departing the intersection to west, this translates to  $1286/(1286+852) = 60.1\%$  outbound site trips are to east and  $852/(1286+852) = 39.9\%$  outbound site trips are to west.*
  - *In PM, there are 965 departing the intersection to east and 1517 departing the intersection to west, this translates to  $965/(965+1517) = 38.9\%$  outbound site trips are to east and  $1517/(965+1517) = 61.1\%$  outbound site trips are to west.*

*Comment 2: Table 1: For the morning and afternoon traffic counts, the number of peak hour traffic volumes does not match with the peak hour counts. Explain the differences in vehicle counts.*

Response: The numbers in Table 1 for 2021 morning and afternoon peak hours are the same as in the traffic counts. Below details the calculations –

- 2021 Morning Peak Hour Traffic Volumes on Route 221 (west of Route 221/Rustic Village Road intersection) =  $38 + 1144 + 21 + 80 + 679 + 13 = 1975$ .
- 2021 Afternoon Peak Hour Traffic Volumes on Route 221 (west of Route 221/Rustic Village Road intersection) =  $57 + 932 + 11 + 66 + 1424 + 27 = 2517$ .

Please advise if there are further questions or if you would like discuss.

**END OF MEMORANDUM**



# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF TRANSPORTATION

731 Harrison Ave.  
Salem, VA 24153-0560

STEPHEN C. BRICH, P.E.  
COMMISSIONER

May 25, 2021

Mariel Fowler  
Office of Community Development  
122 E. Main St, Suite G-03  
Bedford, VA 24523

Subject: **TRC21-0014 – Rezoning Rustic Village Townhomes  
Route 609 – Rustic Village Road - TM# 117-A-14  
Bedford County**

Dear Ms. Fowler,

The Bedford Residency has completed a review of the submitted untitled Plan Sheet as received by email on May 19, 2021, for the above referenced project and has the following comments:

1. VDOT is in receipt of a TIA to support the proposed layout and any impacts to VDOT facilities, as received on May20, 2021. This is currently in review by VDOT Traffic.
2. Rustic Village Road, Route 609, is classified as a local road. Access management is not a review requirement. VDOT does not object to the use of two entrances in this situation.
3. As proposed the site will require two commercial entrances for access to the internal private roadways.
4. Sanitary sewer proposed in the existing prescriptive easement for Rte. 609 will require a permanent BRWA easement from the underlying property owner. Issuance of a Land Use Permit at this location is constrained to allowing traffic control within the easement. VDOT will coordinate with BRWA relative to location and width of the easement.

TRC21-0014 – Rezoning Rustic Village Townhomes  
May 25, 2021  
Page Two

5. When submitted the site plan must demonstrate:
  - a. The proposed entrances comply with the design requirements in Appendix F.
  - b. Grading and drainage do not increase discharge to the right-of-way at any point along the frontage. Existing site runoff enters the right-of-way at two locations, the use of one storm water management facility may require extensive engineering.

If you have any questions, please call Clyde Spencer or me at 540-586-7941.

Sincerely,

Assistant Resident Engineer - Land Use  
Bedford Residency

CDS/lbc

Cy: Norm Walton, PE – P&O (by email)  
Correspondence File