TOWN OF VERNON Planning & Zoning Commission (PZC) Virtual Meeting Notice & Agenda Thursday, January 20, 2022, 7:30 PM

 Zoom Meeting Information

 https://us02web.zoom.us/j/6149852850?pwd=NUZwVkEwWkRxS1EweC94cFNHVUxBdz09

 Meeting ID: 614 985 2850 Passcode: h72Vs

 By Phone: 646 876 9923
 Meeting ID: 614 985 2850

AGENDA

1. Call to Order & Roll Call by Roland Klee, Chairman

2. Administrative Actions/Requests

- 2.1 Election of Officers 2022
- 2.2 Amendment/Adoption of Agenda Additional business to be considered under agenda item #6 "Other Business" requires Commission vote.
- 2.3 Approval of the Minutes from the **December 16, 2021**

3. New Application(s) for receipt, if any:

3.1 **PZ-2022-01, 26 Union St**. An Application of Amy Javarauckas for a Special Permit pursuant to Section 4.23.5.16 and Section 24.5.21 of the Zoning Regulations to allow a Tattoo Shop at 26 Union St. (Tax Map 23, Block 106, Parcel 15). The Parcel is zoned Downtown Business & Residential (DBR) and is in the Rockville Village Overlay District.

3.2 **PZ-2022-02**, **95 Hartford Tpke**. CT Golf Land LLC has requested modifications to an approved Site Plan of Development and special permits for site grading, new construction, additions, and other activities on property located at 95 Hartford Tpke. (Assessor ID: Map 1, Block 158, Parcel 00095).

4. Public Hearing(s) and Action on Applications:

4.1 **PZ-2021-19, Village at Naek Road**. An Application of Rashid Hamid for a Site Plan and Special Permits to allow a +-70-unit multi-family development on multiple parcels located at 291 and 293 Talcottville Rd. (Assessor ID: Map 3 Block 4 Parcels 9A & 9E) and at 27, 32, 37, 38, and 46 Naek Rd. (Assessor ID: Map 3 Block 4 Parcels 008-8, 7,4, 6, 5). Specials Permits requested from the Planned Development Zone-Gerber Farm zoning district (PDZ) include Section 4.24.4.3.2 (multi-family units); 4.24.3.15.1 (more than 40 off street parking spaces); 4.24.4.3.15.2 (proposed structures within 200 feet of a residential structure); Section 4.24.4.3.15.3 (proposed parking within 200 feet of a residential structure); Section 4.24.4.3.15.4 (aggregate square footage in excess of 25,000 sq. ft.); Section 4.24.4.3.15.9 (a development having less than the required yards).

5. 8-24 Referrals, If any

5.1 36 Cubles St.

6. **Other Business/Discussion**

6.1 Affordable Housing Plan Introduction

7. Adjournment

Roland Klee, Chairman Planning & Zoning Commission

DRAFT MINUTES

TOWN OF VERNON Planning & Zoning Commission (PZC) Meeting Notice Thursday, December 2, 2021 7:30 PM Town Hall--14 Park Place, 3rd Floor Council Chambers Vernon, CT

Draft Minutes

1. Call to Order & Roll Call by Roland Klee, Chairman 7:30 PM.

- Regular members present: Roland Klee, Robin Lockwood, Mike Mitchell, Iris Mullan, and Susan Reudgen
- Alternate Member: Carl Bard sitting for Jesse Schoolnik
- Absent Members: Joseph Miller, Jesse Schoolnik and Mike Baum
- Staff present: George McGregor, Town Planner
- Recording secretary: Jill Rocco

2. Administrative Actions/Requests

2.1 Amendment/Adoption of Agenda - Additional business to be considered under agenda item #7 "Other Business" requires Commission vote

Robin Lockwood **MOVED** to **ADOPT** the agenda. Susan Reudgen seconded and the motion carried unanimously.

2.2 Approval of the Minutes from the **December 2, 2021.**

Susan Reudgen **MOVED** to **APPROVE** the minutes from December 2, 2021. Iris Mullan seconded and the motion carried unanimously.

3. New Application(s) for receipt, if any:

NONE

4. Public Hearing(s) and Action on Applications

- **4.1 PZ-2021-18, 234 Talcottville Rd**. An Application of Pritam, LLC c/o Jagdev Toor for a Special Permit Use for the sale of alcoholic beverages (package store) at 234 Talcottville Rd. (Assessor's ID: Map 10, Block 15R, Parcel 40G).
- Chairman Roland Klee explained the rules of the Public Hearing.
- Town Planner George McGregor explained that the applicant will explain details of the application.
- Legal notice was published in the Journal Inquirer on December 4th & December 11th.
- Dorian R. Famiglietti of Kahan, Kerensky, Capossela LLP, 45 Hartford Tpke, Vernon, CT 06066, Attorney for the Applicant Jagdev Toor, spoke in detail in regards to the application.
- Commission asked questions.
- Attorney Dorian Famiglietti responded.

- Chairman Roland Klee asked if anyone would like to speak in regards to the application.
- No one spoke in favor of.
- No one spoke in opposition.

Robin Lockwood **MOVED** to **CLOSE** the Public Hearing at 7:45 PM. Susan Reudgen seconded and the motion carried unanimously.

Susan Reudgen **MOVED** that the Planning and Zoning Commission **APPROVE** PZ-2021-18, a special permit for the selling of alcoholic beverages at 234 Talcottville Rd., based upon a finding that the special permit meets the relevant general special permit criteria of 17.3.1 and exceeds the distance separation requirement of Section 17.1.2. and subject to the following condition of approval:

1. Prior to commencing any sale of alcohol from the Premises, the owner/applicant shall provide documentation to the Planning Department demonstrating that it has relinquished its liquor license for property at 212 Talcottville Road and a new liquor license for 234 Talcottville Road has been obtained.

Robin Lockwood seconded and the motion carried unanimously.

5. 8-24 Referrals, If any

NONE

6. Other Business/Discussion

Susan Reudgen informed the commission that this was her last meeting, saying thank you and goodbye to everyone. Discussion ensued.

7. Adjournment

Mike Mitchell **MOVED** to **ADJOURN** at 7:51 PM. Susan Reudgen seconded and the motion carried unanimously.

Jill Rocco Recording Secretary

APPLICATION

For Receipt





TOWN OF VERNON PLANNING & ZONING COMMISSION (PZC)

APPLICATION

(Revised March 2021)

The PZC may require additional information to be provided by the applicant in the course of reviewing the application and during the monitoring of the project. Provide all the information requested.

APPLICANT (S) NAME: Amy Jayarauckas COMPANY: Have Hope Tattoo CT LLC ADDRESS: 17 COLSTIE Wood Rd. Mest Hartford, CT 0607 E-MAIL: any javarauckas @ hotmail.com TELEPHONE: 860 - 951 - 4885 PROPERTY OWNER (S) Alan D. Williame NAME: ADDRESS: errow Rd. Tolland T06084 TELEPHONE: 8/20-872.46 a aol.com _EMAIL: _///// iams X 302 If the applicant is not the property owner, include a letter from the property owner authorizing the applicant to seek approval by the PZC, if no signature accompanies the application. (ZR Section 2.3) PROPERTY ADDRESS: 20 Union St. Unit 3 Vernon, CT 00006 ASSESSOR'S ID CODE: MAP # 23 BLOCK # LOT/PARCEL # COCOLS LAND RECORD REFERENCE TO DEED DESCRIPTION: VOLUME: DOES THIS SITE CONTAIN A WATERCOURSE AND/OR WETLANDS? (SEE THE INLAND WETLANDS MAP AND **REGULATIONS)** XNO YES NO REGULATED ACTIVITY WILL BE DONE REGULATED ACTIVITY WILL BE DONE IWC APPLICATION HAS BEEN SUBMITTED ZONING DISTRICT with Bock Ville Village Overlay RECEIVED IS THIS PROPERTY LOCATED WITHIN FIVE HUNDRED (500) FEET OF A MUNICIPAL BOUNDARY? JAN 122022 TOWN PLANNERS OFFICE YES: CHECK IF HISTORIC STATUS APPLIES: LOCATED IN HISTORIC DISTRICT: INDIVIDUAL HISTORIC PROPERTY - by town Planner MKmc 1-12.22

PROJECT SUMMARY

Describe the project briefly in regard to the purpose of the project and the activities that will occur. Attach to this application a complete and detailed description with maps and documentation as required by the "Town of Vernon Zoning Regulations" and "Town of Vernon Subdivision Regulations".

PURPOSE: Tattoo Shop
GENERAL ACTIVITIES: Tattooing, cosmetic tattooing
APPROVAL REQUESTED
SUBDIVISION OR RESUBDIVISION
SUBDIVISION (SUB. SEC. 4, 5, 6) RESUBDIVISION (SUB. SEC. 4, 5, 6) MINOR MODIFICATION OF SUBDIVISION OR RESUBDIVISION (SUB. SEC. 4.6) AMENDMENT OF SUBDIVISION REGULATIONS (SUB. SEC. II)
SEE SUBDIVISION REGULATIONS SEC. 4 FOR APPLICATION FEE SCHEDULES.
SOIL EROSION AND SEDIMENT CONTROL PLAN (ESCP) (ZR SEC. 2.117; 18) (SUB. 6.14)
SITE PLAN OF DEVELOPMENT (POD) (ZR SEC. 14)
POD APPROVAL (ZR SEC. 14.1.1.1; 14.1.2) MODIFICATION OF AN APPROVED POD (ZR SEC. 14.1.1.1) MINOR MODIFICATION OF A SITE POD (ZR SEC. 14.1.1.2)
SPECIAL PERMIT(S) (ZR SECTION 17.3) SECTION:
OTHER SPECIAL PERMIT(S). CITE ZR SECTION AND DESCRIBE ACTIVITY:
ZONING:
SITE SPECIFIC CHANGE OF ZONING DISTRICT AND MAP (ZR SEC. 1.2; 1.3; 4) AMENDMENT OF ZONING REGULATIONS (SEC. 1.2; 1.3; 4)
CERTIFICATION AND SIGNATURE

The applicant, undersigned, has reviewed the "Town of Vernon Planning and Zoning Regulations" and completed the application with complete and accurate information:

Property Owner, Applicant, or Applicant's Agent:

SIGNATURE

las

PRINTED NAME

lians

DATE

OWNER'S SIGNATURE, IF DIFFERENT

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APPLICATION

For Receipt

GARDNER & PETERSON ASSOCIATES, LLC

PROFESSIONAL ENGINEERS • LAND SURVEYORS 178 HARTFORD TURNPIKE TOLLAND, CONNECTICUT 06084

LETTER OF TRANSMITTAL

TELEPHONE: (860) 871-0808 info@GardnerPeterson.com www.GardnerPeterson.com

Mr. George McGregor Town Planner Town of Vernon

DATE 12/28/2021 JOB NO. 8926

RE: CT Golf Land – Phase II

COPIES	MAP NUMBER	DATED	DESCRIPTION
3	8926-MGC2	Rev. 12/28/21	Site Plan of Development CT Golf Land – Phase II
1			PZC Application
1			Check #44797
1			Deed
2			8 ½ " x 11" Layout
1			Narrative
1			Mailing Labels

Signed: Mark A. Peterson, P.E.

TOWN OF VERNON PLANNING & ZONING COMMISSION (PZC)

APPLICATION

This form is to be used to apply to the Vernon Planning & Zoning Commission (PZC) for a change of zoning district, amendment of the Zoning Regulations, Site Plan of Development (POD), Special Permit(s), amendment of the Subdivision Regulations, and/or approval of a (re) subdivision, or DMV location approval. Provide all the information requested.

The applicant must be the property owner, the property owner's agent, the Town of Vernon, or someone with a direct financial interest in the subject property; said interest shall be explained and written permission for this application must be obtained from the property owner and submitted with this application if the applicant is not the property owner (ZR Section 2.3).

The list of approvals and the references to sections of the Regulations are for informational purposes only to assist with preparation of the PZC application and are not a definitive statement of the sole requirements that may apply to a specific project.

The applicant understands that the application is complete only when all information and documents required by the PZC have been submitted and, further, that any approval by the PZC relies upon complete and accurate information being provided by the applicant. Incorrect information provided by the applicant may make the approval invalid. The PZC may require additional information to be provided by the applicant in the course of reviewing the application and during the monitoring of the project.

Provide all the information requested:

I. APPLICANT:

Name:_Jerry Fornarelli	
Title:	
Company: CT Golf Land, LLC	
Address: _57 Hartford Turnpike	
Vernon, CT 06066	
Telephone: 860-951-4657	Fax:
E-mail	
II. PROF	ERTY OWNER (S):
Name:_Peter Krause	
Title: President	

Company: Sub Peak of Connecticut, Inc.

Address: 14 Hartford Turnpike

Vernon, CT 06066

Telephone: 860-205-1440 Fax 860-646-4895

E-mail: pkrause7681@gmail.com

05/05/2015

IV. PROJECT

Project Name: CT Golf Land - Phase II					
Project Contact Person:					
Name: Mark Peterson					
Title:					
Company: Gardner & Peterson Associates, LLC					
Address: 178 Hartford Turnpike					
Tolland, CT 06084					
Telephone: 860-871-0808 Fax:					
F-mail mpeterson@gardnerpeterson.com					

See Zoning Regulations Section 22 for application fee schedules.

____ Dealer or Repairer License (location approval for DMV)

Per Connecticut General Statutes (CGS) Section 8-26: If an application submitted to the Planning & Zoning Commission (PZC) involves any activity or area regulated under the wetlands statutes, an application for this activity must be filed with the Inland Wetlands Commission (IWC) on or before the day the Planning & Zoning Commission (PZC) application is filed by the applicant. (IWR Sec. 3.11)

Per CGS Sec. 8-31: If the proposed activity is to take place within a watershed of a Water company, the applicant is required to file a copy of the application with the Water Company via certified mail within seven (7) days of the date of the application. (IWR Sec. 4.3.6).

The applicant, undersigned, has reviewed the "Town of Vernon Planning and Zoning Regulations and Inland Wetlands and Watercourses Regulations" and has prepared this application with complete and accurate information:

Property Owner, Applicant, or Applicant's Agent:

olma Signature Signature

12/10/2021 Date 12/10/2021

TO BE FILLED IN BY THE PLANNING DEPARTMENT

Date Application Submitted

Date Application Received by Commission_____

PZC File: _____





Record and Return to: Attorney James Martin Robinson Donovan, P.C. 1500 Main Street-Suite 1600 PO Box 15609 Springfield, MA 01115-5609

QUIT-CLAIM DEED

KNOW ALL YE BY THESE PRESENTS THAT TALCOTTVILLE DEVELOPMENT COMPANY, LLC, a Connecticut limited liability company having its principal place of business in the Town of Vernon, County of Tolland and State of Connecticut acting herein by Solomon Kerensky its managing member (hereinafter "Grantor")

for One Dollar (\$1.00) and other valuable consideration paid, grants to

SUB Peak of Connecticut, Inc, a Connecticut corporation having its principal place of business in the Town of Vernon, County of Tolland and State of Connecticut (hereinafter, "Grantee")

with QUIT-CLAIM COVENANTS,

All that certain piece or parcel of land situated in the Town of Vemon, County of Tolland the State of Connecticut, being designated as LOT #6 on a map entitled RESUBDIVISION PLAN TALCOTTVILLE DEVELOPMENT COMPANY, LLC LOT #6 & #7 #57, #95 AND #163 HARTFORD TURNPIKE VERNON, CONNECTICUT GARDNER & PETERSON ASSOCIATES, LLC 178 HARTFORD TURNPIKE, TOLLAND, CONNECTICUT PROFESSIONAL ENGINEERS LAND SURVEYORS BY B.D.C SCALE 1" = 40' DATE 2-7-2014 SHEET 1 and 2 OF 4 MAP NO. 8926-RESUB REVISIONS 3-26-2014, revised as to page 2 on 9-12-14 (ADD MISSING BEARINGS & DISTANCES AT SOUTHERLY CORNER OF LOT 6 – TOWN CLERK MAP #5821 FILED ON 5-5-14) (sometimes referred to as the 'Premises' or 'Property') Town Clerk Map # 5919 Filed on 9-30-14.

Said premises are more particularly bounded and described as set forth in Schedule A attached hereto and made a part hereof.

This parcel is known as 95 Hartford Turnpike, Vernon, Connecticut.

SAID PREMISES ARE SUBJECT TO: (1) Any and all provisions of any ordinance, municipal regulation or public or private law; (2) Taxes in favor of the Town of Vernon on the Grand List of October 1, 2013, and subsequent lists thereafter, which taxes the Grantee herein assumes and agrees to pay; (3) previously granted exclusive use restrictions, (4) Riparian rights in and to the Hockanum and Tankerhoosen Rivers.

SAID PREMISES ARE CONVEYED SUBJECT TO AND TOGETHER WITH such easements, covenants, restrictions and agreements as of record may appearor as are shown on the

- 1 of 4 -

CONVEYANCE TAX RECEIVED STATE \$ 10937.50 TOWN \$ 2187.50 Bernice K. Dixon TOWN CLERK OF VERMON covenants, restrictions and agreements as of record may appear or as are shown on the aforesaid maps including, but not limited to easements for drainage, sanitary sewers, water mains, and signage.

DRIVEWAY EASEMENT. Lot #6 is conveyed together with a non-exclusive easement to use that portion of the Access and Utility Easement running from Route 83 to the Hockanum River described in the Driveway and Utility Easement Declaration dated June 20, 2006 and recorded in Volume 1840 at Page 140 of the Vernon Land Records. This grant of easement is subject to a covenant that the Grantee, its successors and assigns, shall contribute 'pro rata' to the expense of maintaining, repairing or replacing that portion of the driveway and easement area. At the time of this conveyance, the parcels utilizing the Driveway include Lot # 6 being conveyed herein, The Courthouse One/Big Sky building lot located at 47 Hartford Turnpike, Vernon, CT, the Riverview Associates office building lot located at 49 Hartford Turnpike, Vernon, CT, the Juris Limited building lot located at 45 Hartford Turnpike, Vernon, CT, the Hotel and Restaurant building Lot #5 located at 51 Hartford Turnpike, Vernon, CT, and the Healthwise building Lot #7 located at 57 Hartford Turnpike, Vernon, CT, and the Colonial Corners parcel located at 27 Hartford Turnpike, Vernon, CT..

UTILITY EASEMENT. The Grantor, for itself, and for the benefit of all existing or future lot owners within the commercial complex, reserves a non-exclusive undergound easement within a strip of land 10 feet in width within Lot #6 and lying adjacent to, and parallel to, the easterly boundary of the Access and Utility Easement referred to in the foregoing paragraph. This easement is to install, maintain, upgrade, repair or replace such utilities as may, from time to time, service parcels within the commercial complex. Grantee may relocate any such utility easement(s) that interferes with Grantee's development plans. Any such relocation shall be at Grantee's sole expense, done in accordance with accepted engineering standards and subject to approval by the affected utility company or governmental entity.

Said premises are subject to an easement for the Quality Inn sign (now Motel 6) as shown on the aforesaid maps and described in a Correcting Quit Claim Deed dated July 24, 2007 and recorded at Volume 1946 at Page 228 of the Vernon Land Records.

A second non-exclusive sign easement is reserved by the Grantor, its successors and assigns, for access to, and use of, a portion of a pylon sign shown on the aforesaid maps as "Sign Easement" situated adjacent to Route 83 at the main driveway entrance to the commercial complex and northwesterly of the Quality Inn (now Motel 6) sign. This pylon sign will become the property of the Grantee. The use of the sign will be shared between the Grantor and the Grantee.

The Grantee will have the use of that portion of the pylon sign presently containing theater style movable letters. The Grantor will have that remaining portion presently containing six display signs. The Grantee shall have the right to redesign or even replace the entire sign in its present location at Grantee's expense provided that the

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relative square foot percentage ratio of use by the parties is maintained and the right of then current owners/tenants of the commercial complex is preserved. Grantor, or its assignee(s), reserves the right to approve any redesign of its portion which approval shall not be unreasonably withheld, delayed or conditioned. The cost of routine maintenance and utilities for this sign will be shared in the same percentage as the relative percentage use.

A non-exclusive easement is granted to the Grantee for use (fishing, nature viewing, maintenance etc) of the length (approx. 35 feet) of the pedestrian bridge leading to Lot # 7 shown as "Existing Bridge" at the northeast corner of said premises. The Grantee agrees to pay one half the expense of maintaining this bridge. This easement shall lapse at such time as a single owner owns the property on both sides of the bridge.

All of the easements, covenants, restrictions and agreements shall benefit and or burden the parties hereto, their successors and assigns and run with the land.

Lot #6 being a portion of the premises conveyed to the Grantor by deed dated April 30, 1974 and recorded in Volume 246, Page 284 of the Vernon Land Records.

[SIGNATURE PAGE FOLLOWS]

Signed this 2nd day of October, 2014

Witnessed by,

aus

William E. Breslau

MPS

STATE OF CONNECTICUT)) ss. Vernon COUNTY OF TOLLAND) TALCOTTVILLE DEVELOPMENT COMPANY, LLC

Solomon Kerensky, a Managing Member

October 2, 2014

Personally appeared, Solomon Kerensky, a Managing Member of TALCOTTVILLE DEVELOPMENT COMPANY, LLC, known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument and acknowledged that he executed the same for the purposes therein contained, as his free act and deed, and the free act and deed of said limited liability company, before me.

William E. Breslau Commissioner of Superior Court

Grantee's Mailing Address: 24 Hartford Tumpike Vemon, CT 06066

Schedule A

Said premises are more particularly described as follows: Commencing at a point at the southerly most corner of the Premises herein described which point is at the intersection of Conn. Route 83 aka Hartford Turnpike and the Access and Utility Easement on Lot #5 as shown on said map; thence, from said point and place of beginning along the easterly line of said Access and Utility Easement the following courses and distances: N 43° 01' 25" W a distance of 81.51' to a point; then N 31° 12' 35" W a distance of 75.00' to a point; thence along a curve to the right having a R = 560.00' a distance of 103.44' to a point; thence N 20° 37' 35" W a distance of 19.73' to a point; thence along a curve to the right having a R= 560.00' a distance of 118.92' to a point; thence N 08° 27' 35" W a distance of 98.41' to a point; thence N 12° 01' 46" W a distance of 91.00' to a point; Thence along Lot #5 and Lot #7 as shown on said map the following courses and distances: N 23° 41' 22" E a distance of 120.33' to a point; thence N 34° 55' 24" E a distance of 107.10' to a point; thence N 76° 06' 36" E a distance of 56.61' to a point; thence N 51° 32' 45" E a distance of 35.95' to a point; thence N 39° 15' 45" E a distance of 86.15' to a point; thence N 76° 00' 26" E a distance of 346.00' to a point; thence N 57° 19' 59" E a distance of 120.00' to a point; thence S 83° 59' 50" E a distance of 101.13' to a point in the westerly line of Conn. Route 83; thence along Conn. Route 83 the following courses and distances: S 25° 02' 07" W a distance of 689.86' to a point; thence along a curve to the right having a R= 1000.00' a distance of 159.93' to a point; thence N 52° 59' 07" W a distance of 112.61' to a point; thence S 38° 00' 17" W a distance of 80.00' to a point; thence S 52° 59' 07" E a distance of 114.72' to a point; thence along a curve to the right having a R= 1000.00' a distance of 192.95' to a point; thence S 86° 48' 52" W a distance of 12.15' to a point; thence along a curve to the right having a R=1136.80' a distance of 12.57' to the point or place of beginning.

L:\T\TALCOTTVILLE DEVELOPMENT CO #46002\Sale Of Golfland To Krause 2014 #46002-096\QC Deed 2014-10-1.Doc

> RECORDED IN VERNON LAND RECORDS Bernice K. Dixon VERNON TOWN CLERK ON Oct 02: 2014 AT 12:55P

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GARDNER & PETERSON ASSOCIATES, LLC

PROFESSIONAL ENGINEERS • LAND SURVEYORS 178 HARTFORD TURNPIKE TOLLAND, CONNECTICUT 06084

KENNETH R. PETERSON, L.S. ERIC R. PETERSON, P.E., L.S. MARK A. PETERSON, P.E.

TELEPHONE: (860) 871-0808 www.GardnerPeterson.com info@GardnerPeterson.com

December 27, 2021

Golf Land II 95 Hartford Turnpike Project Narrative

The applicant, CT Golf Land, LLC, is requesting approvals to construct Phase II of Connecticut Golf Land located at 95 Hartford Turnpike. The site contains 8.86 acres and is bounded by Hartford Turnpike to the east, an access drive to south, the Hockanum River to the west and the Tankerhoosen River to the north. The site has numerous existing improvements and was approved for the construction of Phase I on October 1, 2020. The site is served by public utilities.

Proposed Development

The applicant is proposing to construct three recreational areas under the Phase II improvements. These include:

- (1) mini-golf course behind the main building,
- (2) the bumper boats to the southwest of the proposed mini-golf course,

(3) the go carts and to the southwest of the bumper boats.

Other site improvements consist of proposed sidewalks and perimeter fencing. The proposed flood storage area will also be relocated and expanded in size to offset fill required for the construction of the go-cart building.

Traffic Impact Statement/Parking

There are two existing parking areas on site for the proposed gaming center. One is located off Hartford Turnpike and the other is located off the southerly access drive. The existing curbs cuts will not change and the parking lots will be restriped to provide adequate handicap parking. A parking expansion is not proposed.

Stormwater Management

Phase II depicts the construction of additional impervious surfaces though a significant portion of the go-cart track will be elevated and will have a grass surface below.

AVERY

5160

Kautilya, LLC c/o Patel 118 Waverly Ave. Millington, NJ 07946

94-96 Hartford Turnpike, LLC 577 Griffin Road South Windsor, CT 06074

119 Main Street, LLC 119 Main Street Vernon, CT 06066

John Lampson 85 Main Street Vernon, CT 06066

Town of Vernon Fire District 14 Park Place Vernon, CT 06066

W & A Hospitality 416 South Street Bristol, CT 06010 Easy Peel[®] Address Labels Bend along line to expose Pop-up Edge

Sachdev Corners, LLC PO Box 2195 Vernon, CT 06066

Singh Gurdev 132 Main Street Vernon, CT 06066

Historic Talcott Mill, LLC 56 Arbor Street Hartford, CT 06106

Vernon Main Street, LLC 75 Gerber Road East South Windsor, CT 06074

Juris Limited, LLC PO Box K Vernon, CT 06066

DJV Properties Connecticut, LLC 75 Gerber Road East, Suite 104 South Windsor, CT 06074 Sub Peak of Connecticut, LLC 14 Hartford Turnpike Vernon, CT 06066

32 Hartford Turnpike, LLC 994 Hartford Turnpike Vernon, CT 06066

Piccadilly Square, LLC PO Box 3212 Vernon, CT 06066

Thomas & Deborah Tomko 33 Bobby Lane Manchester, CT 06040

ERZ of Vernon, LLC 48 Hartford Turnpike Vernon, CT 06066





KENNETH R. PETERSON



NOTES:

1. THIS SURVEY AND MAP HAVE BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300b-1 THROUGH 20-300b-20 "MINIMUM STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT". THIS IS AN IMPROVEMENT LOCATION SURVEY BASED ON A DEPENDENT RESURVEY CONFORMING TO HORIZONTAL ACCURACY CLASS A-2, TOPOGRAPHY DEPICTED CONFORMS TO TOPOGRAPHIC ACCURACY CLASS T-D.

2. REFERENCE IS MADE TO THE FOLLOWING PLANS:

- A. "PROPERTY SURVEY RESUBDIVISION PLAN PREPARED FOR TALCOTTVILLE DEVELOPMENT COMPANY, LLC VERNON, CONNECTICUT" PREPARED BY GARDNER & PETERSON ASSOCIATES. DATED 02-22-02 REV. 7-16-02.
- B. "PLOT PLAN COURTHOUSE PLUS 47 HARTFORD TURNPIKE VERNON, CONN." BY: AR LOMBARDI SCALE: 1"=40' DATED: APRIL 1990 REV. THROUGH 8-23-90 C. "PLOT PLAN - SUBDIVISION PORTION OF TALCOTTVILLE DEVELOPMENT CORP. CONN.
- RTE. 83 MANCHESTER, CONN." BY: AR LOMBARDI DATED: FEB. 20, 1986 REV. THROUGH 12-8-86 SCALE: 1"=40' D. "PLAN SHOWING ACCESS & UTILITY EASEMENT OVER LAND OF TALCOTTVILLE
- DEVELOPMENT CORP. JURIS LIMITED & COURTHOUSE ONE HARTFORD TURNPIKE RTE 83 VERNON & MANCHESTER, CONN." DATED: FEB. 20, 1986 SCALE: 1"=50' BY: AR LOMBARDI
- E. "CONNECTICUT LIGHT & POWER COMPANY EASEMENT OF PROPERTY OF TALCOTTVILLE DEVELOPMENT CORP. MANCHESTER, CONNECTICUT" BY: AR LOMBARDI SCALE: 1"=40' DATED SEPT. 28 1987
- F. "CONNECTICUT DEPARTMENT OF TRANSPORTATION RIGHT OF WAY MAP TOWN OF VERNON INTERSTATE 84 FROM THE MANCHESTER TOWN LINE EASTERLY TO THE TOLLAND TOWN LINE" NUMBER: 146-10 SCALE: 1"=80'
- G. "CONNECTICUT STATE HIGHWAY DEPARTMENT RIGHT OF WAY MAP TOWN OF VERNON HARTFORD TURNPIKE FROM MANCHESTER TOWN LINE NORTHEASTERLY TO WILBUR CROSS HIGHWAY" NUMBER: 146-06 SCALE: 1"=40' DATED: 2-1-63 H. "TOWNS OF MANCHESTER, SOUTH WINDSOR & VERNON MAP SHOWING LAND ACQUIRED
- FROM TALCOTTVILLE DEVELOPMENT CO. BY THE STATE OF CONNECTICUT INTERSTATE 86 (LIMITED ACCESS HIGHWAY)" SCALE: 1"=40' DATED: OCT. 1979 I. "MAP SHOWING PROPOSED EASEMENT OVER LAND OF THE TALCOTTVILLE DEVELOPMENT
- CORP. VERNON, CONNECTICUT" SCALE: 1"=100' BY: EVERETT GARDNER DATED: 6-26-68 REV. 10-8-69 L. "RESUBDIVISION PLAN HOTEL PARCEL TALCOTTVILLE DEVELOPMENT COMPANY. LLC
- HARTFORD TURNPIKE VERNON, CONNECTICUT" DATED: 2-1-06 REV. THROUGH 5-30-06 BY: GARDNER & PETERSON ASSOC., LLC M. "RIGHT OF WAY SURVEY TOWN OF VERNON MAP SHOWING LAND ACQUIRED FROM
- TALCOTTVILLE DEVELOPMENT COMPANY, LLC BY THE STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION INTERSECTION IMPROVEMENTS ON ROUTE ⅔ AT WELLES ROAD" DATED: AUG. 2000 REV. 2-15-01
- N. "TOWNS OF MANCHESTER. SOUTH WINDSOR & VERNON MAP SHOWING LAND ACQUIRED FROM TALCOTTVILLE DEVELOPMENT CO. BY THE STATE OF CONNECTICUT INTERSTATE ROUTE 86" DATED: NOV. 1973 REV. THROUGH 3-8-80 SCALE: 1"=40'
- O. "RESUBDIVISION PLAN TALCOTTVILLE DEVELOPMENT COMPANY, LLC LOT #6 & #7 #57, #95, & #163 HARTFORD TURNPIKE VERNON, CONNECTICUT" BY: GARDNER & PETERSON ÄSSOC., LLC DATED: 2-4-14 REV. 3-26-14. P. "PLAN SHOWING ADDITION TO THE GAME ROOM TALCOTTVILLE DEVELOPMENT CO. VERNON,
- CONN. BY: AR LOMBARDI ASSOCIATES DATE: MAR. 16, 1979, REV. TO 4-26-79 SCALE: 1"=40" Q. "SITE PLAN OF DEVELOPMENT CONNECTICUT GOLF LAND #95 HARTFORD TURNPIKE
- VERNON, CONNECTICUT BY: GARDNER & PETERSON ASSOCIATES,LLC DATE: 08-15-2020, REVISED TO 04-20-2021, MAP NO. 8926-MGC"
- 3. BEARINGS DEPICTED ON THESE PLANS ARE BASED CGS (NAD 83/87) DATUM.
- 4. PARCEL IS LOCATED IN THE COMMERCIAL ZONE.
- 5. PARCEL IS LISTED AS LOT 95, BLOCK 158 ON ASSESOR MAP 1.
- 6. TOTAL AREA OF PARCEL IS 8.86 ACRES.

7. PARCEL IS LOCATED ENTIRELY IN FLOOD HAZARD ZONE "AE" (SPECIAL FLOOD HAZARD AREAS INUNDATED BY 100-YEAR FLOOD WHERE BASE FLOOD ELEVATION HAS BEEN DETERMINED) PER FIRM FLOOD INSURANCE RATE MAP, TOWN OF VERNON, CONN. COMMUNITY PANEL NUMBER 090131 0005 C MAP REVISED 8-9-99.

8. CONTOURS DEPICTED ON THESE PLANS ARE BASED A USGS DATUM.

9. PER THE TOWN OF VERNON ZONING MAP, DATED 2-2-2020, THIS PROJECT IS NOT WITHIN THE LEVEL A AQUIFER PROTECTION AREA (EFFECTIVE 5/16/19).

- 10. PARCEL IS LOCATED IN SUBREGIONAL DRAINAGE BASIN #4500.
- 11. WETLAND UPLAND REVIEW AREA IS PER MAP REFERENCE 2.0.
- 12. SOIL LINES ARE TAKEN FROM THE WEB SOIL SURVEY.

13. LARGE TREES ARE DEPICTED ON THE PLANS. OTHER TREES EXIST ON PROPERTY THAT ARE NOT SHOWN.

OWNER: SUBPEAK OF CONNECTICUT INC. 14 HARTFORD TURNPIKE VERNON, CONNECTICUT 06066

APPLICANT: CT GOLF LAND, LLC 95 HARTFORD TURNPIKE VERNON, CONNECTICUT 06066

GARDNER & PETERSON ASSOCIATES, LLC **REVISIONS:** 12-28-2021 INFILTRATION SYSTEM 178 HARTFORD TURNPIKE TOLLAND, CONNECTICUT PROFESSIONAL ENGINEERS LAND SURVEYORS L.S. 10839 SCALE DATE SHEET NO. MAP NO. REGISTRATION NO. 8926-MGC2 AS SHOWN 12-01-2021 1 OF 3 M.A.P.







CONSTRUCTION ENTRANCE

PLACEMENT AND CONSTRUCTION OF A SYNTHETIC FILTER BARRIER



HAY BALE APPLICATIONS Sheet Flow Applications

- to prevent deterioration of the bindings.
- from the toe of slope.
- at appropriate intervals (100 feet Maximum).
- shall be made promptly as needed.
- 7. permanently stabilized.

12" CONCRETE GALLEY

OR EQUAL

GENERAL EROSION AND SEDIMENT CONTROL NOTES

- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE "GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL" BY THE CONNECTICUT COUNCIL ON SOIL AND WATER CONSERVATION.
- ALL SEDIMENT CONTROL PRACTICES AND MEASURES SHALL BE CONSTRUCTED, APPLIED AND MAINTAINED IN ACCORDANCE WITH THE APPROVED SEDIMENT 2. CONTROL PLAN.
- TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED 3. IN THE AMOUNT NECESSARY TO COMPLETE THE FINISHED GRADING OF ALL EXPOSED
- AREAS. AREAS TO BE FILLED SHALL BE CLEARED, GRUBBED AND STRIPPED OF TOPSOIL TO 4. REMOVE TREES, VEGETATION, ROOTS OR OTHER OBJECTIONABLE MATERIAL.
- 5. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO MINIMIZE EROSION, SLIPPAGE, AND SETTLEMENT. FILL INTENDED TO SUPPORT STRUCTURES, DRAINAGE, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH THE APPROPRIATE STATE AND/OR LOCAL SPECIFICATIONS.
- FILL MATERIAL SHALL BE FREE OF BRUSH, RUBBISH, LARGE ROCKS, LOGS, STUMPS, 6. BUILDING MATERIAL, COMPRESSIBLE MATERIAL, AND OTHER MATERIALS WHICH MAY INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.
- FROZEN MATERIAL OR SOFT MUCKY OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.
- 8. FILL SHALL NOT BE PLACED ON A FROZEN FOUNDATION.
- ALL BENCHES SHALL BE KEPT FREE OF SEDIMENT DURING ALL PHASES OF 9. DEVELOPMENT.
- IN ACCORDANCE WITH SOUND CONSTRUCTION PRACTICE. 11. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY FOLLOWING FINISH GRADING. IF FINISH GRADING IS TO BE DELAYED FOR MORE THAN 30 DAYS AFTER DISTURBANCE IS COMPLETE, TEMPORARY SOIL STABILIZATION MEASURES SHALL BE APPLIED. AREAS LEFT OVER 30 DAYS SHALL BE CONSIDERED "LONG TERM" AND SHALL
- RECEIVE TEMPORARY SEEDING WITHIN THE FIRST 15 DAYS. 12. SITE IS TO BE GRADED TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCHING, AND MAINTENANCE UNLESS OTHERWISE SPECIFIED IN
- THE PLANS.
- 13. CUT AND FILL SLOPES SHALL NOT BE STEEPER THAN 2:1. TOPSOIL SHALL BE SPREAD TO A MINIMUM DEPTH OF 4". ADDITIONAL TOPSOIL MAY BE REQUIRED TO MEET MINIMUM DEPTHS. NO TOPSOIL SHALL BE REMOVED FROM THIS SITE.
- 14. APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL CULTIPACKER TYPE SEEDER, OR HYDROSEEDER (SLURRY INCLUDING SEED AND FERTILIZER). NORMAL SEEDING DEPTH IS FROM 1/4" TO 1/2" INCH. HYDROSEEDING WHICH IS MULCHED MAY BE LEFT ON THE SOIL SURFÁCE.
- 15. WHERE FEASIBLE, EXCEPT WHERE EITHER A CULTIPACKER TYPE SEEDER OR HYDROSEEDER IS USED, THE SEEDBED SHOULD BE FIRMED FOLLOWING SEEDING WITH A ROLLER OR LIGHT DRAG.
- 16. FERTILIZER AND LIME ARE TO BE WORKED INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING TOOTH HARROW OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISC OPERATION SHOULD BE ALONG THE CONTOUR.
- 17. REMOVE FROM THE SURFACE ALL STONES TWO INCHES OR LARGER. REMOVE ALL OTHER DEBRIS SUCH AS WIRE, TREE ROOTS, PIECES OF CONCRETE, OR OTHER UNSUITABLE MATERIALS.
- INSPECT SEEDBED BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, 18. THE AREA MUST BE RETILLED BEFORE SEEDING, THEN FIRMED AS DESCRIBED ABOVE.
- WHERE GRASSES PREDOMINATE, FERTILIZE ACCORDING TO SOIL ANALYSIS, OR SPREAD 300 POUNDS OF 10–10–10 OR EQUIVALENT PER ACRE (7.5 POUNDS PER 1000 S.F.). 19.
- 20. CALCIUM CHLORIDE WILL BE AVAILABLE FOR DUST CONTROL ON GRAVEL TRAVEL SURFACES.

TEMPORARY SEEDING SCHEDULE: LBS/ACRE SPECIES

ANNUAL RYEGRASS WINTER RYE 40 SUDANGRASS

LBS/1000SF 0.9 0.9 0.25

TEMPORARY SEEDING IS NOT LIMITED TO THE SPECIES SHOWN. OTHER SPECIES RECOMMENDED BY THE SCS OR AS LIMITED BY SITE CONDITIONS MAY BE USED. STRAW MULCH IS TO BE APPLIED TO SEEDED AREA AT THE RATE OF 1-1/2 TO 2 TONS PER ACRE, 70 TO 90 LBS. PER 1000 SQ. FT.

FINAL SEEDING SCHEDULE:

PROVIDE 4 INCHES	OF TOPSOIL MINIMUM	, FREE OF ROOTS, L
SPECIES	LBS/ACRE	LBS/1000SF
KENTUCKY BLUEGRAS CREEPING RED FESC PERENNIAL RYEGRAS	SS 40 CUE 120 S 40	0.90 2.75 0.90



All bales shall be either wire-bound or string-tied. Bales shall be installed so that bindings are oriented around the sides rather than along the tops and bottoms of the bales

The barrier shall be entrenched and backfilled. A trench shall be excavated the width of a bale and the length of the proposed barrier to a minimum depth of 4 inches. After the bales are staked and chinked, the excavated soil shall be backfilled against the barrier. Backfill soil shall conform to the ground level on the downhill side and shall be built up to 4 inches against the uphill side of the barrier. Ideally, bales should be placed 10 feet away

4. Each bale shall be securely anchored by at least two stakes or rebars driven through the bale. The first stake in each bale shall be driven toward the previously laid bale to force the bales together. Stakes or re-bars shall be driven deep enough into the ground to securely anchor the

5. The gaps between bales shall be chinked (filled by wedging) with straw to prevent water from escaping between the bales. (Loose straw scattered over the area immediately uphill from a straw bale barrier tends to increase barrier efficiency.) In sloping areas where surface flow follows the bale line, perpendicular bale checks shall be installed

Inspection shall be frequent and repair or replacement

Bale barriers shall be removed when they have served their usefulness, but not before the upslope areas have been



10. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED

SEEDING DATES 3/1-6/15, 8/1-10/1 4/15-6/15, 8/15-10/1 5/15-8/15

LARGE STONES, AND OTHER OBJECTS.

SEEDING DATES

4/15-6/15, 8/15-9/15

CONSTRUCTION SCHEDULE & **EROSION & SEDIMENT CONTROL CHECKLIST**

PROJECT NAME: CONNECTICUT GOLF LAND-PHASE II LOCATION: 95 HARTFORD TURNPIKE, VERNON, CT PROJECT DESCRIPTION: EXTERIOR RECREATION PARCEL AREA: 8.86 Acres

RESPONSIBLE PERSONNEL: STEVE LAMESA

WORK DESCRIPTION	EROSION & SEDIMENT CONTROL MEASURES	DATE INSTALLED	INITIALS		
CONTACT CBYD	INSTALL ANTI TRACKING PAD				
CONSTRUCT GO CART TRACK, NEW BUILDINGS	INSTALL SILT FENCE				
CONSTRUCT STORMWATER AREA					
CONSTRUCT WALKWAYS	INSPECT EROSION CONTROLS				
INSTALL UTILITIES	REPAIR AS NECESSART				
FINAL GRADE AND SEED ALL DISTURBED AREAS	REMOVE EROSION CONTROLS WHEN SITE IS STABILIZED				
PROJECT DATES: DATE OF CONSTRUCTION START <u>As soon as possible</u> DATE OF CONSTRUCTION COMPLETION <u>One year from start</u>					

EROSION AND SEDIMENT CONTROL PROCEDURES SHALL ESSENTIALLY BE IN ACCORDANCE WITH THESE PLANS, AS REQUIRED BY TOWN REGULATIONS, AND THE MANUAL, "GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL" FOR CONNECTICUT, BY THE COUNCIL ON SOIL AND WATER CONSERVATION, 1985, REVISED TO 2002.



STOCKADE EROSION PROTECTION DETAIL

SEDIMENTATION & EROSION CONTROL DETAILS	S
CONSTRUCTION DETAILS	
CONNECTICUT GOLF LAND-PHASE	Π
CT GOLF LAND, LLC	
#95 HARTFORD TURNPIKE	
VERNON, CONNECTICUT	

GARDNER & PETERSON ASSOCIATES, LLC REVISIONS 178 HARTFORD TURNPIKE 12-28-2021 INFILTRATION SYSTEM TOLLAND, CONNECTICUT PROFESSIONAL ENGINEERS LAND SURVEYORS MAP NO. SHEET NO. SCALE DATE RY 8926-MGC2 M.A.P. 12-01-2021 3 OF 3 AS SHOWN

APPLICATION

1

TOWN OF VERNON PLANNING & ZONING COMMISSION (PZC)

APPLICATION

This form is to be used to apply to the Vernon Planning & Zoning Commission (PZC) for a change of zoning district, amendment of the Zoning Regulations, Site Plan of Development (POD), Special Permit(s), amendment of the Subdivision Regulations, and/or approval of a (re) subdivision, or DMV location approval. Provide all the information requested.

The applicant must be the property owner, the property owner's agent, the Town of Vernon, or someone with a direct financial interest in the subject property; said interest shall be explained and written permission for this application must be obtained from the property owner and submitted with this application if the applicant is not the property owner (ZR Section 2.3).

The list of approvals and the references to sections of the Regulations are for informational purposes only to assist with preparation of the PZC application and are not a definitive statement of the sole requirements that may apply to a specific project.

The applicant understands that the application is complete only when all information and documents required by the PZC have been submitted and, further, that any approval by the PZC relies upon complete and accurate information being provided by the applicant. Incorrect information provided by the applicant may make the approval invalid. The PZC may require additional information to be provided by the applicant in the course of reviewing the application and during the monitoring of the project.

Provide all the information requested:

I. APPLICANT:

Fax: 860-872-3251
070 2051
J-072-3231

III. PROPERTY

Address: 291 and 293 Talcottville Road and 26, 32, 37, 38, and 46 Naek Road

Assessor's ID Code: Map # ____ Block # ____ Lot/Parcel # _____ See attachment

Land Record Reference to Deed Description: Volume: Page See attachment

Does this site contain a watercourse and/or wetlands? (See the Inland Wetlands Map and IWR Section 2.14, 2.15, 2.23, 2.24, 3.11; 4)

__No __X Yes

> X IWC application has been submitted WC application has not been submitted

Zoning District PDZ-Gerber Farm Area

Is this property located within five hundred (500) feet of a municipal boundary?

X No Yes:

> Bolton Coventry Ellington Manchester South Windsor Tolland

Check if Historic Status Applies:

Located in historic district:

Rockville Talcottville

Individual historic property

IV. PROJECT

Project Name: Village at Naek Road Project Contact Person: Name: Eric Peterson, P.E., P.L.S. Title: Engineer and Surveyor for Owner and Applicant Company: Gardner & Peterson Associates, LLC Address: 178 Hartford Turnpike _______Tolland, CT_06084 Telephone: 860-871-0808 Fax: 860-875-2086 E-mail: epeterson@gardnerpeterson.com

V. PZC APPLICATION PROJECT SUMMARY

Describe the project briefly in regard to the purpose of the project and the activities that will occur. Attach to this application a complete and detailed description with maps and documentation as required by the "Town of Vernon Zoning Regulations" and "Town of Vernon Subdivision Regulations".

Purpose: Development of 70 multi-family townhouse dwellings with infrastructure and amenities

General Activities: Site preparation, grading, and installation of utilities for construction of the 70

dwellings in 17 buildings, with driveways, sidewalks, lighting, storm drainage, open space for public purpose, scenic area displaying natural water feature, landscaped gardens, benches with scenic view, walking trail, and other related improvements.

VI. APPROVAL (S) REQUESTED

Subdivision or Resubdivision

Subdivision (Sub. Sec. 4, 5, 6)

Resubdivision (Sub. Sec. 4, 5, 6)

Minor modification f subdivision or resubdivision (Sub. Sec. 4.6)

Town acceptance of a road (Sub. Sec. 6.5-6. 8 & 9)

Amendment of Subdivision Regulations (Sub. Sec. II)

See Subdivision Regulations Sec. 4 for application fee schedules.

X Soil Erosion and Sediment Control Plan (ESCP) (ZR Sec. 2.117; 18) (Sub. 6.14)

X Site Plan of Development (POD) (ZR Sec. 14)

- X POD approval (ZR Sec. 14.1.1.1; 14.1.2)
- Modification of an approved POD (ZR Sec. 14.1.1.1)
- Minor modification of a site POD (ZR Sec. 14.1.1.2)
- X Special Permit(s) (ZR Section 17.3)
 - Special Permit in an aquifer area (ZR Sec. 2.4; 2.5; 2.119; 20)
 - Special Permit for excavation (ZR Sec. 2.52; 2.79; 15)
 - X Special Permit for use in a district (ZR Sec. 1.2 & 4)
 - Special Permit for lot coverage (ZR Sec. 1.2; 2.61; 2.68; 4)
 - Special Permit for signs (ZR Sec. 1.2; 2.106-115; 4, 16; 21.7)
 - Special Permit for parking (ZR Sec. 4; 12; 21.4
 - Special Permit for elderly housing (ZR Sec. 2.60; 17.4)
 - Special Permit for Bed & Breakfast (B & B) (ZR Sec. 2.9; 17.3.4)
 - Special Permit for serving alcohol (ZR Sec. 2.103, 17.1)
 - Special Permit for massage (ZR Sec. 2.76-78, 4)
 - Special Permit for telecommunications (ZR Sec. 2.21; 3.23 & 23)
 - Special Permit for dumps and/or incinerators (ZR Section 8)

X___Other Special Permit(s). Cite ZR Section and describe activity:

See attachment

Zonin	g:
s	Site specific change of zoning district and map (ZR Sec. 1.2; 1.3; 4)

See Zoning Regulations Section 22 for application fee schedules.

Dealer or Repairer License (location approval for DMV)

Per Connecticut General Statutes (CGS) Section 8-26: If an application submitted to the Planning & Zoning Commission (PZC) involves any activity or area regulated under the wetlands statutes, an application for this activity must be filed with the Inland Wetlands Commission (IWC) on or before the day the Planning & Zoning Commission (PZC) application is filed by the applicant. (IWR Sec. 3.11)

Per CGS Sec. 8-31: If the proposed activity is to take place within a watershed of a Water company, the applicant is required to file a copy of the application with the Water Company via certified mail within seven (7) days of the date of the application. (IWR Sec. 4.3.6).

The applicant, undersigned, has reviewed the "Town of Vernon Planning and Zoning Regulations and Inland Wetlands and Watercourses Regulations" and has prepared this application with complete and accurate information:

Property Owner, Applicant, or Applicant's Agent:

Signature

Signature

30-20 Date

Date

TO BE FILLED IN BY THE PLANNING DEPARTMENT

Date Application Submitted		
Date Application Received by Commiss	ion	

PZC File:

TOWN OF VERNON PLANNING & ZONING COMMISSION (PZC) SUPPLEMENT TO APPLICATION

III. PROPERTY

Address: 291 Talcottville Road

Map #03 Block #0004 Lot/Parcel #0009A Assessor's ID Code: Land Record Reference to Deed Description: Volume 2592 Page 218 Address: 293 Talcottville Road Map #03 Block #0004 Lot/Parcel #0009E Assessor's ID Code: Land Record Reference to Deed Description: Volume 2592 Page 218 Address: 26 Naek Road Map #03 Block #0004 Lot/Parcel #008-8 Assessor's ID Code: Land Record Reference to Deed Description: Volume 2097 Page 54 Address: 32 Naek Road Assessor's ID Code: Map #03 Block #0004 Lot/Parcel #008-7 Land Record Reference to Deed Description: Volume 2097 Page 54 37 Naek Road Address: Assessor's ID Code: Map #03 Block #0004 Lot/Parcel #008-4 Land Record Reference to Deed Description: Volume 2097 Page 54 38 Naek Road Address:

Assessor's ID Code: Map #03 Block #0004 Lot/Parcel #008-6 Land Record Reference to Deed Description: Volume 2097 Page 54 Address: 46 Naek Road

Assessor's ID Code: Map #03 Block #0004 Lot/Parcel #008-5 Land Record Reference to Deed Description: Volume 2097 Page 54

1
VI. APPROVALS REQUESTED

X Other Special Permit(s). Cite ZR Section and describe activity:

Section 4.24.4.1 for multi-family dwellings; Section 4.24.4.3.15.1 for more than 40 offstreet parking spaces; Section 4.24.4.3.15.2 for proposed structures within 200 feet of other residential structures outside of the development; Section 4.24.4.3.15.4 for aggregate floor area of structures more than 25,000 square feet; and Section 4.24.4.3.15.9 for reduction in yard areas for three or more community amenities.





- 4. THESE PARCELS ARE LOCATED IN THE PLANNED DEVELOPMENT ZONE (PDZ): GERBER FARM AREA.
- 5. 291 TALCOTTVILLE ROAD IS IN FAVOR OF AN EASEMENT OVER A PORTION OF 243 & 253 TALCOTTVILLE ROAD FOR THE RIGHT TO PASS AND REPASS BY FOOT OR BY VEHICLE AS DESCRIBED IN VOL. 2540, PAGE 129 IN THE VERNON LAND RECORDS.
- 6. TOPOGRAPHY DEPICTED ON THESE PLANS WAS PROVIDED BY GOLDEN AERIAL SURVEYS.
- 7. WETLANDS DEPICTED ON THESE PARCELS WERE DELINEATED BY REMA ECOLOGICAL SERVICES, LLC. 8. THESE PARCELS ARE NOT LOCATED WITHIN THE LEVEL A AQUIFER PROTECTION AREA AS DEPICTED ON THE ZONING MAP VERNON, CT DATED 7/31/2020.
- 9. 291 & 293 TALCOTTVILLE ROAD, AND 26, 32, 37, 38 & 46 NAEK ROAD SHALL BE COMBINED INTO ONE PARCEL PRIOR TO ISSUANCE OF ANY CERTIFICATES OF OCCUPANCY. THE TOTAL AREA OF THE COMBINED PARCELS IS $941,200 \pm sq.$ ft. $21.6 \pm acres.$
- 10. FINAL LOCATION OF UNDERGROUND UTILITIES SHALL BE APPROVED BY THE GOVERNING UTILITY COMPANY PRIOR TO THE START OF UTILITY CONSTRUCTION. FINAL LOCATION OF FIRE HYDRANTS SHALL BE APPROVED BY THE VERNON FIRE MARSHALL.
- 11. RETAINING WALLS DEPICTED ON THESE PLANS ARE TO BE DESIGNED BY OTHERS PRIOR TO OBTAINING BUILDING PERMITS.
- 12. ALL ROOF DRAINS SHALL BE CONNECTED TO THE PROPOSED STORMWATER DRAINAGE SYSTEM UNLESS OTHERWISE NOTED ON THESE PLANS.
- 13. LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES MUST BE CONFIRMED PRIOR TO CONSTRUCTION.
- 14. UNDERGROUND UTILITY, STRUCTURE AND FACILITY LOCATIONS DEPICTED HEREON HAVE BEEN COMPILED, IN PART, FROM RECORD MAPPING, OR OTHER SOURCES. THESE LOCATIONS MUST BE CONSIDERED APPROXIMATE IN NATURE. ADDITIONALLY, OTHER SUCH FEATURES MAY EXIST ON THE SITE, THE EXISTENCE OF WHICH ARE UNKNOWN TO GARDNER & PETERSON ASSOCIATES, LLC. THE EXISTENCE, SIZE AND LOCATION OF ALL SUCH FEATURES MUST BE DETERMINED AND VERIFIED IN THE FIELD BY THE APPROPRIATE AUTHORITIES PRIOR TO CONSTRUCTION. CALL BEFORE YOU DIG 1-800-922-4455.
- 15. ALL BUILDING AND UNIT NUMBERS ARE TO BE CLEARLY MARKED FOR EASY IDENTIFICATION BY EMERGENCY RESPONDERS.
- 16. THE MAINTENANCE OF ROADS AND PARKING AREAS TO BE RETAINED UNDER PRIVATE OWNERSHIP SHALL BE THE SOLE RESPONSIBILITY OF THE PROPERTY OWNER AND IN COMPLIANCE WITH THE TOWN OF VERNON ZONING REGULATIONS.

IMPROVEMENT LOCATION SURVEY							
* No. 23430 BORSSIONAL ENGINE	SI THI 291	SITE PLAN OF DEVELOPMENT THE VILLAGE AT NAEK ROAD 291 & 293 TALCOTTVILLE ROAD 26, 32, 37, 38 & 46 NAEK ROAD VERNON CONNECTICUT					
REVISIONS 05/21/2021 10/14/2021	GARDNER & PETERSON ASSOCIATES, LLC 178 HARTFORD TURNPIKE TOLLAND, CONNECTICUT PROFESSIONAL ENGINEERS LAND SURVEYORS						
	BY	SCALE	DATE	SHEET NO.	MAP NO.		



- CONNECTICUT STATE AGENCIES, SECTIONS 20-300b-1 THROUGH 20-300b-20. THIS IS AN
- NAD 83 PER THE MAP REFERENCED IN NOTE 3.B. ELEVATIONS DEPICTED ON THIS PLAN REFER TO THE NAVD 88 DATUM PER THE MAP REFERENCED IN NOTE 3.C.
- JULY 1985.
- PREPARED BY VHB. DATE: MAY 15, 2015.
- D. "RESUBDIVISION OF LOT 3 TO BE KNOWN AS SONA INDUSTRIAL PARK VERNON, CONNECTICUT" BY
- F. "AS-BUILT PLAN & SEWAGE PUMPING STATION NAEK ROAD SONA INDUSTRIAL PARK VERNON,
- IN VOL. 2540, PAGE 129 IN THE VERNON LAND RECORDS.

- COMBINED PARCELS IS 941,200± sq. ft. 21.6± acres.

- CONSTRUCTION.
- 1-800-922-4455.
- EMERGENCY RESPONDERS.
- TOWN OF VERNON ZONING REGULATIONS.







I HEREBY DECLARE THAT, TO THE BEST OF MY KNOWLEDGE AND BELIEF, THIS MA

L.S. 23430 REGISTRATION NO.

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		IMPF	ROVEMEN	NT LOCA	ΓΙΟΝ SUF	RVEY
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		BY F.R.P.	SCALE 1"=40'	DATE 03-17-2021	SHEET NO.	MAP NO. 5768B



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N/F	ERIC R. PETERSON	L.S. 23 REGISTRAT	<u>3430</u> ION NO.
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	•		

TOLLAND, CONNECTICUT

03-17-2021

DATE

LAND SURVEYORS

4 OF 14

MAP NO.

5768B

SHEET NO.

PROFESSIONAL ENGINEERS

SCALE

1"=40'

BY

E.R.P.

05/21/2021

10/14/2021



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BY SCALE	DATE	SHEET NO. MAP NO.

03-17-2021

7 OF 14

5768B

L.S. 23430 REGISTRATION NO.

REVISIONS

E.R.P.

1"=40'

05/21/2021 10/14/2021





PROP	. UNITS
	C B D D W N MULCH BEDS
TYPICAL PLANT	ING - UNIT FRONTS
SHRUB CHOICES 'A'	SYRINGA PATULA 'MISS KIM' / MISS KIM LILAC HYDRANGEA PANICULATA 'UNIQUE'/ PANICLED HYDRANGEA ILEX GLABRA/ INKBERRY
SHRUB CHOICES 'B'	SYRINGA PATULA 'MISS KIM' / MISS KIM LILAC HYDRANGEA PANICULATA 'UNIQUE'/ PANICLED HYDRANGEA ILEX GLABRA/ INKBERRY ENKIANTHUS CAMPANULATUS/ REDVEIN ENKIANTHUS
SHRUB CHOICES 'C'	POTENTILLA FRUTICOSA 'ABBOTTSWOOD'/ POTENTILLA SPIRAEA X BUMALDA ANTHONY WATERERI/ SPIREA SPIRAEA JAPONICA SHIROBANA/ SHIROBANA SPIREA
SHRUB CHOICES 'D'	CLETHRA ALNIFOLIA 'HUMMINGBIRD'/ HUMMINGBIRD CLETHRA VIBURNUM DENTATUM 'BLUE MUFFIN'/ BLUE MUFFIN VIBURNUM BUXUS MICROPHYLLA KOREANA/ KOREAN BOXWOOD BUXUS 'GREEN GEM'/ GREEN GEM BOXWOOD

PLANTING SPECIFICATIONS

SYMBOL	SCIENTIFIC NAME/COMMON NAME	SIZE	QUANTITY
	ABIES CONCOLOR/ WHITE FIR	4 – 5'	24
	ABIES FRASERI/ FRASER FIR	4 – 5'	42
(# 1	ACER X FREEMANII 'JEFFERSRED'/ AUTUMN BLAZE MAPLE	3 - 3 1/2" CAL.	20
+REDM	ACER RUBRUM COLUMNARIS/ COLUMNAR RED MAPLE	3 - 3 1/2" CAL.	16
	ACER RUBRUM 'OCTOBER GLORY'/ RED MAPLE	3 – 3 1/2" CAL.	18
	AMELANCHIER CANADENSIS/ SHADBLOW	8 - 10'	13
	BETULA NIGRA 'HERITAGE'/ RIVER BIRCH	8 - 10'	15
KeD	CORNUS KOUSA/ KOUSA DOGWOOD	8 – 10'	14
GŮM	NYSSA SYLVATICA/ BLACK GUM	3 - 3 1/2" CAL.	5
	THUJA OCCIDENTALIS 'EMERALD GREEN'/ ARBORVITAE	4 – 5'	43
	JUNIPERUS CHIN PFITZ. COMPACTUM/ COMPACT JUNIPER	3 GAL.	23
ROSE	ROSA 'KNOCKOUT'/ KNOCKOUT SHRUB ROSE	3 GAL.	19

GRAPHIC SCALE 1"= 40

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LOGICAL SERVICES,LLC.		BY	SCALE	DATE	SHEET NO.	MAP NO.	
TER, CT 06040		E.R.P.	1"=40'	03-17-2021	9 OF 14	5768B	



PLANTING PLAN FOR INFILTRATION BASINS AND VICINITY **IMPLEMENTATION NOTES**

1.0 Introduction

WETLAND MEADOW AND SHALLOW MARSH CREATION WITHIN THE PROPOSED INFILTRATION BASINS BY EXCAVATION, AND HERBACEOUS AND WOODY PLANTINGS, WILL TAKE PLACE IN TWO AREAS IN THE EAST AND WEST- CENTRAL PARTS OF THE SITE'S CLEARED AREA, AS SHOWN ON THE PLAN.

SOILS AT THE WETLAND CREATION SITE ARE WELL DRAINED AND SANDY WITH PERMEABILITY WELL-SUITED TO INFILTRATION.

THE GOAL FOR THE VEGETATED BASINS AND SEVERAL OTHER NEARBY OPEN AREAS IS 100% COVER, AND 95% COVER BY NATIVE SPECIES, BY THE END OF THE THREE-YEAR MONITORING PERIOD, IN ADDIOTION TO UPTAKE OF NUTRIENTS AND TOXICANTS IN PAVEMENT RTUNOFF, AND UPTAKE WATER THAT COULD OTHERWISE CAUSE EROSION AND CHANNEL DEGRADATION, PLANT SPECIES WERE SELECTED TO PROVIDE FOOD PLANTS FOR CATEPILLARS, BEETLES, AND OTHER INSECTS; FRUIT, SEED, AND NUT PRODUCTION IN DIFFERENT SEASONS, INCLUDING PERSISTENT WINTER FRUIT AND SPRING SEEDS; FORAGE FOR VERTEBRATE HERBIVORES; SUITABLE MICRO-HABITATS FOR OVERWINTERING INSECTS: AND NECTAR AND POLLEN THROUGH MUCH OF THE GROWING SEASON. SPECIES ALREADY PRESENT ON THE SITE. WERE SELECTED FIRST. AS THEY ARE ALREADY USED BY THE LOCAL FAUNAL ASSEMBLAGE.

NOTE: ALL WETLAND REPLICATION WORK, SHALL BE SUPERVISED BY AN ECOLOGIST (OR WETLAND SCIENTIST), INCLUDING INITIAL GRADING, PLANTING, MARKING INVASIVES IN ADJACENT UPLAND BUFFER AREAS. A PRE-IMPLEMENTATION MEETING SHALL TAKE PLACE AT LEAST ONE MONTH PRIOR TO PLAN IMPLEMENTATION, BETWEEN THE WETLAND SCIENTIST, THE SITE CONTRACTOR, AND THE LANDSCAPER, AND THE TOWN'S WETLAND AGENT. AT THE TOWN'S DISCRETION.

2.0 PLANTING OF STORMWATER BASINS

PREPARATION

- . ORDER THE POTTED WOODY PLANTS AND THE SEED MIX, FOR DELIVERY RIGHT AFTER COMPLETION OF GRADING. STORE IN SHADE WHEN THEY ARRIVE.
- 2. EARTHWORK FOR THE STORMWATER BASINS WILL TAKE PLACE IN APRIL / MAY, OR IN AUGUST OR EARLY SEPTEMBER, SO THAT PLANTINGS CAN BE INSTALLED IMMEDIATELY AFTERWARDS, EITHER IN LATE SPRING OR VERY EARLY FALL SEASONS. PREFERABLY IT SHALL COMMENCE DURING THE SAME YEAR THAT PROJECT CONSTRUCTION BEGINS.
- 3. INSTALL PERIMETER EROSION CONTROLS AROUND THE STORMWATER MANAGEMENT AREAS AS SHOWN ON PLAN: CORRECTLY TRENCHED AND STAKED SILT FENCE PER THE 2002 CONNECTICUT EROSION & SEDIMENTATION CONTROL GUIDELINES (2002 GUIDELINES).

EARTHWORK

- 4. CLEAR AND GRUB THE PROPOSED STORMWATER MANAGEMENT AREAS. REMOVE THE TOPSOIL FROM THESE LOCATIONS & PLACE IN A DESIGNATED SOIL STOCKPILE AREA, AT LEAST 150 FEET AWAY, THIS TOPSOIL WILL BE USED ELSEWHERE ON THE SITE, IT CONTAINS TOO MANY INVASIVE SEEDS AND RHIZOMES FOR USE IN THE STORMWATER MANAGEMENT AREA. TOPSOIL AND SUBSOIL FROM THE STORMWATER MANAGEMENT AREAS WILL BE TRUCKED TO OTHER PARTS OF THE SITE, AND MAY BE STOCKPILED FOR USE IN AREAS OF MAINTAINED LAWN.
- 5. CLEAR AND GRUB, AND SALVAGE INVASIVE-FREE TOPSOIL FROM ADJACENT UPLANDS TO THE EAST AND WEST, WHERE RESIDENTIAL BUILDINGS 3, 4, 15, 16, AND 17 ARE TO BE BUILT.
- 6. STOCKPILE TOPSOIL TO BE USED WITHIN FIFTY FEET OF EACH BASIN, AND INSTALL PERIMETER PROTECTION.
- 2. EXCAVATE BASINS FOLLOWING GRADING PLANS, WITH OVER EXCAVATION BY 6 INCHES TO ACCOMMODATE SALVAGED TOPSOIL
- 8. ALSO APPLY 6 INCHES OF HIGH-QUALITY SALVAGED TOPSOIL TO ADDITIONAL NEARBY AREAS TO RECEIVE NATIVE PLANTINGS.
- 9. A 6-INCH (MINIMUM) TOPSOIL LAYER OF SALVAGED SANDY-LOAM FOREST TOPSOIL, WITH 2-4% ORGANIC CONTENT, WILL BE PLACED TO REALIZE THE FINAL GRADES.
- 10. EXCAVATION AND GRADING WILL TAKE PLACE UNDER THE DIRECTION OF THE WETLAND SCIENTIST. GRADING WILL FOLLOW THE PLAN, BUT IN THE EVENT OF UNEXPECTED SOIL AND HYDROLOGIC CONDITIONS, THE WETLAND SCIENTIST MAY MAKE IN-FIELD ADJUSTMENTS.
- 11. TO PREVENT COMPACTION, NO MACHINERY WILL BE ALLOWED WITHIN THE AREAS WHERE TOPSOIL HAS BEEN PLACED. TOPSOIL PLACEMENT SHALL PROCEED FROM BACK TO FRONT.

PLANTINGS

- 12. ORDER THE WOODY PLANTING MATERIALS FOR DELIVERY DURING THE PLANTING WINDOWS LISTED ABOVE (MID TO LATE SPRING OR EARLY FALL). STORE IN SHADE WHEN THEY ARRRIVE AND INSTALL WITHIN THREE DAYS OF DELIVERY.
- 13. A WETLAND PROFESSIONAL OR ECOLOGIST SHALL SPECIFY PLANTING AND SEEDING LOCATIONS, AND MARK ANY SHRUBS AND PERENNIAL WILDFLOWERS TO BE TRANSPLANTED. THE PROFESSIONAL WILL DIRECT THE INSTALLATION, EITHER BY STAKING PLANTING LOCATIONS WITH A WIRE FLAG OR BAMBOO STAKE LABELED WITH THE SPECIES NAME OR CODE; OR POTTED STOCK MAY ALSO BE DIRECTLY PLACED AT PLANTING LOCATION.
- 14. INSTALL THE PURCHASED WOODY MATERIALS FIRST, THEN SPREAD SEED..
- 15. WOODY PLANTINGS (SEE TABLE 1 AND TABLE 2) SHALL BE PLANTED IN SAME-SPECIES CLUSTERS, AS SHOWN ON THE PLANS.
- 16. DIG HOLES BY HAND TO MINIMIZE COMPACTION OF SOIL (MECHANICAL AUGERS ARE PROHIBITED). WATER HOLES BEFORE PLANTING, UNLESS SOIL IS ALREADY MOIST. ADD SLOW RELEASE FERTILIZER (OSMACOTE, MILORGANITE OR EQUIVALENT) TO PLANTING HOLE. PLACE PLANTS INTO HOLES AND REPLACE SOIL, SO THAT THERE IS FULL COVERAGE OF ROOTS, WITH NO AIR SPACES AND LEVEL SOIL AROUND THE PLANT. HOLES SHALL BE OVERSIZED (2X THE ROOT MASS DIAMETER) AND BACKFILLED WITH THE HIGH QUALITY SALVAGED, STOCKPILED FOREST TOPSOIL IN AN OVERSIZED TRANSPLANT POT (NOT SUBSOIL REMOVED FROM BOTTOM PART OF HOLE).
- 7. MULCH WITH A THREE-INCH LAYER OF WELL-ROTTED HARDWOOD MULCH TO REDUCE COMPETITION FROM EXISTING MEADOW VEGETATION IN A THREE-FOOT DIAMETER CIRCLE. LEAVE A GAP OF THREE INCHES AROUND EACH TRUNK. FORM SAUCERS AROUND ALL MULCHED TREE AND SHRUB PLANTINGS, TWO TO THREE INCHES HIGH, 36" ACROSS FOR NURSERY STOCK. WATER RIGHT AFTER PLANTING.

- **OVER-SEED IN FALL**
- BERM-TOP BENCHES, AND OUTER SLOPES.
- ALLOWING SOME LIGHT PENETRATION.

3.0 PROTECTION FROM HERBIVORY

- ARE RELATIVELY SMALL.
- MONTHS TO BE EFFECTIVE.

4.0INITIAL FOLLOW-UP AND MAINTENANCE

- AND TRANSPORT TO A WATERWAY OR WETLAND.
- IN DROUGHTY PERIODS. MORE FREQUENT WATERING WILL INCREASE PLANTINGS SUCCESS.

5.0 Invasive Plant Control

- FURTHER WITHIN 100 FEET WILL ALSO BE REMOVED.
- USED, USING SPOT APPLICATION METHODS RATHER THAN FOLAR SPRAYING.

6.0 Monitoring

- NATIVE SPECIES IS EXPECTED AND IS DESIRABLE.
- IS TO BE CONSULTED.
- SUBMITTED BY NOVEMBER 30TH OF THE MONITORING YEAR.

REMA Ecological Services, LLC

TABLE

Table 1. Trees

18. SEEDING: APPLY ONE POUND IN EACH BASIN OF THE "LOW GROW MIX FOR WET SITES" FROM PINELANDS NURSERY TO BASIN BOTTOMS AND LOWER SLOPES. FOR UPPER SLOPES AND OUTER PORTIONS OF STORMWATER MANAGEMENT AREA, TO BE MAINTAINED LONG-TERM BY MOWING, USE THE STANDARD CTDOT GRASS MIX FOR LOAMY SAND SOILS. AFTER MIXING SEED 1:1 WITH SAND, OR WITH NON-CLUMPING KITTY LITTER, SPREAD SEED OVER BARE SOIL AREAS. AVOIDING MULCHED CIRCLES AROUND SHRUB PLANTINGS. IF GERMINATION RATES ARE LOW, BASED ON LATE GROWING SEASON MONITORING, PURCHASE ADDITIONAL SEED, AND

19. FOR SPRING SEEDING IN MOIST, BUT NOT SATURATED SOIL, LIGHTLY RAKE IN SEED (LESS THAN 1/2 INCH DEEP), TAMP DOWN, AND LIGHTLY MULCH WITH STRAW (FREE OF SEEDS) TO HOLD MOISTURE FOR GERMINATION. FOR FALL SEEDING, WAIT UNTIL AFTER HARD FROST; SEED MAY SIMPLY BE SOWN, NOT INCORPORATED. SNOW AND FROST WILL INCORPORATE INTO THE SOIL NOTE THAT COLD STRATIFICATION WILL INCREASE GERMINATION RATES ODF SOME SPECIES IN A FALL SEEDING, BUT MORE SEEDS WILL ALSO BE EATEN BY WILDLIFE OR WASHED AWAY. IF SOIL IS SATURATED, BROADCAST SOIL ON SURFACE WITHOUT RAKING. USE STANDARD CTDOT GRASS MIX FOR SLOPE STABILIZATION FOR UPLAND PERIMETER PORTIONS OF BASIN,

20. SPREAD A THIN LAYER OF STRAW MULCH OVER ALL SEEDED AREAS WITHOUT STANDING WATER.

1. WOODY PLANTINGS WILL BE MONITORED DURING THE FIRST AND SECOND GROWING SEASONS AFTER PLAN IMPLEMENTATION FOR EXCESSIVE HERBIVORY. IF OBSERVED, THE WETLAND ECOLOGIST MAY PROPOSE ADDITIONAL CONTROLS/METHODS TO REDUCE HERBIVORY. A TEMPORARY DEER FENCE MAY BE CONSIDERED, AS THE STORMWATER MANAGEMENT AREAS

2. DEER HERBIVORY DID NOT APPEAR SEVERE DURING BASELINE INVESTIGATIONS. IF CONDITIONS WORSEN, THE ORGANIC FERTILIZER *MILORGRANITE* SHALL BE USED AT EACH SHRUB/TREE PLANTING. AND ALONG THE PERIMETER OF THE ENTIRE MITIGATION AREA. THIS FERTILIZER IS A MILD TO MODERATE DETERRENT TO HERBIVORY BY DEER, BUT MUST BE APPLIED EVERY FEW

1. PERIMETER SEDIMENT CONTROLS. MAINTAIN PER THE 2002 CT E&S GUIDELINES, CHECK AFTER EACH RAIN MORE THAN ONE INCH. REMOVE SILT FENCE AS SOON AS GROUND IS VEGETATED (>80% COVER) TO PREVENT IMPEDING ANIMAL MOVEMENT TO AND FROM ADJACENT

SEASONALLY FLOODED AND SATURATED WETLANDS. SEDIMENT COLLECTED BY THESE DEVICES WILL BE REMOVED AND PLACED UPLAND IN A MANNER THAT PREVENTS ITS EROSION

2. IRRIGATION: WATER ALL SEEDED AREAS, PLANTINGS AND/OR TRANSPLANTS AT LEAST WEEKLY

1. IN THE FALL OF YEAR 1 AND IN THE EARLY SUMMER OF YEAR 2 THE ECOLOGIST WILL FLAG FOR REMOVAL AND/OR PULL WOODY INVASIVES WITHIN THE STORMWATER MANAGEMENT AREAS AND IN THE VICINITY, WITHIN FIFTY FEET, SIGNFICANT, LOCALIZED INVASIVE SEED SOURCES

2. TARGETED TRICLOPYR HERBICIDE RATHER THSN BROAD-SPECTRUM GLYPHOSPATE CHALL BE

3. INVASIVE PLANT CONTROL WITHIN THESE AREAS SHALL TAKE PLACE FOR TWO (2) YEARS

FOLLOWING THE YEAR OF PLAN IMPEMENTATION (I.E., YEAR 2 THROUGH YEAR 3) FOLLOWING

THE PROCEDURES PROMULGATED BY THE CT DEEP. NYDES. AND THE NATURE CONSERVANCY.

1. INSPECTIONS BY A QUALIFIED WETLAND PROFESSIONAL OR ECOLOGIST SHALL TAKE PLACE DURING THE GROWING SEASON, WITHIN THREE MONTHS FOLLOWING INSTALLATION, AND TWICE DURING EACH OF THE TWO (2) NEXT GROWING SEASONS, AT THE STORMWATER MANAGEMENT AREAS, ONCE IN LATE MAY THROUGH JUNE, AND ONCE IN EARLY FALL. ADDITIONAL INSPECTIONS MAY BE NECESSARY AT THE DISCRETION OF THE WETLAND SCIENTIST TO ENSURE THE SUCCESS OF THE WETLAND REPLICATION.

2. DURING INSPECTIONS, CHECK STORMWATER MANAGEMENT AREAS FOR SEEDLINGS OF THE FOLLOWING INVASIVE SPECIES AND MECHANICALLY REMOVE: COMMON REED, MORROW'S HONEYSUCKLE, AUTUMN OLIVE, MULTIFLORA ROSE, ASIATIC BITTERSWEET, JAPANESE BARBERRY, GLOSSY BUCKTHORN, BURNING BUSH, MUGWORT, AND GARLIC MUSTARD. INSPECTIONS SHALL BE DONE BY THE WETLANDS PROFESSIONAL, WHO COULD ALSO IDENTIFY OTHER INVASIVE PLANT SPECIES, BUT PERSONNEL TRAINED BY THE PROFESSIONAL IN IDENTIFICATION OF INVASIVE SEEDLINGS MAY ASSIST WITH MECHANICAL REMOVAL (WEEDING). COMPETING PLANTS: IF THE WETLANDS PROFESSIONAL DETERMINES THAT EXCESSIVE NUMBERS OF SEEDLINGS OF A PARTICULAR NATIVE SPECIES HAVE GERMINATED ON SITE (E.G. CATTAIL), REMOVE THEM BY HOEING OR HAND PULLING. COLONIZATION BY A VARIETY OF

REMEDIAL MEASURES SUCH AS REPLACEMENT PLANTINGS, HYDROLOGIC ADJUSTMENTS, AND DEER BROWSING PROTECTION, MAY BE RECOMMENDED AND SUPERVISED BY THE WETLAND SCIENTIST AND IMPLEMENTED BY THE PROPERTY OWNER, FOR SIGNIFICANT PROBLEMS. TOWN

5. A BRIEF REPORT TO THE TOWN'S INLAND WETLANDS AND WATERCOURSES AGENCY WILL

5/18/2021

Hydrologic Zones: Zone A: Sa Zone C: moderately well drain	aturated/Sha ned, usually i	llow inundati moist; Zone I	on; Zone B: seasonally satu D: well-drained to excessive	irated, moist ly well draine	ed			
Scientific Name	<u>ID</u>	Zone	Common Name	Size	Shade Tolerant?	<u>E.Side</u>	W.Side	Totals
TABLE 1a. FULL SIZE	TREES							
Carya ovata	Ca-ov	B,C	Shagbark hickory	4'-6'	Y		4	4
Prunus serotina	Pr-se	C,D	Black cherry	4'-6'	Ν		2	2
Quercus alba	Qu-al	D	White oak	4'-6'	Y		4	4
Quercus rubra	Qu-ru	D	Red oak	4'-6'	Ν		2	2
Total:							12	12
TABLE 1b. SMALL SIZ	ZE TREES							
Amelanchier canadensis	Am-ca	B,C,D	Shadblow	2'-3'	Ν		6	6
Carpinus caroliniana	Ca-pe	B,C	Ironwood	2'-3'	Y		3	3
Cornus florida	Co-fl	C,D	Flowering Dogwood	4'-6'	Y		2	2
Prunus virginiana	Pr-Vi	B,C,D	Choke Cherry	2'-3'	N		5	5
Total:							16	16
Table 2. Shrubs								
Scientific Name	<u>ID</u>	Zone	<u>Common Name</u>	<u>Size</u>	Shade <u>Tolerant</u> ?	<u>E.Side</u>	<u>W.Side</u>	<u>Totals</u>
<u>Scientific Name</u> Aronia arbutifolia	<u>ID</u> Ar-ar	<u>Zone</u> B,C,D	<u>Common Name</u> Chokeberry	<u>Size</u> 2'-3'	Shade <u>Tolerant</u> ? N	<u>E.Side</u> 4	<u>W.Side</u> 12	<u>Totals</u> 16
<u>Scientific Name</u> Aronia arbutifolia Cephalanthus occidentalis	<u>ID</u> Ar-ar Ce-oc	<u>Zone</u> B,C,D AB	<u>Common Name</u> Chokeberry Buttonbush	<u>Size</u> 2'-3' 2'-3'	Shade <u>Tolerant</u> ? N Y	<u>E.Side</u> 4 27	<u>W.Side</u> 12 34	<u>Totals</u> 16 61
<u>Scientific Name</u> Aronia arbutifolia Cephalanthus occidentalis Clethra alnifolia	<u>ID</u> Ar-ar Ce-oc Cl- al	Zone B,C,D AB B,C	<u>Common Name</u> Chokeberry Buttonbush Sweet pepperbush	<u>Size</u> 2'-3' 2'-3' 2'-3'	Shade <u>Tolerant</u> ? N Y Y	<u>E.Side</u> 4 27 0	<u>W.Side</u> 12 34 8	<u>Totals</u> 16 61 8
<u>Scientific Name</u> Aronia arbutifolia Cephalanthus occidentalis Clethra alnifolia Ilex verticillata	ID Ar-ar Ce-oc Cl- al II-ve	Zone B,C,D AB B,C ABC	<u>Common Name</u> Chokeberry Buttonbush Sweet pepperbush Winterberry	<u>Size</u> 2'-3' 2'-3' 2'-3' 2'-3'	Shade <u>Tolerant</u> ? N Y Y Y	<u>E.Side</u> 4 27 0 11	<u>W.Side</u> 12 34 8 20	<u>Totals</u> 16 61 8 31
<u>Scientific Name</u> Aronia arbutifolia Cephalanthus occidentalis Clethra alnifolia Ilex verticillata Kalmia latifolia	<u>ID</u> Ar-ar Ce-oc Cl- al II-ve Ka-la	Zone B,C,D AB B,C ABC BCD	<u>Common Name</u> Chokeberry Buttonbush Sweet pepperbush Winterberry Mountain laurel	<u>Size</u> 2'-3' 2'-3' 2'-3' 2'-3' 2'-3'	Shade <u>Tolerant</u> ? N Y Y Y Y	<u>E.Side</u> 4 27 0 11 0	<u>W.Side</u> 12 34 8 20 13	<u>Totals</u> 16 61 8 31 13
<u>Scientific Name</u> Aronia arbutifolia Cephalanthus occidentalis Clethra alnifolia Ilex verticillata Kalmia latifolia Morella pensylvanica	ID Ar-ar Ce-oc Cl- al II-ve Ka-la Mo-pe	Zone B,C,D AB B,C ABC BCD C,D	<u>Common Name</u> Chokeberry Buttonbush Sweet pepperbush Winterberry Mountain laurel Bayberry	<u>Size</u> 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3'	Shade <u>Tolerant</u> ? N Y Y Y Y N	<u>E.Side</u> 4 27 0 11 0 0	<u>W.Side</u> 12 34 8 20 13 17	<u>Totals</u> 16 61 8 31 13 17
Scientific Name Aronia arbutifolia Cephalanthus occidentalis Clethra alnifolia Ilex verticillata Kalmia latifolia Morella pensylvanica Rhodedendron nudiflorum	<u>ID</u> Ar-ar Ce-oc Cl- al II-ve Ka-la Mo-pe Rh-nu	Zone B,C,D AB B,C ABC BCD C,D C	<u>Common Name</u> Chokeberry Buttonbush Sweet pepperbush Winterberry Mountain laurel Bayberry Pink azalea	<u>Size</u> 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3'	Shade <u>Tolerant</u> ? N Y Y Y Y N Y	<u>E.Side</u> 4 27 0 11 0 0 0	<u>W.Side</u> 12 34 8 20 13 17 4	<u>Totals</u> 16 61 8 31 13 17 4
Scientific Name Aronia arbutifolia Cephalanthus occidentalis Clethra alnifolia Ilex verticillata Kalmia latifolia Morella pensylvanica Rhodedendron nudiflorum Rosa palustris	ID Ar-ar Ce-oc Cl- al II-ve Ka-la Mo-pe Rh-nu Ro-pa	Zone B,C,D AB B,C ABC BCD C,D C A	<u>Common Name</u> Chokeberry Buttonbush Sweet pepperbush Winterberry Mountain laurel Bayberry Pink azalea Swamp rose	<u>Size</u> 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3'	Shade <u>Tolerant</u> ? N Y Y Y Y N Y	<u>E.Side</u> 4 27 0 11 0 0 0 0 13	<u>W.Side</u> 12 34 8 20 13 17 4 0	<u>Totals</u> 16 61 8 31 13 17 4 13
Scientific Name Aronia arbutifolia Cephalanthus occidentalis Clethra alnifolia Ilex verticillata Kalmia latifolia Morella pensylvanica Rhodedendron nudiflorum Rosa palustris Salix sericea	<u>ID</u> Ar-ar Ce-oc Cl- al II-ve Ka-la Mo-pe Rh-nu Ro-pa Sa-se	Zone B,C,D AB B,C ABC BCD C,D C C A B,C	<u>Common Name</u> Chokeberry Buttonbush Sweet pepperbush Winterberry Mountain laurel Bayberry Pink azalea Swamp rose Silky willow	<u>Size</u> 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3'	Shade <u>Tolerant</u> ? N Y Y Y Y N Y N Y N Y N	<u>E.Side</u> 4 27 0 11 0 0 0 0 13 7	<u>W.Side</u> 12 34 8 20 13 17 4 0 3	<u>Totals</u> 16 61 8 31 13 17 4 13 10
Scientific Name Aronia arbutifolia Cephalanthus occidentalis Clethra alnifolia Ilex verticillata Kalmia latifolia Morella pensylvanica Rhodedendron nudiflorum Rosa palustris Salix sericea Sambucus canadensis	ID Ar-ar Ce-oc Cl- al II-ve Ka-la Mo-pe Rh-nu Ro-pa Sa-se Sa-se Sa-ca	Zone B,C,D AB B,C ABC BCD C,D C A B,C B	<u>Common Name</u> Chokeberry Buttonbush Sweet pepperbush Winterberry Mountain laurel Bayberry Pink azalea Swamp rose Silky willow American elderberry	<u>Size</u> 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3'	Shade <u>Tolerant</u> ? N Y Y Y N Y N Y N N N	<u>E.Side</u> 4 27 0 11 0 0 0 0 13 7 14	<u>W.Side</u> 12 34 8 20 13 17 4 0 3 5	<u>Totals</u> 16 61 8 31 13 17 4 13 10 19
Scientific Name Aronia arbutifolia Cephalanthus occidentalis Clethra alnifolia Ilex verticillata Kalmia latifolia Morella pensylvanica Rhodedendron nudiflorum Rosa palustris Salix sericea Sambucus canadensis Spiraea tomentosa	ID Ar-ar Ce-oc Cl- al II-ve Ka-la Mo-pe Rh-nu Ro-pa Sa-se Sa-se Sa-ca Sp-to	Zone B,C,D AB B,C ABC BCD C,D C,D C A B,C B A,B	Common Name Chokeberry Buttonbush Sweet pepperbush Winterberry Mountain laurel Bayberry Pink azalea Swamp rose Silky willow American elderberry Steeplebush	<u>Size</u> 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3'	Shade <u>Tolerant</u> ? N Y Y Y Y Y N Y N N N N	<u>E.Side</u> 4 27 0 11 0 0 0 0 13 7 14 30	<u>W.Side</u> 12 34 8 20 13 17 4 0 3 5 0	<u>Totals</u> 16 61 8 31 13 17 4 13 10 19 30
Scientific Name Aronia arbutifolia Cephalanthus occidentalis Clethra alnifolia Ilex verticillata Kalmia latifolia Morella pensylvanica Rhodedendron nudiflorum Rosa palustris Salix sericea Sambucus canadensis Spiraea tomentosa Swida amomum	ID Ar-ar Ce-oc Cl- al II-ve Ka-la Mo-pe Rh-nu Ro-pa Sa-se Sa-se Sa-ca Sp-to Sw-am	Zone B,C,D AB B,C ABC BCD C,D C C A B,C B A,B B,C	<u>Common Name</u> Chokeberry Buttonbush Sweet pepperbush Winterberry Mountain laurel Bayberry Pink azalea Swamp rose Silky willow American elderberry Steeplebush Silky dogwood	Size 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3'	Shade <u>Tolerant</u> ? N Y Y Y N Y N N N N N	<u>E.Side</u> 4 27 0 11 0 0 0 13 7 14 30 21	<u>W.Side</u> 12 34 8 20 13 17 4 0 3 5 0 6	<u>Totals</u> 16 61 8 31 13 17 4 13 10 19 30 27
Scientific Name Aronia arbutifolia Cephalanthus occidentalis Clethra alnifolia Ilex verticillata Kalmia latifolia Morella pensylvanica Rhodedendron nudiflorum Rosa palustris Salix sericea Sambucus canadensis Spiraea tomentosa Swida amomum Swida racemosum	ID Ar-ar Ce-oc Cl- al II-ve Ka-la Mo-pe Rh-nu Ro-pa Sa-se Sa-ca Sa-ca Sp-to Sw-am Sw-ra	Zone B,C,D AB B,C ABC BCD C,D C,D C A B,C B A,B B,C B,C B,C	Common Name Chokeberry Buttonbush Sweet pepperbush Winterberry Mountain laurel Bayberry Pink azalea Swamp rose Silky willow American elderberry Steeplebush Silky dogwood Gray dogwood	Size 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 12"- 24" 2'-3' 2'-3'	Shade <u>Tolerant</u> ? N Y Y Y Y N Y N N N N N N	<u>E.Side</u> 4 27 0 11 0 0 0 0 13 7 14 30 21 0	<u>W.Side</u> 12 34 8 20 13 17 4 0 3 5 0 6 27	<u>Totals</u> 16 61 8 31 13 17 4 13 10 19 30 27 27
Scientific Name Aronia arbutifolia Cephalanthus occidentalis Clethra alnifolia Ilex verticillata Kalmia latifolia Morella pensylvanica Rhodedendron nudiflorum Rosa palustris Salix sericea Sambucus canadensis Spiraea tomentosa Swida amomum Swida racemosum Vaccinium corymbosum	ID Ar-ar Ce-oc Cl- al II-ve Ka-la Mo-pe Rh-nu Ro-pa Sa-se Sa-se Sa-ca Sp-to Sw-am Sw-ra Va-co	Zone B,C,D AB B,C ABC BCD C,D C C A B,C B B,C B,C B,C B,C	Common Name Chokeberry Buttonbush Sweet pepperbush Winterberry Mountain laurel Bayberry Pink azalea Swamp rose Silky willow American elderberry Steeplebush Silky dogwood Gray dogwood Highbush blueberry	Size 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3'	Shade <u>Tolerant</u> ? N Y Y Y Y Y N N N N N N N N N N N Y	<u>E.Side</u> 4 27 0 11 0 0 0 0 13 7 14 30 21 0 22	<u>W.Side</u> 12 34 8 20 13 17 4 0 3 5 0 6 27 5	<u>Totals</u> 16 61 8 31 13 17 4 13 10 19 30 27 27 27 27
Scientific Name Aronia arbutifolia Cephalanthus occidentalis Clethra alnifolia Ilex verticillata Kalmia latifolia Morella pensylvanica Rhodedendron nudiflorum Rosa palustris Salix sericea Sambucus canadensis Spiraea tomentosa Swida amomum Swida racemosum Vaccinium corymbosum	ID Ar-ar Ce-oc Cl- al II-ve Ka-la Mo-pe Rh-nu Ro-pa Sa-se Sa-se Sa-se Sa-ca Sp-to Sw-am Sw-ra Va-co Vi-de	Zone B,C,D AB B,C ABC BCD C,D C,D C A B,C B,C B,C B,C B,C B,C B,C B,C	Common Name Chokeberry Buttonbush Sweet pepperbush Winterberry Mountain laurel Bayberry Pink azalea Swamp rose Silky willow American elderberry Steeplebush Silky dogwood Gray dogwood Highbush blueberry Arrowwood viburnum	Size 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3'	Shade <u>Tolerant</u> ? N Y Y Y Y N Y N N N N N N N N N Y Y	<u>E.Side</u> 4 27 0 11 0 0 0 13 7 14 30 21 0 22 0	<u>W.Side</u> 12 34 8 20 13 17 4 0 3 5 0 6 27 5 9	<u>Totals</u> 16 61 8 31 13 17 4 13 10 19 30 27 27 27 9
Scientific Name Aronia arbutifolia Cephalanthus occidentalis Clethra alnifolia Ilex verticillata Kalmia latifolia Morella pensylvanica Rhodedendron nudiflorum Rosa palustris Salix sericea Sambucus canadensis Spiraea tomentosa Swida amomum Swida racemosum Vaccinium corymbosum Viburnum dentatum Viburnum lentago	ID Ar-ar Ce-oc Cl- al II-ve Ka-la Mo-pe Rh-nu Ro-pa Sa-se Sa-se Sa-ca Sp-to Sw-am Sw-am Sw-ra Va-co Vi-de Vi-le	Zone B,C,D AB B,C ABC BCD C,D C,D C A B,C B,C B,C B,C B,C B,C BC BC	Common Name Chokeberry Buttonbush Sweet pepperbush Winterberry Mountain laurel Bayberry Pink azalea Swamp rose Silky willow American elderberry Steeplebush Silky dogwood Gray dogwood Highbush blueberry Arrowwood viburnum	Size 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3'	Shade <u>Tolerant</u> ? N Y Y Y Y N N N N N N N N N N Y Y Y Y Y Y Y Y Y Y Y Y Y	<u>E.Side</u> 4 27 0 11 0 0 0 13 7 14 30 21 0 22 0 0 0	<u>W.Side</u> 12 34 8 20 13 17 4 0 3 5 0 6 27 5 9 3	<u>Totals</u> 16 61 8 31 13 17 4 13 10 19 30 27 27 27 27 9 3
Scientific Name Aronia arbutifolia Cephalanthus occidentalis Clethra alnifolia Ilex verticillata Kalmia latifolia Morella pensylvanica Rhodedendron nudiflorum Rosa palustris Salix sericea Sambucus canadensis Spiraea tomentosa Swida amomum Swida racemosum Vaccinium corymbosum Viburnum dentatum Viburnum lentago Totals:	ID Ar-ar Ce-oc Cl- al II-ve Ka-la Mo-pe Rh-nu Ro-pa Sa-se Sa-se Sa-ca Sp-to Sw-am Sw-ra Va-co Vi-de Vi-le	Zone B,C,D AB B,C ABC BCD C,D C C A B,C B A,B B,C B,C B,C B,C B,C B,C B,C B,C B,C B	Common Name Chokeberry Buttonbush Sweet pepperbush Winterberry Mountain laurel Bayberry Pink azalea Swamp rose Silky willow American elderberry Steeplebush Silky dogwood Gray dogwood Highbush blueberry Arrowwood viburnum Nannyberry viburnum	Size 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3' 2'-3'	Shade <u>Tolerant</u> ? N Y Y Y Y N Y N N N N N N N N N N Y Y Y Y Y Y Y Y Y Y Y Y Y	<u>E.Side</u> 4 27 0 11 0 0 0 13 7 14 30 21 0 22 0 0 0 149	<u>W.Side</u> 12 34 8 20 13 17 4 0 3 5 0 6 27 5 9 3 166	<u>Totals</u> 16 61 8 31 13 17 4 13 10 19 30 27 27 27 27 9 3 315

REMA Ecological Services, LLC



S OF PLANTING MATERIALS FOR WETLAND REPLICATION AREA &VICINITY	,
VILLAGE AT NAEK ROAD, VERNON, CONNECTICUT	

PLANTING NOTES AND DETAILS SITE PLAN OF DEVELOPMENT THE VILLAGE AT NAEK ROAD 291 & 293 TALCOTTVILLE ROAD 26, 32, 37, 38 & 46 NAEK ROAD VERNON, CONNECTICUT GARDNER & PETERSON ASSOCIATES, LLC REVISIONS INFORMATION DEPICTED ON THIS 178 HARTFORD TURNPIKE SHEET WAS PROVIDED BY: 05/21/2021 TOLLAND, CONNECTICUT 10/14/2021 PROFESSIONAL ENGINEERS LAND SURVEYORS REMA ECOLOGICAL SERVICES,LLC 164 EAST CENTER ST, SUITE 2 MAP NO. SCALE DATE SHEET NO.

E.R.P.

03-17-2021

11 OF 14

5768B

N.T.S.



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. KEY STONE INTO THE DITCH BANKS AND EXTEND INTO THE ABUTMENTS A MINIMUM OF 18" TO PREVENT FLOW FROM FLANKING THE CHECK DAM.

TP 303: 0-9" TOPSOIL 9-14" COARSE LOAMY SAND 14-108" COARSE SAND W/ COBBLES TP 305: 0–13" TOPSOIL 13-22" Y.BR. FINE SANDY LOAM 22–72" R.BR. TILL, COMPACT MOTTLING @ 16" SEEPAGE @ 68" TP 307. 0-18" TOPSOIL/FILL 18-30" Y.BR. FINE SANDY LOAM 30–72" R.BR. TILL MOTTLING @ 18" SEEPAGE @ 40" TP 308: 0-38" SAND & GRAVEL FILL 38-44" BURIED TOPSOIL 44-138" SAND & GRAVEL SHGW @ 108" PERM @ 58" RATE: 190 FT/DAY TP 310: 0-11" TOPSOIL 11-28" BR. FINE SANDY LOAM 28-84" FIRM R BR SILT 84-144" MED. SAND W/ COBBLES, SOME SILT GW @ 126" PERM #1 @ 115' RATE: 70 FT/DAY STANDPIPE SET: DRY ON 06/16/2020 TP 311: 0-11" TOPSOIL 11-102" BR. SAND & GRAVEL 192-144" COMPACT FINE SAND W/ SILT PERM #2 @ 50" RATE: 61 FT/DAY TP 312: 0-16" TOPSOIL 16-32" FINE SANDY LOAM 32-144" SAND & GRAVEL PERM #3 @ 36" RATE: 41 FT/DAY TP 313: 0-7" TOPSOIL 7-15" Y.BR. FINE SANDY LOAM 15-43" R.BR LOAMY SAND W/ COBBLES, SOMEWHAT FIRM LEDGE @ 43" TP 314: LEDGE @ 24" TP 314A: 0-36" FRACTURED ROCK TP 315: LEDGE @ 36" (WEST) LEDGE @ 30" (EAST) TP 316: 0-4" TOPSOIL 4-33" BR. FINE SANDY LOAM W/ COBBLES 33-54" BR. COMPACT TILL W/ FLAT BOULDERS 54-78" SAND & GRAVEL W/ BOULDERS LEDGE @ 78" PERM #12 @ 23" RATE: 0.4 FT/DAY TP 317: 0-10" TOPSOIL 10-58" BONEY BR. FINE SANDY LOAM LEDGE 🕲 58" TP 317A: 0-8" TOPSOIL 8-30" BR. FINE SANDY LOAM W/ COBBLES 30-78" R.BR. COMPACT TILL W/ FLAT BOULDERS LEDGE 🕲 78" TP 318: 0-8" TOPSOIL 8-36" Y.BR. FINE SANDY LOAM W/ COBBLES, FIRM 36-60" R.BR. TILL W/ COBBLES 60-80" DECOMPOSED LEDGE TP 319 TOPSOIL 0-9" 9-24" Y.BR. LOAMY SAND W/ COBBLES 24-60" SAND & GRAVEL 60-132" COARSE SAND PERM #70 @ 36" RATE: 370 FT/DAY TP .320: LEDGE @ 32" TP 321 0-12" TOPSOIL 12-20" Y.BR. FINE SANDY LOAM 20-116" SAND & GRAVEL SEEPAGE @ 116" 08/16/2020 TP H1 TOPSOIL 0-6" 6-28" Y.BR. FINE SANDY LOAM 28-36" MED. SAND W/ COBBLES

PERM #1 @ 32" RATE: 12 FT/DAY

Maintenance Schedule

Visual Inspection Semi- Annually

Frequency

Monthly

Annually

Monthly

Semi-Annuall

Semi-Annually

Semi-Annually

Everv 5-years

Semi-Annually

-4 Times per Y

Maintenance Item

Catch Basins

Grass Swale

Sediment Forebay

Stormwater Basin

TEST PIT DATA:

06/02/2020

WITNESSED BY E. PETERSON, P.E.

GARDNER & PETERSON ASSOCIATES, LLC

erground Stormwater Chamber

Mainte<u>nance</u>

not collecting in system.

remove as needed

after spring snowmelt

during the growing season

Remove debris/sediment in swale

Maintain Stability of embankment

Mowing as needed

Remove invasive vegetation

Inspect embankment and inlet/outlet

Monitor sediment accumulation.

Clean/remove sediment and debris

Monitor sediment accumulation and remove

when pool volume is reduced significantly

forebay

structures.

Repair eroded areas.

Mow side slopes

of sediment has accumulated.

Remove inspection port caps to verify that

runoff has infiltrated & leaves/debris are

Check sediment depth and vacuum when 6

Inspect grates for litter and debris and

Remove sediment in sumps immediately

Maintain grass at a height of 4 to 6 inches

Check for evidence of water overflowing

Remove sediment every 5 years or before

sediment is within one-foot of the top of the

- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED FOR SOIL EROSION AND SEDIMENT CONTROL" BY THE CONNECTICUT COUNCIL ON SOIL AND WATER CONSERVATION.
- ALL SEDIMENT CONTROL PRACTICES AND MEASURES SHALL BE CONSTRUCTED. APPLIED AND MAINTAINED IN ACCORDANCE WITH THE APPROVED SEDIMENT CONTROL PLAN.
- ARFAS
- REMOVE TREES, VEGETATION, ROOTS OR OTHER OBJECTIONABLE MATERIAL.
- SHALL BE COMPACTED IN ACCORDANCE WITH THE APPROPRIATE STATE AND/OR LOCAL SPECIFICATIONS.
- INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS. FROZEN MATERIAL OR SOFT MUCKY OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.
- FILL SHALL NOT BE PLACED ON A FROZEN FOUNDATION.
- ALL BENCHES SHALL BE KEPT FREE OF SEDIMENT DURING ALL PHASES OF 10.
- IN ACCORDANCE WITH SOUND CONSTRUCTION PRACTICE. APPLIED. AREAS LEFT OVER 30 DAYS SHALL BE CONSIDERED "LONG TERM" AND SHALL RECEIVE TEMPORARY SEEDING WITHIN THE FIRST 15 DAYS
- 12. PREPARATION, SEEDING, MULCHING, AND MAINTENANCE UNLESS OTHERWISE SPECIFIED IN THE PLANS
- 13. DEPTHS. NO TOPSOIL SHALL BE REMOVED FROM THIS SITE.
- 14. SOIL SURFÁCE.
- 15. LIGHT DRAG. 16.
- CONTOUR
- 17. MATERIALS.
- INSPECT SEEDBED BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, 18.
- 19.

TURF MANAGEMENT PLAN

- <u>Soil Testing</u> could lead to chemical leaching or export.
- <u>Slow-Release Fertilizers</u> Slow-release fertilizers will be applied to lawns, planted trees and shrubs. These 2. can include, but are not limited to, organic-based fertilizers. A variety of
- 3. Fertilizer Application Schedule for lime, it will be applied at the last fertilization date.
- <u>Integrated Pest Management (IPM)</u> IPM is an integrated, preventative approach to maintaining healthy turf and landscape 4. cultural (e.g., disease-resistant seed) practices.
- To be successful, IPM requires periodic monitoring by an experienced practitioner to maintain the grounds have training and experience in the practice of IPM.



IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE "GUIDELINES

TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED IN THE AMOUNT NECESSARY TO COMPLETE THE FINISHED GRADING OF ALL EXPOSED

AREAS TO BE FILLED SHALL BE CLEARED, GRUBBED AND STRIPPED OF TOPSOIL TO ALL FILLS SHALL BE COMPACTED AS REQUIRED TO MINIMIZE EROSION, SLIPPAGE, AND SETTLEMENT. FILL INTENDED TO SUPPORT STRUCTURES, DRAINAGE, ETC.

FILL MATERIAL SHALL BE FREE OF BRUSH, RUBBISH, LARGE ROCKS, LOGS, STUMPS, BUILDING MATERIAL, COMPRESSIBLE MATERIAL, AND OTHER MATERIALS WHICH MAY

SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED

ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY FOLLOWING FINISH GRADING. IF FINISH GRADING IS TO BE DELAYED FOR MORE THAN 30 DAYS AFTER DISTURBANCE IS COMPLETE, TEMPORARY SOIL STABILIZATION MEASURES SHALL BE

SITE IS TO BE GRADED TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED

CUT AND FILL SLOPES SHALL NOT BE STEEPER THAN 2:1. TOPSOIL SHALL BE SPREAD TO A MINIMUM DEPTH OF 4". ADDITIONAL TOPSOIL MAY BE REQUIRED TO MEET MINIMUM

APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL CULTIPACKER TYPE SEEDER, OR HYDROSEEDER (SLURRY INCLUDING SEED AND FERTILIZER). NORMAL SEEDING DEPTH IS FROM 1/4" TO 1/2" INCH. HYDROSEEDING WHICH IS MULCHED MAY BE LEFT ON THE

WHERE FEASIBLE, EXCEPT WHERE EITHER A CULTIPACKER TYPE SEEDER OR HYDROSEEDER IS USED, THE SEEDBED SHOULD BE FIRMED FOLLOWING SEEDING WITH A ROLLER OR

FERTILIZER AND LIME ARE TO BE WORKED INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING TOOTH HARROW OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISC OPERATION SHOULD BE ALONG THE

REMOVE FROM THE SURFACE ALL STONES TWO INCHES OR LARGER. REMOVE ALL OTHER DEBRIS SUCH AS WIRE, TREE ROOTS, PIECES OF CONCRETE, OR OTHER UNSUITABLE

THE AREA MUST BE RETILLED BEFORE SEEDING, THEN FIRMED AS DESCRIBED ABOVE.

WHERE GRASSES PREDOMINATE, FERTILIZE ACCORDING TO SOIL ANALYSIS, OR SPREAD 300 POUNDS OF 10-10-10 OR EQUIVALENT PER ACRE (7.5 POUNDS PER 1000 S.F.). 20. CALCIUM CHLORIDE WILL BE AVAILABLE FOR DUST CONTROL ON GRAVEL TRAVEL SURFACES.

A composite soil sample from the subject property will be collected and delivered to a University of Connecticut Cooperative Extension office for testing of soil nutrient levels (i.e., pH, nitrogen, phosphorus, calcium, magnesium, potassium) prior to a fertilizer application. The Extension office will recommend a fertilizer application rate based upon these test results. The actual fertilizer application rate will follow this recommendation. This will ensure against an excessive fertilizer application, which

commercial slow-release nitrogen fertilizer products are available (e.g., Milorganite, isobutylidene diurea, coated ureas, etc.). Advantages of slow-release fertilizers include the supply of a steady nitrogen source, and reduced nitrogen leaching. By combining small amounts of soluble nitrogen sources with slow release nitrogen products, nitrogen availability can be extended without a threat of leaching.

Fertilizer will be applied three times annually to the subject property: early to late May (after the threat of cool, wet weather has passed), late August to early September, and mid-September to mid-October. If the soil test indicates a need

plants. IPM recognizes that, although chemicals are an important component of a turf management plan, other strategies are available to maintain a healthy lawn. A central premise of IPM is to treat pest problems as they arise on an as-needed basis only, using a variety of biological (e.g., natural predators), chemical and

detect pest problems at an early stage and develop an effective, environmentally responsible action plan. It is recommended that the contractor that is hired to

CONSTRUCTION SCHEDULE & EROSION & SEDIMENT CONTROL CHECKLIST

PROJECT NAME: THE VILLAGE A NAEK ROAD LOCATION: NAEK ROAD - VERNON, CT

PROJECT DESCRIPTION: MULTI-FAMILY HOUSING DEVELOPMENT

PARCEL AREA: 21.6 AC.

RESPONSIBLE PERSONNEL: R.HAMID,	NAEK CONSTRUCTION, 27 NAEK ROAD, V	/ERNON, CT &	860-875-18
WORK DESCRIPTION	EROSION & SEDIMENT CONTROL MEASURES	DATE INSTALLED	INITIALS
CLEAR TREES AND BRUSH	INSTALL ANTI-TRACKING PAD		
REMOVE STUMPS	INSTALL SILT FENCE BARRIERS DOWNGRADE OF CONSTRUCTION ACTIVITY AS SHOWN		
	INSTALL INLET PROTECTION IN EXISTING CATCH BASINS		
EXCAVATE SEDIMENT BASINS AND ROUGH GRADE SITE	PROTECT INFILTRATION GALLEY AREAS FROM DISTURBANCE AND COMPACTION		
	PROTECT STOCKPILE AREAS WITH SILT FENCE		
	INSTALL EROSION BLANKET ON SLOPES STEEPER THAN 3:1		
	INSPECT AND MAINTAIN SEDIMENT BARRIERS WEEKLY AND AFTER RAIN EVENTS OVER 0.5-INCH.		
EXCAVATE FOR BUILDING FOUNDATIONS			
INSTALL SEWER, DRAINAGE AND UTILITIES	INSTALL HAYBALES AROUND NEW CATCH BASIN INLETS ONCE INSTALLED		
INSTALL PAVEMENT BINDER COAT IN AREAS WHERE FOUNDATIONS AND UTILITIES ARE COMPLETE	TOPSOIL, SEED AND MULCH AREA ADJACENT TO EACH BUILDING AS IT IS COMPLETED		
FINAL GRADE AND FINAL PAVE	TOPSOIL, SEED AND MULCH REMAINDER OF SITE		
	REMOVE SEDIMENT FROM DRAINAGE STRUCTURES AND INSTALL INFILTRATION TRENCHES WITHIN BASIN.		
	REMOVE EROSION CONTROLS WHEN SITE IS STABILIZED		

PROJECT DATES: DATE OF CONSTRUCTION START <u>OCTOBER 1, 2021</u> DATE OF CONSTRUCTION COMPLETION <u>SEPTEMBER 30, 2023</u>

EROSION AND SEDIMENT CONTROL PROCEDURES SHALL ESSENTIALLY BE IN ACCORDANCE WITH THESE PLANS, AS REQUIRED BY TOWN REGULATIONS, AND THE MANUAL, "GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL" FOR CONNECTICUT, BY THE COUNCIL ON SOIL AND WATER CONSERVATION, 1985, REVISED TO 2002.

PROJECT NARRATIVE

The purpose of this project is to construct 18 new multi-family buildings and the driveway, parking and utilities to service the buildings. The proposed buildings are to be serviced by public water and sanitary sewer. A house currently exists on the property which will be removed and the existing curb cut along Talcottville Road will be closed. Access to the site will be from new curb cuts off of Naek Road.

Construction activities shall commence with the installation of the construction entrances rollowed by tree cutting. Sealmentation barriers shall be installed prior to stumping. The infiltration galley areas shall be protected from construction activities and compaction prior to rough grading. Inspect condition of sedimentation barriers prior to rough grading.

Rough grading shall commence with the excavation of the sediment basins as depicted. Installation of the drainage structures, and piping shall proceed as the construction schedule allows. Leave grade 6" below catch basin tops to prevent silt laden runoff from entering the drainage system. The middle of each building shall be rough graded to shed runoff back towards the center of the site drives.

Completion of storm drainage and utility installation is to be followed by placing processed gravel, and final grading of the paved areas. The first coat of all paved site drives shall be installed once all foundations have been poured. The installatoin of the infiltration trenches wihtin the stormwater basins shall be completed once the site is paved and a vegetative growth on disturbed areas has been established. All erosion control measures shall be maintained and upgraded as needed until stable vegetative growth has been established. At all times erosion of exposed and stockpiled materials shall be prevented using measures specified in these plans. Once the site is stabilized, sediment within the basin will be removed and the sediment will be seeded as depicted on these plans.

Proposed soil erosion and sediment control measures were designed using criteria set forth by the "Connecticut Guidelines for Soil Erosion and Sediment Control", revised to 2002

TEMPORARY SEEDING SCHEDULE:

SPECIES	LBS/ACRE	LBS/1000SF	SEEDING DATES
ANNUAL RYEGRASS	40	1.0	3/1-6/15, 8/1-10/15
WINTER RYE	120	3.0	4/15-7/1, 8/15-10/15
SUDANGRASS	30	0.7	5/15-8/1

TEMPORARY SEEDING IS NOT LIMITED TO THE SPECIES SHOWN. OTHER SPECIES RECOMMENDED BY THE SCS OR AS LIMITED BY SITE CONDITIONS MAY BE USED. STRAW MULCH IS TO BE APPLIED TO SEEDED AREA AT THE RATE OF 1-1/2 TO 2 TONS PER ACRE, 70 TO 90 LBS. PER 1000 SQ. FT.

FINAL SEEDING SCHEDULE:

SPECIES

PROVIDE 4 INCHES OF TOPSOIL MINIMUM, FREE OF ROOTS, LARGE STONES, AND OTHER OBJECTS.

LBS/1000SF

SEEDING DATES

TEMPORARY STAND PIPE OUTLET SHALL NOT BE REMOVED UNTIL ALL SITE

KENTUCKY BLUEGRASS	20	0.45	4/1-6/15. 8/15-10/1
CREEPING RED FESCUE	20	0.45	4/1-6/15, 8/15-10/1
PERENNIAL RYEGRASS	5	0.10	4/1-6/15, 8/15-10/1
TOTAL	45	1.00	, , , , ,

LBS/ACRE

UPONT TYPAR 3341		EROSIO	N & SEDI	MENT CO	NTROL I	DETAILS
<u>1 1/2"</u>		SI	TE PLAN	OF DEVE	ELOPMEN	T
1"		TH	EVILLA	GE AT N	IAEK RC	DAD
E. 3" STONE BOTTOM OF BASIN		29	1 & 293 TA	LCOTTV	ILLE ROA	AD
		26, 32, 37, 38 & 46 NAEK ROAD				
ROUND			VERNON	I, CONNE	ECTICUT	
BLOCK PLATFORM	REVISIONS	GARD	NER & PE	TERSON AS	SSOCIATES	, LLC
	05/21/2021		178 H. Tolla	ARTFORD TUP		
IURE	107 177 2021		PROFESSIONAL E	ENGINEERS	LAND SURVEYORS	5
		BY	SCALE	DATE	SHEET NO.	MAP NO.
		E.R.P.	N.T.S.	03-17-2021	12 OF 14	5768B





OR MASONRY CONCRETE UNITS. WHERE MASONRY CONCRETE UNITS ARE USED CORBELLING WILL BE PERMITTED. MAXIMUM ON A CONCRETE SLAB. WHERE PRECAST UNIT IS USED FOR SUMP, THE TOP OF THE UNIT SHALL BE AT LEAST 6" BELOW THE BOTTOM OF THE PIPE OUTLETTING FROM THE CATCH BASIN.



<u>GRASS-LINED</u> SWALE







1. EMBANKMENT MATERIAL SHALL CONTAIN AT LEAST 15% PASSING THE #200 SIEVE 2. NO STONES LARGER THAN 6" SHALL BE ALLOWED WITHIN THE COMPACTED EMBANKMENT, AND NO STONES LARGER THAN 3" SHALL BE ALLOWED WITHIN TWO 3. THE SOIL INTENDED FOR THE EMBANKMENT SHALL BE LABORATORY TESTED WITH A WRITTEN REPORT BY A LICENSED PROFESSIONAL ENGINEER PROVIDING THE ENGINEER'S FINDINGS AND ANY SUGGESTED DESIGN PARAMETERS IF AT A VARIANCE

FOUNDATION CUTOFF (SEMI IMPERVIOUS CORE) COMPACT ON SITE SUBSOIL- GLACIAL TILL



Stewart Appraisal Services

Real Estate Appraiser & Consultant 268 Lucky Ribbon Lane Holly Springs, NC 27540 Formerly: 58 Hartford Turnpike in Tolland, CT 06084 Robert G. Stewart (860) 604-6899 stewartappraisal@comcast.net

November 30, 2021

Rashid Hamid The Rashid Hamid Family Limited Partnership 27 Naek Road Vernon, CT 06066

Re: Village at Naek Road Vernon, Connecticut

Dear Mr. Hamid:

As requested, I have completed a Fiscal Impact Analysis for the above noted proposed apartment complex. You are currently seeking a Special Permit for 70 apartment units. This fiscal impact analysis is to determine what impact the proposed apartment complex will have on the Town of Vernon's budget. The analysis involved estimating the new income and expenses to the Town of Vernon when the complex is built. This analysis is completed in conformance with the professional methodology for completing a Fiscal Impact Analysis.

The scope of work started with me reviewing my July 30, 2019 Fiscal Impact Study for the same property when you were seeking a zone change to develop the site with 76 condominium units. The project has since been modified to 70 apartment units and that report was updated to reflect the changes as well as the current Town budget, assessments, and mill rate. For the 2019 Impact Study the Town budget was reviewed and the subject's impact was discussed with Jeff O'Neill, the Vernon Finance Officer and Treasurer. Jeff O'Neill was not available to discuss these 2021 updates with me. Those discussions included the costs the Town has with existing condominium and apartment complexes. For both the 2019 Impact Study and this update, the property and motor vehicle assessments were discussed with Christine Clarke, the Vernon Deputy Assessor. The number of students in Vernon and information to project the number of students that will be in the subject units was obtained by Shaun Gately, the Vernon Economic Development Coordinator from the Vernon Education Superintendent Dr. Joseph Macary's office to maintain confidentiality. The information provided for this study is the number of children registered for school in various apartment complexes in Vernon. The entire project was discussed with various members of the owner's design team as well as with George McGregor, the Vernon Town Planner. Other Vernon public records were reviewed and used.

The initial Cost-Revenue Analysis (Fiscal Impact) study when the Gerber Farm Area was rezoned was completed for the Town of Vernon by Karen Godin in March of 1996. I reviewed that document when I completed several Fiscal Impact Studies for various sections of the active adult living Quail Hollow complex plus The Mansions apartments in the PDZ – Gerber Farm Area in the 1990's and 2004, as well as one for the subject property in 2019. I used those reports, following the same format and methodology, completing this report which outlines my analyses and conclusions for the proposed Village at Naek Road apartment complex.

A brief summary of my analysis is that new income to the Town is derived from real estate property taxes and motor vehicles taxes. New expenses considered were an increase in almost all town expenses increasing them on a new per person basis. In my analysis, all town expenses, except for refuse collection & disposal, recycling, and leaf collection (which the Town does not provide to apartment complexes) were projected to increase with the amount estimated on a per person basis. New education expenses were estimated on a per student basis. The net result of my analysis is a net gain to the Town of Vernon of \$215,000 per year when construction of the proposed 70 apartment units is completed.

First the income to the Town was considered. The income is from two items, real estate taxes and motor vehicle taxes. To determine the taxes from real estate, the assessment of the to-be-built apartment buildings was estimated. This was done by looking at the assessments of existing similar apartment buildings in Vernon and a discussion with Christine Clarke, the Deputy Assessor.

The proposed apartment complex will be at the end and on both sides of Naek Road off Talcottville Road. The 21.6 acres is zoned PDZ- Gerber Farm and a Special Permit is being requested. The apartments will be 70 townhouse units in 18 buildings. There are two floor plans consisting of end units and interior units. The difference is in the size of the unit and the number of garages. The end units contain 1,616 square feet, an attached 2 car garage, and a side patio. The interior units contain 1,460 square feet, an attached 1 car garage, and a rear deck or patio. All the units have a foyer, kitchen / dining area, great room, two bedrooms and two full bathrooms on the first floor. Both have a second floor with a loft that has two closets and overlooks the kitchen and great room. The end units have a cathedral ceiling in the foyer and the interior units have a cathedral ceiling in the forms. All the buildings will have solar panels for the individual unit electricity including the heat and air conditioning. There will be 36 end units and 34 interior units for the total of 70 apartment units.

To estimate the assessment, the proposed apartment complex, the subject was compared to the current assessment of similar existing apartment complexes in Vernon. The comparison was limited to newer and similar quality complexes. Specifically, the Mansions at Hockanum Crossing (75 & 95 Hockanum Boulevard) and The Grand Lofts. It is to be noted that for assessment purposes, the Grand Lofts is three different properties. Grand Lofts I (1031 Hartford Turnpike), Grand Lofts II (1085 Hartford Turnpike), and Grand Lofts III (1100 Hartford Turnpike). Grand Lofts II was not used in the assessment analysis as it is two buildings plus the common recreation center and rental office. These same complexes were used throughout this analysis for other data needed to apply to the subject.

The table on the next page outlines the current (2020 Grand List) assessment for each of these and the subject is at the bottom. As the individual components and design features are not broken down on the public Assessor's card, my analysis was done on the per square foot of finished apartment units for each

complex. This ignores garages, decks, and patios, but includes common buildings in all the complexes. This is a slight, with minimal impact, generalization for the subject assessment value. It is to be noted that Vernon is completing a revaluation for the 2021 Grand List but the values are not yet completed.

Address	Assessment	Total square	Assessment	Year	Number of Units
Complex		feet	per sq ft	Built	Average unit sq ft
1100 Hartford Turnpike	\$22,462,880	317,648 sq ft	\$70.72	2016	254 units
Grand Lofts III					1,250 sq ft
1031 Hartford Turnpike	\$5,977,010	92,128 sq ft	\$64.81	2013	66 units
Grand Lofts I					1,396 sq ft
75 & 95 Hockanum Blvd	\$57,129,510	804,372 sq ft	\$71.02	2001	714 units
The Mansions					1,127 sq ft
Naek Road		58,176 sq ft		New	36 units
End unit					1,616 sq ft
Naek Road		49,640 sq ft		New	34 units
Interior unit					1,460 sq ft

The subject units will be new, are larger on average, all will have a garage and will be of similar quality. Based on the above three comparable assessments, a per square foot rate of \$71.00 was concluded. Therefore:

End unit1,616 sq ft @ \$71.00 psf = \$114,736 x 36 units = \$4,130,496Interior unit1,460 sq ft @ \$71.00 psf = \$103,660 x 34 units = \$3,524,440Total Assessment of proposed complex\$7,654,936

Next the motor vehicle taxes were considered. To estimate how many cars there will be, the number of cars and the average assessment in the existing same three apartment complexes, plus Grand Lofts II, in Vernon used for the real estate assessments were considered. The car count and average assessment was extracted from the Vernon 2020 Grand List by address. Cars often take longer to complete the address change so only the units with a car registered were counted for each complex.

Address	# of cars	# of units with	Cars per unit	Average
Complex		cars	_	Assessment
1100 Hartford Turnpike	207	143	1.45	\$9,960
Grand Lofts III				
1031 Hartford Turnpike	73	43	1.70	\$9,912
Grand Lofts I				
1085 Hartford Turnpike	28	21	1.33	\$9,603
Grand Lofts II				
75 & 95 Hockanum Blvd	670	479	1.40	\$10,657
The Mansions				

The subject planned units and complex are most similar (as to cars) to Grand Lofts I and The Mansions at Hockanum Crossing as both have garages at several (not all) units. Based on these comparables, I concluded 1.55 cars per unit for the subject complex

For the assessment, the average car 2020 Grand List assessment for all four of these complexes (978 cars) of \$10,424 was used. If the subject units existed, the 2020 Grand List Assessment for all the motor vehicles in the subject complex would be:

70 units at 1.55 cars per unit = 108.5 rounded to 109 $\underline{x \$10,424}$ average car assessment = \$1,136,216 motor vehicle assessments

Next the new expenses to the Town of Vernon were estimated. These expenses are based on past discussions with the Town Finance Officer including a 2019 discussion with Jeff O'Neill, the Finance Officer & Treasurer, about specific expenses that would change with the creation of the subject proposed complex, and my review of the current 2021 / 2021 budget. Using the 2021 / 2022 budget is consistent with using the 2020 Grant List mill rate of 39.63 to estimate the income as this is the Grand List and mill rate that pays this year's expenses.

The Town total expenses were applied to the subject complex using the Per Capita Multiplier Fiscal Impact Method. This method is the professionally recognized method and Jeff O'Neill agreed that the expenses considered can be considered on a per person basis.

To develop the Per Capita Multiplier Method, the budget expenses need to be adjusted to reflect the portions attributable to only residential uses. This was done using the same methodology Karen Godin did in her March 1996 Cost-Revenue Analysis for the Town of Vernon following <u>The New</u> <u>Practitioner's Guide to Fiscal Impact Analysis</u> textbook by Burchell, Listokin & Dolphin. In her report she calculated the share of total expenses for residential uses using the 1995 Grand List figures. The following is an excerpt from her report but using the 2020 Grand List figures so as to reflect the current values. It is to be noted that in this discussion "value" means "assessment" using the actual 2020 Grand List assessments. It is also noted that the Guide consider apartments as commercial when calculating the ratio of residential to non-residential assessments per parcel.

The next step is to assign a share of annual expenditures to existing nonresidential uses.

1. <u>Equalized nonresidential real property value</u> Total local taxable equalized real property value

 $\frac{\$490,298,610}{\$1,581,926,520} = 0.3099$

Nonresidential uses (commercial, industrial, public utility, vacant land, use, & apartments) comprise 30.99% of the value of all locally taxable real property.

2. <u>Nonresidential real property value</u> Nonresidential land parcels

 $\frac{\$490,298,610}{1,032} = \$475,096 \text{ per nonresidential parcel}$

The average value of a nonresidential property in Vernon is \$475,096.

3. <u>Total local real property value</u> Total local land parcels

 $\frac{\$1,581,926,520}{10,126} = \$156,224 \text{ per average parcel}$

The average value of all properties in Vernon is \$156,224

4. Ratio of nonresidential to average parcel value

<u>\$475,096</u>	
\$156,224	= 3.04

The average value of local nonresidential property is 3.04 times the average value of all local property.

When the average nonresidential property is valued 3.04 times the average local property, an inaccurate share of local costs is being allocated via the simple proportion of aggregate real property value. Empirical evidence has shown that this cost should be increased (Burchell, Listokin & Dolphin). The refinement coefficient is the professionally recognized vehicle used to be sure that the municipal costs assigned to a certain sector are accurate. The refinement coefficient is taken from Exhibit 9 in <u>The New Practitioner's Guide to Fiscal Impact Analysis</u> (Burchell, Listokin & Dolphin - page 33), a copy of which is on the next page.

The following is a short summary of how the refinement coefficient was determined as explained in <u>The Fiscal Impact Handbook</u> (Burchell & Listokin). The x-axis shows a relationship between valuation of property average nonresidential to average local real property value with the upper band. The refinement coefficient is found on the y-axis, horizontally opposite the intersection of the relationship between valuation of properties and the appropriate upper band.

EXHIBIT 9

REFINEMENT COEFFICIENTS FOR THE PROPORTIONAL VALUATION FISCAL IMPACT METHOD



Source: Case Studies of Nonresidential Impact-Rutgers University, Spring, 1977.

Using the upper band with average nonresidential property valued at 3.04 times the average local property, a refinement coefficient of 1.44 is indicated. Applying the refinement coefficient to the simple proportion of value and multiplying the total municipal operating costs results in an increased share of total municipal operating costs assigned to aggregate local nonresidential uses.

To calculate the total existing municipal expenditures to nonresidential uses, the total municipal expenditures are multiplied by the proportion of nonresidential to total local real property value times the refinement coefficient. That is, the percentage of non-residential real property value (30.99%) times the refinement coefficient (1.44). This calculates that the nonresidential expenses are 44.63% of the overall expenses. Inversely, this means 55.37% of the expenses are attributable to residential. This factor is applied later to the expenses for the subject analysis.

Using this residential portion, the new expenses to the Town due to the proposed residential apartment complex are estimated. The current 2021 / 2022 budget amounts were broken down to a per person basis by budgetary category for all the Town expenses. It is to be noted some Town expenses will not be impacted by the new subject apartments. Specifically, refuse collection & disposal, recycling collection & disposal, and leaf collection as none of these are provided to apartment complexes. In 2019 Jeff O'Neill and I agreed that several other expenses will not increase but, to be conservative, all expenses except for refuse collection and disposal, recycling, and leaf collection were considered to increase. Examples of items that would not directly increase are Public street maintenance, Maintenance of government buildings, Public works administration, and Debt service. Town snow removal and public road maintenance is for public roads. All the roads in the complex will be maintained and plowed by the apartment complex owner but these expenses also were included as the added traffic could increase existing town maintenance slightly. By including all the expenses except the following three items and increasing them on a per person basis, these expenses are overstated in my analysis.

The following is the excluded item budget amounts in the Maintenance & Development account.

Total Maintenance & Development	\$6,287,094	
Less:		
Refuse Collection & Disposal	\$1,255,702	
Recycling Collection & Disposal	359,565	
Leaf Collection	126,924	
Not Impacted Expenses		<u>\$1,742,191</u>
Expenses considered to be impacted		\$4,544,903

A copy of the 2021 / 2022 Vernon Budget expense summary is on the following page. On the page after the expenses are adjusted using the earlier determined Refinement Coefficient and the town population to break down the expenses to a per person. Finance Director and Town Treasurer Jeff O'Neill told me they planned the 2019 / 2020 budget on a population of around 30,000. In 2019 he recommended I use the July 8, 2019 North Central Health District invoice stated a population of 29,289. For this updated analysis, I used the 2020 Census which lists the Vernon population at 30,215 people.

TOWN OF VERNON, CONNECTICUT

APPROPRIATIONS SUMMARY

FISCAL YEAR 2021 /2022

	APPROVED FY 2020 / 2021	TOWN COUNCIL FY 2021 /2022	INCREASE (DECREASE)	% CHANGE
Appropriations		100 C		
General Government:				
General Government	3,852,919	3,847,519	(\$5,400)	-0.14%
Community and Development	311,558	331,618	20,060	6.44%
Public Safety	8,968,961	9,033,576	64,615	0.72%
Maintenance and Development	6,287,094	6,247,265	(39,829)	-0.63%
Human Services	1,190,957	1,221,763	30,806	2,59%
Recreation and Culture	2,088,360	2,139,047	50,687	2,43%
Town Wide	8,789,906	8,318,098	(471,808)	-5.37%
Total General Government	31,489,755	31,138,886	(350,869)	-1.11%
Capital Improvements & Debt Service:				
Capital Improvements - Town	659,810	2,159,810	1,500,000	227.34%
Debt Service	7,433,639	7,557,750	124,111	1.67%
Total Capital Impr. & Debt Service	8,093,449	9,717,560	1,624,111	20.07%
Subtotal: General Government & Capital Improvements / Debt Service	\$ 39,583,204	\$ 40,856,446	\$ 1,273,242	3.22%
Education	54,516,892	55,032,612	515,720	0.95%
TOTAL APPROPRIATIONS	\$94,100,096	\$95,889,058	\$1,788,962	1.90%

As of 4/14/2021

The following chart first applies the residential portion of each expense and then divides that by the current population (per 2020 census) of 30,215 resulting in a per person expense for residential properties.

	Total 2021/2022	Residential	Total Residential	Per Person
Category	Budget	Ratio	Expense	Expense
General Government	\$3,852,919	55.37%	\$2,133,361	\$70.61
Community Development	311,558	55.37%	172,510	5.71
Public Safety	8,968,961	55.37%	4,966,114	164.36
Maintenance & Development	4,544,903	55.37%	2,494,460	83.29
Human Services	1,190,957	55.37%	659,433	21.82
Recreation & Culture	2,088,360	55.37%	1,156,325	38.27
Townwide	8,789,906	55.37%	4,866,971	161.08
Town Capital Improvements	659,810	55.37%	365,337	12.09
Debt Service	7,433,639	55.37%	4,116,006	136.22

To estimate how many new residents the subject 70 units will create, the voter registration list for the same four existing similar apartment complexes in Vernon were reviewed. No other public source is known to count the number of residents in an apartment complex. I asked the management and owners of each complex and they did not know. To accurately indicate the number of people per unit, the total number of voters was divided by the total number of units with at least one registered voter. The major assumption in this count is that if one person in a unit registered to vote, all eligible voters registered.

Complex	# Registered Voters	# Units with a Registered Voter	# of Voters Per Unit
Grand Lofts I	80	53	1.51
Grand Lofts II	25	18	1.39
Grand Lofts III	255	168	1.52
The Mansions	533	388	1.37

The indicated numbers of voter aged people in an apartment unit are basically 1.4 or 1.5. To be on the high side for people and expenses, 1.5 voter aged people per unit for the subject was concluded. Based on this rate the subject 70 apartment complex is projected to contain 105 voter aged people.

To reflect all residents, the number of school aged children was estimated using public information from the Vernon Board of Education. The Board of Education was able to provide the Town the number of students in the same similar apartment complexes as above. Grand Lofts III was inadvertently omitted so the student count there is not included.

Complex – Address	# of students	# of units	# of students per unit
Grand Lofts I – 1031 Hartford Turnpike	1	66	0.015
Grand Lofts II – 1085 Hartford Turnpike	1	32	0.031
The Mansions – 75 Hockanum Blvd	35	714	0.049

The three complexes have a significant range of students per unit. Recognizing The mansions is very close to the subject in location, its number of students was most relied on and I concluded 0.05 students per unit for the subject proposed complex. This is at the high end estimating the number of students and the potential education expenses at the high end. Based on this the subject 70 units will have 3.5, rounded to 4 students. By rounding up the expenses are estimated on the high side. Adding these 4 students increases the number of people in the subject complex to 109 (1.56 people per unit).

To support this number, I researched the 2020 census data for number of people that live in a townhouse unit in Vernon or in Connecticut. Data is only compiled for per housing unit which includes single family detached houses, condominiums of all types, and apartments. The 2020 census reported the population of Vernon was 30,215 and there were 13,039 housing units. This calculates to the average household size of 2.32 people. This is more than my estimated 1.56 in each of the subject apartment units. But it is recognized that detached single family houses typically have more occupants than apartments.

Therefore, I am concluding 109 new residents in the subject proposed 70 units. Of these, 4 will be school aged children. I am unable to account for pre-school aged children. But the census average indicates I am already close to the town wide average so in my opinion, all new residents are realistically recognized.

Next the new expenses to the Vernon Board of Education were estimated. The Board of Education budget is impacted by the number of students, so it was looked at on a per student basis. This method is the professionally recognized method and in 2019 both Finance Director & Treasurer Jeff O'Neill and Superintendent Dr. Joseph Macary agreed with this method.

The Board of Education 2021 / 2022 budget is \$55,032,612 including Capital Outlays. These amounts were reduced by the budgeted State Education Funds of \$17,645,165. The remaining \$37,387,447 was then divided by the current 3,379 students in the school system (per the superintendent's office and including the magnet school students) to arrive at a local taxpayer paid Board of Education expense of \$11,058.10 per student. It is to be noted this amount was not adjusted for commercial versus residential assessments as it was looked at on a per student basis.

Board of Education	\$55,032,612
Less State Assistance	\$17,645,165
Vernon Tax Paid Expense	\$37,387,447
Divided by Number of Students	3,381
Amount Per Student	\$11,058.10

On the next page is the mathematical calculation of Annual Income and Expenses to the Town of Vernon due to the subject new condominium complex using the factors outlined.

ANNUAL FISCAL IMPACT ON THE TOWN OF VERNON

Income:				
Real Estate				
\$7,654,936 x 39.63 mi	\$7,654,936 x 39.63 mills =		3,365	
Motor Vehicle Taxes				
\$1,136,216 x 39.63 mi	\$1,136,216 x 39.63 mills =		5,028	
Tot	Total Income			\$348,393
Expenses:				
Category	Budget per	# new		
	Person	People		
General Government	\$70.61	109	\$7,697	
Community Development	5.71	109	622	
Public Safety	164.36	109	17,915	
Maintenance & Development	83.29	109	9,079	
Human Services	21.82	109	2,378	
Recreation & Culture	38.27	109	4,171	
Townwide	161.08	109	17,558	
Town Capital Improvements	12.09	109	1,318	
Debt Service	136.22	109	14,848	
Board of Education	11,058.10	4	44,232	
Total Expenses				<u>\$119,818</u>
Net Annual Impact to the				
Town of Vernon				\$228,575

To reflect the true change in annual income and expenses due to the proposed apartment complex, the local property taxes presently paid by the subject unimproved land needs to be deducted. It is to be noted that this again overstates the impact as I am not deducting any expenses allocated to the current 21.6 acres (per survey) which is seven parcels. The following table is the 2020 Grand List assessment and taxes paid by the subject land.

Address	Acreage	2020 Assessment	2020 mill rate	Annual Taxes
26 Naek Rd	1.56	\$38,930	39.63	\$1,542.80
32 Naek Rd	1.37	\$35,340	39.63	\$1,400.52
38 Naek Rd	1.30	\$34,020	39.63	\$1,348.22
46 Naek Rd	2.38	\$38,500	39.63	\$1,525.76
37 Naek Rd	3.95	\$52,500	39.63	\$2,080.58
291 Talcottville Rd	9.81	\$94,500	39.63	\$6,506.06
293 Talcottville Rd	1.25	\$900	39.63	\$357.46
Totals	21.62 acres			\$14,761.40

Deducting the current \$14,761 in taxes paid, but none of the associated, Town expenses, from the indicated impact to the Town of \$228,575 indicates an annual increase in net income to the Town of Vernon of \$213,814, rounded to \$215,000.

In conclusion, my analysis of the fiscal impact of the proposed 70 unit apartment complex, as outlined, on the Town of Vernon concludes that the Town will have an annual net gain of \$215,000 each year. In other words, the services provided to the residents of the complex will cost the Town of Vernon \$215,000 less than the taxes paid by the owners and residents on an annual basis.

As outlined on several occasions, this number is very conservative as expenses were overstated on several items. I included all Town expenses except for three that are not provided to apartment complexes. The expenses throughout the town were increased on a per person basis even though such things as snow removal, debt service, and administration will not increase with a 109 person or, one-third of one percent, increase in the Town population. The number of new students was realistically estimated based on the number of students in similar existing apartments in Vernon. Continuing to be conservative, the number of students was estimated at the high end of existing complexes and then rounded up. The education expenses are 37% of all the new expenses so its estimate is very important. Even if the number of new residents were increased by 50% (to 164 people including 6 students), there would still be a net income to the Town of \$153,558 or over \$150,000 per year from the subject proposed apartment complex.

It is stressed this fiscal impact is on an annual basis once the proposed apartment complex is fully built and occupied. This analysis did not consider the one-time fees such as building permits, sewer connection fees, etc.

Very truly yours,

Rohit 6 Atenant

Robert G. Stewart Certified General Appraiser RCG.0000581 Expires April 30, 2022

[21031a.docx]

The Village at Naek Road

Vernon, Connecticut

PREPARED FOR

Naek Construction Co., Inc. 146 Main Street Manchester, CT 06042 860.646.6555

PREPARED BY



100 Great Meadow Road Suite 200 Wethersfield, CT 06109 860.807.4300

November 29, 2021

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Introduction

Vanasse Hangen Brustlin, Inc. (VHB) has been retained by Naek Construction Co., Inc. to complete a traffic impact and access study (TIAS) for the proposed townhouse development ("The Village at Naek Road") located on the parcels of 291 & 293 Talcottville Road and 27, 32, 37, 38, and 46 Naek Road in Vernon, Connecticut.

This TIAS quantifies existing and future transportation conditions and identifies possible traffic impacts of the proposed project.

This study was prepared to support the Special Permit application to the Town of Vernon.

1.1 **Project Description**

The site is located on the parcels of 291 & 293 Talcottville Road and 27, 32, 37, 38, and 46 Naek Road in Vernon, Connecticut. The existing site is wooded, and located at the end of a cul-de-sac on Naek Road. The proposed development of the site consists of the construction of 70 townhouse units. Parking for the townhouses is provided at each unit, with approximately 45 additional guest spaces provided throughout the development.

The proposed site plan is included in the Appendix.

Three new driveways will be constructed to support vehicular site ingress and egress: two driveways in the cul-de-sac to access the units on either side of Naek Road, and one driveway along the north side of Naek Road to access a parking area with eight parking spaces.

1.2 Summary of Findings

The transportation impacts of the project were examined during the study area's weekday morning and evening peak hours at the intersection of Route 83 (Talcottville Road) at Naek Road. An analysis of existing conditions was conducted for the study area in 2021 to compare to future scenarios. A no-build condition for the year 2022 (the year the project is expected to be completed) was developed to create a base future condition without the project, incorporating background traffic growth and growth attributed to area projects proposed by others. A build condition for the year 2022 was developed to evaluate future transportation conditions with the project constructed. The following are key findings of the TIAS:

- The project is anticipated to generate 34 total trips (8 entering and 26 exiting) during the morning peak hour and 43 total trips (27 entering and 16 exiting) during the evening peak hour. These are net-new trips to the transportation network.
- Approximately 80% of the site generated traffic will travel to and from the south along Route 83 (Talcottville Road) towards the Interstate 84 interchange.
- The study area intersection will operate at acceptable Levels Of Service (LOS) during the peak hours with no significant impacts.

1.3 Study Methodology

This TIAS evaluates existing conditions at the study area intersection and roadways, quantifies the potential traffic impacts of the proposed project along these roadways, and provides potential measures for consideration to mitigate such impacts.

The study examines existing conditions, representing the study area at the time of this study, future no-build conditions, representing the study area one year from now if the project is not constructed, and future build conditions, representing the study area one year from now if the project is constructed as proposed. A one-year planning horizon was selected to coincide with the anticipated opening year of the project.

The project is expected to generate the highest volumes of traffic during the weekday morning and evening commuting peak hours. The analyses performed herein are based on the hour with the highest traffic volumes within each time period. The 2021 existing conditions traffic volumes are established as the baseline for the study and are described in greater detail in a later section.

Historic traffic growth on the study area roadways is evaluated to determine if traffic volumes are anticipated to grow in the future. Additionally, other development projects that are planned near the study area are evaluated to determine if they would impact the study roadways. These conditions are layered onto the existing conditions to create the no-build conditions.

The TIAS has been prepared in accordance with the requirements of the Town of Vernon and the Connecticut Department of Transportation (CT DOT).

Finally, traffic that could be generated by the proposed project is calculated and added to the no-build conditions to determine the build conditions. Traffic analyses are conducted for all three scenarios to compare existing and future roadway capacities and demands. These analyses are used as the basis for determining potential project impacts.

2

2021 Existing Conditions

Evaluation of the transportation impacts associated with the proposed project requires an understanding of the existing transportation system in the project study area. The 2021 existing conditions evaluation consisted of an inventory of intersection traffic control, roadway geometry, traffic volumes, and recent vehicle crash history in the study area. Each of these elements is described in detail below.

2.1 Study Area

2.1.1 Intersections

The study area consists of the signalized intersection of Route 83 (Talcottville Road) at Naek Road. The selected signalized intersection and the surrounding area are shown in Figure 1 and described below:

Route 83 is intersected by *Naek Road* from the west to form a T-leg signalized intersection. The northbound Route 83 approach consists of two through lanes, and the southbound approach consists of a shared left-turn/through lane and a through lane. The eastbound approach consists of a shared left-turn/right-turn lane. Traffic is controlled by an actuated coordinated traffic control signal.

2.1.2 Roadways

Naek Road is a two-lane (one lane in each direction) local roadway with no outlet. Naek Road provides access to several industrial and commercial properties located west of Route 83. No sidewalks are present on this roadway.

Route 83 (Talcottville Road) is a four-lane (two lanes in each direction) north-south principal arterial roadway with auxiliary turning lanes provided at major intersections and commercial driveways. The posted speed limit along Route 83 is 40 miles per hour in the study area, 35 miles per hour between Allan Drive and the Route 30 junction, and 40 miles per hour south of the Route 30 junction. Land use along Route 83 consists primarily of commercial/residential development. No sidewalks are present on this roadway in the study area. The CT Transit bus routes 82 and 84 operate along Route 83.

2.2 Crash History and Analysis

To identify potential vehicle crash trends and/or roadway deficiencies within the project study area, VHB conducted a review of the Connecticut Crash Data Repository (CTCDR) developed by UConn for the most recent three years of crash data collection (January 2017 – December 2019). Table 1 summarizes the crash data by documenting the number of geolocated crashes that have occurred for various categories including the year of the collision, collision type, severity, time of day, season, pavement conditions, light conditions, and non-motorists involved. Detailed crash data are included in the Appendix.

Route 83 at Naek Road reported 11 crashes during the three-year span. Approximately 64% of the crashes were rear-end collisions. A majority of the collisions were property damage only, with two crashes resulting in an injury. No crashes involved a pedestrian or a fatality.

Table 1 Crash Analysis Summary

	Route 83 (Talcottville Road)
	at Naek Road
Signalized/Linsignalized	Signalized
Year	Signalized
2017	Λ
2018	
2010	6
Total	⊻ 11
Collision Type	11
Angle	0
Front to rear	7
Sideswipe, same direction	2
Eived Object	1
	1
Allilla Othor	0
Tatal	<u>U</u> 11
Severity	11
Severity	0
Fatal Injury	0
Injury - Serious	0
	0
Injury - Possible	2
Property Damage Only	9
	<u>U</u>
	11
lime of day	2
Weekday, /:00 AM - 9:00 AM	2
Weekday, 4:00 – 6:00 PM	0
Saturday, 11:00 AM – 1:00 PM	1
<u>Other time</u>	<u>8</u>
lotal	11
Season	
Dec – Feb	1
Mar – May	2
June – Aug	4
<u>Sept – Nov</u>	<u>4</u>
Total	11
Pavement Conditions	
Dry	9
Wet	1
Ice/Frost	0
Snow	<u>1</u>
Total	11
Light Conditions	
Daylight	10
Dawn/Dusk	0
Dark, Not Lighted	0
Dark, Lighted	1
<u>Unknown</u>	<u>0</u>
Total	11
Non-Motorist (Bike,	0
Pedestrian)	0

Source: UConn Connecticut Crash Data Repository
2.3 Traffic Count Data

To assess current traffic conditions along the roadways serving the project study area, peakhour turning movement counts (TMCs) would typically be collected at each study intersection. The project will generate the most traffic during the peak commuter time periods, and therefore traffic counts would be collected during the typical weekday morning and evening peak hours. Due to the downturn in economic conditions with the pandemic, existing traffic volumes are currently lower than average, and traffic patterns may have changed compared to conditions before March 2020.

Therefore, traffic volume data provided in a previous traffic impact study for the Trail Run Mixed-Use Development¹ was used for the purposes of this study. The Trail Run traffic study used traffic counts originally collected in the last quarter of 2015 and included peak hour traffic volume projections for 2017 Build Conditions with the full occupancy of the Trail Run development. Based on conversations with the Town of Vernon and the Connecticut Department of Transportation (CTDOT) Bureau of Policy and Planning, there have been no other recent developments constructed since the Trail Run study was completed. As recommended by the CTDOT Bureau of Policy and Planning, a 0.7% annual growth rate was applied to the 2017 Build Condition traffic volumes from the Trail Run study over a four-year period to develop the "2021 Existing Conditions" traffic volume networks used in this study. It should be noted that the Trail Run development is not yet fully occupied. As such, using the full build volumes from the Trail Run report results in a conservative evaluation of existing conditions.

The raw volumes and background development information are included in the Appendix. The 2021 existing conditions traffic volumes are shown in Figures 2 and 3.

¹ Traffic Impact and Access Study for Trail Run Mixed Use Development, prepared by VHB, dated December 2016

3

2022 Future Conditions

Based upon the project development schedule provided by the project team, the proposed project is expected to be occupied in 2022. Therefore, the year 2022 was used for future traffic estimations, first modelled without the project in place, and then modelled with the project in place. The traffic volumes projected to be realized in the 2022 no-build and 2022 build conditions, as described in the following sections, provide a basis of comparison to evaluate the transportation impacts of the project.

3.1 2022 No-Build Conditions

The future no-build scenario includes the 2021 existing conditions traffic volumes, anticipated background traffic growth, and other known development projects affecting the study area network.

Traffic growth in the study area is a function of expected land development, economic activity, and changes in local and regional demographics. A frequently used procedure by the transportation engineering industry is to estimate the historical annual percentage increase in traffic volumes and apply that increase to the study-area traffic volumes. Another procedure involves the estimation of traffic generated by specific planned major developments that would be expected to affect traffic volumes on the study area roadways. Both methods were assessed.

3.1.1 Background Traffic Growth

As recommended by the CTDOT Bureau of Policy and Planning, the 2021 existing conditions traffic volumes were increased by 0.7% over two years to account for ambient traffic growth in the study area by 2022.

3.1.2 Traffic Growth due to Other Planned Developments

It was determined from discussions with the Town of Vernon and CT DOT that there are no known pending projects that would impact traffic within the project study area.

The 2022 no-build traffic volumes, resulting from applying 0.7% annual growth to the 2021 existing volumes, are presented in Figure 3.

3.2 2022 Build Conditions

The 2022 build conditions represent future conditions with the opening of the proposed project. The 2022 build conditions traffic volumes include the no-build conditions volumes plus the vehicle trips anticipated to be generated by the project.

3.2.1 Site-Generated Traffic

The vehicle trips the project is expected to generate were calculated based on trip generation rates provided in the ITE *Trip Generation* manual, *10th edition*. The rate at which any development generates traffic is dependent upon a number of factors such as size, location, and concentration of surrounding developments. The trip generation associated with the proposed development program is shown in Table 2.

Table 2 Trip Generation Summary

Time Period	Total Trips ¹
Weekday Daily (vpd)	488
<i>Morning Peak Hour (vph)</i> Enter <u>Exit</u> Total	8 <u>26</u> 34
<i>Evening Peak Hour (vph)</i> Enter <u>Exit</u> Total	27 <u>16</u> 43

Source: Institute of Transportation Engineers, Trip Generation, 10th Edition vpd = vehicles per day, vph = vehicles per hour

1 ITE Land Use Code 220 Multifamily Housing (Low-Rise), 70 units

The project is expected to generate 34 total trips (8 entering and 26 exiting) during the morning peak hour and 43 total trips (27 entering and 16 exiting) during the evening peak hour. These represent entirely new trips to the network. The ITE trip generation is included in the Appendix.

It was determined that the transportation mode share for all trips to and from the site would be by automobile. Although there are bus services as described previously that serve Talcottville Road, it was assumed that the majority of trips would be by private automobile. The surrounding land use of the site does not encourage walking or biking.

3.2.2 Trip Distribution and Assignment

The site-generated trips presented in Table 2 were distributed along the study area roadways and assigned to specific intersection turning movements to determine where exactly project-related traffic impacts may occur.

The directional distribution of the vehicular traffic approaching and departing the site is a function of population densities, the location of employment, existing travel patterns, and the efficiency of the existing roadway system. Anticipated trip distribution patterns for the Village at Naek Road residential development were assumed to be similar to the trip distribution for the residential portion of the Trail Run development located immediately to the south. The trip distribution for the Trail Run development was developed based on a review of Journey-to-Work census data, since the trips entering and exiting the site during the weekday morning and evening peak traffic periods are expected to be predominantly home-to-work and work-to-home trips, respectively. The Trail Run development trip distribution was documented in the traffic impact study, which was approved by the Town of Vernon and Office of the State Traffic Administration (OSTA).

The results of the evaluation are shown in Table 3. The estimated distribution was then applied to the study area roadways and intersections to develop the trip assignment to each intersection turning movement. The resulting distribution is depicted graphically in Figure 4.

Table 3Regional Trip Distribution

Traffic Entering/Leaving via	Portion of Project- Generated Traffic
Route 83 to/from the north	20%
Route 83 to/from the south	80%
Source: VHB Trail Run Mixed-Use Development	nt 2016 Traffic Impact and Access Study

The resulting site-generated trips are depicted in Figure 5. These site-generated trips were then added to the 2022 no-build conditions traffic volumes to develop the 2022 build conditions traffic volumes, presented in Figure 6.

4

Traffic Operations Analysis

To assess the quality of traffic operations within the study area, intersection capacity analyses were conducted for the 2021 existing conditions, the 2022 no-build conditions, and the 2022 build conditions. Capacity analyses provide an indication of the adequacy of the roadway facilities to serve the anticipated traffic demands.

4.1 Method

In accordance with CT DOT requirements, the evaluation criteria used to analyze signalized intersections in this study are based on the *Highway Capacity Manual (HCM) 2000*². As the *HCM* indicates, intersection traffic operations are influenced by several factors: the type of traffic control, traffic demand, lane use configurations, lane widths, turning restrictions, roadway grade, and for signalized intersections, signal phasing and timings. The following are some of the parameters used to assess quality of traffic operations.

 Level of service (LOS) is the term used to denote the different operating conditions which occur on a given roadway segment under various traffic volume loads. It is a qualitative measure of a number of factors including roadway geometrics, speed, travel delay and freedom to maneuver. Level of service provides an index to the operational qualities of a roadway segment or an intersection. Level-of-service designations range from A to F, with LOS A representing the least congested operating conditions and LOS F representing the most congested conditions. It is

² Highway Capacity Manual, Transportation Research Board, Washington, DC (2000).

important to note that intersections during peak traffic conditions are not necessarily expected to operate at LOS A; an intersection operating at LOS A during typical peak conditions may suggest that the roadway is over-designed with too much capacity.

 Delay is a complex measure that depends upon a number of variables such as quality of signal progression, cycle length, allocation of green time, and volume-tocapacity (v/c) ratio. Of all the factors cited, v/c ratios have the least effect on delay. Thus, for any given v/c ratio, a range of delay values (and, therefore, levels of service) may result. Conversely, for a given level of service, the v/c ratio may lie anywhere within a broad range. Comparison of intersection capacity results therefore requires that in addition to the LOS, the other measures of effectiveness (MOEs) also be considered.

LOS designations are reported differently for signalized and unsignalized intersections. For signalized intersections, the analysis considers the operation of all traffic entering the intersection and the LOS designation for overall conditions at the intersection. For unsignalized intersections, the analysis assumes that traffic on the mainline is not affected by traffic on the side streets. Thus, the LOS designation is for the critical movement exiting the side street and is typically the left turn out of the side street or site driveway.

Synchro 10 Software was used to model the study intersections based on the parameters described. Synchro is widely used by traffic engineering professionals and is an approved analysis software by CT DOT. It is consistent with *HCM 2000* and *HCM 6th Edition* which provide sufficient basis for the discussion of traffic operations of signalized and unsignalized intersections, respectively.

4.2 Signalized Intersection Capacity Analysis

Table 4 presents a summary of the capacity analyses for the signalized intersection. The Synchro analysis reports are included in the Appendix.

The results indicate Route 83 at Naek Road maintain acceptable LOS through 2022 build conditions. The proposed project does not negatively impact operations at this location.

Route 83 and Naek Road: Overall LOS A is maintained through 2022 build conditions in the morning peak and is increased to LOS B in the evening peak. The southbound right turn movement increases from LOS A to LOS B during both peak hours. General increases in delay are minimal across all approaches. Overall, the proposed development will not create an impact on the roadway network.

Table 4 Signalized Intersection Capacity Analysis Summary

	Peak	Mart		2021 Ex	isting Co	onditior	ıs	20	022 No-I	Build C	onditio	ns		2022 Bi	uild Co	ndition	s
Location	Hour	Ινίον τ	v/c1	Del ²	LOS ³	Q504	Q95⁵	v/c	Del	LOS	Q50	Q95	v/c	Del	LOS	Q50	Q95
Rte. 83 at	AM	EB LR	0.17	47.1	D	2	13	0.17	47.1	D	2	13	0.16	41.7	D	6	27
Naek Road		NB LT	0.38	0.6	А	0	26	0.38	0.6	А	0	26	0.42	1.0	Α	36	34
		SB TR	0.64	8.6	А	185	561	0.64	9.0	А	186	566	0.68	12.1	В	457	582
		Overall	0.62	6.0	Α			0.62	6.2	Α			0.63	8.7	Α		
	PM	EB LR	0.29	40.5	D	18	46	0.29	40.5	D	18	46	0.28	38.7	D	20	49
		NB LT	0.79	10.9	В	358	534	0.80	10.9	В	343	539	0.87	14.2	В	268	#568
		SB TR	0.48	10.7	В	338	383	0.48	11.1	В	360	385	0.49	13.6	В	323	387
		Overall	0.78	11.7	В			0.78	11.4	В			0.84	14.8	В		

VHB, Inc. using Synchro 10 software. volume-to-capacity ratio Source:

1

delay, in seconds

2 3 level of service

4 50th percentile queue length, in feet

5 95th percentile queue length, in feet

EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound; R = right; T = through, L= left

95th% volume exceeds capacity, queue may be longer

~ Volume exceeds capacity, queue is theoretically infinite m Volume for 95th percentile queue is metered by upstream signal

5

Conclusion

This document has outlined the anticipated transportation impacts of the proposed townhouse development (The Village at Naek Road) development at 291 & 293 Talcottville Road and 27, 32, 37, 38, and 46 Naek Road in Vernon, Connecticut. This study was prepared to support the Special Permit application to the Town of Vernon.

The proposed townhouse development will have minimal impact on the roadway network adjacent to the project site. This Traffic Impact Statement estimates that the project would generate 34 total trips during the morning peak hour and 43 total trips during the afternoon peak hour. The afternoon peak hour contains the highest volume of traffic on the roadway network; the addition of the trips associated with the proposed development do not significantly impact the existing and future conditions of the roadway network. It is the conclusion of this investigation that the proposed site driveways will provide adequate access to the site, and no transportation mitigation is needed at the study area intersections to support the project.

Materials supporting the findings within this document are included in the attached Appendix.







Site and Study Intersection Location **Figure 1** Proposed Townhouse Development 291 & 293 Talcottville Road and 27,32,37,38, and 46 Naeks Road, Vernon, CT



Weekday Morning Peak Hour

(Weekday Afternoon Peak Hour)



Not to Scale



2021 Existing Conditions Peak Hour Traffic Volumes Proposed Townhouse Development Vernon, CT



Weekday Morning Peak Hour

(Weekday Afternoon Peak Hour)



Not to Scale



2022 No-Build Conditions Peak Hour Traffic Volumes Proposed Townhouse Development Vernon, CT



Entering Site Traffic (Exiting Site Traffic)



Not to Scale



Site-Generated Trip Distribution

Figure 4

Proposed Townhouse Development Vernon, CT



Weekday Morning Peak Hour

(Weekday Afternoon Peak Hour)



Not to Scale



Site-Generated Trips Peak Hour Traffic Volumes Proposed Townhouse Development Vernon, CT

Figure 5



Weekday Morning Peak Hour

(Weekday Afternoon Peak Hour)



Not to Scale



2022 Build Conditions Peak Hour Traffic Volumes Proposed Townhouse Development Vernon, CT

Figure 6

Appendix

Crash Data

Traffic Counts

Background Project Trip Generation

Trail Run 243 & 253 Talcottville Road, Vernon, CT

Project Trip Generation

Capacity Analysis Reports

Crash Data

Crash Data 2017-2019: Naek Road at Route 83

CrashId	Town Name	Date Of Crash	Time of Crash	Most Severe Injury	Manner of Crash / Collision Impact	Weather Condition	Light Condition	Road Surface Condition
412682	Vernon	7/19/2017	14:52:00	No Apparent Injury (O)	Sideswipe, same direction	Clear	Daylight	Dry
423025	Vernon	8/1/2017	12:47:00	Possible Injury (C)	Front to rear	Clear	Daylight	Dry
470196	Vernon	12/14/2017	7:41:00	No Apparent Injury (O)	Sideswipe, same direction	Snow	Daylight	Snow
541887	Vernon	8/8/2018	10:32:00	No Apparent Injury (O)	Front to rear	Clear	Daylight	Dry
637578	Vernon	4/29/2019	14:33:00	No Apparent Injury (O)	Front to rear	Clear	Daylight	Dry
647736	Vernon	5/31/2019	22:02:00	No Apparent Injury (O)	Sideswipe, same direction	Clear	Dark-Lighted	Dry
677649	Vernon	8/22/2019	12:55:00	No Apparent Injury (O)	Front to rear	Clear	Daylight	Dry
695425	Vernon	10/3/2019	8:09:00	Possible Injury (C)	Front to rear	Cloudy	Daylight	Dry
698824	Vernon	10/12/2019	12:55:00	No Apparent Injury (O)	Not Applicable	Clear	Daylight	Dry
700826	Vernon	10/17/2019	14:13:00	No Apparent Injury (O)	Front to rear	Rain	Daylight	Wet
706182	Vernon	11/1/2019	14:21:00	No Apparent Injury (O)	Front to rear	Clear	Daylight	Dry

Traffic Counts

Kensington, Connecticut 06037 (860) 828-1693

Route 83 at Naek Road Vernon, Connecticut File Name : 13534 Site Code : 13534 Start Date : 9/15/2015 Page No : 1

							Grou	ps Pr	inted-	Unshif	ted - I	Bank	1 - Bai	1k 2							
		F	Route	83								F	Route	83			Na	aek R	oad		
		Fr	om No	orth			Fr	rom E	ast			Fr	om Sc	outh			Fr	om V	lest		
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	2	379	0	0	381	0	0	0	0	0	0	120	5	0	125	0	0	2	0	2	508
07:15 AM	3	401	0	0	404	0	0	0	0	0	0	129	6	0	135	2	0	0	0	2	541
07:30 AM	4	396	0	0	400	0	0	0	0	0	0	122	10	0	132	0	0	0	0	0	532
07:45 AM	5	338	0	0	343	0	0	0	0	0	0	187	4	0	191	1	0	1	0	2	536
Total	14	1514	0	0	1528	0	0	0	0	0	0	558	25	0	583	3	0	3	0	6	2117
08:00 AM	6	326	0	0	332	0	0	0	0	0	0	139	8	0	147	4	0	3	0	7	486
08:15 AM	7	315	0	0	322	0	0	0	0	0	0	145	9	0	154	2	0	0	0	2	478
08:30 AM	9	296	0	0	305	0	0	0	0	0	0	148	12	0	160	3	0	2	0	5	470
08:45 AM	8	311	0	0	319	0	0	0	0	0	0	137	11	0	148	3	0	2	0	5	472
Total	30	1248	0	0	1278	0	0	0	0	0	0	569	40	0	609	12	0	7	0	19	1906
Grand Total	44	2762	0	0	2806	0	0	0	0	0	0	1127	65	0	1192	15	0	10	0	25	4023
Apprch %	1.6	98.4	0	0		0	0	0	0		0	94.5	5.5	0		60	0	40	0		
Total %	1.1	68.7	0	0	69.7	0	0	0	0	0	0	28	1.6	0	29.6	0.4	0	0.2	0	0.6	
Unshifted	44	2700										1062									
% Unshifted	100	97.8	0	0	97.8	0	0	0	0	0	0	94.2	98.5	0	94.5	73.3	0	90	0	80	96.7
Bank 1	0	36	0	0	36	0	0	0	0	0	0	45	0	0	45	0	0	0	0	0	81
% Bank 1	0	1.3	0	0	1.3	0	0	0	0	0	0	4	0	0	3.8	0	0	<u> </u>	0	0	2
Bank 2	0	26	0	0	26	0	0	0	0	0	0	20	1	0	21	4	0	1	0	5	52
% Bank 2	0	0.9	0	0	0.9	0	0	0	0	0	0	1.8	1.5	0	1.8	26.7	0	10	0	20	1.3

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File Name : 13534 Site Code : 13534 Start Date : 9/15/2015 Page No : 2

		F	Route	83			г.					F	Route	83			Na	aek R	oad		
			OT N	ortn				romE	ast			r r	<u>om 50</u>	outri			r	om w	est		
Start	Dista	Theu	Loft	Dada		0:	Thru	Loft	Doda		Disha	Thru	Loff	Doda		Disha	Theu	Loft	Deda		
Time	Right	Innu	Leit	reus	App, Total	Right	i i i i i u	Leit	reus	App. Total	Right	Innu	Leit	Peas	App. Total	Right	IIIIU	Leit	reus	App. Total	Int. Lotal
Peak Hour A	Analysi	is Fron	n 07:0	0 AM t	o 08:45	AM -	Peak	1 of 1			*****										
Peak Hour fe	or Enti	re Inte	rsection	on Beg	jins at 0	7:00 A	١M														
07:00 AM	2	379	0	0	381	0	0	0	0	0	0	120	5	0	125	0	0	2	0	2	508
07:15 AM	3	401	0	0	404	0	0	0	0	0	0	129	6	0	135	2	0	0	0	2	541
07:30 AM	4	396	0	0	400	0	0	0	0	0	0	122	10	0	132	0	0	0	0	0	532
07:45 AM	5	338	0	0	343	0	0	0	0	0	0	187	4	0	191	1	0	1	0	2	536
Total Volume	14	1514	0	0	1528	0	0	0	0	0	0	558	25	0	583	3	0	3	0	6	2117
% App. Total	0.9	99.1	0	0		0	0	0	0		0	95.7	4.3	0		50	0	50	0		1
PHF	.700	.944	.000	.000	.946	.000	.000	.000	.000	.000	.000	.746	.625	.000	.763	.375	.000	.375	.000	.750	.978



Kensington, Connecticut 06037 (860) 828-1693

Route 83 at Naek Road Vernon, Connecticut File Name : 13535 Site Code : 13535 Start Date : 9/15/2015 Page No : 1

							Grou	ps Pr	inted-	Unshif	ted -	Bank	1 - Ba	nk 2							
		R	loute	83								F	Route	83			Na	aek R	oad		
		Fre	om Ne	orth			FI	rom E	ast			Fr	om So	outh			Fr	om W	/est		
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
04:00 PM	1	210	0	0	211	0	0	0	0	0	0	357	8	0	365	13	1	7	0	21	597
04:15 PM	2	236	0	0	238	0	0	0	0	0	0	330	5	0	335	2	0	3	0	5	578
04:30 PM	8	216	0	0	224	0	0	0	0	0	1	405	8	0	414	11	0	2	0	13	651
04:45 PM	6	260	0	0	266	0	0	0	0	0	0	415	7	0	422	11	1	10	1	23	711
Total	17	922	0	0	939	0	0	0	0	0	1	1507	28	0	1536	37	2	22	1	62	2537
05:00 PM	2	247	0	0	249	0	0	0	0	0	0	444	5	0	449	15	1	5	0	21	719
05:15 PM	7	252	0	0	259	0	0	0	0	0	1	448	9	0	458	18	0	6	0	24	741
05:30 PM	2	252	0	0	254	0	0	0	0	0	0	420	9	0	429	2	0	2	0	4	687
05:45 PM	6	213	0	0	219	0	0	0	0	0	0	427	19	0	446	7	0	4	0	11	676
Total	17	964	0	0	981	0	0	0	0	0	1	1739	42	0	1782	42	1	17	0	60	2823
Grand Total	34	1886	0	0	1920	0	0	0	0	0	2	3246	70	0	3318	79	3	39	1	122	5360
Apprch %	1.8	98.2	0	0		0	0	0	0		0.1	97.8	2.1	0		64.8	2.5	32	0.8		
Total %	0.6	35.2	0	0	35.8	0	0	0	0	0	0	60.6	1.3	0	61.9	1.5	0.1	0.7	0	2.3	
Unshifted	34	1860										3219									
% Unshifted	100	98.6	0	0	98.6	0	0	0	0	0	100	99.2	95.7	0	99.1	100	100	100	100	100	99
Bank 1	0	16	0	0	16	0	0	0	0	0	0	17	0	0	17	0	0	0	0	0	33
% Bank 1	0	0.8	0	0	0.8	0	0	0	0	0	0	0.5	0	0	0.5	0	0	0	0	0	0.6
Bank 2	0	10	0	0	10	0	0	0	0	0	0	10	3	0	13	0	0	0	0	0	23
% Bank 2	0	0.5	0	0	0.5	0	0	0	0	0	0	0.3	4.3	0	0.4	0	0	0	0	0	0.4

Kensington, Connecticut 06037 (860) 828-1693

File Name : 13535 Site Code : 13535 Start Date : 9/15/2015 Page No : 2

		F Fr	Route om No	83 orth			F	rom E	ast			F Fr	Route om Sc	83 outh			Na Fr	aek Ro om W	oad /est		
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App, Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour A	nalysi	s Fror	n 04:0	0 PM t	o 05:45	PM -	Peak '	1 of 1				1									
Peak Hour fe	or Enti	re Inte	rsectio	on Beg	jins at 0	4:45 P	M														
04:45 PM	6	260	0	0	266	0	0	0	0	0	0	415	7	0	422	11	1	10	1	23	711
05:00 PM	2	247	0	0	249	0	0	0	0	0	0	444	5	0	449	15	1	5	0	21	719
05:15 PM	7	252	0	0	259	0	0	0	0	0	1	448	9	0	458	18	0	6	0	24	741
05:30 PM	2	252	0	0	254	0	0	0	0	0	0	420	9	0	429	2	0	2	0	4	687
Total Volume	17	1011	0	0	1028	0	0	0	0	0	1	1727	30	0	1758	46	2	23	1	72	2858
% App. Total	1.7	98.3	0	0		0	0	0	0		0.1	98.2	1.7	0		63.9	2.8	31.9	1.4		
PHF	.607	.972	.000	.000	.966	.000	.000	.000	.000	.000	.250	.964	.833	.000	.960	.639	.500	.575	.250	.750	.964



Kensington, Connecticut 06037 (860) 828-1693

Route 83 at Naek Road Vernon, Connecticut File Name : 13536 Site Code : 13536 Start Date : 9/12/2015 Page No : 1

		Gro	oups Pri	nted- Lights	- Buses -	I rucks -	Bicycles	on Crossw	aik - Pedes	strians			
		Rout	te 83			Rout	e 83			Naek	Road		
		From	North			From	South			From	West		
Start Time	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Int. Total
11:00 AM	0	294	0	294	240	0	0	240	4	1	0	5	539
11:15 AM	0	281	0	281	257	2	0	259	2	0	0	2	542
11:30 AM	0	289	0	289	265	1	0	266	1	0	0	1	556
11:45 AM	1	286	0	287	262	0	0	262	1	0	0	1	550
Total	1	1150	0	1151	1024	3	0	1027	8	1	0	9	2187
1													
12:00 PM	3	296	0	299	270	2	0	272	1	2	0	3	574
12:15 PM	2	315	0	317	275	1	0	276	2	0	0	2	595
12:30 PM	1	271	0	272	281	1	0	282	5	1	0	6	560
12:45 PM	0	230	0	230	280	0	0	280	0	0	0	0	510
Total	6	1112	0	1118	1106	4	0	1110	8	3	0	11	2239
1				1									
Grand Total	7	2262	0	2269	2130	7	0	2137	16	4	0	20	4426
Apprch %	0.3	99.7	0		99.7	0.3	0		80	20	0		
Total %	0.2	51.1	0	51.3	48.1	0.2	0	48.3	0.4	0.1	0	0.5	
Lights	7	2245	0	2252	2104	7	0	2111	16	4	0	20	4383
% Lights	100	99.2	0	99.3	98.8	100	0	98.8	100	100	0	100	99
Buses	0	4	0	4	2	0	0	2	0	0	0	0	6
% Buses	0	0.2	0	0.2	0.1	0	0	0.1	0	0	0	0	0.1
Trucks	0	13	0	13	24	0	0	24	0	0	0	0	37
% Trucks	0	0.6	0	0.6	1.1	0	0	1.1	0	0	0	0	0.8
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0
% Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0

Kensington, Connecticut 06037 (860) 828-1693

File Name : 13536 Site Code : 13536 Start Date : 9/12/2015 Page No : 2

		Rou	te 83			Rou	te 83			Naek	Road		
		From	North			From	South			From	i West		
Start Time	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1													
Peak Hour for Entir	e Intersec	tion Begir	ns at 11:4	45 AM									
11:45 AM	1	286	0	287	262	0	0	262	1	0	0	1	550
12:00 PM	3	296	0	299	270	2	0	272	1	2	0	3	574
12:15 PM	2	315	0	317	275	1	0	276	2	0	0	2	595
12:30 PM	1	271	0	272	281	1	0	282	5	1	0	6	560
Total Volume	7	1168	0	1175	1088	4	0	1092	9	3	0	12	2279
% App. Total	0.6	99.4	0		99.6	0.4	0		75	25	0		
PHF	.583	.927	.000	.927	.968	.500	.000	.968	.450	.375	.000	.500	.958





\\vhb\proj\Wethersfield\42120.00\graphics\FIGURES\Traffic\Network Volumes.dwg

Background Project Trip Generation

Trail Run 243 & 253 Talcottville Road, Vernon, CT



\\vhb\proj\Wethersfield\42120.00\graphics\FIGURES\Traffic\Network Volumes.dwg



\whb\proj\Wethersfield\42120.00\graphics\FIGURES\Traffic\Network Volumes.dwg





\\vhb\proj\Wethersfield\42120.00\graphics\FIGURES\Traffic\Network Volumes.dwg

Project Trip Generation

Multifamily Housing (Low-Rise) (220)

Vehicle Trip Ends vs: Dwelling Units On a: Weekday

Setting/Location: General Urban/Suburban

Number of Studies: 29 Avg. Num. of Dwelling Units: 168 Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
7.32	4.45 - 10.97	1.31





Trip Gen Manual, 10th Ed + Supplement

Institute of Transportation Engineers

Multifamily Housing (Low-Rise)

1	2	2	n	1
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Vehicle Trip Ends vs: On a:	Dwelling Units Weekday, Peak Hour of Adjacent Street Traffic
Setting/Location:	One Hour Between 7 and 9 a.m.
Number of Studies:	42 42
Avg. Num. of Dwelling Units: Directional Distribution:	199 23% entering, 77% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.46	0.18 + 0.74	0.12





Multifamily Housing (Low-Rise)

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Vehicle Trip Ends vs:	Dwelling Units Weekday
ona.	Peak Hour of Adjacent Street Traffic.
	One Hour Between 4 and 6 p.m.
Setting/Location:	General Urban/Suburban
Number of Studies:	50
Avg. Num. of Dwelling Units:	187
Directional Distribution:	63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.56	0.18 - 1.25	0.16



Data Plot and Equation

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Capacity Analysis Reports
	≯	1	Ť	Ŧ
Lane Group	EBL	NBL	NBT	SBT
Lane Configurations	¥		41a	41
Traffic Volume (vph)	3	29	685	1667
Future Volume (vph)	3	29	685	1667
Lane Group Flow (vph)	8	0	939	1771
Turn Type	Prot	pm+pt	NA	NA
Protected Phases	4	5	2	6
Permitted Phases		2		
Detector Phase	4	5	2	6
Switch Phase				
Minimum Initial (s)	7.0	5.0	20.0	20.0
Minimum Split (s)	11.0	8.1	25.5	25.5
Total Split (s)	19.0	14.0	71.0	57.0
Total Split (%)	21.1%	15.6%	78.9%	63.3%
Yellow Time (s)	3.0	3.0	4.5	4.5
All-Red Time (s)	1.0	0.1	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0
Total Lost Time (s)	4.0		5.5	5.5
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	Min	C-Min	C-Min
v/c Ratio	0.06		0.37	0.61
Control Delay	31.5		0.8	7.5
Queue Delay	0.0		0.0	0.0
Total Delay	31.5		0.8	7.5
Queue Length 50th (ft)	2		0	185
Queue Length 95th (ft)	13		26	561
Internal Link Dist (ft)	410		481	781
Turn Bay Length (ft)				
Base Capacity (vph)	265		2545	2896
Starvation Cap Reductn	0		0	0
Spillback Cap Reductn	0		0	47
Storage Cap Reductn	0		0	0
Reduced v/c Ratio	0.03		0.37	0.62
Intersection Summary				
Cycle Length: 90				
Actuated Cycle Length: 90				
Offset: 17 (19%), Reference	ed to phase	2:NBTL	and 6:SB	T, Start c
Natural Cycle: 60				
Control Type: Actuated-Co	ordinated			
Splits and Phases: 5: Do	Nuto 83 8 N	aak Daad		
02 (R)				
715				
1×05 ↓	Ø6 (R)			

Naek Road Vernon, CT 57 s

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Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	W.			-tî≜	≜1 ≽		
Traffic Volume (vph)	3	3	29	685	1667	15	
Future Volume (vph)	3	3	29	685	1667	15	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0			5.5	5.5		
Lane Util. Factor	1.00			0.95	0.95		
Frt	0.93			1.00	1.00		
Flt Protected	0.98			1.00	1.00		
Satd. Flow (prot)	1571			3399	3534		
Flt Permitted	0.98			0.81	1.00		
Satd. Flow (perm)	1571			2759	3534		
Peak-hour factor, PHF	0.75	0.75	0.76	0.76	0.95	0.95	
Adj. Flow (vph)	4	4	38	901	1755	16	
RTOR Reduction (vph)	4	0	0	0	0	0	
Lane Group Flow (vph)	4	0	0	939	1771	0	
Heavy Vehicles (%)	10%	10%	6%	6%	2%	2%	
Turn Type	Prot		pm+pt	NA	NA		
Protected Phases	4		5	2	6		
Permitted Phases			2				
Actuated Green, G (s)	1.4			79.1	70.5		
Effective Green, g (s)	1.4			79.1	70.5		
Actuated g/C Ratio	0.02			0.88	0.78		
Clearance Time (s)	4.0			5.5	5.5		
Vehicle Extension (s)	3.0			3.0	3.0		
Lane Grp Cap (vph)	24			2463	2768		
v/s Ratio Prot	c0.00			c0.02	c0.50		
v/s Ratio Perm				0.31			
v/c Ratio	0.17			0.38	0.64		
Uniform Delay, d1	43.7			1.0	4.2		
Progression Factor	1.00			0.53	1.84		
Incremental Delay, d2	3.3			0.1	0.8		
Delay (s)	47.1			0.6	8.6		
Level of Service	D			А	А		
Approach Delay (s)	47.1			0.6	8.6		
Approach LOS	D			А	А		
Intersection Summary							
HCM 2000 Control Delay			6.0	H	CM 2000	Level of Service	Α
HCM 2000 Volume to Cap	oacity ratio		0.62				
Actuated Cycle Length (s)			90.0	S	um of lost	time (s)	12.6
Intersection Capacity Utiliz	zation		60.3%	IC	CU Level o	of Service	В
Analysis Period (min)			15				
c Critical Lane Group							

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Lane Group	EBL	NBL	NBT	SBT
Lane Configurations	W.		4 12	≜ 1⊾
Traffic Volume (vph)	25	33	2011	1169
Future Volume (vph)	25	33	2011	1169
Lane Group Flow (vph)	98	0	2129	1224
Turn Type	Prot	pm+pt	NA	NA
Protected Phases	4	5	2	6
Permitted Phases		2		
Detector Phase	4	5	2	6
Switch Phase		-		-
Minimum Initial (s)	7.0	5.0	20.0	20.0
Minimum Split (s)	11.0	8.1	25.5	25.5
Total Split (s)	19.0	14.0	71.0	57.0
Total Split (%)	21.1%	15.6%	78.9%	63.3%
Yellow Time (s)	30	3.0	4.5	4.5
All-Red Time (s)	1.0	0.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.1	0.0	0.0
Total Lost Time (s)	4.0		5.5	5.5
Lead/Lag		Lead	0.0	Lag
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	Min	C-Min	C-Min
v/c Ratio	0.45		0.79	0.47
Control Delay	22.9		13.9	11.5
Queue Delay	0.0		1.1	0.0
Total Delay	22.9		15.0	11.5
Queue Length 50th (ft)	18		358	338
Queue Length 95th (ft)	46		534	383
Internal Link Dist (ft)	410		481	781
Turn Bay Length (ft)	110		101	101
Base Canacity (vph)	337		2706	2607
Starvation Can Reductn	0		326	0
Snillback Can Reductn	0		020	0
Storage Can Reductn	0		0	0
Reduced v/c Ratio	0 29		0 89	0 47
	0.25		0.00	0.77
Intersection Summary				
Cycle Length: 90				
Actuated Cycle Length: 90				
Offset: 17 (19%), Reference	d to phase	2:NBTL	and 6:SB	T, Start o
Natural Cycle: 60				
Control Type: Actuated-Coor	rdinated			
Splits and Phases: 5: Rou	ite 83 & Na	aek Road		
1 Ø2 (R)				
/15				
l 1 Ø5 ↓ Ø	26 (R)			

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Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	¥.			.at≜	≜t ≽		
Traffic Volume (vph)	25	49	33	2011	1169	18	
Future Volume (vph)	25	49	33	2011	1169	18	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0			5.5	5.5		
Lane Util. Factor	1.00			0.95	0.95		
Frt	0.91			1.00	1.00		
Flt Protected	0.98			1.00	1.00		
Satd. Flow (prot)	1701			3571	3566		
Flt Permitted	0.98			0.91	1.00		
Satd. Flow (perm)	1701			3263	3566		
Peak-hour factor, PHF	0.75	0.75	0.96	0.96	0.97	0.97	
Adj. Flow (vph)	33	65	34	2095	1205	19	
RTOR Reduction (vph)	60	0	0	0	1	0	
Lane Group Flow (vph)	38	0	0	2129	1223	0	
Heavy Vehicles (%)	0%	0%	1%	1%	1%	1%	
Turn Type	Prot		pm+pt	NA	NA		
Protected Phases	4		5	2	6		
Permitted Phases			2				
Actuated Green, G (s)	6.9			73.6	65.0		
Effective Green, g (s)	6.9			73.6	65.0		
Actuated g/C Ratio	0.08			0.82	0.72		
Clearance Time (s)	4.0			5.5	5.5		
Vehicle Extension (s)	3.0			3.0	3.0		
Lane Grp Cap (vph)	130			2687	2575		
v/s Ratio Prot	c0.02			c0.05	0.34		
v/s Ratio Perm				c0.60			
v/c Ratio	0.29			0.79	0.48		
Uniform Delay, d1	39.2			4.2	5.3		
Progression Factor	1.00			2.26	1.92		
Incremental Delay, d2	1.3			1.3	0.5		
Delay (s)	40.5			10.9	10.7		
Level of Service	D			В	В		
Approach Delay (s)	40.5			10.9	10.7		
Approach LOS	D			В	В		
Intersection Summary							
HCM 2000 Control Delay			11.7	H	CM 2000	Level of Service	В
HCM 2000 Volume to Cap	oacity ratio		0.78				
Actuated Cycle Length (s)			90.0	Si	um of lost	time (s)	12.6
Intersection Capacity Utiliz	zation		92.7%	IC	U Level c	of Service	F
Analysis Period (min)			15				
c Critical Lane Group							

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Lane Group	EBL	NBL	NBT	SBT
Lane Configurations	M		44	11
Traffic Volume (vph)	3	29	690	1678
Future Volume (vph)	3	29	690	1678
Lane Group Flow (vph)	8	0	946	1782
Turn Type	Prot	pm+pt	NA	NA
Protected Phases	4	5	2	6
Permitted Phases		2	_	Ū
Detector Phase	4	5	2	6
Switch Phase		Ū	_	Ū
Minimum Initial (s)	70	50	20.0	20.0
Minimum Snlit (s)	11.0	8.1	25.5	25.5
Total Solit (s)	19.0	14.0	71.0	57.0
Total Split (%)	21 1%	15.6%	78.0%	63.3%
Vollow Time (c)	21.1/0	10.0 %	10.970	05.570
All Ded Time (s)	3.0	0.1	4.0	4.5
All-Reu Tille (S)	1.0	0.1	1.0	1.0
Lost Time Aujust (s)	0.0		0.0	0.0
Total Lost Time (s)	4.0	Land	5.5	5.5
Lead/Lag		Lead		Lag
Lead-Lag Optimize?	•	Yes	0 M	Yes
Recall Mode	None	Min	C-Min	C-Min
v/c Ratio	0.06		0.37	0.62
Control Delay	31.5		0.8	7.8
Queue Delay	0.0		0.0	0.0
Total Delay	31.5		0.8	7.8
Queue Length 50th (ft)	2		0	186
Queue Length 95th (ft)	13		26	566
Internal Link Dist (ft)	410		481	781
Turn Bay Length (ft)				
Base Capacity (vph)	265		2545	2896
Starvation Cap Reductn	0		0	0
Spillback Cap Reductn	0		0	48
Storage Cap Reductn	0		0	0
Reduced v/c Ratio	0.03		0.37	0.63
Intersection Summary				
Cycle Length: 90				
Actuated Cycle Length: 90				
Offset: 17 (19%), Reference	d to phase	€2:NBTL	and 6:SB	T, Start o
Natural Cycle: 60				
Control Type: Actuated-Coo	ordinated			
Splits and Phases: 5: Rou	ute 8 <u>3 & N</u> a	aek <u>Road</u>	I	
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Ø2 (R)				
716				
1 95	Ø6 (R)			

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Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations	¥			-₫ ↑	*t ₂			
Traffic Volume (vph)	3	3	29	690	1678	15		
Future Volume (vph)	3	3	29	690	1678	15		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Total Lost time (s)	4.0			5.5	5.5			
Lane Util. Factor	1.00			0.95	0.95			
Frt	0.93			1.00	1.00			
Flt Protected	0.98			1.00	1.00			
Satd. Flow (prot)	1571			3399	3534			
Flt Permitted	0.98			0.81	1.00			
Satd. Flow (perm)	1571			2758	3534			
Peak-hour factor, PHF	0.75	0.75	0.76	0.76	0.95	0.95		
Adj. Flow (vph)	4	4	38	908	1766	16		
RTOR Reduction (vph)	4	0	0	0	0	0		
Lane Group Flow (vph)	4	0	0	946	1782	0		
Heavy Vehicles (%)	10%	10%	6%	6%	2%	2%		
Turn Type	Prot		pm+pt	NA	NA			
Protected Phases	4		5	2	6			
Permitted Phases			2					
Actuated Green, G (s)	1.4			79.1	70.5			
Effective Green, g (s)	1.4			79.1	70.5			
Actuated g/C Ratio	0.02			0.88	0.78			
Clearance Time (s)	4.0			5.5	5.5			
Vehicle Extension (s)	3.0			3.0	3.0			
Lane Grp Cap (vph)	24			2463	2768			
v/s Ratio Prot	c0.00			c0.02	c0.50			
v/s Ratio Perm				0.31				
v/c Ratio	0.17			0.38	0.64			
Uniform Delay, d1	43.7			1.0	4.3			
Progression Factor	1.00			0.53	1.90			
Incremental Delay, d2	3.3			0.1	0.9			
Delay (s)	47.1			0.6	9.0			
Level of Service	D			Α	Α			
Approach Delay (s)	47.1			0.6	9.0			
Approach LOS	D			А	А			
Intersection Summary								
HCM 2000 Control Delay			6.2	H	CM 2000	Level of Service	A	
HCM 2000 Volume to Capacity	/ ratio		0.62					
Actuated Cycle Length (s)			90.0	Si	um of lost	t time (s)	12.6	
Intersection Capacity Utilizatio	n		60.6%	IC	U Level o	of Service	В	
Analysis Period (min)			15					
c Critical Lane Group								

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Lane Group	EBL	NBL	NBT	SBT
Lane Configurations	M		41	14
Traffic Volume (vph)	25	33	2025	1177
Future Volume (vph)	25	33	2025	1177
Lane Group Flow (vph)	100	0	2143	1232
Turn Type	Prot	pm+pt	NA	NA
Protected Phases	4	5	2	6
Permitted Phases		2		
Detector Phase	4	5	2	6
Switch Phase				
Minimum Initial (s)	7.0	5.0	20.0	20.0
Minimum Split (s)	11.0	8.1	25.5	25.5
Total Split (s)	19.0	14.0	71.0	57.0
Total Split (%)	21.1%	15.6%	78.9%	63.3%
Yellow Time (s)	3.0	3.0	4.5	4.5
All-Red Time (s)	1.0	0.1	1.0	1.0
Lost Time Adjust (s)	0.0	0.1	0.0	0.0
Total Lost Time (s)	4.0		5.5	5.5
Lead/Lag	1.0	Lead	0.0	Lag
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	Min	C-Min	C-Min
v/c Ratio	0.46	IVIIII	0.79	0.47
Control Delay	22.8		13.0	11 0
	22.0		10.9	0.0
Total Delay	22.8		15.0	11 0
Oucue Length 50th (ft)	22.0 10		3/3	360
Queue Length 50th (It)	10		520	385
Queue Length 95th (it)	40		101	701
Turn Day Length (ft)	410		401	/01
Turn Bay Length (π)	220		0706	0007
Base Capacity (vpn)	339		2706	2607
Starvation Cap Reductin	0		303	0
Spillback Cap Reductn	0		0	0
Storage Cap Reductn	0		0	0
Reduced v/c Ratio	0.29		0.89	0.47
Intersection Summary				
Cycle Length: 90				
Actuated Cycle Length: 90				
Offset: 17 (10%) Reference	od to nhase	2.NBTI	and 6·SB	T Start o
Natural Cycle: 60	su to priase	Z.NDIL		r, otart o
Control Type: Actuated Con	ordinated			
Control Type. Actualed-Col	Junaleu			
Calita and Dhasaay E. Da	uto 02 0 NL	nak Daad		
	ule os a ma	Jek Roau		
(g2 (R)				
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105	Ø6 (R)			

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Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations	Y			41	11			
Traffic Volume (vph)	25	50	33	2025	1177	18		
Future Volume (vph)	25	50	33	2025	1177	18		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Total Lost time (s)	4.0			5.5	5.5			
Lane Util. Factor	1.00			0.95	0.95			
Frt	0.91			1.00	1.00			
Flt Protected	0.98			1.00	1.00			
Satd. Flow (prot)	1700			3571	3566			
Flt Permitted	0.98			0.91	1.00			
Satd. Flow (perm)	1700			3262	3566			
Peak-hour factor, PHF	0.75	0.75	0.96	0.96	0.97	0.97		
Adi, Flow (vph)	33	67	34	2109	1213	19		
RTOR Reduction (vph)	62	0	0	0	1	0		
Lane Group Flow (vph)	38	0	0	2143	1231	0		
Heavy Vehicles (%)	0%	0%	1%	1%	1%	1%		
Turn Type	Prot		nm+nt	NA	NA			
Protected Phases	4		5	2	6			
Permitted Phases	•		2	2	v			
Actuated Green, G (s)	6.9		_	73.6	65.0			
Effective Green, g (s)	6.9			73.6	65.0			
Actuated g/C Ratio	0.08			0.82	0.72			
Clearance Time (s)	4.0			5.5	5.5			
Vehicle Extension (s)	3.0			3.0	3.0			
Lane Grn Can (vnh)	130			2686	2575			
v/s Ratio Prot	c0 02			c0.05	0.35			
v/s Ratio Perm	00.02			c0.60	0.00			
v/c Ratio	0 29			0.80	0 48			
Uniform Delay, d1	39.2			4.3	5.3			
Progression Factor	1 00			2 23	1.98			
Incremental Delay, d2	1.00			1.3	0.6			
Delay (s)	40.5			10.9	11.1			
Level of Service	D			B	B			
Approach Delay (s)	40.5			10.9	11 1			
Approach LOS	D			В	В			
Intersection Summary								
HCM 2000 Control Delay			11.8	H	CM 2000	Level of Service	В	
HCM 2000 Volume to Capa	acity ratio		0.78					
Actuated Cycle Length (s)			90.0	Si	um of lost	time (s)	12.6	
Intersection Capacity Utiliza	ation		93.1%	IC	U Level c	of Service	F	
Analysis Period (min)			15					
c Critical Lane Group								

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Lane Group	EBL	NBT	SBT
Lane Group Flow (vph)	43	954	1784
v/c Ratio	0.27	0.42	0.66
Control Delay	22.6	1.5	12.8
Queue Delay	0.0	0.0	0.0
Total Delay	22.6	1.5	12.8
Queue Length 50th (ft)	6	36	457
Queue Length 95th (ft)	27	34	582
Internal Link Dist (ft)	410	481	781
Turn Bay Length (ft)			
Base Capacity (vph)	282	2298	2699
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	51
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.15	0.42	0.67
Intersection Summary			

	•	7	1	1	ŧ	~		
Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations	Y			41	* 1+			
Traffic Volume (vph)	8	24	35	690	1678	17		
Future Volume (vph)	8	24	35	690	1678	17		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Total Lost time (s)	4.0			5.5	5.5			
Lane Util. Factor	1.00			0.95	0.95			
Frt	0.90			1.00	1.00			
Flt Protected	0.99			1.00	1.00			
Satd. Flow (prot)	1534			3397	3534			
Flt Permitted	0.99			0.78	1.00			
Satd. Flow (perm)	1534			2642	3534			
Peak-hour factor. PHF	0.75	0.75	0.76	0.76	0.95	0.95		
Adj. Flow (vph)	11	32	46	908	1766	18		
RTOR Reduction (vph)	30	0	0	0	1	0		
Lane Group Flow (vph)	13	0	0	954	1783	0		
Heavy Vehicles (%)	10%	10%	6%	6%	2%	2%		
Turn Type	Prot		pm+pt	NA	NA	_,,		
Protected Phases	4		5	2	6			
Permitted Phases			2	-	v			
Actuated Green G (s)	47		_	75.8	67.2			
Effective Green a (s)	4 7			75.8	67.2			
Actuated g/C Ratio	0.05			0.84	0.75			
Clearance Time (s)	4 0			5.5	5.5			
Vehicle Extension (s)	3.0			3.0	3.0			
ane Grn Can (vnh)	80			2271	2638			
v/s Ratio Prot	c0 01			c0 03	c0.50			
v/s Ratio Perm	00.01			0.33	00.00			
v/c Ratio	0 16			0.42	0.68			
Uniform Delay, d1	40.8			17	5.8			
Progression Factor	1 00			0.50	1 89			
Incremental Delay, d2	0.9			0.00	1.05			
Delay (s)	417			1.0	12.1			
Level of Service	D			1.0 A	-12.1 B			
Approach Delay (s)	41 7			10	12 1			
Approach LOS	D			A	B			
Intersection Summary								
HCM 2000 Control Delav			8.7	H	CM 2000	Level of Service	A	
HCM 2000 Volume to Capa	citv ratio		0.63					
Actuated Cycle Length (s)			90.0	S	um of lost	time (s)	12.6	
Intersection Capacity Utiliza	tion		60.7%		CU Level o	of Service	B	
Analysis Period (min)			15				_	
c Critical Lane Group								

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Lane Group	EBL	NBL	NBT	SBT
Lane Configurations	¥		≜ î∳	14
Traffic Volume (vph)	28	55	2025	1177
Future Volume (vph)	28	55	2025	1177
Lane Group Flow (vph)	121	0	2166	1237
Turn Type	Prot	pm+pt	NA	NA
Protected Phases	4	5	2	6
Permitted Phases		2	-	•
Detector Phase	4	5	2	6
Switch Phase		J	-	- V
Minimum Initial (s)	70	50	20.0	20.0
Minimum Split (s)	11.0	8.1	25.5	25.5
Total Split (s)	19.0	14.0	71.0	57.0
Total Split (%)	21.1%	15.6%	78.9%	63.3%
Yellow Time (s)	21.170	3.070	10.970	15
	J.0 1 0	0.1	4.5	4.5
Lost Time Adjust (s)	1.0	0.1	0.0	0.0
Total Lost Time (s)	0.0		0.0	0.0
	4.0	Lood	0.0	0.0
Load Lag Optimize?		Vac		Lay
Leau-Lag Optimize?	None	res	C Min	C Min
		IVIIII	0.07	
V/C Ratio	0.51		0.87	0.49
Control Delay	22.0		10.7	14.3
	0.0		0.8	0.0
Total Delay	22.0		17.5	14.3
Queue Length 50th (ft)	20		268	323
Queue Length 95th (ft)	49		#568	387
Internal LINK Dist (ft)	410		481	/81
Turn Bay Length (ft)	0.50		0.10.1	0505
Base Capacity (vph)	352		2484	2505
Starvation Cap Reductn	0		114	0
Spillback Cap Reductn	0		0	0
Storage Cap Reductn	0		0	0
Reduced v/c Ratio	0.34		0.91	0.49
Intersection Summary				
Cycle Length: 90				
Actuated Cycle Length: 90				
Offset: 17 (19%) Referenced	I to phase	2.NBTI	and 6.SR	T Start of
Natural Cycle: 65				, otari 0
Control Type: Actuated-Coord	dinated			
# 95th percentile volume ex	analeu analeu	nacity o		he longe
Oueue shown is maximum	n after two	paolity, qu n cycles	ieue may	be longe
		- cycles.		
Splits and Phases: 5: Rout	e 83 & Na	aek Road		



Synchro 10 Report

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Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations	Y			41	11			
Traffic Volume (vph)	28	63	55	2025	1177	23		
Future Volume (vph)	28	63	55	2025	1177	23		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Total Lost time (s)	4.0			5.5	5.5			
Lane Util. Factor	1.00			0.95	0.95			
Frt	0.91			1.00	1.00			
Flt Protected	0.98			1.00	1.00			
Satd. Flow (prot)	1696			3570	3564			
Flt Permitted	0.98			0.87	1.00			
Satd. Flow (perm)	1696			3092	3564			
Peak-hour factor, PHF	0.75	0.75	0.96	0.96	0.97	0.97		
Adj. Flow (vph)	37	84	57	2109	1213	24		
RTOR Reduction (vph)	76	0	0	0	1	0		
Lane Group Flow (vph)	45	0	0	2166	1236	0		
Heavy Vehicles (%)	0%	0%	1%	1%	1%	1%		
Turn Type	Prot		pm+pt	NA	NA			
Protected Phases	4		5	2	6			
Permitted Phases			2		-			
Actuated Green, G (s)	8.7			71.8	63.2			
Effective Green, a (s)	8.7			71.8	63.2			
Actuated g/C Ratio	0.10			0.80	0.70			
Clearance Time (s)	4.0			5.5	5.5			
Vehicle Extension (s)	3.0			3.0	3.0			
Lane Grp Cap (vph)	163			2495	2502			
v/s Ratio Prot	c0.03			c0.05	0.35			
v/s Ratio Perm				c0.64				
v/c Ratio	0.28			0.87	0.49			
Uniform Delay, d1	37.7			6.0	6.1			
Progression Factor	1.00			1.92	2.13			
Incremental Delay, d2	0.9			2.7	0.6			
Delay (s)	38.7			14.2	13.6			
Level of Service	D			В	В			
Approach Delay (s)	38.7			14.2	13.6			
Approach LOS	D			В	В			
Intersection Summary								
HCM 2000 Control Delay			14.8	H	CM 2000	Level of Service	В	
HCM 2000 Volume to Capa	city ratio		0.84					
Actuated Cycle Length (s)			90.0	Sı	um of lost	time (s)	12.6	
Intersection Capacity Utiliza	ation		109.2%	IC	U Level o	of Service	Н	
Analysis Period (min)			15					
c Critical Lane Group								

THE VILLAGE AT NAEK ROAD NAEK ROAD VERNON, CT



OWNER:

RASHID HAMID FAMILY PARTNERSHIP 27 NEAK ROAD VERNON CT 06066

ARCHITECT:

SCHADLER SELNAU ASSOCIATES P.C. 5 WATERVILLE ROAD FARMINGTON, CONNECTICUT 06032

CIVIL ENGINEER:

GARDNER & PETERSON ASSOCIATES 178 HARTFORD TURNPIKE TOLLAND CT 06084

STRUCTURAL ENGINEER:

SZEWCZAK ASSOCIATES 200 FISHER DRIVE AVON, CONNECTICUT 06001

MEP ENGINEERS:

ACORN CONSULTING ENGINEERS P.O. BOX 311 FARMS VILLAGE PLAZA 244 FARMS VILLAGE ROAD WEST SIMSBURY, CT 06092





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SHEET NUMB	ER	LIST SHEET NA	ME	chit
GENERAL				
A-000	TITLE SHEET			
1 OF14		LOCATION SUI	RVEY	
2 OF14	OVERALL SITE	PLAN OF DEV	ELOPMENT	
3 OF14	EROSION AND S	BEDIMENTATIC	N CONTROL	
4 OF14	EROSION AND S	BEDIMENTATIC	N CONTROL	
5 OF14	SITE GRADING I	PLAN		
6 OF14	SITE GRADING I	PLAN		
7 OF14	UTILITY PLAN			_
8 OF14	UTILITY PLAN			_
9 OF 14				-
11 OF14	EROSION AND S DETAILS	BEDIMENTATIC	N CONTROL	D
12 OF14	CONSTRUCTION	DETAILS		
13 OF14	CONSTRUCTION	DETAILS		
14 OF14	CONSTRUCTION	DETAILS		
GENERAL				
A-001	2 UNIT BUILDING	,		
A-002	4 UNIT BUILDING	2		
A-003	4 UNIT BUILDING	7		↓ ≯
A-004	ABDUL WAY			
A-005	NADIA WAY			
	SUFFIA WAY			∣ ∢ (
A-101				I II - Z
A-102	2 UNIT DI ANG			
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A-201a	2 UNIT PERSPEC			
A-202	4 UNIT ELEVATIO	2NS		
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A-203	6 UNIT ELEVATIO	ONS		
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SECTIONS				
A-301	TYPICAL SECTION	DNS		
2015 INTERNATION 2015 INTERNATION 2015 INTERNATION 2017 NATIONAL EL CC/ANSI A117.1-20 ADA - AMERICANS LOCAL ORDINANCI 1AVING JURISDICT BUIL DING CONSTRU	AL FLUMBING CODE AL ENERGY CONSER AL FIRE CODE WITH ECTRICAL CODE WIT OG ACCESSIBLE AN WITH DISABILITIES A ES AND REQUIREMEN ION	CONNECTICUT CONNECTICUT TH CONNECTIC D USABLE BUI CT NTS OF THE LO	E WITH CONNECTICU AMENDMENTS JUT AMENDMENTS LDINGS AND FACILI OCAL AUTHORITIES	ries
ISE GROUP: RES	PE: 58	θE		
FIRE SEPERATION FIRE SEPERATION EXTERIOR WALL ROOF ASSEMBLY	REQUIREMENTS WALL	TOWNHOUS 2 HOUR 1 HOUR 1 HOUR	E UL DESIGN U338 UL DESIGN U327 UL DESIGN P522	
BUILDING ENVELOF TABLE N1102.1.2 (F NGULATION AND FI SLIMATE ZONE	PE EFFICIENCY R402.1.2) ENESTRATION REQUI	REMENTS BY 5A	COMPONENT	
ENESTRATION U F SLAZED FENESTRA JEILING "R" VALUE NOOD FRAME WAL SLAB ON GRADE "	ACTOR ATION SHGC LL "R" VALUE "R" VALUE	.32 NR R49 R20 R10) /2FT	
BUILDING TYPE AN 34 UNIT TYPE "A" @ 36 UNIT TYPE "B" @ 70 UNITS	D AREAS 1,910 SF 0 1,588 SF	64,° 57,1 122,	140 SF TOTAL 68 SF TOTAL 108 SF TOTAL	
2 UNIT BUILDINGS 4 UNIT BUILDINGS 5 UNIT BUILDINGS		3 BLDS 12 BLDS 2 BLDS 17 BLDS	6 UNITS 52 UNITS 12 UNITS 70 UNITS 140 BEDROOMS	LE SHEET



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Unit Plans REVISED





Unit Plans REVISED





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Schadler Selnau associates, p.c.	architecture - planning - interiors 5 waterville road, farmington, ct 06032	(860) 677-9620 hsa-architects.com
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		ISSUED: 1/2021
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THE VILLAGE AT NAEK ROAD VERNON, CT VERNON, CT	PATE
	SCALE:
SOFFIA WAY	DATE ISSUED: 09/24/2021

1 2 UNIT - FIRST FLOOR 1/8" = 1'-0"

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	Schadler Selnau associates, p.c.architecture - planning - interiors5 waterville road, farmington, ct(860) 677-9620hsa-architects.com
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24-0 38-11/2 35-11/2	2 UNIT PLANS 2 UNIT PLANS 2 UNIT PLANS 2 UNIT PLANS 2 UNIT PLANS 3 UNIT PLANS 3 UNIT PLANS 3 UNIT PLANS 3 UNIT PLANS 3 UNIT PLANS

























2 4 UNIT REAR ELEVATION 1/8" = 1'-0"





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 1 CAR GARAGE UNIT	1 CAR GARAGE UNIT	2 CAR GARAGE UNIT
	- 2 HOUR RATED STRUCTURALLY	

		Job.No.yyyy-xxxx
 FIBERGLASS SINGLI 1X8 PVC FASCIA DECORATIVE NON LOUVER WHITE ALUMINUM "K" VINYL CLAPBOARD 1X6 PVC CORNER E INSULATED GARAGE 1X10 PVC SKIRT BC 	E ROOFING 2 UNIT - T.O.P. $13' - 0'$ VENTED PYC SECOND STYLE GUTTERS STYLE GUTTERS SIDING SOARDS E DOOR DARDI - FIRST FLOOR 0' - 0''	Schadler Selnau associates, p.c.architecture - planning - interiors5 waterville road, farmington, ct(860) 677-9620hsa-architects.com
	 FIBERGLASS SINGLE ROOFING WHITE ALUMINUM "K" STYLE GUTTERS 1X8 PVC FASCIA 1X8 PVC RAKE TRIM 2 UNT - T.O.P. 18' - 0" DECORATIVE NON VENTED PVC LOUVER VINYL INSULATED FIXED WINDOWS³ UNIT - SECOND FLOOR 10' - 0" 1X6 PVC CORNER BOARDS VINYL INSULATED DOUBLE HUNG WINDOWS VINYL INSULATED DOUBLE HUNG WINDOWS 2 UNIT - FIRST FLOOR 0' - 0" 1X10 PVC SKIRT BOARDS 1X4 PVC TRIM BOARDS 	THE VILLAGE AT NAEK ROAD REVISION NO DESC DATE
		EVATIONS SCALE: 1/8" = 1'-0"

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UNIT

4

A-202

DATE | 09/24,





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1 CAR GARAGE UNIT	1 CAR GARAGE UNIT	1 CAR GARAGE UNIT	×
		- 2 HOUR RATED STRUCTURALLY INDEPENDENT FIRE SEPERATION WALL BETWEEN ALL UNITS. UL DESIGN ASSEMBLY U336 TYPICAL BETWEEN ALL UNITS	







TYPICAL TRUSS/ROOF ASSEMBLY- UL DES. #P522 FIBERGLASS/ASPHALT ROOFING SHINGLES

15 LB. FELT ROOFING PAPER ICE & WATER SHIELD UP MIN. 3'-0" EAVES VALLEYS 5/8" EXTERIOR GRADE PLYWOOD SHEATHING ROOF TRUSSES (SEE STRUCTURAL DWGS.) R-49 BLOWN-IN INSULATION W/ POLY VAPOR BARRIER 1/2" RESILIENT FURRING CHANNELS 5/8" FIRE CODE GYP. BD.

-5/8" F.C. GYP. BD ATTACHED TO UNDERSIDE OF ROOF SHEATHING. EXTEND 5/8" GYPSUM BOARD FIRE PROTECTION AT A MIN. 4'-0" PAST FIRE WALL IN BOTH DIRECTIONS. MAINTAIN _STAGGERED JOINTS IN SHEATHING AS REQUIRED FOR STRUCTURAL REQS. TAPE/MUD & FIRE CAULK ALL SEAMS & JOINTS

PROVIIDE EXTRA 5/8" F.C. GYP. BD ATTACHED TO UNDERSIDE OF ROOF SHEATHING & IN BETWEEN ROOF TRUSSES TO COMPLY WITH 4'-O" MIN. REQS. iglePast Firemall in Both $\,$

FLOOR 10' - 0" - PROVIDE ALL FIRE BLOCKING AS REQUIRED BY CODE AND ALL

MAINTAIN ALL FIRE RATED MEMBRANE CONTINUITY- CONT. LAYER OF 5/8" F.C. GYP. CEILING ON 1/2" RESILIENT

CHANNELS AT BOTTOM OF ALL RATED TRUSS ROOF ASSEMBLIES TYP. G.G. CONTRACTOR TO COORDINATE & PROVIDE ALL SOFFITS & SUSPENDED CEILINGS IN ADDITION TO P522 ASSEMBLY AS REQ. FOR THE COORDINATION & CONCEALMENT OF

THE MULTIPLE TRADES' WORK.

- 2 HOUR RATED FIRE WALL - UL DESIGN #U336 PROVIDE CONTINUOUS FIRE WALL TO UNDERSIDE OF ROOF SHEATHING

2 LAYERS 1" FIRE CODE GYPSUM WALLBOARD 2" H METAL STUDS SPACED 24" O.C. W/ STEEL TRACK RUNNERS TOP & BOTTOM, INTERMEDIATE 2" ALUMINUM ANGLE CLIPS AT ALL STEEL & WOOD STUDS (3 CLIPS PER STUD MIN. & NO GREATER THAN 5'-O" O.C. APART VERTICALLY

3 1/2" STRUCTURAL LOAD BEARING WOOD STUDS 3 1/2" SOUND ATTENUATION BATT INSULATION

5/8" FIRE RATED GYP. BD. SEE UL ASSEMBLY DESCRIPTION FOR MORE INFO. & SPECIFIC REQS.

- PRESSURE TREATED DOUBLE SILL PLATES & STRUCTURAL ANCHOR

SEE STRUCTURAL DWGS FOR ALL

-4" REINFORCED CONCRETE SLAB

- 2" RIGID INSULATION TO EXTEND

A-301 0' - 0" TYP. ROOF ASSEMBLY -30 YR. ASPHALT ROOFING SHINGLES 30 LB. FELT ROOFING PAPER ICE & WATER SHIELD UP MIN. 5'-0" EAVES VALLEYS & 2'-6" UP VALLEYS 5/8"- EXTERIOR GRADE PLYWOOD SHEATHING - 12" REINFORCED CONCRETE & CLIPS (SEE STRUCTURALS FOR ALL REQS & LOCATIONS WOOD ROOF TRUSSES OR RAFTERS (SEE STRUCTURAL DWGS.) -KEYED WALL INTO FOORING R-49 BLOW IN BATT INSULATION W/ CONT. POLY VAPOR BARRIER (INTERIOR SIDE) 5/8" FIRE CODE GYP. BD. -REINFORCED CONCRETE TYP. EXT. WALL CONSTRUCTION -VINYL SIDING & TRIM 1" RIGID INSULATION (R-5) 1/2" O.S.B. STRUCTURAL SHEATHING "TYVEK" OR EQUAL HOUSEWRAP 2x6 WOOD STUD @ 24" O.C. _ 3 1/2" FIBERGLASS BATT INSULATION (R-13) KITCHEN/DINING VAPOR BARRIER AREA 5/8" GYP. BD. GREAT ROOM 226 SF 214 SF TYP. INSULATED VINYL WINDOWS W/ LOW "E" INSULATED GLASS -PROVIDE ALUMINUM HEAD / DRIP & SILL PAN FLASHING TYP. -APPLY FLASHING TAPE & BUILDING WRAP IN OVERLAPPING WATERTIGHT METHOD PER ALL MANUF. INSTRUCTIONS -PROVIDE CAULK/SEALANT ON ALL WINDOW FLANGES & ALL TRIM / WINDOW UNIT INTERSECTIONS. -SEAL AROUND JAMBS & ROUGH OPENING USING LOW EXPANSION FOAM SEALANT -SEE WINDOW SCHEDULE FOR ALL SIZING AND ADDITIONAL REQS. FOUNDATION AND SLAB ON GRADE-4" REINFOECED COCNTRETE SLAB 8" REINFORCED CONCRETE FOUNDATION WALL .6MIL VAPOR BARRIER 2" R10 RIGID INSULATION 6" OF CRUSHED STONE COMPACTED NATIVE SOLS 2 UNIT TYPE 01 SECTION 02 1/4" = 1'-0"

TYP. ROOF ASSEMBLY -30 YR. ASPHALT ROOFING SHINGLES 30 LB. FELT ROOFING PAPER ICE & WATER SHIELD UP MIN. 5'-O" EAVES VALLEYS & 2'-6" UP VALLEYS 5/8"- EXTERIOR GRADE PLYWOOD SHEATHING & CLIPS (SEE STRUCTURALS FOR ALL REQS & LOCATIONS WOOD ROOF TRUSSES OR RAFTERS (SEE STRUCTURAL DWGS.) R-49 BLOW IN BATT INSULATION W/ CONT. POLY VAPOR BARRIER (INTERIOR SIDE) 5/8" FIRE CODE GYP. BD.

TYP. EXT. WALL CONSTRUCTION VINYL SIDING & TRIM

1" RIGID INSULATION (R-5) 1/2" O.S.B. STRUCTURAL SHEATHING "TYVEK" OR EQUAL HOUSEWRAP 2x6 WOOD STUD @ 24" O.C. 3 1/2" FIBERGLASS BATT INSULATION (R-13) VAPOR BARRIER 5/8" GYP. BD.

TYP. INSULATED VINYL WINDOWS W/ LOW "E" INSULATED GLASS -PROVIDE ALUMINUM HEAD / DRIP & SILL PAN FLASHING TYP. -APPLY FLASHING TAPE & BUILDING WRAP

IN OVERLAPPING WATERTIGHT METHOD PER ALL MANUF. INSTRUCTIONS -PROVIDE CAULK/SEALANT ON ALL WINDOW FLANGES & ALL TRIM / WINDOW UNIT INTERSECTIONS. -SEAL AROUND JAMBS & ROUGH OPENING USING LOW EXPANSION FOAM SEALANT -SEE WINDOW SCHEDULE FOR ALL SIZING AND ADDITIONAL REQS.

TYPICAL LOFT FLOOR STRUCTURE FINISH FLOORING (WOOD OR TILE) 3/4" T&G PLYWOOD SHEATHING TJI FLOOR JOISTS

1/2" GYPSUM WALL BOARD FOUNDATION AND SLAB ON GRADE-4" REINFOECED COCNTRETE SLAB

8" REINFORCED CONCRETE FOUNDATION WALL .6MIL VAPOR BARRIER 2" R10 RIGID INSULATION

6" OF CRUSHED STONE COMPACTED NATIVE SOLS



STAFF COMMENTS



TOWN OF VERNON

55 West Main St., VERNON, CT 06066-3291 (860) 870-3640 gmcgregor@vernon-ct.gov

MEMORANDUM

TO: Planning & Zoning Commission

FROM: George K. McGregor, AICP, Town Planner

SUBJECT: PZ 2021-19, Village at Naek Road

DATE: January 20, 2022

Request and Background

An Application of Rashid Hamid for a Site Plan and Special Permits to allow a +-70-unit multi-family development on multiple parcels located at 291 and 293 Talcottville Rd. (Assessor ID: Map 3 Block 4 Parcels 9A & 9E) and at 27, 32, 37, 38, and 46 Naek Rd. (Assessor ID: Map 3 Block 4 Parcels 008-8, 7,4, 6, 5). Specials Permits requested from the Planned Development Zone-Gerber Farm zoning district (PDZ) include Section 4.24.4.3.2 (multi-family units); 4.24.3.15.1 (more than 40 off street parking spaces); 4.24.4.3.15.2 (proposed structures within 200 feet of a residential structure); Section 4.24.4.3.15.3 (proposed parking within 200 feet of a residential structure); Section 4.24.4.3.15.4 (aggregate square footage in excess of 25,000 sq. ft.); Section 4.24.4.3.15.9 (a development having less than the required yards).



Village at Naek Road Location

The Village at Naek Road proposes 70 town-house style, attached multifamily apartment units. The units are two-bedroom, garage homes, with the interior units hosting a one car garage and the end units a two-car garage. The units also contain a small outside patio area. Elevations submitted by the applicant:



The Site Plan shows the project on each side of Naek Rd. at the end of the Naek Rd. cul-de-sac, with 18 units on the north side; 52 on the south side. The units are set mostly in blocks of 4 units. Stormwater, landscaping, additional surface parking, and a sidewalk along the north side of Naek Rd. are also depicted on the plan. A central trash area is included for the sanitation needs of the project.

The development will be in proximity to the Hockanum River, a sensitive natural amenity for the Vernon community.

The Project proposes to construct an approximately 2,000 linear feet, stone dust with limited boardwalk, section of the Hockanum River Linear Park, connecting Trail Run to Hockanum Blvd. In addition, the Village at Naek has offered an 8-space public parking area/trailhead at the terminus of Naek Rd.

There is a small portion of Naek Road (essentially the bulbs of the cul-de-sac) which are not in the public right of way; the Applicant desires to dedicate those areas to the town to ensure the entire cul-de-sac is a public street.



Special Permit Review

Section 4.24.4.3.2 (multi-family units); 4.24.3.15.1 (more than 40 off street parking spaces); 4.24.4.3.15.2 (proposed structures within 200 feet of a residential structure); Section 4.24.4.3.15.3 (proposed parking within 200 feet of a residential structure); Section 4.24.4.3.15.4 (aggregate square footage in excess of 25,000 sq. ft.); Section 4.24.4.3.15.9 (a development having less than the required yards).

The PDZ zoning district provides that all projects must receive special permit and site plan approval. Specific special permits include:

- 1. Section 4.24.4.3.2 to allow multi-family uses.
- 2. Section 4.24.4.3.15.1 when more than 40 off-street parking spaces are required.
- 3. Section 4.24.4.3.15.2 for a structure within 200 feet of a residential structure.
- 4. Section 4.24.4.3.15.3 for off-street parking within 200 feet of a residential structure.
- 5. Section 4.24.4.3.15.4 when aggregate square footage exceeds 25,000.
- 6. Section 4.24.4.3.15.9 to permit a residential development to have less than the required yards (reduction is permitted when three or more community amenities are offered).

When approving special permits, the Commission must find that the application meets the relevant general special permit criteria of Section 17.3.1, specifically:

- 17.3.1.1 It shall not create a hazardous condition relative to public health and safety;
- 17.3.1.2 It shall be compatible with neighboring uses;
- 17.3.1.3 It shall not create a nuisance;
- 17.3.1.4 It shall not hinder the future sound development of the community;
- 17.3.1.5 It shall conform to all applicable sections of this ordinance;

Staff finds that these thresholds have been met by the Application for special permits above listed as 1-6.

For the reduction in required yards (4.24.4.3.15.9), three or more community amenities shall be offered from a long list of features including, but not limited to: parks, fountains, play areas, landscaped gardens, walking trails, etc...The Commission must find:

- The amenity enhances the community
- The amenity is designed to stimulate pedestrian activity
- The spaces are connected to a pedestrian network
- The spaces are both designed and useable by community members

The project offers a +-2,000-foot trail extension within a conservation easement and connections to the development; a public parking area for trail access; and a 450 ft. off-site extension of the public side walk along Naek Rd. up to the intersection at Talcottville Rd.

Staff finds that this satisfies the community amenity offering requirement.

Other Agency Review

Inland Wetlands Commission. On June 22, 2001, The Inlands Wetlands Commission <u>approved</u> a wetlands re-designation and wetlands permit for activity in a regulated area for the village of Naek. There were no extraordinary conditions attached; simply conformance with the approved site plan. The site plan reviewed by the IWC is essentially identical to the one submitted for the Site Plan and Special Permit Review. Discussion during that review centered upon wetland proximity, trail planning, and site grading impacts. In response to the Town Engineer, Wetlands Agent, and the IWC, revisions were made which satisfied the commission and led to the approval.

Design Review Commission. On January 5, 2022, the Design Review <u>recommended approval</u> of the architectural design submitted by the applicant. The approval letter is attached to this memo.

Traffic Authority. On January 13, 2002, the Traffic Authority <u>recommended approval</u> of the Site Plan as submitted by the applicant, pursuant to revisions related to additional turn-around areas.

Hockanum River Linear Park Committee. A referral memorandum dated January 12, 2022 was submitted by the HRLPC. The committee recommends that best practices be employed during construction of the trail and would like to be included in planning for trail elements (benches etc...). They further recommend that the entire trail surface be "at-grade board walk" instead of stone dust, due to concerns about potential erosion and flooding.

Staff Comments. Town Staff has reviewed the application and has met with the applicant to review any issues raised. They include:

- Hockanum River Linear Park Trail. Staff and the Applicant are working to finalize construction phasing, easement language, and maintenance details for the greenway extension. A condition of approval with be drafted to this effect.
- Emergency Access. The Fire Marshal identified the need for an emergency access drive (second point of access). The Site plan shows an access drive along the southern boundary connecting to Trail Run Dr. The applicant has agreed to construct and provided gated, emergency access.
- Internal traffic movement. Staff has asked the applicant to review the internal termini of the private streets to ensure the internal system is code compliant and allows for safe and efficient turning movements, especially for public vehicles and trucks. The applicant has responded with revisions, currently under review by Staff.
- The Town Engineer and Zoning enforcement Officer have identified no technical outstanding issues.

8-24 Review

The Applicant proposes both an incremental dedication of a portion of Naek Rd. and a significant trail easement with trail and small parking area. It makes sense to facilitate an 8-24 review simultaneously with the site plan and special permit elements.

State statue declares:

"No municipal agency or legislative body shall (1) locate, accept, abandon, widen, narrow or extend any street, bridge, parkway or other public way, (2) locate, relocate, substantially improve, acquire land for, abandon, **sell** or lease any airport, park, playground, school or other **municipally owned property** or public building, (3) locate or extend any public housing, development, redevelopment or urban renewal project, or (4) locate or extend public utilities and terminals for water, sewerage, light, power, transit and other purposes, until the proposal to take such action has been referred to the commission for a report."

The intent in this consideration is for the Commission to review the proposed action and issue a finding on its consistency or lack thereof with the Plan of Conservation and Development.

Objective 8.1 in the Plan of Conservation and Development (POCD) strongly supports the expansion of Vernon's local Trail network (p. 63). Objective 3.2 speaks of infrastructure improvement in support of economic development and Land Use Goal (p. 47).

The aforementioned improvements are consistent with the newly adopted POCD.

Staff Recommendation

Staff continues to work with the Applicant on the issues identified in this report. An update will be provided at the time of the public hearing.

Note: Draft Conditions and Motions will be provided under separate cover.

GKM

Attachments
Sitler, Martin
McGregor, George
Watt, Amy
RE: Naek Village trail
Friday, January 7, 2022 11:13:34 AM
image001.png

Hi George,

I have a few concerns that I would like to be sure are addressed as a part of the approval process.

- 1. We request that the TOV Staff have the opportunity to review & approve the detailed construction plans of the trail & boardwalk.
- 2. The applicant shall maintain the trail within the boundry lines of their property.
- 3. The plans show a parking area at the end of Naek Road, it needs to be specified who shall maintain this area and who can use it.

We can discuss further after our meeting Wednesday, thank you.

Marty Sitler

Marty Sitler, CPRP, CPSI & AFO

Director, Vernon Parks & Recreation Department 860-870-3520 www.vernonrec.org



From: McGregor, George
Sent: Thursday, January 6, 2022 12:22 PM
To: Sitler, Martin <MSitler@vernon-ct.gov>
Subject: Naek Village trail

Marty:

See attached fyi. Working with Naek development on trail connection. I think we had spoke of this last April when it was going through the IWC.

My plan is to draft a condition where they construct as a part of their approval.

I do not have a written easement yet submitted by them but wanted to make sure you are looped in.

George K. McGregor, AICP Town Planner Town of Vernon 55 West Main Street Vernon, CT. 06066-3291 Phone: (860) 870-3640 Mobile: (860) 336-1846



TOWN OF VERNON

Hockanum River Linear Park Committee 14 Park Place Vernon, CT 06066

January 12 2022

To: Vernon Planning & Zoning Commission

From: Vernon Hockanum River Linear Park Committee Ann Letendre, Chairman; George Arthur, Don Bellingham

Re: Application PZ-2021-19, The Village at Naek Rd

The site abuts the Hockanum River and encompasses an area that is located within the Hockanum River Linear Park Master Plan, specifically in Trail Segment One, as shown on the attached map.

We have reviewed the site plan prepared by Gardner & Peterson Associates for this application. The purpose of our review is to ensure that the planned continuous trail and linear park along the Hockanum River is incorporated into the site plan, and that the plan meets the broader goals of river park planning. These goals are:

- provision for public accessibility and enjoyment of the river environment
- conservation of the riparian area along the river
- protection of river water quality.

We find that the site plans incorporate a trail along the river, a conservation easement and public access, as follows:

- 1. Provision of a conservation/trail easement along the eastern side of the Hockanum River, to be deeded in favor of the Town of Vernon. *The easement shown on the site plan averages approximately 100 feet in width from the edge of the river, and extends approximately 1700 feet along the length of the river (about 4 acres).*
- 2. Installation of a walking trail approximately 1700 feet long along the entire section of the river on the site, including two boardwalk spans (approx 50 ft each) across wet meadow areas.

- 3. Public access to the river walking trail with a parking area for approximately 8 vehicles at the end of Naek Road, and a short connector trail to the river trail.
- 4. Water quality protections, including (1) no activity in wetlands, and (2) on-site treatment of stormwater runoff from new construction only, through use of rain gardens, ground infiltration and constructed drainage basins.

We submit these additional recommendations related to the trail construction for your consideration and your inclusion in the list of permit approval stipulations:

- 1. We strongly recommend that best practices for trail construction be employed such that impacts to wetlands and water quality are minimized.
- We recommend that the trail surface be an <u>at-grade boardwalk</u> for the trail sections that are alongside wetlands or that are within flood lines. This surface is the safest for public use and least-damaging to the river environment.
 - a. As a result of high usage and wet soils, trail erosion in this river area is an issue. The high usage comes from residents in the large, apartments complexes that abut river.
 - b. Stonedust surfaces should NOT be installed on trails alongside wetlands areas or in areas prone to flooding. Our experience is that, during high rainfall events, stonedust is washed away in flood prone areas and on steeply sloped areas.
- 3. We ask that the HRLP Committee be included in trail construction planning, especially in regard to trail surface and trail amenities. We noted that amenities such as viewing areas and benches are cited in the permit application, but we don't see them notated on the site plans.

Lastly, we note that three documents/reports are not yet available for our review. The HRLP Committee will provide supplemental comment on any trail-related or easement-related recommendations in these documents. The reports are:

- Terms & conditions of the conservation easement
- Town Engineer's Report
- Report from the North Central Conservation District

We thank you for consideration of our comments.

From:	Ann Letendre
To:	McGregor, George
Cc:	Sitler, Martin
Subject:	Re: [EXTERNAL] HRLP Committee input for Naek
Date:	Thursday, January 13, 2022 6:47:33 PM

George -

We may need to talk about this. We presumed, perhaps incorrectly, that that developer is proposing to construct a stonedust trail along the entire length of the river. We presumed that because there is a drawing for stonedust construction on the last page of the site plans - and we couldn't find any locations labeled for use of stonedust, so presumed the trail.

There should definitely <u>not</u> be stonedust construction along the low wetlands areas (about 195 - 197' topo). So yes, if developer is proposing to actually construct a stonedust trail - then "at-grade' boardwalk is a better alternative - and that's what we'd like to see. I think Marty would agree. Stonedust would just get washed away. The only section that might be stonedust is the short access trail near the parking area in the cul de sac.

"At-grade" is not the same as the type of boardwalk construction as the type needed to cross wet marsh areas. The two 50-ft sections on the plan cross wet meadows and would require pier construction. There are specific pier products that limit wetlands impacts - so it's important that we know that detail also. At Pleasantview a product called "diamond piers" was used for some sections.

"At-grade" is pretty simple - you just lay stringers on the ground with crossboards, and set with rebar. More importantly, it doesn't require digging equipment and carting in loads of stonedust, laying a base, etc. There is much less ground disturbance.

Pleasantview trail just downstream has the two boardwalk types.

But - if the developer intended to just leave the trail as bare ground, that's a problem too in that area. Based on experience with Pleasantview - same terrain, same soils - the bare-ground trail sections got eroded very quickly as trail usage increased, and we now find that we need to install at-grade along the remaining bare-ground trail sections that don't have boardwalk. Marty has submitted a grant to do that.

Bottom line, it's important to define these details now - as you have said. Exactly what does developer intend to do, what can we expect him to do? Also - we note that the <u>application</u> says "benches, with scenic view". We don't see that detail or location on the site plan. It's important to know up front the location, specific products intended, especially if Town is going to take on the maintenance. Also - we need to define who is going to do the signage.

Thank you. Ann

Sent from <u>AOL Desktop</u> In a message dated 1/13/2022 3:54:04 PM Eastern Standard Time, GMcGregor@vernonct.gov writes: Ann:

To clarify please for me: are there specific locations the HRLPC wants to see additional boardwalk? Without specificity it is difficult to provide guidance to the applicant or to the Commission.

Based on the language you are using it appears you are asking for the entire segment to be boardwalk, as the segment is either in the riparian corridor, adjacent to wetlands, or in the floodplain.

Please advise.

Thanks.

From: Ann Letendre <annletendr@aol.com> Sent: Thursday, January 13, 2022 12:16 PM To: McGregor, George <GMcGregor@vernon-ct.gov> Subject: [EXTERNAL] HRLP Committee input for Naek

CAUTION: This Email is from an EXTERNAL source. Ensure you trust this sender before clicking on any links or attachments.

Good morning, George.

Attached is input from the HRLP Committee on the Naek Rd application. We haven't seen the terms and conditions of the easement, and didn't have Town Engineer or NCCD inputs, so these comments do not reflect anything that might be forthcoming in those documents, but I wanted to get it to you if you were sending out packets. If those documents are available in the coming week, we'll provide additional comment if needed on any trail-related points that may be in those documents.

Of concern is the type of surface that would be used for the trail. Stonedust should not be used in the river riparian area, next to the wetlands, and near

the floodline. Based on experience in other nearby trail areas along the river, at-grade boardwalk is best.

Thanks, George.

Ann

Sent from AOL Desktop

From:	Ryniewicz, Dwight
To:	Eric Peterson; McGregor, George; Smith, David
Cc:	Schambach, Jeff; Carlson, Anne-Marie
Subject:	RE: [EXTERNAL] FW: Naek Road
Date:	Friday, December 10, 2021 4:16:33 PM

Good afternoon Eric.

We have reviewed the PDF's you sent to Public Works. In regard to refuse & recycle pickup we have concerns over the widths of the roads and the way the roads terminate. This would require large tandem axle trucks to back up excessively. Our routes are designed to avoid backing up trucks as much as possible for safety reasons. The roads appear to be narrow as well which creates an unsafe condition if cars are parked in the road.

This development seems like a good candidate for dumpsters. Have you given consideration to this.

Best Regards. Dwight Ryniewicz Director Town of Vernon 860-870-3500

----Original Message-----From: Eric Peterson <epeterson@gardnerpeterson.com> Sent: Thursday, December 9, 2021 2:33 PM To: McGregor, George <GMcGregor@vernon-ct.gov>; Ryniewicz, Dwight <dryniewicz@vernon-ct.gov> Subject: RE: [EXTERNAL] FW: Naek Road

Hi Dwight:

I am working on a new multifamily project in Vernon located at the end of Naek Road. The project will consist of 70 new dwellings. George McGregor asked me to reach out to you to make sure that you would be ok with regular garbage services for these units. Each unit will have its own driveway that terminates at a garage. I have attached an overall site plan and a architectural rendering so you get an idea of the type of development we are talking about. I expect it will be similar (but larger) than what was recently developed by the Ken Boynton on Dart Hill Road.

Please give me a call if you have any questions. I would be happy to stop by your office if need be.

Thank you,

Eric Peterson, P.E., P.L.S. Gardner & Peterson Associates, LLC 178 Hartford Turnpike Tolland, Connecticut 06084 (860) 871-0808 https://urldefense.com/v3/_http://www.GardnerPeterson.com__;!!K_vE51A!_N479kne4egONWTOEGgP6nlEbFs2YgLz_J-6Z119rN2U1kDPjyGGX1Q5UEObaJk_eEcfST8\$

-----Original Message-----From: McGregor, George Sent: Thursday, December 09, 2021 2:18 PM To: Eric Peterson <epeterson@gardnerpeterson.com> Subject: RE: [EXTERNAL] FW: Naek Road

Can you reach out to Dwight, public works director to make sure Town is ok w regular garbage service for these units?

-----Original Message-----From: Eric Peterson <epeterson@gardnerpeterson.com> Sent: Thursday, December 9, 2021 1:29 PM To: McGregor, George <GMcGregor@vernon-ct.gov> Subject: RE: [EXTERNAL] FW: Naek Road I was expecting to have regular pickup at the end of each driveway and I thought the patios could be over the setback line because they are not considered structures.

Both the same as Boynton's project on Dart Hill Road.

Eric Peterson, P.E., P.L.S. Gardner & Peterson Associates, LLC 178 Hartford Turnpike Tolland, Connecticut 06084 (860) 871-0808 https://urldefense.com/v3/_http://www.GardnerPeterson.com__:!!K_vE51A!5jGrA AFp7XZpyUmAKIqJ7LrrAMHmYutBISxKIhZdRkN7ySEq3zv55xhxqNDMC6EtC89nHkU\$

-----Original Message-----From: McGregor, George Sent: Thursday, December 09, 2021 1:07 PM To: Eric Peterson <epeterson@gardnerpeterson.com> Subject: Fwd: [EXTERNAL] FW: Naek Road

From Andy see below

George K. McGregor, aicp Office: 860-870-3640

Begin forwarded message:

From: "Marchese, Andrew" <amarchese@vernon-ct.gov> Date: December 9, 2021 at 12:04:08 PM EST To: "McGregor, George" <GMcGregor@vernon-ct.gov> Subject: RE: [EXTERNAL] FW: Naek Road

?

1. The dumpster pads are not shown on the proposed site plan.

1. Some of the rear patios are over the set back lines

From: McGregor, George Sent: Thursday, December 9, 2021 12:00 PM To: Marchese, Andrew <amarchese@vernon-ct.gov> Subject: FW: [EXTERNAL] FW: Naek Road

I had him try to simplify. What would you add/what else do you want to see?

From: Eric Peterson <epeterson@gardnerpeterson.com<<u>mailto:epeterson@gardnerpeterson.com</u>>> Sent: Thursday, December 9, 2021 11:59 AM To: McGregor, George <GMcGregor@vernon-ct.gov<<u>mailto:GMcGregor@vernon-ct.gov</u>>> Subject: [EXTERNAL] FW: Naek Road

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George:

How does this plan fit your request? If it is what you were looking for then I will drop off two copies for you.

Eric Peterson, P.E., P.L.S. Gardner & Peterson Associates, LLC 178 Hartford Turnpike Tolland, Connecticut 06084 (860) 871-0808 <u>https://urldefense.com/v3/__http://www.GardnerPeterson.com___:!!K_vE51A!5jGrA</u> AFp7XZpyUmAKIqJ7LrrAMHmYutBISxKIhZdRkN7ySEq3zv55xhxqNDMC6EtC89nHkU\$ <https://urldefense.com/v3/__http://www.gardnerpeterso n.com/__;!!K_vE51A!7hWkVGnWa77sl5TKvZfzGzNasOK6mhiy9etTi77YbHq8rA5XRjeHurgmr 415W7OC2cK1Rq1\$>

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AVON + BLOOMFIELD + BOLTON + BRISTOL + BURLINGTON + CANTON + COVENTRY + EAST GRANBY + EAST WINDSOR + EAST HARTFORD + ELLINGTON ENFIELD + FARMINGTON + GLASTONBURY + GRANBY + HARTFORD + MANCHESTER + PLAINVILLE + SIMSBURY + SOMERS + SOUTH WINDSOR STAFFORD + SUFFIELD + WEST HARTFORD + WETHERSFIELD + TOLLAND + VERNON + WILLINGTON + WINDSOR + WINDSOR LOCKS

Date: January 6, 2022

- To: George K McGregor, AICP, Town Planner Town of Vernon Planning & Zoning Commission
- From: Barbara Kelly, Program Coordinator, Registered Soil Scientist, SSSNE Certified Erosion Control Professional CPESC#2180
- Re: Ste Plan of Development, The Village at Naek Road, 291 & 293 Talcottville Road, 26, 32, 37, 38, & 46 Naek Road, Vernon, Connecticut PZ-2021-08

This review is conducted pursuant to Section 18 of the Town of Vernon Zoning Regulations. The review is limited to certification of the erosion control plan, based on compliance with the <u>2002 Connecticut Guidelines for Soil Erosion and Sediment Control</u> (Guidelines).

District staff inspected the site on December 13, 2021. Staff reviewed a 14-sheet plan titled "The Village at Naek Road, 291 & 293 Talcottville Road, 26, 32, 37, 38, & 46 Naek Road, Vernon, Connecticut" (Plan) prepared by Gardner & Peterson Associates, LLC, and dated March 17, 2021. Observations and the Plan were discussed with the Project Engineer on January 4, 2021.

The Plan shows construction of 17 multi-family townhouse buildings, containing a total of 70 units, as well as the associated utilities, parking, amenities, and stormwater treatment measures on approximately 21.6 acres. Construction necessitates removal of an existing dwelling at 291 Talcottville Road. Proposed soil erosion and sediment control (E&S) measures include silt fence for perimeter control, backed by coir logs on steeper slopes; sediment basins; earthen diversion berms; and inlet protection at catch basins. E&Snotes and details address dust control, seeding of exposed soil, and construction entrances.

Background

The Hockanum River borders proposed development to the north and west.

Based on the Natural Resources Conservation Service Web Soil Survey, soils in the proposed construction area north of Naek Road are mapped as excessively drained Manchester gravelly sandy loam on 3 to 15 percent slopes. While the erosion hazard is moderate, the soil has low resistance to the creation of dust. Soils in the proposed construction area southeast of Naek Road are mapped as well-drained Charlton-Chatfield complex on 0 to 15 percent slopes. The erosion hazard is severe. Wetland soils include both the very poorly drained Timakwa and Natchaug soils on 0 to 2 percent slopes in the interior of the site and the frequently flooded Fluvaquents-Udifluvents complex of soils bordering the Hockanum River. The erosion hazard for these wetland soils is slight.

Observations & Recommendations

While the Construction Schedule does not address phasing, the Plan's Overall Ste Plan of Development shows three phases. Phase I is north of Naek Road. Phases II and III are located southwest of the Naek Road cul-de-sac, with Phase III located further to the west and closer to the Hockanum River than Phase II. Phase I contains areas with up to ten feet of cuts and fills. Much of Phase II will require eight to ten feet of fill and Phase III has areas requiring up to ten feet of cuts and fills. While information on the volume of cuts and fills and/or the net export/import of materials is not currently available, it is likely that site grading will not be phased in order to most effectively balance the movement of earth.

- The Town should consider requiring a meeting with and/or a more detailed grading plan from the site contractor to ensure:
 - Clarification of net movement of materials, including stockpile locations and phasing;
 - Maintenance and potential adaptation of proposed E&S measures, particularly the perimeter controls on the steep slope above the Hockanum River or dust control north of Naek Road; and
 - Immediate stabilization of graded areas slated for later construction phases.

Based on the observed site conditions, the soil erosion and sediment control measures incorporated in the Plan are adequate and appropriate. With consideration of the recommendations noted above, the District certifies that the plan complies with the <u>2002</u> <u>Connecticut Guidelines for Soil Erosion and Sediment Control</u>.

Thank you for the opportunity to comment.

Mr. McCracken

Please find my initial review comments below. As I get other Town departmental reviews, I will forward along. I think we should plan to have a meeting sometime around the later part of the first week of January to discuss any issues raised. These are in no particular order:

- Sidewalks. I see a sidewalk is depicted on one side of Naek Rd and essentially half the cul-de-sac. I realize there are no sidewalks currently to connect to on Talcottville but as we build our network in Vernon, these connections are critical. Therefore, I'd ask that you consider committing to constructing an off premise segment along the frontage of Mr. Hamid's adjacent property to the north. This gets residents of the proposed apartments all the way to the Talcottville corridor where buses and other transit options exist.
- 2. Hockanum linear park trail. This is a great addition to our network, thanks. I think we need to finalize the timing of construction, whether the trail should be contained within a trail or conservation easement, town review of the proposed construction materials, proposed materials etc..When we craft the condition I just want to be clear on whose is responsible for what and when.
- 3. Trail parking area. The 8 spaces shown on gravel I assume are intended for trail access to the public? Does the applicant intend to own the property or are you asking to dedicate that area to the Town along with that small cul-de-sac area?

- 4. Parking. I do want to make sure that parking is adequate, since you are proposing the minimum. Are the surface spaces intended for guests/visitors? In my experience often these townhouse style units have little storage and the garages become storage areas, making parking challenging. Please review.
- A number of the patios shown encroach into the required yards. I do understand there is precedent allowing this (see Boynton Dart Hill) under section 3.30. I suggest a patio detail be added so we can consider and discuss.
- 6. Section 4.24.4.1.7-PDZ requires consideration of bike/ped facilities... "shall provide for pedestrian and bicycle access..." Please consider bicycle racks and sidewalks extensions. Bike racks in the public parking area and/or on site might be a good idea.
- 7. Section 4.24.4.3.15.9—The PDZ requires 3 amenities when providing less than the required yard. The trail, for sure meets one. Please confirm how the project meets the intent of this section. For a fairly dense project there does seem to be a lack of placemaking community amenities beyond the trail (which is great public asset). But, there are no community gathering spots, play areas, vistas, central open space, etc...
- Please be certain to reach out to the police department and Chief Kelley to ensure you are on the January agenda of the traffic Authority.
- 9. FYI I am working with Shaun to make sure you are on the DRC agenda for January 5, 2022.



TOWN OF VERNON

14 PARK PLACE, VERNON, CT 06066-3291 Tel: (860) 870-3667 E-mail: gmcgregor@vernon-ct.gov

OFFICE OF THE TOWN PLANNER

MEMORANDUM

TO: Town of Vernon Planning and Zoning Commission

FROM: George K. McGregor, AICP, Town Planner

SUBJECT: CGS 8-24 Referral – 36 Cubles Dr.

DATE: January 20, 2022

The Town of Vernon has requested a CGS 8-24 referral for the following property:

Location 36 Cubles Dr.

Parcel ID 52-140Q-00004

The Town is considering the potential sale and, or disposition of this property. The parcel is currently undeveloped with no environmental features present.

State statue declares:

"No municipal agency or legislative body shall (1) locate, accept, abandon, widen, narrow or extend any street, bridge, parkway or other public way, (2) locate, relocate, substantially improve, acquire land for, abandon, **sell** or lease any airport, park, playground, school or other **municipally owned property** or public building, (3) locate or extend any public housing, development, redevelopment or urban renewal project, or (4) locate or extend public utilities and terminals for water, sewerage, light, power, transit and other purposes, until the proposal to take such action has been referred to the commission for a report."

The intent in this consideration is for the Commission to review the proposed action and issue a finding on its consistency or lack thereof with the Plan of Conservation and Development.

The business development policies of the POCD support redevelopment and increasing the tax base. Specifically, the POCD emphasizes "promoting redevelopment of vacant buildings and underutilized sites" (page 82).

Therefore, this request is consistent with the adopted POCD.

Town of Vernon, CT



Town of Vernon, CT



September 20, 2021

TaxParcelPublishing 2019



Blue: Band_3

Green: Band_2



Town of Vernon, CT, Aaron Nash, Town of Vernon

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4400

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TRUE TAX VALUE Supplemental Cards

4400

Permit Number Type

MAP INFORMATION MAP: V1 P59 LOT NO: 4

egal Acres: .1100

RCEL NUMBER 2140Q00004 rent Parcel Number operty Address UBLES DR 36 ighborhood 1800 EXEMPT COMMERCIAL operty Class 01 BAAX Municipal XING DISTRICT INFORMATION urisdiction 146 VERNON CT rea 146 outing Number 7653	14 PARK PL VERNON, CT 06066-32 CENSUS TRACT: 53060 2013 Reason for Change	291 00 XEMP	10/01/2013	Date 03/10/1993 01/01/1900 VALUATION RE 10/01/2016	CONN TRADE EXCH7 Bk/Pg: 918, NA Bk/Pg: 464, Bk/CORD	NGE INC 225 71
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	Reason for Change	2011 Reval	2013	2016 Reval	2018	
	VALUATION	55430	55430	4400	4400	
	Market B T	17720	55430 0	4400	4400	
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Printed 08/12/2021 card No. 1

