Please provide 12 copies of ALL materials in the application, including 11"x17" copies of all large scale plans, large scale elevations, etc>

AND

Please provide electronic copies of all materials.

Planning Board Comprehensive Application Form

TO: Applicants

FROM: Newmarket Planning Board

SUBJECT: Guidelines for Processing Applications

The Newmarket Planning Board wants to process applications as speedily as possible. We understand that the Zoning Ordinance and our Regulations are complex and often confusing. These requirements are designed to deal with different situations from single-issue waivers and permits to large-scale residential developments and commercial site plans. Therefore, not all requirements may be applicable to your application.

Although it is not required, it is recommended that before you file your application if you have any questions or concerns, you should discuss your proposal informally with the Town Planner. The Town Planner will review your project conformance with the Town's Ordinances and Regulations and can advise you on procedures for obtaining approval as well as other governmental permits that may be required. Call (603) 659-8501 ext 1315 for an appointment or email: dhardy@newmarketnh.gov. Town of Newmarket Regulations and Ordinances are available online at www.newmarketnh.gov.

The key to receiving a prompt decision is to have all the necessary information in the Planning Department before the Planning Board meeting. All applications **MUST** be submitted to the Planning's office **TWENTY ONE DAYS** prior to the Planning Board meeting at which it will formally be reviewed. The Town Planner will schedule you for a Public Meeting. In order to be scheduled, your application must be substantially complete.

Type and Description of Project (this description will be used for notification purposes, please be detailed):

Application Type:	√	Description of project or application:
Subdivision:	X	Application for a 32-unit age restricted multi-Family development proposed at 242 South Main Street with associated utilities and drainage mitigation/BMPs. A conforming lot will be subdivided off the parent parcel for the existing house.
Site Plan:	X	
Impact Fee Waiver:		
Special (Conditional) Use Permit:	X	
Other:	X	

TOWN OF NEWMARKET
COMPREHENSIVE APPLICATION

Note: This form and all required information must be filed at least **21 days** before the date of the meeting at which it is to be submitted to the Board. Revised plans of any type must be in the office **7 days** prior to the hearing date. Filing is to be done at the **Planning Department, Newmarket Town Hall, 186 Main Street, Newmarket, NH 03857**.

** Note regarding information requested: Name, mailing address, email, and telephone contacts must be supplied for an application to be scheduled for a hearing.

1. Name, mailing address, email, and telephone number of **owner of record**.

DR Lemieux Builders, LLC
PO Box 1163, Rochester, NH 03866-1133

Email: david@lemieuxbuildersllc.com

Phone: 603-292-3555

2. Name, mailing address, telephone numbers (voice and fax) and email of **agent**. The agent is the entity with the legal authority to bring the application to the board on behalf of the landowner. If the owner is not the applicant, the 'Authorization to Act as Agent' section must be filed with the Board.

Beals Associates, PLLC
70 Portsmouth Ave., Stratham, NH 03885

Email: csmith@bealsassociates.com

Phone: 603-583-4860

3. Name, mailing address, and telephone numbers (voice and fax) of **applicant**. An applicant is the entity with authority to represent an agent and/or landowner before the Board and will be responsible for dissemination of all information to the landowner and/or agent. An applicant is often (but not necessarily) a surveyor, engineer, attorney, or real estate professional.
Same as owner of record.

4. Street Location of Subject Parcel: 242 South Main Street

5. Tax Map U4 Lot 69

6. Zoning district property is located in R2

7. Overlay Districts or other regulations affecting Subject Property:

State Highway Permit:	
Wetlands Overlay:	X
Shoreland Protection:	
Aquifer Protection:	
Scenic Roadway:	
State Subdivision:	
Current Use Tax:	
Others (specify)	

8. Special (Conditional) Use Permit:

SPECIAL (CONDITIONAL) USE PERMITS. Pursuant to RSA 674:21,I(i), a provision which permits flexible and discretionary zoning among other innovative land use controls, the Town offers certain discretionary authority to the Planning Board in limited cases where generally stated standards appear inappropriate.

(A) Special (Conditional) Use Permits are provided in the following sections: § 1.05 (A)(3) for expansions of non-conforming uses; § 2.01(B)(2) for optional uses in the mills; § 2.04(B)(2)(a) for self-storage facilities within existing buildings in the mills; § 2.04(B)(2) for optional uses related to the golf course or outdoor recreation; § 2.07 (C) for flexible use development within the B-3 District; 5.01 (C)(7)(a) for excavations in the Aquifer Protection District; § 5.03 for impacts in the Wetland Overlay District; § 5.07(B)(3) for siting telecommunications facilities; § 7.01(B)(3) for permitting large home-based businesses; and § 7.05 Affordable Elderly Housing.

a. Section of Zoning Ordinance authorizing permit:

32-236(c).

b. Information submitted must be sufficient for the Board to rule on the criteria found within the relevant section of ordinance authorizing the permit.

9. Name, mailing address, and telephone numbers (voice and fax) of additional professionals who are authorized to submit additional materials on behalf of the application. Additional professionals may include, but are not limited to: NH Certified Soil Scientist, Wetlands Scientist, Surveyor, Engineer, Attorney, or other Real Estate Professional. etc.

See attached

10. Abutters:

The Application must include a completed and executed copy of Town of Newmarket –Abutter Notification Form. Include Map and Lot numbers of all abutters adjacent to the property. The legal definition for an abutter can be found at NH RSA 672:3, as amended; for purposes of notification, all parties in RSA 6764(l)(d), as amended:

APPLICATION FEES

In accordance with RSA 676:4,I(g), the applicant shall pay the following fees to compensate the Town for its expenses in processing, noticing and reviewing each application, one or more may apply, however, only one notice fee is required:

SUBDIVISION OF LAND

(A) Administration:

(1) Lot Line Adjustment: $70

(2) Subdivision: $500.00 plus $175/lot

(3) Minor Subdivision: $250.00 plus $75/lot

(B) Public Notice:

(1) $75.00 per notice; plus

(2) $7.00 per abutter or other party notified.

(C) Other costs incurred by the Board in reviewing the application (such as engineering, legal, and planner review), as limited in RSA 676:4 and the Newmarket Subdivision Regulations, shall be passed through to the applicant by the Board unless specifically waived.

(D) SEPARATE CHECK MADE OUT TO ROCKINGHAM COUNTY REGISTRY OF DEEDS - $26.00 per sheet. Recording: *No sheets will be recorded until this and all other fees are paid.*

(E) SEPARATE CHECK MADE OUT TO ROCKINGHAM COUNTY REGISTRY OF DEEDS - $25 for State LCHIP (Land & Community Heritage Investment Program) surcharge.

Each Lot/Parcel or Dwelling Unit		2x$75 = $150
Public Notice Fee		$ 75
Abutter Notification [25 (# of abutters) x $7]		$175
Total	$	**$ 650.00**

SITE PLAN REVIEW

(A) Administration:

(1) Minor Review: $125.00

(2) Major Review, one or more of the following shall apply:

(a)	Residential Base Fee	*$250*
	Per Unit	*$125*
(b)	Commercial Base Fee	*$250*
	Plus per square foot of floor space-	
	0-1,000	*$0.12 per sq. ft.*
	1,001-5,000	*$0.10 per sq. ft.*
	5,001-10,000	*$0.08 per sq. ft.*
	10,001+	*$0.05 per sq. ft.*
(c)	Industrial Base Fee	*$250*
	Plus per square foot of floor space-	
	0-1,000	*$0.06 per sq. ft.*
	1,001-5,000	*$0.05 per sq. ft.*
	5,001-10,000	*$0.04 per sq. ft.*
	10,001+	*$0.03 per sq. ft.*

(B) Public Notice:

(1) $75.00 per notice; plus

(2) $7.00 per abutter or other party notified.

(C) Other costs incurred by the Board in reviewing the application (such as engineering, legal, and planner review), as limited in RSA 676:4 and the Newmarket Subdivision Regulations, shall be passed through to the applicant by the Board unless specifically waived.

(D) SEPARATE CHECK MADE OUT TO ROCKINGHAM COUNTY REGISTRY OF DEEDS - $26.00 per sheet. Recording: *No sheets will be recorded until this and all other fees are paid.*

(E) EPARATE CHECK MADE OUT TO ROCKINGHAM COUNTY REGISTRY OF DEEDS -- $25 for State LCHIP (Land & Community Heritage Investment Program) surcharge.

Administration Fee	$300
Public Notice Fee	Paid under subdivision
Abutter Notification [____(# of abutters) x $7]	Paid under subdivision
Total	$ 4,550.00

IMPACT FEE WAIVER or SPECIAL USE PERMIT

(A) Public Notice:

(1) $75.00 per notice; plus

(2) $7.00 per abutter or other party notified.

(B) Other costs incurred by the Board in reviewing the application (such as engineering, legal, and planner review), as limited in RSA 676:4 and the Newmarket Subdivision Regulations, shall be passed through to the applicant by the Board unless specifically waived.

(C) SEPARATE CHECK MADE OUT TO ROCKINGHAM COUNTY REGISTRY OF DEEDS - $26.00 per sheet. Recording: *No sheets will be recorded until this and all other fees are paid.*

Public Notice Fee		$ 75.00
Abutter Notification [25 (# of abutters) x $7]		$175.00
Total	$	**250.00**

Verification & Signature Pages

1. The applicant and/or owner and/or agent, certifies that this application is correctly completed with all required attachments and requirements and that any additional reasonable costs for engineering or professional services incurred by the Planning Board or the Town of Newmarket in the final subdivision process of this property shall be borne by the following party:

   Applicant _____ Owner X Agent X

   ** Failure to indicate a responsible party for fees and associated costs will result in the denial of the application without a public hearing in accordance with RSA 676:4.

2. The owner/agent hereby authorizes the Newmarket Planning Board and its agents to access the subject land for the purpose of reviewing this subdivision plan, performing road inspections and any other inspections deemed necessary by the Board or its agents, to insure conformance of the on-site improvements with the approved plan and all Town of Newmarket ordinances and regulations.

3. The undersigned owner/agent hereby submits to the Newmarket Planning Board a Completed Application Package and respectfully requests its approval of said plat. In considerations for approval and the privileges occurring thereto, the owner hereby agrees, as applicable:

   - To carry out the improvements agreed upon and as shown and intended by said plat, including any work made necessary by unforeseen conditions which become apparent during construction.
   - To provide and install standard street signs as approved by the Town for all street intersections.
   - To give the Town on demand, proper deeds for land or rights of ways reserved on the plat for streets, drainage or other purposes as agreed upon.
   - To save the Town harmless from any obligation it may incur, or repairs it may make, because of my failure to carry out any of the foregoing provisions.
   - To make no changes whatsoever in the Final Plat as approved by the Board unless a revised plan or a plat or new application is submitted and approved by the Board.

- To construct improvements or post the Planning Board's Performance Guarantee to insure completion of the improvements shown on the plat and related drawings.

- There are no known violations of the Town of Newmarket Zoning Ordinance or Newmarket Planning Board Regulations present on the property that have not been disclosed as part of this application.

- To insure proper boundary monumentation at the project's completion in accordance with the Town of Newmarket Subdivision Regulations.

Authorization to Act as Agent

Mr./Ms. Christian O. Smith of Beals Associates, PLLC

is hereby designated as the person whom is authorized to act as my agent in securing any and all permits necessary from the Newmarket Planning Board for the development of my property, all communications to the owner may be addressed to the agent or applicant on the agent's behalf.

Signed: _____

Dated: 2/20/2023

Witness: _____

Owner Address: PO Box 1163, Rochester, NH 03866-1163

By _____

Owner/President or Treasurer if a Corporation

TOWN OF NEWMARKET
ABUTTER NOTIFICATION FORM

Instructions:

1. List the map, parcel, name and mailing address of the property owner and all abutters as shown in Town records not more than 5 days prior to submittal, per RSA 676:4,I(b). This may be typed on a separate sheet. If using another sheet or multiple sheets, please indicate the date of preparation and sign your name on each sheet.

2. As applicable, list the name, mailing address, daytime phone number and fax number of: the Applicant's Authorized Agent; and any surveyor, engineer, architect or soil scientist whose stamp and signature appear in the application materials. Other required abutters are detailed in RSA 676:4(I)(b).

3. **Please attach three adhesive mailing labels for each entry on the list. Label size must not exceed 1" tall by 2.75" long. Labels must be legibly filled out with names & mailing addresses of all parties on abutters list.**

4. **The determination of abutters is the responsibility of the applicant, this list will not be reviewed for compliance with statutory requirements.**

Map	Parcel	Owner	Mailing Address

Date of preparation: 6-15-23

I hereby certify that all information presented on this form is, to the best of my knowledge, correct.

Signature of preparer: Shawna Fournier

Newmarket Site Plan Review Regulations
Major Review
Application Completeness Checklist

Applicable Section of Site Plan Regulations:	(PB Application Checklists.xls)	Provided? YES	NO	N.A.	Waiver Req.
	Application Form:				
2.04 (A)(1)	correctly completed	X			
2.04 (A)(1)	signed by owner(s)	X			
	Abutters List:				
2.04 (A)(2)	includes all abutters	X			
RSA 676:4 I, (b)	includes owner(s)	X			
RSA 676:4 I, (d)	includes authorized representative	X			
2.10	includes towns/regions for regional notice if requred			X	
2.04 (A)(2)	includes 3 sets of mailing labels: 1" X 2.75"	X			
2.04 (A)(2)	signed and dated by preparer	X			
RSA 676:4 I, (b)	dated within 5 days of submittal of application	X			
	Fees:				
2.04 (A)(3)	amount for administration: $ 300.00				
2.04 (A)(3)	amount for public notice: $ 250.00				
	total amount paid: $ 5,200.00				
	correct amount paid	X			
	Site Plan:				
2.04 (A)(4)	three paper copies submitted	X			
4.01	correct size: 22" X 34"	X			
	title block:				
4.03 (A)(1)	title of sheet/name of project	X			
4.03 (A)(2)	name of owner	X			
4.03 (A)(4)	tax map & parcel number	X			
4.03 (A)(5)	name and address fo preparer	X			
	scale:				
4.03 (B)	given in text and graphic form	X			
4.08	correct: 1" = 20'	X			
4.03 (C)	north arrow	X			

	dates:			
4.03 (D)	original preparation	X		
4.03 (D)	updates, with description of changes		X	
	approval sheet:			
4.06 (A)	2" X 4" approval block for Board	X		
4.06 (B)	supplemental plat note w/names & dates	X		
4.06 (C)	locus map	X		
4.07	match lines for multiple sheets	X		
	area of coverage:			
4.09	correctly determined	X		
4.09	supplemental location drawing	X		
4.04	LLS stamp and signature where needed	X		
4.05	PE stamp and signature where needed	X		
	boundary survey:			
4.10 (A)	prepared by LLS	X		
4.10 (A)(1)	complete boundary survey documentation	X		
4.10 (A)(2)	names, addresses and map/parcel of abutters	X		
4.10 (A)(3)	roads, ROWs, intersections & driveways within 50'	X		
	existing conditions on the site:			
4.10 (B)(1)	contours at 2' intervals, with elevation benchmark	X		
4.10 (B)(2)	soil types	X		
4.10 (B)(3)	buildings in plan view, w/sizes and uses	X		
4.10 (B)(4)	approx. location of buildings within 50' of site	X		
4.10 (B)(5)	details of existing site improvements	X		
4.10 (B)(6)	surface waters, stone walls & other resources	X		
4.10 (B)(7)(a)	notes re: easements, deed restrictions, covenants	X		
4.10 (B)(7)(b)	notes re: base and overlay zoning districts	X		
4.10 (B)(7)(c)	notes re: area of lot and length of road frontage	X		
4.10 (B)(8)	municipal and zoning district boundaries	X		
4.10 (B)(9)	setbacks	X		
4.10 (B)(10)	elevation contour of the 100 year floodplain	X		
4.10 (B)(10)	first floor elevations of buildings within floodplain		X	
	proposed site plan:			
4.05	stamped and signed by a PE	X		
4.10 (C)(1)	contours at 2' intervals	X		

4.10 (C)(2)	buildings in plan view, w/sizes and uses	X			
4.10 (C)(3)	design of new or modified site improvements	X			
4.10 (C)(4)	parking calculations	X			
4.10 (C)(4)	accessible parking spaces	X			
4.10 (C)(5)	pedestrian and bicycle facilities	X			
4.10 (C)(6)	snow storage areas	X			
4.10 (C)(10)	wheelchair access	X			
4.10 (C)(7)	landscaping	X			
4.10 (C)(8)	drainage facilities and paths of drainage flow	X			
4.10 (C)(9)	location of utilities, water and sewage disposal	X			
4.10 (C)(12)	solid waste and recycling facilities	X			
4.10 (C)(13)	outdoor lighting	X			
4.10 (C)(11)	elevation contour of the 100 year floodplain	X		X	
4.10 (C)(11)	first floor elevations of buildings within floodplain	X		X	
4.10 (C)(14)(a)	notes re: easements, deed restrictions, covenants	X			
4.10 (C)(14)(b)	notes re: base and overlay zoning districts	X			
4.10 (C)(14)(c)	notes re: area of lot and length of road frontage	X			
4.10 (C)(14)(d)	notes re: calculation of impervious area	X			
4.10 (C)(14)(e)	notes re: plan for snow removal	X			
4.10 (C)(14)(f)	notes re: list of waivers and substitutions	X			
4.10 (C)(15)	other as needed			X	
4.10 (D)	elevation view of the front of prosposed/altered building	X			

Other Documentation:

2.04 (A)(5)(a)	letter to Police Chief	X			
2.04 (A)(5)(a)	letter to Fire Chief	X			
2.04 (A)(5)(a)	letter to Code Enforcement Officer re: compliance	X			
2.04 (A)(5)(a)	letter to Public Works Director	X			
	application for State permits:				
2.04 (A)(5)(b)	septic			X	
2.04 (A)(5)(b)	driveway			X	
2.04 (A)(5)(b)	wetlands			X	
2.04 (A)(5)(b)	site specific			X	
2.04 (A)(5)(b)	underground storage tank			X	
2.04 (A)(5)(b)	other: _____			X	

D. R. Lemieux Builders, LLC
242 So. Main Street, Newmarket, New Hampshire
Map U14; Lot 69

SPECIAL USA PERMIT APPLICATION
SECTION 32-236 – AFFORDABLE ELDERLY HOUSING

INTRODUCTION

The Applicant, D.R. Lemieux Builders, LLC, is proposing a 32-unit multi-family residential affordable elderly housing development on approximately 7.22-acres of land located at 242 So. Main St. in Newmarket, NH (the "Project"), and is identified as Tax Map U4, Lot 69 on the Newmarket tax maps. The Newmarket Zoning Ordinance specifically lists "affordable elderly housing as a permitted use in the R1, R2 & R3 zones through a special use permit pursuant to Section 32-56 & Section 32-236 of the Zoning Ordinance." The property is in the R-2 Zone. The Applicant is aware that a similar affordable elderly housing facility exists in Newmarket called the Wadleigh Falls Senior Housing located at 290 Wadleigh Falls Road in Newmarket (hereinafter referred to as "Wadleigh Falls"). It is respectfully submitted that the projects are similar in nature and will be vital in promoting the intent of the Town when its citizens adopted the provisions of the affordable elderly housing use, which is to permit the establishment and construction of affordable elderly house facilities in the Town of Newmarket.

The property consists of a forest within a large wetland area, a single-family house, and mowed fields. The development will include: a private entrance drive and conforming parking; on-site underground electric, telephone & cable; municipal water and sewer; and Low Impact Development/BMP storm water management and treatment. Proper erosion controls will be proposed where construction could result in sediment transport for the development. The proposal includes an initial two-lot subdivision to create a conventional parcel to remain with the existing residence, and a subsequent/concurrent 32-unit age-restricted multi-family residential development. A crosswalk is proposed across So. Main Street per meetings with DPW & the required lighted crosswalk signs (RRFB) are proposed for oncoming traffic at locations prescribed by the Project traffic engineers.

For the Project to proceed, a special use permit is required from the Planning Board.

SPECIAL USE PERMIT CRITERIA

(1) Any site on which an affordable elderly housing complex is proposed shall be reviewed with respect to the availability of shopping services, medical services, and transportation services thereto, and that the proposed construction and design of the affordable elderly housing complex shall contain the usual amenities and living aids found in housing designed for use by the elderly and as required by state and federal law such as accessibility features, communal facilities, etc.

The selected location of the Project location addresses the first criteria as the Project will be very close to shopping services, medical services, and transportation services. Specifically, the

Project will be within 0.6 miles from the Town Hall, 0.7 miles from the downtown area, providing opportunities to patronize shops, restaurants, coffee shops, medical care, etc. The Project will be within .4 miles of Lamprey Health Care for medical services, within 1 mile to a grocery store, and within 1 mile to public bus transportation.

As to usual amenities and living aids for the elderly, the Project will have a designated Community Room with kitchenette, outdoor communal spaces adjacent to Community Room making it possible for exterior features such as raised garden beds and picnic tables.

In addition, the Project will have a covered front porch, with all public spaces being ADA compliant. Elevator access will be provided to all 3 levels and the Project will have a central laundry facility. All units are designed to be 'adaptable' to allow tenants to remain in their units as they age.

The Project will have quality finishes, Energy Star appliances, LED light fixtures. High performance building envelope and window package that will qualify to the highest standards known as "Passive House." It is likely that this Project will represent the only Passive House project within the Town. The Project will also have Energy Efficient heating/cooling solutions.

(2) That the public interest will be served generally if the proposal were to establish affordable elderly housing on the site and the establishment of an affordable elderly housing complex on the site would not cause a diminution in the property values of surrounding parcels.

By permitting Affordable Elderly Housing, specifically with the R-2 zone, Newmarket declared it to be within the public interest and the general welfare in the Town to permit the Project to address the special housing needs of the elderly. The Project itself could qualify as "affordable," as defined by Section 32-236 (d) of the Newmarket Zoning ordinance, if it only provided 75% affordable elderly units. This Project has been designed to provide that 100% of its units be affordable elderly housing.

The location of the Project is a specific benefit to the elderly given the proximity of services, as outlined above, to the property. Also, the property itself is in an area directly across from the Newmarket Elementary School, as mixed use, non-residential and residential uses are mixed within the neighborhood. The Applicant respectfully submits that the location of this facility is similar, if not better, than the location of the Wadleigh Falls facility which successfully exists only amongst single-family housing uses and is located further from the downtown services and shops than the proposed Project.

In creating the provisions for the affordable elderly housing, the Town and its citizens were careful to specify in what zones the facilities were permitted to be located. Further, the Town in crafting these provisions further limited the areas with the limited zones, but specifying, pursuant to Section 32-236 (f)(2) that such facilities could only be located within properties that have town water and sewer and have frontage on Route 108 from the Newfields boundary north of Elm Street, Route 152 or Bennett Way. The project satisfies these limiting criteria as the property is served by Town water and sewer and is located on Route 152.

In addition to the above, the Applicant has requested that the issue of diminution of value also be addressed by Brian White of White Appraisals, LLC, a Certified General appraiser by the State of New Hampshire and a MAI and SRA designated appraiser with the Appraisal Institute (see attached report).

(3) That any conflicts with the character of the adjacent properties will be minimal in terms of the size and bulk of the visible buildings, through the use of buffers, landscaping or location of the buildings on site. This provision is meant to assure that facilities are reasonably consistent either with residential style buildings or sufficiently secluded so as to minimize negative impacts to abutting property.

The building has been oriented in a way to minimize visible bulk of building, fronting the street with the shorter edge. This maintains expanded views to the fields beyond for the neighbors across the street.

The architectural style is in keeping with the residential style of surrounding buildings. Particular attention has been paid to keeping the building at the same height as the Wadleigh Falls building by locating the third floor units within the attic space of the building, with dormers utilized to minimize the size of the building.

As depicted on the project landscaping plan, robust landscaping to buffer the parking lot and shield residences across the street from headlights has been designed. The trees along the street and throughout the site mask and scale down the building from street/neighboring views. Specifically, a 10' wide buffer strip between the building and parking and the street will be planted with a mix of trees and shrubs including seven trees and 153 shrubs. The shrubs will be layered with taller species (4-5'ht) in the rear and medium height shrubs in the front (3-4'ht) and will be a mix of deciduous and evergreens for year-round coverage. The mixed heights of these shrubs will screen the parked cars while the canopies of the proposed trees in the buffer as well as those located in and around the parking lot will soften and partially screen the building.

All site lighting will be 'dark sky friendly' to control light pollution on property by minimizing glare while reducing light trespass and skyglow.

(4) The development shall be landscaped so as to enhance its compatibility with the town with emphasis given to the use of existing natural features where possible.

Please see the professionally designed landscaping plan.

In addition, the proposed landscape offers a balanced approach to providing screening and separation of the building from the street and the adjacent properties while still connecting the residents to the neighborhood. The project design team discussed the buffering aspect of the project at length during the design process feeling that it is important to meet the criteria for the special use permit but at the same time allow the residents a visual connection to the street, the life of the neighborhood and the surrounding community. Certainly, the easiest means to minimize the impact of the proposed building would be a solid wall of evergreens between the project and the street. If directed by the planning board, the applicant will do this to meet the criteria.

However, it is the opinion of the landscape architect and design team that a handsome, mixed buffer can provide adequate separation and minimize the building without being a large green wall that visually isolates the elderly residents from the surrounding community. The proposed landscape, by using a mixed screen will soften and screen the impact of the building while still allowing connection and "compatibility with the town" far better than a green wall.

(5) The design and site layout of the development shall emphasize the rural character of the town, maximize the privacy of the dwelling units, preserve the natural character of land, provide for the separation of parking and neighboring residential uses, and consider such factors as orientation, energy usage, views, etc.

The design of the building uses existing forms and styles within Newmarket and is consistent with its rural character. The third floor is tucked under the eaves with dormers to minimize the overall building height and be consistent with surrounding properties.

Special attention has been paid to the material selection to be consistent with surrounding residential properties. The colors selected help the building settle into the landscape and minimize overall impact on the site.

Locating the building development along the street side of the property allows for the fields and wetlands in the rear of the property to remain intact, supporting the existing wildlife ecosystem. As stated above, the Applicant has also designed the Project so that the building will be oriented in a way that minimizes the visible bulk of the building to preserve the expanded views of the fields beyond the Project for neighbors across the street.

The location of the building preserves a significant naturel resource, which is a very large wetland area in the rear of the property. Maintaining this area is not only critical to the environment, but any lack of disturbance with the rear of the property will serve to protect the interest of the neighbors that abut the rear portion of the property. The uses, as proposed, serve to protect the integrity of the entire environmentally sensitive areas and resources on the property.

(6) Parking facilities shall comply with the existing site plan review regulations, unless the planning board authorizes waivers in accordance with information submitted showing a decreased need in parking. The planning board may require land to be set-aside for future parking facilities and require adequate financial security to assure its construction with the Newmarket Site Review Regulations.

The parking facilities comply with the Newmarket site plan review regulations. In addition, the Applicant has increased the handicap parking spaces to 4 from the required 2.

(7) Seventy-five percent of all units on the site shall be identified as and remain affordable in accordance with this section for as long as the on-site structures fail to comply with all other zoning requirements of the underlying district.

100% of the units will be identified and remain as affordable, as required by this Criteria.

(8) Affordable elderly housing facilities shall not include manufactured housing units.

None of the building uses for the Project will be manufactured housing units.

5515

DR LEMIEUX BUILDERS LLC
P.O. BOX 1163
ROCHESTER, NEW HAMPSHIRE 03866

BANK OF NEW ENGLAND
Salem, New Hampshire
54-185/114

6/19/2023

PAY TO THE ORDER OF Town of Newmarket

$ **4,550.00

Four Thousand Five Hundred Fifty and 00/100********** DOLLARS

Town of Newmarket
186 Main Street
Newmarket, NH 03857

AUTHORIZED SIGNATURE

MEMO 242 So. Main Site Plan App. Fee

Security features. Details on back.

⑈005515⑈ ⑆011401850⑆ 1058197⑈

5516

DR LEMIEUX BUILDERS LLC
P.O. BOX 1163
ROCHESTER, NEW HAMPSHIRE 03866

BANK OF NEW ENGLAND
Salem, New Hampshire
54-185/114

6/19/2023

PAY TO THE ORDER OF Town of Newmarket

$ **650.00

Six Hundred Fifty and 00/100********** DOLLARS

Town of Newmarket
186 Main Street
Newmarket, NH 03857

AUTHORIZED SIGNATURE

MEMO 242 So. Main Subdivision App. Fee

Security features. Details on back.

⑈005516⑈ ⑆011401850⑆ 1058197⑈

ABUTTERS LIST
FOR
NH- 1449 LEMIEUX– NEWMARKET, NH
DATE JUNE 14, 2023

SUBJECT PARCEL

TAX MAP/LOT	OWNER OF RECORD
U4-69 242 SOUTH MAIN ST. NEWMARKET	D.R. LEMIEUX 76 EXETER RD. NEWMARKET, NH 03857

ABUTTERS

TAX MAP/LOT	OWNER OF RECORD
R5-93	GENE & CHRISTINA COLLOLLY 1 GRANT RD. NEWMARKET, NH 03857
R5-95	NEWMARKET SCHOOL DISTRICT 186 A MAIN ST. NEWMARKET, NH 03857
U4-53	NEWMARKET SCHOOL DISTRICT 239 SOUTH MAIN ST. NEWMARKET, NH 03857
U4-54	GARY M MASTIN REVOCABLE TRUST 2002 GARY M. MASTIN TRUSTEE 15 CAROLYN DR. NEWMARKET, NH 03857
U4-55	AUTHOR D. & THORA CONRAD 245 SOUTH MAIN ST. NEWMARKET, NH 03857
U4-56	AGATHA A. HALLIDAY 247 SOUTH MAIN ST. NEWMARKET, NH 03857
U4-57	LINDA DOSHIER REVOCABLE TRUST LINDA DOSHIER TRUSTEE PO BOX 242 NEWMARKET, NH 03857
U4-65	ELIZABETH C. DOWST 255 WADLEIGH FALLS RD. NEWMARKET, NH 03857
U4-66	CHRISTINE H. HEGARTY TRUST CHRISTINE H. HEGARTY TRUSTEE 259 WADLEIGH FALLS RD. NEWMARKET, NH 03857

ABUTTERS LIST
FOR
NH- 1449 LEMIEUX– NEWMARKET, NH
DATE JUNE 14, 2023

U4-68-A	ANDREA BIEN MICHAEL ASCIOLA 258 WADLEIGH FALLS RD. #A NEWMARKET, NH 03857
U4-68-B	OLUWABUSOLA OYEDIRAN 258 WADLEIGH FALLS RD. #B NEWMARKET, NH 03857
U4-70	EDWARD A. SURACI 240 SOUTH MAIN ST. NEWMARKET. NH 03857
U4-71-A	GAIL P & EDMUND WASIEWSKI 236 SOUTH MAIN ST. NEWMARKET, NH 03857
U4-71-B	GAIL P & EDMUND WASIEWSKI 236 SOUTH MAIN ST. NEWMARKET, NH 03857
U4-82	TIMOTHY & JESSICA NOYES 38 MAPLECREST NEWMARKET, NH 03857
U4-83	SHARON MCCRILLIS 36 MAPLECREST NEWMARKET, NH 03857
U4-84	DAWN MAZUR REV TRUST 2020 DAWN MAZUR TRUSTEE 34 MAPLECREST NEWMARKET, NH 03857
U4-85	DAMIAN I. SANTANA LAUREN MCGINLEY 32 MAPLECREST NEWMARKET, NH 03857

ABUTTERS LIST
FOR
NH- 1449 LEMIEUX– NEWMARKET, NH
DATE JUNE 14, 2023

PROFESSIONALS

ENGINEERING FIRM	BEALS ASSOCIATES, PLLC. 70 PORTSMOUTH AVE. 3RD FLOOR STRATHAM, NH 03885
CLIENT	FX BRUTON 601 CENTRAL AVE. DOVER, NH 03821
SURVEYOR	DOUCET SURVEY, INC. 102 KENT PLACE NEWMARKET, NH 03857
WETLAND SCIENTIST	GOVE ENVIRONMENTAL 8 CONTINENTAL DR. BLDG. 2 UNIT H EXETER, NH 03833
ARCHITECT	LASSEL ARCHITECTURE PO BOX 370 370 MAIN ST. SOUTH BERWICK, ME 03908
LANDSCAPE ARCHITECT	WOODBURN & CO. ARCHITECTURE 103 KENT PLACE NEWMARKET, NH 03857
TRAFFIC ENGINEER	VANASSE & ASSOCIATES 35 NEW ENGLAND BUSINESS CENTER DR. SUITE 140 ANDOVER, MA 01810

D.R. LEMIEUX
76 EXETER RD.
NEWMARKET, NH 03857

D.R. LEMIEUX
76 EXETER RD.
NEWMARKET, NH 03857

D.R. LEMIEUX
76 EXETER RD.
NEWMARKET, NH 03857

GENE & CHRISTINA COLLOLLY
1 GRANT RD.
NEWMARKET, NH 03857

GENE & CHRISTINA COLLOLLY
1 GRANT RD.
NEWMARKET, NH 03857

GENE & CHRISTINA COLLOLLY
1 GRANT RD.
NEWMARKET, NH 03857

NEWMARKET SCHOOL DISTRICT
186 A MAIN ST.
NEWMARKET, NH 03857

NEWMARKET SCHOOL DISTRICT
186 A MAIN ST.
NEWMARKET, NH 03857

NEWMARKET SCHOOL DISTRICT
186 A MAIN ST.
NEWMARKET, NH 03857

GARY M MASTIN REVOCABLE TRUST
2002
GARY M. MASTIN TRUSTEE
15 CAROLYN DR.
NEWMARKET, NH 03857

GARY M MASTIN REVOCABLE TRUST
2002
GARY M. MASTIN TRUSTEE
15 CAROLYN DR.
NEWMARKET, NH 03857

GARY M MASTIN REVOCABLE TRUST
2002
GARY M. MASTIN TRUSTEE
15 CAROLYN DR.
NEWMARKET, NH 03857

AUTHOR D. & THORA CONRAD
245 SOUTH MAIN ST.
NEWMARKET, NH 03857

AUTHOR D. & THORA CONRAD
245 SOUTH MAIN ST.
NEWMARKET, NH 03857

AUTHOR D. & THORA CONRAD
245 SOUTH MAIN ST.
NEWMARKET, NH 03857

AGATHA A. HALLIDAY
247 SOUTH MAIN ST.
NEWMARKET, NH 03857

AGATHA A. HALLIDAY
247 SOUTH MAIN ST.
NEWMARKET, NH 03857

AGATHA A. HALLIDAY
247 SOUTH MAIN ST.
NEWMARKET, NH 03857

LINDA DOSHIER REVOCABLE TRUST
LINDA DOSHIER TRUSTEE
PO BOX 242
NEWMARKET, NH 03857

LINDA DOSHIER REVOCABLE TRUST
LINDA DOSHIER TRUSTEE
PO BOX 242
NEWMARKET, NH 03857

LINDA DOSHIER REVOCABLE TRUST
LINDA DOSHIER TRUSTEE
PO BOX 242
NEWMARKET, NH 03857

ELIZABETH C. DOWST
255 WADLEIGH FALLS RD.
NEWMARKET, NH 03857

ELIZABETH C. DOWST
255 WADLEIGH FALLS RD.
NEWMARKET, NH 03857

ELIZABETH C. DOWST
255 WADLEIGH FALLS RD.
NEWMARKET, NH 03857

CHRISTINE H. HEGARTY TRUST
CHRISTINE H. HEGARTY TRUSTEE
259 WADLEIGH FALLS RD.
NEWMARKET, NH 03857

CHRISTINE H. HEGARTY TRUST
CHRISTINE H. HEGARTY TRUSTEE
259 WADLEIGH FALLS RD.
NEWMARKET, NH 03857

CHRISTINE H. HEGARTY TRUST
CHRISTINE H. HEGARTY TRUSTEE
259 WADLEIGH FALLS RD.
NEWMARKET, NH 03857

ANDREA BIEN
MICHAEL ASCIOLA
258 WADLEIGH FALLS RD. #A
NEWMARKET, NH 03857

ANDREA BIEN
MICHAEL ASCIOLA
258 WADLEIGH FALLS RD. #A
NEWMARKET, NH 03857

ANDREA BIEN
MICHAEL ASCIOLA
258 WADLEIGH FALLS RD. #A
NEWMARKET, NH 03857

OLUWABUSOLA OYEDIRAN
258 WADLEIGH FALLS RD. #B
NEWMARKET, NH 03857

EDWARD A. SURACI
240 SOUTH MAIN ST.
NEWMARKET, NH 03857

GAIL P & EDMUND WASIEWSKI
236 SOUTH MAIN ST.
NEWMARKET, NH 03857

TIMOTHY & JESSICA NOYES
38 MAPLECREST
NEWMARKET, NH 03857

SHARON MCCRILLIS
36 MAPLECREST
NEWMARKET, NH 03857

DAWN MAZUR REV TRUST 2020
DAWN MAZUR TRSTEE
34 MAPLECREST
NEWMARKET, NH 03857

DAMIAN I. SANTANA
LAUREN MCGINLEY
32 MAPLECREST
NEWMARKET, NH 03857

BEALS ASSOCIATES, PLLC.
70 PORTSMOUTH AVE. 3RD FLOOR
STRATHAM, NH 03885

FX BRUTON
601 CENTRAL AVE.
DOVER, NH 03821

DOUCET SURVEY, INC.
102 KENT PLACE
NEWMARKET, NH 03857

OLUWABUSOLA OYEDIRAN
258 WADLEIGH FALLS RD. #B
NEWMARKET, NH 03857

EDWARD A. SURACI
240 SOUTH MAIN ST.
NEWMARKET, NH 03857

GAIL P & EDMUND WASIEWSKI
236 SOUTH MAIN ST.
NEWMARKET, NH 03857

TIMOTHY & JESSICA NOYES
38 MAPLECREST
NEWMARKET, NH 03857

SHARON MCCRILLIS
36 MAPLECREST
NEWMARKET, NH 03857

DAWN MAZUR REV TRUST 2020
DAWN MAZUR TRSTEE
34 MAPLECREST
NEWMARKET, NH 03857

DAMIAN I. SANTANA
LAUREN MCGINLEY
32 MAPLECREST
NEWMARKET, NH 03857

BEALS ASSOCIATES, PLLC.
70 PORTSMOUTH AVE. 3RD FLOOR
STRATHAM, NH 03885

FX BRUTON
601 CENTRAL AVE.
DOVER, NH 03821

DOUCET SURVEY, INC.
102 KENT PLACE
NEWMARKET, NH 03857

OLUWABUSOLA OYEDIRAN
258 WADLEIGH FALLS RD. #B
NEWMARKET, NH 03857

EDWARD A. SURACI
240 SOUTH MAIN ST.
NEWMARKET, NH 03857

GAIL P & EDMUND WASIEWSKI
236 SOUTH MAIN ST.
NEWMARKET, NH 03857

TIMOTHY & JESSICA NOYES
38 MAPLECREST
NEWMARKET, NH 03857

SHARON MCCRILLIS
36 MAPLECREST
NEWMARKET, NH 03857

DAWN MAZUR REV TRUST 2020
DAWN MAZUR TRSTEE
34 MAPLECREST
NEWMARKET, NH 03857

DAMIAN I. SANTANA
LAUREN MCGINLEY
32 MAPLECREST
NEWMARKET, NH 03857

BEALS ASSOCIATES, PLLC.
70 PORTSMOUTH AVE. 3RD FLOOR
STRATHAM, NH 03885

FX BRUTON
601 CENTRAL AVE.
DOVER, NH 03821

DOUCET SURVEY, INC.
102 KENT PLACE
NEWMARKET, NH 03857

GOVE ENVIRONMENTAL
8 CONTINENTAL DR. BLDG. 2 UNIT H
EXETER, NH 03833

LASSEL ARCHITECTURE
PO BOX 370
370 MAIN ST.
SOUTH BERWICK, ME 03908

WOODBURN & CO. ARCHITECTURE
103 KENT PLACE
NEWMARKET, NH 03857

VANASSE & ASSOCIATES
35 NEW ENGLAND BUSINESS CENTER DR.
SUITE 140
ANDOVER, MA 01810

GOVE ENVIRONMENTAL
8 CONTINENTAL DR. BLDG. 2 UNIT H
EXETER, NH 03833

LASSEL ARCHITECTURE
PO BOX 370
370 MAIN ST.
SOUTH BERWICK, ME 03908

WOODBURN & CO. ARCHITECTURE
103 KENT PLACE
NEWMARKET, NH 03857

VANASSE & ASSOCIATES
35 NEW ENGLAND BUSINESS CENTER DR.
SUITE 140
ANDOVER, MA 01810

GOVE ENVIRONMENTAL
8 CONTINENTAL DR. BLDG. 2 UNIT H
EXETER, NH 03833

LASSEL ARCHITECTURE
PO BOX 370
370 MAIN ST.
SOUTH BERWICK, ME 03908

WOODBURN & CO. ARCHITECTURE
103 KENT PLACE
NEWMARKET, NH 03857

VANASSE & ASSOCIATES
35 NEW ENGLAND BUSINESS CENTER DR.
SUITE 140
ANDOVER, MA 01810

E # 22040072 09/16/2022 11:29:30 AM
Book 6439 Page 1906 Page 1 of 2
Register of Deeds, Rockingham County

Return to:
David Lemieux
P.O. Box 1163
Rochester, NH 03866

LCHIP	ROA631117	25.00
TRANSFER TAX	RO118433	8,625.00
RECORDING		14.00
SURCHARGE		2.00

FIDUCIARY DEED

KNOW ALL PERSONS BY THESE PRESENTS, that I, **David J. Crooker, Executor of the Estate of Geraldine J. Crooker**, of 1539 Red Rock Court, Vienna, VA 22182, by the power conferred by the 10th Circuit – Probate Division – Brentwood, Docket #318-2022-ET-00669, dated June 9, 2022, and every other power, for consideration in the amount of Five Hundred Seventy-Five Thousand and 00/100 Dollars ($575,000.00), grant to **D.R. Lemieux Builders, LLC**, a New Hampshire limited liability company, with an address of 76 Exeter Road, Newmarket, NH 03857, with **FIDUCIARY** covenants, the following described premises:

A certain tract or parcel of land situated in Newmarket, County of Rockingham, New Hampshire, on the Northerly side of the road leading from Newmarket to Wadley's Falls and bounded and described as follows:

North by land now or formerly of Jessie Carpenter; East by land now or formerly of Andrew Kruczek and land now or formerly of Thomas J. Brackett; South by said road leading from Newmarket to Wadley's Falls and Westerly by land now or formerly of Edwin Kimball.

Meaning and intending to describe and convey the same premises conveyed by Warranty Deed of Tekla Kieltyka to John Bogacz and Stephany Katherine Bogacz, dated October 26, 1953 and recorded in the Rockingham County Registry of Deeds at Book 1298, Page 409. Stephany Katherine Bogacz (a/k/a Stephanie Bogacz) died on August 11, 1988; see Certified Death Certificate recorded herewith. See also Estate of John Bogacz, 10th Circuit – Probate Division – Brentwood, Docket #318-1997-ET-0106. See also Consent to Sale, Estate of Geraldine J. Crooker, 10th Circuit – Probate Division – Brentwood, Docket #318-2022-ET-00669.

The premises conveyed hereby are not homestead property.

EXECUTED this 09 day of September, 2022.

ESTATE OF GERALDINE J. CROOKER

By: _____
David J. Crooker, Executor

STATE OF VIRGINIA
COUNTY OF FAIRFAX

This instrument was acknowledged before me on this 09 day of September, 2022, by David J. Crooker, as the duly appointed Executor of the Estate of Geraldine J. Crooker, on behalf of said NH estate.

AMEL NOUALI
COMMONWEALTH OF VIRGINIA
#7801160
COMMISSION EXPIRES
07/31/2026
NOTARY PUBLIC

_____
Notary Public
My commission expires: 07/31/2026
(*Notary Seal*)

BA BEALS
ASSOCIATES, PLLC
Land Planning · Civil Engineering
Landscape Architecture · Septic Design & Evaluation
Stratham, NH

May 22, 2023

Town of Newmarket Planning Board
186 Main Street
Newmarket, NH 03857

RE: Letter of Explanation - Proposed Age-Restricted Development – 242 So. Main St.

Dear Members of the Board:

DR Lemieux Builders is proposing a 32-unit age-restricted multi-family residential development on approximately 7.22-acres of land located at 242 So. Main St.in Newmarket, NH. The existing property is located on a parcel (Tax Map U4, Lot 69) consisting of forest, a single-family house and mowed fields. The development will include: a private entrance drive and conforming parking; on-site underground electric, telephone & cable; municipal water and sewer; and Low Impact Development/BMP storm water management and treatment. Proper erosion controls will be proposed where construction could result in sediment transport for the development. The proposal (as stated above) includes an initial two-lot subdivision to create a conventional parcel to remain with the existing residence, and a subsequent/concurrent 32-unit age-restricted multi-family residential development. The development would include: on-site underground electric, telephone & cable; municipal water and sewer services; and Low Impact Development/BMP storm water management and treatment. Proper erosion controls will be proposed where construction could result in sediment transport for the development. A crosswalk is proposed across So. Main per meetings with DPW & the required lighted cross-walk signs (RRFB) are proposed for oncoming traffic at locations prescribed by our traffic engineers. A special Use Permit is required from the Planning Board to allow the affordable elderly housing use. Thank you in advance for your consideration.

Very truly yours,
BEALS ASSOCIATES, PLLC

Christian Smith

Christian O. Smith, P.E.
Principal

D. R. Lemieux Builders, LLC
242 So. Main Street, Newmarket, New Hampshire
Map U14; Lot 69

SPECIAL USA PERMIT APPLICATION
SECTION 32-236 – AFFORDABLE ELDERLY HOUSING

INTRODUCTION

The Applicant, D.R. Lemieux Builders, LLC, is proposing a 32-unit multi-family residential affordable elderly housing development on approximately 7.22-acres of land located at 242 So. Main St. in Newmarket, NH (the "Project"), and is identified as Tax Map U4, Lot 69 on the Newmarket tax maps. The Newmarket Zoning Ordinance specifically lists "affordable elderly housing as a permitted use in the R1, R2 & R3 zones through a special use permit pursuant to Section 32-56 & Section 32-236 of the Zoning Ordinance." The property is in the R-2 Zone. The Applicant is aware that a similar affordable elderly housing facility exists in Newmarket called the Wadleigh Falls Senior Housing located at 290 Wadleigh Falls Road in Newmarket (hereinafter referred to as "Wadleigh Falls"). It is respectfully submitted that the projects are similar in nature and will be vital in promoting the intent of the Town when its citizens adopted the provisions of the affordable elderly housing use, which is to permit the establishment and construction of affordable elderly house facilities in the Town of Newmarket.

The property consists of a forest within a large wetland area, a single-family house, and mowed fields. The development will include: a private entrance drive and conforming parking; on-site underground electric, telephone & cable; municipal water and sewer; and Low Impact Development/BMP storm water management and treatment. Proper erosion controls will be proposed where construction could result in sediment transport for the development. The proposal includes an initial two-lot subdivision to create a conventional parcel to remain with the existing residence, and a subsequent/concurrent 32-unit age-restricted multi-family residential development. A crosswalk is proposed across So. Main Street per meetings with DPW & the required lighted crosswalk signs (RRFB) are proposed for oncoming traffic at locations prescribed by the Project traffic engineers.

For the Project to proceed, a special use permit is required from the Planning Board.

SPECIAL USE PERMIT CRITERIA

(1) Any site on which an affordable elderly housing complex is proposed shall be reviewed with respect to the availability of shopping services, medical services, and transportation services thereto, and that the proposed construction and design of the affordable elderly housing complex shall contain the usual amenities and living aids found in housing designed for use by the elderly and as required by state and federal law such as accessibility features, communal facilities, etc.

The selected location of the Project location addresses the first criteria as the Project will be very close to shopping services, medical services, and transportation services. Specifically, the

Project will be within 0.6 miles from the Town Hall, 0.7 miles from the downtown area, providing opportunities to patronize shops, restaurants, coffee shops, medical care, etc. The Project will be within .4 miles of Lamprey Health Care for medical services, within 1 mile to a grocery store, and within 1 mile to public bus transportation.

As to usual amenities and living aids for the elderly, the Project will have a designated Community Room with kitchenette, outdoor communal spaces adjacent to Community Room making it possible for exterior features such as raised garden beds and picnic tables.

In addition, the Project will have a covered front porch, with all public spaces being ADA compliant. Elevator access will be provided to all 3 levels and the Project will have a central laundry facility. All units are designed to be 'adaptable' to allow tenants to remain in their units as they age.

The Project will have quality finishes, Energy Star appliances, LED light fixtures. High performance building envelope and window package that will qualify to the highest standards known as "Passive House." It is likely that this Project will represent the only Passive House project within the Town. The Project will also have Energy Efficient heating/cooling solutions.

(2) That the public interest will be served generally if the proposal were to establish affordable elderly housing on the site and the establishment of an affordable elderly housing complex on the site would not cause a diminution in the property values of surrounding parcels.

By permitting Affordable Elderly Housing, specifically with the R-2 zone, Newmarket declared it to be within the public interest and the general welfare in the Town to permit the Project to address the special housing needs of the elderly. The Project itself could qualify as "affordable," as defined by Section 32-236 (d) of the Newmarket Zoning ordinance, if it only provided 75% affordable elderly units. This Project has been designed to provide that 100% of its units be affordable elderly housing.

The location of the Project is a specific benefit to the elderly given the proximity of services, as outlined above, to the property. Also, the property itself is in an area directly across from the Newmarket Elementary School, as mixed use, non-residential and residential uses are mixed within the neighborhood. The Applicant respectfully submits that the location of this facility is similar, if not better, than the location of the Wadleigh Falls facility which successfully exists only amongst single-family housing uses and is located further from the downtown services and shops than the proposed Project.

In creating the provisions for the affordable elderly housing, the Town and its citizens were careful to specify in what zones the facilities were permitted to be located. Further, the Town in crafting these provisions further limited the areas with the limited zones, but specifying, pursuant to Section 32-236 (f)(2) that such facilities could only be located within properties that have town water and sewer and have frontage on Route 108 from the Newfields boundary north of Elm Street, Route 152 or Bennett Way. The project satisfies these limiting criteria as the property is served by Town water and sewer and is located on Route 152.

In addition to the above, the Applicant has requested that the issue of diminution of value also be addressed by Brian White of White Appraisals, LLC, a Certified General appraiser by the State of New Hampshire and a MAI and SRA designated appraiser with the Appraisal Institute (see attached report).

(3) That any conflicts with the character of the adjacent properties will be minimal in terms of the size and bulk of the visible buildings, through the use of buffers, landscaping or location of the buildings on site. This provision is meant to assure that facilities are reasonably consistent either with residential style buildings or sufficiently secluded so as to minimize negative impacts to abutting property.

The building has been oriented in a way to minimize visible bulk of building, fronting the street with the shorter edge. This maintains expanded views to the fields beyond for the neighbors across the street.

The architectural style is in keeping with the residential style of surrounding buildings. Particular attention has been paid to keeping the building at the same height as the Wadleigh Falls building by locating the third floor units within the attic space of the building, with dormers utilized to minimize the size of the building.

As depicted on the project landscaping plan, robust landscaping to buffer the parking lot and shield residences across the street from headlights has been designed. The trees along the street and throughout the site mask and scale down the building from street/neighboring views. Specifically, a 10' wide buffer strip between the building and parking and the street will be planted with a mix of trees and shrubs including seven trees and 153 shrubs. The shrubs will be layered with taller species (4-5'ht) in the rear and medium height shrubs in the front (3-4'ht) and will be a mix of deciduous and evergreens for year-round coverage. The mixed heights of these shrubs will screen the parked cars while the canopies of the proposed trees in the buffer as well as those located in and around the parking lot will soften and partially screen the building.

All site lighting will be 'dark sky friendly' to control light pollution on property by minimizing glare while reducing light trespass and skyglow.

(4) The development shall be landscaped so as to enhance its compatibility with the town with emphasis given to the use of existing natural features where possible.

Please see the professionally designed landscaping plan.

In addition, the proposed landscape offers a balanced approach to providing screening and separation of the building from the street and the adjacent properties while still connecting the residents to the neighborhood. The project design team discussed the buffering aspect of the project at length during the design process feeling that it is important to meet the criteria for the special use permit but at the same time allow the residents a visual connection to the street, the life of the neighborhood and the surrounding community. Certainly, the easiest means to minimize the impact of the proposed building would be a solid wall of evergreens between the project and the street. If directed by the planning board, the applicant will do this to meet the criteria.

However, it is the opinion of the landscape architect and design team that a handsome, mixed buffer can provide adequate separation and minimize the building without being a large green wall that visually isolates the elderly residents from the surrounding community. The proposed landscape, by using a mixed screen will soften and screen the impact of the building while still allowing connection and "compatibility with the town" far better than a green wall.

(5) The design and site layout of the development shall emphasize the rural character of the town, maximize the privacy of the dwelling units, preserve the natural character of land, provide for the separation of parking and neighboring residential uses, and consider such factors as orientation, energy usage, views, etc.

The design of the building uses existing forms and styles within Newmarket and is consistent with its rural character. The third floor is tucked under the eaves with dormers to minimize the overall building height and be consistent with surrounding properties.

Special attention has been paid to the material selection to be consistent with surrounding residential properties. The colors selected help the building settle into the landscape and minimize overall impact on the site.

Locating the building development along the street side of the property allows for the fields and wetlands in the rear of the property to remain intact, supporting the existing wildlife ecosystem. As stated above, the Applicant has also designed the Project so that the building will be oriented in a way that minimizes the visible bulk of the building to preserve the expanded views of the fields beyond the Project for neighbors across the street.

The location of the building preserves a significant naturel resource, which is a very large wetland area in the rear of the property. Maintaining this area is not only critical to the environment, but any lack of disturbance with the rear of the property will serve to protect the interest of the neighbors that abut the rear portion of the property. The uses, as proposed, serve to protect the integrity of the entire environmentally sensitive areas and resources on the property.

(6) Parking facilities shall comply with the existing site plan review regulations, unless the planning board authorizes waivers in accordance with information submitted showing a decreased need in parking. The planning board may require land to be set-aside for future parking facilities and require adequate financial security to assure its construction with the Newmarket Site Review Regulations.

The parking facilities comply with the Newmarket site plan review regulations. In addition, the Applicant has increased the handicap parking spaces to 4 from the required 2.

(7) Seventy-five percent of all units on the site shall be identified as and remain affordable in accordance with this section for as long as the on-site structures fail to comply with all other zoning requirements of the underlying district.

100% of the units will be identified and remain as affordable, as required by this Criteria.

(8) Affordable elderly housing facilities shall not include manufactured housing units.

None of the building uses for the Project will be manufactured housing units.

RESIDENTIAL SITE PLAN
242 SOUTH MAIN ST.
TAX MAP U4, LOT 69

CIVIL ENGINEERS:

BA BEALS ASSOCIATES, PLLC

70 PORTSMOUTH AVE,
THIRD FLOOR, SUITE 2
STRATHAM, N.H. 03885
PHONE: 603-583-4860,
FAX. 603-583-4863

STATE OF NEW HAMPSHIRE
CHRISTIAN O. SMITH
No. 9900
PROFESSIONAL ENGINEER

LAND SURVEYOR:

DOUCET SURVEY INC
Serving Your Professional Surveying & Mapping Needs
102 Kent Place, Newmarket, NH 03857-0163
Voice (603) 659-6560, Data (603) 659-4118

LANDSCAPE ARCHITECT

woodburn & company LANDSCAPE ARCHITECTURE
Since 1994 reflecting your vision.

103 Kent Place
Newmarket, NH 03857
603.659.5949

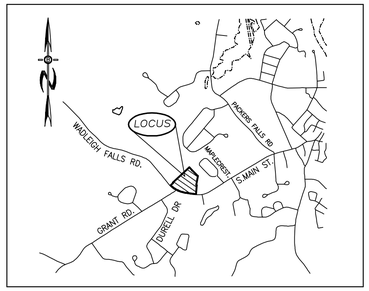
www.woodburnandcompany.com
www.houzz.com/pro/robwoodburn

WETLAND / SOIL CONSULTANT:

GOVE ENVIRONMENTAL SERVICES INC.
8 CONTINENTAL DRIVE,
BLDG 2 UNIT H
EXETER, NH 03833
1-603-778-0644

STATE OF NEW HAMPSHIRE JAMES P. GOVE 5-22-2023 No. 004 CERTIFIED SOIL SCIENTIST

STATE OF NEW HAMPSHIRE JAMES P. GOVE 5-22-2023 No. 0051 CERTIFIED WETLAND SCIENTIST



LOCATION MAP

PLAN INDEX

PLAN SET LEGEND

5/8" REBAR	●	UNDERGROUND ELEC. LINE	UGE
DRILL HOLE	◉	OVERHEAD ELEC. LINE	OHE
CONC. BOUND	▫	DRAINAGE LINE	D D
UTILITY POLE	⌐	SEWER LINE	S
DRAIN MANHOLE	Ⓓ	WATER LINE	W
SEWER MANHOLE	Ⓢ	STONE WALL	
EXISTING LIGHT POLE	☆	TREE LINE	
WATER SHUT OFF	✪	ABUT. PROPERTY LINES	
PINES, ETC.		EXIST. PROPERTY LINES	
MAPLES, ETC.		BUILDING SETBACK LINES	
PROP. SPOT GRADE	96x69	EXIST. CONTOUR	100
SINGLE POST SIGN		PROP. CONTOUR	100
TEST PIT W/NO.		SOIL LINES	
		SILT FENCING	

OWNER/APPLICANT:
DR LEMIEUX BUILDERS, INC.
76 EXETER ROAD
NEWMARKET, NH 03857

PLANNING BOARD APPROVAL BLOCK

NH-1449 SITE PLAN ISSUED JUNE, 2023

MATCH LINE SHEET 2
SHEET 1

U4-68
NORTHPOINT REALTY, INC
258 WADLEIGH FALLS RD
NEWMARKET, NH 03857

W/BARBED WIRE

5/8" REBAR FND.
UP 4" W/ID CAP
LLS 1037 (HELD)

5/8" REBAR FND.
UP 2" W/ID CAP
LLS 1037 (HELD)

N44°24'33"W
11.45'

1" I.P.F. UP 4"
(HELD)

N45°43'13"E
93.24'

DOUCET SURVEY
N
W E
S
NHSPC (NAD83 /2011)

2" I.P.F. DOWN 2"

TAX MAP U4, LOT 66
CHRISTINE H. HEGARTY TRUST
259 WADLEIGH FALLS RD.
NEWMARKET, NH 03857
R.C.R.D. BK. 6386, PG. 2048

EP
WADLEIGH FALLS ROAD
(SEE NOTE 11)
DYL SWL
SWL
EP

TAX MAP U4, LOT 65
ELIZABETH C. DOWST
255 WADLEIGH FALLS RD.
NEWMARKET, NH 03857
R.C.R.D. BK. 6296, PG. 69

C5
26.56'
N61°27'44"W
C4
56.20'
N73°17'03"W
C3
79.76'
N80°55'42"W
C2
C1

VPD
PD
FEMA LINE
ZONE "A"
ZONE "X"

U4-71
EDMUND & GAIL P. WASIEWSKI
236 SOUTH MAIN ST.
NEWMARKET, NH 03857

S06°10'14"W
185.53'

5/8" REBAR
UP 4" W/ID CAP 1058

N68°10'36"E
193.51'

S07°10'25"W
71.47'

PROPOSED
TAX MAP U4 LOT 69-1
314,336 Sq. Ft.
7.22 Acres

FRONTAGE=594.03'

PROPOSED
TAX MAP U4 LOT 69
23,562 Sq. Ft.
0.54 Acres

FRONTAGE=170.05'

35'
15'
15'
53.52'
S09°30'46"W

U4-70
STEPHEN & MYRA SURACI
22 GOULDS HILL RD
NEWTON, NH 03858
R.C.R.D. BK. 6352, PG. 2524

N07°32'08"E
93.51'

EXISTING HOUSE
GARAGE

35'
25'

38.62'
S06°14'19"W

S02°16'24"W
20.08'

NH ROUTE 152 SOUTH MAIN STREET
(SEE NOTE 11)

GRANT ROAD
DYL
STONE RET. WALL

TAX MAP R5, LOT 93
GENE & CHRISTINA CONNOLLY
1 GRANT DR.
NEWMARKET, NH 03857-2102
R.C.R.D. BK. 5306, PG. 1118

TAX MAP U4, LOT 57
LINDA DOSHIER REV. TRUST
PO BOX 242
NEWMARKET, NH 03857
R.C.R.D. BK. 5516, PG. 2526

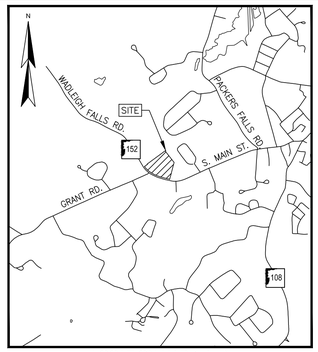
TAX MAP U4, LOT 56
AGATHA A. HALLIDAY
247 SOUTH MAIN ST.
NEWMARKET, NH 03857
R.C.R.D. BK. 5658, PG. 1782

TAX MAP U4, LOT 55
DEREK ARTHUR & THORA CONRAD
245 SOUTH MAIN ST.
NEWMARKET, NH 03857
R.C.R.D. BK. 6055, PG. 508

TAX MAP R5, LOT 95
NEWMARKET SCHOOL DISTRICT
186 A MAIN ST.
NEWMARKET, NH 03857

TAX MAP U4, LOT 54
GARY M. MASTIN REV. TRUST
15 CAROLYN DR.
NEWMARKET, NH 03857-1004
R.C.R.D. BK. 4411, PG. 2552

TAX MAP U4, LOT 53
NEWMARKET SCHOOL DISTRICT
239 SOUTH MAIN ST.
NEWMARKET, NH 03857
R.C.R.D. BK. 5735, PG. 1664



LOCATION MAP (n.t.s.)

APPROVED BY THE NEWMARKET PLANNING BOARD

CHAIRPERSON DATE

STATE OF NEW HAMPSHIRE
JAMES P. GOVE
5-22-2023
No. 0051
CERTIFIED WETLAND SCIENTIST

40 0 40 80
SCALE: 1 INCH = 40 FT.

LEGEND

- EXISTING LOT LINE
- PROPOSED LOT LINE
- BUILDING SETBACK LINE
- APPROXIMATE ABUTTERS LOT LINE
- STONE WALL
- RETAINING WALL
- FEMA FLOOD ZONE LINE
- EDGE OF DELINEATED WETLAND POORLY DRAINED – PD (SEE NOTE 7)
- EDGE OF DELINEATED WETLAND VERY POORLY DRAINED – VPD (SEE NOTE 7)
- WETLAND AREA (SEE NOTE 7)
- PRIME WETLAND AREA (SEE NOTE 8)
- 50' NOT CUT/NO DISTURB AREA VERY POORLY DRAINED
- 25' WETLAND SETBACK LINE – POORLY DRAINED
- PRIME WETLAND SETBACK LINE
- PIPE/ROD FOUND
- DRILL HOLE FOUND (D.H.F.)
- 5/8" REBAR W/ID CAP TO BE SET
- 4"X4" GRANITE BOUND TO BE SET
- BARBED WIRE FOUND ON GROUND
- FENCE POST
- DYL DOUBLE YELLOW LINE
- EP EDGE OF PAVEMENT
- I.P.F. IRON PIPE FOUND
- RET. WALL RETAINING WALL
- SWL SINGLE WHITE LINE

CURVE TABLE					
CURVE	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C1	170.11'	1772.52'	5°29'56"	S84°05'12"E	170.05'
C2	12.35'	1693.86'	0°25'04"	S81°07'43"E	12.35'
C3	135.68'	1017.00'	7°38'39"	S77°06'22"E	135.58'
C4	96.36'	467.00'	11°49'19"	S67°22'23"E	96.19'
C5	187.12'	600.00'	17°52'06"	S52°31'41"E	186.36'

NOTES:

1. REFERENCE: TAX MAP U4, LOT 69
2. EXISTING LOT AREA: 337,899 SQ. FT. OR 7.76 AC.
3. OWNER OF RECORD: D.R. LEMIEUX BUILDERS, LLC
   76 EXETER ROAD
   NEWMARKET, NH 03857
   R.C.R.D. BOOK 6439, PAGE 1906
4. ZONE: R–2
   DIMENSIONAL REQUIREMENTS:

MIN. LOT AREA	21,780 sq.ft. OR 0.5 AC.	
MIN. FRONTAGE	100 ft.	
FRONT SETBACK	25 ft. – SINGLE RESIDENCE	35 ft. – AGE–RESTRICTED HOUSING
SIDE/REAR SETBACK	15 ft. – SINGLE RESIDENCE	35 ft. – AGE–RESTRICTED HOUSING
MAX. BUILDING HEIGHT	35 ft.	
MAX. BUILDING COVERAGE	–– %	
WETLAND SETBACKS		
POORLY DRAINED	25 ft.	
VERY POORLY DRAINED	50 ft.	

   ZONING INFORMATION LISTED HEREON IS BASED ON THE TOWN OF NEWMARKET ZONING ORDINANCE DATED 12/08/2020 AS AVAILABLE ON THE TOWN WEBSITE ON 05/17/2023. ADDITIONAL REGULATIONS APPLY, AND REFERENCE IS HEREBY MADE TO THE EFFECTIVE ZONING ORDINANCE. THE LAND OWNER IS RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE MUNICIPAL, STATE AND FEDERAL REGULATIONS
5. FIELD SURVEY PERFORMED BY DOUCET SURVEY DURING AUGUST, SEPTEMBER, AND OCTOBER 2022 USING A TRIMBLE S5 TOTAL STATION AND A TRIMBLE R10 SURVEY GRADE GPS WITH A TRIMBLE TSC3 DATA COLLECTOR AND A TRIMBLE DINI DIGITAL LEVEL. TRAVERSE ADJUSTMENT BASED ON LEAST SQUARE ANALYSIS.
6. HORIZONTAL DATUM BASED ON NAD83(2011) NEW HAMPSHIRE STATE PLANE COORDINATE ZONE (2800) DERIVED FROM REDUNDANT GPS OBSERVATIONS UTILIZING THE KEYNET GPS VRS NETWORK.
7. JURISDICTIONAL WETLANDS DELINEATED BY JAMES P. GOVE, CWS 051, CSS 004 OF GOVE ENVIRONMENTAL SERVICES, INC. DURING AUGUST 2022 ACCORDING TO THE:
   - US ARMY COPRS OF ENGINEERS WETLANDS DELINEATION MANUAL, TECHNICAL REPORT Y–87–1 (JAN 1987).
   - REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION, VERSION 2.0, JANUARY 2012.
   - FIELD INDICATORS FOR IDENTIFYING DYDRIC SOILS IN NEW ENGLAND, VERSION 4, NEW ENGLAND HYDRIC SOILS TECHNICAL COMMITTEE.
8. PRIME WETLANDS SHOWN HEREON BASED ON "TOWN OF NEWMARKET, NH PRIME WETLANDS MAP 2: NORTH–CENTRAL SECTION" PRODUCED BY THE TOWN OF NEWMARKET MARCH 24, 2004 UPDATED BY STRAFFORD RPC JANUARY 8, 2013.
9. FLOOD HAZARD ZONE: "X" & "A", PER FIRM MAP #33015C0230F, DATED 1/29/2021.
10. THE INTENT OF THIS PLAN IS TO SHOW THE LOCATION OF BOUNDARIES IN ACCORDANCE WITH AND IN RELATION TO THE CURRENT LEGAL DESCRIPTION, AND IS NOT AN ATTEMPT TO DEFINE UNWRITTEN RIGHTS, DETERMINE THE EXTENT OF OWNERSHIP, OR DEFINE THE LIMITS OF TITLE.
11. SOUTH MAIN STREET/WADLEIGH FALLS ROAD (ROUTE 152) RIGHT OF WAY IS FOUR RODS (66') IN WIDTH, SEE S.R. SHEET 5–49 (BOOK 18, PAGE 849) ON FILE AT THE STATE OF NEW HAMPSHIRE ARCHIVES. THE RIGHT OF WAY AS SHOWN HEREON IS BASED ON THE EXISTING CENTERLINE AND MONUMENTS FOUND IN THE FIELD.
12. DUE TO THE COMPLEXITY OF RESEARCHING ROAD RECORDS AS A RESULT OF INCOMPLETE, UNORGANIZED, INCONCLUSIVE, OBLITERATED, OR LOST DOCUMENTS, THERE IS AN INHERENT UNCERTAINTY INVOLVED WHEN ATTEMPTING TO DETERMINE THE LOCATION AND WIDTH OF A ROADWAY RIGHT OF WAY. THE EXTENT OF (THE ROAD) AS DEPICTED HEREON IS BASED ON RESEARCH CONDUCTED AT THE TOWN OF NEWMARKET, THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION AND ROCKINGHAM COUNTY REGISTRY OF DEEDS.
13. FINAL MONUMENTATION MAY BE DIFFERENT THAN THE PROPOSED MONUMENTATION SHOWN HEREON, DUE TO THE FACT THAT SITE CONDITIONS WILL DICTATE THE ACTUAL LOCATION AND TYPE OF MONUMENTS INSTALLED IN THE FIELD. PLEASE REFER TO EITHER THE "MONUMENTATION LOCATION PLAN" TO BE RECORDED OR CONTACT DOUCET SURVEY. FOR CLARIFICATION OF MONUMENTS SET. (A RECORDED PLAN WILL BE PRODUCED AT THE DISCRETION OF DOUCET SURVEY).

REFERENCE PLANS:

1. "D.W. HOYT DEVELOPMENT MAPLECREST NEWMARKET – N.H." DATED OCTOBER 4, 1951 BY H.V. SHEAHAN C.E. R.C.R.D. PLAN 01752.
2. "D.W. HOYT HOUSING PROJECT 30 MAIN STREET NEWMARKET – N.H." DATED JULY 1951 BY H.V. SHEAHAN R.C.R.D. PLAN 01753.
3. "TAX MAP U–2 LOT 68 CONDOMINIUM SITE PLAN 258 WADLEIGH FALLS RD., A–B 258 WADLEIGH FALLS ROAD NEWMARKET, NEW HAMPSHIRE COUNTY OF ROCKINGHAM OWNED BY NORTHPOINT REALTY, INC." DATED MAY 28, 2021 REVISED 6/7/2021 AND 7/20/2021 BY TFMORAN R.C.R.D. PLAN D–42885.
4. "SUBDIVISION OF LAND OF JOHN CARPENTER IN NEWMARKET N.H." DATED 11/5/76 BY MOULTON ENGINEERING CO. R.C.R.D. PLAN D–6451.
5. "SUBDIVISION PLAN FOR AMERICAN LAND DEVELOPMENT INC. WOOD HAVEN PHASE II IN NEWMARKET, N.H." DATED NOV. 2, 1981 BY KIMBALL CHASE COMPANY R.C.R.D PLAN D–10912.

STATE OF NEW HAMPSHIRE
No. 1058
BEVAN TIMM
LICENSED LAND SURVEYOR
SIGNATURE

I CERTIFY THAT THIS SURVEY AND PLAN WERE PREPARED BY ME OR BY THOSE UNDER MY DIRECT SUPERVISION AND FALLS UNDER THE URBAN SURVEY CLASSIFICATION OF THE NH CODE OF ADMINISTRATIVE RULES OF THE BOARD OF LICENSURE FOR LAND SURVEYORS. I CERTIFY THAT THIS SURVEY WAS MADE ON THE GROUND AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. RANDOM TRAVERSE SURVEY BY TOTAL STATION, WITH A PRECISION GREATER THAN 1:15,000.

L.L.S. #1058

MAY 30, 2023 DATE

THE CERTIFICATIONS SHOWN HEREON ARE INTENDED TO MEET REGISTRY OF DEED REQUIREMENTS AND ARE NOT A CERTIFICATION TO TITLE OR OWNERSHIP OF PROPERTY SHOWN. OWNERS OF ADJOINING PROPERTIES ARE ACCORDING TO CURRENT TOWN ASSESSORS RECORDS.

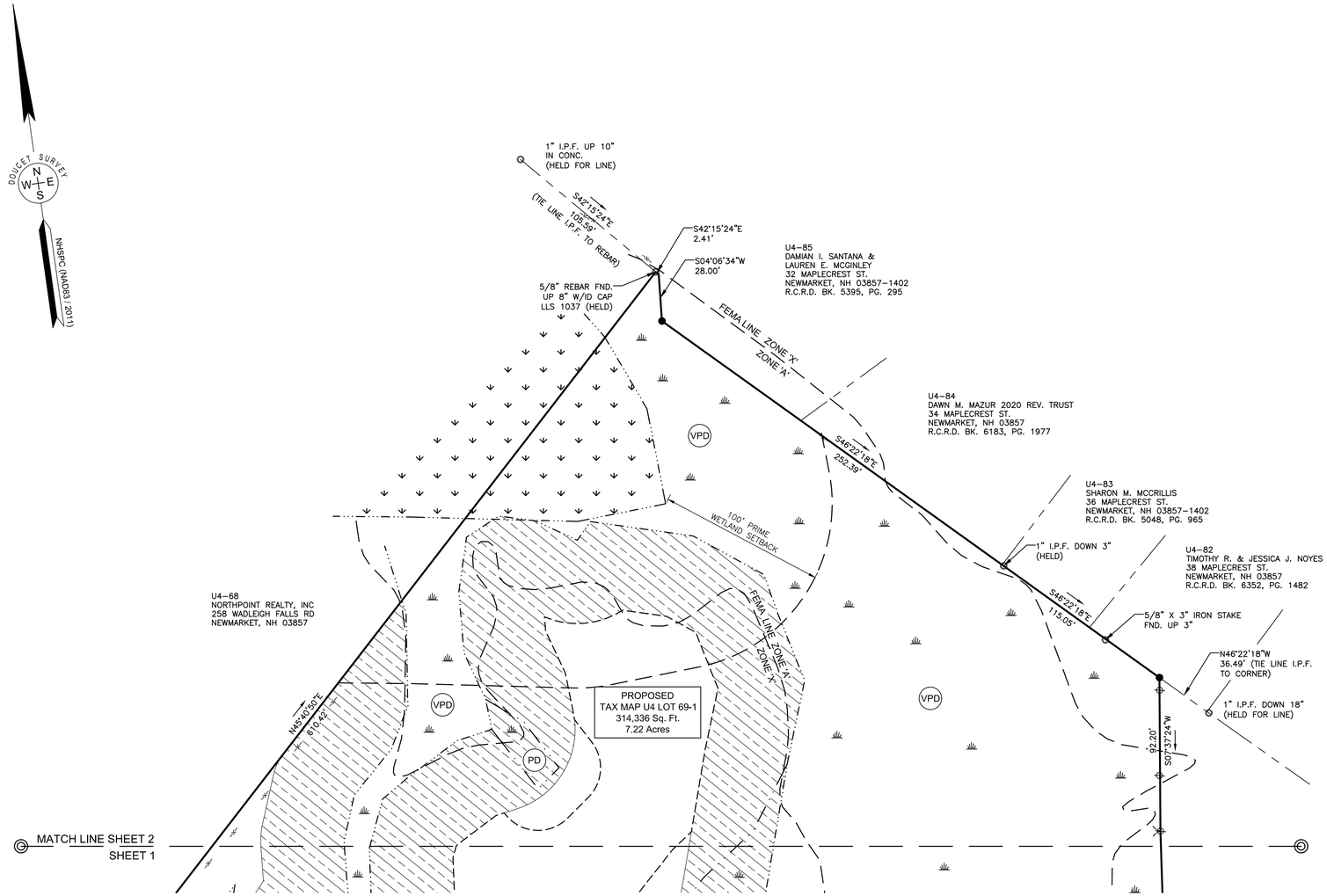
SUBDIVISION PLAN

FOR
D.R. LEMIEUX BUILDERS, LLC
OF
TAX MAP U4, LOT 69
242 SOUTH MAIN STREET
NEWMARKET, NEW HAMPSHIRE

NO.	DATE	DESCRIPTION	BY

DRAWN BY:	M.T.L.	DATE:	MAY 23, 2023
CHECKED BY:	B.T.	DRAWING NO.	7630D
JOB NO.	7630	SHEET	1 OF 2

DOUCET SURVEY LLC
Serving Your Professional Surveying & Mapping Needs
102 Kent Place, Newmarket, NH 03857 (603) 659-6560
Offices in Bedford & Keene, NH and Kennebunk, ME
http://www.doucetsurvey.com



APPROVED BY THE NEWMARKET PLANNING BOARD

CHAIRPERSON _____ DATE _____

STATE OF NEW HAMPSHIRE
JAMES P. GOVE 5-22-2023
No. 0051
CERTIFIED WETLAND SCIENTIST

40 0 40 80
SCALE: 1 INCH = 40 FT.

SUBDIVISION PLAN

FOR

D.R. LEMIEUX BUILDERS, LLC

OF

TAX MAP U4, LOT 69

242 SOUTH MAIN STREET

NEWMARKET, NEW HAMPSHIRE

NO.	DATE	DESCRIPTION	BY

DRAWN BY:	M.T.L.	DATE:	MAY 23, 2023
CHECKED BY:	B.T.	DRAWING NO.	7630D
JOB NO.	7630	SHEET	2 OF 2

I CERTIFY THAT THIS SURVEY AND PLAN WERE PREPARED BY ME OR BY THOSE UNDER MY DIRECT SUPERVISION AND FALLS UNDER THE URBAN SURVEY CLASSIFICATION OF THE NH CODE OF ADMINISTRATIVE RULES OF THE BOARD OF LICENSURE FOR LAND SURVEYORS. I CERTIFY THAT THIS SURVEY WAS MADE ON THE GROUND AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. RANDOM TRAVERSE SURVEY BY TOTAL STATION, WITH A PRECISION GREATER THAN 1:15,000.

_____ L.L.S. #1058

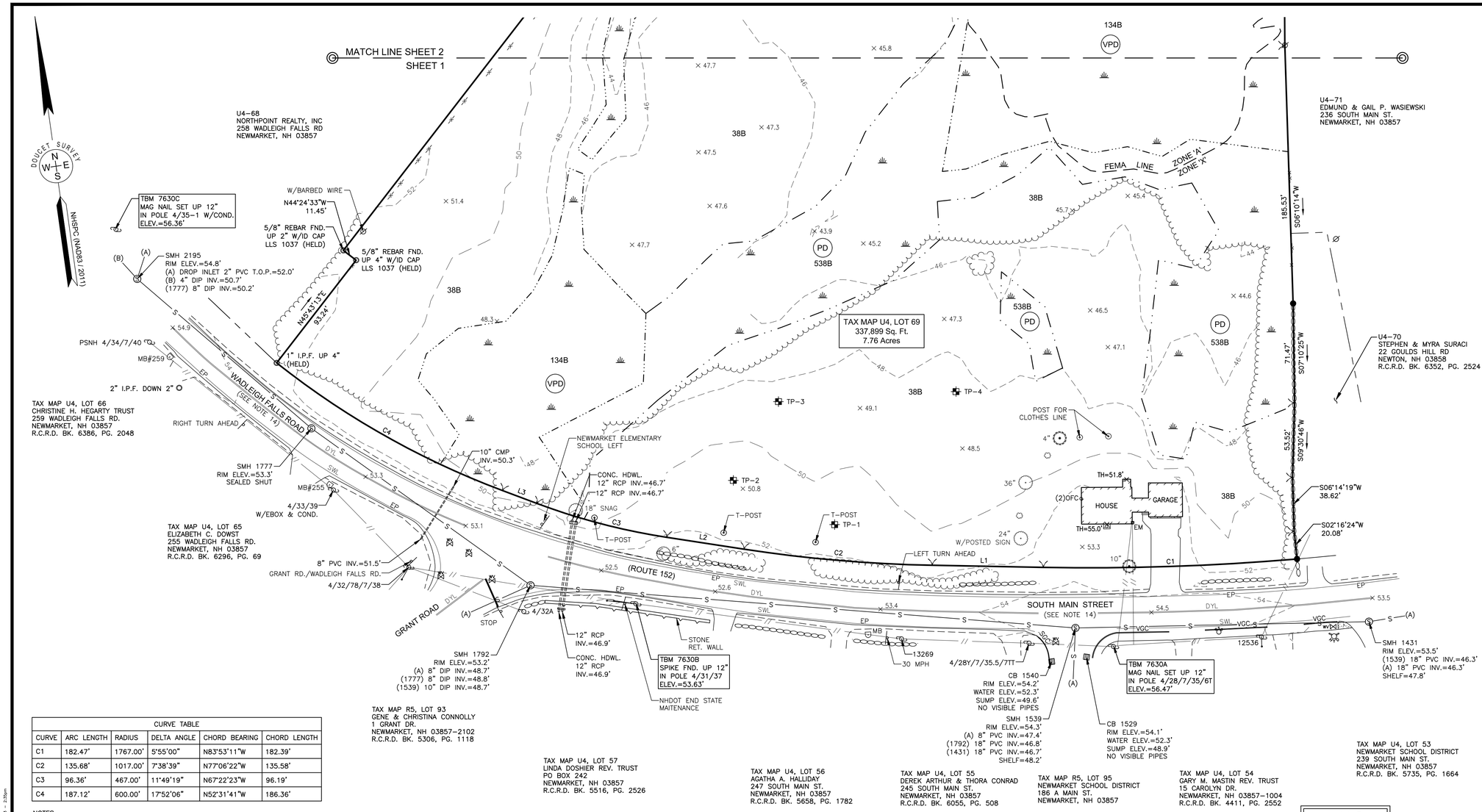
MAY 30, 2023 _____ DATE

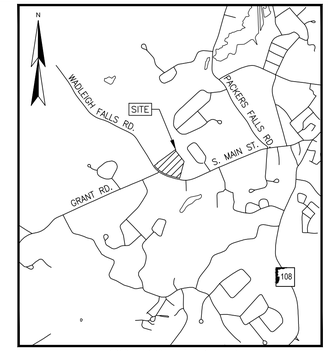
THE CERTIFICATIONS SHOWN HEREON ARE INTENDED TO MEET REGISTRY OF DEED REQUIREMENTS AND ARE NOT A CERTIFICATION TO TITLE OR OWNERSHIP OF PROPERTY SHOWN. OWNERS OF ADJOINING PROPERTIES ARE ACCORDING TO CURRENT TOWN ASSESSORS RECORDS.

STATE OF NEW HAMPSHIRE
No. 1058
BEVAN TIMM
LICENSED LAND SURVEYOR
SIGNATURE

DOUCET SURVEY LLC
Serving Your Professional Surveying & Mapping Needs
102 Kent Place, Newmarket, NH 03857 (603) 659-6560
Offices in Bedford & Keene, NH and Kennebunk, ME
http://www.doucetsurvey.com

FILE NAME: C:\Users\JBevan\AppData\Local\Temp\AcPublish_17295\7630 SUBD.dwg LAYOUT NAME: 22X34 SUB PLAN (2) PLOTTED: Tuesday, May 30, 2023 - 8:52am





LOCATION MAP (n.t.s.)

LINE TABLE		
LINE	BEARING	DISTANCE
L1	N80°55'42"W	79.76'
L2	N73°17'03"W	56.20'
L3	N61°27'44"W	26.56'

CURVE TABLE					
CURVE	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C1	182.47'	1767.00'	5°55'00"	N83°53'11"W	182.39'
C2	135.68'	1017.00'	7°38'39"	N77°06'22"W	135.58'
C3	96.36'	467.00'	11°49'19"	N67°22'23"W	96.19'
C4	187.12'	600.00'	17°52'06"	N52°31'41"W	186.36'

NOTES:

1. REFERENCE: TAX MAP U4, LOT 69
242 SOUTH MAIN STREET
NEWMARKET, NH 03857
2. TOTAL PARCEL AREA: 337,899 SQ. FT. OR 7.76 AC.
3. OWNER OF RECORD: D.R. LEMIEUX BUILDERS, LLC
76 EXETER ROAD
NEWMARKET, NH 03857
R.C.R.D. BOOK 6439, PAGE 1906
4. FIELD SURVEY PERFORMED BY DOUCET SURVEY DURING AUGUST, SEPTEMBER, AND OCTOBER 2022 USING A TRIMBLE S5 TOTAL STATION AND A TRIMBLE R10 SURVEY GRADE GPS WITH A TRIMBLE TSC3 DATA COLLECTOR AND A TRIMBLE DINI DIGITAL LEVEL. TRAVERSE ADJUSTMENT BASED ON LEAST SQUARE ANALYSIS.
5. HORIZONTAL DATUM BASED ON NAD83(2011) NEW HAMPSHIRE STATE PLANE COORDINATE ZONE (2800) DERIVED FROM REDUNDANT GPS OBSERVATIONS UTILIZING THE KEYNET GPS VRS NETWORK.
6. VERTICAL DATUM IS BASED ON APPROXIMATE NAVD88(GEOID18) (±.2') DERIVED FROM REDUNDANT GPS OBSERVATIONS UTILIZING THE KEYNET GPS VRS NETWORK.
8. JURISDICTIONAL WETLANDS DELINEATED BY JAMES P. GOVE, CWS 051, CSS 004 OF GOVE ENVIRONMENTAL SERVICES, INC. DURING AUGUST 2022 ACCORDING TO THE:
   - US ARMY COPRS OF ENGINEERS WETLANDS DELINEATION MANUAL, TECHNICAL REPORT Y-87-1 (JAN 1987).
   - REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION, VERSION 2.0, JANUARY 2012.
   - FIELD INDICATORS FOR IDENTIFYING DYDRIC SOILS IN NEW ENGLAND, VERSION 4, NEW ENGLAND HYDRIC SOILS TECHNICAL COMMITTEE.
9. FLOOD HAZARD ZONE: "X" & "A", PER FIRM MAP #33015C0230F, DATED 1/29/2021.
10. PROPER FIELD PROCEDURES WERE FOLLOWED IN ORDER TO GENERATE CONTOURS AT 2' INTERVALS. ANY MODIFICATION OF THIS INTERVAL WILL DIMINISH THE INTEGRITY OF THE DATA, AND DOUCET SURVEY. WILL NOT BE RESPONSIBLE FOR ANY SUCH ALTERATION PERFORMED BY THE USER.
11. UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON OBSERVED PHYSICAL EVIDENCE AND PAINT MARKS FOUND ON-SITE. NO UTILITIES WERE MARKED AS PART OF THIS SURVEY.
12. THE ACCURACY OF MEASURED UTILITY INVERTS AND PIPE SIZES/TYPES IS SUBJECT TO NUMEROUS FIELD CONDITIONS, INCLUDING; THE ABILITY TO MAKE VISUAL OBSERVATIONS, DIRECT ACCESS TO THE VARIOUS ELEMENTS, MANHOLE CONFIGURATION, ETC.
13. THE INTENT OF THIS PLAN IS TO SHOW THE LOCATION OF BOUNDARIES IN ACCORDANCE WITH AND IN RELATION TO THE CURRENT LEGAL DESCRIPTION, AND IS NOT AN ATTEMPT TO DEFINE UNWRITTEN RIGHTS, DETERMINE THE EXTENT OF OWNERSHIP, OR DEFINE THE LIMITS OF TITLE.
14. SOUTH MAIN STREET/WADLEIGH FALLS ROAD (ROUTE 152) RIGHT OF WAY IS FOUR RODS (66') IN WIDTH, SEE S.R. SHEET 5-49 (BOOK 18, PAGE 849) ON FILE AT THE STATE OF NEW HAMPSHIRE ARCHIVES. THE RIGHT OF WAY AS SHOWN HEREON IS BASED ON THE EXISTING CENTERLINE AND MONUMENTS FOUND IN THE FIELD.
15. ALL UNDERGROUND UTILITIES (ELECTRIC, GAS, TEL. WATER, SEWER DRAIN SERVICES) ARE SHOWN IN SCHEMATIC FASHION, THEIR LOCATIONS ARE NOT PRECISE OR NECESSARILY ACCURATE. NO WORK WHATSOEVER SHALL BE UNDERTAKEN USING THIS PLAN TO LOCATE THE ABOVE SERVICES. CONSULT WITH THE PROPER AUTHORITIES CONCERNED WITH THE SUBJECT SERVICE LOCATIONS FOR INFORMATION REGARDING SUCH. CALL DIG-SAFE AT 1-888-DIG-SAFE.
16. PRIME WETLANDS SHOWN HEREON BASED ON "TOWN OF NEWMARKET, NH PRIME WETLANDS MAP 2: NORTH-CENTRAL SECTION" PRODUCED BY THE TOWN OF NEWMARKET MARCH 24, 2004 UPDATED BY STRAFFORD RPC JANUARY 8, 2013.
17. SITE SPECIFIC SOILS SHOWN HEREON WITHIN THE TECHNICAL STANDARDS OF THE NATIONAL COOPERATIVE SOIL SURVEY. IT IS A SPECIAL PURPOSE PRODUCT, INTENDED FOR INFILTRATION REQUIREMENTS BY THE NH DES ALTERATION OF TERRAIN BUREAU. IT WAS PRODUCED BY A PROFESSIONAL SOIL SCIENTIST, AND IS NOT A PRODUCT OF THE USDA NATURAL RESOURCES CONSERVATION SERVICE. THERE IS A REPORT THAT ACCOMPANIES THIS MAP.
18. THE SITE SPECIFIC SOIL MAP (SSSM) WAS PRODUCED 04-10-2023, AND WAS PREPARED BY JAMES P. GOVE, CSS # 004, GOVE ENVIRONMENTAL SERVICES, INC. THE SURVEY AREA IS LOCATED AT 242 SOUTH MAIN STREET, NEWMARKET, NH. SOILS WERE IDENTIFIED WITH THE NEW HAMPSHIRE STATE-WIDE NUMERICAL SOILS LEGEND, USDA NRCS, DURHAM, NH. ISSUE # 10, JANUARY 2011. THE NUMERIC LEGEND WAS AMENDED TO IDENTIFY THE CORRECT SOIL COMPONENTS OF THE COMPLEX.

HYDROLOGIC SOIL GROUP FROM KSAT VALUES FOR NEW HAMPSHIRE SOILS, SOCIETY OF SOIL SCIENTISTS OF NEW ENGLAND, SPECIAL PUBLICATION NO. 5, SEPTEMBER, 2009.

SSSM SYM.	SSSM MAP NAME	HISS NO.	HYDRO. SOIL GROUP
38	ELDRIDGE LOAMY SAND	343	C
538	SQUAMSCOTT LOAMY SAND	543	C
134	MAYBID MUCKY SILT	643	D

SLOPE PHASE:
0-8%=B, 8-15%=C, 15-25%=D, 25%+=E

REFERENCE PLANS:

1. "D.W. HOYT DEVELOPMENT MAPLECREST NEWMARKET - N.H." DATED OCTOBER 4, 1951 BY H.V. SHEAHAN C.E. R.C.R.D. PLAN 01752.
2. "D.W. HOYT HOUSING PROJECT 30 MAIN STREET NEWMARKET - N.H." DATED JULY 1951 BY H.V. SHEAHAN R.C.R.D. PLAN 01753.
3. "TAX MAP U-2 LOT 68 CONDOMINIUM SITE PLAN 258 WADLEIGH FALLS RD., A-B 258 WADLEIGH FALLS ROAD NEWMARKET, NEW HAMPSHIRE COUNTY OF ROCKINGHAM OWNED BY NORTHPOINT REALTY, INC." DATED MAY 28, 2021 REVISED 6/7/2021 AND 7/20/2021 BY TFMORAN R.C.R.D. PLAN D-42885.
4. "SUBDIVISION OF LAND OF JOHN CARPENTER IN NEWMARKET N.H." DATED 11/5/76 BY MOULTON ENGINEERING CO. R.C.R.D. PLAN D-6451.
5. "SUBDIVISION PLAN FOR AMERICAN LAND DEVELOPMENT INC. WOOD HAVEN PHASE II IN NEWMARKET, N.H." DATED NOV. 2, 1981 BY KIMBALL CHASE COMPANY R.C.R.D PLAN D-10912.

STATE OF NEW HAMPSHIRE
JAMES P. GOVE
5-22-2023
No. 0051
CERTIFIED WETLAND SCIENTIST

STATE OF NEW HAMPSHIRE
JAMES P. GOVE
5-22-2023
No. 004
CERTIFIED SOIL SCIENTIST

SEE SHEET 2 FOR LEGEND

40 0 40 80
SCALE: 1 INCH = 40 FT.

EXISTING CONDITIONS PLAN
FOR
D.R. LEMIEUX BUILDERS, LLC
OF
TAX MAP U4, LOT 69
242 SOUTH MAIN STREET
NEWMARKET, NEW HAMPSHIRE

NO.	DATE	DESCRIPTION	BY
1	05/22/23	ADD PRIME WETLANDS & SOILS	M.T.L.

STATE OF NEW HAMPSHIRE
NO. 1058
BEVAN TIMM
LICENSED LAND SURVEYOR
SIGNATURE

PURSUANT TO RSA 676:18, III:

I CERTIFY THAT THIS SURVEY PLAT IS NOT A SUBDIVISION PURSUANT TO THIS TITLE AND THAT THE LINES OF STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED AND THAT NO NEW WAYS ARE SHOWN.

I CERTIFY THAT THIS SURVEY AND PLAN WERE PREPARED BY ME OR BY THOSE UNDER MY DIRECT SUPERVISION AND FALLS UNDER THE URBAN SURVEY CLASSIFICATION OF THE NH CODE OF ADMINISTRATIVE RULES OF THE BOARD OF LICENSURE FOR LAND SURVEYORS. I CERTIFY THAT THIS SURVEY WAS MADE ON THE GROUND AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. RANDOM TRAVERSE SURVEY BY TOTAL STATION, WITH A PRECISION GREATER THAN 1:15,000."

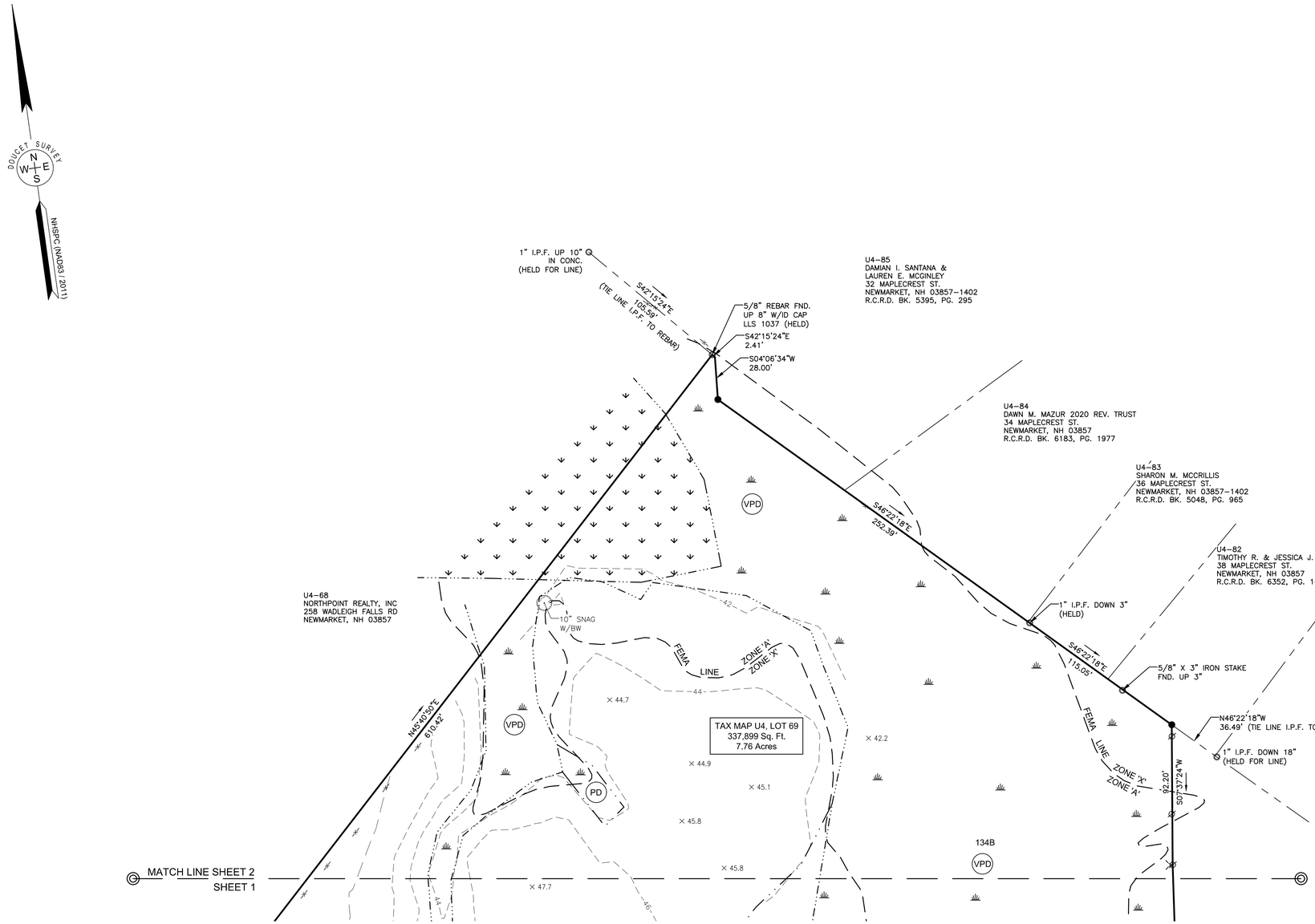
L.L.S. #1058

MAY 22, 2023 DATE

THE CERTIFICATIONS SHOWN HEREON ARE INTENDED TO MEET REGISTRY OF DEED REQUIREMENTS AND ARE NOT A CERTIFICATION TO TITLE OR OWNERSHIP OF PROPERTY SHOWN. OWNERS OF ADJOINING PROPERTIES ARE ACCORDING TO CURRENT TOWN ASSESSORS RECORDS.

DRAWN BY:	W.D.C.	DATE:	OCTOBER 10, 2022
CHECKED BY:	B.T.	DRAWING NO.	7630B
JOB NO.	7630	SHEET	1 OF 2

DOUCET SURVEY LLC
Serving Your Professional Surveying & Mapping Needs
102 Kent Place, Newmarket, NH 03857 (603) 659-6560
Offices in Bedford & Keene, NH and Kennebunk, ME
http://www.doucetsurvey.com



LEGEND

	EXISTING LOT LINE
	APPROXIMATE ABUTTERS LOT LINE (PER GIS)
100	MAJOR CONTOUR LINE
98	MINOR CONTOUR LINE
	STONE WALL
	RETAINING WALL
//	OVERHEAD WIRE
D	DRAIN LINE
S	SEWER LINE
	TREE LINE
	FEMA FLOOD ZONE LINE
	EDGE OF DELINEATED WETLAND
	POORLY DRAINED (SEE NOTE 8)
	EDGE OF DELINEATED WETLAND
	VERY POORLY DRAINED (SEE NOTE 8)
	WETLAND AREA (SEE NOTE 8)
	PRIME WETLAND AREA (SEE NOTE 16)
	CONCRETE
× 100.0	SPOT GRADE
	PIPE/ROD FOUND
	DRILL HOLE FOUND (D.H.F.)
	5/8" REBAR W/ID CAP OR OTHER SUITABLE MONUMENT TO BE SET
	BARBED WIRE FOUND ON GROUND
	WOODEN POST
	UTILITY POLE
	UTILITY POLE & GUY WIRE
	CATCH BASIN
S	SEWER MANHOLE
	FIRE HYDRANT
	WATER GATE VALVE
	WATER SHUTOFF VALVE
EM	ELECTRIC METER
M	MANHOLE
	SIGN
	POST
	MAIL BOX
	PROPOSED TEST PIT LOCATION
	CONIFEROUS TREE
	DECIDUOUS TREE
	DECIDUOUS BUSH
CONC.	CONCRETE
D.H.	DRILL HOLE
DIP	DUCTILE IRON PIPE
DYL	DOUBLE YELLOW LINE
EP	EDGE OF PAVEMENT
I.P.F.	IRON PIPE FOUND
PVC	POLYVINYL CHLORIDE PIPE
RET. WALL	RETAINING WALL
SGC	SLOPED GRANITE CURB
SWL	SINGLE WHITE LINE
TH	THRESHOLD ELEVATION
T.O.P.	TOP OF PIPE
TYP.	TYPICAL
VGC	VERTICAL GRANITE CURB
VPD	VERY POORLY DRAINED (SEE NOTE 8)
PD	POORLY DRAINED (SEE NOTE 8)

40 0 40 80

SCALE: 1 INCH = 40 FT.

EXISTING CONDITIONS PLAN

FOR

D.R. LEMIEUX BUILDERS, LLC

OF

TAX MAP U4, LOT 69

242 SOUTH MAIN STREET

NEWMARKET, NEW HAMPSHIRE

NO.	DATE	DESCRIPTION	BY
1	05/22/23	ADD PRIME WETLANDS & SOILS	M.T.L.

DRAWN BY:	W.D.C.	DATE:	OCTOBER 10, 2022
CHECKED BY:	B.T.	DRAWING NO.	7630B
JOB NO.	7630	SHEET	2 OF 2

PURSUANT TO RSA 676:18, III:

I CERTIFY THAT THIS SURVEY PLAT IS NOT A SUBDIVISION PURSUANT TO THIS TITLE AND THAT THE LINES OF STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED AND THAT NO NEW WAYS ARE SHOWN.

I CERTIFY THAT THIS SURVEY AND PLAN WERE PREPARED BY ME OR BY THOSE UNDER MY DIRECT SUPERVISION AND FALLS UNDER THE URBAN SURVEY CLASSIFICATION OF THE NH CODE OF ADMINISTRATIVE RULES OF THE BOARD OF LICENSURE FOR LAND SURVEYORS. I CERTIFY THAT THIS SURVEY WAS MADE ON THE GROUND AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. RANDOM TRAVERSE SURVEY BY TOTAL STATION, WITH A PRECISION GREATER THAN 1:15,000."

L.L.S. #1058

MAY 22, 2023 DATE

THE CERTIFICATIONS SHOWN HEREON ARE INTENDED TO MEET REGISTRY OF DEED REQUIREMENTS AND ARE NOT A CERTIFICATION TO TITLE OR OWNERSHIP OF PROPERTY SHOWN. OWNERS OF ADJOINING PROPERTIES ARE ACCORDING TO CURRENT TOWN ASSESSORS RECORDS.

STATE OF NEW HAMPSHIRE LICENSED LAND SURVEYOR No. 1058 BEVAN TIMM SIGNATURE

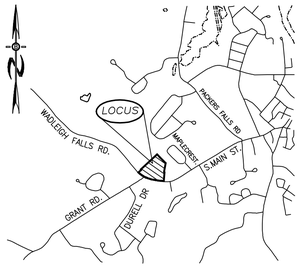
STATE OF NEW HAMPSHIRE JAMES P. GOVE 5-22-2023 No. 0051 CERTIFIED WETLAND SCIENTIST

STATE OF NEW HAMPSHIRE JAMES P. GOVE 5-22-2023 No. 804 CERTIFIED SOIL SCIENTIST

DOUCET SURVEY LLC

Serving Your Professional Surveying & Mapping Needs
102 Kent Place, Newmarket, NH 03857 (603) 659-6560
Offices in Bedford & Keene, NH and Kennebunk, ME
http://www.doucetsurvey.com

FILE NAME: C:\Users\Bevan\AppData\Local\Temp\AcPublish_23\65\7630B EC.dwg LAYOUT NAME: 23X34 EC PLAN (2) PLOTTED: Monday, May 22, 2023 - 3:35pm



LOCATION MAP

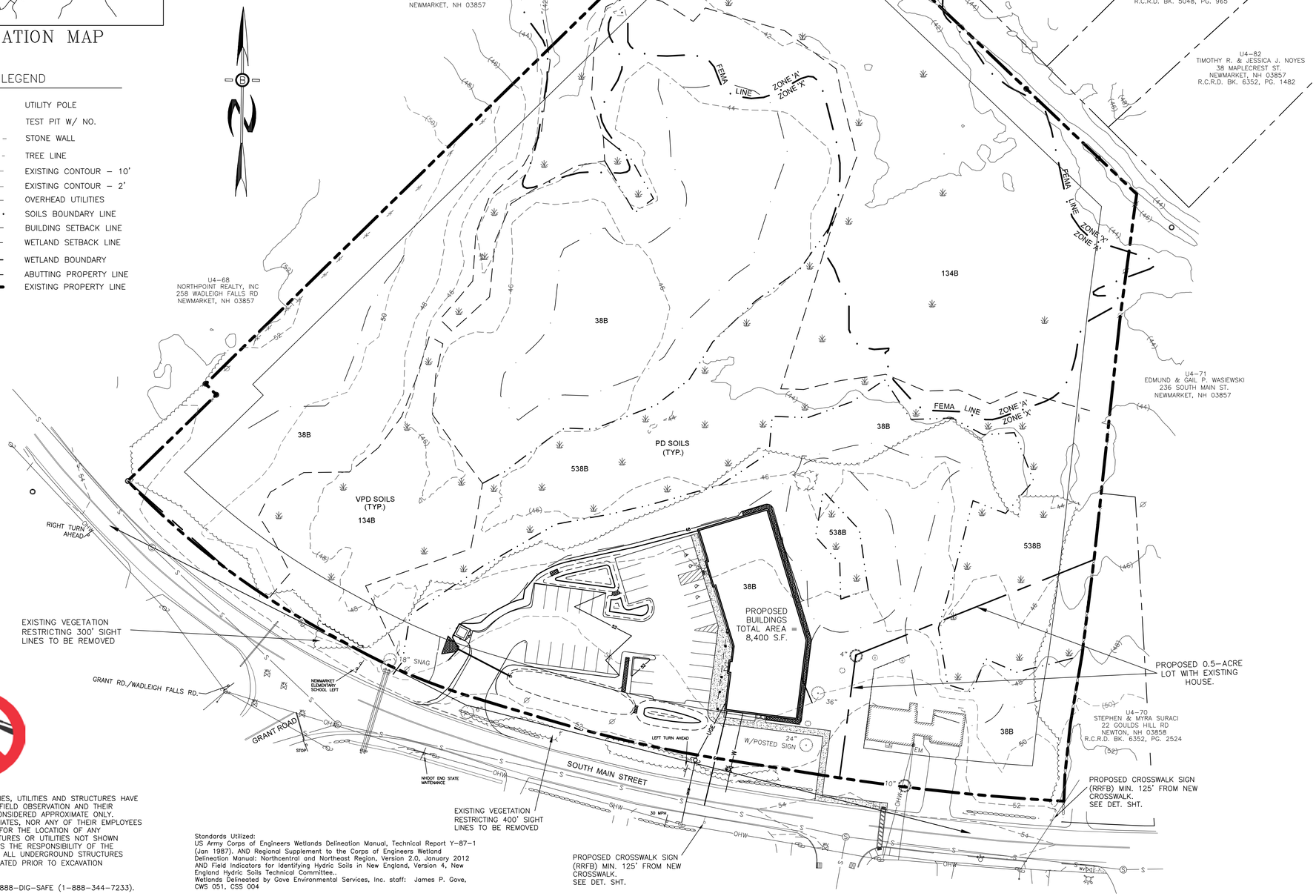
LEGEND

- UTILITY POLE
- TEST PIT W/ NO.
- STONE WALL
- TREE LINE
- EXISTING CONTOUR – 10'
- EXISTING CONTOUR – 2'
- OVERHEAD UTILITIES
- SOILS BOUNDARY LINE
- BUILDING SETBACK LINE
- WETLAND SETBACK LINE
- WETLAND BOUNDARY
- ABUTTING PROPERTY LINE
- EXISTING PROPERTY LINE

This map product is within the technical standards of the National Cooperative Soil Survey. It is a special purpose product, intended for infiltration requirements by the NH DES Alteration of Terrain Bureau. It was produced by a professional soil scientist, and is not a product of the USDA Natural Resources Conservation Service. There is a report that accompanies this map.
The site specific soil Map (SSSM) was produced 04–10–2023, and was prepared by James P. Gove, CSS # 004, Gove Environmental Services, Inc. The survey area is located at 242 South Main Street, Newmarket, NH. Soils were identified with the New Hampshire State–wide Numerical Soils Legend, USDA NRCS, Durham, NH. Issue # 10, January 2011. The numeric legend was amended to identify the correct soil components of the complex.
Hydrologic Soil Group from Ksat Values for New Hampshire Soils, Society of Soil Scientists of New England, Special Publication No. 5, September, 2009.

SSSM SYM.	SSSM MAP NAME	HISS#	HYDRO. SOIL GRP.
38	Eldridge loamy sand	343	C
538	Squamscott loamy sand	543	C
134	Maybid mucky silt	643	D

SLOPE PHASE:
0–8%=B, 8–15%=C,15–25%=D, 25%+=E



UNDERGROUND FACILITIES, UTILITIES AND STRUCTURES HAVE BEEN PLOTTED FROM FIELD OBSERVATION AND THEIR LOCATION MUST BE CONSIDERED APPROXIMATE ONLY. NEITHER BEALS ASSOCIATES, NOR ANY OF THEIR EMPLOYEES TAKE RESPONSIBILITY FOR THE LOCATION OF ANY UNDERGROUND STRUCTURES OR UTILITIES NOT SHOWN THAT MAY EXIST. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE ALL UNDERGROUND STRUCTURES AND/OR UTILITIES LOCATED PRIOR TO EXCAVATION

WORK BY CALLING 1–888–DIG–SAFE (1–888–344–7233).

Standards Utilized:
US Army Corps of Engineers Wetlands Delineation Manual, Technical Report Y–87–1 (Jan 1987). AND Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region, Version 2.0, January 2012 AND Field Indicators for Identifying Hydric Soils in New England, Version 4, New England Hydric Soils Technical Committee..
Wetlands Delineated by Gove Environmental Services, Inc. staff: James P. Gove, CWS 051, CSS 004

DENSITY CALCULATIONS:
AGE RESTRICTED HOUSING

UPLAND AREA = 4.01AC.x8 UNITS/AC = 32
PD WETLAND AREA = 0.95ACx8 UNITS/AC = 7
TOTAL = 39 (WITHOUT BONUSES)

PREPARED FOR:

DR LEMIEUX BUILDERS, INC.
76 EXETER ROAD
NEWMARKET, NH 03857

BEALS ASSOCIATES, PLLC
70 PORTSMOUTH AVE,
THIRD FLOOR, SUITE 2
STRATHAM, N.H. 03885
PHONE: 603–583–4860,
FAX. 603–583–4863

NOTES
1. UNDERGROUND FACILITIES, UTILITIES AND STRUCTURES HAVE BEEN LOCATED FROM FIELD OBSERVATIONS AND THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. BEALS ASSOCIATES OR ANY OF THEIR EMPLOYEES TAKE NO RESPONSIBILITY FOR THE LOCATION OF ANY UNDERGROUND STRUCTURES OR UTILITIES NOT SHOWN, THAT MAY EXIST. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE ALL UNDERGROUND UTILITIES OR STRUCTURES LOCATED PRIOR TO EXCAVATION WORK BY CALLING 1–888–DIG–SAFE
2. THIS PLAN HAS BEEN PREPARED FOR MUNICIPAL AND STATE APPROVALS AND FOR CONSTRUCTION BASED ON DATA OBTAINED FROM ON–SITE FIELD SURVEY AND EXISTING MUNICIPAL RECORDS. THROUGHOUT THE CONSTRUCTION PROCESS, THE CONTRACTOR SHALL INFORM THE ENGINEER IMMEDIATELY OF ANY FIELD DISCREPANCY FROM DATA AS SHOWN ON THE DESIGN PLANS. THIS INCLUDES ANY UNFORESEEN CONDITIONS, SUBSURFACE OR OTHERWISE, FOR EVALUATION AND RECOMMENDATIONS. ANY CONTRADICTION BETWEEN ITEMS OF THIS PLAN/PLAN SET, OR BETWEEN THE PLANS AND ON–SITE CONDITIONS MUST BE RESOLVED BEFORE RELATED CONSTRUCTION HAS BEEN INITIATED.
3. THE INTENT OF THIS PROPOSAL CONSISTS OF A PROPOSED 32 UNIT AGE RESTRICTED BUILDING AND ASSOCIATED PARKING.
4. ALL SNOW SHALL BE STORED IN THE AREA(S) OFF PAVEMENT & PARKING AREAS. IN THE EVENT THAT THE AREA(S) APPROVED FOR SNOW STORAGE BECOME FULL, THE OWNER SHALL REASONABLY REMOVE EXCESS SNOW FROM THE SITE, AND SHALL NOT ALLOW SNOW TO BE STORED WITHIN TRAVEL AISLES.
5. ALL WASTE MATERIALS AND RECYCLABLE SHALL BE CONTAINED WITHIN THE BUILDING(S) OR APPROVED STORAGE FACILITIES.
6. THE LANDOWNER IS RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL WETLAND REGULATIONS, INCLUDING ANY PERMITTING AND SETBACK REQUIREMENTS REQUIRED UNDER THESE REGULATIONS.
7. SEE DETAIL SHEET FOR STANDARD CONSTRUCTION NOTES AND DETAILS.

ZONING REQUIREMENTS

ZONE: R2

MIN. LOT SIZE =	1/2 ACRE
MIN. FRONTAGE =	100'
MAX. HEIGHT =	35'
BUILDING SETBACKS:	
FRONT	25'
SIDE & REAR	15'
WETLANDS	50'

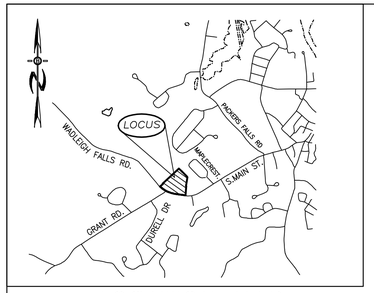
PLANNING BOARD APPROVAL BLOCK

REVISIONS:	DATE:

PROPOSED SITE PLAN

RESIDENTIAL DEVELOPMENT
TAX MAP U4, LOT 69
242 SOUTH MAIN STREET
NEWMARKET, NEW HAMPSHIRE

DATE:	JAN 2023	SCALE:	1"=40'
PROJ. NO:	NH-1449	SHEET NO.	3



LOCATION MAP

LEGEND

- UTILITY POLE
- TP#1A — TEST PIT W/ NO.
- STONE WALL
- TREE LINE
- EXISTING CONTOUR – 10'
- EXISTING CONTOUR – 2'
- OVERHEAD UTILITIES
- SOILS BOUNDARY LINE
- BUILDING SETBACK LINE
- WETLAND SETBACK LINE
- WETLAND BOUNDARY
- ABUTTING PROPERTY LINE
- EXISTING PROPERTY LINE

ZONING REQUIREMENTS

ZONE: R2

MIN. LOT SIZE =	1/2 ACRE
MIN. FRONTAGE =	100'
MAX. HEIGHT =	35'
BUILDING SETBACKS:	
FRONT	25'
SIDE & REAR	15'
WETLANDS	50'

PARKING CALCULATIONS:
AGE RESTRICTED HOUSING
1/ UNIT = 32

TOTAL SPACES REQUIRED= 32
TOTAL SPACES PROVIDED= 34

PROPOSED DUMPSTER (TO BE SCREENED)
SNOW STORAGE
R=42'
14-SPACES
20-SPACES
R=3'
R=10'
R=2' TYP.
R=18'
PROPOSED BUILDING TOTAL AREA = 8,400 S.F.
NEWMARKET ELEMENTARY SCHOOL LEFT
GRANT ROAD
STOP
R=25'
NHDOT END STATE MAITENANCE
SOUTH MAIN STREET
PROPOSED 5' WIDE BITUMINOUS SIDEWALK
LEFT TURN AHEAD
30 MPH
PROPOSED CROSSWALK W/ AUTOMATED CAUTION LIGHTS. SEE DET. SHT.
OHW
UGE
EM
WV

UNDERGROUND FACILITIES, UTILITIES AND STRUCTURES HAVE BEEN PLOTTED FROM FIELD OBSERVATION AND THEIR LOCATION MUST BE CONSIDERED APPROXIMATE ONLY. NEITHER BEALS ASSOCIATES, NOR ANY OF THEIR EMPLOYEES TAKE RESPONSIBILITY FOR THE LOCATION OF ANY UNDERGROUND STRUCTURES OR UTILITIES NOT SHOWN THAT MAY EXIST. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE ALL UNDERGROUND STRUCTURES AND/OR UTILITIES LOCATED PRIOR TO EXCAVATION

WORK BY CALLING 1–888–DIG–SAFE (1–888–344–7233).

PREPARED FOR:

DR LEMIEUX BUILDERS, INC.
76 EXETER ROAD
NEWMARKET, NH 03857

BEALS ASSOCIATES, PLLC
70 PORTSMOUTH AVE,
THIRD FLOOR, SUITE 2
STRATHAM, N.H. 03885
PHONE: 603–583–4860,
FAX. 603–583–4863

NOTES

1. UNDERGROUND FACILITIES, UTILITIES AND STRUCTURES HAVE BEEN LOCATED FROM FIELD OBSERVATIONS AND THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. BEALS ASSOCIATES OR ANY OF THEIR EMPLOYEES TAKE NO RESPONSIBILITY FOR THE LOCATION OF ANY UNDERGROUND STRUCTURES OR UTILITIES NOT SHOWN, THAT MAY EXIST. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE ALL UNDERGROUND UTILITIES OR STRUCTURES LOCATED PRIOR TO EXCAVATION WORK BY CALLING 1–888–DIG–SAFE
2. THIS PLAN HAS BEEN PREPARED FOR MUNICIPAL AND STATE APPROVALS AND FOR CONSTRUCTION BASED ON DATA OBTAINED FROM ON–SITE FIELD SURVEY AND EXISTING MUNICIPAL RECORDS. THROUGHOUT THE CONSTRUCTION PROCESS, THE CONTRACTOR SHALL INFORM THE ENGINEER IMMEDIATELY OF ANY FIELD DISCREPANCY FROM DATA AS SHOWN ON THE DESIGN PLANS. THIS INCLUDES ANY UNFORESEEN CONDITIONS, SUBSURFACE OR OTHERWISE, FOR EVALUATION AND RECOMMENDATIONS. ANY CONTRADICTION BETWEEN ITEMS OF THIS PLAN/PLAN SET, OR BETWEEN THE PLANS AND ON–SITE CONDITIONS MUST BE RESOLVED BEFORE RELATED CONSTRUCTION HAS BEEN INITIATED.
3. THE INTENT OF THIS PROPOSAL CONSISTS OF A PROPOSED 32 UNIT AGE RESTRICTED BUILDING AND ASSOCIATED PARKING.
4. ALL SNOW SHALL BE STORED IN THE AREA(S) OFF PAVEMENT & PARKING AREAS. IN THE EVENT THAT THE AREA(S) APPROVED FOR SNOW STORAGE BECOME FULL, THE OWNER SHALL REASONABLY REMOVE EXCESS SNOW FROM THE SITE, AND SHALL NOT ALLOW SNOW TO BE STORED WITHIN TRAVEL AISLES.
5. ALL WASTE MATERIALS AND RECYCLABLE SHALL BE CONTAINED WITHIN THE BUILDING(S) OR APPROVED STORAGE FACILITIES.
6. THE LANDOWNER IS RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL WETLAND REGULATIONS, INCLUDING ANY PERMITTING AND SETBACK REQUIREMENTS REQUIRED UNDER THESE REGULATIONS.
7. SEE DETAIL SHEET FOR STANDARD CONSTRUCTION NOTES AND DETAILS.

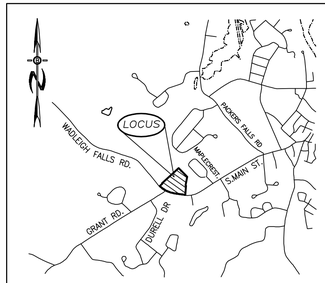
PLANNING BOARD APPROVAL BLOCK

REVISIONS:	DATE:

PARKING/PAVEMENT PLAN

RESIDENTIAL DEVELOPMENT
TAX MAP U4, LOT 69
242 SOUTH MAIN STREET
NEWMARKET, NEW HAMPSHIRE

DATE:	JAN 2023	SCALE:	1"=20'
PROJ. NO:	NH-1449	SHEET NO.	4



LOCATION MAP

LEGEND

- UTILITY POLE
- TP#1A — TEST PIT W/ NO.
- STONE WALL
- TREE LINE
- EXISTING CONTOUR – 10'
- EXISTING CONTOUR – 2'
- OVERHEAD UTILITIES
- BUILDING SETBACK LINE
- WETLAND SETBACK LINE
- WETLAND BOUNDARY
- ABUTTING PROPERTY LINE
- EXISTING PROPERTY LINE

538B
38B
PROPOSED 3' W BY 6' L RIPRAP WEIR. LIP ELEVATION 50.75'.
BIORET POND. SURFACE ELEV=49.25' BERM ELEV= 51.0'
PROPOSED 3' W BY 6' L RIPRAP WEIR. LIP ELEVATION 50.60'.
PROVIDE SILT FENCE OR MULCH BERM EROSION CONTROL AS SHOWN (TYP.). PROVIDE DOUBLE ROW IF WITHIN 50' OF EDGE OF WETLANDS.
15" HDPE W/RISER INV IN 50.00' INV OUT 49.77' 15" GRATE INV 51.40' L=45', SL.005
RIPRAP OUTLET CONTROL APRON W=14', L=10' d50=0.25, T=0.56'
SED. FOREBAY
RIPRAP SWALE TO ELEV 51.80' d50=0.25, T=0.56'
PROPOSED 3' W BY 6' L RIPRAP WEIR. LIP ELEVATION 51.0'.
BIORET POND. SURFACE ELEV=51.33' BERM ELEV= 51.9'
SED. FOREBAY BERM = 51.8' BOTTOM = 49.0'
PROPOSED 3' W BY 2.6' D STONE DRIP EDGE FOR ROOF INFILTRATION.
FF-52.5'
TP-1
TP-2
TP-3
TP-4
GRANT ROAD
SOUTH MAIN STREET
STABILIZED CONSTRUCTION ENTRANCE SEE SHT. E1
UGE
OHW

JAMES P. GOVE 5-22-2023 No. 604 CERTIFIED SOIL SCIENTIST

STATE OF NEW HAMPSHIRE JAMES P. GOVE 5-22-2023 No. 0051 CERTIFIED WETLAND SCIENTIST

PREPARED FOR:

DR LEMIEUX BUILDERS, INC.
76 EXETER ROAD
NEWMARKET, NH 03857

BEALS ASSOCIATES, PLLC
70 PORTSMOUTH AVE,
THIRD FLOOR, SUITE 2
STRATHAM, N.H. 03885
PHONE: 603-583-4860,
FAX. 603-583-4863

NOTES

1. UNDERGROUND FACILITIES, UTILITIES AND STRUCTURES HAVE BEEN LOCATED FROM FIELD OBSERVATIONS AND THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. BEALS ASSOCIATES OR ANY OF THEIR EMPLOYEES TAKE NO RESPONSIBILITY FOR THE LOCATION OF ANY UNDERGROUND STRUCTURES OR UTILITIES NOT SHOWN, THAT MAY EXIST. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE ALL UNDERGROUND UTILITIES OR STRUCTURES LOCATED PRIOR TO EXCAVATION WORK BY CALLING 1-888-DIG-SAFE.
2. THIS PLAN HAS BEEN PREPARED FOR MUNICIPAL AND STATE APPROVALS AND FOR CONSTRUCTION BASED ON DATA OBTAINED FROM ON-SITE FIELD SURVEY AND EXISTING MUNICIPAL RECORDS. THROUGHOUT THE CONSTRUCTION PROCESS, THE CONTRACTOR SHALL INFORM THE ENGINEER IMMEDIATELY OF ANY FIELD DISCREPANCY FROM DATA AS SHOWN ON THE DESIGN PLANS. THIS INCLUDES ANY UNFORESEEN CONDITIONS, SUBSURFACE OR OTHERWISE, FOR EVALUATION AND RECOMMENDATIONS. ANY CONTRADICTION BETWEEN ITEMS OF THIS PLAN/PLAN SET, OR BETWEEN THE PLANS AND ON-SITE CONDITIONS MUST BE RESOLVED BEFORE RELATED CONSTRUCTION HAS BEEN INITIATED.
3. ALL BENCHMARKS AND TOPOGRAPHY SHOULD BE FIELD VERIFIED BY THE CONTRACTOR.
4. ALL ROAD AND DRAINAGE WORK TO CONFORM TO TOWN STANDARD SPECIFICATIONS FOR CONSTRUCTION.
5. ALL PROPOSED SIGNS SHALL CONFORM TO THE TOWN ZONING REGULATIONS.
6. IF, DURING CONSTRUCTION, IT BECOMES APPARENT THAT DEFICIENCIES EXIST IN THE APPROVED DESIGN DRAWINGS, THE CONTRACTOR SHALL BE REQUIRED TO CORRECT THE DEFICIENCIES TO MEET THE REQUIREMENTS OF THE REGULATIONS AT NO EXPENSE TO THE TOWN
7. THE LANDOWNER IS RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL WETLAND REGULATIONS, INCLUDING ANY PERMITTING AND SETBACK REQUIREMENTS REQUIRED UNDER THESE REGULATIONS.
8. SEE DETAIL SHEET FOR STANDARD CONSTRUCTION NOTES AND DETAILS.
9. ALTERATION OF TERRIAN PERMIT RSA 485:A-17 IS NOT REQUIRED.
10. THIS SITE IS PARTIALLY LOCATED IN THE 100 YEAR FLOOD ZONE.
11. REQUIRED EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY DISTURBANCE OF THE SITE AND SHALL BE MAINTAINED THROUGH THE COMPLETION OF ALL CONSTRUCTION ACTIVITIES. IF, DURING CONSTRUCTION, IT BECOMES APPARENT THAT ADDITIONAL EROSION CONTROL MEASURES ARE REQUIRED TO STOP ANY EROSION ON THE CONSTRUCTION SITE DUE TO ACTUAL SITE CONDITIONS, THE OWNER SHALL BE REQUIRED TO INSTALL THE NECESSARY EROSION PROTECTION AT NO EXPENSE TO THE TOWN.

STATE OF NEW HAMPSHIRE CHRISTIAN O. SMITH No.9900 PROFESSIONAL ENGINEER

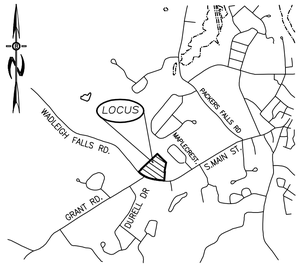
PLANNING BOARD APPROVAL BLOCK

REVISIONS:	DATE:

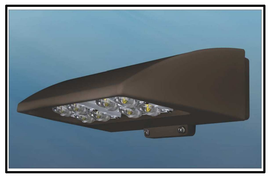
GRADING & DRAINAGE PLAN

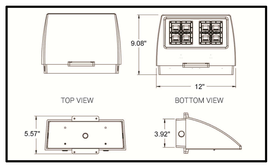
RESIDENTIAL DEVELOPMENT
TAX MAP U4, LOT 69
242 SOUTH MAIN STREET
NEWMARKET, NEW HAMPSHIRE

DATE:	JAN 2023	SCALE:	1"=20'
PROJ. N0:	NH-1449	SHEET NO.	5

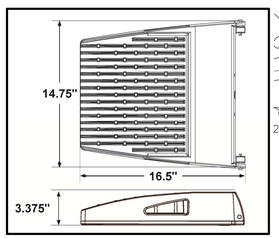


LOCATION MAP

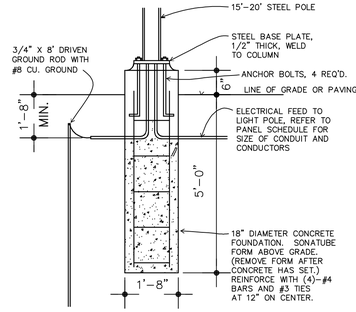




WALLPACK DETAIL



POLE MOUNTED DETAIL

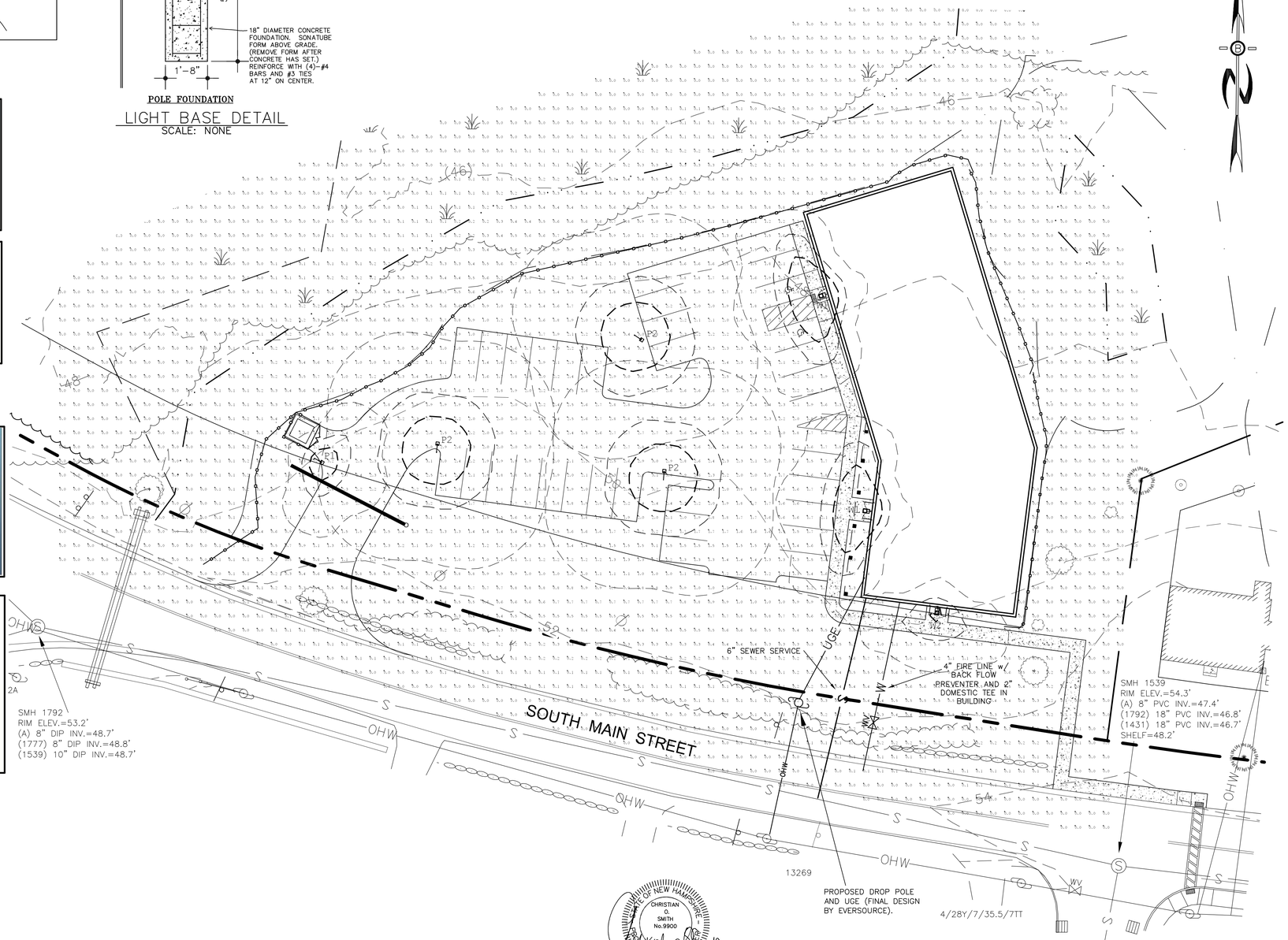


LIGHT BASE DETAIL
SCALE: NONE

Luminaire Schedule					
Symbol	Qty	Label	Arrangement	Description	Tag
	1	P1	Single	NLS LIGHTING: NV-1-T4-16L-53-40K7-UNV-ASA-BRZ	MOUNTED ON 15' NLS LIGHTING POLE: SSSP-15-4S-11G-9BC-SGL-BRZ-3430
	3	P2	Single	NLS LIGHTING: NV-1-T5-32L-1-40K7-UNV-ASA-BRZ	MOUNTED ON 20' NLS LIGHTING POLE: SSSP-20-4S-11G-9BC-SGL-BRZ-3430
	2	W1	Single	NLS LIGHTING: NV-W-T4-16L-1-40K7-UNV-WM-BRZ	WALL MTD 18' AFG
	1	W2	Single	NLS LIGHTING: NV-W-T4-16L-53-40K7-UNV-WM-BRZ	WALL MTD 16' AFG

Parking Lot

Illuminance (Fc)
Average = 2.05
Maximum = 3.2
Minimum = 1.0
Avg/Min Ratio = 2.05
Max/Min Ratio = 3.20



LIGHTING NOTES:

1. ALL OUTDOOR LIGHTING SHALL BE SO DIRECTED & SHIELDED THAT NO GLARE WILL SPILL OUT ONTO OTHER RESIDENTIALLY ZONED PROPERTIES.
2. AFTER 10:00 PM ONLY THAT AMOUNT OF LIGHT NECESSARY FOR THE SECURITY OF THE PREMISES SHALL BE PERMITTED.

UTILITY NOTES

1. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER, ARCHITECT AND/OR OWNER, IN ORDER TO OBTAIN AND/OR PAY ALL THE NECESSARY LOCAL PERMITS, FEES AND BONDS.
2. THE CONTRACTOR SHALL PROVIDE NOTICE TO ALL COMPANIES AND LOCAL AUTHORITIES OWNING OR HAVING A JURISDICTION OVER UTILITIES RUNNING TO, THROUGH OR ACROSS PROJECT AREAS PRIOR TO DEMOLITION AND/OR CONSTRUCTION ACTIVITIES.
3. THE SPECIFICATIONS FOR PROPOSED PRIVATE UTILITY SERVICES SHALL BE TO THE STANDARDS AND REQUIREMENTS OF THE RESPECTIVE UTILITY CO. CONTRACTOR TO COORDINATE WITH UTILITY COMPANIES FOR PROPER UTILITY CROSSING REQUIREMENTS
4. A PRECONSTRUCTION MEETING SHALL BE HELD WITH THE OWNER, ENGINEER, ARCHITECT, CONTRACTOR, LOCAL OFFICIALS, AND ALL UTILITY COMPANIES (PUBLIC AND PRIVATE) PRIOR TO START OF CONSTRUCTION.
4. ALL CONSTRUCTION SHALL CONFORM TO TOWN STANDARDS AND REGULATIONS, UNLESS OTHERWISE SPECIFIED. ALL CONSTRUCTION ACTIVITIES SHALL CONFORM TO LABOR (OSHA) RULES AND REGULATIONS.
5. BUILDINGS ARE TO BE SERVICED BY UNDERGROUND UTILITIES.
6. THE CONTRACTOR IS TO VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITY STUBS PRIOR TO CONSTRUCTION AND DISCONNECT ALL EXISTING SERVICE CONNECTIONS AT THEIR RESPECTIVE MAINS (IF REQUIRED) IN ACCORDANCE WITH THE RESPECTIVE UTILITY COMPANY'S STANDARDS AND SPECIFICATIONS.
7. SEWER AND WATER INFRASTRUCTURE ON PRIVATE PROPERTY SHALL REMAIN PRIVATE, HOWEVER, THE TOWN RESERVES THE RIGHT TO ENTER THE PROPERTY IN ORDER TO INSPECT, REPAIR AND/OR TERMINATE INDIVIDUAL SEWER OR WATER SERVICES (AT OWNER'S EXPENSE).
8. ALL WATER AND SANITARY LEADS TO BUILDING SHALL END 5' OUTSIDE THE BUILDING LIMITS AS SHOWN ON PLANS AND SHALL BE PROVIDED WITH A TEMPORARY CAP AND WITNESS AT END.
9. THRUST BLOCKS SHALL BE PROVIDED AT ALL BENDS, TEES AND MECHANICAL JOINTS.
10. CONTRACTOR SHALL MINIMIZE DISRUPTIONS TO EXISTING WATER SERVICES AND ALL REQUIREMENTS OF WATER DEPARTMENT SHALL BE FOLLOWED REGARDING NOTIFICATION OF INTERRUPTION OF SERVICE.
11. WATER VALVES ARE TO BE OPERATED ONLY BY MUNICIPAL STAFF.

PREPARED FOR:

DR LEMIEUX BUILDERS, INC.
76 EXETER ROAD
NEWMARKET, NH 03857

BEALS ASSOCIATES, PLLC
70 PORTSMOUTH AVE,
THIRD FLOOR, SUITE 2
STRATHAM, N.H. 03885
PHONE: 603-583-4860,
FAX. 603-583-4863

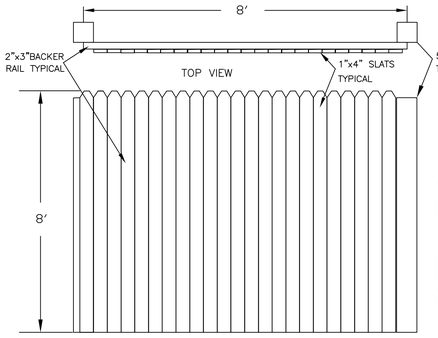
PLANNING BOARD APPROVAL BLOCK

REVISIONS:	DATE:

UTILITY/LIGHTING PLAN

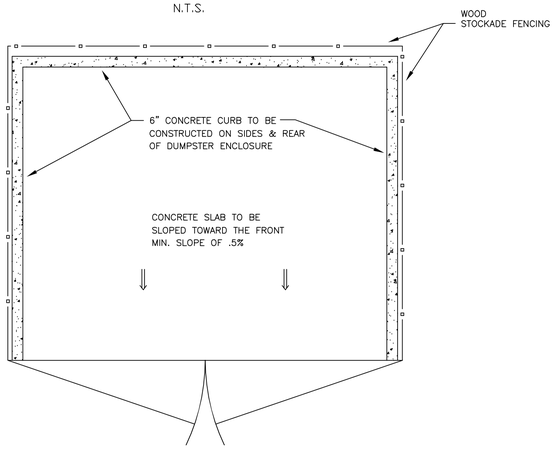
RESIDENTIAL DEVELOPMENT
TAX MAP U4, LOT 69
242 SOUTH MAIN STREET
NEWMARKET, NEW HAMPSHIRE

DATE:	JAN 2023	SCALE:	1"=20'
PROJ. NO:	NH-1449	SHEET NO.	6



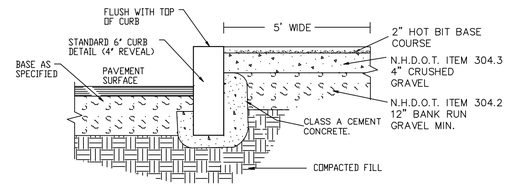
STOCKADE FENCE DETAIL

N.T.S.



DUMPSTER SLAB DETAILS

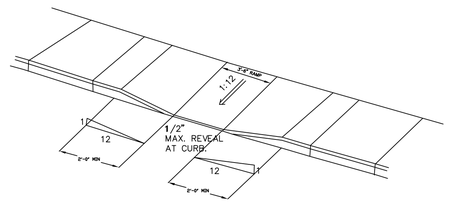
N.T.S.

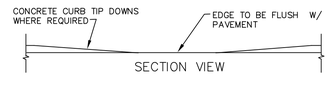


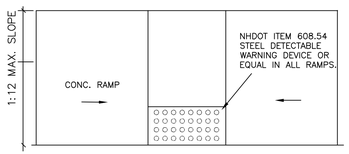
VERT. GRANITE CURB/BIT. SIDEWALK DETAIL

NOT TO SCALE

NOTE: GRAVEL SPECIFICATIONS FOR SIDEWALK ARE THE SAME FOR THE GRAVEL ACCESS PATHS.







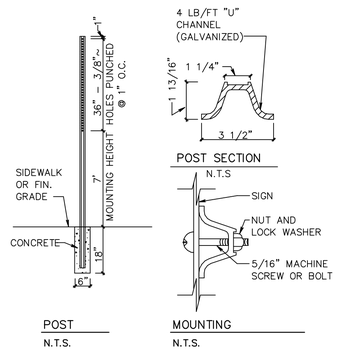
(PROVIDE PLATFORM FULL WIDTH OF HC PARKING STALLS)
SEE SITE PLAN SHEETS

SIDEWALK RAMP DETAIL

NOT TO SCALE

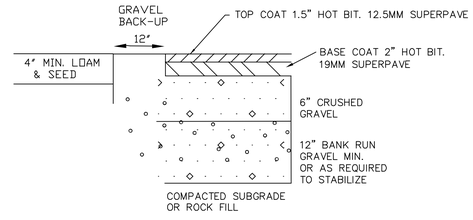
TRAFFIC CONTROL SCHEDULE

SIGN NUMBER	SIGN	SIZE OF SIGN WIDTH	SIZE OF SIGN HEIGHT	DESCRIPTION	MOUNT TYPE	MOUNT HEIGHT	REMARKS
R1-1	STOP	30"	30"	WHITE ON RED	CHANNEL	7'-0"	REFLECTORIZED SIGN
41-0342	AHEAD	30"	30"	BLACK ON YELLOW	CHANNEL	8'-6"	REFLECTORIZED SIGN
R7-8	HANDICAPPED PARKING	12"	18"	BLUE & GREEN ON WHITE	CHANNEL	7'-0"	REFLECTORIZED SIGN



STREET SIGN DETAIL

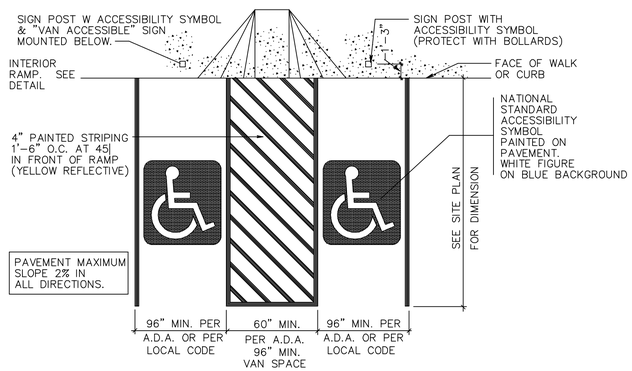
STOP SIGN (R1-1) 30" x 30"



NOTE: IN AREAS OF ROCK EXCAVATION, MINIMUM 9" BANK RUN GRAVEL SHALL BE PLACED

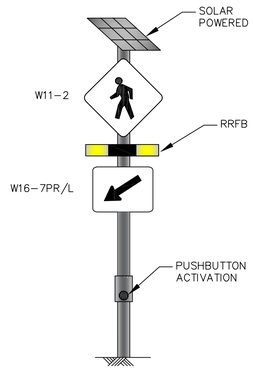
TYPICAL PAVEMENT SECTION

NEW ASPHALT – NTS



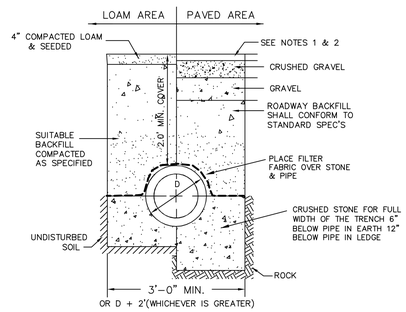
PARKING STALL FOR THE PHYSICALLY CHALLENGED

NOT TO SCALE



RECTANGULAR RAPID FLASHING BEACON (RRFB) DETAIL

NOT TO SCALE



NOTE:
1. PAVEMENT REPAIR IN EXISTING ROADWAYS SHALL CONFORM TO STREET OPENING REGULATIONS.
2. NEW ROADWAY CONSTRUCTION SHALL CONFORM TO SUBDIVISION SPEC'S. BACKFILL MATERIALS SHALL BE SCREENED GRAVEL WITH NO STONES LARGER THAN 6".

TYPICAL DRAINAGE TRENCH DETAIL

PREPARED FOR:

DR LEMIEUX BUILDERS, INC.
76 EXETER ROAD
NEWMARKET, NH 03857

BEALS ASSOCIATES, PLLC
70 PORTSMOUTH AVE,
THIRD FLOOR, SUITE 2
STRATHAM, N.H. 03885
PHONE: 603-583-4860,
FAX. 603-583-4863

STATE OF NEW HAMPSHIRE — CHRISTIAN O. SMITH No.9900 — LICENSED LAND SURVEYOR — PROFESSIONAL ENGINEER

REVISIONS:	DATE:

CONSTRUCTION DETAILS D1

RESIDENTIAL DEVELOPMENT
TAX MAP U4, LOT 69
242 SOUTH MAIN STREET
NEWMARKET, NEW HAMPSHIRE

DATE:	MAY 2023	SCALE:	NTS
PROJ. N0:	NH-1449	SHEET NO.	7

SEEDING GUIDE

USE	SEEDING MIXTURE 1/	DROUGHTY	WELL DRAINED	MODERATELY WELL DRAINED	POORLY DRAINED
STEEP CUTS AND FILLS, BORROW AND DISPOSAL AREAS	A	FAIR	GOOD	GOOD	FAIR
	B	POOR	GOOD	FAIR	FAIR
	C	POOR	GOOD	EXCELLENT	GOOD
	D	FAIR	FAIR	GOOD	EXCELLENT
	E	FAIR	EXCELLENT	EXCELLENT	POOR
WATERWAYS, EMERGENCY SPILLWAYS, AND OTHER CHANNELS WITH FLOWING WATER.	A	GOOD	GOOD	GOOD	FAIR
	C	GOOD	EXCELLENT	EXCELLENT	FAIR
	D	GOOD	EXCELLENT	EXCELLENT	FAIR
LIGHTLY USED PARKING LOTS, ODD AREAS, UNUSED LANDS, AND LOW INTENSITY USE RECREATION SITES.	A	GOOD	GOOD	GOOD	FAIR
	B	GOOD	GOOD	FAIR	POOR
	C	GOOD	EXCELLENT	EXCELLENT	FAIR
	D	FAIR	GOOD	GOOD	EXCELLENT
PLAY AREAS AND ATHLETIC FIELDS. (TOPSOIL IS ESSENTIAL FOR GOOD TURF.)	F	FAIR	EXCELLENT	EXCELLENT	2/
	G	FAIR	EXCELLENT	EXCELLENT	2/

GRAVEL PIT, SEE NH-PM-24 IN APPENDIX FOR RECOMMENDATION REGARDING RECLAMATION OF SAND AND GRAVEL PITS.

1/ REFER TO SEEDING MIXTURES AND RATES IN TABLE 7-36. (PREFERED MIX INDICATED WITH AN ASTERISK).
2/ POORLY DRAINED SOILS ARE NOT DESIRABLE FOR USE AS PLAYING AREA AND ATHLETIC FIELDS.

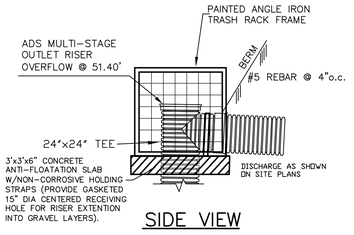
NOTE: TEMPORARY SEED MIX FOR STABILIZATION OF TURF SHALL BE WINTER RYE OR OATS AT A RATE OF 2.5 LBS. PER 1000 S.F. AND SHALL BE PLACED PRIOR TO OCT. 15, IF PERMANENT SEEDING NOT YET COMPLETE.

SEEDING RATES

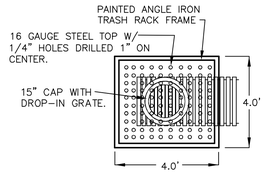
MIXTURE	POUNDS PER ACRE	POUNDS PER 1,000 Sq. Ft.
A. TALL FESCUE	20	0.45
CREEPING RED FESCUE	20	0.45
RED TOP	2	0.05
TOTAL	42	0.95
B. TALL FESCUE	15	0.35
CREEPING RED FESCUE	10	0.25
CROWN VETCH	15	0.35
OR		
FLAT PEA	30	0.75
TOTAL	40 OR 55	0.95 OR 1.35
* C. TALL FESCUE	20	0.45
CREEPING RED FESCUE	20	0.45
BIRDS FOOT TREFOIL	8	0.20
TOTAL	48	1.10
D. TALL FESCUE	20	0.45
FLAT PEA	30	0.75
TOTAL	50	1.20
E. CREEPING RED FESCUE 1/	50	1.15
KENTUCKY BLUEGRASS 1/	50	1.15
TOTAL	100	2.30
F. TALL FESCUE 1	150	3.60

1/ FOR HEAVY USE ATHLETIC FIELDS CONSULT THE UNIVERSITY OF NEW HAMPSHIRE COOPERATIVE EXTENSION TURF SPECIALIST FOR CURRENT VARIETIES AND SEEDING RATES.

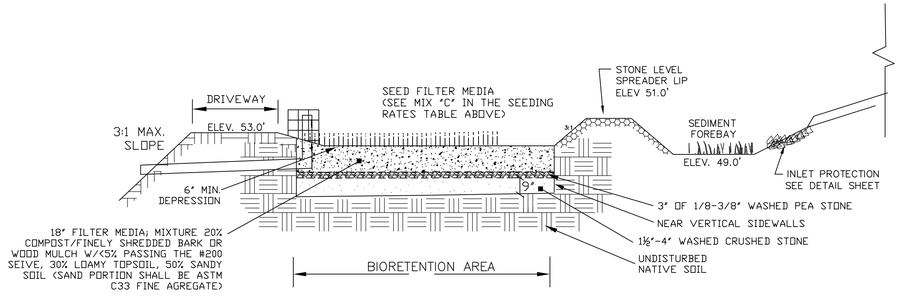
TABLE 7-36



SIDE VIEW



TOP VIEW



NOTES:
1. SCARIFY SIDES AND BOTTOM OF BIORETENTION AREA TO FACILITATE NATURAL INFILTRATION RATES.
2. POND SURFACE TO BE FINISHED WITH 3" BARK MULCH OR 4" LOAM & SEED

BIORETENTION POND PROFILE DETAIL

NOT TO SCALE

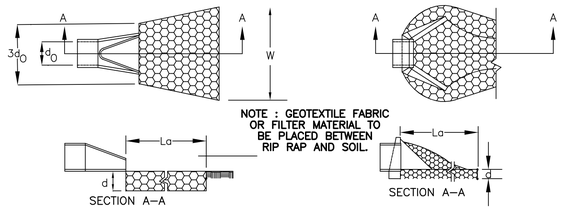
A. FOR FILTRATION BASIN:
• DO NOT TRAFFIC EXPOSED SOIL SURFACE WITH CONSTRUCTION EQUIPMENT. IF FEASIBLE, PERFORM EXCAVATIONS WITH EQUIPMENT POSITIONED OUTSIDE THE LIMITS OF THE INFILTRATION SYSTEM.
• AFTER THE INFILTRATION SYSTEM AREA IS EXCAVATED TO THE FINAL DESIGN ELEVATION, THE FLOOR SHOULD BE DEEPLY TILLED WITH A ROTARY TILLER OR DISC HARROW TO RESTORE INFILTRATION RATES, FOLLOWED BY A PASS WITH A LEVELING DRAG.
• DO NOT PLACE INFILTRATION SYSTEMS INTO SERVICE UNTIL THE CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.

DRAINAGE NOTES:

DO NOT TRAFFIC EXPOSED SOIL SURFACE WITH CONSTRUCTION EQUIPMENT. IF FEASIBLE, PERFORM EXCAVATION WITH EQUIPMENT POSITIONED OUTSIDE THE LIMITS OF THE INFILTRATION COMPONENTS OF THE SYSTEM.

DO NOT PLACE SYSTEM INTO SERVICE UNTIL THE BMP HAS BEEN PLANTED AND ITS CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.

DO NOT DISCHARGE SEDIMENT-LADEN WATERS FROM CONSTRUCTION ACTIVITIES (RUNOF, WATER FROM EXCAVATIONS) TO THE BIO-RETENTION AREA DURING ANY STAGE OF CONSTRUCTION.



PIPE OUTLET TO FLAT AREA WITH NO DEFINED CHANNEL

PIPE OUTLET TO WELL-DEFINED CHANNEL

NOTE : GEOTEXTILE FABRIC OR FILTER MATERIAL TO BE PLACED BETWEEN RIP RAP AND SOIL.

CONSTRUCTION SPECIFICATIONS

1. THE SUB GRADE FOR THE FILTER MATERIAL, GEOTEXTILE FABRIC, AND RIP RAP SHALL BE PREPARED TO THE LINES AND GRADES SHOWN ON THE PLANS.
2. THE ROCK OR GRAVEL USED FOR FILTER OF RIP RAP SHALL CONFORM TO THE SPECIFIED GRADATION. 3. GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF THE ROCK RIP RAP. DAMAGED AREAS IN THE FABRIC SHALL BE REPAIRED BY PLACING A PIECE OF FABRIC OVER THE DAMAGED AREA OR BY COMPLETE REPLACEMENT OF THE FABRIC. ALL OVERLAPS REQUIRED FOR REPAIRS OR JOINING TWO PIECES OF FABRIC SHALL BE A MINIMUM OF 12 INCHES.
4. STONE FOR THE RIP RAP MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT SEGREGATION OF THE STONE SIZES.
5. STONE FOR RIRAP SHALL BE ANGULAR OR SUBANGULAR. THE STONES SHOULD BE SHAPED SO THAT THE LEAST DIMENSION OF THE STONE FRAGMENT SHALL BE NOT LESS THAN ONE-THIRD OF THE GREATEST DIMENSION OF THE FRAGMENT.
6. FLAT ROCKS SHALL NOT USED FOR RIP RAP. VOIDS IN THE ROCK RIPRAP SHOULD BE FILLED WITH SPALLS AND SMALLER ROCKS.

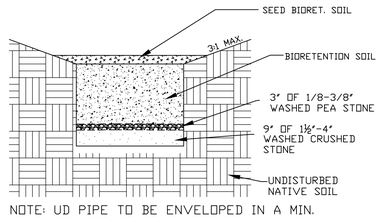
MAINTENANCE

1. THE OUTLET PROTECTION SHOULD BE CHECKED AT LEAST ANNUALLY AND AFTER EVERY MAJOR STORM. IF THE RIP RAP HAS BEEN DISPLACED, UNDERMINED OR DAMAGED, IT SHOULD BE REPAIRED IMMEDIATELY. THE CHANNEL IMMEDIATELY BELOW THE OUTLET SHOULD BE CHECKED TO SEE THAT EROSION IS NOT OCCURRING. THE DOWNSTREAM CHANNEL SHOULD BE KEPT CLEAR OF OBSTRUCTIONS SUCH AS FALLEN TREES, DEBRIS, AND SEDIMENT THAT COULD CHANGE FLOW PATTERNS AND/OR TAILWATER DEPTHS ON THE PIPES. REPAIRS MUST BE CARRIED OUT IMMEDIATELY TO AVOID ADDITIONAL DAMAGE TO OUTLET PROTECTION.

PIPE OUTLET PROTECTION

PIPE OUTLET PROTECTION

TABLE 7-24-RECOMMENDED RIP RAP GRADATION RANGES			
d50 SIZE= 0.25 FEET 3 INCHES			
% OF WEIGHT SMALLER THAN THE GIVEN d50 SIZE	SIZE OF STONE(INCHES) FROM		TO
100%	5		6
85%	4		5
50%	3		5
15%	1		2



NOTE: UD PIPE TO BE ENVELOPED IN A MIN. OF 4" WASHED STONE AS SHOWN.

BIORETENTION SECTION

NOT TO SCALE

PREPARED FOR:

DR LEMIEUX BUILDERS, INC.
76 EXETER ROAD
NEWMARKET, NH 03857

BA BEALS ASSOCIATES, PLLC
70 PORTSMOUTH AVE,
THIRD FLOOR, SUITE 2
STRATHAM, N.H. 03885
PHONE: 603-583-4860,
FAX. 603-583-4863

REVISIONS:	DATE:

CONSTRUCTION DETAILS D1

RESIDENTIAL DEVELOPMENT
TAX MAP U4, LOT 69
242 SOUTH MAIN STREET
NEWMARKET, NEW HAMPSHIRE

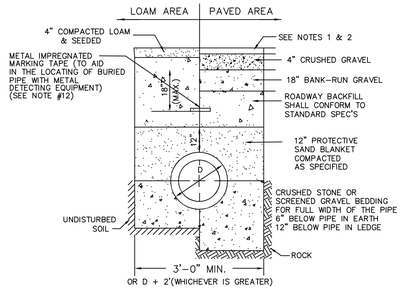
DATE:	MAY 2023	SCALE:	NTS
PROJ. N0:	NH-1449	SHEET NO.	8

PREPARED FOR:

DR LEMIEUX BUILDERS, INC.
76 EXETER ROAD
NEWMARKET, NH 03857

BA BEALS ASSOCIATES, PLLC

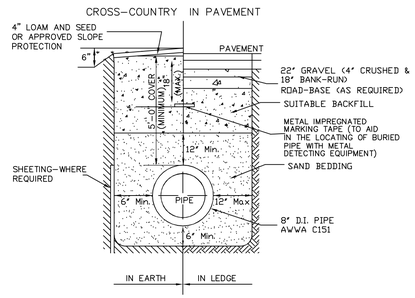
70 PORTSMOUTH AVE,
THIRD FLOOR, SUITE 2
STRATHAM, N.H. 03885
PHONE: 603-583-4860,
FAX. 603-583-4863



NOTE:
1. PAVEMENT REPAIR IN EXISTING ROADWAYS SHALL CONFORM TO STREET OPENING REGULATIONS.
2. NEW ROADWAY CONSTRUCTION SHALL CONFORM TO SUBDIVISION SPEC'S.

TYPICAL SEWER TRENCH DETAIL

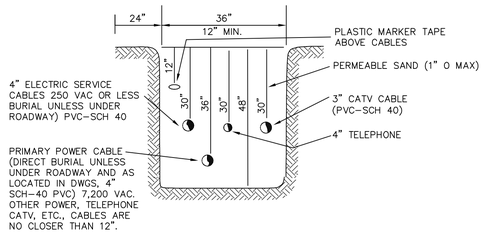
NOT TO SCALE



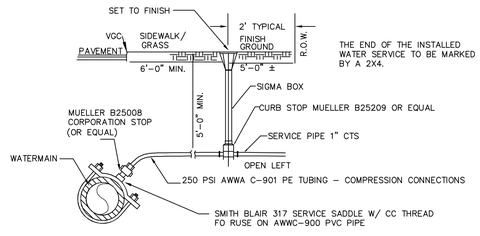
TYPICAL TRENCH DETAIL FOR WATER SYSTEM

NOTE: ALL UTILITIES SHALL BE REVIEWED AND APPROVED BY APPROPRIATE UTILITY COMPANY.

SERVICE BOX CONNECTIONS SHALL BE "FLUSH MOUNT" TO GREATEST EXTENT POSSIBLE AND LOCATED AT PROPERTY LINE CORNERS.

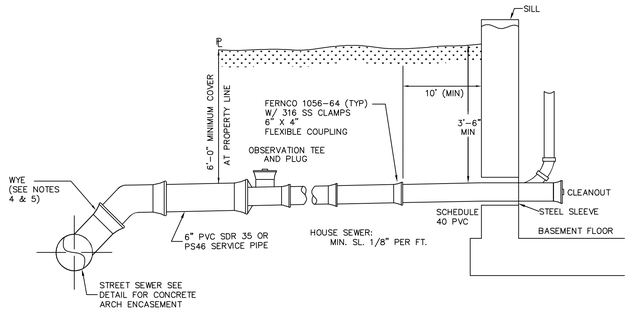


UTILITY TRENCH DETAIL



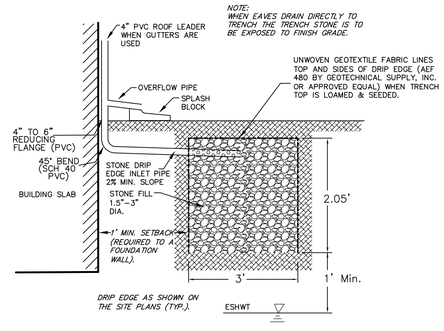
NOTE: ALL COMPRESSION FITTINGS USE STAINLESS STEEL INSERTS ON THE PE SERVICE LINE TUBING

TYPICAL WATER SERVICE CONNECTION



DETAIL OF SEWER SERVICE

NOTES:
1) SEWER SERVICE FROM PROPERTY LINE TO 10' OUTSIDE OF BUILDING SHALL BE INSTALLED UNDER THIS CONTRACT ONLY WHEN OUTSIDE THE TRENCH DEWATERING OR LEDGE EXCAVATION IS REQUIRED.
2) PIPE DEPTH AT HOUSE SHALL BE ABOVE THE SEASONAL GROUND WATER LEVEL.
3) SEWER SHALL BE BELOW SLAB ONLY WHEN BASEMENT TOILETS EXIST.
4) JOINTS SHALL BE DEPENDENT UPON A NEOPRENE OR ELASTOMERIC GASKET FOR WATER TIGHTNESS. ALL JOINTS SHALL BE PROPERLY MATCHED WITH THE PIPE MATERIALS USED. WHERE DIFFERING MATERIALS ARE TO BE CONNECTED, AST AT THE STREET SEWER WYE OR, AT THE FOUNDATION WALL, APPROPRIATE MANUFACTURED ADAPTERS SHALL BE USED
5) WYES: WHERE WYE IS NOT AVAILABLE IN THE EXISTING STREET SEWER, AN APPROPRIATE CONNECTION SHALL BE MADE FOLLOWING MANUFACTURERS INSTRUCTIONS USING A BOLTED, CLAMPED, OR EPOXY-CEMENTED SADDLE, TAPPED INTO A SMOOTHLY DRILLED OR SAWN OPENING IN THE SEWER.



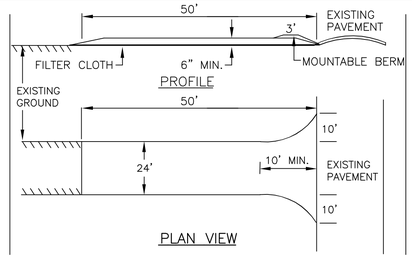
STONE DRIP EDGE SECTION
NOT TO SCALE

REVISIONS:	DATE:

CONSTRUCTION DETAILS D2

RESIDENTIAL DEVELOPMENT
TAX MAP U4, LOT 69
242 SOUTH MAIN STREET
NEWMARKET, NEW HAMPSHIRE

DATE:	MAY 2023	SCALE:	NTS
PROJ. NO:	NH-1449	SHEET NO.	10



1. STONE FOR A STABILIZED CONSTRUCTION ENTRANCE SHALL BE 3 INCH STONE, RECLAIMED STONE, OR RECYCLED CONCRETE EQUIVALENT.
2. THE LENGTH OF THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 50 FEET, EXCEPT FOR A SINGLE RESIDENTIAL LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY.
3. THE THICKNESS OF THE STONE FOR THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 6 INCHES.
4. THE WIDTH OF THE ENTRANCE SHALL NOT BE LESS THAN THE FULL WIDTH OF THE ENTRANCE WHERE INGRESS OR EGRESS OCCURS OR 10 FEET, WHICH EVER IS GREATER. 5. GEOTEXTILE FILTER CLOTH SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING THE STONE. FILTER CLOTH IS NOT REQUIRED FOR A SINGLE FAMILY RESIDENCE LOT.
6. ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARD THE CONSTRUCTION ENTRANCE SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A BERM WITH 5:1 SLOPES THAT CAN BE CROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE PIPE.
7. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, WASHED, OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED PROMPTLY.

STABILIZED CONSTRUCTION ENTRANCE

TEMPORARY EROSION CONTROL MEASURES

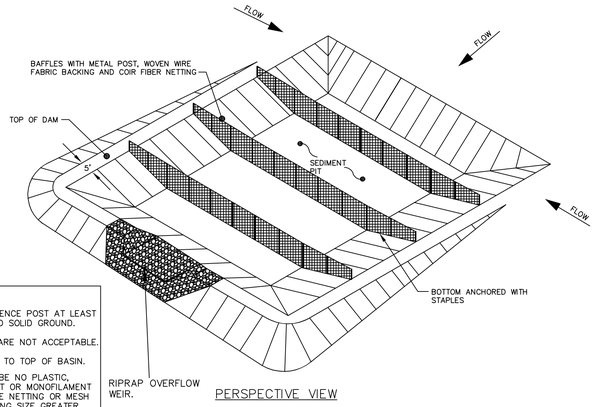
1. THE SMALLEST PRACTICAL AREA SHALL BE DISTURBED DURING CONSTRUCTION, BUT NO MORE THAN 5 ACRES OF LAND SHALL BE EXPOSED BEFORE DISTURBED AREAS ARE STABILIZED*. LIMIT EXPOSURE OF UNSTABILIZED SOIL TO 45-DAYS OR LESS.
   - PERIMETER CONTROLS MUST BE INSTALLED PRIOR TO EARTH MOVING OPERATIONS.
   - STORMWATER PONDS, INFILTRATION BASINS AND SWALES MUST BE INSTALLED BEFORE ROUGH GRADING THE SITE.
   - RUNOFF MUST BE DIRECTED TO TEMPORARY PRACTICES UNTIL STORMWATER BMPS ARE STABILIZED.
   - STORMWATER PONDS, INFILTRATION BASINS AND SWALES MUST BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
   - EROSION CONTROL PRACTICES ARE TO BE INSPECTED WEEKLY AND AFTER 0.5, OF RAINFALL
   - CUT AND FILL SLOPES MUST BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
   - ROADWAYS AND PARKING AREAS MUST BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
2. EROSION, SEDIMENT AND DETENTION MEASURES SHALL BE INSTALLED AS SHOWN ON THE PLANS AND AT LOCATIONS AS REQUIRED OR DIRECTED BY THE ENGINEER ALL DISTURBED AREAS SHALL BE RETURNED TO ORIGINAL GRADES AND ELEVATIONS.
3. DISTURBED AREAS SHALL BE LOAMED WITH A MINIMUM OF 4" OF LOAM AND SEEDED WITH NOT LESS THAN 1.10 POUNDS OF SEED PER 1000 SQUARE FEET OF AREA. (48 POUNDS PER ACRE) SEE SEED SPECIFICATIONS THIS SHEET.
4. SILT FENCES AND OTHER EROSION CONTROLS SHALL BE INSPECTED WEEKLY AND AFTER EVERY RAIN EVENT GREATER THAN 0.5" DURING THE LIFE OF THE PROJECT. ALL DAMAGED AREAS SHALL BE REPAIRED, SEDIMENT DEPOSITS SHALL PERIODICALLY BE REMOVED AND DISPOSED OF.
5. AFTER ALL DISTURBED AREAS HAVE BEEN STABILIZED, THE TEMPORARY EROSION CONTROL MEASURES ARE TO BE REMOVED AND THE AREA DISTURBED BY THE REMOVAL SMOOTHED AND RE-VEGETATED.
6. AREAS MUST BE SEEDED AND MULCHED WITHIN 3 DAYS OF FINAL GRADING, PERMANENTLY STABILIZED WITHIN 15 DAYS OF FINAL GRADING, OR TEMPORARILY STABILIZED WITHIN 30 DAYS OF INITIAL DISTURBANCE OF SOIL.
* AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
   - IN AREAS TO BE PAVED, BASE COURSE GRAVELS MEETING THE REQUIREMENTS OF NHDOT STANDARD FOR ROAD AND BRIDGE CONSTRUCTION, 2016, ITEM 304.2 HAVE BEEN INSTALLED.
   - A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED.
   - A MINIMUM OF 3 INCHES OF NON-EROSIVE MATERIAL SUCH AS RIPRAP HAS BEEN INSTALLED.
   - EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.

CONSTRUCTION SPECIFICATIONS

1. STRUCTURES SHALL BE INSTALLED ACCORDING TO THE DIMENSIONS SHOWN ON THE PLANS AT THE APPROPRIATE SPACING.
2. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER SO THAT EROSION AND AIR AND WATER POLLUTION WILL BE MINIMIZED.
3. WHEN TIMBER STRUCTURES ARE USED, THE TIMBER SHALL EXTEND AT LEAST 18" INTO THE SOIL.
4. STRAW BALES SHALL BE ANCHORED INTO THE SOIL USING 2" X 2" STAKES DRIVEN THROUGH THE BALES AND AT LEAST 18 INCHES IN TO THE SOIL.
5. SEEDING, FERTILIZING, AND MULCHING SHALL CONFORM TO THE RECOMMENDATIONS IN THE APPROPRIATED VEGETATIVE BMP.
6. STRUCTURES SHALL BE REMOVED FROM THE CHANNEL WHEN THEIR USEFUL LIFE HAS BEEN COMPLETED.
7. THROUGHOUT THE DURATION OF CONSTRUCTION ACTIVITIES THE CONTRACTOR SHALL TAKE PRECAUTIONS AND INSTRUCTIONS FROM THE PLANNING DEPARTMENT IN ORDER TO PREVENT, ABATE AND CONTROL THE EMISSION OF FUGITIVE DUST INCLUDING BUT NOT LIMITED TO WETTING, COVERING, SHIELDING, OR VACUUMING.
8. THE NH COMMISSIONER OF AGRICULTURE PROHIBITS THE COLLECTION, POSSESSION, IMPORTATION, TRANSPORTATION, SALE, PROPAGATION, TRANSPLANTATION, OR CULTIVATION OF PLANTS BANNED BY NH LAW RSA 430:53 AND NH CODE ADMINISTRATIVE RULES AGR 3800. THE PROJECT SHALL MEET ALL REQUIREMENTS AND THE INTENT OF . RSA 430:53 AND AGR 3800 RELATIVE TO INVASIVE SPECIES
9. IN THE EVENT THAT GREATER THAN ONE ACRE OF CONTIGUOUS DISTURBANCE OCCURS, THE CONSTRUCTION SITE OPERATOR AND OWNER SHALL SUBMIT A NOTICE OF INTENT (NOI) TO USEPA, WASHINGTON, DC, STORMWATER NOTICE PROCESSING CENTER AT LEAST FOURTEEN DAYS PRIOR TO COMMENCEMENT OF WORK ON SITE. EPA WILL POST THE NOI AT http://cfpubl.epa.gov/npdes/stormwater/noi/noisearch.cfm. AUTHORIZATION IS GRANTED UNDER THE PERMIT ONCE THE NOI IS SHOWN IN "ACTIVE STATUS".

CONSTRUCTION SEQUENCE

1. CUT AND REMOVE TREES IN CONSTRUCTION AREAS AS REQUIRED OR DIRECTED.
2. CONSTRUCT AND/OR INSTALL TEMPORARY AND PERMANENT SEDIMENT EROSION AND DETENTION CONTROL FACILITIES AS REQUIRED. EROSION, SEDIMENT AND DETENTION CONTROL FACILITIES SHALL BE INSTALLED AND STABILIZED PRIOR TO ANY EARTH MOVING OPERATION AND PRIOR TO DIRECTING RUNOFF TO THEM.
3. CLEAR, CUT, GRUB AND DISPOSE OF DEBRIS IN APPROVED FACILITIES. STUMPS AND DEBRIS ARE TO BE REMOVED FROM SITE AND DISPOSED OF PER STATE AND LOCAL REGULATIONS.
4. EXCAVATE AND STOCKPILE TOPSOIL /LOAM. ALL AREAS SHALL BE STABILIZED IMMEDIATELY AFTER GRADING.
5. CONSTRUCT TEMPORARY CULVERTS AS REQUIRED OR DIRECTED.
6. CONSTRUCT THE ROADWAY AND ITS ASSOCIATED DRAINAGE STRUCTURES. ALL ROADWAYS, AND CUT/FILL SLOPES SHALL BE STABILIZED AND/OR LOAMED AND SEEDED WITHIN 72-HOURS OF ACHIEVING FINISH GRADE AS APPLICABLE.
7. INSTALL PIPE AND CONSTRUCTION ASSOCIATED APPURTENANCES AS REQUIRED OR DIRECTED. ALL DISTURBED AREAS SHALL STABILIZED IMMEDIATELY AFTER GRADING.
8. BEGIN PERMANENT AND TEMPORARY SEEDING AND MULCHING. ALL CUT AND FILL SLOPES AND DISTURBED AREAS SHALL BE SEEDED OR MULCHED AS REQUIRED, OR DIRECTED.
9. DAILY OR AS REQUIRED, CONSTRUCT TEMPORARY BERMS, DRAINAGE CHECK DAMS, DITCHES, SEDIMENT TRAPS, ETC. TO PREVENT EROSION ON THE SITE AND PREVENT ANY SILTATION OF ABUTTING WATERS OR PROPERTY.
10. INSPECT AND MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES DURING CONSTRUCTION
11. COMPLETE PERMANENT SEEDING AND LANDSCAPING
12. REMOVE TEMPORARY EROSION CONTROL MEASURES AFTER SEEDING AREAS HAVE ESTABLISHED THEMSELVES AND SITE IMPROVEMENTS ARE COMPLETE. SMOOTH AND REVEGETATE ALL DISTURBED AREAS.
13. ALL SWALES AND DRAINAGE STRUCTURES WILL BE CONSTRUCTED AND STABILIZED PRIOR TO HAVING RUNOFF DIRECTED TO THEM.
14. FINISH PAVING ALL ROADWAYS.
15. LOT DISTURBANCE OTHER THAN THAT SHOWN ON THE APPROVED PLANS SHALL NOT COMMENCE UNTIL THE ROADWAY HAS THE CRUSHED STONE COURSE TO DESIGN ELEVATION/REQUIRED COMPACTION AND THE ASSOCIATED DRAINAGE IS COMPLETE AND STABLE.



NOTES:
1. DRIVE STEEL FENCE POST AT LEAST 18 INCHES INTO SOLID GROUND.
2. WOOD POSTS ARE NOT ACCEPTABLE.
3. DIRECT WATER TO TOP OF BASIN.
4. THERE SHALL BE NO PLASTIC, MULTI-FILAMENT OR MONOFILAMENT POLYPROPYLENE NETTING OR MESH WITH AN OPENING SIZE GREATER THAN 1/8" MATERIAL UTILIZED.

TEMPORARY SEDIMENT BASIN

WINTER MAINTENANCE

1. ALL DISTURBED AREAS THAT DO NOT HAVE AT LEAST 85% VEGETATIVE COVERAGE PRIOR TO OCTOBER 15TH, SHALL BE STABILIZED BY APPLYING MULCH AT A RATE OF 3-4 TONS PER ACRE. ALL SIDE SLOPES, STEEPER THAN 4:1, THAT ARE NOT DIRECTED TO SWALES OR DETENTION BASINS, SHALL BE LINED WITH BIODEGRADABLE/PHOTODEGRADABLE "JUTE MATTING" (EXCELSIOR'S CURLEX II OR EQUAL). ALL OTHER SLOPES SHALL BE MULCHED AND TACKED AT A RATE OF 3-4 TONS PER ACRE. THE APPLICATION OF MULCH AND/OR JUTE MATTING SHALL NOT OCCUR OVER EXISTING SNOW COVER. IF THE SITE IS ACTIVE AFTER NOVEMBER 15TH, ANY SNOW THAT ACCUMULATES ON DISTURBED AREAS SHALL BE REMOVED. PRIOR TO SPRING THAW ALL AREAS WILL BE STABILIZED, AS DIRECTED ABOVE.

2. ALL SWALES THAT DO NOT HAVE FULLY ESTABLISHED VEGETATION SHALL BE EITHER LINED WITH TEMPORARY JUTE MATTING OR TEMPORARY STONE CHECK DAMS (APPROPRIATELY SPACED). STONE CHECK DAMS WILL BE MAINTAINED THROUGHOUT THE WINTER MONTHS. IF THE SWALES ARE TO BE MATTED WITH PERMANENT LINERS OR RIPRAP WITH ENGINEERING FABRIC, THIS SHALL BE COMPLETED PRIOR TO WINTER SHUTDOWN OR AS SOON AS THEY ARE PROPERLY GRADED AND SHAPED.

3. PRIOR TO OCT. 15TH ALL ROADWAY AND PARKING AREAS SHALL BE BROUGHT UP TO AND THROUGH THE BANK RUN GRAVEL APPLICATION. IF THESE AREAS' ELEVATIONS ARE PROPOSED TO REMAIN BELOW THE PROPOSED SUBGRADE ELEVATION, THE SUBGRADE MATERIAL SHALL BE ROUGHLY CROWNED AND A 3" LAYER OF CRUSHED GRAVEL SHALL BE PLACED AND COMPACTED. THIS WILL ALLOW THE SUBGRADE TO SHED RUNOFF AND WILL REDUCE ROADWAY EROSION. THIS CRUSHED GRAVEL DOES NOT HAVE TO CONFORM TO NH DOT 304.3, BUT SHALL HAVE BETWEEN 15-25% PASSING THE #200 SIEVE AND THE LARGEST STONE SIZE SHALL BE 2". IF THE SITE IS ACTIVE AFTER NOVEMBER 15TH, ANY ACCUMULATED SNOW SHALL BE REMOVED FROM ALL ROADWAY AND PARKING AREAS.

4. AFTER OCTOBER 15TH, THE END OF NEW HAMPSHIRE'S AVERAGE GROWING SEASON, NO ADDITIONAL LOAM SHALL BE SPREAD ON SIDE SLOPES AND SWALES. THE STOCKPILES THAT WILL BE LEFT UNDISTURBED UNTIL SPRING SHALL BE SEEDED BY THIS DATE. AFTER OCTOBER 15TH, ANY NEW OR DISTURBED PILES SHALL BE MULCHED AT A RATE OF 3-4 TONS PER ACRE. ALL STOCKPILES THAT WILL REMAIN THROUGHOUT THE WINTER SHALL BE SURROUNDED WITH SILT FENCING.

SEEDING SPECIFICATIONS

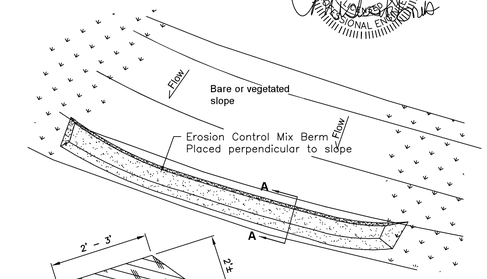
1. GRADING AND SHAPING
   A. SLOPES SHALL NOT BE STEEPER THAN 2:1;3:1 SLOPES OR FLATTER ARE PREFERRED. WHERE MOWING WILL BE DONE, 3:1 SLOPES OR FLATTER ARE RECOMMENDED.
2. SEEDBED PREPARATION
   A. SURFACE AND SEEPAGE WATER SHOULD BE DRAINED OR DIVERTED FROM THE SITE TO PREVENT DROWNING OR WINTER KILLING OF THE PLANTS.
   B. STONES LARGER THAN 4 INCHES AND TRASH SHOULD BE REMOVED BECAUSE THEY INTERFERE WITH SEEDING AND FUTURE MAINTENANCE OF THE AREA. WHERE FEASIBLE, THE SOIL SHOULD BE TILLED TO A DEPTH OF ABOUT 4 INCHES TO PREPARE A SEEDBED AND MIX FERTILIZER AND LIME INTO THE SOIL. THE SEEDBED SHOULD BE LEFT IN REASONABLY FIRM AND SMOOTH CONDITION. THE LAST TILLAGE OPERATION SHOULD BE PERFORMED ACROSS THE SLOPE WHEREVER PRACTICAL.
3. ESTABLISHING A STAND
   A. LIME AND FERTILIZER SHOULD BE APPLIED PRIOR TO OR AT THE TIME OF SEEDING AND INCORPORATED INTO THE SOIL KINDS AND AMOUNTS OF LIME AND FERTILIZER SHOULD BE BASED ON AN EVALUATION OF SOIL TESTS. WHEN A SOIL TEST IS NOT AVAILABLE, THE FOLLOWING MINIMUM AMOUNTS SHOULD BE APPLIED:
      AGRICULTURAL LIMESTONE, 2 TONS PER ACRE OR 100 LBS PER 1,000 SQ. FT..
      NITROGEN(N), 50 LBS PER ACRE OR 1. 1 LBS PER 1,000 SQ.FT.
      PHOSPHATE(P2O5), 100 LBS PER ACRE OR 2. 2 LBS PER 1,000 SQ.FT.
      POTASH(K2O), 100 LBS PER ACRE OR 2. 2 LBS PER 1,000 SQ.FT.
      (NOTE: THIS IS THE EQUIVALENT OF 500 LBS PER ACRE OF 10-20-20 FERTILIZER OR 1,000 LBS PER ACRE OF 5-10-10.)
   B. SEED SHOULD BE SPREAD UNIFORMLY BY THE METHOD MOST APPROPRIATE FOR THE SITE. METHODS INCLUDE BROADCASTING, DRILLING AND HYDROSEEDING. WHERE BROADCASTING IS USED, COVER SEED WITH .25 INCH OF SOIL OR LESS, BY CULTIPACKING OR RAKING.
   C. REFER TO TABLE(G-E1 THIS SHEET) FOR APPROPRIATE SEED MIXTURES AND TABLE(H-E1 THIS SHEET) FOR RATES OF SEEDING. ALL LEGUMES (CROWN VETCH, BIRDS FOOT TREFOIL, AND FLAT PEA) MUST BE INOCULATED WITH THEIR SPECIFIC INOCULANT.
   D. WHEN SEEDED AREAS ARE MULCHED, PLANTINGS MAY BE MADE FROM EARLY SPRING TO EARLY OCTOBER. WHEN SEEDED AREAS ARE NOT MULCHED, PLANTINGS SHOULD BE MADE FROM EARLY SPRING TO MAY 20 OR FROM AUGUST 10 TO SEPTEMBER 1.
4. MULCH
   A. HAY, STRAW, OR OTHER MULCH, WHEN NEEDED, SHOULD BE APPLIED IMMEDIATELY AFTER SEEDING.
   B. MULCH WILL BE HELD IN PLACE USING APPROPRIATE TECHNIQUES FROM THE BEST MANAGEMENT PRACTICE FOR MULCHING. HAY OR STRAW MULCH SHALL BE PLACED AT A RATE OF 90 LBS PER 1000 SQ. FT.
5. MAINTENANCE TO ESTABLISH A STAND
   A. PLANTED AREA SHOULD BE PROTECTED FROM DAMAGE BY FIRE, GRAZING, TRAFFIC, AND DENSE WEED GROWTH.
   B. FERTILIZATION NEEDS SHOULD BE DETERMINED BY ONSITE INSPECTIONS. SUPPLEMENTAL FERTILIZER IS USUALLY THE KEY TO FULLY COMPLETE THE ESTABLISHMENT OF THE STAND BECAUSE MOST PERENNIAL STAKE 2 TO 3 YEARS TO BECOME ESTABLISHED.
   C. IN WATERWAYS, CHANNELS, OR SWALES WHERE UNIFORM FLOW CONDITIONS ARE ANTICIPATED, OCCASIONAL MOWING MAY BE NECESSARY TO CONTROL GROWTH OF WOODY VEGETATION.

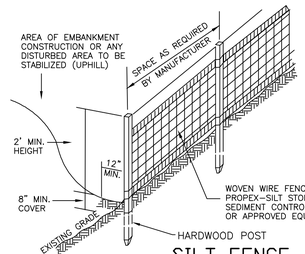
PREPARED FOR:

DR LEMIEUX BUILDERS, INC.
76 EXETER ROAD
NEWMARKET, NH 03857

BEALS ASSOCIATES, PLLC
70 PORTSMOUTH AVE,
THIRD FLOOR, SUITE 2
STRATHAM, N.H. 03885
PHONE: 603-583-4860,
FAX. 603-583-4863

STATE OF NEW HAMPSHIRE
CHRISTIAN O. SMITH
No. 9900
LICENSED PROFESSIONAL ENGINEER





SILT FENCE

CONSTRUCTION SPECIFICATIONS
1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES AND FILTER CLOTH SHALL BE FASTENED TO WOVEN WIRE EVERY 24" AT TOP MID AND BOTTOM SECTIONS AND BE EMBEDDED INTO GROUND A MINIMUM OF 8". 2. THE FENCE POSTS SHALL BE A MINIMUM 48" LONG, SPACED A MAXIMUM 10' APART, AND DRIVEN A MINIMUM OF 16" INTO THE GROUND. THERE SHALL BE NO PLASTIC, MULTI-FILAMENT OR MONOFILAMENT POLYPROPYLENE NETTING OR MESH WITH AN OPENING SIZE GREATER THAN 1/8" MATERIAL UTILIZED.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THE ENDS OF THE FABRIC SHALL BE OVERLAPPED BY SIX INCHES, FOLDED AND STAPLED TO PREVENT SEDIMENT FROM BY-PASSING.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND SEDIMENT REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE AND PROPERLY DISPOSED OF.
5. PLACE THE ENDS OF THE SILT FENCE UP CONTOUR TO PROVIDE FOR SEDIMENT STORAGE.
6. SILT FENCES SHALL BE REMOVED WHEN NO LONGER NEEDED AND THE SEDIMENT COLLECTED SHALL BE DISPOSED AS DIRECTED BY THE ENGINEER. THE AREA DISTURBED BY THE REMOVAL SHALL BE SMOOTHED AND RE-VEGETATED

MAINTENANCE
1. SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS THAT ARE REQUIRED SHALL BE MADE IMMEDIATELY.
2. IF THE FABRIC ON A SILT FENCE SHOULD DECOMPOSE OR BECOME INEFFECTIVE DURING THE EXPECTED LIFE OF THE FENCE, THE FABRIC SHALL BE REPLACED PROMPTLY.
3. SEDIMENT DEPOSITS SHOULD BE INSPECTED AFTER EVERY STORM EVENT. THE DEPOSITS SHOULD BE REMOVED WHEN THEY REACH APPROXIMATELY ONE HALF THE HEIGHT OF THE BARRIER.
4. SEDIMENT DEPOSITS THAT ARE REMOVED OR LEFT IN PLACE AFTER THE FABRIC HAS BEEN REMOVED SHALL BE GRADED TO CONFORM WITH THE EXISTING TOPOGRAPHY AND VEGETATED.

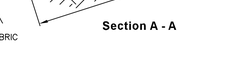
SEEDING GUIDE

USE	SEEDING MIXTURE 1/	DROUGHTY	WELL DRAINED	MODERATELY WELL DRAINED	POORLY DRAINED
STEEP CUTS AND FILLS, BORROW AND DISPOSAL AREAS	A	FAIR	GOOD	GOOD	FAIR
	B	POOR	GOOD	FAIR	FAIR
	C	POOR	GOOD	EXCELLENT	GOOD
	D	FAIR	FAIR	GOOD	EXCELLENT
	E	FAIR	EXCELLENT	EXCELLENT	POOR
WATERWAYS, EMERGENCY SPILLWAYS, AND OTHER CHANNELS WITH FLOWING WATER.	A	GOOD	GOOD	GOOD	FAIR
	C	GOOD	EXCELLENT	EXCELLENT	FAIR
	D	GOOD	EXCELLENT	EXCELLENT	FAIR
LIGHTLY USED PARKING LOTS, ODD AREAS, UNUSED LANDS, AND LOW INTENSITY USE RECREATION SITES.	A	GOOD	GOOD	GOOD	FAIR
	B	GOOD	GOOD	FAIR	POOR
	C	GOOD	EXCELLENT	EXCELLENT	FAIR
	D	FAIR	GOOD	GOOD	EXCELLENT
PLAY AREAS AND ATHLETIC FIELDS. (TOPSOIL IS ESSENTIAL FOR GOOD TURF.)	F	FAIR	EXCELLENT	EXCELLENT	2/
	G	FAIR	EXCELLENT	EXCELLENT	2/

GRAVEL PIT, SEE NH-PM-24 IN APPENDIX FOR RECOMMENDATION REGARDING RECLAMATION OF SAND AND GRAVEL PITS.

1/ REFER TO SEEDING MIXTURES AND RATES IN TABLE 7-36.
2/ POORLY DRAINED SOILS ARE NOT DESIRABLE FOR USE AS PLAYING AREA AND ATHLETIC FIELDS.

NOTE: TEMPORARY SEED MIX FOR STABILIZATION OF TURF SHALL BE WINTER RYE OR OATS AT A RATE OF 2.5 LBS. PER 1000 S.F. AND SHALL BE PLACED PRIOR TO OCT. 15, IF PERMANENT SEEDING NOT YET COMPLETE.



Section A - A

Mix material should consist of 30-50% large (1-3") particles. The organic matter content should be 25%-65%, dry weight basis. The organic matter may originate from a variety of vegetative sources, but needs to be fibrous and elongated. The mix shall be free of silt, clay, fine sand, refuse and contaminants or any material toxic to plant growth. Erosion Control Mix berms are effective filters for overland flow conditions and should not be used to filter concentrated flow such as that found in drainage ditches, streams, etc.

Erosion Control Mix Berm

SEEDING RATES

MIXTURE	POUNDS PER ACRE	POUNDS PER 1,000 Sq. Ft.
A. TALL FESCUE	20	0.45
CREEPING RED FESCUE	20	0.45
RED TOP	2	0.05
TOTAL	42	0.95
B. TALL FESCUE	15	0.35
CREEPING RED FESCUE	10	0.25
CROWN VETCH	15	0.35
OR		
FLAT PEA	30	0.75
TOTAL	40 OR 55	0.95 OR 1.35
C. TALL FESCUE	20	0.45
CREEPING RED FESCUE	20	0.45
BIRDS FOOT TREFOIL	8	0.20
TOTAL	48	1.10
D. TALL FESCUE	20	0.45
FLAT PEA	30	0.75
TOTAL	50	1.20
E. CREEPING RED FESCUE 1/	50	1.15
KENTUCKY BLUEGRASS 1/	50	1.15
TOTAL	100	2.30
F. TALL FESCUE 1	150	3.60

1/ FOR HEAVY USE ATHLETIC FIELDS CONSULT THE UNIVERSITY OF NEW HAMPSHIRE COOPERATIVE EXTENSION TURF SPECIALIST FOR CURRENT VARIETIES AND SEEDING RATES.

REVISIONS:	DATE:

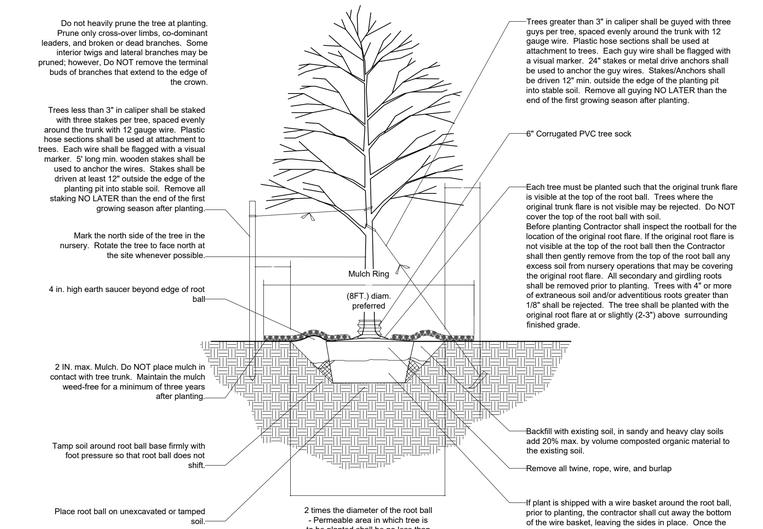
EROSION & SEDIMENTATION

RESIDENTIAL DEVELOPMENT
TAX MAP U4, LOT 69
242 SOUTH MAIN STREET
NEWMARKET, NEW HAMPSHIRE

DATE:	MAY 2023	SCALE:	NTS
PROJ. N0:	NH-1449	SHEET NO.	11

Landscape Notes

1. Design is based on drawings by Beals Associates, PLLC. Drawings may require adjustment due to actual field conditions.
2. The contractor shall follow best management practices during construction and shall take all means necessary to stabilize and protect the site from erosion.
3. Erosion Control shall be in place prior to construction.
4. Erosion Control to consist of Hay Bales and Erosion Control Fabric shall be staked in place between the work and Water bodies, Wetlands and/or drainage ways prior to any construction.
5. The Contractor shall verify layout and grades and inform the Landscape Architect or Client's Representative of any discrepancies or changes in layout and/or grade relationships prior to construction.
6. It is the contractor's responsibility to verify drawings provided are to the correct scale prior to any bid, estimate or installation. A graphic scale bar has been provided on each sheet for this purpose. If it is determined that the scale of the drawing is incorrect, the landscape architect will provide a set of drawings at the correct scale, at the request of the contractor.
7. Trees to Remain within the construction zone shall be protected from damage for the duration of the project by snow fence or other suitable means of protection to be approved by Landscape Architect or Client's Representative. Snow fence shall be located at the drip line or at the distance in feet from the trunk equal to the diameter of the tree caliper in inches, whichever is greater, and shall be expanded to include any and all surface roots. Do not fill or mulch on the trunk flare. Do not disturb roots. In order to protect the integrity of the roots, branches, trunk and bark of the tree(s) no vehicles or construction equipment shall drive or park in or on the area within the drip line(s) of the tree(s). Do not store any refuse or construction materials or portalets within the tree protection area.
8. This plan is for review purposes only, NOT for Construction. Construction Documents will be provided upon request.
9. Location, support, protection, and restoration of all existing utilities and appurtenances shall be the responsibility of the Contractor.
10. The Contractor shall verify exact location and elevation of all utilities with the respective utility owners prior to construction. Call DIGSAFE at 811 or 888-DIG-SAFE (1-888-344-7233.)
11. The Contractor shall procure any required permits prior to construction.
12. Prior to any landscape construction activities Contractor shall test all existing loam and loam from off-site intended to be used for lawns and plant beds using a thorough sampling throughout the supply. Soil testing shall indicate levels of pH, nitrates, macro and micro nutrients, texture, soluble salts, and organic matter. Contractor shall provide Landscape Architect with test results and recommendations from the testing facility along with soil amendment plans as necessary for the proposed plantings to thrive. All loam to be used on site shall be amended as approved by the Landscape Architect prior to placement.
13. Contractor shall notify landscape architect or owner's representative immediately if at any point during demolition or construction a site condition is discovered which may negatively impact the completed project. This includes, but is not limited to, unforeseen drainage problems, unknown subsurface conditions, and discrepancies between the plan and the site. If a Contractor is aware of a potential issue and does not bring it to the attention of the Landscape Architect or Owner's Representative immediately, they may be responsible for the labor and materials associated with correcting the problem.
14. The Contractor shall furnish and plant all plants shown on the drawings and listed thereon. All plants shall be nursery-grown under climatic conditions similar to those in the locality of the project. Plants shall conform to the botanical names and standards of size, culture, and quality for the highest grades and standards as adopted by the American Association of Nurserymen, Inc. in the American Standard of Nursery Stock, American Standards Institute, Inc. 230 Southern Building, Washington, D.C. 20005.
15. A complete list of plants, including a schedule of sizes, quantities, and other requirements is shown on the drawings. In the event that quantity discrepancies or material omissions occur in the plant materials list, the planting plans shall govern.
16. All plants shall be legibly tagged with proper botanical name.
17. The Contractor shall guarantee all plants including seeding, for not less than one year from time of acceptance.
18. Owner or Owner's Representative will inspect plants upon delivery for conformity to Specification requirements. Such approval shall not affect the right of inspection and rejection during or after the progress of the work. The Owner reserves the right to inspect and/or select all trees at the place of growth and reserves the right to approve a representative sample of each type of shrub, herbaceous perennial, annual, and ground cover at the place of growth. Such sample will serve as a minimum standard for all plants of the same species used in this work.
19. No substitutions of plants may be made without prior approval of the Owner or the Owner's Representative for any reason.
20. All landscaping shall be provided with the following:
    a. Outside hose attachments spaced a maximum of 150 feet apart, and
    b. An underground irrigation system, or
    c. A temporary irrigation system designed for a two-year period of plant establishment.
21. If an automatic irrigation system is installed, all irrigation valve boxes shall be located within planting bed areas.
22. The contractor is responsible for all plant material from the time their work commences until final acceptance. This includes but is not limited to maintaining all plants in good condition, the security of the plant material once delivered to the site, watering of plants, including seeding and weeding. Plants shall be appropriately watered prior to, during, and after planting. It is the Contractor's responsibility to provide clean water suitable for plant health from off site, should it not be available on site.
23. Contractor shall provide an alternate price for irrigating all newly landscaped areas and resetting of any existing irrigation that will be disturbed during planting. Contractor shall provide irrigation design for review by Landscape Architect or Owner's Representative when awarded the project.
24. All disturbed areas will be dressed with 6" of loam and planted as noted on the plans or seeded except plant beds. Plant beds shall be prepared to a depth of 12" with 75% loam and 25% compost.
25. Trees, ground cover, and shrub beds shall be mulched to a depth of 2" with one-year-old, well-composted, shredded native bark not longer than 4" in length and ½" in width, free of woodchips and sawdust. Mulch for ferns and herbaceous perennials shall be no longer than 1" in length. Trees in lawn areas shall be mulched in a 5' diameter min. saucer. Color of mulch shall be black.
26. Drip strip shall extend to 6" beyond roof overhang and shall be edged with 3/16" thick metal edger.
27. In no case shall mulch touch the stem of a plant nor shall mulch ever be more than 3" thick total (including previously applied mulch) over the root ball of any plant.
28. Secondary lateral branches of deciduous trees overhanging vehicular and pedestrian travel ways shall be pruned up to a height of 6' to allow clear and safe passage of vehicles and pedestrians under tree canopy. Shrubs and ornamental plantings near vehicular travel shall not exceed three feet in height. If pruning is necessary to maintain the required maximum height, plants shall be pruned to a natural form and shall not be sheared.
29. Snow shall be stored a minimum of 5' from shrubs and trunks of trees.
30. Landscape Architect is not responsible for the means and methods of the Contractor.



Tree Planting Detail

Scale: NTS

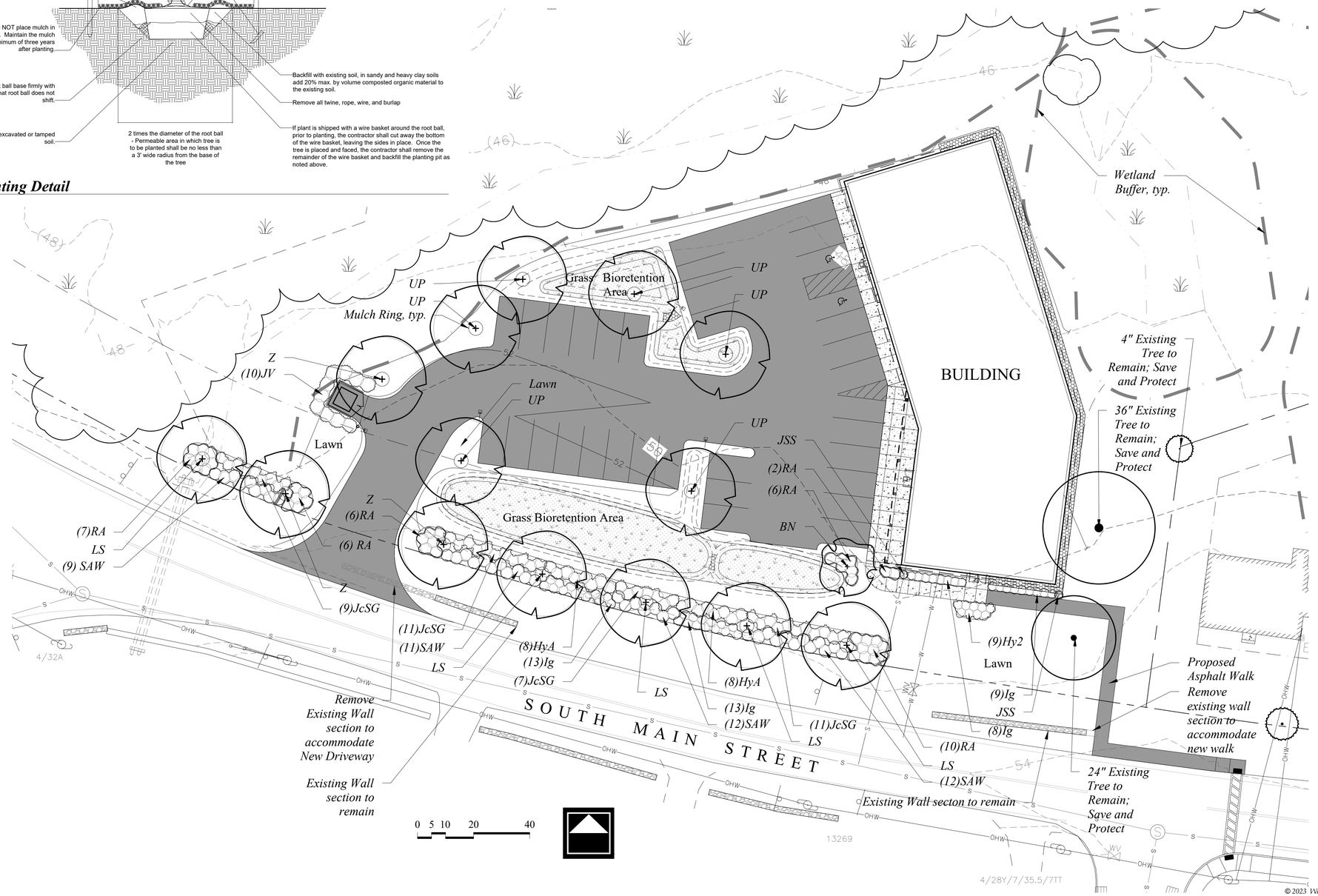
Plant List

TREES

Symbol	Botanical Name	Common Name	Quantity	Size	Comments
EX	*Existing to Remain*				
LS	*Liquidambar styraciflua*	American Sweetgum	5	3" cal	B&B
UP	*Ulmus americana 'Princeton'*	Princeton American Elm	6	3" cal	B&B
Z	*Zelkova serrata 'Village Green'*	Village Green Zelkova	3	3" cal	B&B
BN	*Betula nigra 'Heritage'*	Heritage River Birch	1	10-12' ht	Multi-stemmed, B&B

SHRUBS

Symbol	Botanical Name	Common Name	Quantity	Size	Comments
HY2	*Hydrangea macrophylla 'All Summer Beauty'*	All Summer Beauty Hydrangea (Blue hortensia)	9	5 gal	
HyA	*Hydrangea arborescens 'Incrediball'*	Incrediball Smooth Hydrangea	16	5 gal	
IG	*Ilex glabra 'Shamrock'*	Shamrock Inkberry	43	5 gal	full to ground
JcSG	*Juniperus chinensis 'Seagreen'*	Seagreen Juniper	38	5 gal	
JV	*Juniperus virginiana 'Emerald Sentinel'*	Emerald Sentinel Red Cedar	10	6-7' ht	
RA	*Rhus aromatica 'Grow-Low'*	Grow Low Sumac	37	5 gal	
JSS	*Juniperus scopulorum 'Skyrocket'*	Skyrocket Juniper	2	5-6' ht	
SAW	*Spiraea x bumalda 'Anthony Waterer'*	Anthony Waterer Spirea	39	3 gal	



woodburn & company
LANDSCAPE ARCHITECTURE
103 Kent Place Newmarket, New Hampshire Phone: 603.659.5949

ROBERTA N. WOODBURN 002 LICENSED LANDSCAPE ARCHITECT STATE OF NEW HAMPSHIRE

242 Main Street

LANDSCAPE PLAN

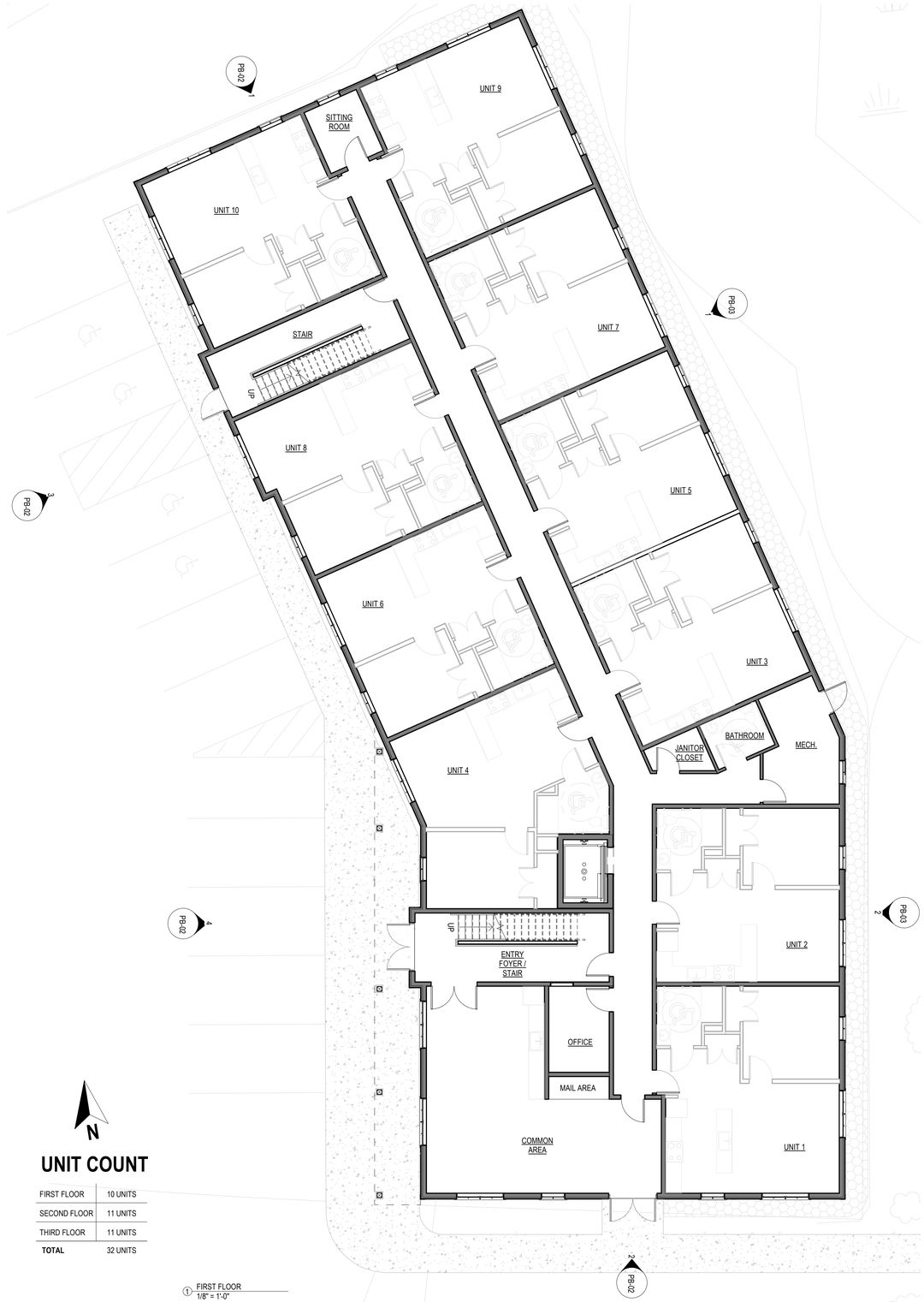
for Lemieux Builders, LLC

242 South Main Street, Newmarket, New Hampshire

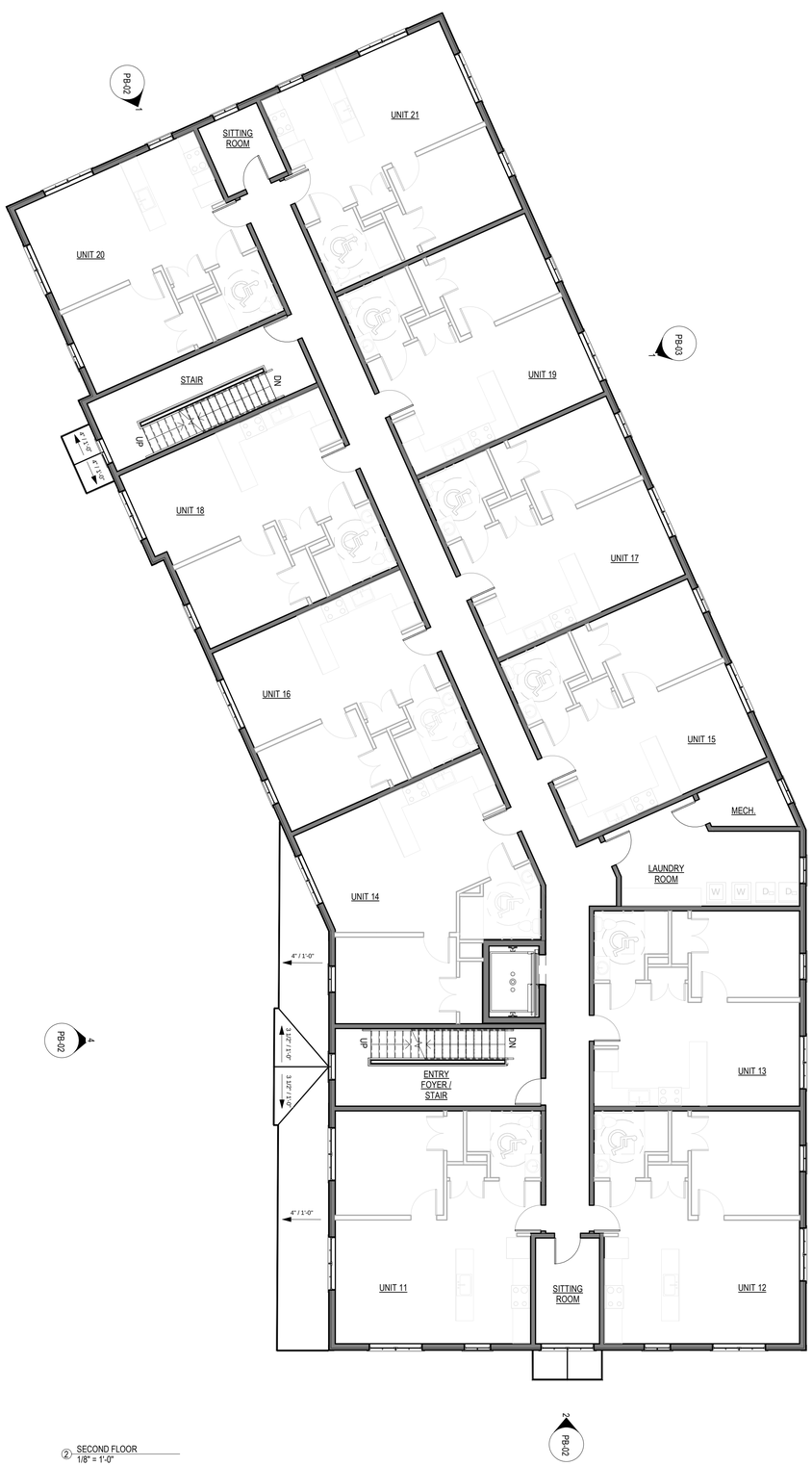
Drawn By:	WSA
Checked By:	RW
Scale:	1"=20'-0"
Date:	2023-05-23 for PB submission
Revisions:	

L-1

Sheet 1 of 1



① FIRST FLOOR
1/8" = 1'-0"



② SECOND FLOOR
1/8" = 1'-0"

N

UNIT COUNT

FIRST FLOOR	10 UNITS
SECOND FLOOR	11 UNITS
THIRD FLOOR	11 UNITS
TOTAL	32 UNITS

LASSEL
ARCHITECTS
370 MAIN STREET
SOUTH BERWICK, ME 03908
207 384 2049
lasselarchitects.com

CLIENT:
LEMIEUX BUILDERS LLC

PROJECT:
242 MAIN ST.
NEWMARKET NH

PROJECT NUMBER: 22.25
DATE: 6.20.23
SCALE: AS NOTED
REVISION:

DRAWING NAME: FLOOR PLANS
DRAWING NUMBER: PB-01

1 EAST ELEVATION
3/16" = 1'-0"

2 NORTH EAST ELEVATION
3/16" = 1'-0"

3 NORTH ELEVATION 1
3/16" = 1'-0"

4 NORTH ELEVATION 2
3/16" = 1'-0"

LASSEL
ARCHITECTS
370 MAIN STREET
SOUTH BERWICK, ME 03908
207 384 2049
lasselarchitects.com

CLIENT:
LEMIEUX BUILDERS LLC

PROJECT:
242 MAIN ST.
NEWMARKET NH

PROJECT NUMBER: 22122
DATE: 6.20.23
SCALE: AS NOTED
REVISION:

DRAWING NAME: **EXTERIOR ELEVATIONS**
DRAWING NUMBER: **PB-02**

1 WEST ELEVATOIN
3/16" = 1'-0"

2 SOUTH ELEVATION
3/16" = 1'-0"

LASSEL
ARCHITECTS
370 MAIN STREET
SOUTH BERWICK, ME 03908
207 384 2049
lasselarchitects.com

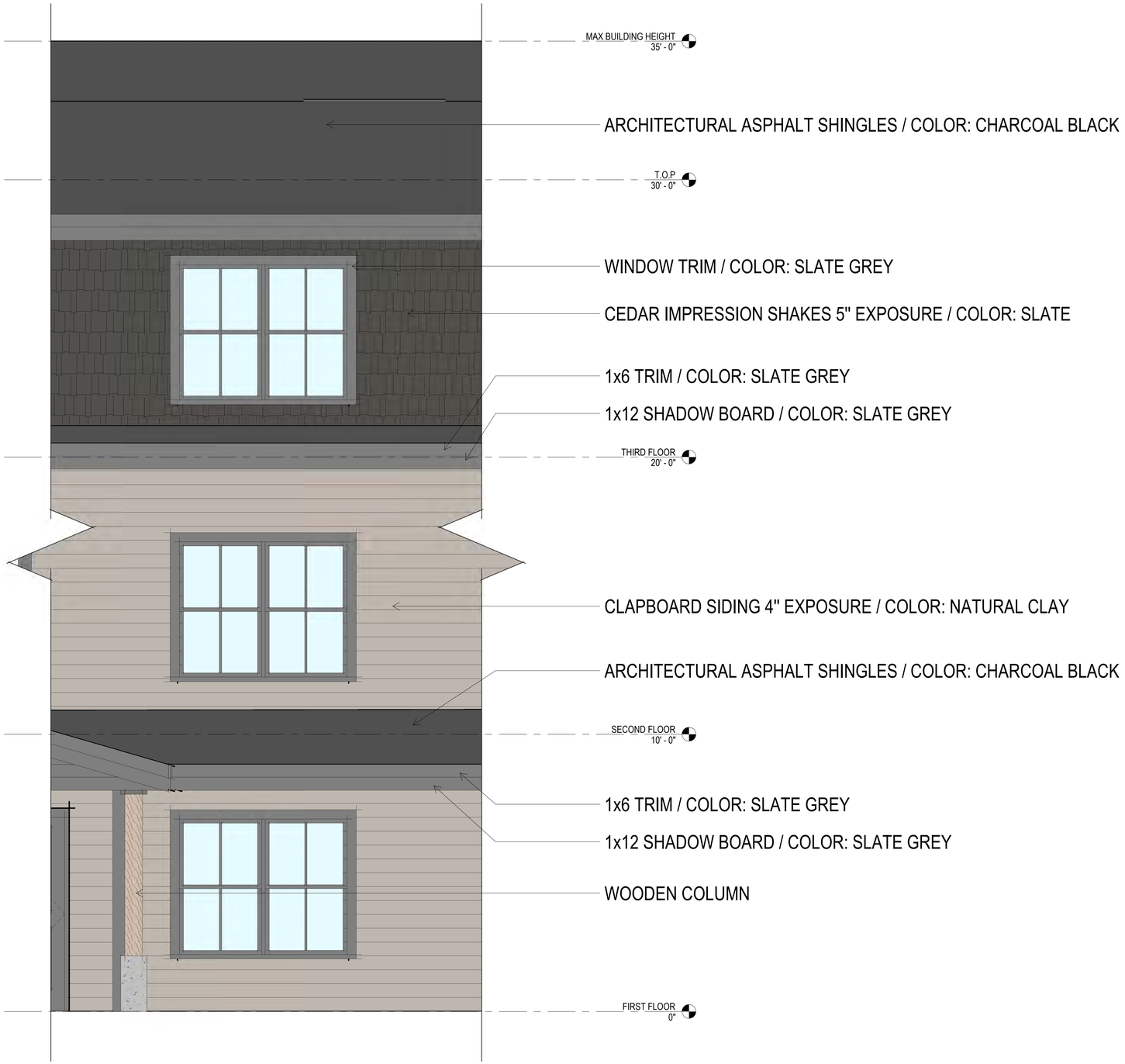
6/19/2023 2:41:24 PM Z:\FILES CURRENT\22.25 Newmarket Senior Housing- Lemieux\8. DRAWINGS\8.2 REVIT\Newmarket Senior Housing - 6.18.23.rvt V2.rvt

CLIENT:
LEMIEUX BUILDERS LLC

PROJECT:
242 MAIN ST.
NEWMARKET NH

PROJECT NUMBER: 22.25
DATE: 6.20.23
SCALE: AS NOTED
REVISION:

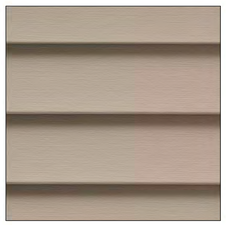
DRAWING NAME: **EXTERIOR ELEVATIONS**
DRAWING NUMBER: **PB-03**



1 ENLARGED NORTH ELEVATION 2 - FINISHES
1/2" = 1'-0"

ASPHALT SHINGLES / COLOR:
CHARCOAL BLACK

CEDAR IMPRESSION
SHAKES / COLOR: SLATE



CLAPBOARD SIDING /
COLOR: NATURAL CLAY

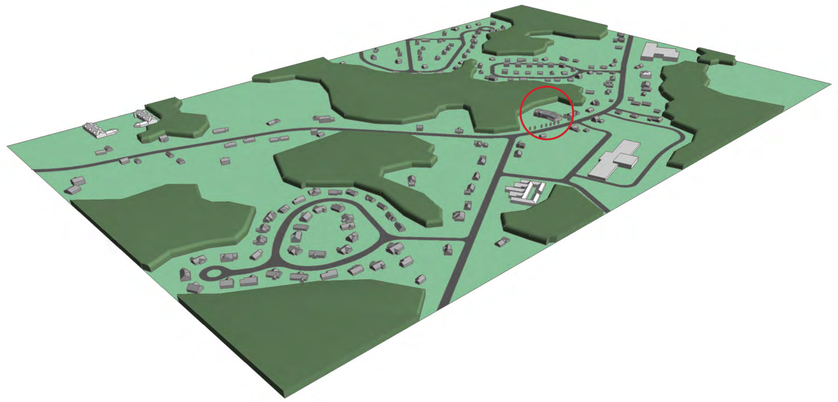
LASSEL
ARCHITECTS
370 MAIN STREET
SOUTH BERWICK, ME 03908
207 384 2049
lasselarchitects.com

CLIENT:
LEMIEUX BUILDERS LLC

PROJECT:
242 MAIN ST.
NEWMARKET NH

PROJECT NUMBER: 22.25
DATE: 6.20.23
SCALE: AS NOTED
REVISION:

DRAWING NAME: EXTERIOR FINISH BOARD
DRAWING NUMBER: PB-04



LASSEL
ARCHITECTS
370 MAIN STREET
SOUTH BERWICK, ME 03908
207 384 2049
lasselarchitects.com

Proposed Newmarket
Senior Housing

Wadleigh Falls
Senior Housing

Downtown

Newmarket Jr./Sr.
High School

Pines of
Newmarket

Newmarket
Elementary

CLIENT:
LEMIEUX BUILDERS LLC

PROJECT:
242 MAIN ST.
NEWMARKET NH

PROJECT NUMBER: 22.25
DATE: 6.20.23
SCALE: AS NOTED
REVISION:

DRAWING NAME: **LOCAL SITE CONTEXT**
DRAWING NUMBER: **PB-05**

LASSEL
ARCHITECTS
370 MAIN STREET
SOUTH BERWICK, ME 03908
207 384 2049
lasselarchitects.com

WEST VIEW FROM MAIN ST.

CLIENT:
LEMIEUX BUILDERS LLC

PROJECT:
242 MAIN ST.
NEWMARKET NH

PROJECT NUMBER: 22.25
DATE: 6.20.23
SCALE: AS NOTED
REVISION:

DRAWING NAME: **RENDERINGS**
DRAWING NUMBER: **PB-06**

LASSEL
ARCHITECTS
370 MAIN STREET
SOUTH BERWICK, ME 03908
207 384 2049
lasselarchitects.com

NORTH VIEW FROM MAIN ST.

CLIENT:
LEMIEUX BUILDERS LLC

PROJECT:
242 MAIN ST.
NEWMARKET NH

PROJECT NUMBER: 22.25
DATE: 6.20.23
SCALE: AS NOTED
REVISION:

DRAWING NAME: RENDERINGS
DRAWING NUMBER: PB-07

MEMORANDUM

TO: Mr. David Lemieux
DR Lemieux Builders, Inc.
75 Exeter Road
Newmarket, NH 03857

FROM: Mr. Jeffrey S. Dirk, P.E.*, PTOE, FITE
Managing Partner *and*
Mr. Daniel C. LaCivita
Transportation Engineer
Vanasse & Associates, Inc.
35 New England Business Center Drive
Suite 140
Andover, MA 01810-1066
(978) 269-6830
jdirk@rdva.com
**Professional Engineer in CT, MA, ME, NH, RI and VA*

DATE: May 22, 2023

RE: 9626

SUBJECT: Traffic Impact Study
Proposed Multifamily Residential Development – 242 South Main Street (NH Route 152)
Newmarket, New Hampshire

Vanasse & Associates, Inc. (VAI) has conducted a Traffic Impact Study (TIS) in order to determine the potential impacts on the transportation infrastructure associated with the proposed construction of an age-qualified multifamily residential development to be located at 242 South Main Street (NH Route 152) in Newmarket, New Hampshire (hereafter referred to as the "Project"). This study has been completed in accordance with the New Hampshire Department of Transportation (NHDOT) standards for the preparation of a TIS, and evaluates the following specific areas as they relate to the Project: i) access requirements; ii) potential off-site improvements; and iii) safety considerations; and identifies and analyzes existing traffic conditions and future traffic conditions, both with and without the Project. Based on this assessment, we have concluded the following with respect to the Project:

1. Using trip-generation statistics published by the Institute of Transportation Engineer (ITE),[1] the Project is expected to generate approximately 104 vehicle trips on an average weekday (two-way, 24-hour volume), with approximately 6 vehicle trips expected during the weekday morning peak-hour and 8 vehicle trips expected during the weekday evening peak-hour;

2. The Project will not have a significant impact (increase) on motorist delays or vehicle queuing over Existing or anticipated future conditions without the Project (No-Build conditions), with no changes in level-of-service or vehicle queuing predicted to occur as a result of the addition of Project-related traffic and all of the movements at the study area intersections shown to continue operate at a level-of-service (LOS) C or better, where and LOS of "D" or better is generally defined as "acceptable" traffic operations;

3. Exiting movements from the Project site driveway to NH Route 152 are predicted to operate at LOS C or better with negligible vehicle queuing predicted, with all movements along

[1] *Trip Generation*, 11th Edition; Institute of Transportation Engineers; Washington, DC; 2021.

NH Route 152 approaching the driveway shown to operate at LOS A, also with negligible vehicle queuing; and

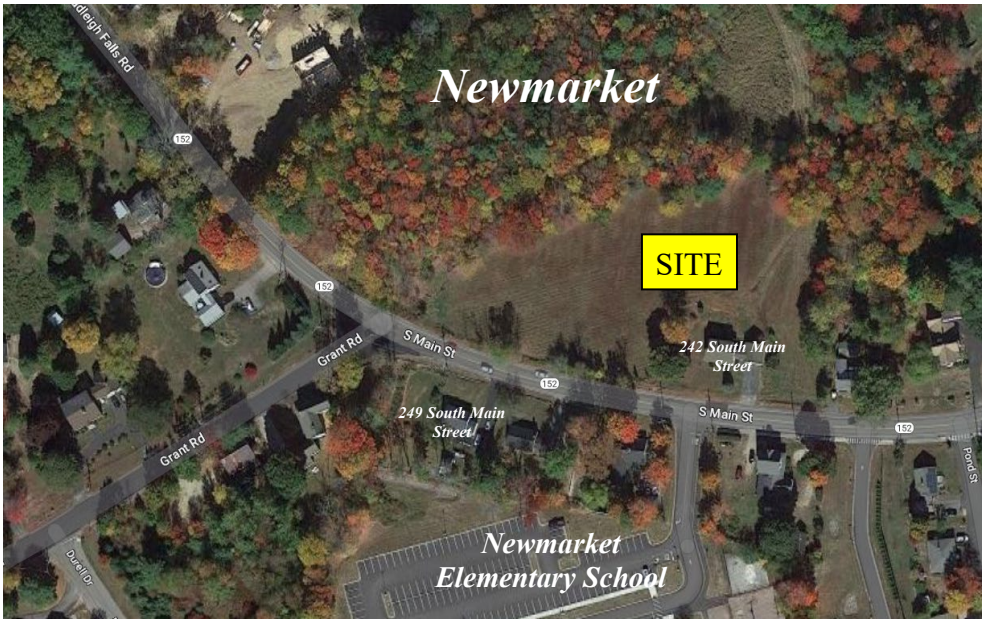
4. Lines of sight at the intersection of NH Route 152 at the Project site driveway were found to exceed the recommended minimum distance for the intersection to operate in a safe manner based on the appropriate approach speed.

In consideration of the above, we have concluded that the Project can be accommodated within the confines of the existing transportation infrastructure in a safe and efficient manner with implementation of the recommendations defined herein.

The following details our assessment of the Project.

PROJECT DESCRIPTION

As proposed, the Project will entail the construction of a three-story building to be located at 242 South Main Street (NH Route 152) in Newmarket, New Hampshire, that will include 32 age-qualified multifamily residential units. The Project site encompasses approximately 7.9± acres of land that is bounded by residential properties and areas of open and wooded space to the north, east and west; and NH Route 152 to the south. The Project site is currently occupied by areas of open and wooded space and an existing single-family home (242 South Main Street) with associated appurtenances that will be removed to accommodate the Project.



Imagery ©2023 Google

Access to the Project site will be provided by way of a full-access driveway that will intersect the north side of NH Route 152 generally opposite the driveway to 249 South Main Street. On-site parking will be provided for 33 vehicles, which exceeds the parking requirements for a similar use (elderly housing) as specified in Chapter 32, Appendix B, §3.02. – *Parking*, of the Municipal Code of the Town of Newmarket.[2]

STUDY METHODOLOGY

This study was prepared in consultation with the Town of Newmarket and NHDOT; was performed in accordance with the NHDOT guidelines for the preparation of Traffic Impact Studies (TISs) and the standards of the Traffic Engineering and Transportation Planning Professions for the preparation of such reports; and was conducted in three distinct stages.

The first stage of the study involved an assessment of existing conditions in the study area and included an inventory of roadway geometrics, pedestrian and bicycle facilities, and public transportation services; observations of traffic flow; and the collection of daily and peak-period traffic counts.

In the second stage of the study, future conditions on the transportation system were projected and analyzed. Specific travel demand forecasts for the Project were assessed along with future demands on the transportation system that are expected due to growth independent of the Project. In accordance with NHDOT guidelines for the preparation of TISs, four future conditions were evaluated: 1) 2024 No-Build conditions *without* the Project; 2) 2024 Opening-Year Build conditions *with* the Project; 3) 2034 No-Build conditions *without* the Project; and 4) 2034 Build conditions (ten-year projection from opening-year) *with* the Project. The analyses conducted in stage two of the study identify existing or projected future roadway capacity and traffic safety issues.

The third stage of the study presents and evaluates measures to address roadway and intersection capacity issues and safety concerns, if any, identified in stages one and two of the study.

EXISTING CONDITIONS

A comprehensive field inventory of existing conditions within the study area was conducted in February 2023. The field investigation consisted of an inventory of existing roadway geometrics; pedestrian and bicycle facilities; public transportation services; traffic volumes; and operating characteristics; as well as posted speed limits and land use information within the study area. The study area that was assessed for the Project consisted of South Main Street (NH Route 152) and the following specific intersections: NH Route 152 at Grant Road and NH Route 152 at the Newmarket Elementary School driveway.

The following describes the study area roadway and intersections.

[2]Ch. 32 §3.02. (A)(1)(a) Residential: 2 spaces per unit; except 1 space per unit for elderly housing or accessory apartment.

Roadway

South Main Street/Wadleigh Falls Road (NH Route 152)

- Two-lane, Tier 5, Class V urban major collector roadway under Town jurisdiction east of Grant Road (South Main Street) and a two-lane, Tier 3, Class II urban major collector roadway under NHDOT jurisdiction west of Grant Road (Wadleigh Falls Road);
- Traverses the study area in a general east-west direction;
- Provides two 11- to 12-foot-wide travel lanes separated by a double yellow centerline with 1-foot-wide marked shoulders provided in the vicinity of the Project site;
- A sidewalk is provided along the south side of NH Route 152 east of the Newmarket Elementary School driveway;
- Illumination is provided intermittently by way of streetlights mounted on wood poles;
- The posted speed limit in the vicinity of the Project site is 30 miles per hour (mph);
- Land use within the study area consists of the Project site, residential properties, areas of open and wooded space and the Newmarket Elementary School.

Intersections

Table 1 and Figure 1 summarize the existing lane use, traffic control, and pedestrian and bicycle accommodations at the study area intersection as observed in February 2023.

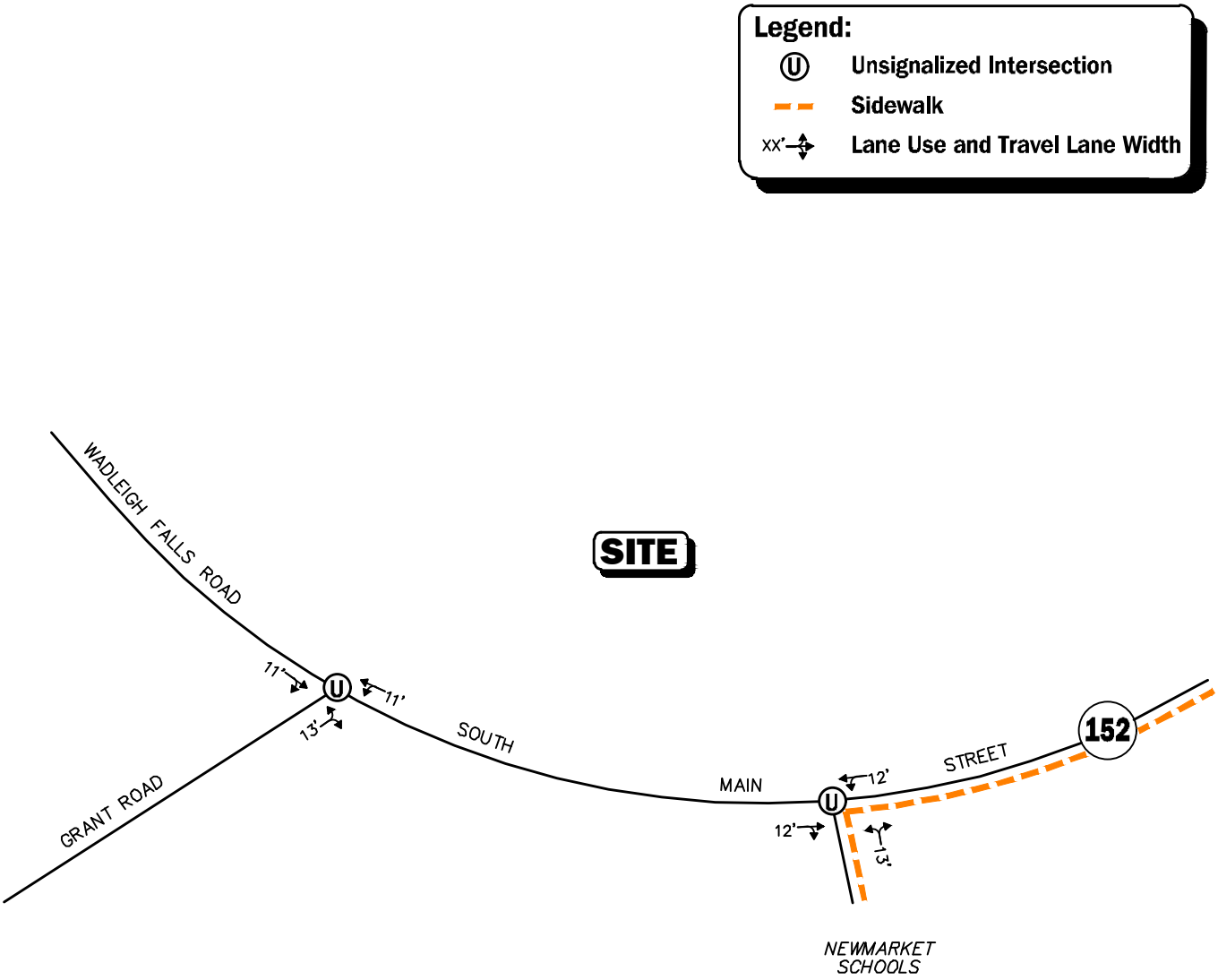
Table 1
STUDY AREA INTERSECTION DESCRIPTION

Intersection	Traffic Control Type[a]	No. of Travel Lanes Provided	Shoulder Provided? (Yes/No/Width)	Pedestrian Accommodations? (Yes/No/Description)	Bicycle Accommodations? (Yes/No/Description)
NH Rte. 152/ Grant Rd.	S	1 general-purpose travel lane provided on all approaches	Yes; 1 to 2 feet on NH Rte. 152	No	No
NH Rte. 152/ Newmarket Elementary School Driveway	S	1 general-purpose travel lane provided on all approaches	Yes; 1 to 2 feet on NH Rte. 152	Yes; sidewalks provided along the south side of NH Rte. 152 east of the intersection and along the east side of the Newmarket Elementary School Driveway	No

[a]S = STOP-sign control.

Existing Traffic Volumes

In order to determine existing traffic-volume demands and flow patterns within the study area, automatic traffic recorder (ATR) counts, turning movement counts (TMCs) and vehicle classification counts were completed in February 2023 while public schools were in regular session. The ATR counts were conducted on NH Route 152, east of the Grant Road, on February 1st through 3rd, 2023 (Wednesday through Friday, inclusive), in order to record weekday traffic conditions over an extended period, with weekday morning (7:00 to 9:00 AM), weekday afternoon (2:00 to 4:00 PM) and weekday evening (4:00 to 6:00 PM) peak-



Not To Scale

Figure 1

Existing Intersection Lane Use, Travel Lane Width, and Pedestrian Facilities

Vanasse & Associates inc

period TMCs performed at the study area intersections on February 2nd, 2023 (Thursday). These time periods were selected for analysis purposes as they are representative of the peak-traffic-volume hours for both the Project, the adjacent roadway network and the Newmarket Elementary School.

Traffic Volume Adjustments

In order to evaluate the potential for seasonal fluctuation of traffic volumes within the study area, 2019 peak-hour and average daily traffic count data were reviewed for NHDOT count station No. 02153001, which is located on NH Route 101, east of NH Route 108 (Exits 11 and 12), in Exeter. Based on a review of this data, it was determined that traffic volumes for the month of February are approximately 34.0 percent below peak-month (July and August) conditions. As such, with the exception of the turning movements entering and exiting the Newmarket Elementary School driveway, the February traffic volumes were adjusted upward by 34.0 percent to be representative of peak-month conditions in accordance with NHDOT standards.

In order to account for the impact on the traffic volumes and trip patterns resulting from the COVID-19 pandemic, historic traffic volume data collected in October 2018 on NH Route 152 east of Grant Road was reviewed. The October 2018 and February 2023 traffic volume counts were adjusted to peak-month conditions using the methodology described herein, with the October 2018 traffic volume counts grown to 2019 using the general background growth rate (discussion follows). Based on this pre- and post-COVID-19 traffic-volume comparison, it was determined that the February 2023 traffic volumes are approximately 10.0 percent below the conditions that existed prior to the COVID-19 pandemic. As such, with the exception of the turning movements entering and exiting the Newmarket Elementary School driveway, the February traffic counts that were collected as a part of this assessment were adjusted upwards by an additional 10.0 percent to be representative of conditions that existed prior to the COVID-19 pandemic.

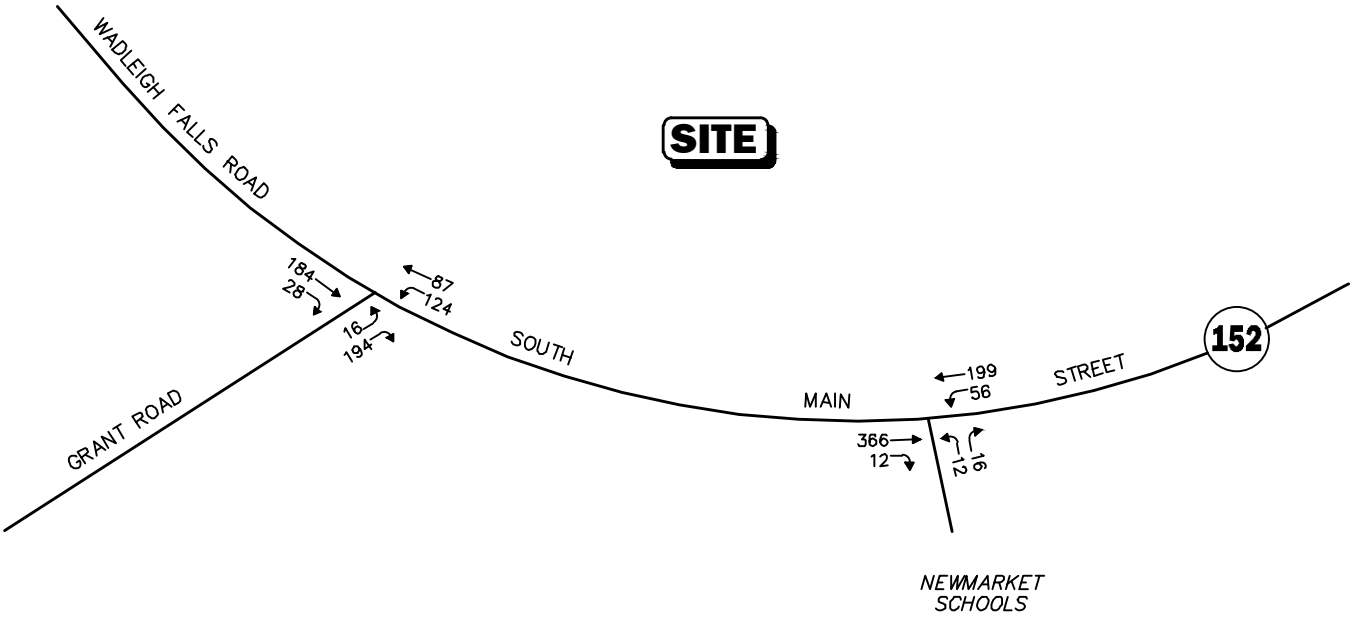
The 2023 Existing peak-month peak-hour traffic volumes are summarized in Table 2, with the weekday morning, weekday afternoon and weekday evening peak-month peak-hour traffic volumes graphically depicted on Figures 2A and 2B. Note that the peak-hour traffic volumes that are presented in Table 2 were obtained from the aforementioned figures.

Table 2
2023 EXISTING TRAFFIC VOLUMES

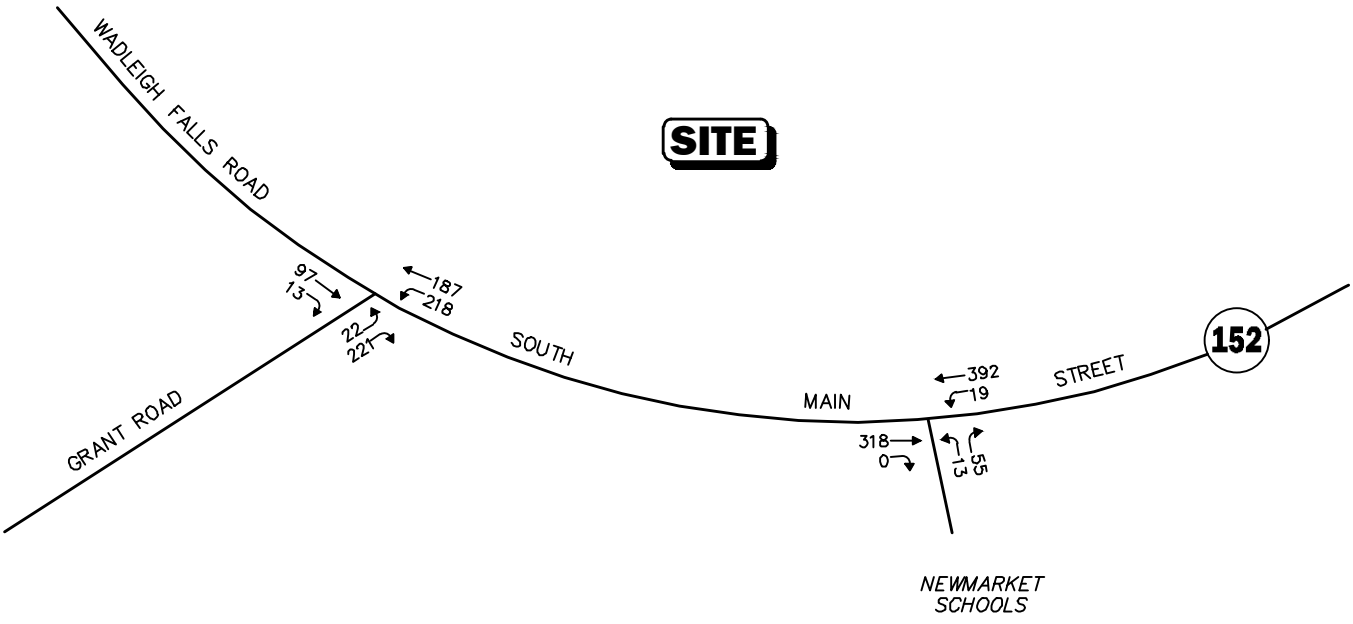
Location/Peak Hour	AWT[a]	VPH[b]	K Factor[c]	Directional Distribution[d]
NH Route 152, east of Grant Road:	6,900	--	--	--
Weekday Morning (7:15 – 8:15 AM)	--	589	8.5	64.2% EB
Weekday Afternoon (2:30 - 3:30 PM)	--	723	10.5	56.0% WB
Weekday Evening (4:45 – 5:45 PM)	--	682	9.9	53.7% WB

[a]Average weekday traffic in vehicles per day.
[b]Vehicles per hour.
[c]Percent of daily traffic occurring during the peak hour.
[d]Percent traveling in peak direction.
EB = eastbound, WB = westbound.

WEEKDAY MORNING PEAK HOUR (7:15 - 8:15 AM)



WEEKDAY AFTERNOON PEAK HOUR (2:30 - 3:30 PM)

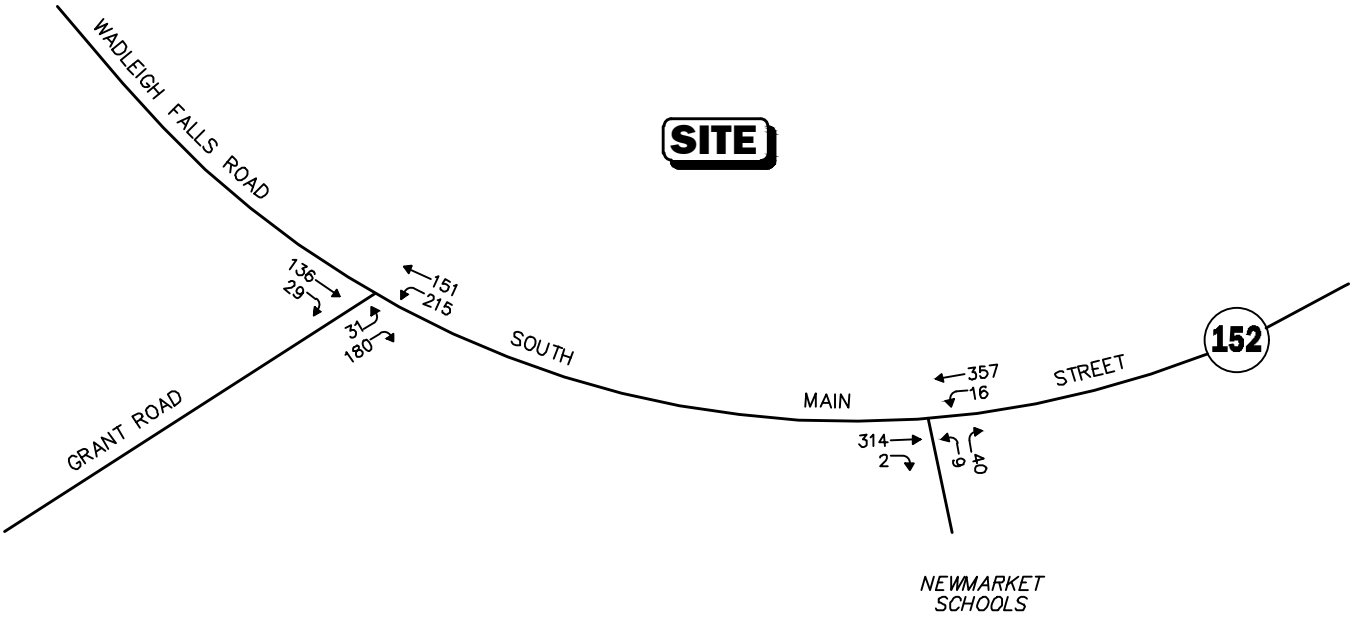


Not To Scale

Figure 2A

2023 Existing Peak-Month Peak-Hour Traffic Volumes

Vanasse & Associates inc



Not To Scale

Figure 2B

2023 Existing
Peak-Month
Weekday Evening
(4:45 - 5:45 PM)
Peak-Hour Traffic Volumes

Vanasse & Associates inc

As can be seen in Table 2, NH Route 152 in the vicinity of the Project site was found to accommodate approximately 6,900 vehicles on an average weekday (two-way, 24-hour volume), with approximately 589 vehicles per hour (vph) during the weekday morning peak-hour, 723 vph during the weekday afternoon peak-hour and 682 vph during the weekday evening peak-hour.

Pedestrian and Bicycle Facilities

As detailed on Figure 1, sidewalks are provided along the south side of NH Route 152 to the east of the Newmarket Elementary School driveway and along the east side of the Newmarket Elementary School driveway. Formal bicycle facilities are not provided within the study area, and the study area roadways do not generally provide sufficient width on a continuous basis to accommodate bicycle travel in a shared traveled-way configuration (i.e., bicyclists and motor vehicles sharing the traveled-way).[3]

Spot Speed Measurements

Vehicle travel speed measurements were performed on NH Route 152 in the vicinity of the Project site using a radar speed recording device on Wednesday, February 1st and on Friday, February 3rd, 2023, and were collected under clear weather conditions. A total of 50 speed measurements were collected each day in both the eastbound and westbound directions, the results of which are summarized in Table 3.

Table 3
VEHICLE TRAVEL SPEED MEASUREMENTS

	NH Route 152	
	Eastbound	Westbound
Mean Travel Speed (mph)	33	33
85th Percentile Speed (mph)	37	37
Posted Speed Limit (mph)	30	30

mph = miles per hour.

As can be seen in Table 3, the mean vehicle travel speed along NH Route 152 in the vicinity of the Project site was found to be 33 mph in both eastbound and westbound directions. The measured 85th percentile vehicle travel speed, or the speed at which 85 percent of the observed vehicles traveled at or below, was found to be 37 mph in both the eastbound and westbound directions, which is seven (7) mph above the posted speed limit (30 mph) in the vicinity of the Project site. The 85th percentile speed is used as the basis of engineering design and in the evaluation of sight distances and is often used in establishing posted speed limits.

[3]A minimum combined travel lane and paved shoulder width of 14 feet is required to support bicycle travel in a shared traveled-way condition.

Public Transportation Services

Public transportation services are not currently provided within the study area. The Cooperative Alliance For Seacoast Transportation (COAST) provides reservation-only, on-demand, bus services via Route 7, *Newmarket/Exeter*. The Route 7 bus provides service along Exeter Road (NH Route 108) between Newmarket and Exeter.

Motor Vehicle Crash Data

Motor vehicle crash data for the study area intersections has been requested from the Newmarket Police Department in order to examine motor vehicle crash trends occurring within the study area. The data will be summarized in a supplement to this TIS once the data is received.

FUTURE CONDITIONS

Traffic volumes in the study area were projected to the years 2024 and 2034, which reflects the anticipated opening-year of the Project and a ten-year planning horizon from opening-year, respectively, consistent with NHDOT TIS guidelines. The future condition traffic-volume projections incorporate identified specific development projects by others, as well as general background traffic growth as a result of development external to the study area and presently unforeseen projects. Anticipated Project-generated traffic volumes superimposed upon the 2024 and 2034 No-Build traffic volumes reflect the Build conditions with the Project.

Future Traffic Growth

Future traffic growth is a function of the expected land development in the immediate area and the surrounding region. Several methods can be used to estimate this growth. A procedure frequently employed estimates an annual percentage increase in traffic growth and applies that percentage to all traffic volumes under study. The drawback to such a procedure is that some turning volumes may actually grow at either a higher or a lower rate at particular intersections.

An alternative procedure identifies the location and type of planned development, estimates the traffic to be generated, and assigns it to the area roadway network. This procedure produces a more realistic estimate of growth for local traffic; however, potential population growth and development external to the study area would not be accounted for in the resulting traffic projections.

To provide a conservative analysis framework, both procedures were used, the salient components of which are described below.

Specific Development by Others

The Town of Newmarket Planning and Zoning Department was contacted in order to determine if there were any projects planned within the study that would have an impact on future traffic volumes along the study roadways and at the study area intersections. Based on this consultation, the following developments were identified for inclusion in this assessment:

- ***Proposed Residential Development, 3 Railroad Street, Newmarket, New Hampshire.*** This project entails the construction of a three-story, 8±-unit multifamily residential development to be located at 3 Railroad Street to the east of the Project site. Traffic volumes associated with this project

within the study area are expected to be relatively minor and would be reflected in the general background traffic growth rate.

- ***Proposed Mixed-Use Development, 50-56 Exeter Road, Newmarket, New Hampshire.*** This project entails the construction of a three-story mixed-use development to be located at 50-56 Exeter Road in Newmarket, to the east of the Project site, that will contain 28± residential apartment units and approximately 13,885± square feet (sf) of ground floor retail space. Traffic volumes associated with this project were estimated using trip-generation statistics published by the Institute of Transportation Engineers (ITE)[4] and were assigned onto the study area roadway network based on existing traffic patterns.

No other developments were identified at this time that are expected to result in an increase in traffic within the study area beyond the general background traffic growth rate (discussion follows).

General Background Traffic Growth

Traffic-volume data compiled by NHDOT from permanent count stations located in Newmarket were reviewed in order to determine general traffic growth trends in the area. This data indicates that traffic volumes have fluctuated over the 10-year period between 2009 and 2019, with the average traffic growth rate found to be 0.96 percent. As such, a 1.0 percent per year compounded annual background traffic growth rate was used in order to account for future traffic growth and presently unforeseen development within the study area.

Roadway Improvement Projects

The Town of Newmarket and NHDOT were contacted in order to determine if there were any planned roadway improvement projects expected to be completed within the study area. Based on these discussions, no roadway improvement projects aside from routine maintenance activities were identified to be planned within the study area at this time.

No-Build Traffic Volumes

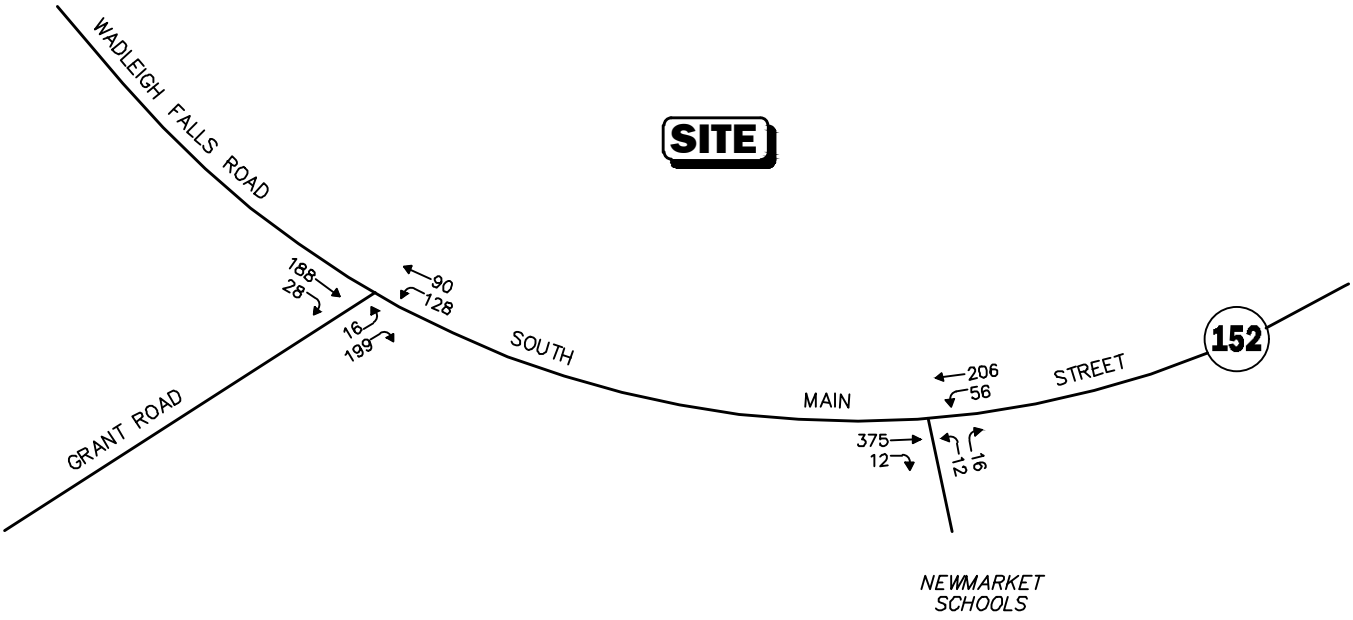
The 2024 and 2034 No-Build peak-month peak-hour traffic volumes were developed by applying the 1.0 percent per year compounded annual background traffic growth rate to the 2023 Existing peak-month peak-hour traffic volumes and then adding the peak-hour traffic volumes associated with the identified specific development project by others (50-56 Exeter Road mixed-use development). The resulting 2024 No-Build weekday morning, weekday afternoon and weekday evening peak-month peak-hour traffic volumes are shown on Figures 3A and 3B, with the corresponding 2034 No-Build peak-month peak-hour traffic volumes shown on Figures 4A and 4B.

Project-Generated Traffic

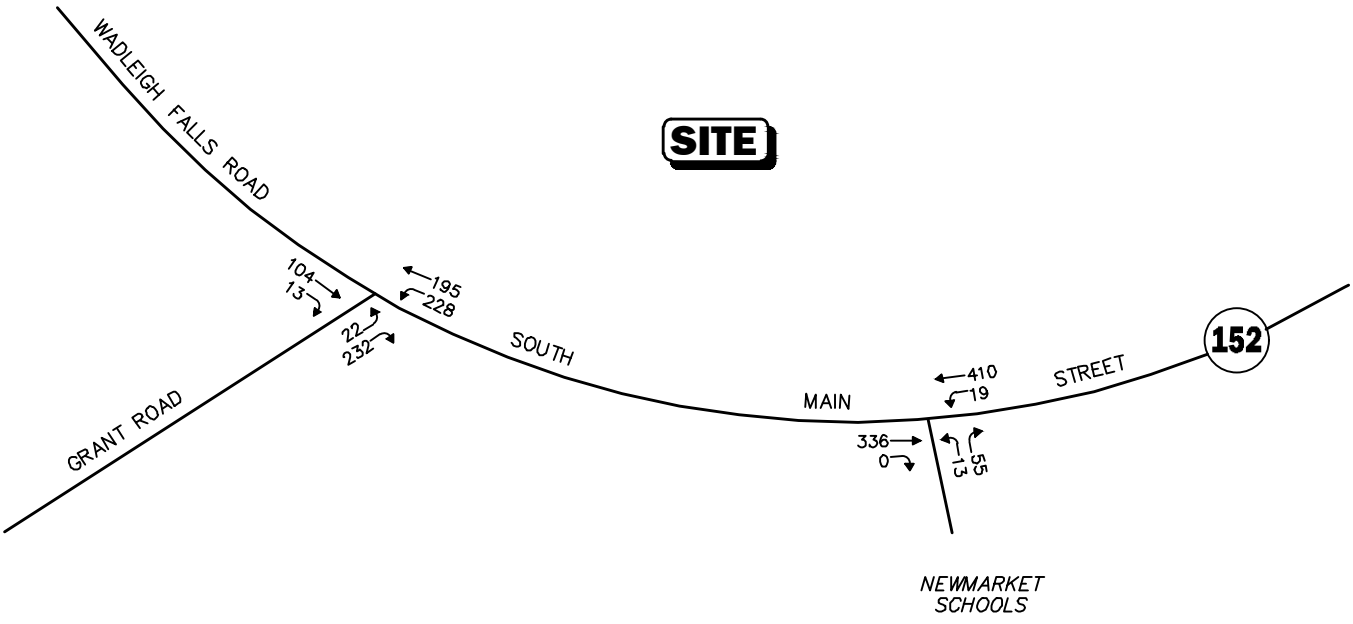
Design year (2024 and 2034) Build traffic volumes for the study area roadways were determined by estimating Project-generated traffic volumes and assigning those volumes on the study roadways. The following sections describe the methodology used to develop the anticipated traffic characteristics of the Project.

[4]Ibid 1.

WEEKDAY MORNING PEAK HOUR (7:15 - 8:15 AM)



WEEKDAY AFTERNOON PEAK HOUR (2:30 - 3:30 PM)



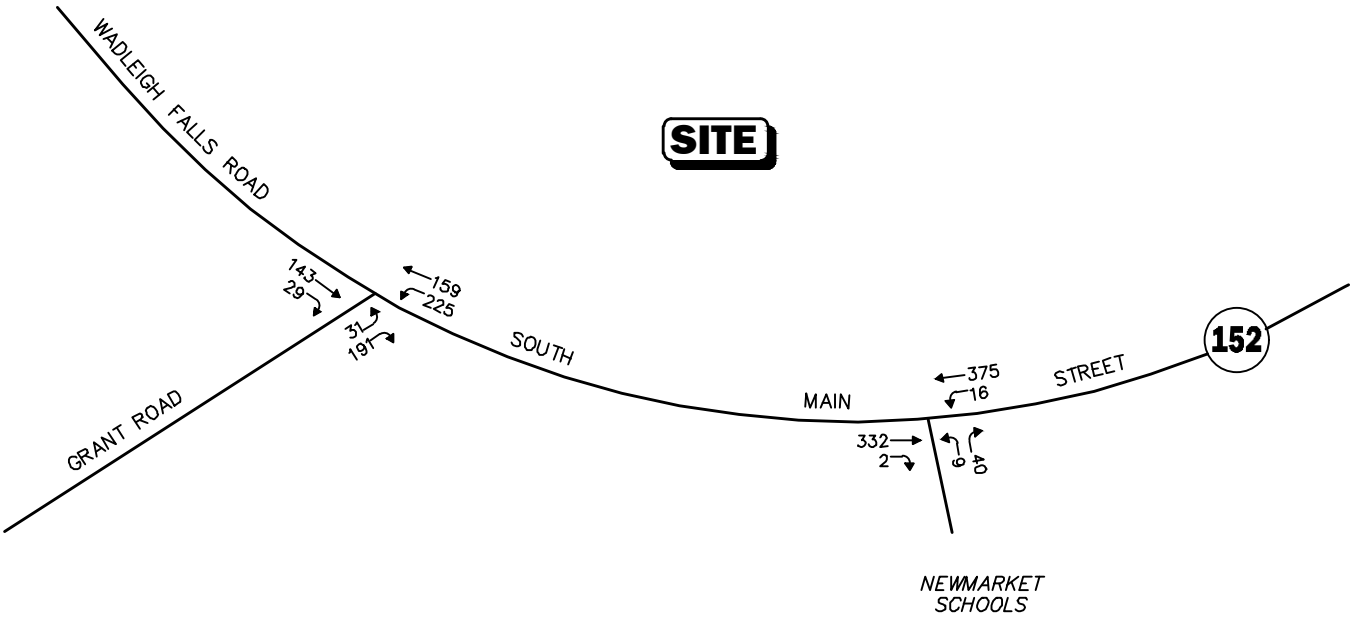
N

Not To Scale

Figure 3A

Vanasse & Associates inc

2024 No-Build
Peak-Month
Peak-Hour Traffic Volumes



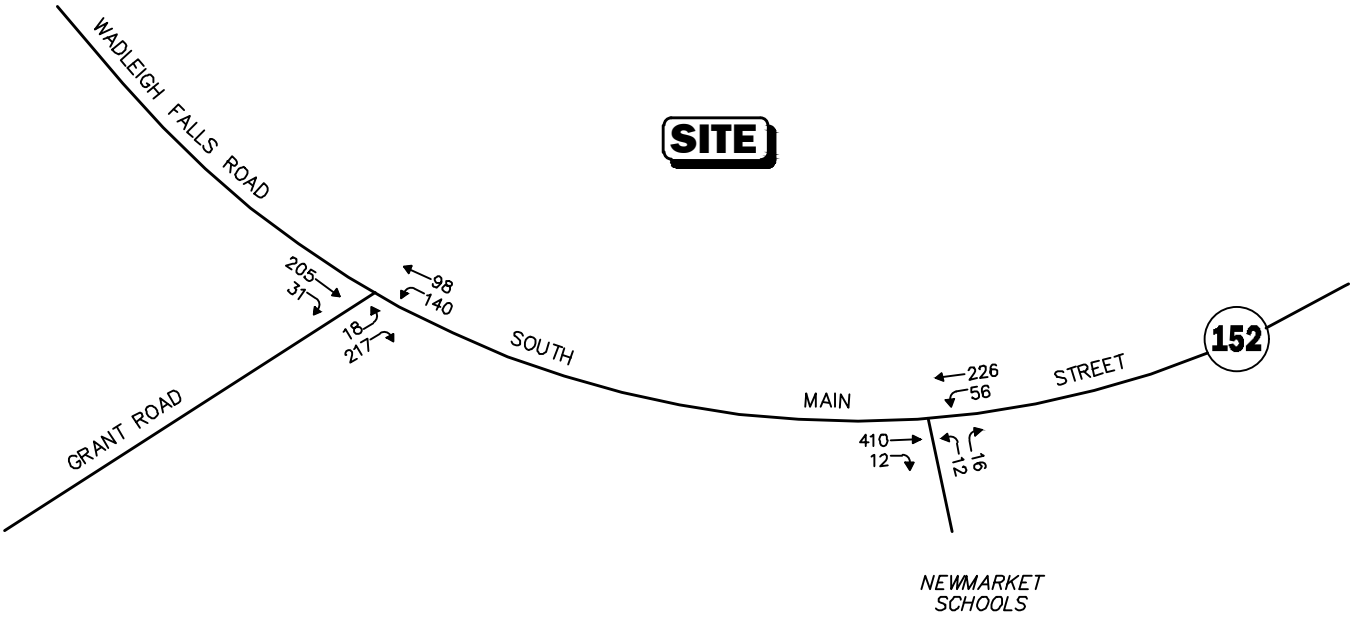
Not To Scale

Figure 3B

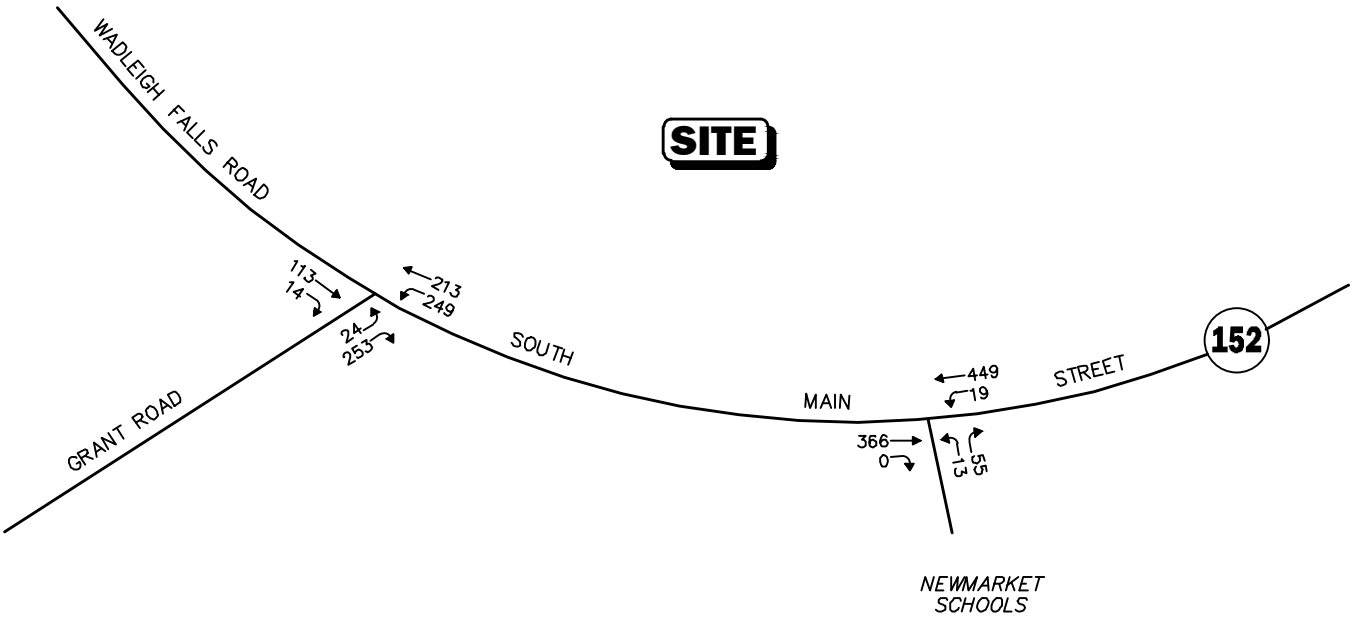
2024 No-Build
Peak-Month
Weekday Evening
(4:45 - 5:45 PM)
Peak-Hour Traffic Volumes

Vanasse & Associates inc

WEEKDAY MORNING PEAK HOUR (7:15 - 8:15 AM)



WEEKDAY AFTERNOON PEAK HOUR (2:30 - 3:30 PM)

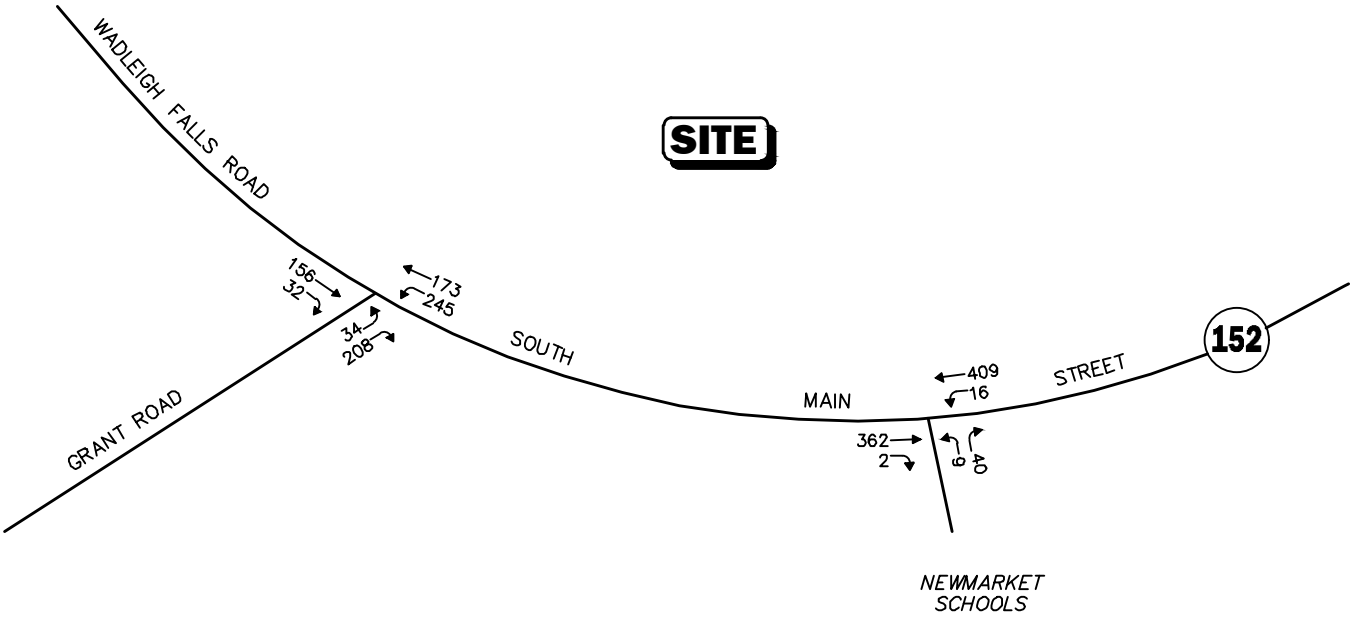


Not To Scale

Figure 4A

2034 No-Build
Peak-Month
Peak-Hour Traffic Volumes

Vanasse & Associates inc



Not To Scale

Figure 4B

Vanasse & Associates inc

2034 No-Build
Peak-Month
Weekday Evening
(4:45 - 5:45 PM)
Peak-Hour Traffic Volumes

R:\9626\9626NT1.dwg, 3/15/2023 3:06:03 PM

As proposed, the Project will entail the construction of a 32±-unit, age-qualified, multifamily residential development. In order to develop the traffic characteristics of the Project, trip-generation statistics published by the ITE[5] for a similar land use as that proposed were used. ITE Land Use Code (LUC) 252, *Senior Adult Housing – Multifamily*, was used to develop the traffic characteristics of the Project, the results of which are summarized in Table 4.

Table 4
TRIP-GENERATION SUMMARY

Time Period	Vehicle Trips[a]		
	Entering	Exiting	Total
Average Weekday:	52	52	104
Weekday Morning Peak-Hour:	2	4	6
Weekday Evening Peak-Hour:	4	4	8

[a]Based on ITE LUC 252, *Senior Adult Housing – Multifamily* (32 units).

Project-Generated Traffic-Volume Summary

As can be seen in Table 4, using the aforementioned methodology, the Project is expected to generate approximately 104 vehicle trips on an average weekday (two-way, 24-hour volumes), with approximately 6 vehicle trips (2 vehicles entering and 4 exiting) expected during the weekday morning peak-hour and 8 vehicle trips (4 vehicles entering and 4 exiting) expected during the weekday evening peak-hour.

For the purpose of this assessment, it was assumed that the Project would generate 8 vehicle trips (4 vehicles entering and 4 exiting) during the weekday afternoon peak-hour, similar to the number of trips generated by the Project during the weekday evening peak-hour.

Trip Distribution and Assignment

The directional distribution of generated trips to and from the Project site was determined based on a review of U.S. Census Journey-to-Work data for residents of the Town of Newmarket and then refined based on a review of existing traffic patterns within the study area. The general trip distribution for the Project is graphically depicted on Figure 5, with the additional traffic expected to be generated by the Project assigned onto the study area roadway network as shown on Figure 6.

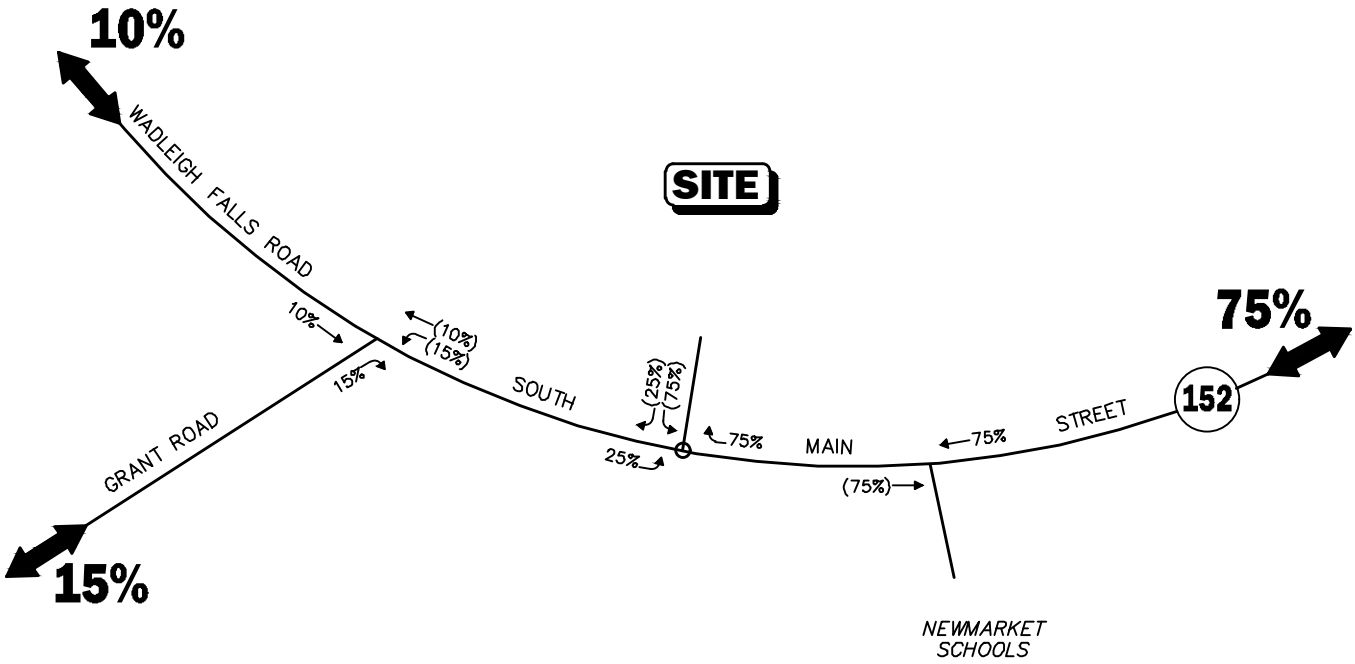
Build Traffic Volumes

The 2024 Opening-Year Build and 2034 Build condition traffic volumes were developed by adding the peak-hour Project-generated traffic to the corresponding 2024 and 2034 No-Build peak-month peak-hour traffic volumes. The resulting 2024 Opening-Year Build condition weekday morning, weekday afternoon and weekday evening peak-month peak-hour traffic volumes are graphically depicted on Figures 7A and 7B, with the corresponding 2034 Build condition peak-month peak-hour traffic volumes depicted on Figures 8A and 8B.

[5]Ibid 1.

Legend:

XX	Entering Trips
(XX)	Exiting Trips



Not To Scale

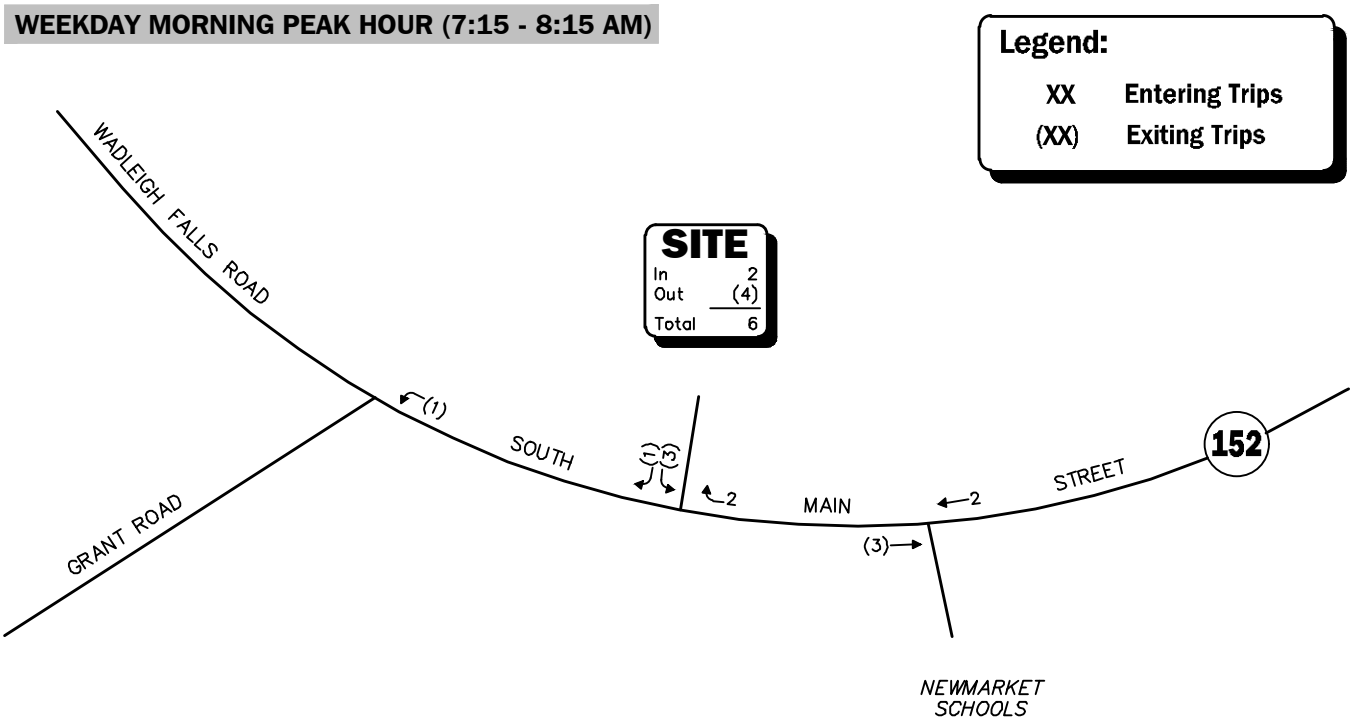
Figure 5

Trip Distribution Map

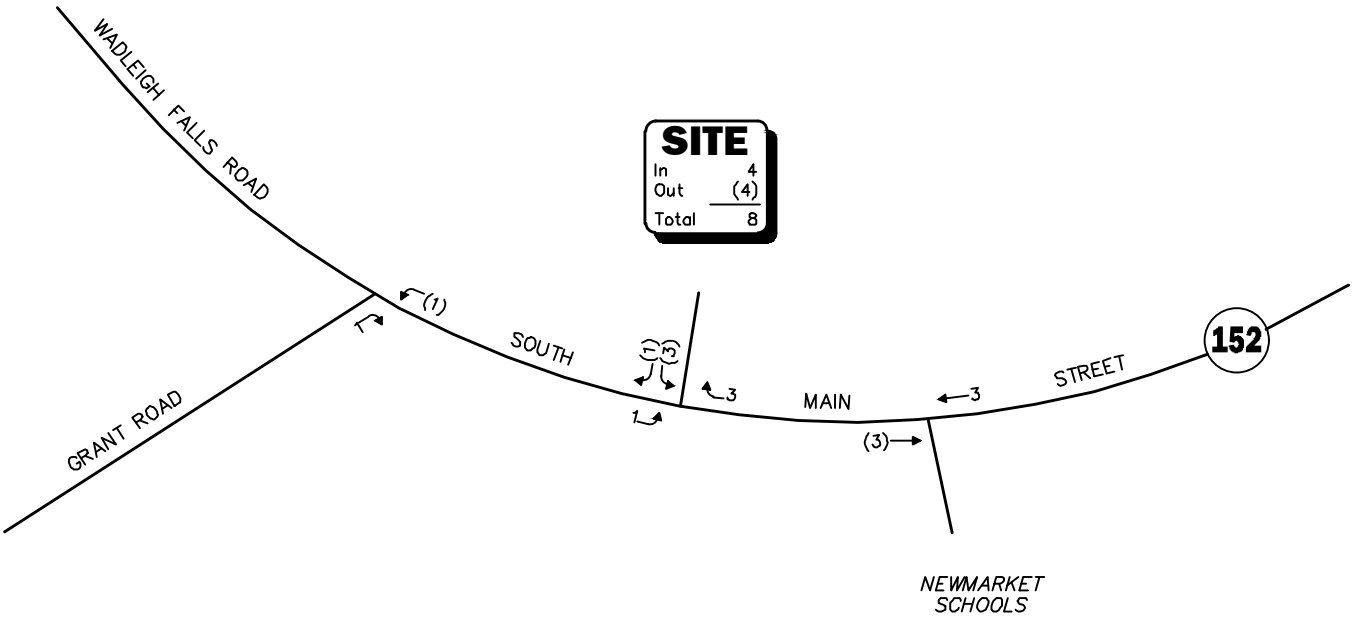
Vanasse & Associates inc

R:\9626\9626NT1.dwg, 3/15/2023 3:06:09 PM

WEEKDAY MORNING PEAK HOUR (7:15 - 8:15 AM)



WEEKDAY AFTERNOON PEAK HOUR (2:30 - 3:30 PM)



Not To Scale

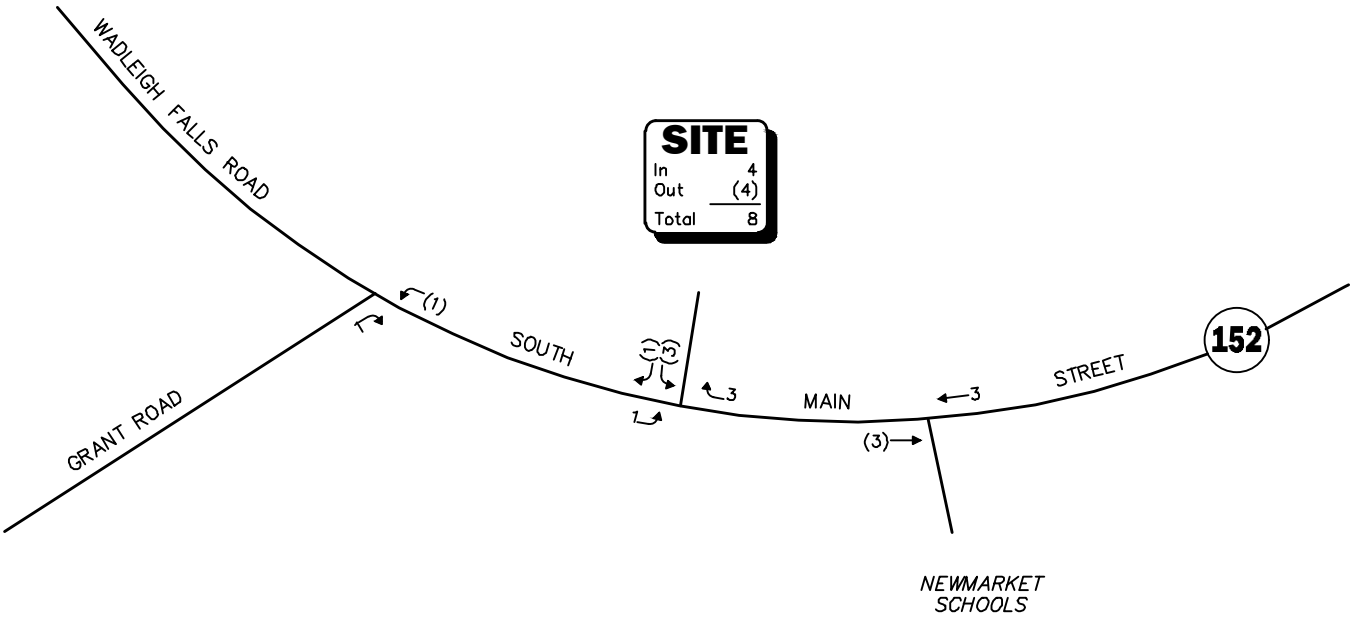
Figure 6A

Project-Generated Peak-Hour Traffic Volumes

Vanasse & Associates inc

Legend:

XX	Entering Trips
(XX)	Exiting Trips



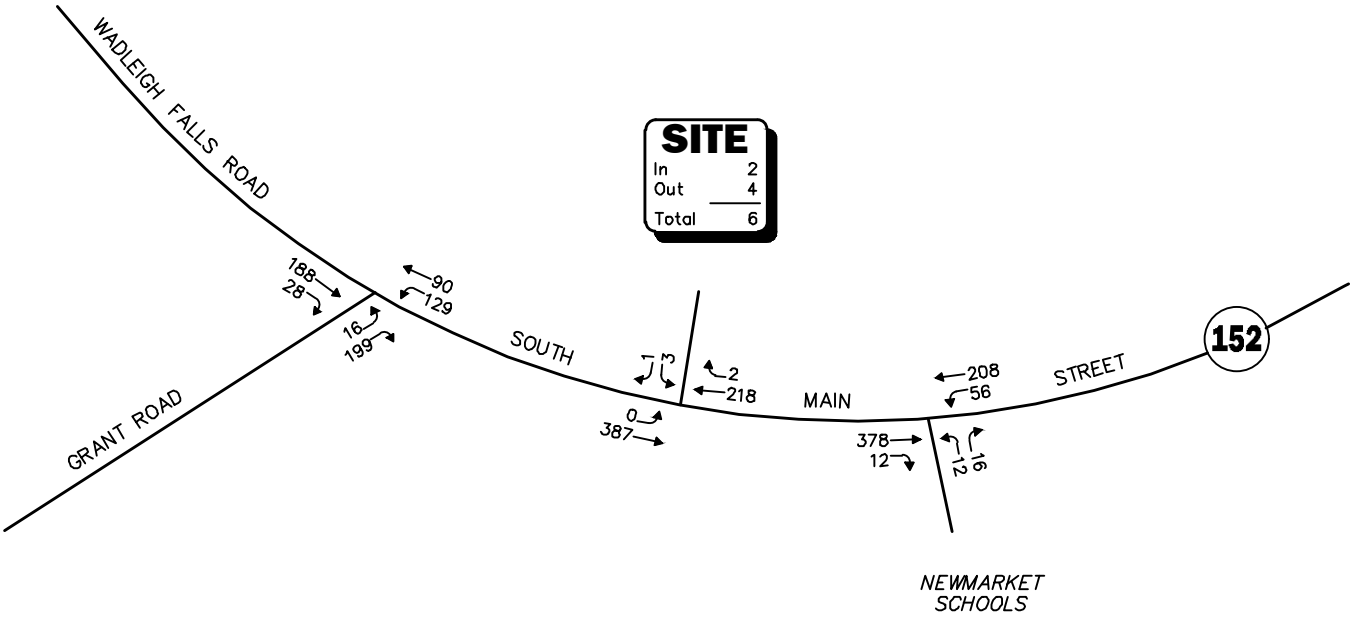
Not To Scale

Figure 6B

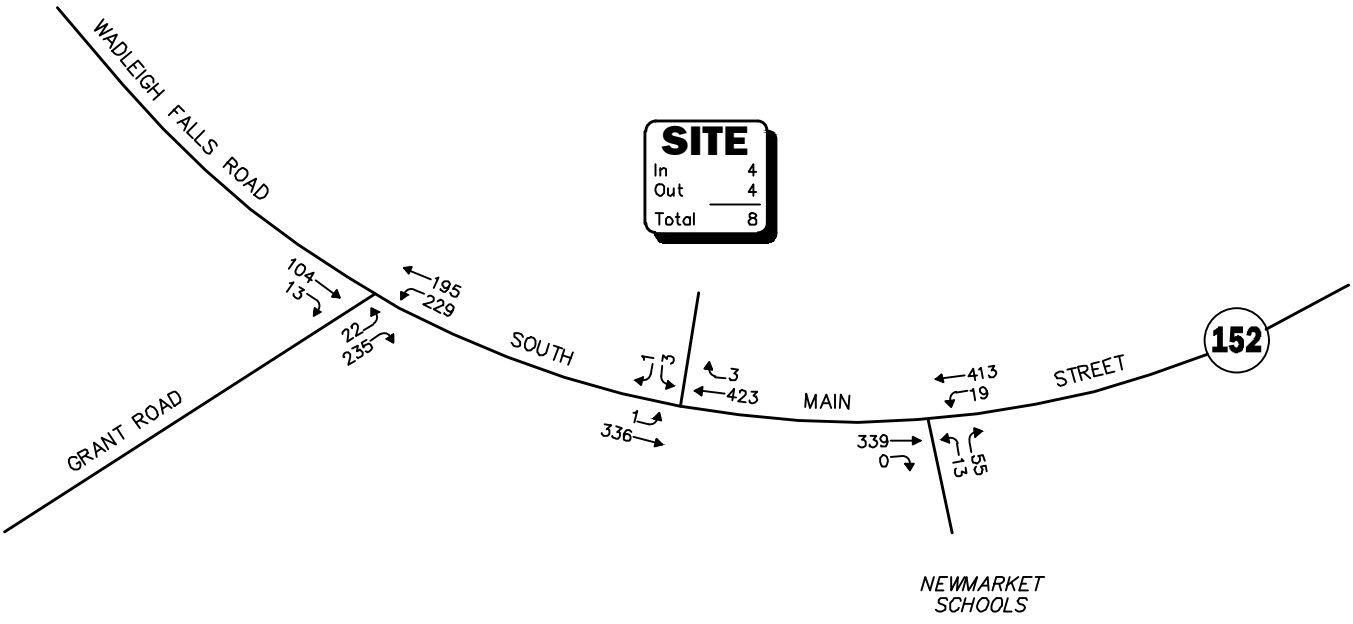
Project-Generated Weekday Evening (4:45 - 5:45 PM) Peak-Hour Traffic Volumes

Vanasse & Associates inc

WEEKDAY MORNING PEAK HOUR (7:15 - 8:15 AM)



WEEKDAY AFTERNOON PEAK HOUR (2:30 - 3:30 PM)

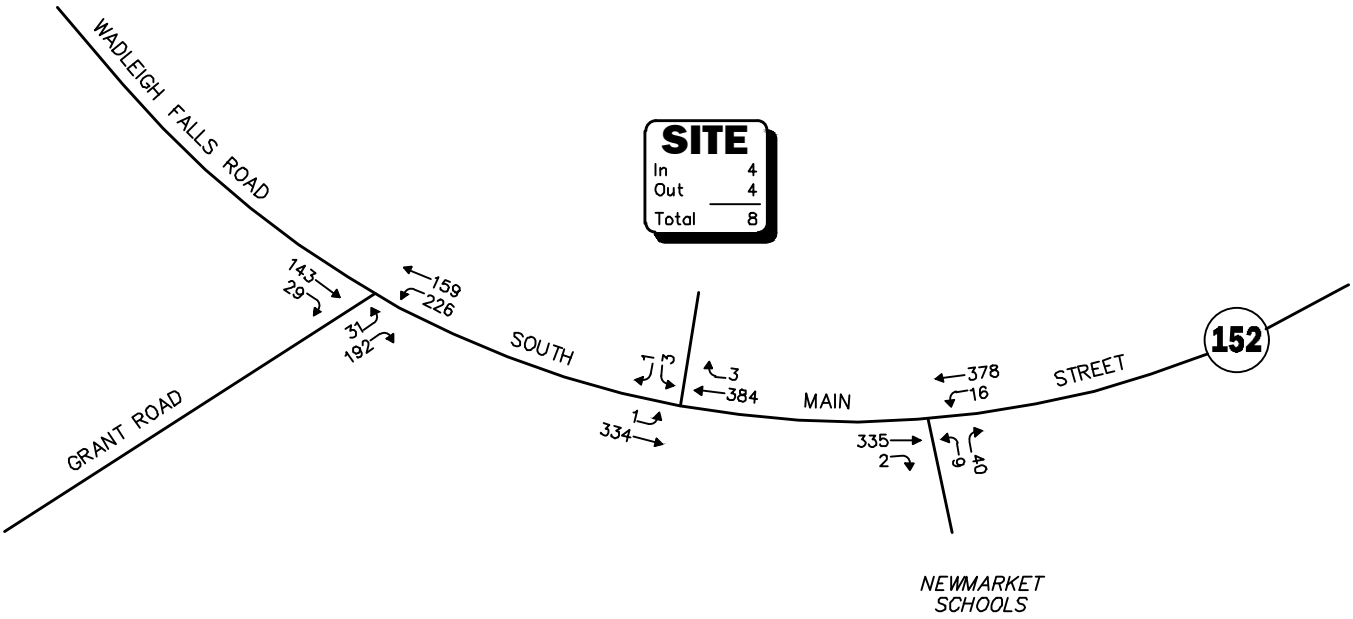


Not To Scale

Figure 7A

2024 Build
Peak-Month
Peak-Hour Traffic Volumes

Vanasse & Associates inc



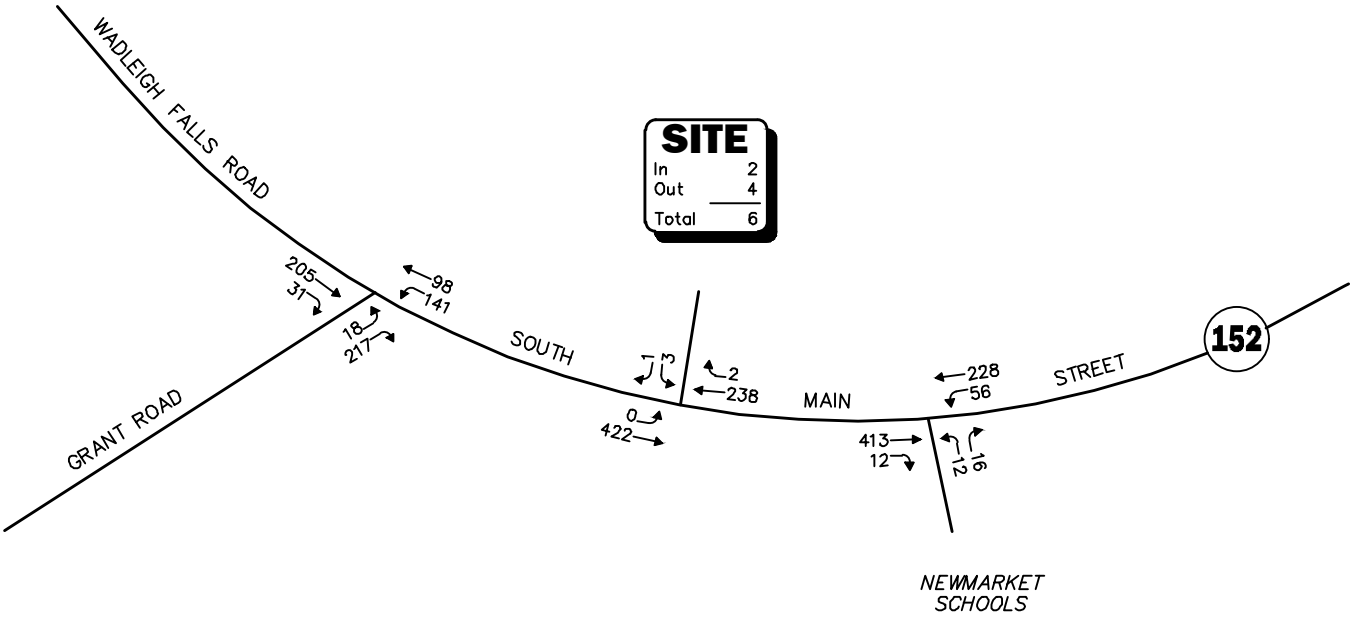
Not To Scale

Figure 7B

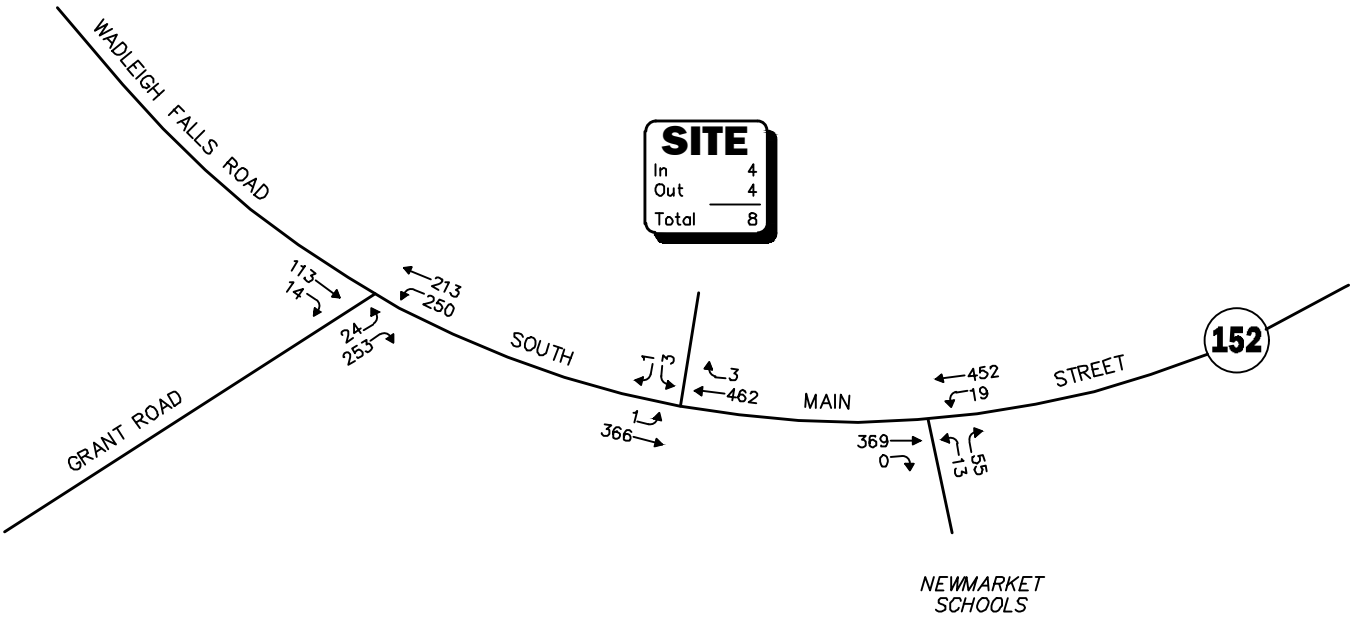
Vanasse & Associates inc

2024 Build
Peak-Month
Weekday Evening
(4:45 - 5:45 PM)
Peak-Hour Traffic Volumes

WEEKDAY MORNING PEAK HOUR (7:15 - 8:15 AM)



WEEKDAY AFTERNOON PEAK HOUR (2:30 - 3:30 PM)

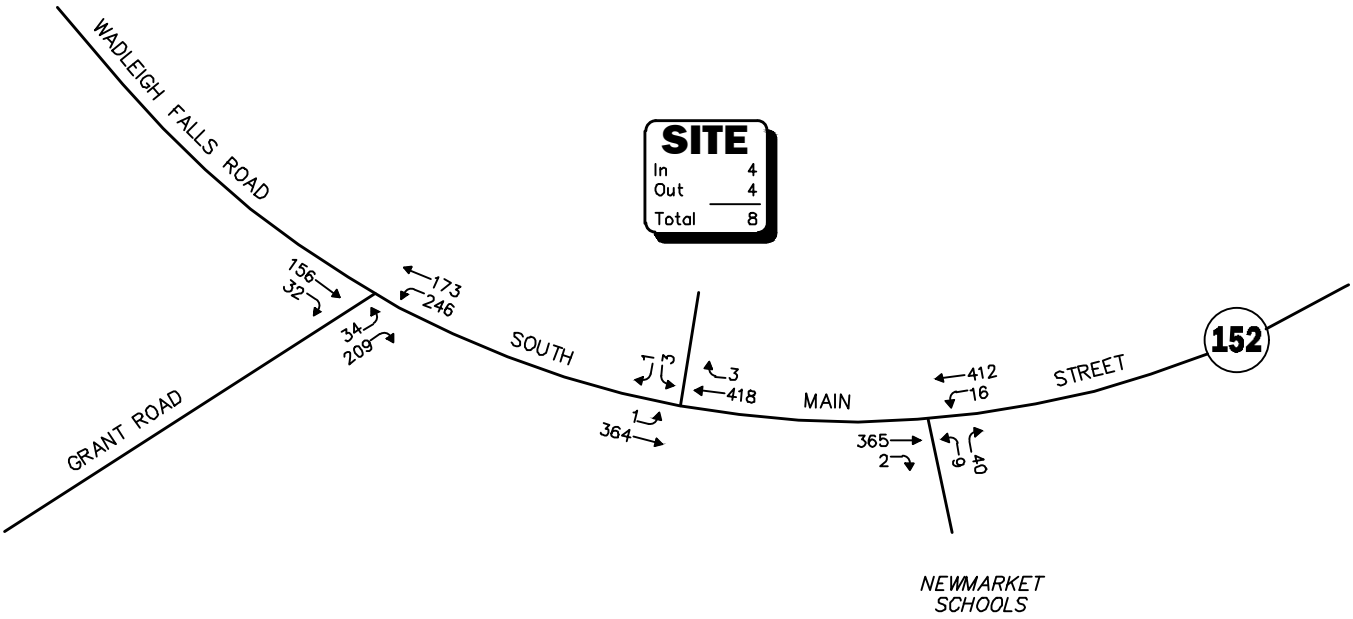


Not To Scale

Figure 8A

2034 Build
Peak-Month
Peak-Hour Traffic Volumes

Vanasse & Associates inc



Not To Scale

Figure 8B

2034 Build
Peak-Month
Weekday Evening
(4:45 - 5:45 PM)
Peak-Hour Traffic Volumes

Vanasse & Associates inc

TRAFFIC OPERATIONS ANALYSIS

In order to assess the potential impact of the Project on the roadway network, a detailed traffic operations analysis (motorist delays, vehicle queuing, and level of service) was performed at the study area intersections. Capacity analyses provide an indication of how well transportation facilities serve the traffic demands placed upon them, with vehicle queue analyses providing a secondary measure of the operational characteristics of an intersection or section of roadway under study.

In brief, six levels of service are defined for each type of facility. They are given letter designations ranging from A to F, with LOS "A" representing the best operating conditions and LOS "F" representing congested or constrained operations. An LOS of "E" is representative of a transportation facility that is operating at its design capacity with an LOS of "D" generally defined as the limit of "acceptable" traffic operations. Since the level of service of a traffic facility is a function of the flows placed upon it, such a facility may operate at a wide range of levels of service depending on the time of day, day of week, or period of the year. The Synchro® 11 intersection capacity analysis software, which is based on the analysis methodologies and procedures presented in the HCM 6th Edition[6] for unsignalized intersections was used to complete the level-of-service and vehicle queue analyses.

Analysis Results

Level-of-service and vehicle queue analyses were conducted for 2023 Existing, 2024 and 2034 No-Build, and 2024 Opening-Year Build and 2034 Build conditions for the intersections within the study area. The results of the intersection capacity and vehicle queue analyses are summarized in Table 5, with the detailed analysis results presented in the Appendix.

The following is a summary of the level-of-service and vehicle queue analyses for the intersections within the study area. For context, we note that an LOS of "D" or better is generally defined as "acceptable" operating conditions.

NH Route 152 at Grant Road

No change in level-of-service or vehicle queuing is predicted to occur over both 2024 No-Build or 2034 No-Build conditions with the addition of Project-related traffic (i.e., 2024 Opening-Year Build and 2034 Build conditions), with Project-related impacts generally defined as a predicted increase in average motorist delay of less than 1.0 seconds. All movements at the intersection are predicted to continue to operate at LOS C or better with vehicle queues of up to seven (7) vehicles (Grant Road approach).

NH Route 152 at the Newmarket Elementary School Driveway

No change in level-of-service or vehicle queuing is predicted to occur over both 2024 No-Build or 2034 No-Build conditions with the addition of Project-related traffic, with Project-related impacts generally defined as a predicted increase in average motorist delay of less than 1.0 seconds. All movements at the intersection are predicted to continue to operate at LOS C or better with vehicle queues of up to one (1) vehicle.

[6] *Highway Capacity Manual*; Transportation Research Board; Washington, DC; 2016.

NH Route 152 at the Project Site Driveway

Under 2024 Opening-Year Build and 2034 Build conditions, the Project site driveway approach to NH Route 152 was shown to operate at LOS C or better with negligible vehicle queuing. All movements along NH Route 152 approaching the Project site driveway were shown to operate at LOS A, also with negligible vehicle queuing.

Table 5
UNSIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Unsignalized Intersection/Peak Hour/Movement	2023 Existing				2024 No-Build				2024 Opening-Year Build				2034 No-Build				2034 Build			
	Demand[a]	Delay[b]	LOS[c]	Queue[d] 95th	Demand	Delay	LOS	Queue 95th	Demand	Delay	LOS	Queue 95th	Demand	Delay	LOS	Queue 95th	Demand	Delay	LOS	Queue 95th
NH Route 152 at Grant Road																				
Weekday Morning:																				
NH Route 152 EB TH/RT	212	0.0	A	0	216	0.0	A	0	216	0.0	A	0	236	0.0	A	0	236	0.0	A	0
NH Route 152 WB LT/TH	211	4.8	A	1	218	4.8	A	1	219	4.9	A	1	238	4.9	A	1	239	5.0	A	1
Grant Road NB LT/RT	210	18.2	C	5	215	19.0	C	5	215	19.1	C	5	235	24.3	C	7	235	24.3	C	7
Weekday Afternoon:																				
NH Route 152 EB TH/RT	110	0.0	A	0	117	0.0	A	0	117	0.0	A	0	127	0.0	A	0	127	0.0	A	0
NH Route 152 WB LT/TH	405	4.4	A	1	423	4.4	A	1	424	4.4	A	1	462	4.5	A	1	463	4.5	A	1
Grant Road NB LT/RT	243	12.9	B	2	254	13.4	B	2	255	13.5	B	2	277	14.9	B	3	277	15.0	B	3
Weekday Evening:																				
NH Route 152 EB TH/RT	165	0.0	A	0	172	0.0	A	0	172	0.0	A	0	188	0.0	A	0	188	0.0	A	0
NH Route 152 WB LT/TH	366	4.7	A	1	384	4.8	A	1	385	4.8	A	1	418	4.8	A	1	419	4.8	A	1
Grant Road NB LT/RT	211	13.7	B	2	222	14.3	B	2	223	14.3	B	2	242	16.1	C	3	243	16.2	C	3
NH Route 152 at the Newmarket Elementary School Driveway																				
Weekday Morning:																				
NH Route 152 EB TH/RT	378	0.0	A	0	387	0.0	A	0	390	0.0	A	0	422	0.0	A	0	425	0.0	A	0
NH Route 152 WB LT/TH	255	2.0	A	1	262	2.0	A	1	264	2.0	A	1	282	1.9	A	1	284	1.9	A	1
Elementary School Driveway NB LT/RT	28	19.2	C	1	28	19.8	C	1	28	19.9	C	1	28	22.0	C	1	28	22.2	C	1
Weekday Afternoon:																				
NH Route 152 EB TH/RT	318	0.0	A	0	336	0.0	A	0	339	0.0	A	0	366	0.0	A	0	369	0.0	A	0
NH Route 152 WB LT/TH	411	0.4	A	0	429	0.4	A	0	432	0.4	A	0	468	0.3	A	0	471	0.3	A	0
Elementary School Driveway NB LT/RT	68	15.7	C	2	68	16.3	C	2	68	16.4	C	2	68	17.7	C	2	68	17.8	C	2
Weekday Evening:																				
NH Route 152 EB TH/RT	316	0.0	A	0	334	0.0	A	0	337	0.0	A	0	364	0.0	A	0	367	0.0	A	0
NH Route 152 WB LT/TH	373	0.4	A	0	391	0.3	A	0	394	0.3	A	0	425	0.3	A	0	428	0.3	A	0
Elementary School Driveway NB LT/RT	49	13.3	B	1	49	13.7	B	1	49	13.7	B	1	49	14.5	B	1	49	14.5	B	1
NH Route 152 at the Project Site Driveway																				
Weekday Morning:																				
NH Route 152 EB LT/TH	--	--	--	--	--	--	--	--	387	0.0	A	0	--	--	--	--	422	0.0	A	0
NH Route 152 WB TH/RT	--	--	--	--	--	--	--	--	220	0.0	A	0	--	--	--	--	240	0.0	A	0
Project Site Driveway SB LT/RT	--	--	--	--	--	--	--	--	4	15.0	C	0	--	--	--	--	4	16.1	C	0
Weekday Afternoon:																				
NH Route 152 EB LT/TH	--	--	--	--	--	--	--	--	337	0.0	A	0	--	--	--	--	367	0.0	A	0
NH Route 152 WB TH/RT	--	--	--	--	--	--	--	--	426	0.0	A	0	--	--	--	--	465	0.0	A	0
Project Site Driveway SB LT/RT	--	--	--	--	--	--	--	--	4	15.5	C	0	--	--	--	--	4	16.7	C	0
Weekday Evening:																				
NH Route 152 EB LT/TH	--	--	--	--	--	--	--	--	335	0.0	A	0	--	--	--	--	365	0.0	A	0
NH Route 152 WB TH/RT	--	--	--	--	--	--	--	--	387	0.0	A	0	--	--	--	--	421	0.0	A	0
Project Site Driveway SB LT/RT	--	--	--	--	--	--	--	--	4	14.9	B	0	--	--	--	--	4	15.9	C	0

[a]Demand in vehicles per hour.
[b]Average control delay per vehicle (in seconds).
[c]Level of service.
[d]Queue length in vehicles.
NB = northbound; SB = southbound; EB = eastbound; WB = westbound; LT = left-turning movements; TH = through movements; RT = right-turning movements.

SIGHT DISTANCE ASSESSMENT

Sight distance measurements were performed at the intersection of NH Route 152 at the Project site driveway in accordance with American Association of State Highway and Transportation Officials (AASHTO)[7] requirements. Both stopping sight distance (SSD) and intersection sight distance (ISD) measurements were performed. In brief, SSD is the distance required by a vehicle traveling at the design speed of a roadway, on wet pavement, to stop prior to striking an object in its travel path. ISD or corner sight distance (CSD) is the sight distance required by a driver entering or crossing an intersecting roadway to perceive an on-coming vehicle and safely complete a turning or crossing maneuver with on-coming traffic. In accordance with AASHTO standards, if the measured ISD is at least equal to the required SSD value for the appropriate design speed, the intersection can operate in a safe manner. Table 6 presents the measured SSD and ISD at the subject intersection.

Table 6
SIGHT DISTANCE MEASUREMENTS[a]

Intersection/Sight Distance Measurement	Feet		
	Required Minimum (SSD)	Desirable (ISD)[b]	Measured
NH Route 152 at the Project Site Driveway			
Stopping Sight Distance:			
NH Route 152 approaching from the east	305	--	500+
NH Route 152 approaching from the west	305	--	354
Intersection Sight Distance:			
Looking to the east from the Project site driveway	305	385	105/500+[c]
Looking to the west from the Project site driveway	305	445	383[c]

[a]Recommended minimum values obtained from *A Policy on Geometric Design of Highways and Streets,* 7th Edition; American Association of State Highway and Transportation Officials (AASHTO); 2018; and based on an approach speed of 40 mph along NH Route 152.
[b]Values shown are the intersection sight distance for a vehicle turning right or left exiting a roadway under STOP control such that motorists approaching the intersection on the major street should not need to adjust their travel speed to less than 70 percent of their initial approach speed.
[c]Available sight distance with the selective trimming/removal of trees and vegetation located within the sight triangle areas of the Project site driveway.

As can be seen in Table 6, with the selective trimming/removal of trees and vegetation located within the sight triangle areas of the Project site driveway, the available lines of sight to and from the Project site driveway intersection with NH Route 152 were found to exceed the recommended minimum sight distance to function in a safe manner (SSD) based on a 40 mph approach speed along NH Route 152, which is above both the measured 85th percentile vehicle travel speed (37 mph) and with the posted speed limit (30 mph) in the vicinity of the Project site.

[7]*A Policy on Geometric Design of Highway and Streets,* 7th Edition; American Association of State Highway and Transportation Officials (AASHTO); Washington D.C.; 2018.

SUMMARY

VAI has completed a detailed assessment of the potential impacts on the transportation infrastructure associated with the proposed construction of an age-qualified multifamily residential development to be located at 242 South Main Street (NH Route 152) in Newmarket, New Hampshire. This study has been completed in accordance with NHDOT standards for the preparation of a TIS and includes an evaluation of the following specific areas as they relate to the Project: i) access requirements; ii) potential off-site improvements; and iii) safety considerations; under existing and future conditions, both with and without the Project. Based on this assessment, we have concluded the following with respect to the Project:

1. Using trip-generation statistics published by the ITE,[8] the Project is expected to generate approximately 104 vehicle trips on an average weekday (two-way, 24-hour volume), with approximately 6 vehicle trips expected during the weekday morning peak-hour and 8 vehicle trips expected during the weekday evening peak-hour;

2. The Project will not have a significant impact (increase) on motorist delays or vehicle queuing over Existing or anticipated future conditions without the Project (No-Build conditions), with no changes in level-of-service or vehicle queuing predicted to occur as a result of the addition of Project-related traffic and all of the movements at the study area intersections shown to continue operate at LOS C or better, where and LOS of "D" or better is generally defined as "acceptable" traffic operations;

3. Exiting movements from the Project site driveway to NH Route 152 are predicted to operate at LOS C or better with negligible vehicle queuing predicted, with all movements along NH Route 152 approaching the driveway shown to operate at LOS A, also with negligible vehicle queuing; and

4. Lines of sight at the intersection of NH Route 152 at the Project site driveway were found to exceed the recommended minimum distance for the intersection to operate in a safe manner based on the appropriate approach speed.

In consideration of the above, we have concluded that the Project can be accommodated within the confines of the existing transportation infrastructure in a safe and efficient manner with the implementation of the recommendations that follow.

RECOMMENDATIONS

Project Access

Access to the Project site will be provided by way of a full-access driveway that will intersect the north side of NH Route 152 generally opposite the driveway to 249 South Main Street. The following recommendations are offered with respect to the design and operation of the Project site access and internal circulation, many of which are reflected on the Site Plan:

- The Project site driveway will be a minimum of 24 feet in width and designed to accommodate the turning and maneuvering requirements of the largest anticipated responding emergency vehicle.

[8]Ibid 1.

- Where perpendicular parking is proposed, the drive aisle behind the parking will be a minimum of 23 feet in order to facilitate parking maneuvers (24-feet is proposed).
- Vehicles exiting the Project site to NH Route 152 should be placed under STOP-sign control with a marked STOP-line provided.
- All signs and pavement markings to be installed as a part of the Project will conform to the applicable standards of the *Manual on Uniform Traffic Control Devices* (MUTCD).[9]
- Americans with Disabilities Act (ADA) compliant wheelchair ramps will be provided at all pedestrian crossings to be constructed or modified in conjunction with the Project.
- Existing trees and vegetation located within the sight triangle areas of the Project site driveway should be selectively trimmed and removed in order to provided the necessary sight lines for safe operation of the driveway.
- Signs and landscaping to be installed as a part of the Project within the intersection sight triangle areas will be designed and maintained so as not to restrict lines of sight.
- Snow accumulation (windrows) within sight triangle areas of the Project site driveway will be promptly removed where such accumulations would impede sight lines.

With implementation of the aforementioned recommendations, safe and efficient access will be provided to the Project site and the Project can be accommodated within the confines of the existing and improved transportation system.

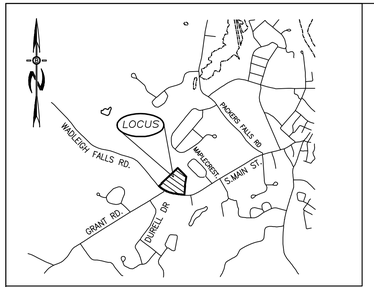
cc: File

[9]*Manual on Uniform Traffic Control Devices (MUTCD)*; Federal Highway Administration; Washington, D.C.; 2009.

ATTACHMENTS

PROJECT SITE PLAN
AUTOMATIC TRAFFIC RECORDER COUNT DATA
TURNING MOVEMENT COUNT DATA
SEASONAL ADJUSTMENT DATA
COVID ADJUSTMENT DATA
VEHICLE TRAVEL SPEED DATA
GENERAL BACKGROUND TRAFFIC GROWTH
BACKGROUND DEVELOPMENT NETWORKS
TRIP-GENERATION CALCULATIONS
TRIP DISTRIBUTION
CAPACITY ANALYSIS WORKSHEETS

PROJECT SITE PLAN



LOCATION MAP

LEGEND

- UTILITY POLE
- TP#1A — TEST PIT W/ NO.
- STONE WALL
- TREE LINE
- EXISTING CONTOUR – 10'
- EXISTING CONTOUR – 2'
- OHW — OVERHEAD UTILITIES
- SOILS BOUNDARY LINE
- BUILDING SETBACK LINE
- WETLAND SETBACK LINE
- WETLAND BOUNDARY
- ABUTTING PROPERTY LINE
- EXISTING PROPERTY LINE

U4–68
NORTHPOINT REALTY, INC
258 WADLEIGH FALLS RD
NEWMARKET, NH 03857

U4–84
DAWN M. MAZUR 2020 REV. TRUST
34 MAPLECREST ST.
NEWMARKET, NH 03857
R.C.R.D. BK. 6183, PG. 1977

U4–83
SHARON M. MCCRILLIS
36 MAPLECREST ST.
NEWMARKET, NH 03857–1402
R.C.R.D. BK. 5048, PG. 965

U4–82
TIMOTHY R. & JESSICA J. NOYES
38 MAPLECREST ST.
NEWMARKET, NH 03857
R.C.R.D. BK. 6352, PG. 1482

U4–71
EDMUND & GAIL P. WASIEWSKI
236 SOUTH MAIN ST.
NEWMARKET, NH 03857

U4–70
STEPHEN & MYRA SURACI
22 GOULDS HILL RD
NEWTON, NH 03858
R.C.R.D. BK. 6352, PG. 2524

FEMA LINE — ZONE 'A' / ZONE 'X'

PD SOILS (TYP.)

VPD SOILS (TYP.)

POSSIBLE STORMWATER TREATMENT AREA (TYP.)

PROPOSED DUMPSTER (TO BE SCREENED)

GARBAGE TRUCK TURN–OUT

33 PARKING SPACES

54'x160' (8,640 SF) PROPOSED BUILDING

R=25' TYP.

35'

PROPOSED 0.5–ACRE LOT WITH EXISTING HOUSE.

GRANT ROAD

SOUTH MAIN STREET

UNDERGROUND FACILITIES, UTILITIES AND STRUCTURES HAVE BEEN PLOTTED FROM FIELD OBSERVATION AND THEIR LOCATION MUST BE CONSIDERED APPROXIMATE ONLY. NEITHER BEALS ASSOCIATES, NOR ANY OF THEIR EMPLOYEES TAKE RESPONSIBILITY FOR THE LOCATION OF ANY UNDERGROUND STRUCTURES OR UTILITIES NOT SHOWN THAT MAY EXIST. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE ALL UNDERGROUND STRUCTURES AND/OR UTILITIES LOCATED PRIOR TO EXCAVATION

WORK BY CALLING 1–888–DIG–SAFE (1–888–344–7233).

PREPARED FOR:

DR LEMIUEX BUILDERS, INC.
76 EXETER ROAD
NEWMARKET, NH 03857

BEALS ASSOCIATES, PLLC
70 PORTSMOUTH AVE,
THIRD FLOOR, SUITE 2
STRATHAM, N.H. 03885
PHONE: 603-583-4860,
FAX. 603-583-4863

NOTES

1. UNDERGROUND FACILITIES, UTILITIES AND STRUCTURES HAVE BEEN LOCATED FROM FIELD OBSERVATIONS AND THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. BEALS ASSOCIATES OR ANY OF THEIR EMPLOYEES TAKE NO RESPONSIBILITY FOR THE LOCATION OF ANY UNDERGROUND STRUCTURES OR UTILITIES NOT SHOWN, THAT MAY EXIST. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE ALL UNDERGROUND UTILITIES OR STRUCTURES LOCATED PRIOR TO EXCAVATION WORK BY CALLING 1–888–DIG–SAFE
2. THIS PLAN HAS BEEN PREPARED FOR MUNICIPAL AND STATE APPROVALS AND FOR CONSTRUCTION BASED ON DATA OBTAINED FROM ON–SITE FIELD SURVEY AND EXISTING MUNICIPAL RECORDS. THROUGHOUT THE CONSTRUCTION PROCESS, THE CONTRACTOR SHALL INFORM THE ENGINEER IMMEDIATELY OF ANY FIELD DISCREPANCY FROM DATA AS SHOWN ON THE DESIGN PLANS. THIS INCLUDES ANY UNFORESEEN CONDITIONS, SUBSURFACE OR OTHERWISE, FOR EVALUATION AND RECOMMENDATIONS. ANY CONTRADICTION BETWEEN ITEMS OF THIS PLAN/PLAN SET, OR BETWEEN THE PLANS AND ON–SITE CONDITIONS MUST BE RESOLVED BEFORE RELATED CONSTRUCTION HAS BEEN INITIATED.
3. THE INTENT OF THIS PROPOSAL CONSISTS OF A PROPOSED 31 UNIT AGE RESTRICTED BUILDING AND ASSOCIATED PARKING.
4. ALL ROAD AND DRAINAGE WORK TO CONFORM TO TOWN STANDARD SPECIFICATIONS FOR CONSTRUCTION.
5. ALL PROPOSED SIGNS SHALL CONFORM TO THE TOWN ZONING REGULATIONS.
6. PROJECT IS BASED ON USGS DATUM NAVD 1988.
7. THE LANDOWNER IS RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL WETLAND REGULATIONS, INCLUDING ANY PERMITTING AND SETBACK REQUIREMENTS REQUIRED UNDER THESE REGULATIONS.
8. SEE DETAIL SHEET FOR STANDARD CONSTRUCTION NOTES AND DETAILS.

ZONING REQUIREMENTS

ZONE: R2

MIN. LOT SIZE =	1/2 ACRE
MIN. FRONTAGE =	100'
MAX. HEIGHT =	35'
BUILDING SETBACKS:	
FRONT	25'
SIDE & REAR	15'
WETLANDS	50'

PLANNING BOARD APPROVAL BLOCK

REVISIONS:	DATE:

CONCEPT SITE PLAN 2

RESIDENTIAL DEVELOPMENT
TAX MAP U4, LOT 69
242 SOUTH MAIN STREET
NEWMARKET, NEW HAMPSHIRE

DATE:	JAN 2023	SCALE:	1"=40'
PROJ. NO:	NH-1449	SHEET NO.	2

AUTOMATIC TRAFFIC RECORDER COUNT DATA

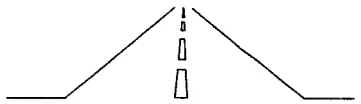
CALCULATION SHEET

Stephen G. Pernaw & Company, Inc.

Project:	Residential Development	Job Number:	2248A
Calculated By:		Date:	
Checked By:		Date:	
Sheet No:		Of:	
Subject:	ATR Data - W. of Elementary School Dwy, Newmarket, NH		

Automatic Traffic Recorder Count Data - Wednesday, 10:45 AM February 1, 2023 - Friday, 10:45 AM February 3, 2023

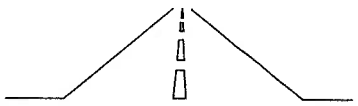
S Main Street (West of Elementary School Driveway), Newmarket, New Hampshire



Stephen G. Pernaw & Company, Inc.

Study Name 2248A ATR
Start Date 02/01/2023
Start Time 10:45 AM
Weather: Clear & Cold
Collected By: MV
Location: S Main Street, W. of School Dwy
Town/State: Newmarket, New Hampshire

	CARS		TRUCKS			
	Westbound	Eastbound	Westbound	Eastbound	Total	
10:45 AM	29	21	2	3	55	2/1/2023
11:00 AM	27	27	4	4	62	
11:15 AM	27	31	3	4	65	
11:30 AM	27	31	2	2	62	
11:45 AM	25	28	5	2	60	
12:00 PM	37	26	1	1	65	
12:15 PM	26	26	3	4	59	
12:30 PM	33	29	5	1	68	
12:45 PM	30	28	4	3	65	
1:00 PM	32	23	3	4	62	
1:15 PM	31	27	1	2	61	
1:30 PM	33	40	4	3	80	
1:45 PM	32	53	1	5	91	
2:00 PM	73	45	4	5	127	
2:15 PM	47	64	3	0	114	
2:30 PM	47	55	3	1	106	
2:45 PM	35	40	1	0	76	
3:00 PM	52	44	0	2	98	
3:15 PM	37	42	0	4	83	
3:30 PM	68	40	1	2	111	
3:45 PM	71	37	1	0	109	
4:00 PM	47	38	1	0	86	
4:15 PM	46	41	1	1	89	
4:30 PM	77	51	1	0	129	
4:45 PM	55	60	1	2	118	
5:00 PM	78	51	0	0	129	
5:15 PM	62	53	0	2	117	
5:30 PM	52	60	0	0	112	
5:45 PM	42	53	0	0	95	
6:00 PM	30	37	1	0	68	
6:15 PM	41	35	0	2	78	
6:30 PM	40	27	0	1	68	
6:45 PM	36	32	0	0	68	
7:00 PM	35	33	0	0	68	
7:15 PM	30	20	0	0	50	
7:30 PM	32	20	0	0	52	
7:45 PM	17	14	0	0	31	
8:00 PM	39	19	0	1	59	
8:15 PM	27	11	0	0	38	
8:30 PM	16	5	0	0	21	
8:45 PM	19	8	1	0	28	
9:00 PM	16	9	0	0	25	
9:15 PM	11	13	0	0	24	
9:30 PM	10	4	0	0	14	

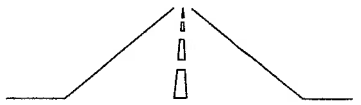


9:45 PM	6	6	0	0	12	
10:00 PM	2	11	0	0	13	
10:15 PM	7	3	0	0	10	
10:30 PM	9	3	0	0	12	
10:45 PM	2	1	0	0	3	
11:00 PM	3	1	0	0	4	
11:15 PM	4	1	0	0	5	
11:30 PM	0	1	0	0	1	
11:45 PM	2	1	0	0	3	
12:00 AM	0	1	0	0	1	2/2/2023
12:15 AM	2	1	0	0	3	
12:30 AM	1	2	0	0	3	
12:45 AM	0	0	0	0	0	
1:00 AM	2	0	0	0	2	
1:15 AM	1	0	0	0	1	
1:30 AM	1	0	0	0	1	
1:45 AM	0	0	0	0	0	
2:00 AM	0	0	0	0	0	
2:15 AM	2	0	0	0	2	
2:30 AM	0	0	0	0	0	
2:45 AM	0	0	0	0	0	
3:00 AM	0	1	0	0	1	
3:15 AM	1	1	0	0	2	
3:30 AM	1	2	0	0	3	
3:45 AM	1	1	0	0	2	
4:00 AM	1	1	0	0	2	
4:15 AM	1	7	0	0	8	
4:30 AM	1	4	0	0	5	
4:45 AM	2	5	0	0	7	
5:00 AM	2	7	0	0	9	
5:15 AM	3	7	0	0	10	
5:30 AM	3	9	0	0	12	
5:45 AM	5	12	0	0	17	
6:00 AM	4	17	1	0	22	
6:15 AM	13	21	0	1	35	
6:30 AM	8	45	0	2	55	
6:45 AM	20	50	2	2	74	
7:00 AM	21	43	1	1	66	
7:15 AM	43	104	2	4	153	
7:30 AM	49	50	3	1	103	
7:45 AM	22	42	3	0	67	
8:00 AM	18	49	1	1	69	
8:15 AM	24	52	5	7	88	
8:30 AM	28	113	6	0	147	
8:45 AM	28	46	2	2	78	
9:00 AM	17	28	6	2	53	
9:15 AM	20	22	1	3	46	
9:30 AM	26	23	2	3	54	
9:45 AM	26	32	3	1	62	
10:00 AM	21	21	5	5	52	
10:15 AM	22	30	2	0	54	
10:30 AM	18	35	2	5	60	
Total	2170 vpd	2363 vpd	104 vpd	101 vpd	4738 vpd	

Stephen G. Pernaw & Company, Inc.

Study Name 2248A ATR
Start Date 02/02/2023
Start Time 10:45 AM
Weather: Clear & Cold
Collected By: MV
Location: S Main Street, W. of School Dwy
Town/State: Newmarket, New Hampshire

	CARS		TRUCKS			
	Westbound	Eastbound	Westbound	Eastbound	Total	
10:45 AM	21	32	0	3	56	2/2/2023
11:00 AM	30	22	6	1	59	
11:15 AM	29	27	2	0	58	
11:30 AM	30	33	1	6	70	
11:45 AM	36	27	2	0	65	
12:00 PM	23	23	1	4	51	
12:15 PM	26	21	3	0	50	
12:30 PM	38	33	4	2	77	
12:45 PM	26	23	2	2	53	
1:00 PM	43	21	6	1	71	
1:15 PM	28	23	4	2	57	
1:30 PM	20	30	3	4	57	
1:45 PM	28	35	2	5	70	
2:00 PM	25	28	4	3	60	
2:15 PM	37	47	1	2	87	
2:30 PM	77	57	7	2	143	
2:45 PM	58	54	2	0	114	
3:00 PM	62	60	4	2	128	
3:15 PM	59	37	4	3	103	
3:30 PM	57	45	3	4	109	
3:45 PM	48	46	2	3	99	
4:00 PM	62	49	1	0	112	
4:15 PM	69	52	1	3	125	
4:30 PM	57	43	0	0	100	
4:45 PM	57	45	2	1	105	
5:00 PM	66	65	0	1	132	
5:15 PM	61	54	0	0	115	
5:30 PM	63	39	0	0	102	
5:45 PM	49	42	0	0	91	
6:00 PM	32	52	0	0	84	
6:15 PM	48	32	0	0	80	
6:30 PM	36	29	0	0	65	
6:45 PM	38	25	1	0	64	
7:00 PM	20	24	0	0	44	
7:15 PM	30	26	0	0	56	
7:30 PM	24	25	0	0	49	
7:45 PM	48	26	0	0	74	
8:00 PM	23	12	0	0	35	
8:15 PM	16	16	0	0	32	
8:30 PM	12	17	0	0	29	
8:45 PM	18	7	0	0	25	
9:00 PM	14	8	0	0	22	
9:15 PM	18	10	0	0	28	
9:30 PM	5	8	0	0	13	



9:45 PM	9	11	0	0	20	
10:00 PM	8	4	0	0	12	
10:15 PM	9	5	0	0	14	
10:30 PM	7	3	0	0	10	
10:45 PM	3	2	0	0	5	
11:00 PM	3	3	0	0	6	
11:15 PM	4	1	0	0	5	
11:30 PM	1	2	0	0	3	
11:45 PM	2	0	0	0	2	
12:00 AM	0	0	0	0	0	2/3/2023
12:15 AM	2	0	0	0	2	
12:30 AM	0	0	0	0	0	
12:45 AM	1	0	0	0	1	
1:00 AM	1	0	0	0	1	
1:15 AM	1	0	0	0	1	
1:30 AM	1	0	0	0	1	
1:45 AM	2	0	0	0	2	
2:00 AM	3	0	0	0	3	
2:15 AM	1	0	0	0	1	
2:30 AM	0	0	0	0	0	
2:45 AM	1	0	0	0	1	
3:00 AM	0	0	0	0	0	
3:15 AM	1	0	0	0	1	
3:30 AM	1	0	0	0	1	
3:45 AM	2	0	0	0	2	
4:00 AM	2	0	0	0	2	
4:15 AM	0	0	0	0	0	
4:30 AM	2	1	0	1	4	
4:45 AM	2	3	1	0	6	
5:00 AM	2	5	0	0	7	
5:15 AM	6	3	0	0	9	
5:30 AM	4	10	1	0	15	
5:45 AM	4	1	0	0	5	
6:00 AM	2	1	0	0	3	
6:15 AM	8	12	0	1	21	
6:30 AM	9	39	2	3	53	
6:45 AM	17	48	2	3	70	
7:00 AM	15	48	0	0	63	
7:15 AM	44	102	2	3	151	
7:30 AM	39	49	3	4	95	
7:45 AM	23	46	2	1	72	
8:00 AM	20	30	1	1	52	
8:15 AM	18	47	3	0	68	
8:30 AM	24	138	8	2	172	
8:45 AM	27	33	3	2	65	
9:00 AM	19	28	1	0	48	
9:15 AM	31	26	1	0	58	
9:30 AM	32	30	1	3	66	
9:45 AM	14	35	1	0	50	
10:00 AM	24	24	0	1	49	
10:15 AM	25	20	0	1	46	
10:30 AM	20	28	3	1	52	
Total	2163 vpd	2268 vpd	103 vpd	81 vpd	4615 vpd	

TURNING MOVEMENT COUNT DATA

CALCULATION SHEET

Stephen G. Pernaw & Company, Inc.

Project:	Residential Development	Job Number:	2248A
Calculated By:		Date:	
Checked By:		Date:	
Sheet No:		Of:	
Subject:	Intersection A TMC - Thursday AM, School & PM Peak Hours		

Turning Movement Count Data - Intersection A (Thursday, February 2, 2023)

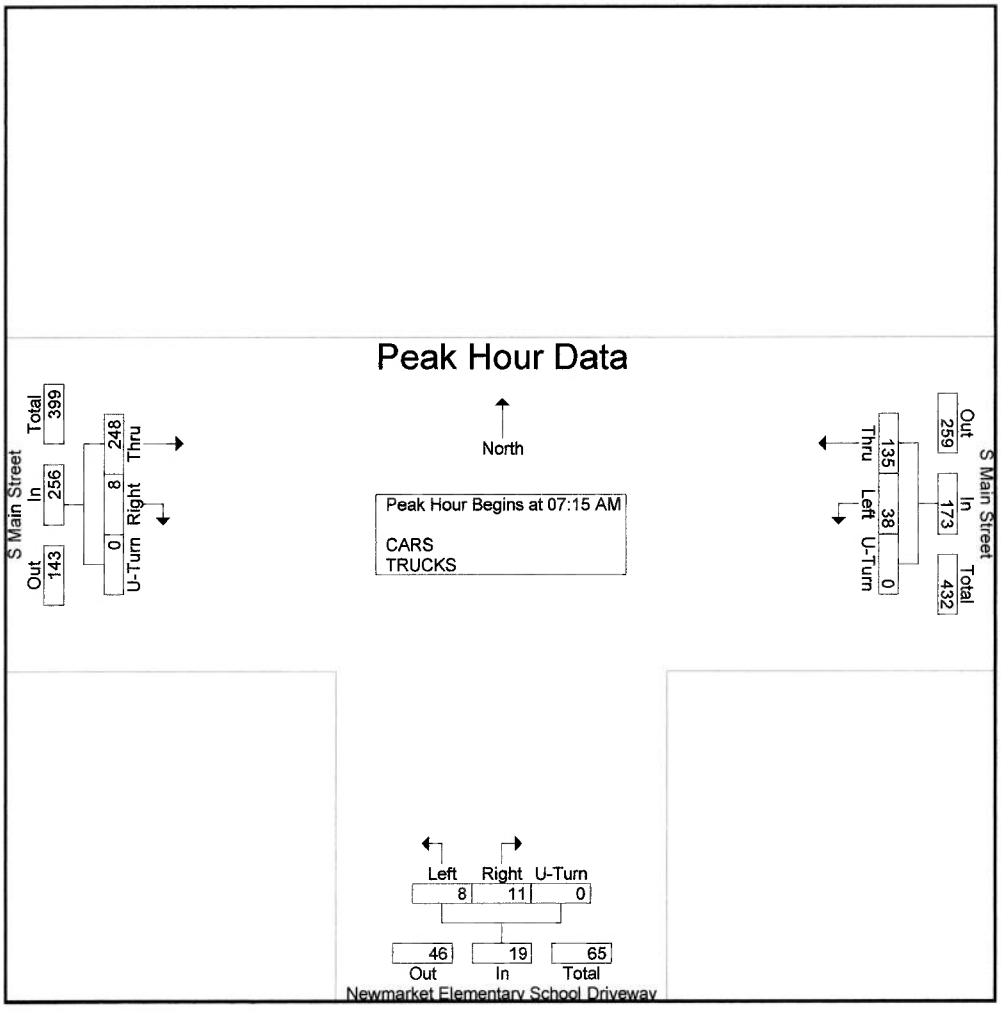
S Main Street / Newmarket Elementary School Driveway, Newmarket, New Hampshire

AM, School & PM Peak Hour

Stephen G. Pernaw & Company, Inc.
P.O. Box 1721
Concord, New Hampshire 03302

File Name : 2248A_INT_A__AM_&_PM
Site Code : 2248A
Start Date : 2/2/2023
Page No : 2

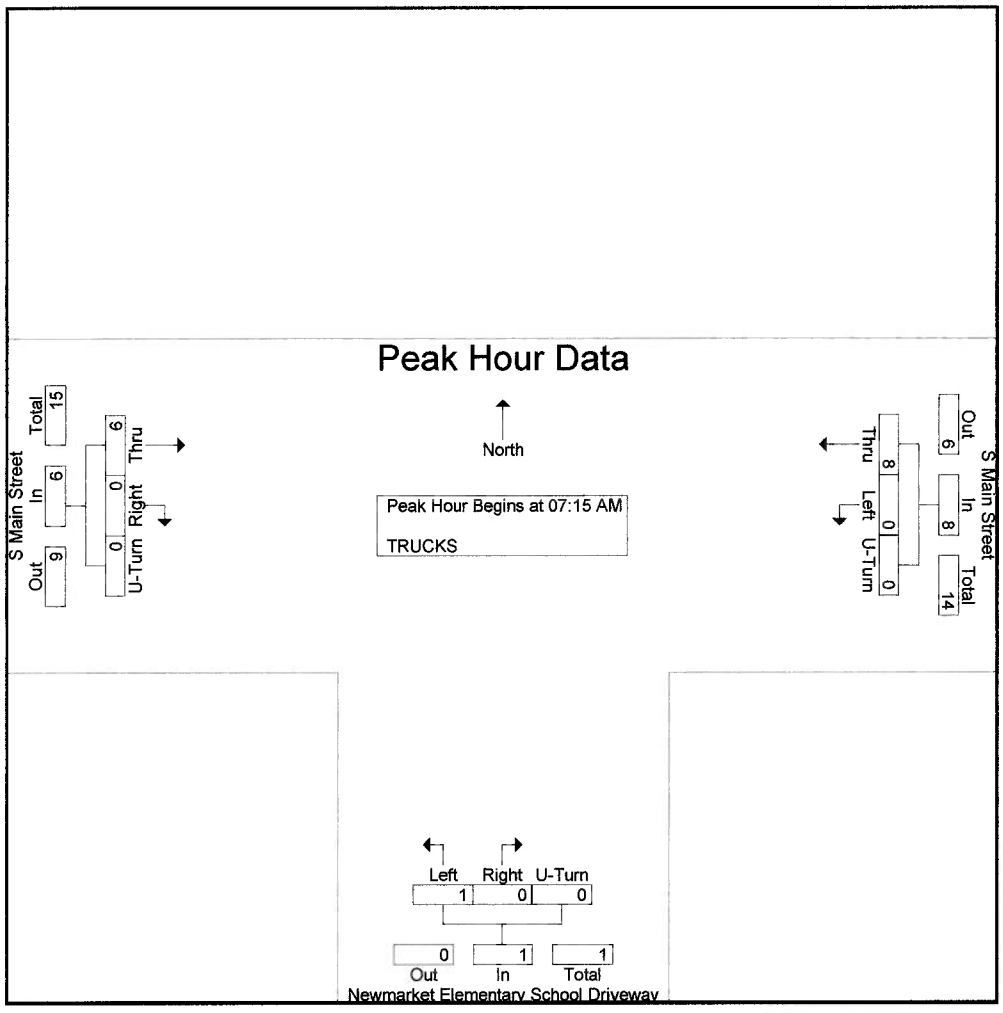
	S Main Street From East				Newmarket Elementary School Driveway From South				S Main Street From West				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:15 AM													
07:15 AM	41	8	0	49	**7**	1	0	8	1	**111**	0	**112**	**169**
07:30 AM	**49**	8	0	**57**	3	**7**	0	**10**	**4**	47	0	51	118
07:45 AM	25	10	0	35	0	0	0	0	2	41	0	43	78
08:00 AM	20	**12**	0	32	1	0	0	1	1	49	0	50	83
Total Volume	135	38	0	173	11	8	0	19	8	248	0	256	448
% App. Total	78	22	0		57.9	42.1	0		3.1	96.9	0		
PHF	.689	.792	.000	.759	.393	.286	.000	.475	.500	.559	.000	.571	.663



Stephen G. Pernaw & Company, Inc.
P.O. Box 1721
Concord, New Hampshire 03302

File Name : 2248A_INT_A__AM_&_PM
Site Code : 2248A
Start Date : 2/2/2023
Page No : 2

	S Main Street From East				Newmarket Elementary School Driveway From South				S Main Street From West				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:15 AM													
07:15 AM	2	0	0	2	0	0	0	0	0	**4**	0	**4**	**6**
07:30 AM	1	0	0	1	0	**1**	0	**1**	0	1	0	1	3
07:45 AM	**4**	0	0	**4**	0	0	0	0	0	0	0	0	4
08:00 AM	1	0	0	1	0	0	0	0	0	1	0	1	2
Total Volume	8	0	0	8	0	1	0	1	0	6	0	6	15
% App. Total	100	0	0		0	100	0		0	100	0		
PHF	.500	.000	.000	.500	.000	.250	.000	.250	.000	.375	.000	.375	.625



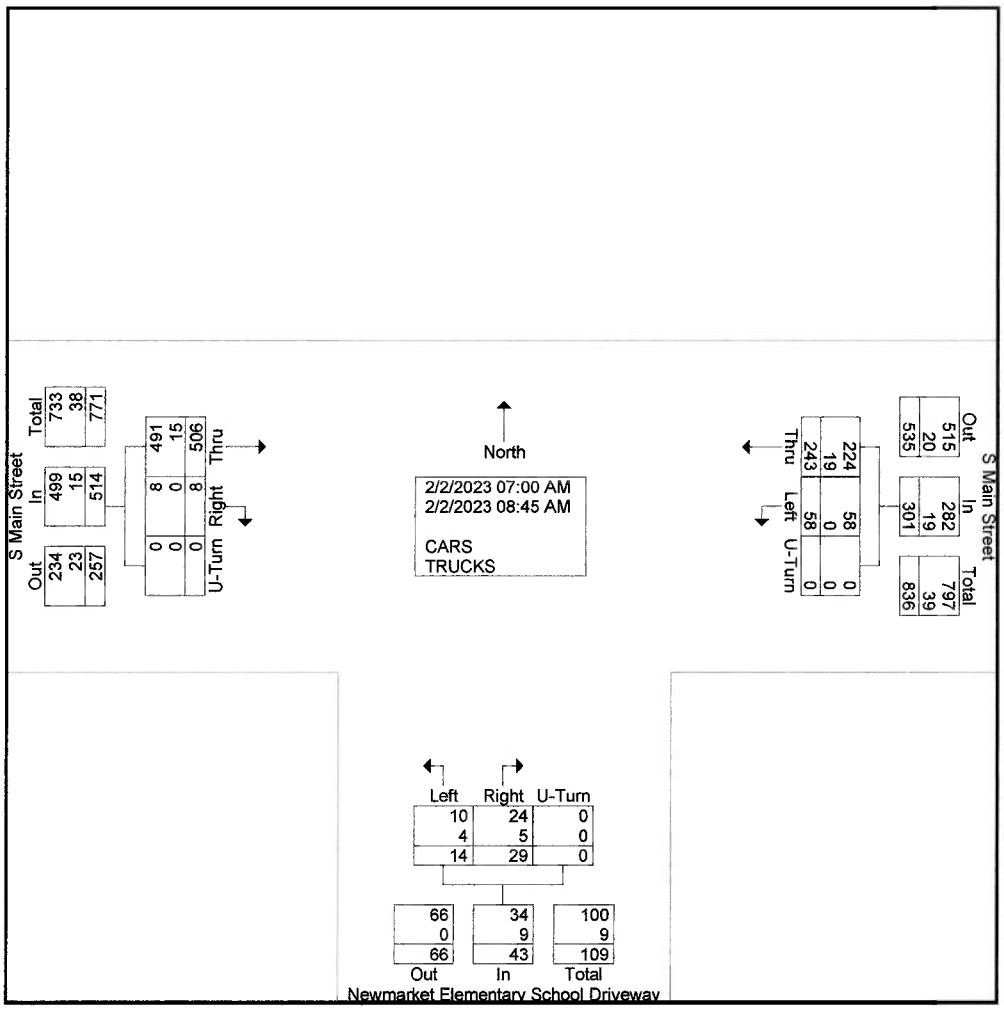
Stephen G. Pernaw & Company, Inc.
P.O. Box 1721
Concord, New Hampshire 03302

Weather: Clear
Coolected By: MV
Job Number: 2248A
Town/State: Newmarket, NH

File Name : 2248A_INT_A__AM_&_PM
Site Code : 2248A
Start Date : 2/2/2023
Page No : 1

Groups Printed- CARS - TRUCKS

	S Main Street From East				Newmarket Elementary School Driveway From South				S Main Street From West				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
07:00 AM	21	4	0	25	2	1	0	3	0	41	0	41	69
07:15 AM	41	8	0	49	7	1	0	8	1	111	0	112	169
07:30 AM	49	8	0	57	3	7	0	10	4	47	0	51	118
07:45 AM	25	10	0	35	0	0	0	0	2	41	0	43	78
Total	136	30	0	166	12	9	0	21	7	240	0	247	434
08:00 AM	20	12	0	32	1	0	0	1	1	49	0	50	83
08:15 AM	29	9	0	38	1	0	0	1	0	54	0	54	93
08:30 AM	30	3	0	33	7	3	0	10	0	116	0	116	159
08:45 AM	28	4	0	32	8	2	0	10	0	47	0	47	89
Total	107	28	0	135	17	5	0	22	1	266	0	267	424
Grand Total	243	58	0	301	29	14	0	43	8	506	0	514	858
Apprch %	80.7	19.3	0		67.4	32.6	0		1.6	98.4	0		
Total %	28.3	6.8	0	35.1	3.4	1.6	0	5	0.9	59	0	59.9	
CARS	224	58	0	282	24	10	0	34	8	491	0	499	815
% CARS	92.2	100	0	93.7	82.8	71.4	0	79.1	100	97	0	97.1	95
TRUCKS	19	0	0	19	5	4	0	9	0	15	0	15	43
% TRUCKS	7.8	0	0	6.3	17.2	28.6	0	20.9	0	3	0	2.9	5



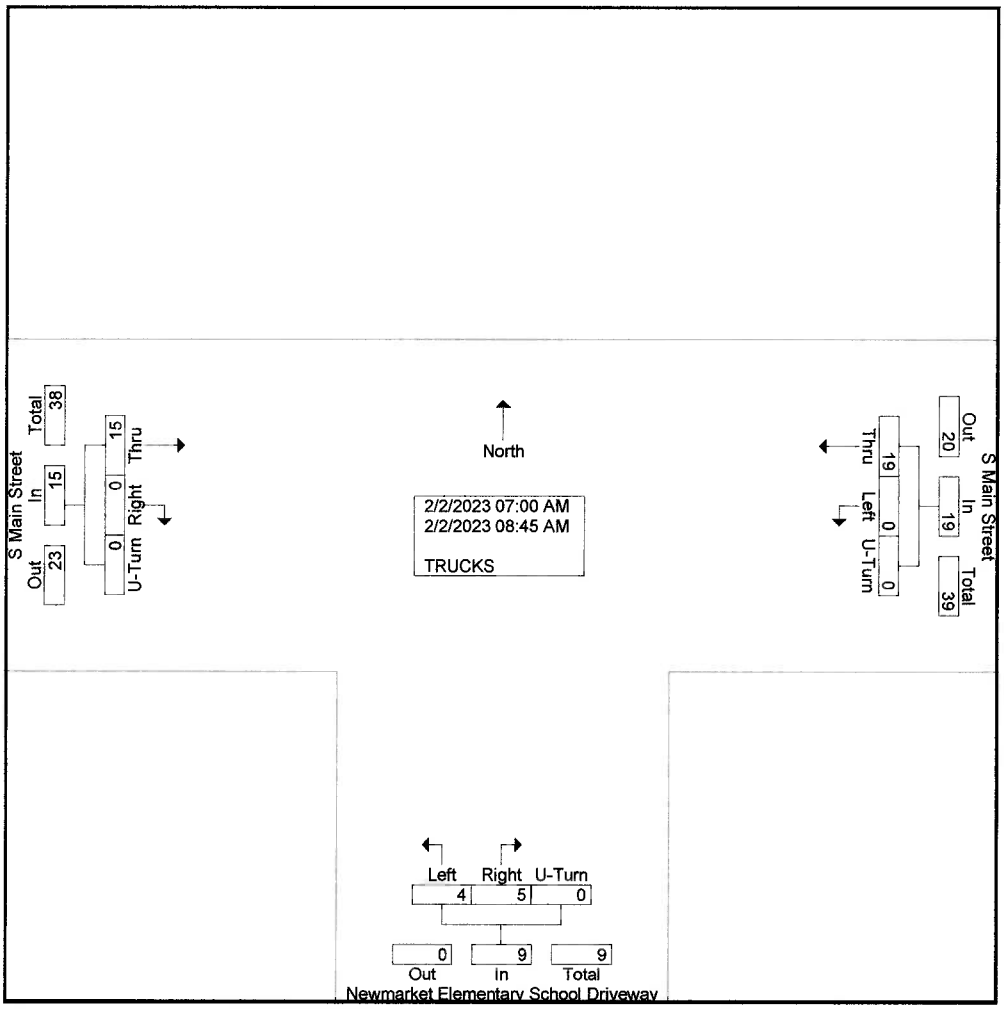
Stephen G. Pernaw & Company, Inc.
P.O. Box 1721
Concord, New Hampshire 03302

Weather: Clear
Coolected By: MV
Job Number: 2248A
Town/State: Newmarket, NH

File Name : 2248A_INT_A__AM_&_PM
Site Code : 2248A
Start Date : 2/2/2023
Page No : 1

Groups Printed- TRUCKS

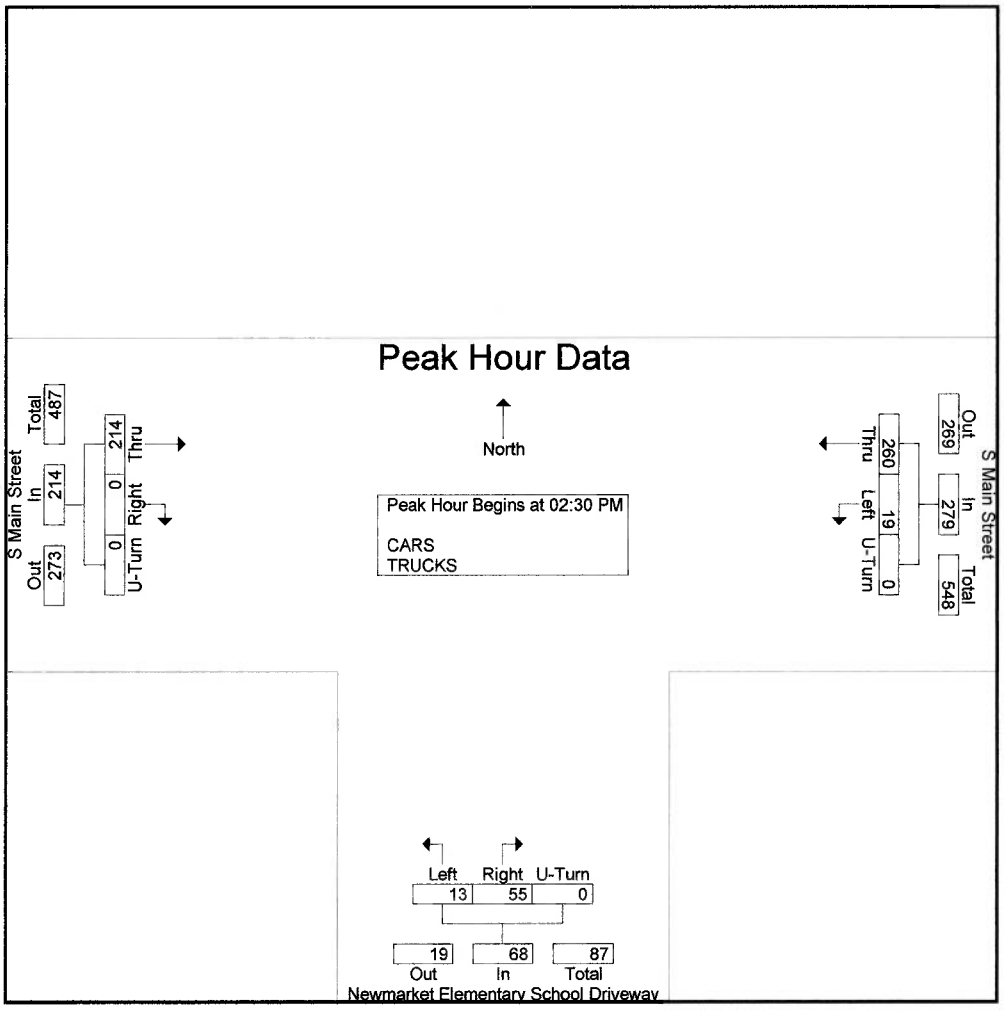
	S Main Street From East				Newmarket Elementary School Driveway From South				S Main Street From West				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
07:00 AM	1	0	0	1	0	0	0	0	0	1	0	1	2
07:15 AM	2	0	0	2	0	0	0	0	0	4	0	4	6
07:30 AM	1	0	0	1	0	1	0	1	0	1	0	1	3
07:45 AM	4	0	0	4	0	0	0	0	0	0	0	0	4
Total	8	0	0	8	0	1	0	1	0	6	0	6	15
08:00 AM	1	0	0	1	0	0	0	0	0	1	0	1	2
08:15 AM	5	0	0	5	0	0	0	0	0	6	0	6	11
08:30 AM	3	0	0	3	4	3	0	7	0	0	0	0	10
08:45 AM	2	0	0	2	1	0	0	1	0	2	0	2	5
Total	11	0	0	11	5	3	0	8	0	9	0	9	28
Grand Total	19	0	0	19	5	4	0	9	0	15	0	15	43
Apprch %	100	0	0		55.6	44.4	0		0	100	0		
Total %	44.2	0	0	44.2	11.6	9.3	0	20.9	0	34.9	0	34.9	



Stephen G. Pernaw & Company, Inc.
P.O. Box 1721
Concord, New Hampshire 03302

File Name : 2248A_INT_A__AM_&_PM
Site Code : 2248A
Start Date : 2/2/2023
Page No : 2

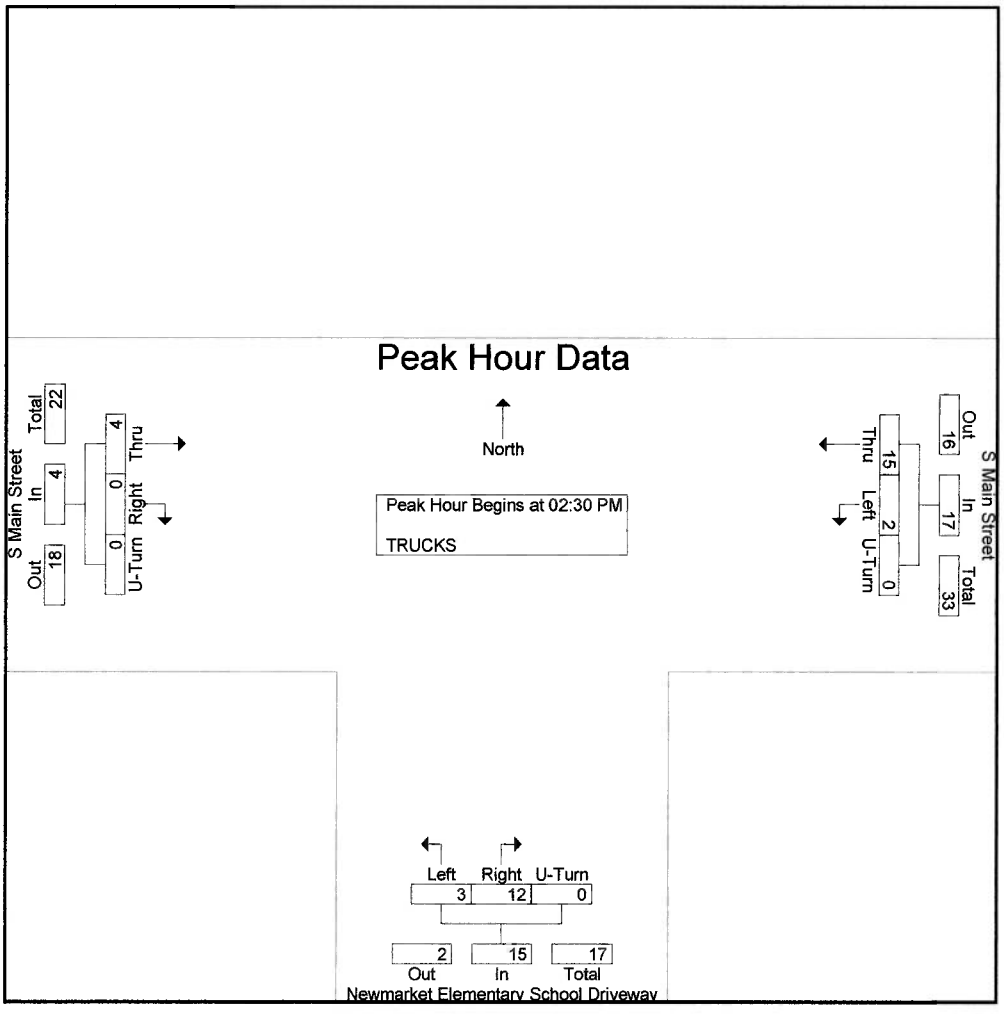
	S Main Street From East				Newmarket Elementary School Driveway From South				S Main Street From West				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 03:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 02:30 PM													
02:30 PM	**85**	4	0	**89**	5	1	0	6	0	59	0	59	**154**
02:45 PM	59	4	0	63	8	2	0	10	0	52	0	52	125
03:00 PM	62	**8**	0	70	12	2	0	14	0	**63**	0	**63**	147
03:15 PM	54	3	0	57	**30**	**8**	0	**38**	0	40	0	40	135
Total Volume	260	19	0	279	55	13	0	68	0	214	0	214	561
% App. Total	93.2	6.8	0		80.9	19.1	0		0	100	0		
PHF	.765	.594	.000	.784	.458	.406	.000	.447	.000	.849	.000	.849	.911



Stephen G. Pernaw & Company, Inc.
P.O. Box 1721
Concord, New Hampshire 03302

File Name : 2248A_INT_A__AM_&_PM
Site Code : 2248A
Start Date : 2/2/2023
Page No : 2

	S Main Street From East				Newmarket Elementary School Driveway From South				S Main Street From West				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 02:30 PM to 03:15 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 02:30 PM													
02:30 PM	**6**	0	0	**6**	3	0	0	3	0	1	0	1	**10**
02:45 PM	2	**1**	0	3	3	**1**	0	4	0	0	0	0	7
03:00 PM	3	0	0	3	**4**	1	0	**5**	0	1	0	1	9
03:15 PM	4	1	0	5	2	1	0	3	0	**2**	0	**2**	10
Total Volume	15	2	0	17	12	3	0	15	0	4	0	4	36
% App. Total	88.2	11.8	0		80	20	0		0	100	0		
PHF	.625	.500	.000	.708	.750	.750	.000	.750	.000	.500	.000	.500	.900



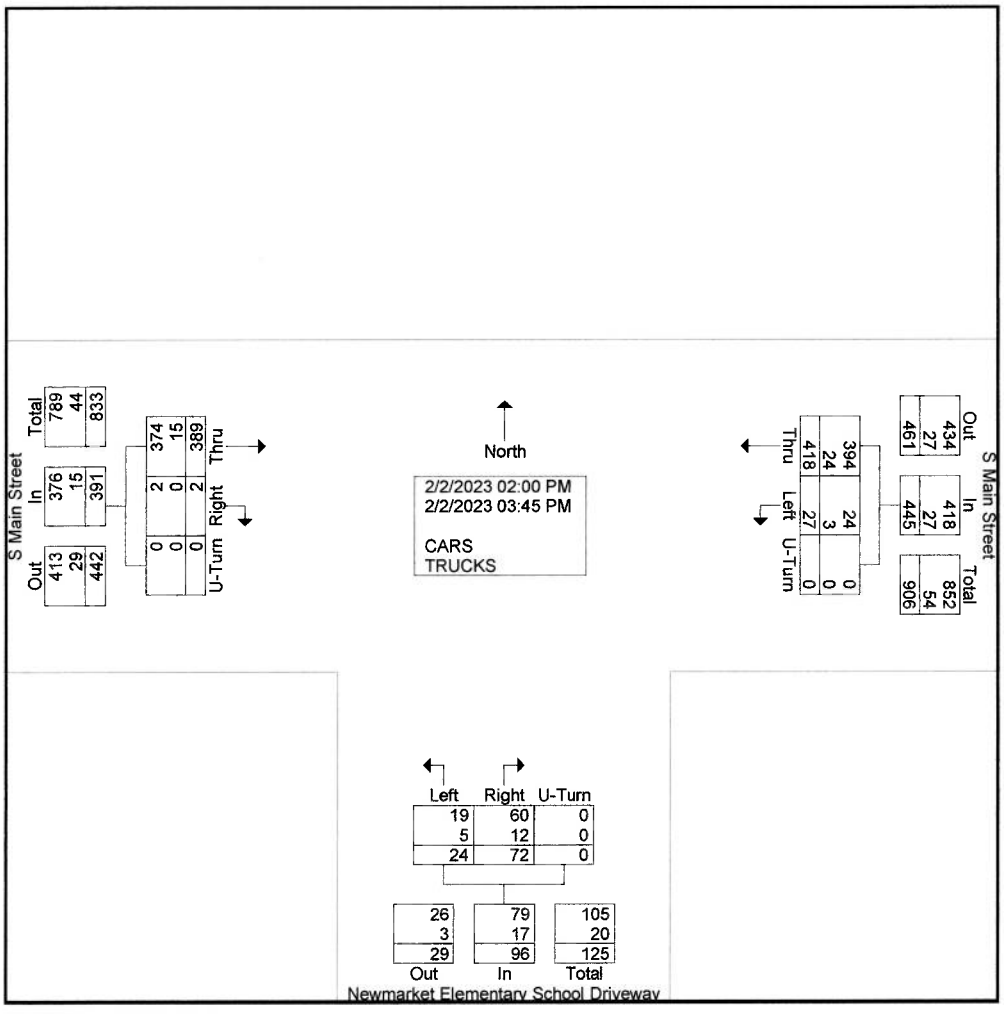
Stephen G. Pernaw & Company, Inc.
P.O. Box 1721
Concord, New Hampshire 03302

Weather: Clear
Coolected By: MV
Job Number: 2248A
Town/State: Newmarket, NH

File Name : 2248A_INT_A__AM_&_PM
Site Code : 2248A
Start Date : 2/2/2023
Page No : 1

Groups Printed- CARS - TRUCKS

	S Main Street From East				Newmarket Elementary School Driveway From South				S Main Street From West				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
02:00 PM	26	1	0	27	1	2	0	3	0	26	0	26	56
02:15 PM	35	0	0	35	2	0	0	2	0	55	0	55	92
02:30 PM	85	4	0	89	5	1	0	6	0	59	0	59	154
02:45 PM	59	4	0	63	8	2	0	10	0	52	0	52	125
Total	205	9	0	214	16	5	0	21	0	192	0	192	427
03:00 PM	62	8	0	70	12	2	0	14	0	63	0	63	147
03:15 PM	54	3	0	57	30	8	0	38	0	40	0	40	135
03:30 PM	53	3	0	56	8	6	0	14	2	48	0	50	120
03:45 PM	44	4	0	48	6	3	0	9	0	46	0	46	103
Total	213	18	0	231	56	19	0	75	2	197	0	199	505
Grand Total	418	27	0	445	72	24	0	96	2	389	0	391	932
Apprch %	93.9	6.1	0		75	25	0		0.5	99.5	0		
Total %	44.8	2.9	0	47.7	7.7	2.6	0	10.3	0.2	41.7	0	42	
CARS	394	24	0	418	60	19	0	79	2	374	0	376	873
% CARS	94.3	88.9	0	93.9	83.3	79.2	0	82.3	100	96.1	0	96.2	93.7
TRUCKS	24	3	0	27	12	5	0	17	0	15	0	15	59
% TRUCKS	5.7	11.1	0	6.1	16.7	20.8	0	17.7	0	3.9	0	3.8	6.3



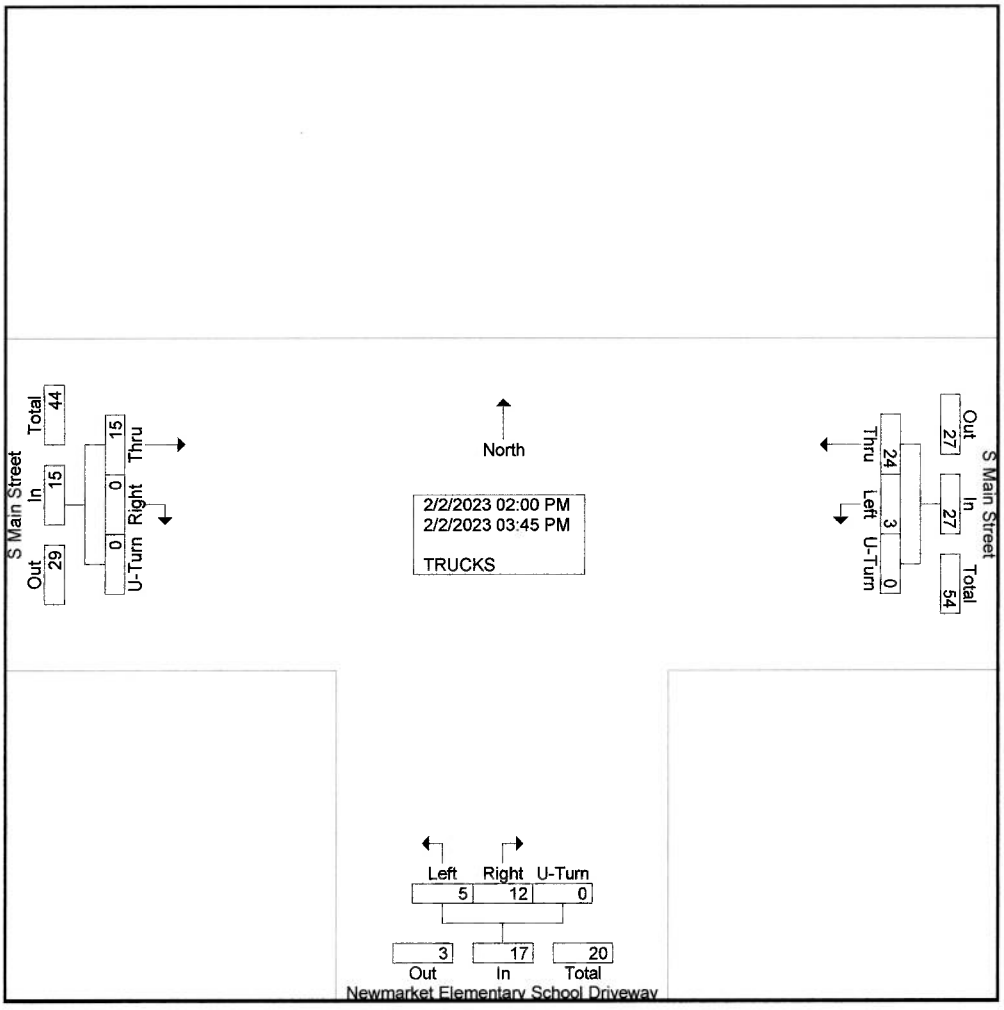
Stephen G. Pernaw & Company, Inc.
P.O. Box 1721
Concord, New Hampshire 03302

Weather: Clear
Coolected By: MV
Job Number: 2248A
Town/State: Newmarket, NH

File Name : 2248A_INT_A__AM_&_PM
Site Code : 2248A
Start Date : 2/2/2023
Page No : 1

Groups Printed- TRUCKS

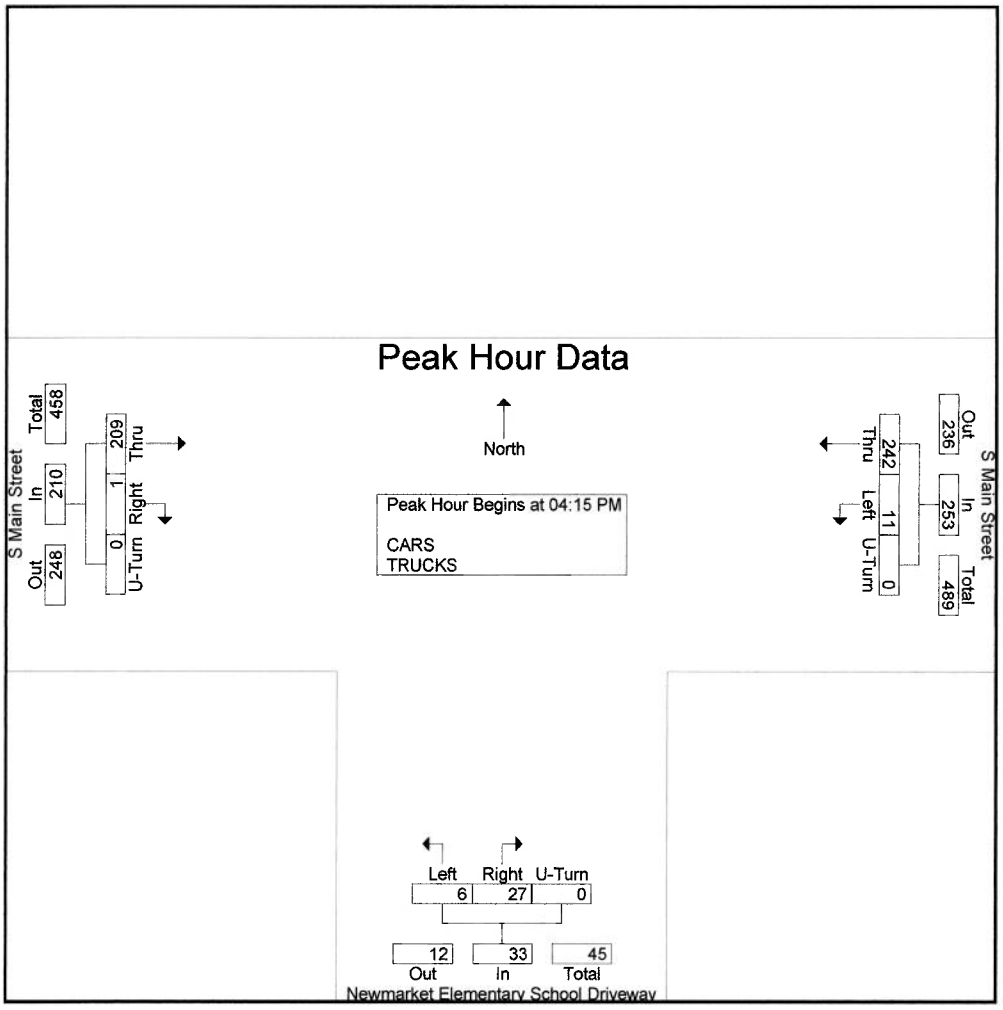
	S Main Street From East				Newmarket Elementary School Driveway From South				S Main Street From West				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
02:00 PM	4	0	0	4	0	0	0	0	0	3	0	3	7
02:15 PM	2	0	0	2	0	0	0	0	0	2	0	2	4
02:30 PM	6	0	0	6	3	0	0	3	0	1	0	1	10
02:45 PM	2	1	0	3	3	1	0	4	0	0	0	0	7
Total	14	1	0	15	6	1	0	7	0	6	0	6	28
03:00 PM	3	0	0	3	4	1	0	5	0	1	0	1	9
03:15 PM	4	1	0	5	2	1	0	3	0	2	0	2	10
03:30 PM	1	1	0	2	0	2	0	2	0	4	0	4	8
03:45 PM	2	0	0	2	0	0	0	0	0	2	0	2	4
Total	10	2	0	12	6	4	0	10	0	9	0	9	31
Grand Total	24	3	0	27	12	5	0	17	0	15	0	15	59
Apprch %	88.9	11.1	0		70.6	29.4	0		0	100	0		
Total %	40.7	5.1	0	45.8	20.3	8.5	0	28.8	0	25.4	0	25.4	



Stephen G. Pernaw & Company, Inc.
P.O. Box 1721
Concord, New Hampshire 03302

File Name : 2248A_INT_A__AM_&_PM
Site Code : 2248A
Start Date : 2/2/2023
Page No : 2

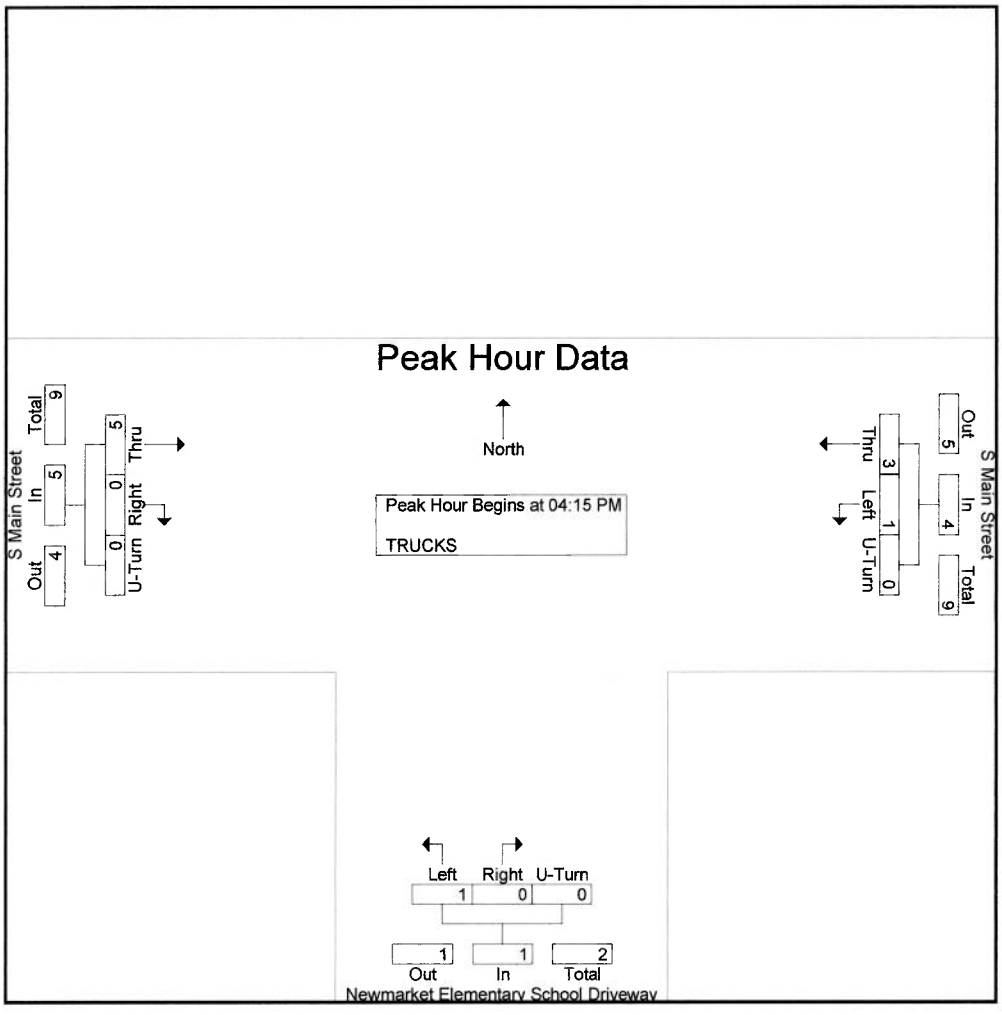
	S Main Street From East				Newmarket Elementary School Driveway From South				S Main Street From West				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:15 PM													
04:15 PM	**68**	**5**	0	**73**	**17**	2	0	**19**	0	54	0	54	**146**
04:30 PM	53	2	0	55	5	**3**	0	8	**1**	45	0	46	109
04:45 PM	54	2	0	56	4	0	0	4	0	45	0	45	105
05:00 PM	67	2	0	69	1	1	0	2	0	**65**	0	**65**	136
Total Volume	242	11	0	253	27	6	0	33	1	209	0	210	496
% App. Total	95.7	4.3	0		81.8	18.2	0		0.5	99.5	0		
PHF	.890	.550	.000	.866	.397	.500	.000	.434	.250	.804	.000	.808	.849



Stephen G. Pernaw & Company, Inc.
P.O. Box 1721
Concord, New Hampshire 03302

File Name : 2248A_INT_A__AM_&_PM
Site Code : 2248A
Start Date : 2/2/2023
Page No : 2

	S Main Street From East				Newmarket Elementary School Driveway From South				S Main Street From West				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:15 PM													
04:15 PM	1	0	0	1	0	0	0	0	0	**3**	0	**3**	**4**
04:30 PM	0	**1**	0	1	0	**1**	0	**1**	0	0	0	0	2
04:45 PM	**2**	0	0	**2**	0	0	0	0	0	1	0	1	3
05:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
Total Volume	3	1	0	4	0	1	0	1	0	5	0	5	10
% App. Total	75	25	0		0	100	0		0	100	0		
PHF	.375	.250	.000	.500	.000	.250	.000	.250	.000	.417	.000	.417	.625



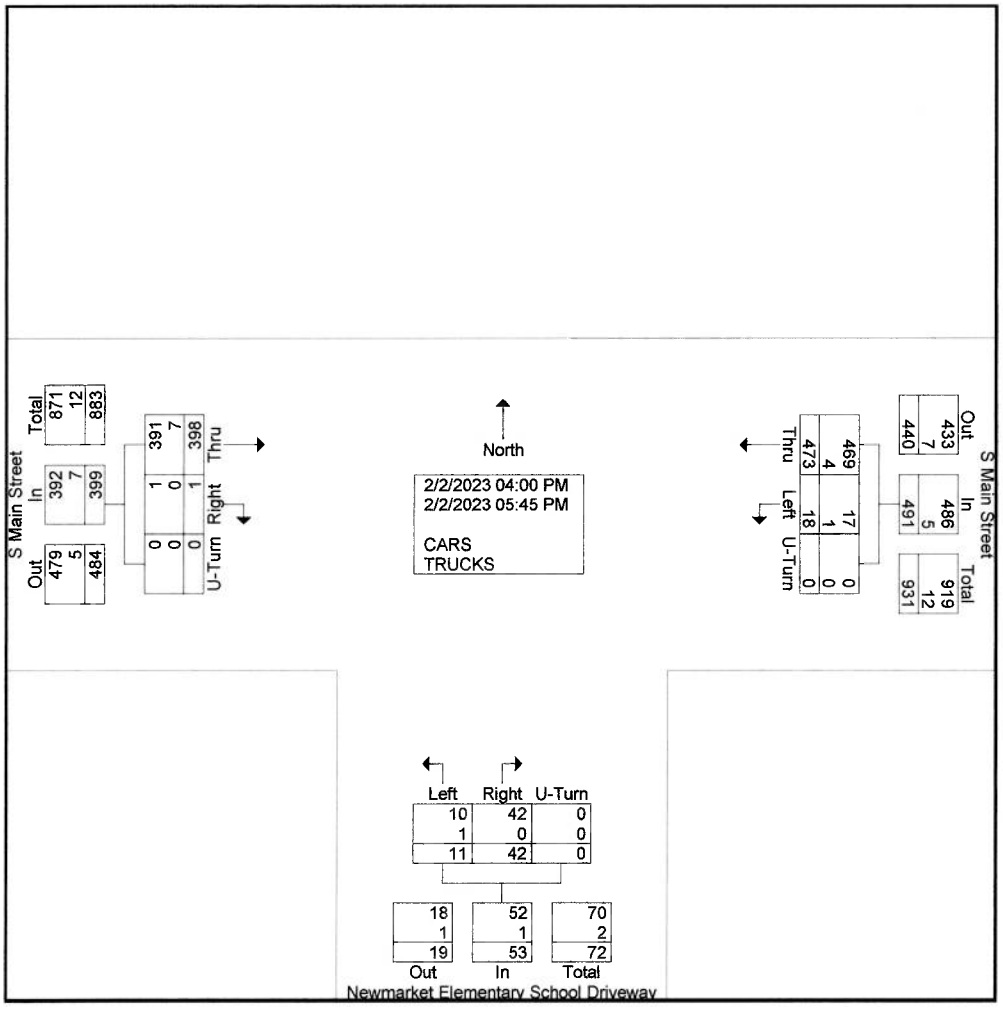
Stephen G. Pernaw & Company, Inc.
P.O. Box 1721
Concord, New Hampshire 03302

Weather: Clear
Coolected By: MV
Job Number: 2248A
Town/State: Newmarket, NH

File Name : 2248A_INT_A__AM_&_PM
Site Code : 2248A
Start Date : 2/2/2023
Page No : 1

Groups Printed- CARS - TRUCKS

	S Main Street From East				Newmarket Elementary School Driveway From South				S Main Street From West				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
04:00 PM	57	5	0	62	11	4	0	15	0	50	0	50	127
04:15 PM	68	5	0	73	17	2	0	19	0	54	0	54	146
04:30 PM	53	2	0	55	5	3	0	8	1	45	0	46	109
04:45 PM	54	2	0	56	4	0	0	4	0	45	0	45	105
Total	232	14	0	246	37	9	0	46	1	194	0	195	487
05:00 PM	67	2	0	69	1	1	0	2	0	65	0	65	136
05:15 PM	61	1	0	62	1	1	0	2	0	52	0	52	116
05:30 PM	65	1	0	66	2	0	0	2	0	51	0	51	119
05:45 PM	48	0	0	48	1	0	0	1	0	36	0	36	85
Total	241	4	0	245	5	2	0	7	0	204	0	204	456
Grand Total	473	18	0	491	42	11	0	53	1	398	0	399	943
Apprch %	96.3	3.7	0		79.2	20.8	0		0.3	99.7	0		
Total %	50.2	1.9	0	52.1	4.5	1.2	0	5.6	0.1	42.2	0	42.3	
CARS	469	17	0	486	42	10	0	52	1	391	0	392	930
% CARS	99.2	94.4	0	99	100	90.9	0	98.1	100	98.2	0	98.2	98.6
TRUCKS	4	1	0	5	0	1	0	1	0	7	0	7	13
% TRUCKS	0.8	5.6	0	1	0	9.1	0	1.9	0	1.8	0	1.8	1.4



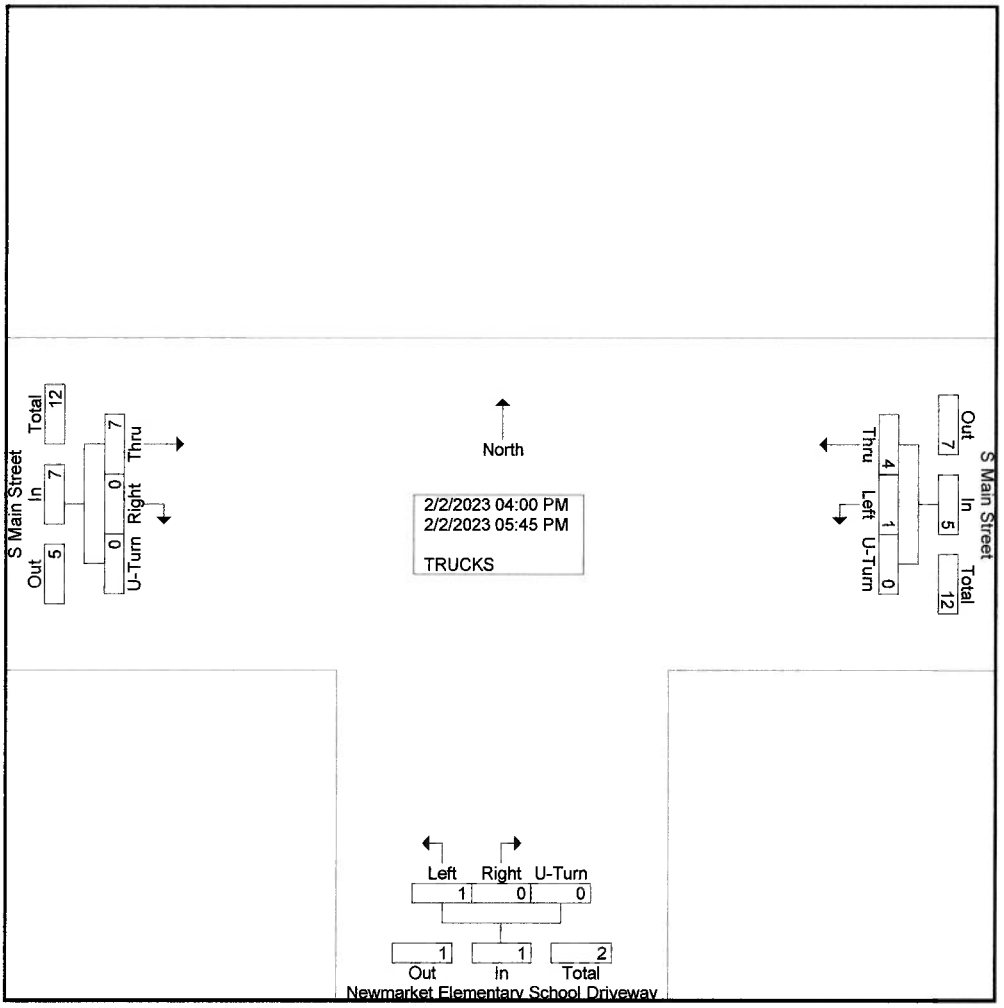
Stephen G. Pernaw & Company, Inc.
P.O. Box 1721
Concord, New Hampshire 03302

Weather: Clear
Coolected By: MV
Job Number: 2248A
Town/State: Newmarket, NH

File Name : 2248A_INT_A__AM_&_PM
Site Code : 2248A
Start Date : 2/2/2023
Page No : 1

Groups Printed- TRUCKS

	S Main Street From East				Newmarket Elementary School Driveway From South				S Main Street From West				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
04:00 PM	1	0	0	1	0	0	0	0	0	1	0	1	2
04:15 PM	1	0	0	1	0	0	0	0	0	3	0	3	4
04:30 PM	0	1	0	1	0	1	0	1	0	0	0	0	2
04:45 PM	2	0	0	2	0	0	0	0	0	1	0	1	3
Total	4	1	0	5	0	1	0	1	0	5	0	5	11
05:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	2	0	2	2
Grand Total	4	1	0	5	0	1	0	1	0	7	0	7	13
Apprch %	80	20	0		0	100	0		0	100	0		
Total %	30.8	7.7	0	38.5	0	7.7	0	7.7	0	53.8	0	53.8	



CALCULATION SHEET

Stephen G. Pernaw & Company, Inc.

Project:	Residential Development	Job Number:	2248A
Calculated By:		Date:	
Checked By:		Date:	
Sheet No:		Of:	
Subject:	Intersection B TMC - Thursday AM, School & PM Peak Hours		

Turning Movement Count Data - Intersection B (Thursday, February 2, 2023)

S Main Street / Grant Road, Newmarket, New Hampshire

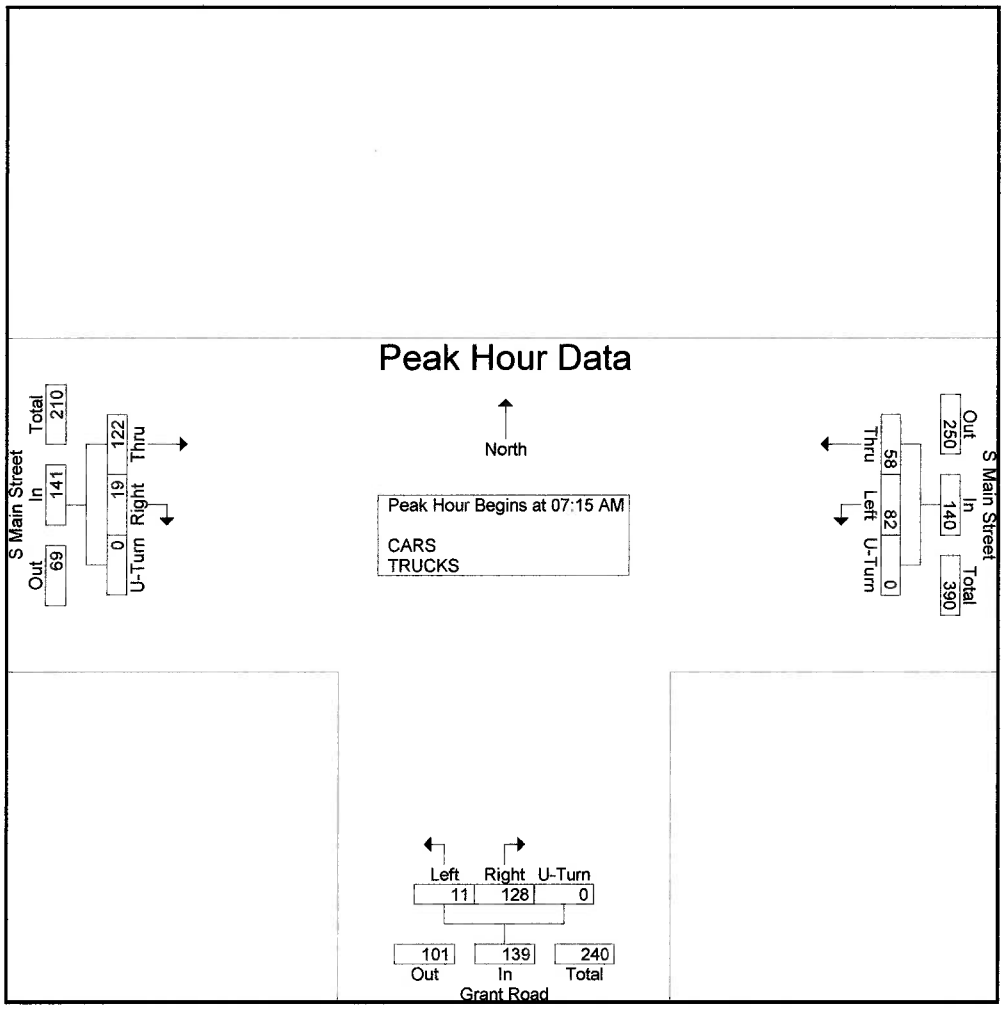
AM, School & PM Peak Hour

Stephen G. Pernaw & Company, Inc.
P.O. Box 1721
Concord, New Hampshire 03302

Weather: Clear
Collected By: MV
Job Number: 2248A
Town/State: Newmarket, NH

File Name : 2248A_INT_B__AM_&_PM
Site Code : 2248A
Start Date : 2/2/2023
Page No : 2

	S Main Street From East				Grant Road From South				S Main Street From West				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:15 AM													
07:15 AM	13	30	0	43	**72**	4	0	**76**	5	**37**	0	**42**	**161**
07:30 AM	17	**35**	0	**52**	17	1	0	18	3	32	0	35	105
07:45 AM	**19**	7	0	26	15	1	0	16	5	27	0	32	74
08:00 AM	9	10	0	19	24	**5**	0	29	**6**	26	0	32	80
Total Volume	58	82	0	140	128	11	0	139	19	122	0	141	420
% App. Total	41.4	58.6	0		92.1	7.9	0		13.5	86.5	0		
PHF	.763	.586	.000	.673	.444	.550	.000	.457	.792	.824	.000	.839	.652

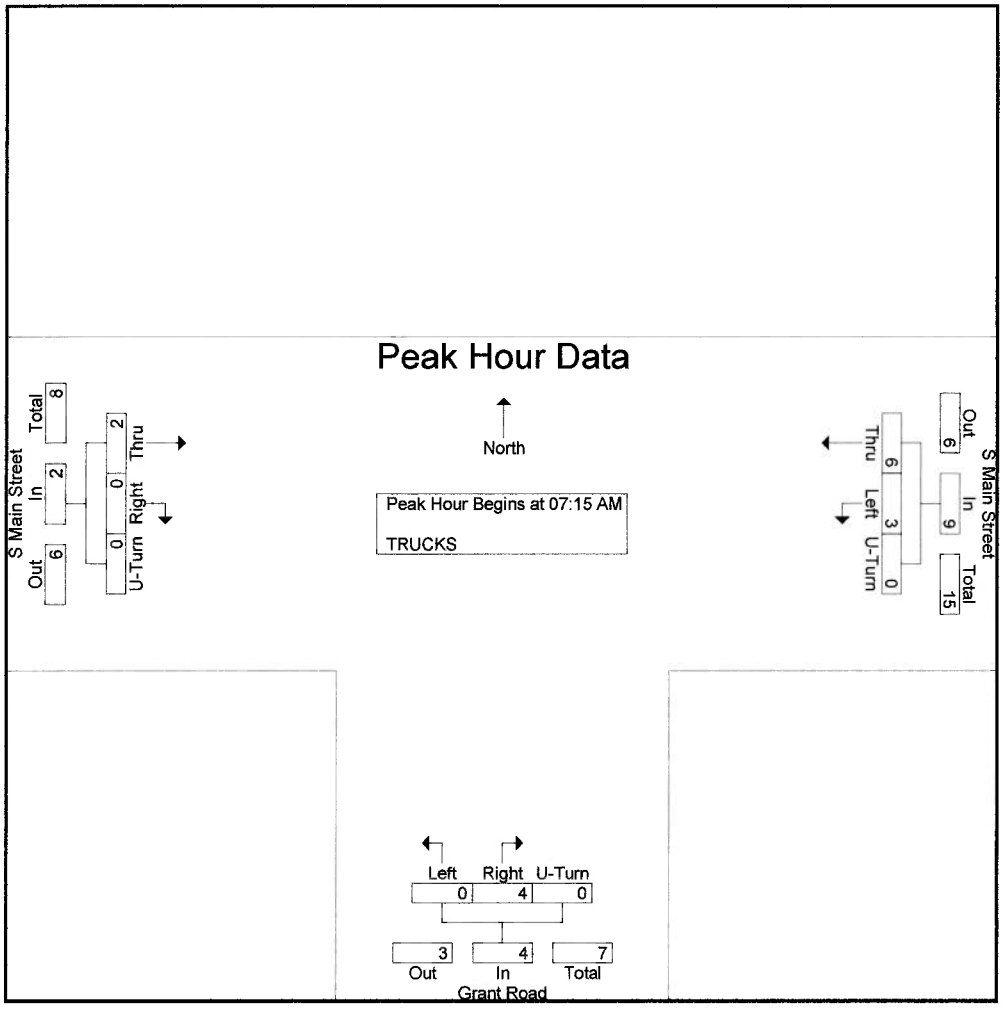


Stephen G. Pernaw & Company, Inc.
P.O. Box 1721
Concord, New Hampshire 03302

Weather: Clear
Collected By: MV
Job Number: 2248A
Town/State: Newmarket, NH

File Name : 2248A_INT_B__AM_&_PM
Site Code : 2248A
Start Date : 2/2/2023
Page No : 2

	S Main Street From East				Grant Road From South				S Main Street From West				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:15 AM													
07:15 AM	2	0	0	2	**3**	0	0	**3**	0	**1**	0	**1**	**6**
07:30 AM	0	**2**	0	2	0	0	0	0	0	1	0	1	3
07:45 AM	**3**	1	0	**4**	0	0	0	0	0	0	0	0	4
08:00 AM	1	0	0	1	1	0	0	1	0	0	0	0	2
Total Volume	6	3	0	9	4	0	0	4	0	2	0	2	15
% App. Total	66.7	33.3	0		100	0	0		0	100	0		
PHF	.500	.375	.000	.563	.333	.000	.000	.333	.000	.500	.000	.500	.625



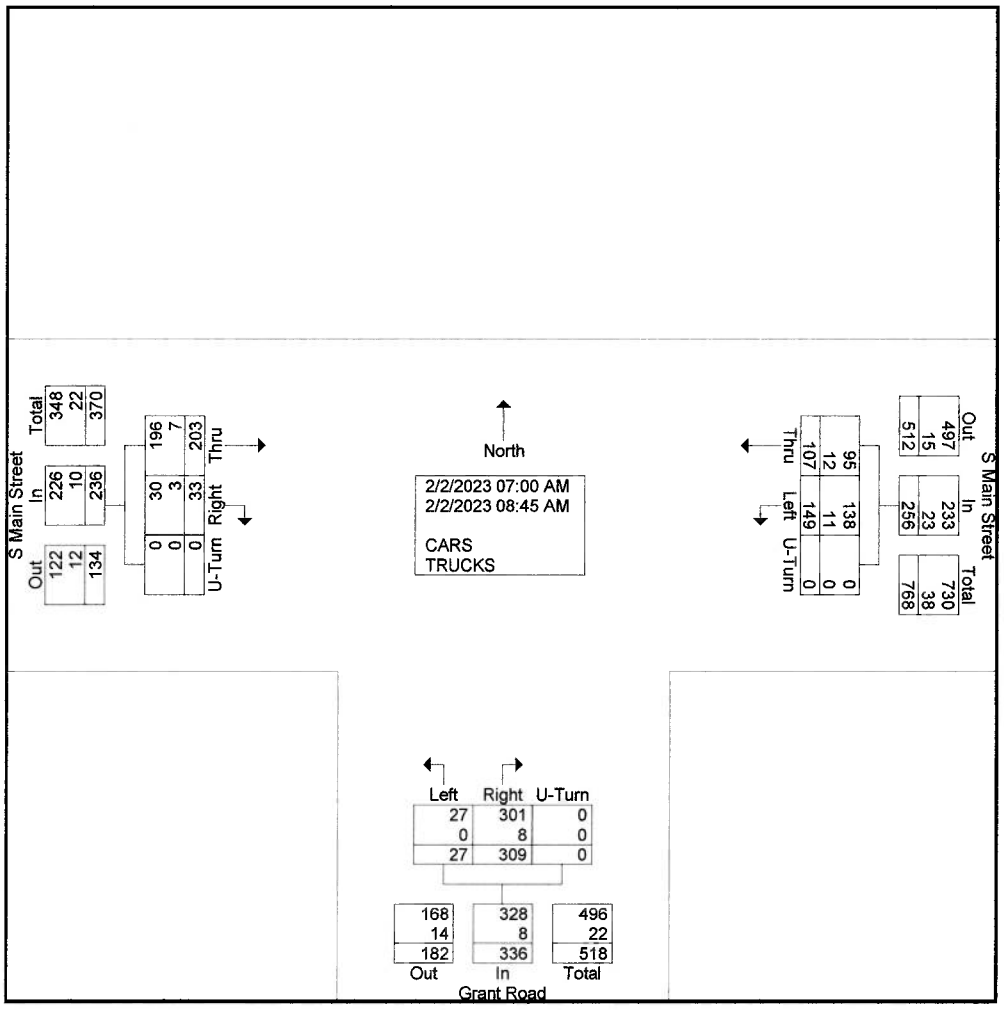
Stephen G. Pernaw & Company, Inc.
P.O. Box 1721
Concord, New Hampshire 03302

Weather: Clear
Collected By: MV
Job Number: 2248A
Town/State: Newmarket, NH

File Name : 2248A_INT_B__AM_&_PM
Site Code : 2248A
Start Date : 2/2/2023
Page No : 1

Groups Printed- CARS - TRUCKS

	S Main Street From East				Grant Road From South				S Main Street From West				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
07:00 AM	11	12	0	23	26	3	0	29	4	18	0	22	74
07:15 AM	13	30	0	43	72	4	0	76	5	37	0	42	161
07:30 AM	17	35	0	52	17	1	0	18	3	32	0	35	105
07:45 AM	19	7	0	26	15	1	0	16	5	27	0	32	74
Total	60	84	0	144	130	9	0	139	17	114	0	131	414
08:00 AM	9	10	0	19	24	5	0	29	6	26	0	32	80
08:15 AM	11	18	0	29	34	0	0	34	7	23	0	30	93
08:30 AM	10	24	0	34	95	11	0	106	2	18	0	20	160
08:45 AM	17	13	0	30	26	2	0	28	1	22	0	23	81
Total	47	65	0	112	179	18	0	197	16	89	0	105	414
Grand Total	107	149	0	256	309	27	0	336	33	203	0	236	828
Apprch %	41.8	58.2	0		92	8	0		14	86	0		
Total %	12.9	18	0	30.9	37.3	3.3	0	40.6	4	24.5	0	28.5	
CARS	95	138	0	233	301	27	0	328	30	196	0	226	787
% CARS	88.8	92.6	0	91	97.4	100	0	97.6	90.9	96.6	0	95.8	95
TRUCKS	12	11	0	23	8	0	0	8	3	7	0	10	41
% TRUCKS	11.2	7.4	0	9	2.6	0	0	2.4	9.1	3.4	0	4.2	5



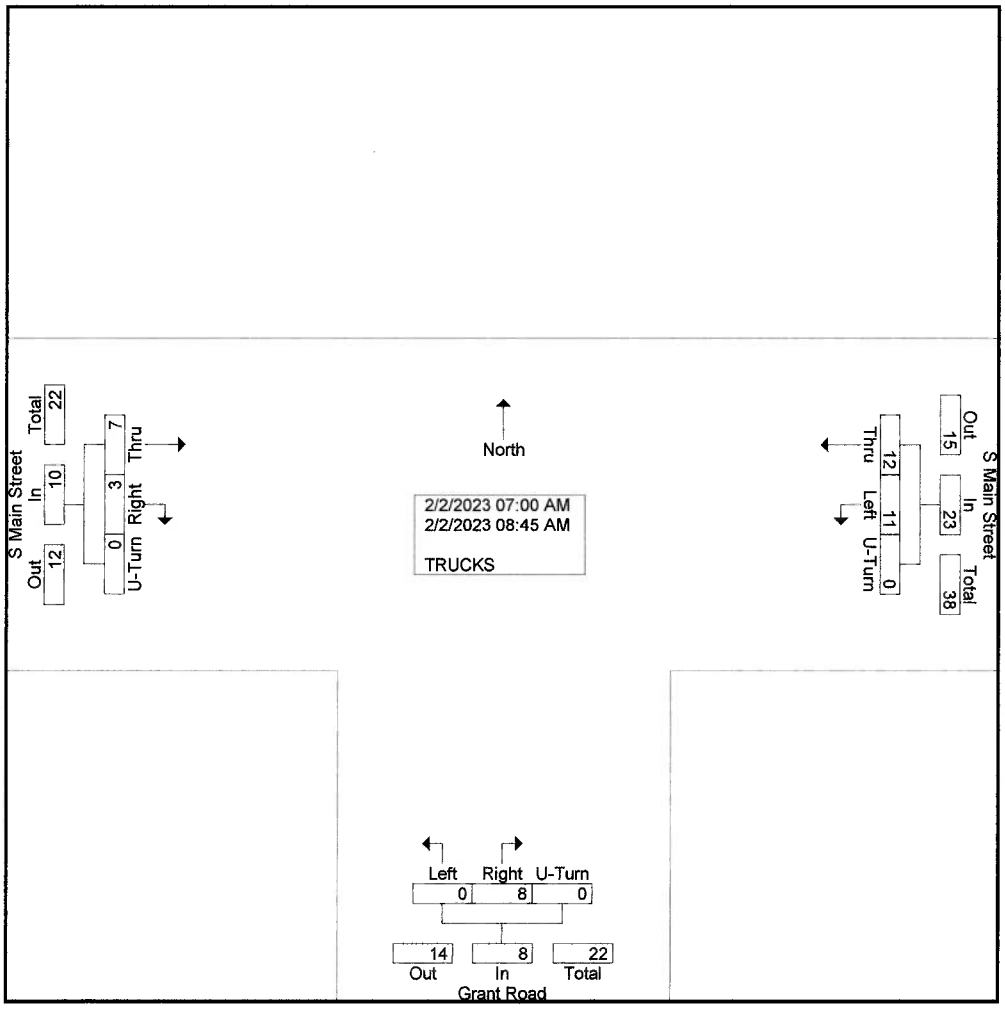
Stephen G. Pernaw & Company, Inc.
P.O. Box 1721
Concord, New Hampshire 03302

Weather: Clear
Collected By: MV
Job Number: 2248A
Town/State: Newmarket, NH

File Name : 2248A_INT_B__AM_&_PM
Site Code : 2248A
Start Date : 2/2/2023
Page No : 1

Groups Printed- TRUCKS

	S Main Street From East				Grant Road From South				S Main Street From West				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
07:00 AM	1	0	0	1	1	0	0	1	0	0	0	0	2
07:15 AM	2	0	0	2	3	0	0	3	0	1	0	1	6
07:30 AM	0	2	0	2	0	0	0	0	0	1	0	1	3
07:45 AM	3	1	0	4	0	0	0	0	0	0	0	0	4
Total	6	3	0	9	4	0	0	4	0	2	0	2	15
08:00 AM	1	0	0	1	1	0	0	1	0	0	0	0	2
08:15 AM	3	2	0	5	2	0	0	2	3	4	0	7	14
08:30 AM	1	5	0	6	0	0	0	0	0	0	0	0	6
08:45 AM	1	1	0	2	1	0	0	1	0	1	0	1	4
Total	6	8	0	14	4	0	0	4	3	5	0	8	26
Grand Total	12	11	0	23	8	0	0	8	3	7	0	10	41
Apprch %	52.2	47.8	0		100	0	0		30	70	0		
Total %	29.3	26.8	0	56.1	19.5	0	0	19.5	7.3	17.1	0	24.4	

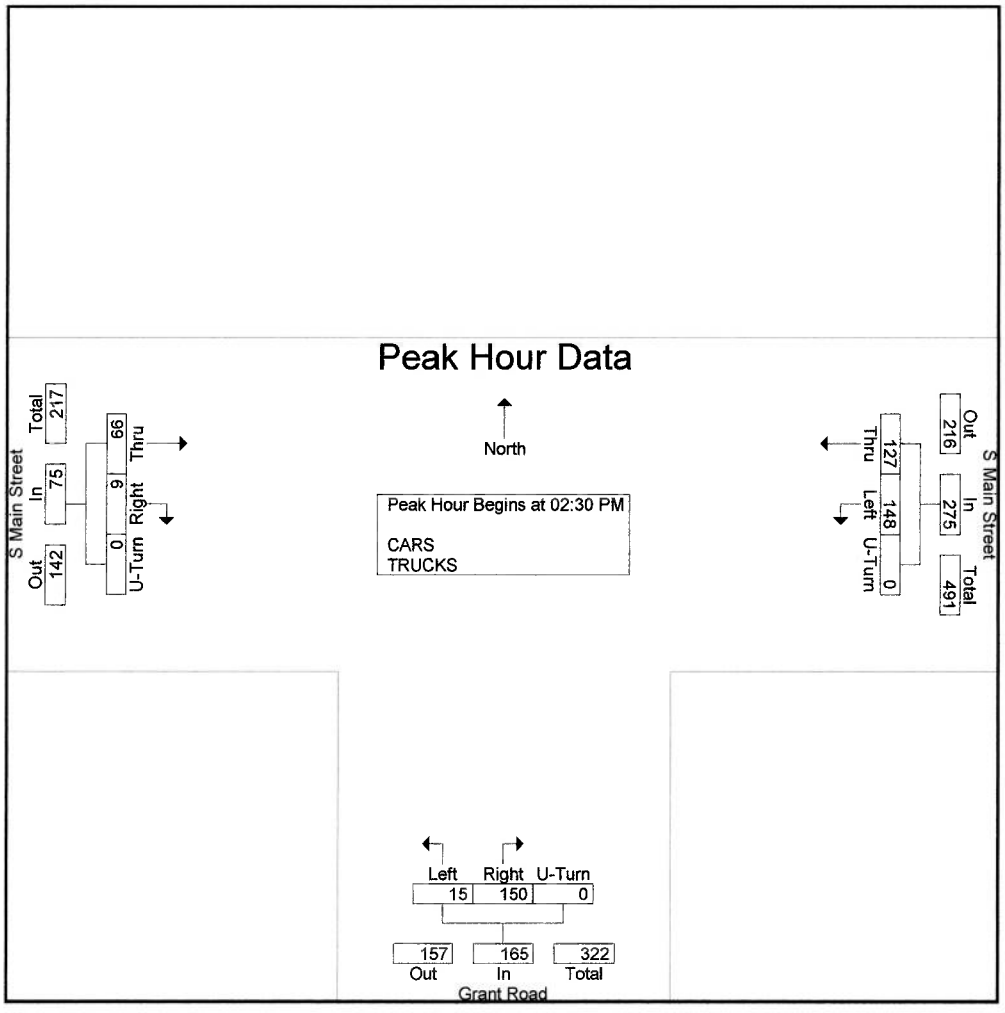


Stephen G. Pernaw & Company, Inc.
P.O. Box 1721
Concord, New Hampshire 03302

Weather: Clear
Collected By: MV
Job Number: 2248A
Town/State: Newmarket, NH

File Name : 2248A_INT_B__AM_&_PM
Site Code : 2248A
Start Date : 2/2/2023
Page No : 2

	S Main Street From East				Grant Road From South				S Main Street From West				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 03:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 02:30 PM													
02:30 PM	27	**58**	0	**85**	**44**	2	0	46	1	17	0	18	**149**
02:45 PM	28	32	0	60	43	4	0	**47**	**4**	10	0	14	121
03:00 PM	**36**	30	0	66	39	2	0	41	2	**23**	0	**25**	132
03:15 PM	36	28	0	64	24	**7**	0	31	2	16	0	18	113
Total Volume	127	148	0	275	150	15	0	165	9	66	0	75	515
% App. Total	46.2	53.8	0		90.9	9.1	0		12	88	0		
PHF	.882	.638	.000	.809	.852	.536	.000	.878	.563	.717	.000	.750	.864

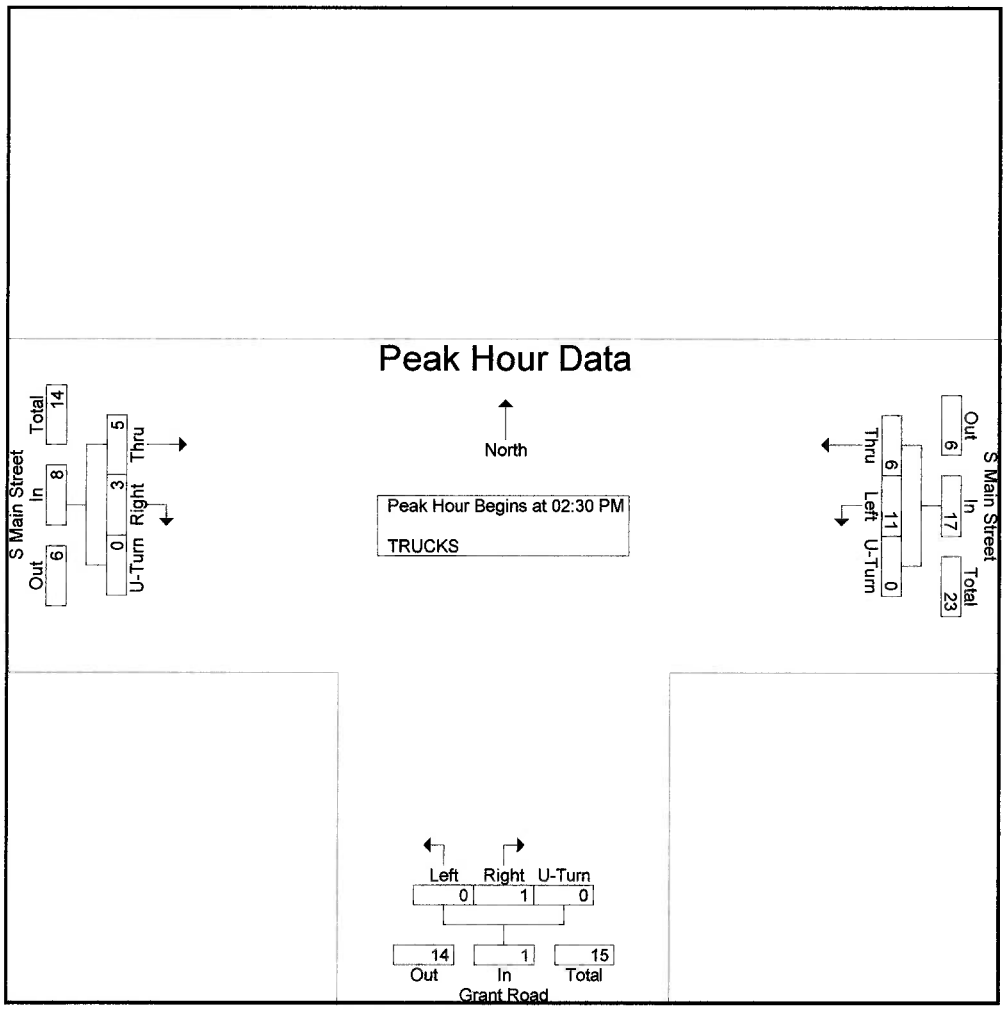


Stephen G. Pernaw & Company, Inc.
P.O. Box 1721
Concord, New Hampshire 03302

Weather: Clear
Collected By: MV
Job Number: 2248A
Town/State: Newmarket, NH

File Name : 2248A_INT_B__AM_&_PM
Site Code : 2248A
Start Date : 2/2/2023
Page No : 2

	S Main Street From East				Grant Road From South				S Main Street From West				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 02:30 PM to 03:15 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 02:30 PM													
02:30 PM	**2**	**5**	0	**7**	0	0	0	0	0	1	0	1	**8**
02:45 PM	1	1	0	2	0	0	0	0	1	0	0	1	3
03:00 PM	1	3	0	4	0	0	0	0	**2**	**2**	0	**4**	8
03:15 PM	2	2	0	4	**1**	0	0	**1**	0	2	0	2	7
Total Volume	6	11	0	17	1	0	0	1	3	5	0	8	26
% App. Total	35.3	64.7	0		100	0	0		37.5	62.5	0		
PHF	.750	.550	.000	.607	.250	.000	.000	.250	.375	.625	.000	.500	.813



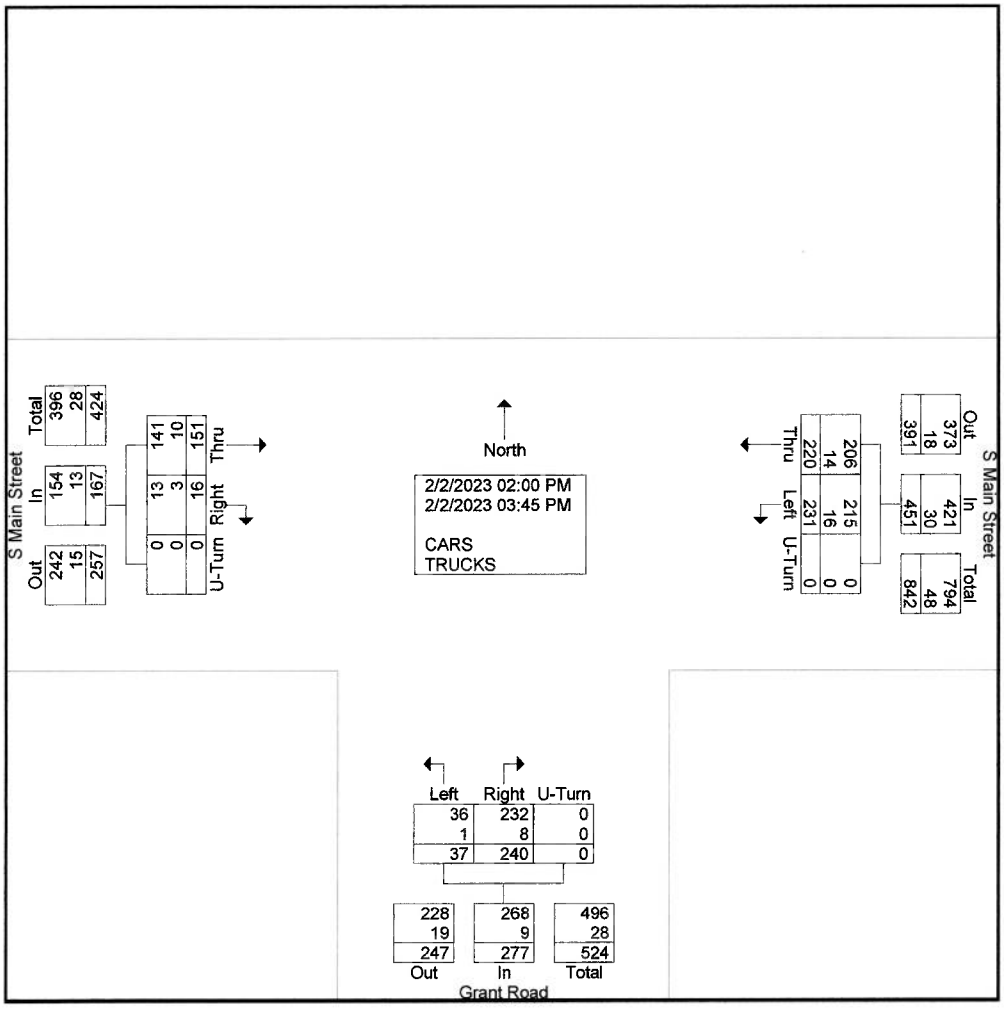
Stephen G. Pernaw & Company, Inc.
P.O. Box 1721
Concord, New Hampshire 03302

Weather: Clear
Collected By: MV
Job Number: 2248A
Town/State: Newmarket, NH

File Name : 2248A_INT_B__AM_&_PM
Site Code : 2248A
Start Date : 2/2/2023
Page No : 1

Groups Printed- CARS - TRUCKS

	S Main Street From East				Grant Road From South				S Main Street From West				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
02:00 PM	15	14	0	29	13	5	0	18	1	17	0	18	65
02:15 PM	21	16	0	37	33	6	0	39	0	17	0	17	93
02:30 PM	27	58	0	85	44	2	0	46	1	17	0	18	149
02:45 PM	28	32	0	60	43	4	0	47	4	10	0	14	121
Total	91	120	0	211	133	17	0	150	6	61	0	67	428
03:00 PM	36	30	0	66	39	2	0	41	2	23	0	25	132
03:15 PM	36	28	0	64	24	7	0	31	2	16	0	18	113
03:30 PM	31	30	0	61	22	6	0	28	2	25	0	27	116
03:45 PM	26	23	0	49	22	5	0	27	4	26	0	30	106
Total	129	111	0	240	107	20	0	127	10	90	0	100	467
Grand Total	220	231	0	451	240	37	0	277	16	151	0	167	895
Apprch %	48.8	51.2	0		86.6	13.4	0		9.6	90.4	0		
Total %	24.6	25.8	0	50.4	26.8	4.1	0	30.9	1.8	16.9	0	18.7	
CARS	206	215	0	421	232	36	0	268	13	141	0	154	843
% CARS	93.6	93.1	0	93.3	96.7	97.3	0	96.8	81.2	93.4	0	92.2	94.2
TRUCKS	14	16	0	30	8	1	0	9	3	10	0	13	52
% TRUCKS	6.4	6.9	0	6.7	3.3	2.7	0	3.2	18.8	6.6	0	7.8	5.8



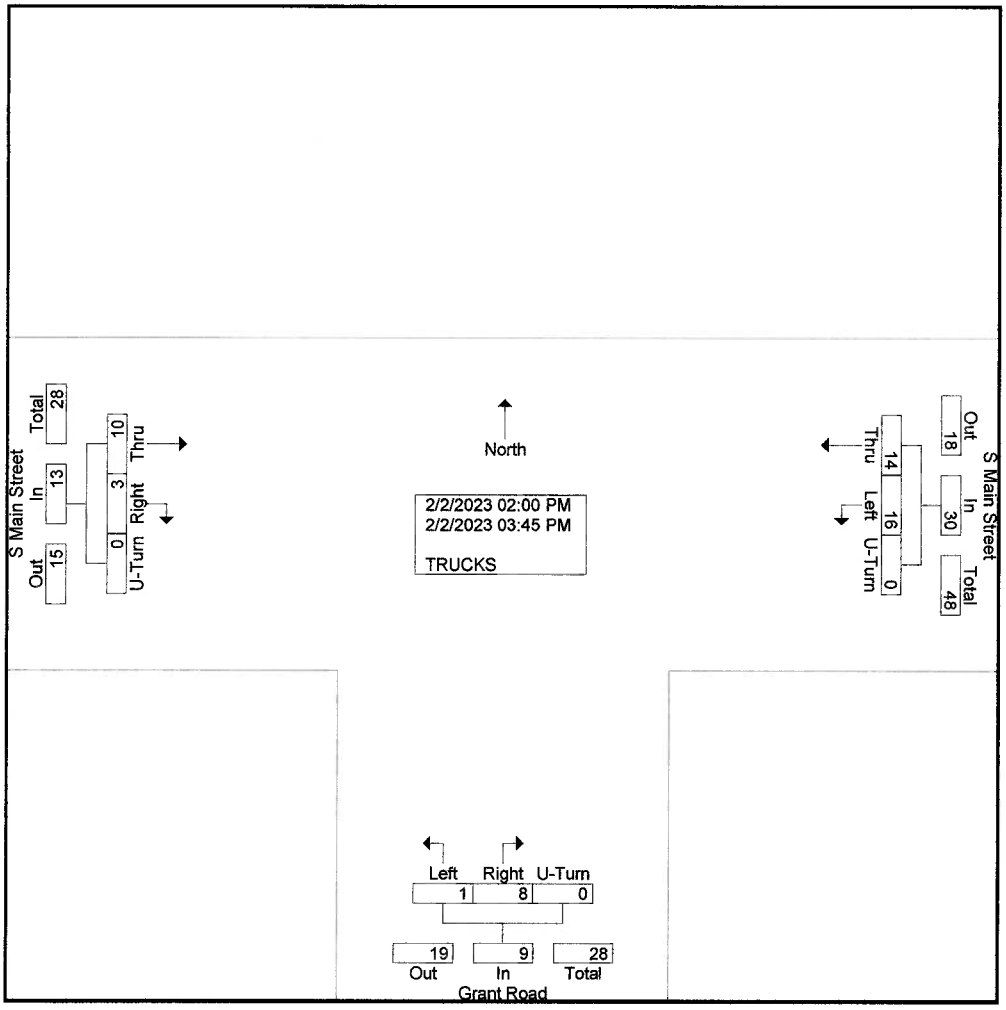
Stephen G. Pernaw & Company, Inc.
P.O. Box 1721
Concord, New Hampshire 03302

Weather: Clear
Collected By: MV
Job Number: 2248A
Town/State: Newmarket, NH

File Name : 2248A_INT_B__AM_&_PM
Site Code : 2248A
Start Date : 2/2/2023
Page No : 1

Groups Printed- TRUCKS

	S Main Street From East				Grant Road From South				S Main Street From West				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
02:00 PM	3	1	0	4	2	1	0	3	0	2	0	2	9
02:15 PM	2	0	0	2	1	0	0	1	0	1	0	1	4
02:30 PM	2	5	0	7	0	0	0	0	0	1	0	1	8
02:45 PM	1	1	0	2	0	0	0	0	1	0	0	1	3
Total	8	7	0	15	3	1	0	4	1	4	0	5	24
03:00 PM	1	3	0	4	0	0	0	0	2	2	0	4	8
03:15 PM	2	2	0	4	1	0	0	1	0	2	0	2	7
03:30 PM	2	3	0	5	3	0	0	3	0	1	0	1	9
03:45 PM	1	1	0	2	1	0	0	1	0	1	0	1	4
Total	6	9	0	15	5	0	0	5	2	6	0	8	28
Grand Total	14	16	0	30	8	1	0	9	3	10	0	13	52
Apprch %	46.7	53.3	0		88.9	11.1	0		23.1	76.9	0		
Total %	26.9	30.8	0	57.7	15.4	1.9	0	17.3	5.8	19.2	0	25	

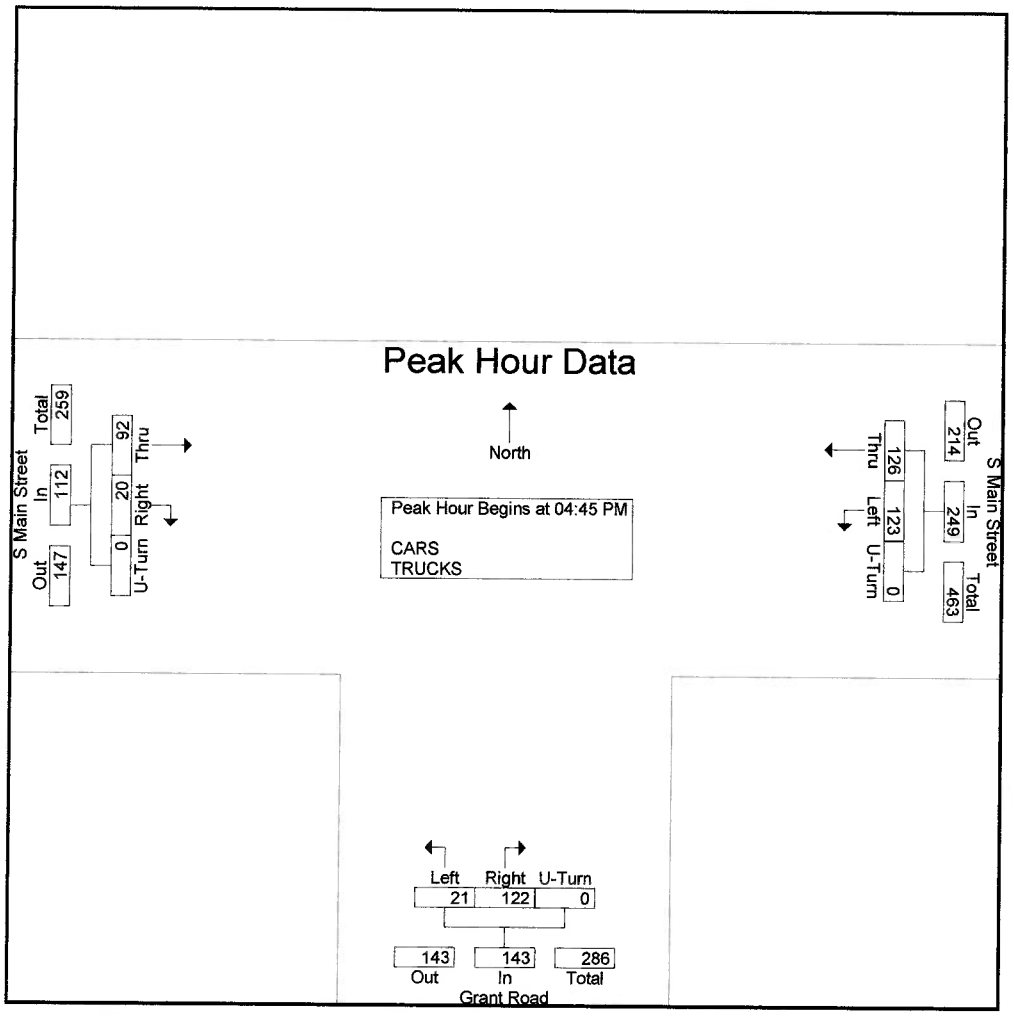


Stephen G. Pernaw & Company, Inc.
P.O. Box 1721
Concord, New Hampshire 03302

Weather: Clear
Collected By: MV
Job Number: 2248A
Town/State: Newmarket, NH

File Name : 2248A_INT_B__AM_&_PM
Site Code : 2248A
Start Date : 2/2/2023
Page No : 2

	S Main Street From East				Grant Road From South				S Main Street From West				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:45 PM													
04:45 PM	26	**35**	0	61	25	2	0	27	**8**	22	0	30	118
05:00 PM	33	32	0	**65**	**39**	**9**	0	**48**	3	**28**	0	**31**	**144**
05:15 PM	33	28	0	61	36	5	0	41	5	17	0	22	124
05:30 PM	**34**	28	0	62	22	5	0	27	4	25	0	29	118
Total Volume	126	123	0	249	122	21	0	143	20	92	0	112	504
% App. Total	50.6	49.4	0		85.3	14.7	0		17.9	82.1	0		
PHF	.926	.879	.000	.958	.782	.583	.000	.745	.625	.821	.000	.903	.875

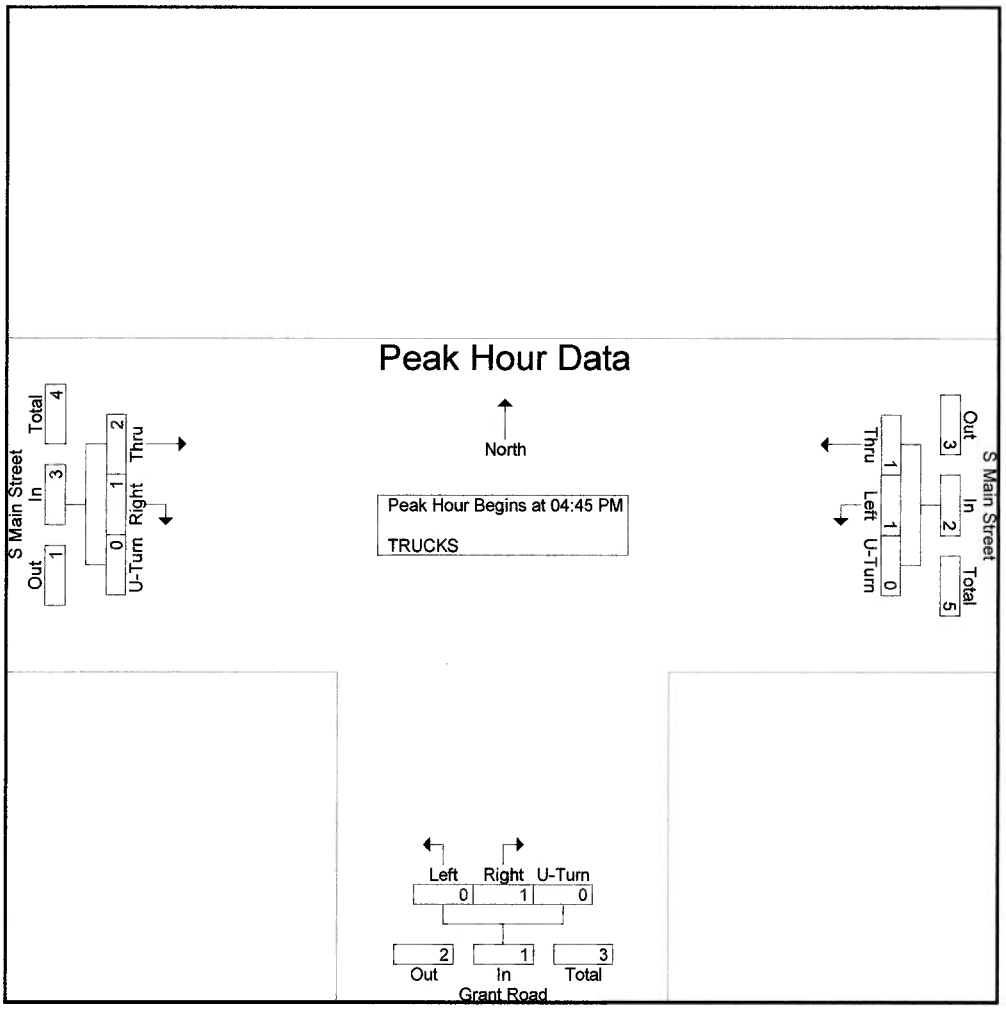


Stephen G. Pernaw & Company, Inc.
P.O. Box 1721
Concord, New Hampshire 03302

Weather: Clear
Collected By: MV
Job Number: 2248A
Town/State: Newmarket, NH

File Name : 2248A_INT_B__AM_&_PM
Site Code : 2248A
Start Date : 2/2/2023
Page No : 2

	S Main Street From East				Grant Road From South				S Main Street From West				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:45 PM													
04:45 PM	**1**	**1**	0	**2**	0	0	0	0	0	**1**	0	**1**	**3**
05:00 PM	0	0	0	0	**1**	0	0	**1**	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	**1**	0	0	1	1
05:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
Total Volume	1	1	0	2	1	0	0	1	1	2	0	3	6
% App. Total	50	50	0		100	0	0		33.3	66.7	0		
PHF	.250	.250	.000	.250	.250	.000	.000	.250	.250	.500	.000	.750	.500



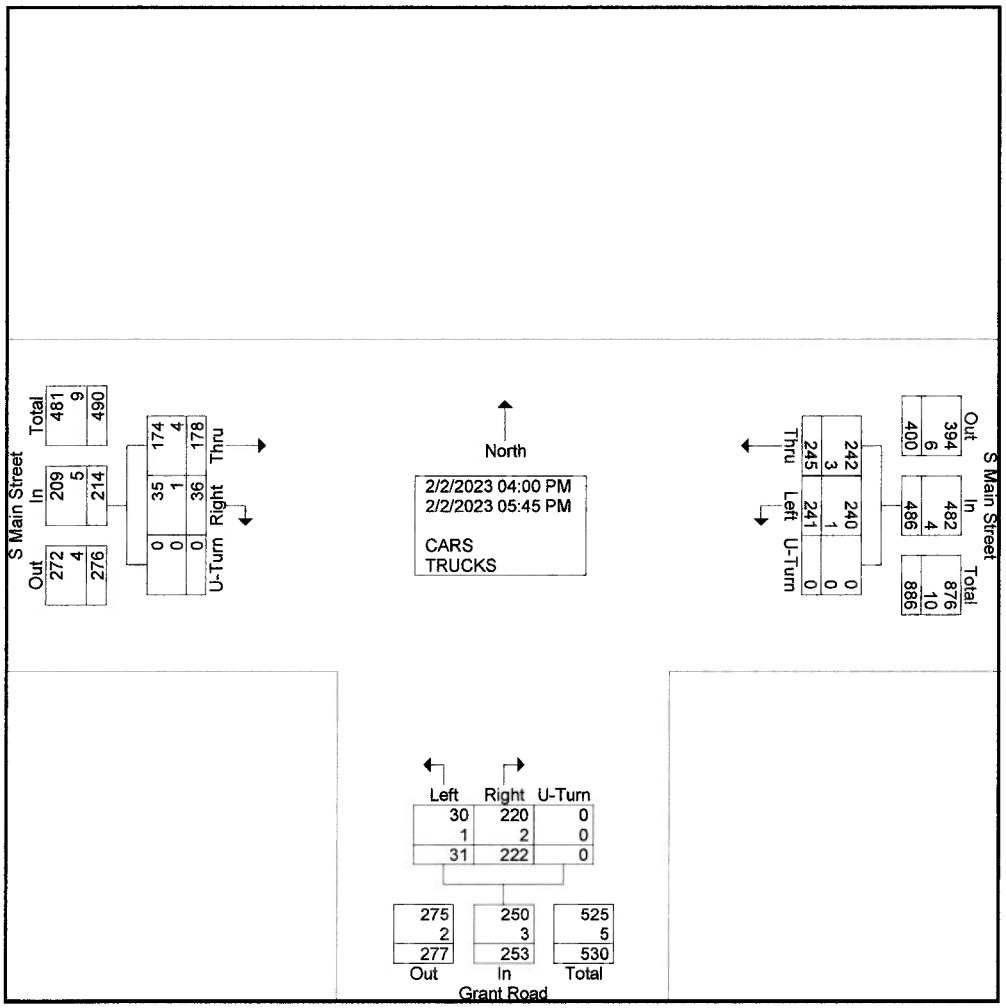
Stephen G. Pernaw & Company, Inc.
P.O. Box 1721
Concord, New Hampshire 03302

Weather: Clear
Collected By: MV
Job Number: 2248A
Town/State: Newmarket, NH

File Name : 2248A_INT_B__AM_&_PM
Site Code : 2248A
Start Date : 2/2/2023
Page No : 1

Groups Printed- CARS - TRUCKS

	S Main Street From East				Grant Road From South				S Main Street From West				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
04:00 PM	27	35	0	62	29	3	0	32	3	21	0	24	118
04:15 PM	31	39	0	70	33	3	0	36	5	20	0	25	131
04:30 PM	33	23	0	56	17	2	0	19	4	26	0	30	105
04:45 PM	26	35	0	61	25	2	0	27	8	22	0	30	118
Total	117	132	0	249	104	10	0	114	20	89	0	109	472
05:00 PM	33	32	0	65	39	9	0	48	3	28	0	31	144
05:15 PM	33	28	0	61	36	5	0	41	5	17	0	22	124
05:30 PM	34	28	0	62	22	5	0	27	4	25	0	29	118
05:45 PM	28	21	0	49	21	2	0	23	4	19	0	23	95
Total	128	109	0	237	118	21	0	139	16	89	0	105	481
Grand Total	245	241	0	486	222	31	0	253	36	178	0	214	953
Apprch %	50.4	49.6	0		87.7	12.3	0		16.8	83.2	0		
Total %	25.7	25.3	0	51	23.3	3.3	0	26.5	3.8	18.7	0	22.5	
CARS	242	240	0	482	220	30	0	250	35	174	0	209	941
% CARS	98.8	99.6	0	99.2	99.1	96.8	0	98.8	97.2	97.8	0	97.7	98.7
TRUCKS	3	1	0	4	2	1	0	3	1	4	0	5	12
% TRUCKS	1.2	0.4	0	0.8	0.9	3.2	0	1.2	2.8	2.2	0	2.3	1.3



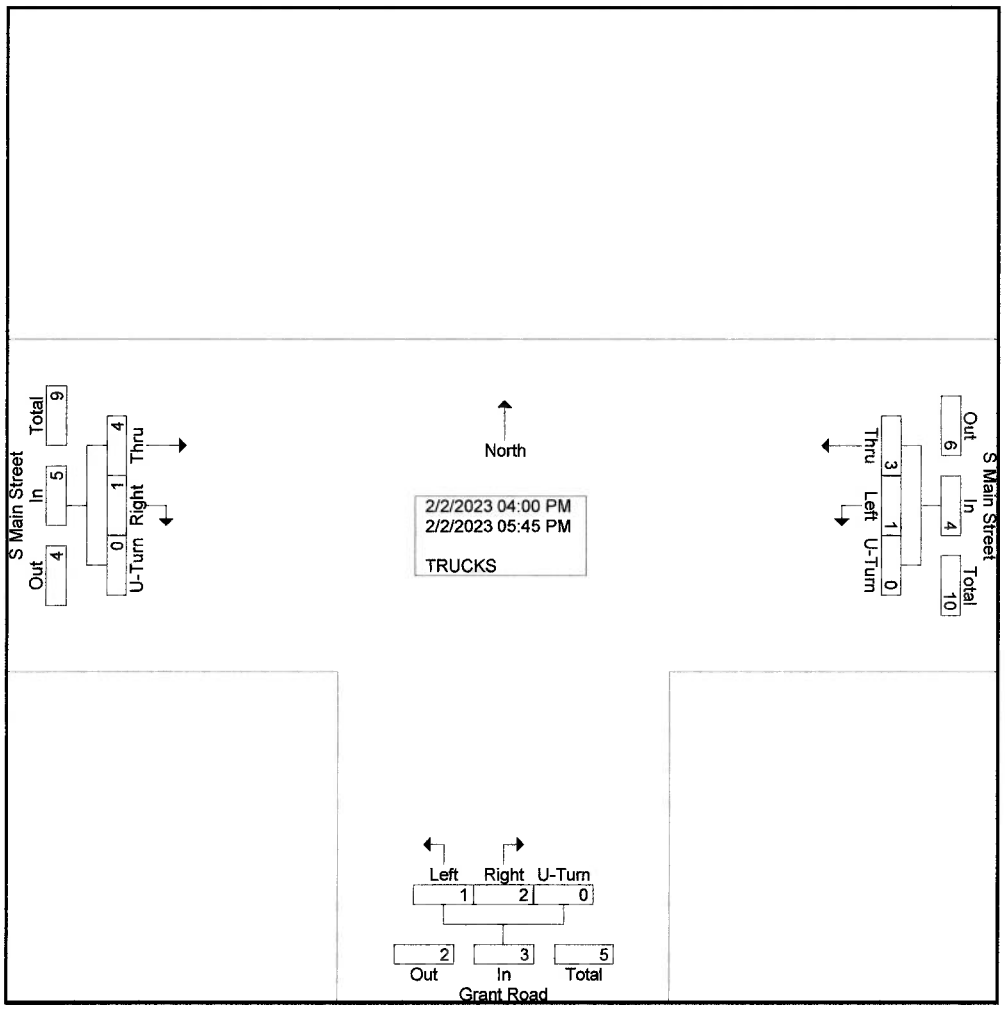
Stephen G. Pernaw & Company, Inc.
P.O. Box 1721
Concord, New Hampshire 03302

Weather: Clear
Collected By: MV
Job Number: 2248A
Town/State: Newmarket, NH

File Name : 2248A_INT_B__AM_&_PM
Site Code : 2248A
Start Date : 2/2/2023
Page No : 1

Groups Printed- TRUCKS

	S Main Street From East				Grant Road From South				S Main Street From West				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
04:00 PM	1	0	0	1	1	0	0	1	0	0	0	0	2
04:15 PM	1	0	0	1	0	0	0	0	0	2	0	2	3
04:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
04:45 PM	1	1	0	2	0	0	0	0	0	1	0	1	3
Total	3	1	0	4	1	1	0	2	0	3	0	3	9
05:00 PM	0	0	0	0	1	0	0	1	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	1	0	0	1	1
05:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	1	0	0	1	1	1	0	2	3
Grand Total	3	1	0	4	2	1	0	3	1	4	0	5	12
Apprch %	75	25	0		66.7	33.3	0		20	80	0		
Total %	25	8.3	0	33.3	16.7	8.3	0	25	8.3	33.3	0	41.7	



SEASONAL ADJUSTMENT DATA

Year 2019 Monthly Data

Town: Exeter
Station: 02153001
Location: NH 101 east of NH 108 (Exit 11-12)
Group: 3

Month	ADT	Adjustment to Average	Adjustment to Peak
January	39,195	1.19	1.39
February	40,738	1.15	1.34
March	40,738	1.15	1.34
April	45,759	1.02	1.19
May	48,126	0.97	1.14
June	53,382	0.87	1.02
July	54,640	0.85	1.00
August	54,514	0.86	1.00
September	49,360	0.95	1.11
October	47,463	0.98	1.15
November	43,273	1.08	1.26
December	41,050	1.14	1.33

AADT: 46,686
Peak Month: 54,640

COVID ADJUSTMENT DATA

COVID Adjustment

NH Route 152, east of Grant Road

October 2018 Raw Count: 5,940 vpd

February 2023 Raw Count: 4,677 vpd

Adjustments to Peak-Month Conditions

Oct. 2018: 5,940 x 1.15 x 1.01 (background growth rate to 2019) = 6,899 vpd

February 2023: 4,677 x 1.34 = 6,267 vphd

COVID Adjustment

$$1 - \frac{6{,}899}{6{,}267} = -0.1008$$

Approx. 10% below Pre-COVID conditions

Location Info	
Location ID	82337052
Type	I-SECTION
Functional Class	5
Located On	S Main St
Direction	2-WAY
Community	NEWMARKET
MPO_ID	
HPMS ID	
Agency	New Hampshire DOT

Count Data Info	
Start Date	10/2/2018
End Date	10/3/2018
Start Time	12:00 AM
End Time	12:00 AM
Direction	2-WAY
Notes	nhdot
Count Source	8.23371E+11
File Name	823370523070.prn
Weather	
Study	
Owner	iwong
QC Status	Accepted

Interval: 60 mins	
Time	**Hourly Count**
00:00 - 01:00	19
01:00 - 02:00	4
02:00 - 03:00	4
03:00 - 04:00	13
04:00 - 05:00	29
05:00 - 06:00	64
06:00 - 07:00	258
07:00 - 08:00	644
08:00 - 09:00	511
09:00 - 10:00	293
10:00 - 11:00	319
11:00 - 12:00	306
12:00 - 13:00	305
13:00 - 14:00	299
14:00 - 15:00	425
15:00 - 16:00	552
16:00 - 17:00	517
17:00 - 18:00	481
18:00 - 19:00	314
19:00 - 20:00	233
20:00 - 21:00	154
21:00 - 22:00	95
22:00 - 23:00	73
23:00 - 24:00	28
TOTAL	5940

VEHICLE TRAVEL SPEED DATA

CALCULATION SHEET

Stephen G. Pernaw & Company, Inc.

Project:	Residential Development	Job Number:	2248A
Calculated By:		Date:	
Checked By:		Date:	
Sheet No:		Of:	
Subject:	Speed Survey - W. of Elementary School Dwy, Newmarket, NH		

Speed Survey - Wednesday, February 1, 2023 & Friday, February 3, 2023

S Main Street (West of Elementary School Driveway), Newmarket, New Hampshire

Stephen G. Pernaw & Company

Spot Speed Study

Client:	Proposed Residential Development	**Location:**	S Main Street W. of Elementary School Dwy
Job #:	2248A	**Date:**	Wednesday, February 1, 2023
Town/City:	Newmarket, New Hampshire	**Weather:**	Clear & Cold

I. Recorded Data

Westbound		Eastbound	
Observation	Speed (mph)	Observation	Speed (mph)
1	36.0	1	35.0
2	31.0	2	25.0
3	30.0	3	34.0
4	30.0	4	39.0
5	39.0	5	29.0
6	30.0	6	33.0
7	34.0	7	37.0
8	33.0	8	38.0
9	33.0	9	34.0
10	35.0	10	38.0
11	34.0	11	34.0
12	30.0	12	39.0
13	36.0	13	27.0
14	30.0	14	29.0
15	34.0	15	29.0
16	35.0	16	34.0
17	32.0	17	32.0
18	30.0	18	31.0
19	30.0	19	33.0
20	37.0	20	31.0
21	30.0	21	34.0
22	32.0	22	44.0
23	31.0	23	29.0
24	35.0	24	32.0
25	33.0	25	28.0
26	32.0	26	36.0
27	36.0	27	32.0
28	37.0	28	34.0
29	33.0	29	37.0
30	32.0	30	35.0
31	29.0	31	25.0
32	39.0	32	31.0
33	34.0	33	33.0
34	34.0	34	31.0
35	29.0	35	29.0
36	40.0	36	34.0
37	28.0	37	32.0
38	34.0	38	33.0
39	33.0	39	33.0
40	30.0	40	35.0

Stephen G. Pernaw & Company

Spot Speed Study

Client:	Proposed Residential Development	**Location:**	S Main Street W. of Elementary School Dwy
Job #:	2248A	**Date:**	Wednesday, February 1, 2023
Town/City:	Newmarket, New Hampshire	**Weather:**	Clear & Cold

I. Recorded Data

Westbound		Eastbound	
Observation	Speed (mph)	Observation	Speed (mph)
41	36.0	41	32.0
42	38.0	42	31.0
43	34.0	43	30.0
44	29.0	44	30.0
45	29.0	45	31.0
46	32.0	46	36.0
47	33.0	47	37.0
48	31.0	48	32.0
49	32.0	49	33.0
50	30.0	50	33.0
			Wed

II. Statistical Summaries

Westbound		Eastbound	
Observations =	50 vehicles	Observations =	50 vehicles
High Speed =	40.0 mph	High Speed =	44.0 mph
Low Speed =	28.0 mph	Low Speed =	25.0 mph
Average Speed =	32.9 mph	Average Speed =	32.9 mph
Median Speed =	33.0 mph	Median Speed =	33.0 mph
Standard Deviation =	2.9 mph	Standard Deviation =	3.6 mph
85th Percentile =	36.0 mph	85th Percentile =	36.7 mph
Posted Speed Limit =	30 mph	Posted Speed Limit =	30 mph

Stephen G. Pernaw & Company

Spot Speed Study

Client:	Proposed Residential Development	**Location:**	S Main Street W. of Elementary School Dwy
Job #:	2248A	**Date:**	Friday, February 3, 2023
Town/City:	Newmarket, New Hampshire	**Weather:**	Clear & Cold

I. Recorded Data

Westbound		Eastbound	
Observation	Speed (mph)	Observation	Speed (mph)
1	35.0	1	31.0
2	30.0	2	31.0
3	33.0	3	39.0
4	38.0	4	31.0
5	32.0	5	28.0
6	34.0	6	35.0
7	38.0	7	34.0
8	29.0	8	29.0
9	34.0	9	34.0
10	30.0	10	28.0
11	31.0	11	34.0
12	33.0	12	29.0
13	33.0	13	38.0
14	36.0	14	33.0
15	33.0	15	27.0
16	29.0	16	32.0
17	39.0	17	38.0
18	33.0	18	36.0
19	36.0	19	37.0
20	28.0	20	35.0
21	32.0	21	33.0
22	34.0	22	35.0
23	34.0	23	32.0
24	31.0	24	31.0
25	34.0	25	29.0
26	34.0	26	30.0
27	32.0	27	32.0
28	38.0	28	31.0
29	28.0	29	27.0
30	38.0	30	30.0
31	30.0	31	31.0
32	29.0	32	29.0
33	38.0	33	31.0
34	33.0	34	31.0
35	29.0	35	30.0
36	27.0	36	33.0
37	31.0	37	32.0
38	33.0	38	39.0
39	32.0	39	37.0
40	32.0	40	33.0

Stephen G. Pernaw & Company

Spot Speed Study

Client:	Proposed Residential Development	**Location:**	S Main Street W. of Elementary School Dwy
Job #:	2248A	**Date:**	Friday, February 3, 2023
Town/City:	Newmarket, New Hampshire	**Weather:**	Clear & Cold

I. Recorded Data

Westbound		Eastbound	
Observation	Speed (mph)	Observation	Speed (mph)
41	33.0	41	28.0
42	30.0	42	26.0
43	28.0	43	31.0
44	37.0	44	33.0
45	32.0	45	35.0
46	38.0	46	40.0
47	35.0	47	39.0
48	33.0	48	34.0
49	38.0	49	28.0
50	38.0	50	26.0

II. Statistical Summaries

Westbound		Eastbound	
Observations =	50 vehicles	Observations =	50 vehicles
High Speed =	39.0 mph	High Speed =	40.0 mph
Low Speed =	27.0 mph	Low Speed =	26.0 mph
Average Speed =	33.1 mph	Average Speed =	32.3 mph
Median Speed =	33.0 mph	Median Speed =	32.0 mph
Standard Deviation =	3.2 mph	Standard Deviation =	3.6 mph
85th Percentile =	38.0 mph	85th Percentile =	36.7 mph
Posted Speed Limit =	30 mph	Posted Speed Limit =	30 mph

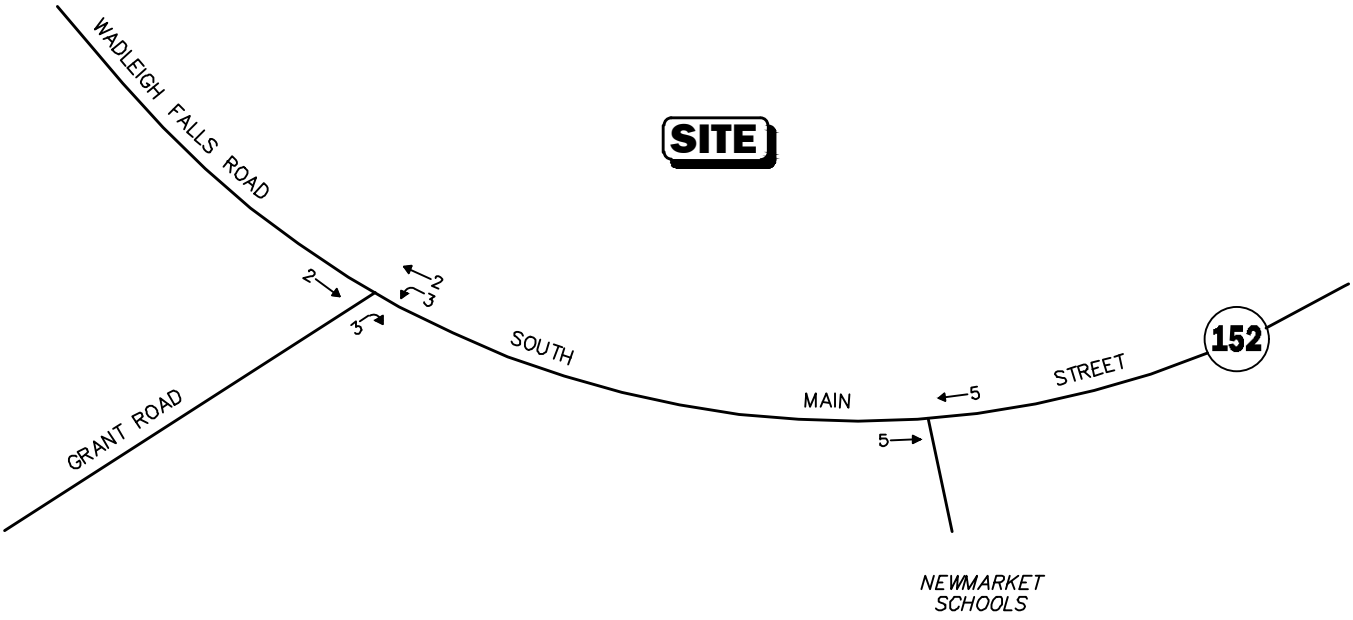
GENERAL BACKGROUND TRAFFIC GROWTH

General Background Traffic Growth - Daily Traffic Volumes

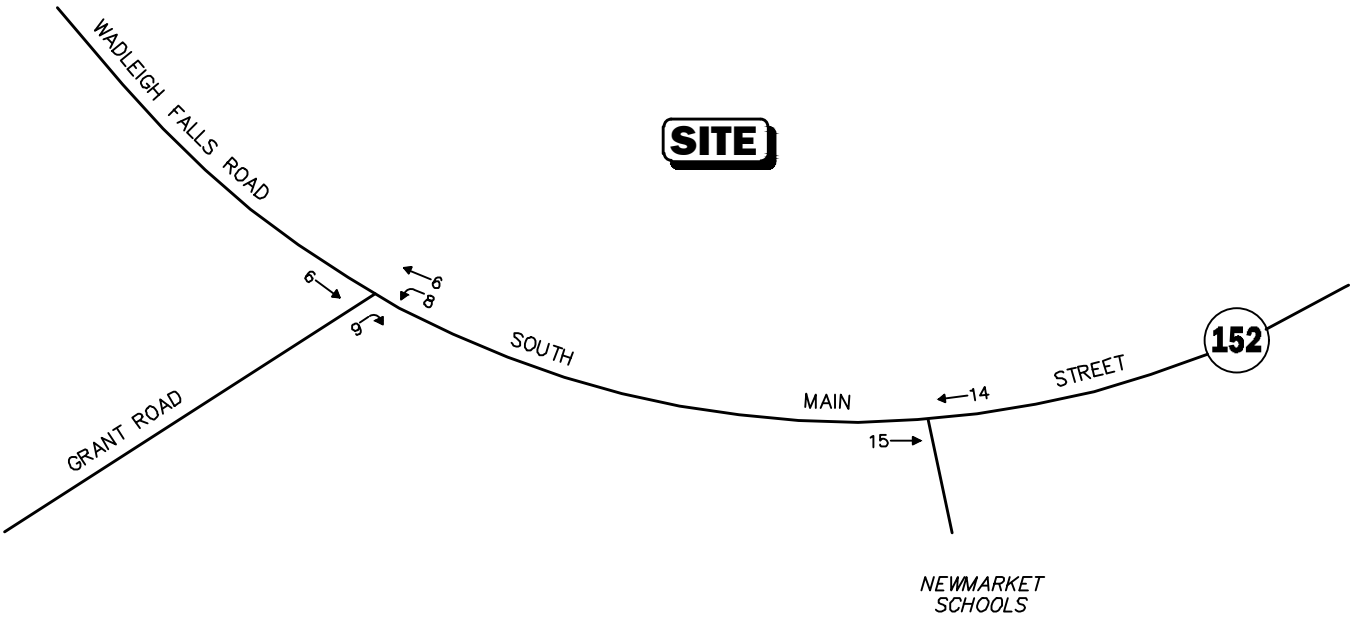
CITY/TOWN	ROUTE/STREET	LOCATION	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Annual Growth
Newmarket	Exeter Road	at Newfields Town Line					17,000	17,374	17,895	18,756	19,131	19,514	19,434	**2.27%**
Newmarket	South Main Street	east of Maplecrest Avenue						5,300	5,459	5,568	5,679	5,588	5,655	**1.32%**
Newmarket	Grant Road	west of NH Route 152						2,964	3,053	2,673	2,726	2,781	3,075	**1.03%**
Newmarket	Main Street	at Lamprey River								11,447	11,676	11,910	11,154	**-0.78%**
														0.96%

BACKGROUND DEVELOPMENT NETWORKS

WEEKDAY MORNING PEAK HOUR (7:15 - 8:15 AM)



WEEKDAY AFTERNOON PEAK HOUR (2:30 - 3:30 PM)

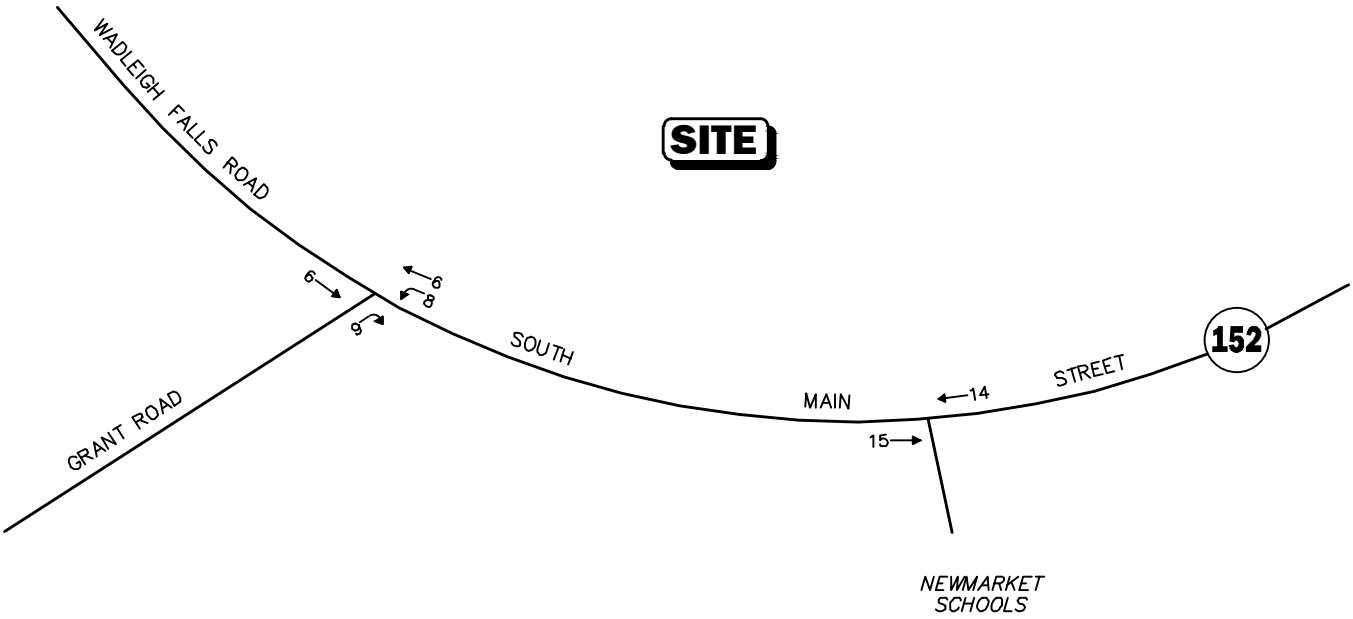


Not To Scale

Figure A-1A

Vanasse & Associates inc

Proposed Mixed-Use Development
50-56 Exeter Road
Peak-Hour Traffic Volumes



Not To Scale

Figure A-1B

Vanasse & Associates inc

Proposed Mixed-Use Development
50-56 Exeter Road
Weekday Evening
(4:45 - 5:45 PM)
Peak-Hour Traffic Volumes

TRIP-GENERATION CALCULATIONS

Graph Look Up

Graph Look Up
How to Use ITETripGen
TGM Desk Reference
TGM Appendices
Support Documents
Add Users
Comments

Query | Filter

DATA SOURCE: Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE: 252

LAND USE GROUP: (200-299) Residential

LAND USE : 252 - Senior Adult Housing - Multifamily

LAND USE SUBCATEGORY: All Sites

SETTING/LOCATION: General Urban/Suburban

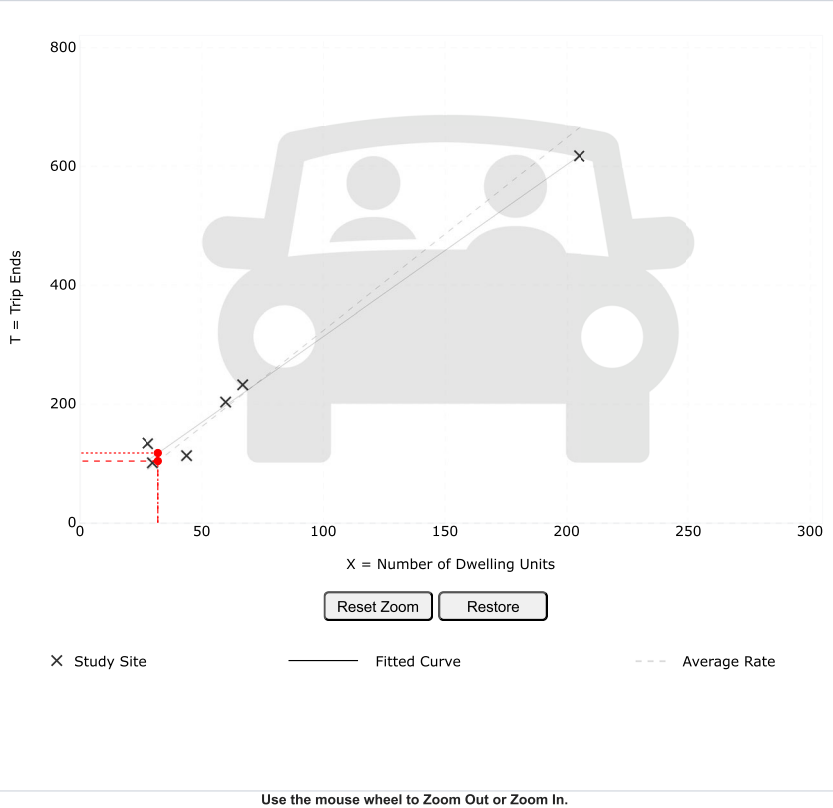
INDEPENDENT VARIABLE (IV): Dwelling Units

TIME PERIOD: Weekday

TRIP TYPE: Vehicle

ENTER IV VALUE TO CALCULATE TRIPS: 32 Calculate

Data Plot and Equation



Use the mouse wheel to Zoom Out or Zoom In.
Hover the mouse pointer on data points to view X and T values.

DATA STATISTICS

Land Use:
Senior Adult Housing - Multifamily (252) Click for Description and Data Plots

Independent Variable:
Dwelling Units

Time Period:
Weekday

Setting/Location:
General Urban/Suburban

Trip Type:
Vehicle

Number of Studies:
6

Avg. Num. of Dwelling Units:
72

Average Rate:
3.24

Range of Rates:
2.59 - 4.79

Standard Deviation:
0.53

Fitted Curve Equation:
T = 2.89(X) + 24.82

R^2:
0.99

Directional Distribution:
50% entering, 50% exiting

Calculated Trip Ends:
Average Rate: 104 (Total), 52 (Entry), 52 (Exit)
Fitted Curve: 117 (Total), 59 (Entry), 58 (Exit)

Add-ons to do more
Try OTISS Pro

Graph Look Up

ITETripGen Web-based App

- Graph Look Up
- How to Use ITETripGen
- TGM Desk Reference
- TGM Appendices
- Support Documents
- Add Users
- Comments

Add-ons to do more

Try OTISS Pro

Query | Filter

DATA SOURCE: Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE: 252

LAND USE GROUP: (200-299) Residential

LAND USE : 252 - Senior Adult Housing - Multifamily

LAND USE SUBCATEGORY: All Sites

SETTING/LOCATION: General Urban/Suburban

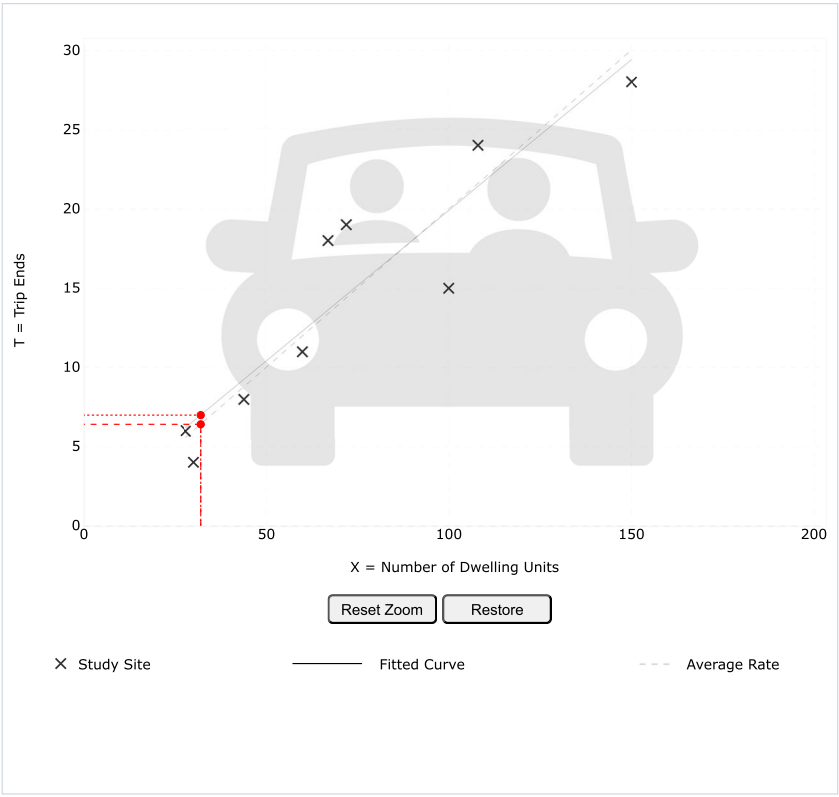
INDEPENDENT VARIABLE (IV): Dwelling Units

TIME PERIOD: Weekday, Peak Hour of Adjacent Street Traffic

TRIP TYPE: Vehicle

ENTER IV VALUE TO CALCULATE TRIPS: 32 Calculate

Data Plot and Equation



Use the mouse wheel to Zoom Out or Zoom In.
Hover the mouse pointer on data points to view X and T values.

DATA STATISTICS

Land Use:
Senior Adult Housing - Multifamily (252) Click for Description and Data Plots

Independent Variable:
Dwelling Units

Time Period:
Weekday
Peak Hour of Adjacent Street Traffic
One Hour Between 7 and 9 a.m.

Setting/Location:
General Urban/Suburban

Trip Type:
Vehicle

Number of Studies:
9

Avg. Num. of Dwelling Units:
73

Average Rate:
0.20

Range of Rates:
0.13 - 0.27

Standard Deviation:
0.04

Fitted Curve Equation:
T = 0.19(X) + 0.90

R^2:
0.85

Directional Distribution:
34% entering, 66% exiting

Calculated Trip Ends:
Average Rate: 6 (Total), 2 (Entry), 4 (Exit)
Fitted Curve: 7 (Total), 2 (Entry), 5 (Exit)

Graph Look Up

ITETripGen Web-based App

- Graph Look Up
- How to Use *ITETripGen*
- TGM Desk Reference
- TGM Appendices
- Support Documents
- Add Users
- Comments

Add-ons to do more

Try OTISS Pro

Query | Filter

DATA SOURCE: Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE: 252

LAND USE GROUP: (200-299) Residential

LAND USE : 252 - Senior Adult Housing - Multifamily

LAND USE SUBCATEGORY: All Sites

SETTING/LOCATION: General Urban/Suburban

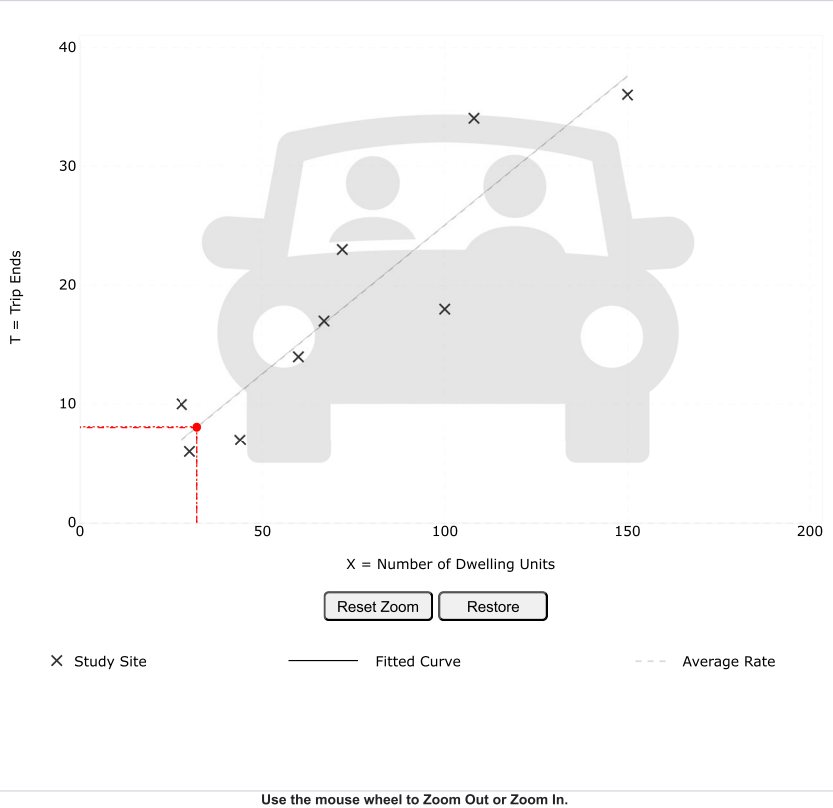
INDEPENDENT VARIABLE (IV): Dwelling Units

TIME PERIOD: Weekday, Peak Hour of Adjacent Street Traffic

TRIP TYPE: Vehicle

ENTER IV VALUE TO CALCULATE TRIPS: 32 Calculate

Data Plot and Equation



Use the mouse wheel to Zoom Out or Zoom In.
Hover the mouse pointer on data points to view X and T values.

DATA STATISTICS

Land Use:
Senior Adult Housing - Multifamily (252) Click for Description and Data Plots

Independent Variable:
Dwelling Units

Time Period:
Weekday
Peak Hour of Adjacent Street Traffic
One Hour Between 4 and 6 p.m.

Setting/Location:
General Urban/Suburban

Trip Type:
Vehicle

Number of Studies:
9

Avg. Num. of Dwelling Units:
73

Average Rate:
0.25

Range of Rates:
0.16 - 0.36

Standard Deviation:
0.06

Fitted Curve Equation:
T = 0.25(X) + 0.07

R^2:
0.84

Directional Distribution:
56% entering, 44% exiting

Calculated Trip Ends:
Average Rate: 8 (Total), 4 (Entry), 4 (Exit)
Fitted Curve: 8 (Total), 5 (Entry), 3 (Exit)

TRIP DISTRIBUTION

General Background Traffic Growth - Daily Traffic Volumes

CITY/TOWN	ROUTE/STREET	LOCATION	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Annual Growth
Newmarket	Exeter Road	at Newfields Town Line					17,000	17,374	17,895	18,756	19,131	19,514	19,434	**2.27%**
Newmarket	South Main Street	east of Maplecrest Avenue						5,300	5,459	5,568	5,679	5,588	5,655	**1.32%**
Newmarket	Grant Road	west of NH Route 152						2,964	3,053	2,673	2,726	2,781	3,075	**1.03%**
Newmarket	Main Street	at Lamprey River								11,447	11,676	11,910	11,154	**-0.78%**
														0.96%

CAPACITY ANALYSIS WORKSHEETS

NH Route 152 at Grant Road
NH Route 152 at the Newmarket Elementary School Driveway
NH Route 152 at the Project Site Driveway

NH Route 152 at Grant Road

Intersection	
Int Delay, s/veh	9.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	184	28	124	87	16	194
Future Vol, veh/h	184	28	124	87	16	194
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	67	67	46	46
Heavy Vehicles, %	2	0	4	10	0	3
Mvmt Flow	219	33	185	130	35	422

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	252	0	736	236
Stage 1	-	-	-	-	236	-
Stage 2	-	-	-	-	500	-
Critical Hdwy	-	-	4.14	-	6.4	6.23
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.236	-	3.5	3.327
Pot Cap-1 Maneuver	-	-	1302	-	389	801
Stage 1	-	-	-	-	808	-
Stage 2	-	-	-	-	613	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1302	-	329	801
Mov Cap-2 Maneuver	-	-	-	-	329	-
Stage 1	-	-	-	-	808	-
Stage 2	-	-	-	-	519	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.8	18.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	722	-	-	1302	-
HCM Lane V/C Ratio	0.632	-	-	0.142	-
HCM Control Delay (s)	18.2	-	-	8.2	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	4.5	-	-	0.5	-

Intersection	
Int Delay, s/veh	6.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	97	13	218	187	22	221
Future Vol, veh/h	97	13	218	187	22	221
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	75	75	81	81	88	88
Heavy Vehicles, %	8	33	7	5	0	1
Mvmt Flow	129	17	269	231	25	251

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	146	0	907	138
Stage 1	-	-	-	-	138	-
Stage 2	-	-	-	-	769	-
Critical Hdwy	-	-	4.17	-	6.4	6.21
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.263	-	3.5	3.309
Pot Cap-1 Maneuver	-	-	1406	-	309	913
Stage 1	-	-	-	-	894	-
Stage 2	-	-	-	-	461	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1406	-	241	913
Mov Cap-2 Maneuver	-	-	-	-	241	-
Stage 1	-	-	-	-	894	-
Stage 2	-	-	-	-	360	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.4	12.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	729	-	-	1406	-
HCM Lane V/C Ratio	0.379	-	-	0.191	-
HCM Control Delay (s)	12.9	-	-	8.2	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	1.8	-	-	0.7	-

Intersection	
Int Delay, s/veh	6.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	136	29	215	151	31	180
Future Vol, veh/h	136	29	215	151	31	180
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	96	96	75	75
Heavy Vehicles, %	2	5	1	1	0	0
Mvmt Flow	151	32	224	157	41	240

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	183	0	772	167
Stage 1	-	-	-	-	167	-
Stage 2	-	-	-	-	605	-
Critical Hdwy	-	-	4.11	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.209	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1398	-	371	882
Stage 1	-	-	-	-	867	-
Stage 2	-	-	-	-	549	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1398	-	306	882
Mov Cap-2 Maneuver	-	-	-	-	306	-
Stage 1	-	-	-	-	867	-
Stage 2	-	-	-	-	452	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.7	13.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	691	-	-	1398	-
HCM Lane V/C Ratio	0.407	-	-	0.16	-
HCM Control Delay (s)	13.7	-	-	8.1	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	2	-	-	0.6	-

Intersection	
Int Delay, s/veh	9.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	188	28	128	90	16	199
Future Vol, veh/h	188	28	128	90	16	199
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	67	67	46	46
Heavy Vehicles, %	2	0	4	10	0	3
Mvmt Flow	224	33	191	134	35	433

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	257	0	757	241
Stage 1	-	-	-	-	241	-
Stage 2	-	-	-	-	516	-
Critical Hdwy	-	-	4.14	-	6.4	6.23
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.236	-	3.5	3.327
Pot Cap-1 Maneuver	-	-	1296	-	378	795
Stage 1	-	-	-	-	804	-
Stage 2	-	-	-	-	603	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1296	-	318	795
Mov Cap-2 Maneuver	-	-	-	-	318	-
Stage 1	-	-	-	-	804	-
Stage 2	-	-	-	-	507	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.8	19
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	715	-	-	1296	-
HCM Lane V/C Ratio	0.654	-	-	0.147	-
HCM Control Delay (s)	19	-	-	8.3	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	4.9	-	-	0.5	-

Intersection	
Int Delay, s/veh	6.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	104	13	228	195	22	232
Future Vol, veh/h	104	13	228	195	22	232
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	75	75	81	81	88	88
Heavy Vehicles, %	8	33	7	5	0	1
Mvmt Flow	139	17	281	241	25	264

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	156	0	951	148
Stage 1	-	-	-	-	148	-
Stage 2	-	-	-	-	803	-
Critical Hdwy	-	-	4.17	-	6.4	6.21
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.263	-	3.5	3.309
Pot Cap-1 Maneuver	-	-	1394	-	291	901
Stage 1	-	-	-	-	884	-
Stage 2	-	-	-	-	444	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1394	-	223	901
Mov Cap-2 Maneuver	-	-	-	-	223	-
Stage 1	-	-	-	-	884	-
Stage 2	-	-	-	-	341	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.4	13.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	713	-	-	1394	-
HCM Lane V/C Ratio	0.405	-	-	0.202	-
HCM Control Delay (s)	13.4	-	-	8.2	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	2	-	-	0.8	-

Intersection	
Int Delay, s/veh	6.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	143	29	225	159	31	191
Future Vol, veh/h	143	29	225	159	31	191
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	96	96	75	75
Heavy Vehicles, %	2	5	1	1	0	0
Mvmt Flow	159	32	234	166	41	255

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	191	0	809	175
Stage 1	-	-	-	-	175	-
Stage 2	-	-	-	-	634	-
Critical Hdwy	-	-	4.11	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.209	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1389	-	353	874
Stage 1	-	-	-	-	860	-
Stage 2	-	-	-	-	532	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1389	-	287	874
Mov Cap-2 Maneuver	-	-	-	-	287	-
Stage 1	-	-	-	-	860	-
Stage 2	-	-	-	-	433	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.8	14.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	680	-	-	1389	-
HCM Lane V/C Ratio	0.435	-	-	0.169	-
HCM Control Delay (s)	14.3	-	-	8.1	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	2.2	-	-	0.6	-

Intersection	
Int Delay, s/veh	12.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	205	31	140	98	18	217
Future Vol, veh/h	205	31	140	98	18	217
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	67	67	46	46
Heavy Vehicles, %	2	0	4	10	0	3
Mvmt Flow	244	37	209	146	39	472

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	281	0	827	263
Stage 1	-	-	-	-	263	-
Stage 2	-	-	-	-	564	-
Critical Hdwy	-	-	4.14	-	6.4	6.23
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.236	-	3.5	3.327
Pot Cap-1 Maneuver	-	-	1270	-	344	773
Stage 1	-	-	-	-	786	-
Stage 2	-	-	-	-	573	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1270	-	282	773
Mov Cap-2 Maneuver	-	-	-	-	282	-
Stage 1	-	-	-	-	786	-
Stage 2	-	-	-	-	470	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.9	24.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	682	-	-	1270	-
HCM Lane V/C Ratio	0.749	-	-	0.165	-
HCM Control Delay (s)	24.3	-	-	8.4	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	6.8	-	-	0.6	-

Intersection	
Int Delay, s/veh	6.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	113	14	249	213	24	253
Future Vol, veh/h	113	14	249	213	24	253
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	75	75	81	81	88	88
Heavy Vehicles, %	8	33	7	5	0	1
Mvmt Flow	151	19	307	263	27	288

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	170	0	1038	161
Stage 1	-	-	-	-	161	-
Stage 2	-	-	-	-	877	-
Critical Hdwy	-	-	4.17	-	6.4	6.21
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.263	-	3.5	3.309
Pot Cap-1 Maneuver	-	-	1378	-	258	887
Stage 1	-	-	-	-	873	-
Stage 2	-	-	-	-	410	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1378	-	191	887
Mov Cap-2 Maneuver	-	-	-	-	191	-
Stage 1	-	-	-	-	873	-
Stage 2	-	-	-	-	303	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.5	14.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	674	-	-	1378	-
HCM Lane V/C Ratio	0.467	-	-	0.223	-
HCM Control Delay (s)	14.9	-	-	8.4	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	2.5	-	-	0.9	-

Intersection	
Int Delay, s/veh	7.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	156	32	245	173	34	208
Future Vol, veh/h	156	32	245	173	34	208
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	96	96	75	75
Heavy Vehicles, %	2	5	1	1	0	0
Mvmt Flow	173	36	255	180	45	277

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	209	0	881	191
Stage 1	-	-	-	-	191	-
Stage 2	-	-	-	-	690	-
Critical Hdwy	-	-	4.11	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.209	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1368	-	320	856
Stage 1	-	-	-	-	846	-
Stage 2	-	-	-	-	502	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1368	-	254	856
Mov Cap-2 Maneuver	-	-	-	-	254	-
Stage 1	-	-	-	-	846	-
Stage 2	-	-	-	-	398	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.8	16.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	642	-	-	1368	-
HCM Lane V/C Ratio	0.503	-	-	0.187	-
HCM Control Delay (s)	16.1	-	-	8.2	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	2.8	-	-	0.7	-

Intersection	
Int Delay, s/veh	10

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	188	28	129	90	16	199
Future Vol, veh/h	188	28	129	90	16	199
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	67	67	46	46
Heavy Vehicles, %	2	0	4	10	0	3
Mvmt Flow	224	33	193	134	35	433

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	257	0	761	241
Stage 1	-	-	-	-	241	-
Stage 2	-	-	-	-	520	-
Critical Hdwy	-	-	4.14	-	6.4	6.23
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.236	-	3.5	3.327
Pot Cap-1 Maneuver	-	-	1296	-	376	795
Stage 1	-	-	-	-	804	-
Stage 2	-	-	-	-	601	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1296	-	315	795
Mov Cap-2 Maneuver	-	-	-	-	315	-
Stage 1	-	-	-	-	804	-
Stage 2	-	-	-	-	504	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.9	19.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	714	-	-	1296	-
HCM Lane V/C Ratio	0.655	-	-	0.149	-
HCM Control Delay (s)	19.1	-	-	8.3	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	4.9	-	-	0.5	-

Intersection	
Int Delay, s/veh	6.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	104	13	229	195	22	233
Future Vol, veh/h	104	13	229	195	22	233
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	75	75	81	81	88	88
Heavy Vehicles, %	8	33	7	5	0	1
Mvmt Flow	139	17	283	241	25	265

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	156	0	955	148
Stage 1	-	-	-	-	148	-
Stage 2	-	-	-	-	807	-
Critical Hdwy	-	-	4.17	-	6.4	6.21
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.263	-	3.5	3.309
Pot Cap-1 Maneuver	-	-	1394	-	289	901
Stage 1	-	-	-	-	884	-
Stage 2	-	-	-	-	442	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1394	-	221	901
Mov Cap-2 Maneuver	-	-	-	-	221	-
Stage 1	-	-	-	-	884	-
Stage 2	-	-	-	-	339	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.4	13.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	712	-	-	1394	-
HCM Lane V/C Ratio	0.407	-	-	0.203	-
HCM Control Delay (s)	13.5	-	-	8.2	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	2	-	-	0.8	-

Intersection	
Int Delay, s/veh	6.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	143	29	226	159	31	192
Future Vol, veh/h	143	29	226	159	31	192
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	96	96	75	75
Heavy Vehicles, %	2	5	1	1	0	0
Mvmt Flow	159	32	235	166	41	256

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	191	0	811	175
Stage 1	-	-	-	-	175	-
Stage 2	-	-	-	-	636	-
Critical Hdwy	-	-	4.11	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.209	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1389	-	352	874
Stage 1	-	-	-	-	860	-
Stage 2	-	-	-	-	531	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1389	-	287	874
Mov Cap-2 Maneuver	-	-	-	-	287	-
Stage 1	-	-	-	-	860	-
Stage 2	-	-	-	-	432	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.8	14.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	681	-	-	1389	-
HCM Lane V/C Ratio	0.437	-	-	0.169	-
HCM Control Delay (s)	14.3	-	-	8.1	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	2.2	-	-	0.6	-

Intersection	
Int Delay, s/veh	12.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	205	31	141	98	18	217
Future Vol, veh/h	205	31	141	98	18	217
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	67	67	46	46
Heavy Vehicles, %	2	0	4	10	0	3
Mvmt Flow	244	37	210	146	39	472

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	281	0	829	263
Stage 1	-	-	-	-	263	-
Stage 2	-	-	-	-	566	-
Critical Hdwy	-	-	4.14	-	6.4	6.23
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.236	-	3.5	3.327
Pot Cap-1 Maneuver	-	-	1270	-	343	773
Stage 1	-	-	-	-	786	-
Stage 2	-	-	-	-	572	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1270	-	281	773
Mov Cap-2 Maneuver	-	-	-	-	281	-
Stage 1	-	-	-	-	786	-
Stage 2	-	-	-	-	469	-

Approach	EB	WB	NB
HCM Control Delay, s	0	5	24.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	682	-	-	1270	-
HCM Lane V/C Ratio	0.749	-	-	0.166	-
HCM Control Delay (s)	24.3	-	-	8.4	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	6.8	-	-	0.6	-

Intersection	
Int Delay, s/veh	6.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	113	14	250	213	24	253
Future Vol, veh/h	113	14	250	213	24	253
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	75	75	81	81	88	88
Heavy Vehicles, %	8	33	7	5	0	1
Mvmt Flow	151	19	309	263	27	288

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	170	0	1042	161
Stage 1	-	-	-	-	161	-
Stage 2	-	-	-	-	881	-
Critical Hdwy	-	-	4.17	-	6.4	6.21
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.263	-	3.5	3.309
Pot Cap-1 Maneuver	-	-	1378	-	257	887
Stage 1	-	-	-	-	873	-
Stage 2	-	-	-	-	408	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1378	-	189	887
Mov Cap-2 Maneuver	-	-	-	-	189	-
Stage 1	-	-	-	-	873	-
Stage 2	-	-	-	-	301	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.5	15
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	672	-	-	1378	-
HCM Lane V/C Ratio	0.468	-	-	0.224	-
HCM Control Delay (s)	15	-	-	8.4	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	2.5	-	-	0.9	-

Intersection	
Int Delay, s/veh	7.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	156	32	246	173	34	209
Future Vol, veh/h	156	32	246	173	34	209
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	96	96	75	75
Heavy Vehicles, %	2	5	1	1	0	0
Mvmt Flow	173	36	256	180	45	279

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	209	0	883	191
Stage 1	-	-	-	-	191	-
Stage 2	-	-	-	-	692	-
Critical Hdwy	-	-	4.11	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.209	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1368	-	319	856
Stage 1	-	-	-	-	846	-
Stage 2	-	-	-	-	500	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1368	-	253	856
Mov Cap-2 Maneuver	-	-	-	-	253	-
Stage 1	-	-	-	-	846	-
Stage 2	-	-	-	-	396	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.8	16.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	642	-	-	1368	-
HCM Lane V/C Ratio	0.505	-	-	0.187	-
HCM Control Delay (s)	16.2	-	-	8.2	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	2.9	-	-	0.7	-

NH Route 152 at the Newmarket Elementary School Driveway

Intersection	
Int Delay, s/veh	1.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	366	12	56	199	12	16
Future Vol, veh/h	366	12	56	199	12	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	57	57	76	76	48	48
Heavy Vehicles, %	2	0	0	6	13	0
Mvmt Flow	642	21	74	262	25	33

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	663	0	1063	653
Stage 1	-	-	-	-	653	-
Stage 2	-	-	-	-	410	-
Critical Hdwy	-	-	4.1	-	6.53	6.2
Critical Hdwy Stg 1	-	-	-	-	5.53	-
Critical Hdwy Stg 2	-	-	-	-	5.53	-
Follow-up Hdwy	-	-	2.2	-	3.617	3.3
Pot Cap-1 Maneuver	-	-	935	-	236	471
Stage 1	-	-	-	-	498	-
Stage 2	-	-	-	-	647	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	935	-	214	471
Mov Cap-2 Maneuver	-	-	-	-	214	-
Stage 1	-	-	-	-	498	-
Stage 2	-	-	-	-	587	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2	19.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	311	-	-	935	-
HCM Lane V/C Ratio	0.188	-	-	0.079	-
HCM Control Delay (s)	19.2	-	-	9.2	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.7	-	-	0.3	-

Intersection	
Int Delay, s/veh	2.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	318	0	19	392	13	55
Future Vol, veh/h	318	0	19	392	13	55
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	78	78	45	45
Heavy Vehicles, %	7	0	16	9	38	22
Mvmt Flow	374	0	24	503	29	122

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	374	0	925	374
Stage 1	-	-	-	-	374	-
Stage 2	-	-	-	-	551	-
Critical Hdwy	-	-	4.26	-	6.78	6.42
Critical Hdwy Stg 1	-	-	-	-	5.78	-
Critical Hdwy Stg 2	-	-	-	-	5.78	-
Follow-up Hdwy	-	-	2.344	-	3.842	3.498
Pot Cap-1 Maneuver	-	-	1112	-	258	630
Stage 1	-	-	-	-	623	-
Stage 2	-	-	-	-	512	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1112	-	250	630
Mov Cap-2 Maneuver	-	-	-	-	250	-
Stage 1	-	-	-	-	623	-
Stage 2	-	-	-	-	497	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	15.7
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	488	-	-	1112	-
HCM Lane V/C Ratio	0.31	-	-	0.022	-
HCM Control Delay (s)	15.7	-	-	8.3	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	1.3	-	-	0.1	-

Intersection	
Int Delay, s/veh	1.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	314	2	16	357	9	40
Future Vol, veh/h	314	2	16	357	9	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	81	81	87	87	43	43
Heavy Vehicles, %	2	0	9	1	17	0
Mvmt Flow	388	2	18	410	21	93

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	390	0	835	389
Stage 1	-	-	-	-	389	-
Stage 2	-	-	-	-	446	-
Critical Hdwy	-	-	4.19	-	6.57	6.2
Critical Hdwy Stg 1	-	-	-	-	5.57	-
Critical Hdwy Stg 2	-	-	-	-	5.57	-
Follow-up Hdwy	-	-	2.281	-	3.653	3.3
Pot Cap-1 Maneuver	-	-	1131	-	318	664
Stage 1	-	-	-	-	653	-
Stage 2	-	-	-	-	615	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1131	-	311	664
Mov Cap-2 Maneuver	-	-	-	-	311	-
Stage 1	-	-	-	-	653	-
Stage 2	-	-	-	-	602	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	13.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	549	-	-	1131	-
HCM Lane V/C Ratio	0.208	-	-	0.016	-
HCM Control Delay (s)	13.3	-	-	8.2	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.8	-	-	0.1	-

Intersection	
Int Delay, s/veh	1.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	375	12	56	206	12	16
Future Vol, veh/h	375	12	56	206	12	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	57	57	76	76	48	48
Heavy Vehicles, %	2	0	0	6	13	0
Mvmt Flow	658	21	74	271	25	33

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	679	0	1088	669
Stage 1	-	-	-	-	669	-
Stage 2	-	-	-	-	419	-
Critical Hdwy	-	-	4.1	-	6.53	6.2
Critical Hdwy Stg 1	-	-	-	-	5.53	-
Critical Hdwy Stg 2	-	-	-	-	5.53	-
Follow-up Hdwy	-	-	2.2	-	3.617	3.3
Pot Cap-1 Maneuver	-	-	923	-	227	461
Stage 1	-	-	-	-	489	-
Stage 2	-	-	-	-	641	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	923	-	206	461
Mov Cap-2 Maneuver	-	-	-	-	206	-
Stage 1	-	-	-	-	489	-
Stage 2	-	-	-	-	581	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2	19.8
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	301	-	-	923	-
HCM Lane V/C Ratio	0.194	-	-	0.08	-
HCM Control Delay (s)	19.8	-	-	9.2	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.7	-	-	0.3	-

Intersection	
Int Delay, s/veh	2.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	336	0	19	410	13	55
Future Vol, veh/h	336	0	19	410	13	55
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	78	78	45	45
Heavy Vehicles, %	7	0	16	9	38	22
Mvmt Flow	395	0	24	526	29	122

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	395	0	969	395
Stage 1	-	-	-	-	395	-
Stage 2	-	-	-	-	574	-
Critical Hdwy	-	-	4.26	-	6.78	6.42
Critical Hdwy Stg 1	-	-	-	-	5.78	-
Critical Hdwy Stg 2	-	-	-	-	5.78	-
Follow-up Hdwy	-	-	2.344	-	3.842	3.498
Pot Cap-1 Maneuver	-	-	1091	-	242	613
Stage 1	-	-	-	-	609	-
Stage 2	-	-	-	-	499	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1091	-	234	613
Mov Cap-2 Maneuver	-	-	-	-	234	-
Stage 1	-	-	-	-	609	-
Stage 2	-	-	-	-	484	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	16.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	468	-	-	1091	-
HCM Lane V/C Ratio	0.323	-	-	0.022	-
HCM Control Delay (s)	16.3	-	-	8.4	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	1.4	-	-	0.1	-

Intersection	
Int Delay, s/veh	1.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	332	2	16	375	9	40
Future Vol, veh/h	332	2	16	375	9	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	81	81	87	87	43	43
Heavy Vehicles, %	2	0	9	1	17	0
Mvmt Flow	410	2	18	431	21	93

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	412	0	878	411
Stage 1	-	-	-	-	411	-
Stage 2	-	-	-	-	467	-
Critical Hdwy	-	-	4.19	-	6.57	6.2
Critical Hdwy Stg 1	-	-	-	-	5.57	-
Critical Hdwy Stg 2	-	-	-	-	5.57	-
Follow-up Hdwy	-	-	2.281	-	3.653	3.3
Pot Cap-1 Maneuver	-	-	1110	-	300	645
Stage 1	-	-	-	-	638	-
Stage 2	-	-	-	-	601	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1110	-	294	645
Mov Cap-2 Maneuver	-	-	-	-	294	-
Stage 1	-	-	-	-	638	-
Stage 2	-	-	-	-	588	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	13.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	529	-	-	1110	-
HCM Lane V/C Ratio	0.215	-	-	0.017	-
HCM Control Delay (s)	13.7	-	-	8.3	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.8	-	-	0.1	-

Intersection	
Int Delay, s/veh	1.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	410	12	56	226	12	16
Future Vol, veh/h	410	12	56	226	12	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	57	57	76	76	48	48
Heavy Vehicles, %	2	0	0	6	13	0
Mvmt Flow	719	21	74	297	25	33

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	740	0	1175	730
Stage 1	-	-	-	-	730	-
Stage 2	-	-	-	-	445	-
Critical Hdwy	-	-	4.1	-	6.53	6.2
Critical Hdwy Stg 1	-	-	-	-	5.53	-
Critical Hdwy Stg 2	-	-	-	-	5.53	-
Follow-up Hdwy	-	-	2.2	-	3.617	3.3
Pot Cap-1 Maneuver	-	-	876	-	201	426
Stage 1	-	-	-	-	458	-
Stage 2	-	-	-	-	623	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	876	-	181	426
Mov Cap-2 Maneuver	-	-	-	-	181	-
Stage 1	-	-	-	-	458	-
Stage 2	-	-	-	-	560	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.9	22
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	270	-	-	876	-
HCM Lane V/C Ratio	0.216	-	-	0.084	-
HCM Control Delay (s)	22	-	-	9.5	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.8	-	-	0.3	-

Intersection	
Int Delay, s/veh	2.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	366	0	19	449	13	55
Future Vol, veh/h	366	0	19	449	13	55
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	78	78	45	45
Heavy Vehicles, %	7	0	16	9	38	22
Mvmt Flow	431	0	24	576	29	122

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	431	0	1055	431
Stage 1	-	-	-	-	431	-
Stage 2	-	-	-	-	624	-
Critical Hdwy	-	-	4.26	-	6.78	6.42
Critical Hdwy Stg 1	-	-	-	-	5.78	-
Critical Hdwy Stg 2	-	-	-	-	5.78	-
Follow-up Hdwy	-	-	2.344	-	3.842	3.498
Pot Cap-1 Maneuver	-	-	1058	-	214	584
Stage 1	-	-	-	-	585	-
Stage 2	-	-	-	-	471	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1058	-	207	584
Mov Cap-2 Maneuver	-	-	-	-	207	-
Stage 1	-	-	-	-	585	-
Stage 2	-	-	-	-	455	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	17.7
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	433	-	-	1058	-
HCM Lane V/C Ratio	0.349	-	-	0.023	-
HCM Control Delay (s)	17.7	-	-	8.5	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	1.5	-	-	0.1	-

Intersection	
Int Delay, s/veh	1.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	362	2	16	409	9	40
Future Vol, veh/h	362	2	16	409	9	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	81	81	87	87	43	43
Heavy Vehicles, %	2	0	9	1	17	0
Mvmt Flow	447	2	18	470	21	93

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	449	0	954	448
Stage 1	-	-	-	-	448	-
Stage 2	-	-	-	-	506	-
Critical Hdwy	-	-	4.19	-	6.57	6.2
Critical Hdwy Stg 1	-	-	-	-	5.57	-
Critical Hdwy Stg 2	-	-	-	-	5.57	-
Follow-up Hdwy	-	-	2.281	-	3.653	3.3
Pot Cap-1 Maneuver	-	-	1075	-	270	615
Stage 1	-	-	-	-	613	-
Stage 2	-	-	-	-	576	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1075	-	264	615
Mov Cap-2 Maneuver	-	-	-	-	264	-
Stage 1	-	-	-	-	613	-
Stage 2	-	-	-	-	563	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	14.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	494	-	-	1075	-
HCM Lane V/C Ratio	0.231	-	-	0.017	-
HCM Control Delay (s)	14.5	-	-	8.4	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.9	-	-	0.1	-

Intersection	
Int Delay, s/veh	1.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	378	12	56	208	12	16
Future Vol, veh/h	378	12	56	208	12	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	57	57	76	76	48	48
Heavy Vehicles, %	2	0	0	6	13	0
Mvmt Flow	663	21	74	274	25	33

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	684	0	1096	674
Stage 1	-	-	-	-	674	-
Stage 2	-	-	-	-	422	-
Critical Hdwy	-	-	4.1	-	6.53	6.2
Critical Hdwy Stg 1	-	-	-	-	5.53	-
Critical Hdwy Stg 2	-	-	-	-	5.53	-
Follow-up Hdwy	-	-	2.2	-	3.617	3.3
Pot Cap-1 Maneuver	-	-	919	-	225	458
Stage 1	-	-	-	-	487	-
Stage 2	-	-	-	-	639	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	919	-	204	458
Mov Cap-2 Maneuver	-	-	-	-	204	-
Stage 1	-	-	-	-	487	-
Stage 2	-	-	-	-	578	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2	19.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	299	-	-	919	-
HCM Lane V/C Ratio	0.195	-	-	0.08	-
HCM Control Delay (s)	19.9	-	-	9.3	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.7	-	-	0.3	-

Intersection	
Int Delay, s/veh	2.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	339	0	19	413	13	55
Future Vol, veh/h	339	0	19	413	13	55
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	78	78	45	45
Heavy Vehicles, %	7	0	16	9	38	22
Mvmt Flow	399	0	24	529	29	122

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	399	0	976	399
Stage 1	-	-	-	-	399	-
Stage 2	-	-	-	-	577	-
Critical Hdwy	-	-	4.26	-	6.78	6.42
Critical Hdwy Stg 1	-	-	-	-	5.78	-
Critical Hdwy Stg 2	-	-	-	-	5.78	-
Follow-up Hdwy	-	-	2.344	-	3.842	3.498
Pot Cap-1 Maneuver	-	-	1088	-	240	609
Stage 1	-	-	-	-	606	-
Stage 2	-	-	-	-	497	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1088	-	233	609
Mov Cap-2 Maneuver	-	-	-	-	233	-
Stage 1	-	-	-	-	606	-
Stage 2	-	-	-	-	482	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	16.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	465	-	-	1088	-
HCM Lane V/C Ratio	0.325	-	-	0.022	-
HCM Control Delay (s)	16.4	-	-	8.4	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	1.4	-	-	0.1	-

Intersection	
Int Delay, s/veh	1.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	335	2	16	378	9	40
Future Vol, veh/h	335	2	16	378	9	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	81	81	87	87	43	43
Heavy Vehicles, %	2	0	9	1	17	0
Mvmt Flow	414	2	18	434	21	93

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	416	0	885	415
Stage 1	-	-	-	-	415	-
Stage 2	-	-	-	-	470	-
Critical Hdwy	-	-	4.19	-	6.57	6.2
Critical Hdwy Stg 1	-	-	-	-	5.57	-
Critical Hdwy Stg 2	-	-	-	-	5.57	-
Follow-up Hdwy	-	-	2.281	-	3.653	3.3
Pot Cap-1 Maneuver	-	-	1106	-	297	642
Stage 1	-	-	-	-	635	-
Stage 2	-	-	-	-	599	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1106	-	291	642
Mov Cap-2 Maneuver	-	-	-	-	291	-
Stage 1	-	-	-	-	635	-
Stage 2	-	-	-	-	586	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	13.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	526	-	-	1106	-
HCM Lane V/C Ratio	0.217	-	-	0.017	-
HCM Control Delay (s)	13.7	-	-	8.3	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.8	-	-	0.1	-

Intersection	
Int Delay, s/veh	1.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	413	12	56	228	12	16
Future Vol, veh/h	413	12	56	228	12	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	57	57	76	76	48	48
Heavy Vehicles, %	2	0	0	6	13	0
Mvmt Flow	725	21	74	300	25	33

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	746	0	1184	736
Stage 1	-	-	-	-	736	-
Stage 2	-	-	-	-	448	-
Critical Hdwy	-	-	4.1	-	6.53	6.2
Critical Hdwy Stg 1	-	-	-	-	5.53	-
Critical Hdwy Stg 2	-	-	-	-	5.53	-
Follow-up Hdwy	-	-	2.2	-	3.617	3.3
Pot Cap-1 Maneuver	-	-	871	-	199	422
Stage 1	-	-	-	-	455	-
Stage 2	-	-	-	-	621	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	871	-	179	422
Mov Cap-2 Maneuver	-	-	-	-	179	-
Stage 1	-	-	-	-	455	-
Stage 2	-	-	-	-	558	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.9	22.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	267	-	-	871	-
HCM Lane V/C Ratio	0.218	-	-	0.085	-
HCM Control Delay (s)	22.2	-	-	9.5	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.8	-	-	0.3	-

Intersection	
Int Delay, s/veh	2.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	369	0	19	452	13	55
Future Vol, veh/h	369	0	19	452	13	55
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	78	78	45	45
Heavy Vehicles, %	7	0	16	9	38	22
Mvmt Flow	434	0	24	579	29	122

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	434	0	1061	434
Stage 1	-	-	-	-	434	-
Stage 2	-	-	-	-	627	-
Critical Hdwy	-	-	4.26	-	6.78	6.42
Critical Hdwy Stg 1	-	-	-	-	5.78	-
Critical Hdwy Stg 2	-	-	-	-	5.78	-
Follow-up Hdwy	-	-	2.344	-	3.842	3.498
Pot Cap-1 Maneuver	-	-	1055	-	212	582
Stage 1	-	-	-	-	583	-
Stage 2	-	-	-	-	470	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1055	-	205	582
Mov Cap-2 Maneuver	-	-	-	-	205	-
Stage 1	-	-	-	-	583	-
Stage 2	-	-	-	-	454	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	17.8
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	431	-	-	1055	-
HCM Lane V/C Ratio	0.351	-	-	0.023	-
HCM Control Delay (s)	17.8	-	-	8.5	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	1.6	-	-	0.1	-

Intersection	
Int Delay, s/veh	1.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	365	2	16	412	9	40
Future Vol, veh/h	365	2	16	412	9	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	81	81	87	87	43	43
Heavy Vehicles, %	2	0	9	1	17	0
Mvmt Flow	451	2	18	474	21	93

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	453	0	962	452
Stage 1	-	-	-	-	452	-
Stage 2	-	-	-	-	510	-
Critical Hdwy	-	-	4.19	-	6.57	6.2
Critical Hdwy Stg 1	-	-	-	-	5.57	-
Critical Hdwy Stg 2	-	-	-	-	5.57	-
Follow-up Hdwy	-	-	2.281	-	3.653	3.3
Pot Cap-1 Maneuver	-	-	1072	-	267	612
Stage 1	-	-	-	-	611	-
Stage 2	-	-	-	-	573	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1072	-	261	612
Mov Cap-2 Maneuver	-	-	-	-	261	-
Stage 1	-	-	-	-	611	-
Stage 2	-	-	-	-	560	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	14.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	491	-	-	1072	-
HCM Lane V/C Ratio	0.232	-	-	0.017	-
HCM Control Delay (s)	14.5	-	-	8.4	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.9	-	-	0.1	-

NH Route 152 at the Project Site Driveway

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	387	218	2	3	1
Future Vol, veh/h	0	387	218	2	3	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	65	74	92	92	92
Heavy Vehicles, %	2	3	6	2	2	2
Mvmt Flow	0	595	295	2	3	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	297	0	-	0	891	296
Stage 1	-	-	-	-	296	-
Stage 2	-	-	-	-	595	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1264	-	-	-	313	743
Stage 1	-	-	-	-	755	-
Stage 2	-	-	-	-	551	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1264	-	-	-	313	743
Mov Cap-2 Maneuver	-	-	-	-	313	-
Stage 1	-	-	-	-	755	-
Stage 2	-	-	-	-	551	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	15
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1264	-	-	-	366
HCM Lane V/C Ratio	-	-	-	-	0.012
HCM Control Delay (s)	0	-	-	-	15
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	336	423	3	3	1
Future Vol, veh/h	1	336	423	3	3	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	84	85	92	92	92
Heavy Vehicles, %	2	3	7	2	2	2
Mvmt Flow	1	400	498	3	3	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	501	0	-	0	902	500
Stage 1	-	-	-	-	500	-
Stage 2	-	-	-	-	402	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1063	-	-	-	308	571
Stage 1	-	-	-	-	609	-
Stage 2	-	-	-	-	676	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1063	-	-	-	308	571
Mov Cap-2 Maneuver	-	-	-	-	308	-
Stage 1	-	-	-	-	608	-
Stage 2	-	-	-	-	676	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	15.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1063	-	-	-	348
HCM Lane V/C Ratio	0.001	-	-	-	0.012
HCM Control Delay (s)	8.4	0	-	-	15.5
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	334	384	3	3	1
Future Vol, veh/h	1	334	384	3	3	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	81	86	92	92	92
Heavy Vehicles, %	2	1	1	2	2	2
Mvmt Flow	1	412	447	3	3	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	450	0	-	0	863	449
Stage 1	-	-	-	-	449	-
Stage 2	-	-	-	-	414	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1110	-	-	-	325	610
Stage 1	-	-	-	-	643	-
Stage 2	-	-	-	-	667	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1110	-	-	-	325	610
Mov Cap-2 Maneuver	-	-	-	-	325	-
Stage 1	-	-	-	-	642	-
Stage 2	-	-	-	-	667	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	14.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1110	-	-	-	368
HCM Lane V/C Ratio	0.001	-	-	-	0.012
HCM Control Delay (s)	8.2	0	-	-	14.9
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	422	238	2	3	1
Future Vol, veh/h	0	422	238	2	3	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	65	74	92	92	92
Heavy Vehicles, %	2	3	6	2	2	2
Mvmt Flow	0	649	322	2	3	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	324	0	-	0	972	323
Stage 1	-	-	-	-	323	-
Stage 2	-	-	-	-	649	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1236	-	-	-	280	718
Stage 1	-	-	-	-	734	-
Stage 2	-	-	-	-	520	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1236	-	-	-	280	718
Mov Cap-2 Maneuver	-	-	-	-	280	-
Stage 1	-	-	-	-	734	-
Stage 2	-	-	-	-	520	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	16.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1236	-	-	-	330
HCM Lane V/C Ratio	-	-	-	-	0.013
HCM Control Delay (s)	0	-	-	-	16.1
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	366	462	3	3	1
Future Vol, veh/h	1	366	462	3	3	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	84	85	92	92	92
Heavy Vehicles, %	2	3	7	2	2	2
Mvmt Flow	1	436	544	3	3	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	547	0	-	0	984	546
Stage 1	-	-	-	-	546	-
Stage 2	-	-	-	-	438	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1022	-	-	-	275	538
Stage 1	-	-	-	-	580	-
Stage 2	-	-	-	-	651	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1022	-	-	-	275	538
Mov Cap-2 Maneuver	-	-	-	-	275	-
Stage 1	-	-	-	-	579	-
Stage 2	-	-	-	-	651	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	16.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1022	-	-	-	313
HCM Lane V/C Ratio	0.001	-	-	-	0.014
HCM Control Delay (s)	8.5	0	-	-	16.7
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	364	418	3	3	1
Future Vol, veh/h	1	364	418	3	3	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	81	86	92	92	92
Heavy Vehicles, %	2	1	1	2	2	2
Mvmt Flow	1	449	486	3	3	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	489	0	-	0	939	488
Stage 1	-	-	-	-	488	-
Stage 2	-	-	-	-	451	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1074	-	-	-	293	580
Stage 1	-	-	-	-	617	-
Stage 2	-	-	-	-	642	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1074	-	-	-	293	580
Mov Cap-2 Maneuver	-	-	-	-	293	-
Stage 1	-	-	-	-	616	-
Stage 2	-	-	-	-	642	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	15.9
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1074	-	-	-	334
HCM Lane V/C Ratio	0.001	-	-	-	0.013
HCM Control Delay (s)	8.4	0	-	-	15.9
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0

HODGES COMPANIES

Celebrating Over 50 years of Integrity, Quality & Service

June 13, 2023

David R. Lemieux
PO Box 1163
Rochester, NH 03866

Dear Mr. Lemieux:

This is to inform you that we have ample parking at Apple Ridge Apartments in Rochester, NH. At Apple Ridge Phase I, 34 units, with 62 spaces provided, there are currently 31 vehicles registered. At Apple Ridge Phase II, 34 units, with 59 spaces provided, there are 18 vehicles registered with our office. This is a general occupancy, non-age restricted property.

If you need any further information, please feel free to contact me at 603-410-4256 or sdomenech@hodgescompanies.com. Thank you.

Sincerely,

Shelley Domenech

Shelley Domenech
Compliance Director

WHITE APPRAISAL

REAL ESTATE APPRAISING & CONSULTING *Brian W. White, MAI, SRA*

June 16, 2023

Bart McDonough
Director of Planning & Community Development
Town of Newmarket
186 Main Street
Newmarket, NH 03857

RE: The Special Use Permit application for a proposed Affordable Elderly Housing development to be located at 242 South Main Street (Route 152) in Newmarket, New Hampshire.

Mr. McDonough:
At the request of David Lemieux of D.R. Lemieux Builders, LLC, I have been asked to investigate the impact on the value of the surrounding properties for the proposed Affordable Elderly Housing development to be located on 242 South Main Street (Route 152) in Newmarket, New Hampshire (A portion of Map U4, Lot 69) and to prepare an analysis and opinion on the matter. I have reviewed the Newmarket Zoning Ordinance that addresses the standards for the requested Special Use Permit. To prepare this letter, I have completed research on the proposed development, the neighborhood, and the Newmarket marketplace. The following letter summarizes my analysis, findings, and conclusions:

1. ***The Existing Development:***

   The subject property is currently vacant excess upland that is part of a larger 7.22-acre parcel of land that is improved with an older (Circa 1952) Cape-style single-family residence. The single-family residence is currently located on an upland area located in the southeastern portion of the parcel. There is a small front paved driveway and grassed and landscaped areas that surround this single-family residence. In addition to this improved area of the property, there is approximately 1.50-acres of adjacent upland, with extensive frontage along South Main Street, that is located in the southern-central portion of the parcel. These front upland areas are effectively surrounded by wetland areas creating an area of approximately 1.50-acres that could be developed separately from the existing improved area of the larger parcel. There are a couple of other upland areas on the parcel that are located in the central portion of the parcel that would require a wetland crossing to be accessed. There is another elongated upland area located in the southwestern portion of the parcel that would have limited utility for development on the subject property.

2. *The Proposed Development:*

The proposed development calls for subdividing the larger property into two parcels. The existing single-family residence would be located on a 0.50-acre parcel and the remainder (6.72-acres) would be developed with the proposed Affordable Elderly Housing development. The proposed Affordable Elderly Housing development will contain one building that will have two full stories with a third floor having a shed dormer design. The building will contain 32 one-bedroom apartment units. There will also be a 698 square foot community room, an office, and a laundry room. The building will be constructed on a concrete slab with the upper levels being accessed by two interior sets of stairs and a passenger elevator. The exterior of the building will have a vinyl exterior with a combination of multi-color vinyl clapboard and vinyl shake exterior. There will be a single paved drive located off South Main Street that will provide access to a paved drive and parking area. There will be a total of 34 parking spaces. There will be an asphalt sidewalk located to the front of the building. This sidewalk will also extend to South Main Street accessing a new sidewalk that will cross South Main Street accessing an existing sidewalk located on the southern side of South Main Street. The subject property will also have a dumpster with a fence surround located off the drive area. The property will be landscaped with several trees located along South Main Street and to the front of the subject's building that will provide a partial screen from South Main Street. There will be several landscaped and grassed areas that will surround the subject's building. There will likely be a small exterior community area on the property.

3. *Neighborhood & Abutting Properties:*

The subject property is in a mixed-use area of South Main Street that is located just to the east of the intersection with Grant Road. The subject property is located across form the Newmarket Elementary School and the Newmarket Preschool located on South Main Street. There are a few older single-family residences located directly across from the subject property with several others located along South Main Street both to the east and the west of the subject's area. South Main Street, in the subject's greater area, is largely developed with single-family homes with several non-single-family uses scattered along the road. In addition to the Newmarket Elementary School located on 243 South Main Street, the Newmarket Jr/Sr High School is located a short distance away from the subject property on 213 South Main Street. The Wadleigh Falls Senior Housing Development, a 57-unit Affordable Elderly Housing development, is located less than ½ a mile to the west of the subject property at 290 South Main Street. In addition to these larger developments, there are several other non-single-family uses that include: Milestone Financial Planning, the Piscassic River – Loiselle Conservation Area, the parking lot for the Folletts Brook Parking Area, the Final Gift Pet Memorial Center, Newmarket Sand & Gravel, Lamprey Health Care and Eames Insurance. The subject property is located approximately ¾ of a mile to the west of the downtown area of Newmarket. This area is developed with a variety of commercial establishments and in-town mixed-use buildings along with many single-family homes and multi-family apartment buildings.

There is an older single-family residence that directly abuts the subject property to the east of the subject property. This residence is largely screened by existing trees and vegetation. The Maplecrest Street residential development is located to the rear (northeast) of the subject property. This development is entirely screened by dense wooded areas. A single-family

residence with rear acreage abuts the subject property to the west and northwest. This residence is entirely screened by a dense wooded area. There are a few older single-family residences that are located directly across South Main Street from the subject property. These residences are partially screened by several moderate sized trees that are located to the front of the subject property along South Main Street.

The subject's immediate neighborhood is a heavily trafficked mixed-use area. According to the NH-DOT Transportation Data Management System, the average daily traffic count for this area of South Main Street is approximately 4,446 vehicles as of 2022. The speed limit in this area of South Main Street is 30 miles-per-hour. Given the fact that both the Newmarket Elementary School and Jr/Sr High School are in the subject's area of South Main Street, the subject's area has a fairly high level of traffic for a mixed-use residential area.

4. Factors that impact Value and the Application to the Subject Property:

For most real estate and including the subject property, there are three potential factors that could directly impact the market value of the abutting properties. These factors are typically noise, view, and use.

Noise:

It was previously noted that the proposed subject property will contain a new two-story with a shed dormer 32-unit Affordable Elderly Housing building. The improvements will be located on approximately 1.50 upland acres that are in the central southern portion of the subject property. The subject's elongated building will have a main entrance located on the western side of the building just east of a 34-space parking lot and paved driveway. There will be a paved ingress and egress drive located in the western portion of the developed area off South Main Street. A dumpster area with a fence surround will be located off the paved drive area. The subject's building will be located a minimum of 25' from the front boundary line and a similar distance from the eastern boundary. There will also be several trees (existing and proposed) located in this area and along the front of the parcel. These trees will provide a visual and a sound buffer. Vehicles entering and exiting the development will largely be driving and parking on one of the 34 parking spaces with the pedestrians then walking to the front entrance of the building. The reverse will happen when someone leaves the building and the property. There will be some pedestrian traffic that will utilize the new sidewalk area on the property to access a new crosswalk in order to access the existing crosswalk on the southern side of South Main Street. There will not be any exterior community or gathering areas on the property. The subject's new Affordable Elderly Housing development will have vehicular and pedestrian activity that will likely create a moderate level of new noise from the property which is now undeveloped. The fact that there is already a fairly high traffic count in the immediate area, will minimize these noises. The fact that all the individuals visiting the property will be entering the subject's self-contained building will also minimize the noises from the subject property. The loudest noises from the proposed subject property will likely be from individuals maintaining the property. These noises would be of vehicles of machinery plowing snow, mowing the lawns, and emptying the dumpster. These noises would be somewhat similar noises that any new development of any size would have on the subject property. It is noted that some of the other permitted uses in the R-2 zone are: single-family including manufactured housing, nursing homes, day cares, bed & breakfast, commercial excavation, and agricultural and

animal husbandry. Considering all these factors, it would be reasonable to conclude that the proposed subject property would not emit noises that would be greater than what would be expected from any other similar sized legally permitted development for the subject property.

View:

At the present time, the subject's larger parcel is developed with an older Cape-style single-family residence with an attached two-car garage. The excess land portion of the subject property is currently an open field area containing approximately 1.50-acres with the remainder of the parcel being largely wooded. The open field area will largely be replaced with the proposed improvements which will contain a paved drive area and a 34-space parking lot with a two-story plus shed dormer third level. Upon completion of the proposed construction, the subject's building will be a modern multi-unit building in very good overall condition with a multi-color vinyl clapboard and vinyl shake exterior. In the subject's immediate area along South Main Street, the overall condition of the various residential and other buildings ranges from average to good. The subject's mixed-use residential neighborhood will likely benefit from the fact that the overall condition of the subject's new development will be as good or better than all of the surrounding developments. Upon completion of the expanded new development, a few single-family residences will have a slightly obstructed view of the subject's new development. While these views will be different than the current view of undeveloped land, the fact that there will be several trees in the southern portion of the property partially screening these views, the net impact on these residences will be minimal. While some residential users may prefer the prior undeveloped views, others would likely prefer the views of new and well-maintained real estate. A change in view can cause a diminution in the value of an abutting or surrounding single-family residence if all, or nearly all, of the potential buyers of the residence agree that the view change is completely a negative and that there are no positive results to the change in use. In this case, the fact that some (or many) buyers would likely view the view change as a positive, or even a wash, makes this change in view for these neighboring residential properties a neutral or even a positive view factor in the final analysis.

The views for the immediate abutter (the 242 South Main Street residence) will change the most while other neighbors might have obstructed views, distant views, or no view of the subject property at all. It is noted that the owner of the subject property also owns the existing single-family residence that will be subdivided off the larger parcel on a ½ acre lot. This residence will have a couple of existing trees as a visual screen of the subject's building and all of the drive and parking areas for the new development will be on the opposite side of the building. While it could be argued that most, if not all, of the potential single-family homeowners for this residence would consider the close proximity of the proposed development as a negative, it is a self-induced factor that the property owner is willing to incur given the fact that the overall value of the larger development would be greatly enhanced.

Use:

The subject property is proposed for use as a new 32-unit Affordable Elderly Housing development with a supporting paved drive and parking area. In the surrounding neighborhood, the South Main Street area is developed with a variety of older single-family

residences, school buildings, a similar Affordable Elderly Housing development, office buildings with scattered newer single-family residences and undeveloped land. There is a fairly similar Affordable Elderly Housing development (Wadleigh Falls – A Retirement Community) located less than ½ a mile to the west of the subject property on 290 South Main Street. This is a 57-unit one and two-story development that was constructed in 2006. The existence of this Affordable Elderly Housing development in the subject's area confirms the intent of the current zoning in the Town of Newmarket which has a Special Use provision that allows Affordable Elderly Housing in three of the four residential zones in the town.

If the subject property is not developed with the proposed new Affordable Elderly Housing development as currently proposed, the subject property could be developed with several other commercial or residential uses that might not be as desirable a use as compared to the subject's proposed use. For example, several of the permitted uses allowed in the R-2 zone includes: single-family including manufactured housing, nursing homes, day cares, bed & breakfast, commercial excavation, and agricultural and animal husbandry. While none of these uses are ones that would be undesirable uses in other areas, some of them are uses that some residential abuttors or neighbors would find to be less desirable uses as compared to what is currently proposed for the subject property.

It can reasonably be concluded that the proposed use of the subject property with a new and modern Affordable Elderly Housing development will be compatible with the surrounding neighborhood.

5. ***Specific Standards – Special Use Permit & Overlay District:***

The owners are requesting a Special Use Permit from the following – Newmarket Zoning Ordinance, Sec. 32-236 – Affordable Elderly Housing. The subject property is in the overlay zone which requires that the property be serviced by both town water and sewer and also have frontage on and access on one of several roadways including Route 152. The criteria for approval are based on the proposed development satisfying several items one of which (#2) is that the proposed Affordable Elderly Housing complex on the site "would not cause a diminution in the property values of surrounding parcels."

I have searched for market data that would indicate a diminution of value for the properties located in a mixed-use residential area in near proximity to a new modern Affordable Elderly Housing development and I have found no paired-sales that would apply. In the greater Newmarket area, there is no exactly similar property from which to extract paired-sales. Therefore, only general observations can be made based on experience in the marketplace and sales analysis completed by others. Over the past several decades in the greater Newmarket area, several new Affordable Elderly Housing developments similar to what is proposed for the subject property have been constructed. Many of these properties can be viewed by multi-family and/or single-family residential properties. While the view of these residential properties has changed, there is no sales data that I am aware of that indicates that the market value of any neighboring properties has diminished. In many cases, these new and modern Affordable Elderly Housing developments have been constructed and they have added new very good condition building and site improvements to the area that has helped upgrade the overall condition and appearance of the neighborhood.

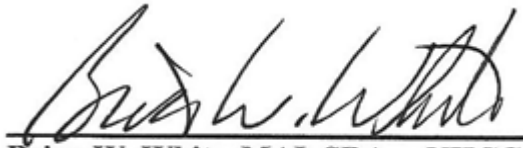
I have spoken with Michael Pelletier, the Newmarket Assessor, and a few other Assessors from nearby cities and towns to see what they have found when a new Affordable Elderly Housing development is added to an existing residential mixed-use neighborhood in their municipality. Mr. Pelletier indicated that he was familiar with the existing Affordable Elderly Housing development located on 290 South Main Street in Newmarket but that he was not working for the town of Newmarket when this property was constructed. He stated that he has not completed any studies on the possible diminution of value due to the introduction of a new Affordable Elderly Housing property to 290 South Main Street. Mr. Pelletier noted that there are several ways that the owners of the subject property could get partial relief from paying taxes (RSA 75:1-a or a municipal PILOT program) and this would effectively increase the tax burden on all other properties located in Newmarket. While this could apply to the subject property, the amount would be negligible and the fact that the Special Use Permit for Affordable Elderly Housing is part of the Newmarket Zoning Ordinance implies that the town has already factored this into its financial structure. Jim Rice, the Durham Assessor, indicated that there have been two fairly new construction Affordable Elderly Housing developments constructed in Durham over the years. A 36-unit Affordable Elderly Housing development was constructed on Mill Pond Road (Churchill) in 1970 to 1975. He indicated that this is a very visible well-maintained development. This property is in a mixed-use residential area near multi-tenant apartment buildings and detached single-family residences. He stated that there has been no diminution of value experienced by the surrounding properties over the years. An older 40-unit Affordable Elderly Housing development (Housing Initiatives of New England) located on 38 Madbury Road was recently expanded with 30 additional units in 2021 and 2022. Mr. Rice indicated that this is a very visible well-maintained development. This property is in a mixed-use residential area near multi-tenant apartment buildings and detached single-family residences. He stated that there has been no diminution of value experienced by the surrounding properties. Rather, he indicated that the single-family residences in this neighborhood have experienced price increases over recent years that have exceeded that of other single-family neighborhoods located in Durham. Theresa Hervey, the Deputy Assessor for the City of Rochester, is familiar with a new Affordable Elderly Housing development (the Arthur H. Nickless, Jr. property) that was constructed in 2016 on 19 Glenwood Avenue. This property is in a neighborhood of older single-family and multi-family properties to the north of the downtown area of Rochester. She indicated that she is not aware of any diminution of value studies that have been completed because of the addition of the Affordable Elderly Housing development to the neighborhood or abatement requests that have been made by any neighboring properties. She did indicate that the addition of the new modern three-story building to the area has enhanced the overall condition of the neighborhood. Donna Langley, the Dover Assessor, indicated that the only recently constructed Affordable Senior Housing development constructed in Dover is Mast Landing located on 250 Mast Road which was constructed in 2015. Ms. Langley indicated that she is not aware of any complaints from surrounding residential property owners and that she has not had the need to conduct any diminution of value studies on this development and the surrounding properties.

Based on all the information obtained from the various Assessors from the surrounding area, it appears that there is no data from the marketplace that indicates that the addition of a new modern Affordable Elderly Housing development to a mixed-use residential neighborhood has resulted in the diminution of value of the surrounding properties. In fact, the only reported hard data on this (38 Madbury Road in Durham, NH) has indicated that the values

of surrounding properties had resulted in increases in neighboring values that have exceeded that of other residential neighborhoods in the town.

It is my opinion that granting the requested Special Use Permit for the proposed subject property to be improved with a new modern Affordable Elderly Housing development would not result in the diminution in value of the surrounding properties in the immediate vicinity of the subject property and the proposed subject property would not change the characteristics of the neighborhood. In fact, the addition of the proposed subject property will add a new modern Affordable Elderly Housing development to the area that very well could enhance the value of the surrounding properties as it will add a modern Affordable Elderly Housing development to a location that is currently under built.

Respectively submitted,



Brian W. White, MAI, SRA NHCG-#52

SCOPE OF THE APPRAISAL

The Scope of the Appraisal is defined as "the extent of the process of collecting and reporting data".

Appraisal Problem:
The subject property is a 7.22-acre parcel of land located on 242 South Main Street in Newmarket, New Hampshire. The parcel is currently improved with an older Cape-style single-family residence with an attached two-car garage. The proposed development plan calls for subdividing off the residence on a 0.50-acre lot. The remaining 6.72-acres of land contains approximately 1.50 front usable upland acres that are proposed for development with a 32-unit Affordable Elderly Housing development. This parcel of the subject property in located on South Main Street (Route 152) to the west of the downtown area of Newmarket in a mixed-use residential area that has a moderate traffic count. The addition of the proposed Affordable Elderly Housing development to the area will change the appearance of the neighborhood. The condition of the new proposed development with be very good. The views of the property from several of the neighboring residential properties will also change. In order to move forward with the proposed development, the owners are requesting a Special Use Permit from the Newmarket Zoning Ordinance.

This analysis is being completed in order to form an opinion on the possible diminution of value for the neighboring properties if the requested Special Use Permit is granted and if the subject property is constructed as currently proposed. The analysis includes breaking down the various factors that impact value and examining market data.

Intended Use of the Appraisal:
The intended use of this opinion letter is to assist in determining if there would be any diminution in the values of the properties that surround the proposed subject property.

Intended User of the Appraisal:
This appraisal report was prepared for the exclusive use of the Newmarket Planning Department. This report is not intended for any other use. Any use of this appraisal by any other person or entity, or any reliance or decisions based on this appraisal, are the sole risk of the third party. White Appraisal accepts no responsibility for damages suffered by any third party as a result of reliance on, decisions made, or actions taken based on this report.

Property Inspection:
In this appraisal assignment the collection process began with obtaining data on the subject property. Initially, this was done by gathering recorded information on the subject property as follows:

1. A copy of the current tax assessment card was obtained from the Town of Newmarket Tax Assessor's Office.

2. Municipal data (zoning map and zoning regulations) was gathered which addresses the current zoning of the subject property.

3. Copies of the current deed for the subject property were obtained from the registry along with copies of any pertinent older deeds, easements, or recorded site plans. The appraiser was provided with information on the proposed development along with the Special Use Permit Application for the proposed development.

4. The exterior areas of the front usable upland portion of the subject property were viewed by Brian W. White on June 12, 2023.

5. The description of the subject's existing and proposed development is based on information from the Newmarket Tax Assessor's Office, the provided site and building plans, the Special Use Permit Application for the proposed development and the appraiser's physical inspection of the subject property. The various building areas are based on the Town of Newmarket's Tax Assessor's records and the proposed development plans.

Data Research:
Market data utilized in this report has been collected to support the appraiser's findings. Comparable sales have been identified by researching sales data published by various Multiple Listing Services, and the local municipality. These transactions have been studied and all pertinent data confirmed by checking the recorded deeds and/or by contacting a party directly involved in the sales transaction. Real Estate Brokers, assessors, property owners, and other individuals who are knowledgeable with the marketplace have been contacted in order to obtain additional comparable data regarding current asking prices, pending sales, or leases of similar properties. The transactions deemed most meaningful to this opinion letter have been utilized.

Analyses Undertaken:
This appraisal utilized sales of properties located in the Seacoast area that may have been impacted by their proximity to a new Affordable Elderly Housing development. The Newmarket, Durham Dover and Rochester Assessors were contacted in order to obtain their opinion and similar findings on the matter.

Reporting:
The content of this opinion letter is prepared based on the requirements defined by Standard 2 of the Uniform Standards of Professional Appraisal Practice (2022-2023 USPAP), effective January 1, 2022, through December 31, 2023. The level of reporting is consistent with a Restricted Appraisal Report format.

CERTIFICATION

I do hereby certify that, except as otherwise noted in this report:

1. the statements of fact contained in this report are true and correct;
2. the reported analyses, opinions and conclusions are limited only by the reported assumptions and limiting conditions and are my personal, unbiased professional analyses, opinions and conclusions;
3. I have no present or prospective interest in the property which is the subject of this report and I have no personal interest or bias with respect to the parties involved;
4. I have no bias with respect to the property that is the subject of this report or to the parties involved with this assignment;
5. my engagement in this assignment was not contingent upon developing or reporting predetermined results;
6. my compensation for completing this assignment is not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal;
7. my analysis, opinions, and conclusions, were developed, and this report has been prepared in conformity with the Uniform Standards of Professional Appraisal Practice;
8. Brian W. White, MAI, SRA has made a personal inspection of the property that is the subject of this report;
9. no one has provided significant real property appraisal assistance to the persons signing this certification;
10. I have not performed any services, as an appraiser or in any other capacity, regarding the property that is the subject of this report within the three-year period immediately preceding acceptance of this assignment;
11. the reported analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the Code of Professional Ethics & Standards of Professional Appraisal Practice of the Appraisal Institute;
12. the use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives;
13. As of the date of this report, Brian W. White, MAI, SRA, has completed the continuing education program for Designated Members of the Appraisal Institute.

Respectively submitted,

Brian W. White, MAI, SRA NHCG-#52

Professional Designations:

Member, Appraisal Institute (***MAI***) – Awarded by the Appraisal Institute. MAI #9104
Senior Residential Appraiser (***SRA***)

Employment:

1989 to Present	White Appraisal – Dover, NH President – Senior Appraiser Owner of White Appraisal, a commercial and residential real estate appraisal firm. Complete appraisals on all types of commercial and residential properties. Consulting.
1988	Finlay Appraisal Services – Portsmouth, NH Senior Vice President/Chief Operations Officer Oversaw the operation of four appraisal offices. Completed commercial and residential appraisals on all types of properties.
1985	Finlay Appraisal Services – Portsmouth, NH and Appraisal Services Manager – South Portland, ME. Completed commercial and residential appraisals on all types of properties.

Education:

Mitchell College
Associate of Arts, Liberal Studies

University of Southern Maine
Bachelors of Science, Business Administration
Bus 022 Real Estate Law
Bus 023 Real Estate Practice
Bus 025 Real Estate Valuation

American Institute of Real Estate Appraisers
1A-1 Real Estate Appraisal Principles
1A-2 Basic Valuation Procedures
1B-A Cap. Theory and Technique (A)
1B-B Cap. Theory and Technique (B)
2-3 Standards of Pro. Practice
2-4 Exam #7 Industrial Valuation

Society of Real Estate Appraisers
101 Intro. To Appraising Real Property
102 Applied Residential Property Valuation
201 Prin. Of Income Property Appraising
202 Applied Income Property Valuation

Recent Appraisal Institute Classes:
Introduction to Appraising Green Buildings – 2011
USPAP Update - 2013
USPAP Update - 2015
Introduction to Land Valuation - 2016
USPAP Update- 2017

Education (Continued):

USPAP Update- 2019
Business Practices & Ethics- 2021
USPAP 2022/2023 Update- 2021

Recent Seminars:

Appraising Energy Efficient Residential Properties – 2018
Commercial Real Estate Roundtable – 2019
Appraiser Essentials with CRS and Green Fields – 2019
Land Development & Residential Building Costs – 2019
Myths in Appraiser Liability – 2019
Appraising in Uncertain Times – 2019
Market Trends in NH Real Estate – 2020
Appraising Commercial Properties during a Pandemic – 2020
Defining the Appraisal Problem: Sleuthing for the Approaches to Value- 2021
Forest Valuation- 2021
Appraiser Essentials Paragon MLS- 2021
Residential Building Systems- 2021
2021-2022 NH Market Insights- 2021
Implications for Appraisers of Conservation Easement Appraisals- 2022
NH's Housing Market & Covid: What a Long, Strange Road It's Been!- 2022
Current Residential & Commercial Valuation Concerns- 2022
Valuation Issues & the Tax Abatement Process - 2023
Commercial Real Estate Markets in Turbulent Times – 2023
NH in a Time of Virus: Are We in Recovery? An Economist's View - 2023

Appointments:

Board of Directors – New Hampshire Chapter of the Appraisal Institute - 1991 to 1993; 2000 to 2010 and 2015-2018
Vice President - New Hampshire Chapter of the Appraisal Institute – 2011-2012 & 2019
President – New Hampshire Chapter of the Appraisal Institute – 2013 & 2014

Experience:

Review Chairperson – New Hampshire Chapter of the Appraisal Institute – 1994 to 2010

Licenses:

N.H. Certified General Appraiser #NHCG -52, Expires 4/30/2023

Partial List of Clients:

Banks:	***Attorneys:***	***Others:***
Androscoggin Bank	John Colliander	City of Dover
Granite Bank	Karyn Forbes	Town of Durham
Federal Savings Bank	Michael Donahue	University of New Hampshire
Sovereign Bank	Richard Krans	Wentworth-Douglass
Eastern Bank	Simone Massy	The Homemakers
Century Bank	Samuel Reid	Strafford Health Alliance
TD Bank	Daniel Schwartz	Goss International
Kennebunk Savings Bank	Robert Shaines	Chad Kageleiry
Northeast Federal Credit Union	William Shaheen	Gary Levy
Profile Bank	Steve Soloman	Stan Robbins
Peoples United Bank	Gerald Giles	Daniel Philbrick
Key Bank	Ralph Woodman	Keith Frizzell
Optima Bank and Trust	Gayle Braley	Chuck Cressy
Provident Bank	Fred Forman	John Proulx

State of New Hampshire

Real Estate Appraisers Board

Authorized as
Certified General Appraiser

Issued To
BRIAN W WHITE

License Number: NHCG-52

Active

Issue Date: 01/01/1992

Expiration Date: 04/30/2025

ADDENDA

TABLE OF CONTENTS

PHOTOGRAPHS OF THE SUBJECT PROPERTY

Subject Property – Front of 242 South Main Street
Looking East from Eastern Portion of the Subject Property – (6/23)

Subject Property – Front of 242 South Main Street
Looking West from Eastern Portion of the Subject Property – (6/23)

PHOTOGRAPHS OF THE SUBJECT PROPERTY

Subject Property – Front of 242 South Main Street
Looking East from Central Portion of the Subject Property – (6/23)

Subject Property – Front of 242 South Main Street
Looking West from Western Portion of the Subject Property – (6/23)

PHOTOGRAPHS OF THE SUBJECT PROPERTY

Subject Property – Residence Portion to be Subdivided Off
Looking Northwest from South Main Street – (6/23)

Subject Property – Residence Portion to be Subdivided Off
Looking Northeast from South Main Street – (6/23)

PHOTOGRAPHS OF THE SUBJECT PROPERTY

Front of the Subject Property – Front Upland Excess Area
Looking East along South Main Street - (6/23)

Front of the Subject Property – Proposed Location of Drive Area
Looking Northeast from South Main Street - (6/23)

PHOTOGRAPHS OF THE SUBJECT PROPERTY

Front of the Subject Property – Front Upland Excess Area
Looking Northeast from Grant Road - (6/23)

Front of the Subject Property – Front Upland Excess Area
Looking Southwest toward Grant Road - (6/23)

PHOTOGRAPHS OF THE SUBJECT PROPERTY

Subject Property – Rear Upland Excess Area & Rear Wooded Area
Looking North - (6/23)

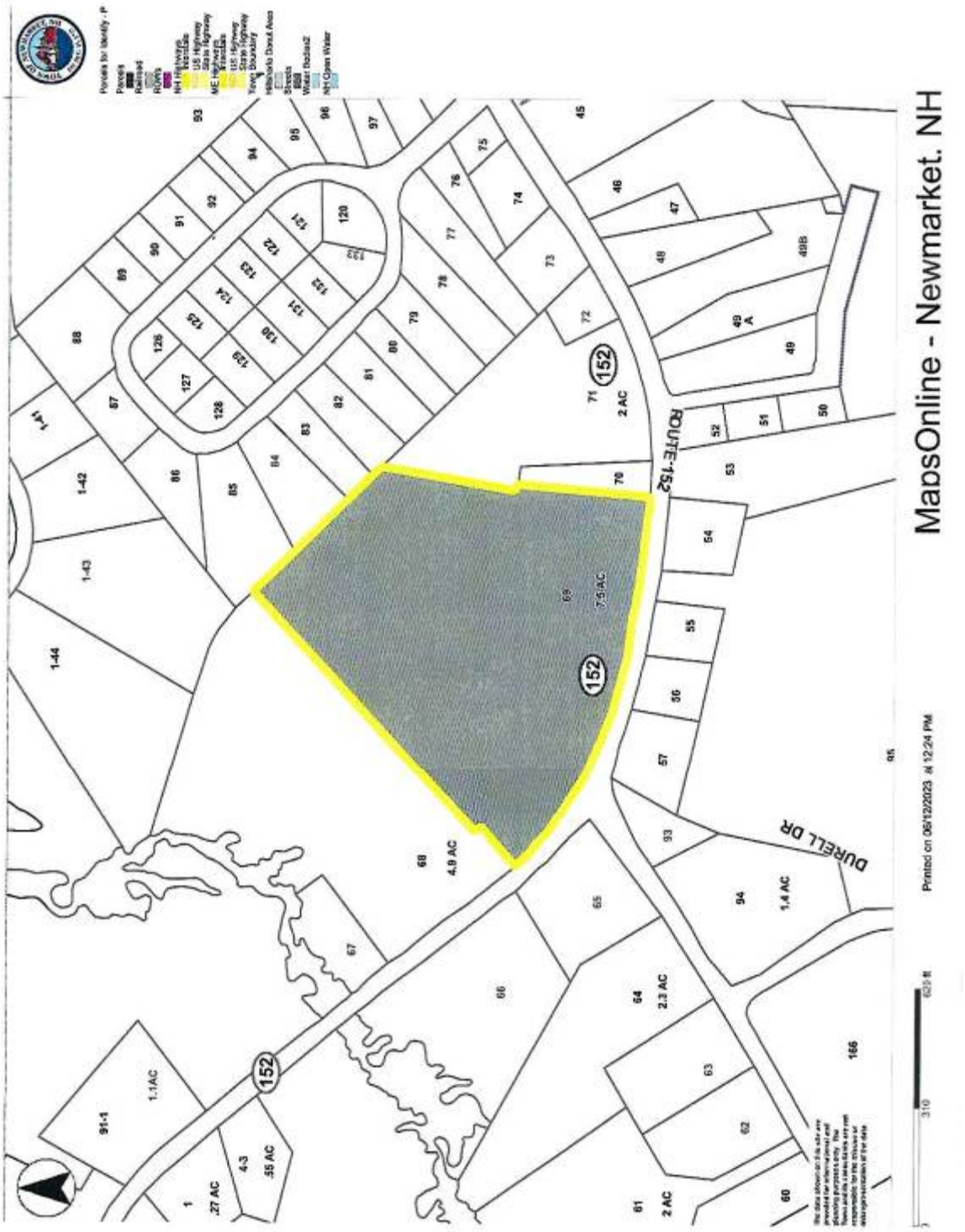
Subject Property – Rear Upland Excess Area & Rear Wooded Area
Looking Southwest - (6/23)

PHOTOGRAPHS OF THE SURROUNDING PROPERTIES

View from the Subject Property – Entrance to Newmarket Elementary School
Looking Southeast from Front of the Subject Property - (6/23)

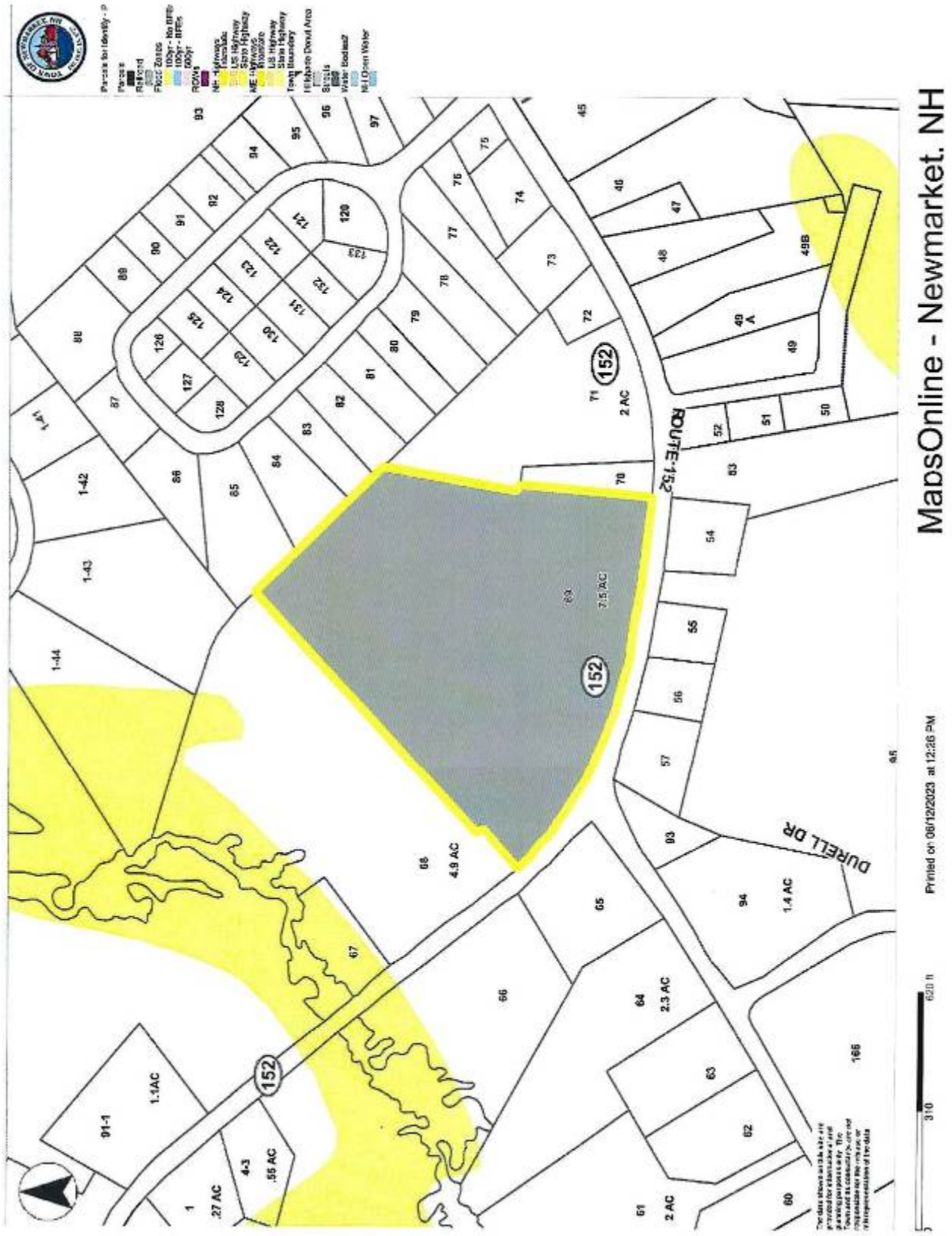
View from the Subject Property – Single-family Properties across from the Subject Property
Looking Southwest from Front of the Subject Property - (6/23)

ASSESSOR'S MAP

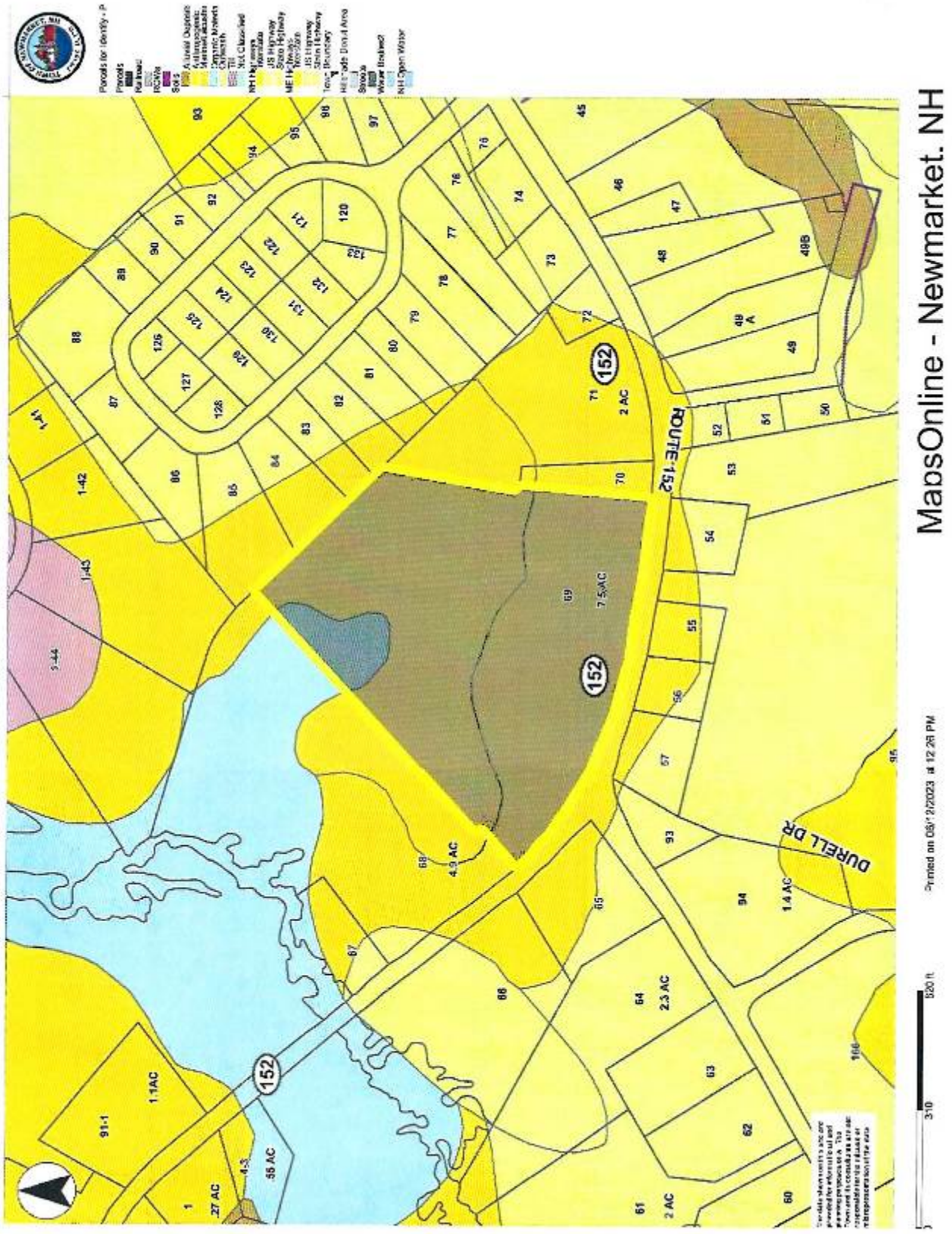


WETLANDS MAP

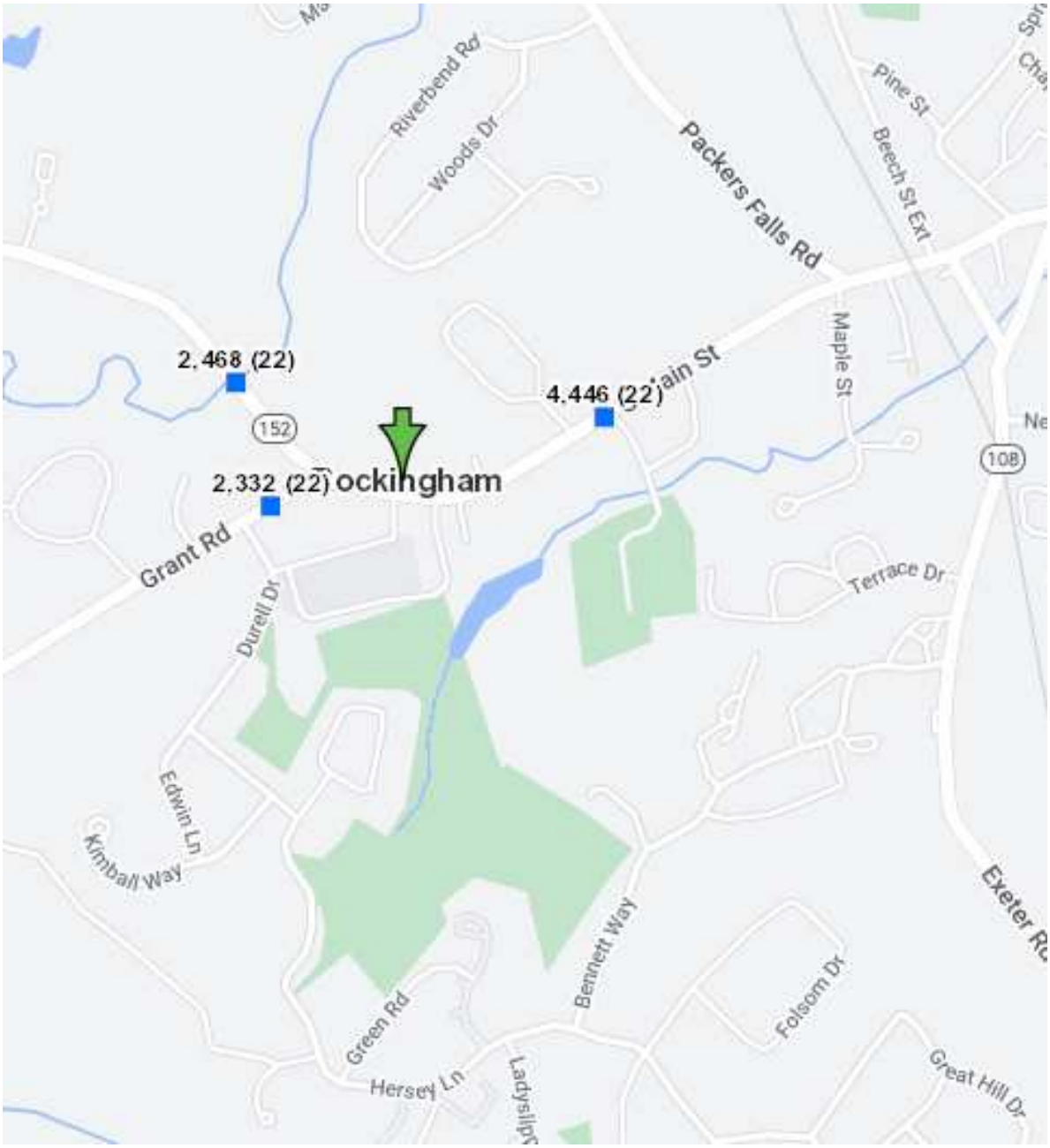
FLOOD MAP


MapsOnline - Newmarket, NH
ROUTE-152
DURELL DR
Printed on 06/12/2023 at 12:26 PM
620 ft
310
152
7.5 AC
4.9 AC
2.3 AC
1.4 AC
2 AC
1.1AC
.27 AC
.55 AC

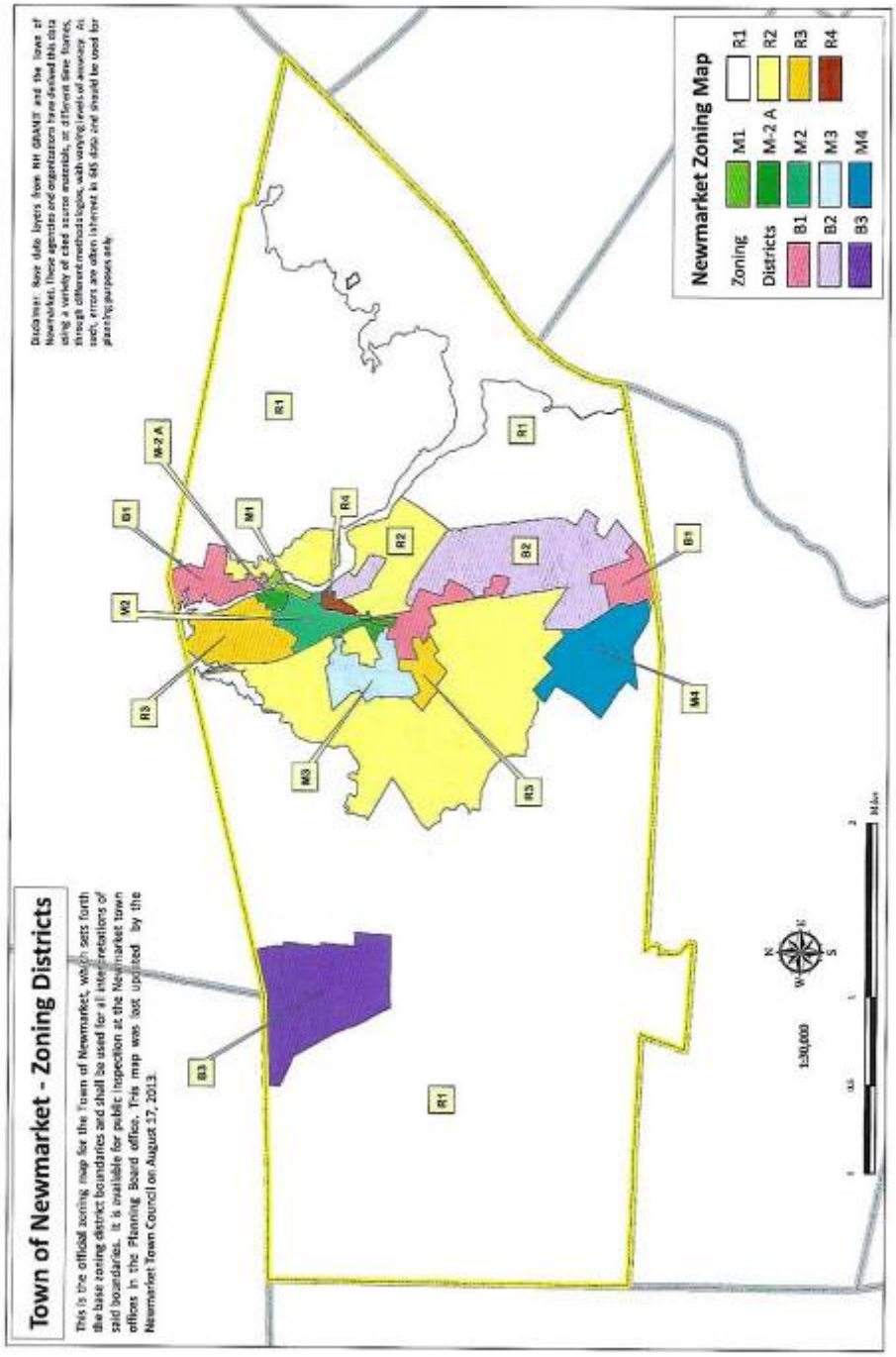
SOILS MAP

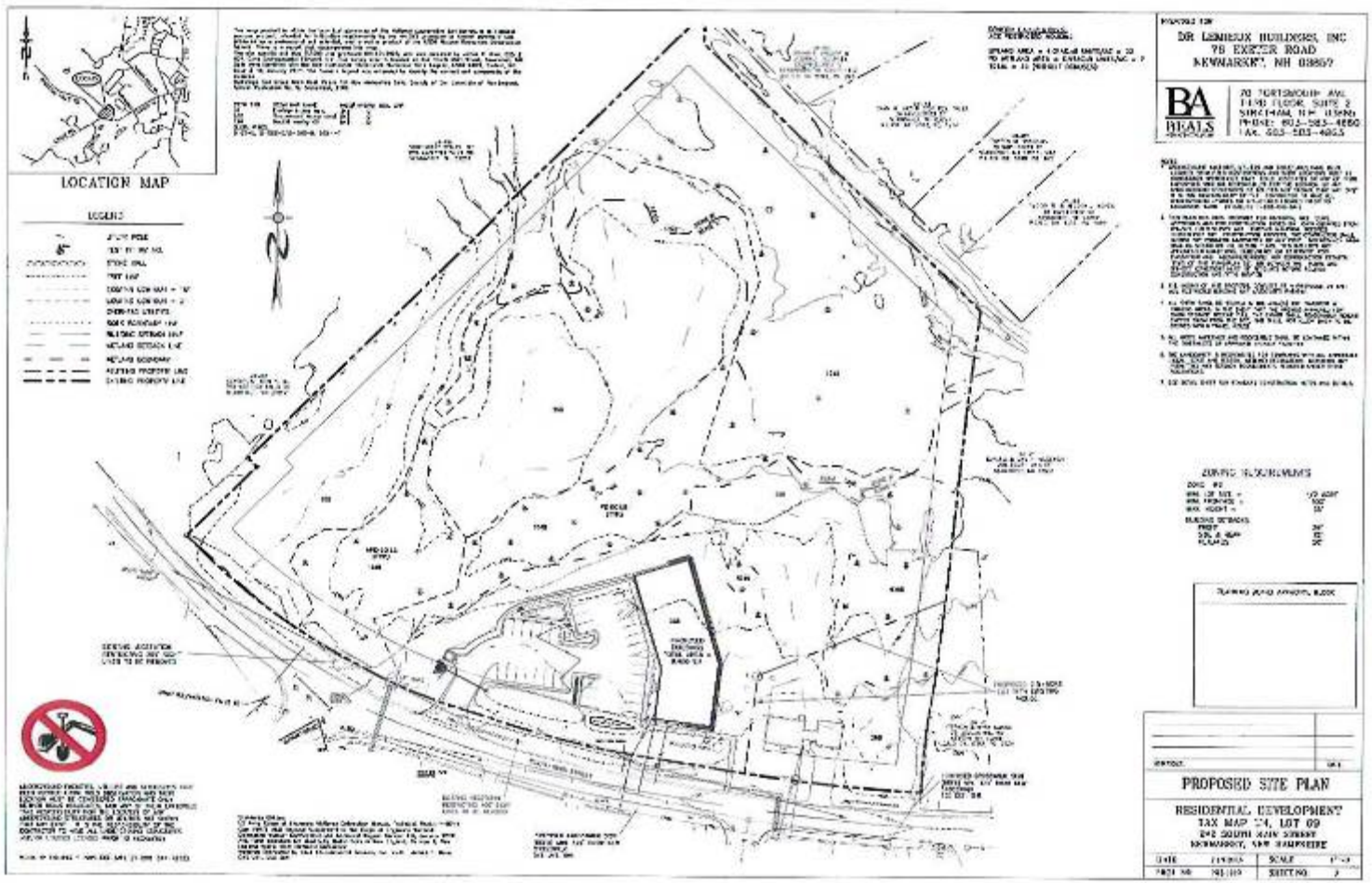

MapsOnline - Newmarket, NH
ROUTE-152
DURELL DR
152
Printed on 06/12/2023 at 12:28 PM

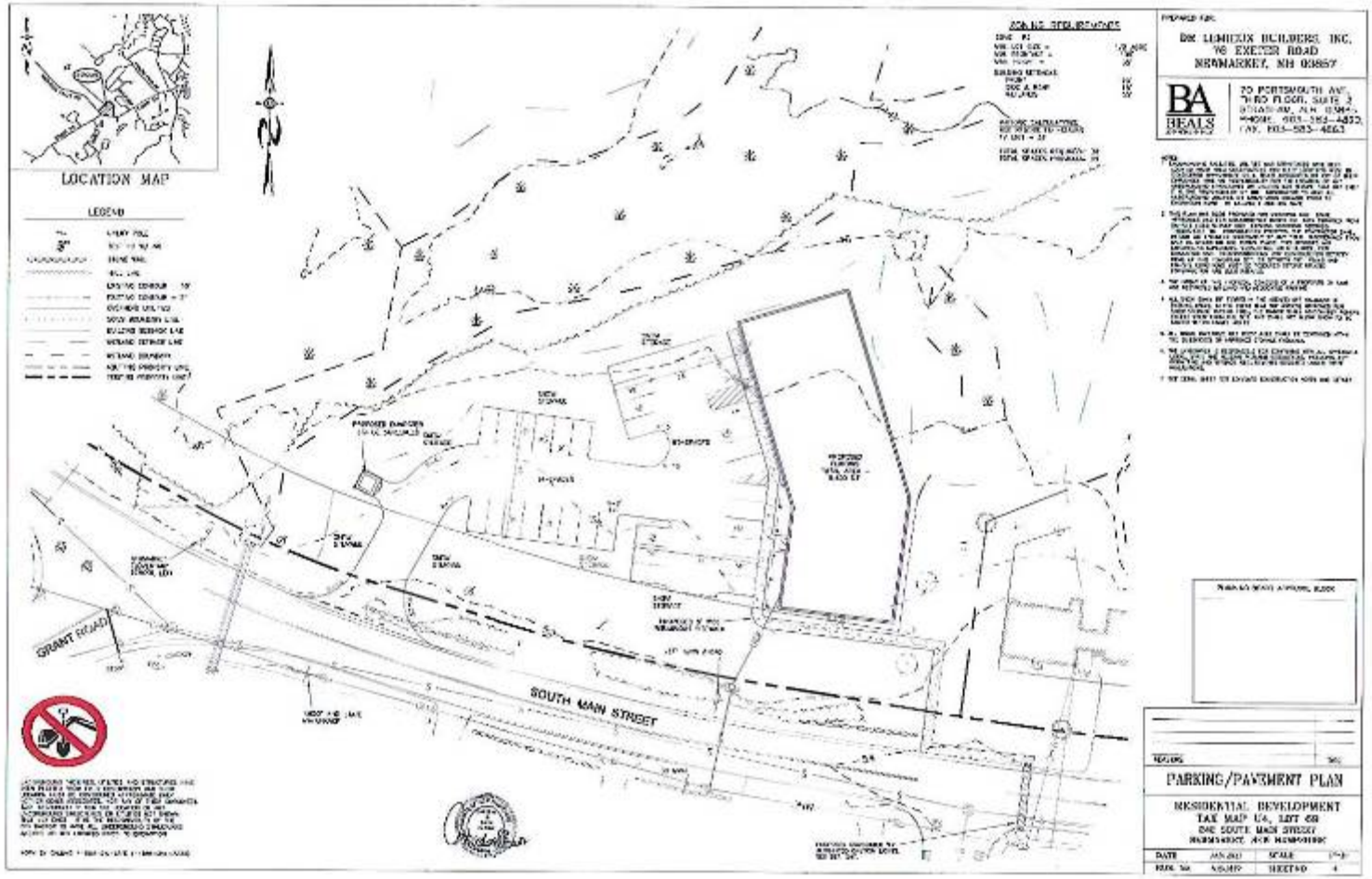
NH DOT – TRAFFIC COUNT MAP



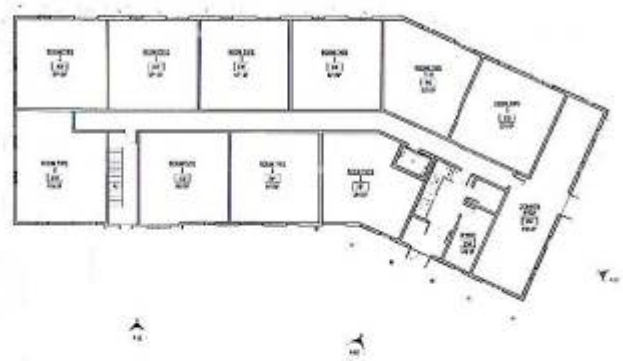
ZONING MAP


Town of Newmarket - Zoning Districts
This is the official zoning map for the Town of Newmarket, which sets forth the base zoning district boundaries and shall be used for all interpretations of said boundaries. It is available for public inspection at the Newmarket town offices in the Planning Board office. This map was last updated by the Newmarket Town Council on August 17, 2013.
Newmarket Zoning Map
Zoning
Districts
R1
R2
R3
R4
M1
M-2 A
M2
M3
M4
B1
B2
B3
1:30,000


LOCATION MAP
PROPOSED SITE PLAN
RESIDENTIAL DEVELOPMENT
TAX MAP 14, LOT 69
242 SOUTH MAIN STREET
NEWMARKET, NEW HAMPSHIRE
DR LEMIEUX BUILDERS, INC
78 EXETER ROAD
NEWMARKET, NH 03857
BA
BEALS


LOCATION MAP
LEGEND
GRANT ROAD
SOUTH MAIN STREET
PARKING/PAVEMENT PLAN
RESIDENTIAL DEVELOPMENT
TAX MAP U4, LOT 68
ONE SOUTH MAIN STREET
NEWMARKET, NEW HAMPSHIRE
DATE
SCALE
SHEET NO

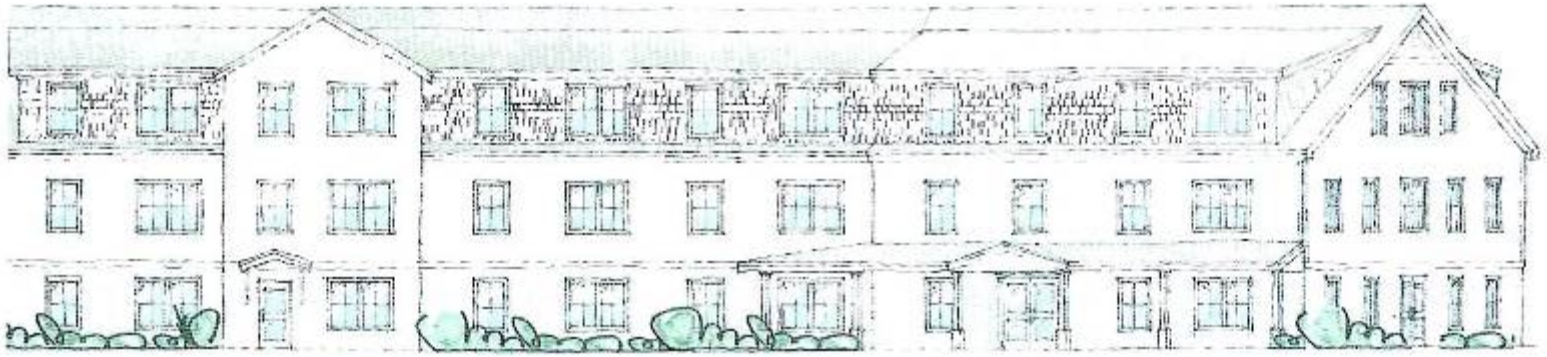
242 Main Street
LANDSCAPE PLAN
for Lewiex Builders, LLC
242 South Main Street, Newmarket, New Hampshire
L-1
BUILDING
SOUTH MAIN STREET



242 MAIN ST.
NEWMARKET NH

A-01


LASSEL
ARCHITECTS
242 MAIN ST.
NEWMARKET NH
A-02



NEWMARKET SENIOR HOUSING

DRAFT

E # 22040072 09/16/2022 11:29:30 AM
Book 6439 Page 1906 Page 1 of 2
Register of Deeds, Rockingham County

Return to:
David Lemieux
P.O. Box 1163
Rochester, NH 03866

LCHIP	ROA631117	25.00
TRANSFER TAX	RO118433	8,625.00
RECORDING		14.00
SURCHARGE		2.00

FIDUCIARY DEED

KNOW ALL PERSONS BY THESE PRESENTS, that I, **David J. Crooker, Executor of the Estate of Geraldine J. Crooker**, of 1539 Red Rock Court, Vienna, VA 22182, by the power conferred by the 10th Circuit – Probate Division – Brentwood, Docket #318-2022-ET-00669, dated June 9, 2022, and every other power, for consideration in the amount of Five Hundred Seventy-Five Thousand and 00/100 Dollars ($575,000.00), grant to **D.R. Lemieux Builders, LLC**, a New Hampshire limited liability company, with an address of 76 Exeter Road, Newmarket, NH 03857, with **FIDUCIARY** covenants, the following described premises:

A certain tract or parcel of land situated in Newmarket, County of Rockingham, New Hampshire, on the Northerly side of the road leading from Newmarket to Wadley's Falls and bounded and described as follows:

North by land now or formerly of Jessie Carpenter; East by land now or formerly of Andrew Kruczek and land now or formerly of Thomas J. Brackett; South by said road leading from Newmarket to Wadley's Falls and Westerly by land now or formerly of Edwin Kimball.

Meaning and intending to describe and convey the same premises conveyed by Warranty Deed of Tekla Kieltyka to John Bogacz and Stephany Katherine Bogacz, dated October 26, 1953 and recorded in the Rockingham County Registry of Deeds at Book 1298, Page 409. Stephany Katherine Bogacz (a/k/a Stephanie Bogacz) died on August 11, 1988; see Certified Death Certificate recorded herewith. See also Estate of John Bogacz, 10th Circuit – Probate Division Brentwood, Docket #318-1997-ET-0106. See also Consent to Sale, Estate of Geraldine J. Crooker, 10th Circuit – Probate Division – Brentwood, Docket #318-2022-ET-00669.

The premises conveyed hereby are not homestead property.

EXECUTED this 09 day of September, 2022.

ESTATE OF GERALDINE J. CROOKER

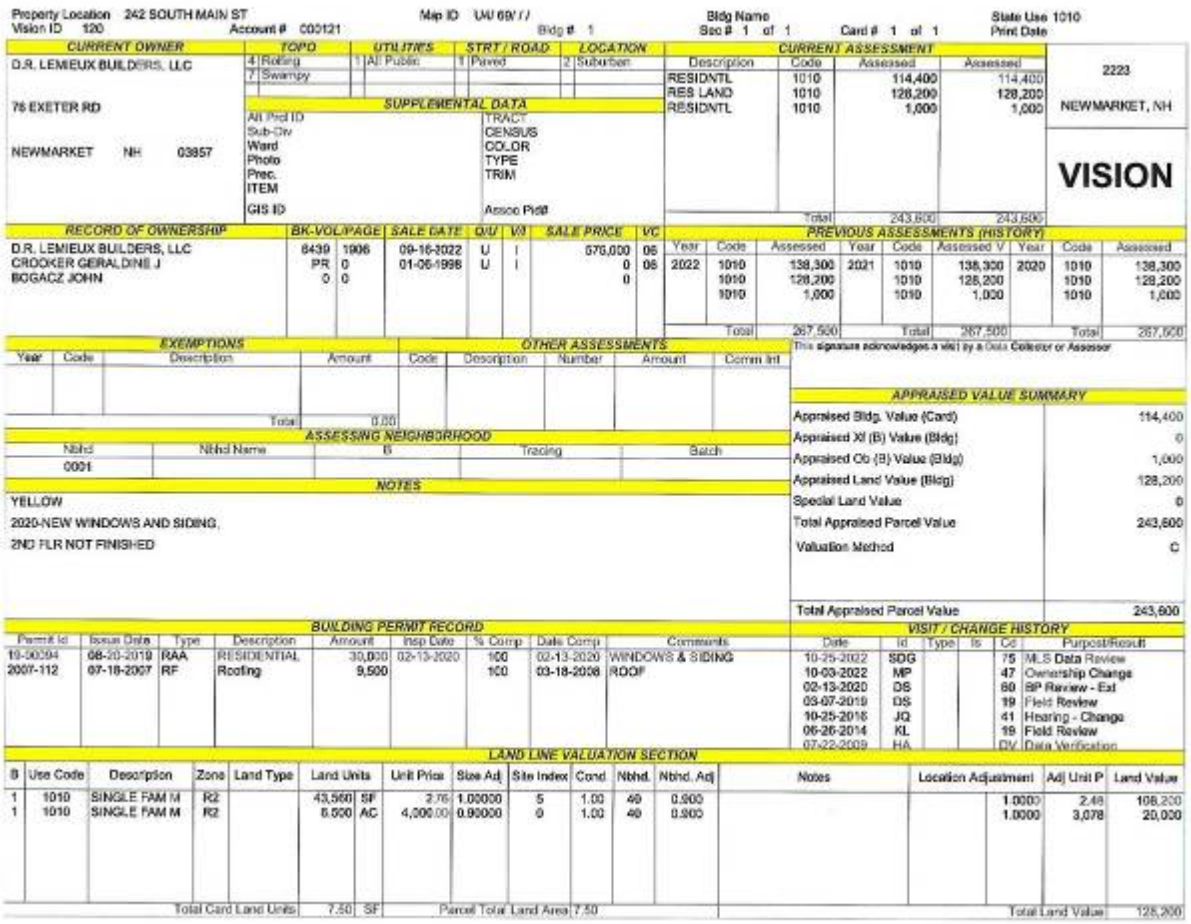
By: _____
David J. Crooker, Executor

STATE OF VIRGINIA
COUNTY OF FAIRFAX

This instrument was acknowledged before me on this 09 day of September, 2022, by David J. Crooker, as the duly appointed Executor of the Estate of Geraldine J. Crooker, on behalf of said NH estate.

AMEL NOUALI
COMMONWEALTH
#7801180
COMMISSION
EXPIRES
07/31/2026
OF VIRGINIA
NOTARY PUBLIC

_____
Notary Public
My commission expires: 07/31/2026
(*Notary Seal*)



Property Location 242 SOUTH MAIN ST | Map ID U41 69/ / / | Bldg Name | State Use 1010
Vision ID 120 | Account # 003121 | Bldg # 1 | Sec # 1 of 1 | Card # 1 of 1 | Print Date

CURRENT OWNER
D.R. LEMIEUX BUILDERS, LLC

76 EXETER RD

NEWMARKET NH 03857

TOPO: 4 Rolling; 7 Swampy
UTILITIES: 1 All Public
STRT / ROAD: 1 Paved
LOCATION: 2 Suburban

SUPPLEMENTAL DATA
Alt Prcl ID
Sub-Div
Ward
Photo
Prec.
ITEM
GIS ID
TRACT
CENSUS
COLOR
TYPE
TRIM
Assoc Prcl#

CURRENT ASSESSMENT

Description	Code	Assessed	Assessed
RESIDNTL	1010	114,400	114,400
RES LAND	1010	128,200	128,200
RESIDNTL	1010	1,000	1,000
		Total	243,600	243,600

2223
NEWMARKET, NH

VISION

RECORD OF OWNERSHIP

	BK-VOL/PAGE		SALE DATE	Q/U	V/I	SALE PRICE	VC
D.R. LEMIEUX BUILDERS, LLC	6439	1906	09-16-2022	U	I	575,000	06
CROOKER GERALDINE J	PR	0	01-05-1998	U	I	0	06
BOGACZ JOHN	0	0				0	

PREVIOUS ASSESSMENTS (HISTORY)

Year	Code	Assessed	Year	Code	Assessed V	Year	Code	Assessed
2022	1010	138,300	2021	1010	138,300	2020	1010	138,300
	1010	128,200		1010	128,200		1010	128,200
	1010	1,000		1010	1,000		1010	1,000
		Total 267,500			Total 267,500			Total 267,500

EXEMPTIONS

Year	Code	Description	Amount
		Total	0.00

OTHER ASSESSMENTS

Code	Description	Number	Amount	Comm Int

This signature acknowledges a visit by a Data Collector or Assessor

APPRAISED VALUE SUMMARY

Appraised Bldg. Value (Card)	114,400
Appraised Xf (B) Value (Bldg)	0
Appraised Ob (B) Value (Bldg)	1,000
Appraised Land Value (Bldg)	128,200
Special Land Value	0
Total Appraised Parcel Value	243,600
Valuation Method	C
Total Appraised Parcel Value	243,600

ASSESSING NEIGHBORHOOD

Nbhd	Nbhd Name	B	Tracing	Batch
0001				

NOTES
YELLOW
2020-NEW WINDOWS AND SIDING.
2ND FLR NOT FINISHED

BUILDING PERMIT RECORD

Permit Id	Issue Date	Type	Description	Amount	Insp Date	% Comp	Date Comp	Comments
19-00094	08-20-2019	RAA	RESIDENTIAL	30,000	02-13-2020	100	02-13-2020	WINDOWS & SIDING
2007-112	07-18-2007	RF	Roofing	9,500		100	03-18-2008	ROOF

VISIT / CHANGE HISTORY

Date	Id	Type	Is	Cd	Purpose/Result
10-25-2022	SDG			75	MLS Data Review
10-03-2022	MP			47	Ownership Change
02-13-2020	DS			60	BP Review - Ext
03-07-2019	DS			19	Field Review
10-25-2018	JQ			41	Hearing - Change
06-26-2014	KL			19	Field Review
07-22-2009	HA			DV	Data Verification

LAND LINE VALUATION SECTION

B	Use Code	Description	Zone	Land Type	Land Units		Unit Price	Size Adj	Site Index	Cond	Nbhd.	Nbhd. Adj	Notes	Location Adjustment	Adj Unit P	Land Value
1	1010	SINGLE FAM M	R2		43,560	SF	2.76	1.00000	5	1.00	40	0.900		1.0000	2.48	108,200
1	1010	SINGLE FAM M	R2		5.500	AC	4,000.00	0.90000	0	1.00	40	0.900		1.0000	3,078	20,000
				Total Card Land Units	7.50	SF		Parcel Total Land Area	7.50						Total Land Value	128,200

Property Location 242 SOUTH MAIN ST | Map ID U4/ 89/ / / | Bldg Name | State Use 1010
Vision ID 120 | Account # 000121 | Bldg # 1 | Sec # 1 of 1 | Card # 1 of 1 | Print Date

CONSTRUCTION DETAIL

Element	Cd	Description
Style:	04	Cape Cod
Model	01	Residential
Grade	03	Average
Stories:	1.75	
Occupancy	1	
Exterior Wall 1	11	Clapboard
Exterior Wall 2		
Roof Structure	03	Gable/Hip
Roof Cover	03	Asph/F Gls/Comp
Interior Wall 1	03	Plastered
Interior Wall 2		
Interior Flr 1	12	Hardwood
Interior Flr 2	06	Inlaid Sht Gds
Heat Fuel	02	Oil
Heat Type:	05	Hot Water
AC Type:	01	None
Total Bedrooms	02	2 Bedrooms
Total Bthrms:	1	
Total Half Baths	0	
Total Xtra Fixtrs		
Total Rooms:	4	4 Rooms
Bath Style:	02	Average
Kitchen Style:	02	Average
MHP		

CONSTRUCTION DETAIL (CONTINUED)

Element	Cd	Description

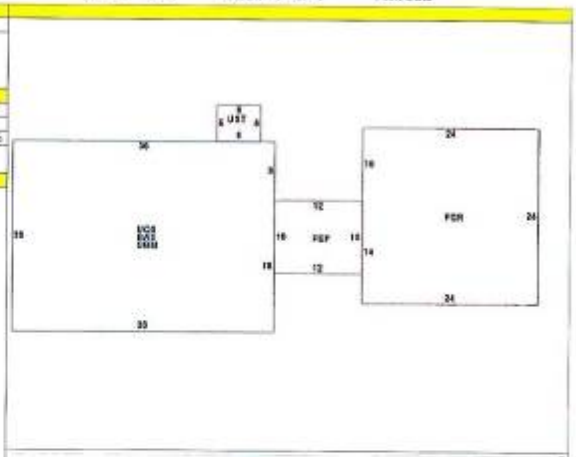
CONDO DATA

Parcel Id		C	Owner	0.0
		B	S	

Adjust Type	Code	Description	Factor%
Condo Flr			
Condo Unit			

COST / MARKET VALUATION

Building Value New	183,377
Year Built	1952
Effective Year Built	1989
Depreciation Code	A
Remodel Rating	
Year Remodeled	
Depreciation %	30
Functional Obsol	0
External Obsol	0
Trend Factor	1
Condition	
Condition %	
Percent Good	70
RCNLD	114,400
Dep % Ovr	
Dep Ovr Comment	
Misc Imp Ovr	
Misc Imp Ovr Comment	
Cost to Cure Ovr	
Cost to Cure Ovr Comment	



OB - OUTBUILDING & YARD ITEMS(L) / XF - BUILDING EXTRA FEATURES(B)

Code	Description	LB	Units	Unit Price	Yr Blt	Cond. Cd	% Gd	Grade	Grade Adj.	Appr. Value
RPV1	SMALL <80	L	1	1000.00	1994		100		0.00	1,000

BUILDING SUB-AREA SUMMARY SECTION

Code	Description	Living Area	Floor Area	Eff Area	Unit Cost	Undepreciated Value
BAS	First Floor	936	936	936	91.84	85,959
FEP	Porch, Enclosed, Finished	0	120	84	64.29	7,714
FGR	Garage, Framed	0	576	230	36.67	21,122
UBM	Basement, Unfinished	0	936	187	18.35	17,173
UQS	Three Quarter, Unfin	0	936	328	32.18	30,122
UST	Utility, Storage, Unfinished	0	30	14	42.86	1,286
	TII Gross Liv / Lease Area	936	3,534	1,779		183,376

Sec. 32-56. - Table of permitted uses.

TABLE OF PERMITTED USES

Uses checked are permitted by right

USE	M1	M2	M2A	M3	M4	B1	B2	B3	R1	R2	R3	R4
Single-family res. including manufactured housing									X	X	X	X
Single-family residential excluding manufactured housing		X	X	X	X							
Duplex residential		X	X								X	X
Multifamily residential	X 3		X [6,7]								X	
Mixed use development	X7	X7	X [6, 7]	X [7]	X [7]							

Age-restricted housing (elderly)	X	X	X	X					1	1	1	
Residential home care facility				X								
Nursing home		X	X							X	X	
Day care (any size)	X	X	X	X	X	X						
Family group child day care									X			
Family child day care										X	X	
Bed & breakfast		X	X	X	X				X	X	X	X
Hotel	X	X	X		X	X	X	X				
Conference center	X				X		X	X				

Indoor and/or outdoor recreation facility		X	X		X	X	X	X	X			
Golf course					X				X			
Country club					X		X		X			
Health club	X	X	X			X	X	X				
Marina	X	X	X									
Retail	X	X	X			X	X	X				
Office	X	X	X			X	X					
Studio	X	X	X	X	X	X						
Service	X	X	X			X						
Restaurant	X [4]	X	X		X	X						
Lounge	X	X	X		X	X						
Wholesale	X	X	X			X	X	X				
Warehouse	X						X	X				

Light manufacturing	X [5]	X	X			X	X	X				
Manufacturing							X	X				
Research & development	X [5]		X			X	X	X				
Automotive repair			X			X						
Commercial amusement		X	X			X						
Civic use	X	X	X			X						
Cultural use	X	X	X			X						
Place of assembly	X	X	X			X						
Education facility	X	X	X			X		X				
Commercial excavation							X		X	X	X	

Forestry & agriculture, including animal husbandry								X	X		
Forestry & agriculture, excluding animal husbandry				X	X	X				X	
Fraternal organization			X			X		X			
Flexible use development								2			
Office complex			X			X		X			

Notes:

[1] See section 32-236 Affordable Elderly Housing for individual district limitations and requirements.

[2] See B3 district for requirements for conditional use permit.

[3] See M-1 district for requirements for special use permit allowing multifamily residential use only as part of a mixed use mill redevelopment, 32-45(b)(2).

[4] No drive-through restaurants are allowed.

[5] Only light manufacturing and research and development uses, limiting the hours of operation to between 7:00 a.m. and 7:00 p.m.

[6] See M-2A district requirements for special use permit allowing multifamily residential and mixed-use development involving three or greater residential units in section 32-46A M-2A District (b)(2).

[7] See section 32-233 for requirements.

(Ord. of 06-21-2017)

Sec. 32-53. - R-2 district.

(a) *Purpose.* The purpose of the R-2 district shall be to provide for an area of transition between the low-density R-1 residential district and the more intensively developed districts in and around the village area. It is intended that high quality neighborhoods with a greater density and greater mix of uses than would be permitted in the R-1 residential district shall be accommodated.

(b) *Permitted uses.* Uses permitted by right are listed in the table of permitted uses in section 32-56.

(Ord. of 2-14-1996, § 2.09; Ord. of 06-21-2017)

Sec. 32-236. - Affordable elderly housing.

(a) *Authority.* In accordance with RSA 674:21(c) and RSA 674:21(h), the ordinance from which this section is derived is adopted to permit the establishment and construction of affordable elderly housing facilities in the Town of Newmarket. Consistent with the provisions of RSA 674:21, this section provides for a use incentive that permits increased densities and development flexibility.

(b) *Purpose.* It is declared to be in the public interest and for the general welfare of the Town of Newmarket to permit the development of affordable elderly housing facilities specifically suited to address the special housing needs of the elderly. It is the purpose of this section to establish provisions under which affordable elderly housing developments may be permitted by the planning board in a flexible manner that recognizes the unique needs of such facilities in terms of design, cost and accessibility while protecting the health and safety of the residents and the general welfare of the citizens of Newmarket.

(c) *Special use permit and overlay district.* Affordable elderly housing facilities are permitted by special use permit at a density and within an overlay zone as designated herein. The special use permit shall be administered by the planning board. The board is authorized to grant, deny or grant with conditions a permit to establish an affordable elderly housing facility. Site plan review approval, in accordance with the planning board's regulations, shall also be required. The planning board shall be authorized to adopt additional regulations as part of the site plan review regulations in order to address the unique concerns related to affordable elderly housing facilities and implement this section.

(d) *Definitions.* The following words, terms and phrases, when used in this section, shall have the meanings ascribed to them in this subsection, except where the context clearly indicates a different meaning:

Affordable. An elderly housing facility shall be considered "affordable" if 75 percent or more of all units that are approved for the site, that have been constructed, are operated and constructed in accordance with the guidelines of or have been funded by a federal, state or local program that provides below market-rate housing for low or moderate income persons as part of its purpose.

Affordable elderly housing means housing used, designed and adapted for use by elderly citizens, 55 years of age and older, and complying with the design requirements of the Architectural Barrier Free Design Code for the State of New Hampshire, as amended, and licensed by any appropriate state and/or federal agencies. Affordable elderly housing may be contained in a single building or group of buildings and shall have protective mechanisms (such as a land use restriction and/or conditions on local approvals) to ensure occupation of such units by adults over 55 years of age for a period as long as the structures or use fails to comply with all underlying zoning requirements for the district in which it is located. An in perpetuity age restriction shall be enforceable by the Town of Newmarket as part of necessary local approvals. Conversion of affordable elderly housing facilities to other uses shall not occur unless the proposed use complies with all applicable zoning and site plan review regulations, even if such conversion requires the demolition and removal of excess units.

(e) *Criteria for approval.* The planning board may grant approval to permit the construction of affordable elderly housing only upon a finding that the following specified conditions exist. The applicant shall provide a narrative justifying its position on these criteria. The enforcement of these criteria shall be met to the maximum extent possible with due regard to the affordability of the project:

(1) Any site on which an affordable elderly housing complex is proposed shall be reviewed with respect to the availability of shopping services, medical services and transportation services thereto, and that the proposed construction and design of the affordable elderly housing

complex shall contain the usual amenities and living aids found in housing designed for use by the elderly and as required by state and federal law such as accessibility features, communal facilities, etc.

(2) That the public interest will be served generally if the proposal were to establish affordable elderly housing on the site and the establishment of an affordable elderly housing complex on the site would not cause a diminution in the property values of surrounding parcels.

(3) That any conflicts with the character of the adjacent properties will be minimal in terms of the size and bulk of the visible buildings, through the use of buffers, landscaping or location of the buildings on site. This provision is meant to assure that facilities are reasonably consistent either with residential style buildings or sufficiently secluded so as to minimize negative impacts to abutting property.

(4) The development shall be landscaped so as to enhance its compatibility with the town with emphasis given to the use of existing natural features where possible.

(5) The design and site layout of the development shall emphasize the rural character of the town, maximize the privacy of the dwelling units, preserve the natural character of land, provide for the separation of parking and neighboring residential uses, and consider such factors as orientation, energy usage, views, etc.

(6) Parking facilities shall comply with the existing site plan review regulations, unless the planning board authorizes waivers in accordance with information submitted showing a decreased need in parking. The planning board may require land to be set-aside for future parking facilities and require adequate financial security to assure its construction with the Newmarket Site Review Regulations.

(7)

Seventy-five percent of all units on the site shall be identified as and remain affordable in accordance with this section for as long as the on-site structures fail to comply with all other zoning requirements of the underlying district.

(8) Affordable elderly housing facilities shall not include manufactured housing units.

(f) *Requirements.*

(1) Zoning requirements for the underlying district shall apply unless covered below.

a. The planning board shall, through its site plan review regulations, review the location and provision of drainage facilities, adequate access for emergency vehicles, parking, landscaping and other facilities required to serve the residents of the facility.

b. Setbacks for affordable elderly housing facilities shall be 35 feet from all property lines.

c. The buffer shall be of sufficient opacity to adequately shield the abutting residential properties from the development. Buffer strips must contain vegetation that will partially screen the view from adjacent residential property during all seasons. This screening must limit visual contact between uses and create a strong impression of the separation of spaces.

d. Existing trees and vegetation must be incorporated into the buffer strips or landscaping design. Fencing alone may not be considered an acceptable method of screening, but fencing may be an element of design.

(2) *Overlay zone.* Affordable elderly housing shall be permitted within the R-1, R-2 and R-3 districts on sites that are presently served (or is brought to the site) by both town water and sewer and also have

frontage and access limited to one of the following roadways: Route 108 from the Newfields boundary north to Elm Street, Route 152 or Bennett Way.

(3) *Density.*

a. As part of the special permit process, the planning board may permit an increased density for the number of units per developable acre of land. The board shall consider factors such as sufficiency of access, water and sewer capacity, functionality, site design and layout. Standard permissible density shall be eight units per developable acre. In no case shall the density, including bonuses, exceed ten units per developable acre.

b. The calculation of developable acres shall not include: very poorly drained soils, slopes exceeding 25 percent and water bodies. No more than 25 percent of the total calculation of developable acres may be comprised of poorly drained soils.

c. Density bonus. When an applicant proposes a site design that includes landscaping and setbacks that meet the following criteria, a density bonus may be awarded by the board of up to 25 percent (to a maximum of ten units per developable acre):

1. The facility provides for a naturally landscaped buffer increased by an additional 25 percent where a proposed development abuts residential property.
2. No roads or driveways shall be located within any part of this buffer zone, but may be located in the additional setback area.
3. Where existing vegetation is not present, a buffer of similar opacity may be planted providing the same separation. Deciduous and coniferous trees shall be incorporated within the design and shall have a caliper of at least three inches at a point six inches above the root ball. One tree shall be planted for every 100 square feet of buffer area.

(g) *Saving clause.* If any portion of this section is found invalid by a court of competent jurisdiction, this finding shall not invalidate the remainder of this section.

(Ord. of 2-14-1996, § 7.05; Ord. of 9-25-2002; Ord. of 06-21-2017)

242 South Main Street Site Plan
NH-1449

STORMWATER MANAGEMENT/BMP INSPECTION & MAINTENANCE PLAN

Proper construction, inspections, maintenance and repair are key elements in maintaining a successful stormwater management program on a developed property. Routine inspections ensure permit compliance and reduce the potential for deterioration of infrastructure or reduced water quality.

For the purpose of this Stormwater Management Program, a significant rainfall event is considered and event of three (3) inches in a 24-hour period or 0.5 inches in a one-hour period. During construction, inspections should be conducted every two weeks or after a 0.25" rainfall event in a 24-hour period per the EPA NPDES Phase II SWPPP, until the entire disturbed area is fully restabilized. Upon full stabilization of the project and filing of an NOI, inspections need only be conducted after a significant rainfall event as described above or as described in the maintenance guidelines below.

During construction activities DR Lemieux Builders, LLC of 76 Exeter Road, Newmarket, NH 03857 with a phone # of (603) 235-4370, or it's heirs and/or assigns, shall be responsible for inspections and maintenance activities. The owner is responsible to ensure that any subsequent owner or owners association has copies of the Log Form and Annual Report records and fully understands the responsibilities of this plan. The grantor owner will ensure this document is provided to the grantee owner by duplicating the Ownership Responsibility Sheet which is found toward the back of this document, which will be maintained with the Inspection & Maintenance Logs, provided to the Town of Newmarket Planning Department with the Annual Report.

Documentation:
A maintenance log will be kept (i.e. report) summarizing inspections, maintenance, and any corrective actions taken. The log will include the date on which each inspection or maintenance task was performed, a description of the inspection findings or maintenance completed, and the name of the inspector or maintenance personnel performing the task (see Stormwater Construction Site Inspection Report attached). If a maintenance task requires the clean-out of any sediments or debris, the location where the sediment and debris was disposed after removal will be indicated.

BMP Maintenance Guidelines
The following provides a list of recommendations and guidelines for managing the Stormwater facilities. The cited areas, facilities, and measures will be inspected and the identified deficiencies will be corrected. Clean-out must include the removal and legal disposal of any accumulated sediments and debris. The numbered drainage features below correspond to the specific numbered drainage feature locations on the attached plan.

During Construction:

1. STABILIZED CONSTRUCTION ENTRANCE

A temporary gravel construction entrance provides an area where mud can be dislodged from tires before the vehicle leaves the construction site to reduce the amount of mud and sediment transported onto paved municipal and state roads.

(a) The minimum stone used shall be 3-inch crushed stone;

(b) The minimum length of the pad shall be 75 feet, except that the minimum length may be reduced to 50 feet if a 3-inch to 6-inch high berm is installed at the entrance of the project site;

(c) The pad shall extend the full width of the construction access road or 10 feet, whichever is greater;

(d) The pad shall slope away from the existing roadway;

(e) The pad shall be at least 6 inches thick;

(f) A geotextile filter fabric shall be placed between the stone pad and the earth surface below the pad; and

(g) The pad shall be maintained or replaced. A plan view and profile are shown on Sheet E1 - Sediment and Erosion Control Detail Plan.

1a. ENVIRONMENTAL DUST CONTROL

Dust will be controlled on the site by the use of multiple Best Management Practices. Mulching and temporary seeding will be the first line of protection to be utilized where problems occur. If dust problems are not solved by these applications, the use of water and calcium chloride can be applied. Calcium chloride will be applied at a rate that will keep the surface moist but not cause pollution.

1b. TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES

Function – Temporary erosion and sediment control devices are utilized during construction period to divert, store and filter stormwater from non-stabilized surfaces. These devices include, but are not limited to: silt fences, hay bales, filters, sediment traps, stone check dams, mulch and erosion control blankets.

Maintenance – Temporary erosion and sediment control devices shall be inspected and maintained on a weekly basis and following a significant storm event (>0.5-inch rain event) throughout the construction period to ensure that they still have integrity and are not allowing sediment to pass. Sediment build-up in swales will be removed if it is deeper than six inches. Sediment is to be removed from sumps in the catch basin semi-annually. Refer to the Site Plan drawings for the maintenance of temporary erosion and sediment control devices.

Long Term Maintenance:

2. Culverts:

Inspect culverts 2 times per year (preferably in spring and fall) to ensure that the culverts are working in their intended fashion and that they are free of debris. Remove any obstructions to flow; remove accumulated sediments and debris at the inlet, at the outlet, and within the conduit and to repair any erosion damage at the culvert's inlet and outlet.

3. Bioretention Basin Maintenance

General inspection of the wetland and any structural components must occur at least annually. The perimeter is mowed at least annually.

- Systems should be inspected at least twice annually, and following any rainfall event exceeding 2.5 inches in a 24 hour period, with maintenance or rehabilitation conducted as warranted by such inspection.
- Pretreatment measures should be inspected at least twice annually, and cleaned of accumulated sediment as warranted by inspection, but no less than once annually.
- Trash and debris should be removed at each inspection.
- At least once annually, system should be inspected for drawdown time. If bioretention system does not drain within 72-hours following a rainfall event, then a qualified professional should assess the condition of the facility to determine measures required to restore filtration function or infiltration function (as applicable), including but not limited to removal of accumulated sediments or reconstruction of the filter media.
- Vegetation should be inspected at least annually, and maintained in healthy condition, including pruning, removal and replacement

1. The pre-treatment forebays will need occasional removal of sediment (every 5 years, or when 50% of capacity is lost, whichever occurs first). Inspections should ensure that no sediment is reaching the gravel.
2. All structural components, which include, but are not limited to, level spreader, vegetation, pipes, orifice structures, and spillway structures, should be inspected and any deficiencies repaired. This includes a visual inspection of all storm water control structures for damage and/or accumulation of sediment.
3. All dead or dying vegetation within the extents of the basin should be removed, as well as all herbaceous vegetation rootstock when overcrowding is observed and any vegetation that has a negative impact on storm water flowage through the facility. Any invasive vegetation encroaching upon the perimeter of the facility should be pruned or removed. Wetland plantings typically become well established, but occasional replanting to maintain minimum 50% coverage may be needed.

4. Pretreatment Structures

Inspect all upstream pre-treatment measures (fore bays, etc.) for sediment and floatables accumulation. Remove and dispose of sediments or debris as needed. Inspect structure on a semiannual basis by using inspection port and/or access structure if available. Remove sediment (every 5 years, or when 50% of capacity is lost, whichever occurs first).

5. Stormwater Infiltration Facilities:

Trenches:

The infiltration facility will be inspected within the first three months after construction; thereafter the filter will be inspected 2 times per year to ensure that the filter is draining within 72 hours of a rain event equivalent to 1/2" or more.

Table 1. Typical maintenance activities for infiltration trenches

Remove sediment and oil/grease from pretreatment devices and overflow structures if available.	Standard maintenance
If bypass capability is available, it may be possible to regain the infiltration rate in the short term by using measures such as providing an extended dry period.	5-year maintenance
Total rehabilitation of the trench should be conducted to maintain storage capacity within 2/3 of the design treatment volume and 72-hour exfiltration rate limit. Trench walls should be excavated to expose clean soil.	Upon failure

5. Vegetated Areas:
Inspect slopes and embankments early in the growing season to identify active or potential erosion problems. Replant bare areas or areas with sparse growth. Where rill erosion is evident, armor the area with an appropriate lining or divert the erosive flows to on-site areas able to withstand the concentrated flows. The facilities will be inspected after major storms and any identified deficiencies will be corrected.

6. Paved Surfaces: Clear accumulations of winter sand along roadways at least once a year, preferably in the spring. Accumulations on pavement may be removed by pavement sweeping. Accumulations of sand along road shoulders may be removed by grading excess sand to the pavement edge and removing it manually or by a front-end loader.

7. Invasive Species:
During maintenance activities, check for the presence of invasive plants and remove in a safe manner as described on the following pages. They should be controlled as described on the following pages.
Background:
Invasive plants are introduced, alien, or non-native plants, which have been moved by people from their native habitat to a new area. Some exotic plants are imported for human use such as landscaping, erosion control, or food crops. They also can arrive as "hitchhikers" among shipments of other plants, seeds, packing materials, or fresh produce. Some exotic plants become invasive and cause harm
by:
becoming weedy and overgrown;
killing established shade trees;
obstructing pipes and drainage systems;
forming dense beds in water;
lowering water levels in lakes, streams, and wetlands;
destroying natural communities;
promoting erosion on stream banks and hillsides; and
resisting control except by hazardous chemical.

Methods for Disposing Non-Native Invasive Plants

Prepared by the Invasives Species Outreach Group, volunteers interested in helping people control invasive plants. Assistance provided by the Piscataquog Land Conservancy and the NH Invasives Species Committee. Edited by Karen Bennett, Extension Forestry Professor and Specialist.

Non-native invasive plants crowd out natives in natural and managed landscapes. They cost taxpayers billions of dollars each year from lost agricultural and forest crops, decreased biodiversity, impacts to natural resources and the environment, and the cost to control and eradicate them.

New Hampshire Regulations

Prohibited invasive species shall only be disposed of in a manner that renders them nonliving and nonviable. (Agr. 3802.04)

No Person shall collect, transport, import, export, move, buy, sell, distribute, propagate or transplant any living and viable portion of any plant species, which includes all of their cultivars and varieties, listed in Table 3800.1 of the New Hampshire prohibited invasive species list. (Agr. 3802.01)

Because movement and disposal of viable plant parts is restricted (see NH Regulations), viable invasive parts can't be brought to most transfer stations in the state. Check with your transfer station to see if there is an approved, designated area for invasives disposal. This fact sheet gives recommendations for rendering plant parts non- viable.

Control of invasives is beyond the scope of this fact sheet. For information about control visit xor contact your UNH Cooperative Extension office.

Control of invasives is beyond the scope of thie fact sheet. For information and control visit www.nhonvasives.org or contact you UNH Cooperative Extension Office.

How and When to Dispose of Invasives?
To prevent seed from spreading remove invasive plants before seeds are set (produced). Some plants continue to grow, flower and set seed even after pulling or cutting. Seeds can remain viable in the ground for many years. If the plant has flowers or seeds, place the flowers and seeds in a heavy plastic bag "head first" at the weeding site and transport to the disposal site. The following are general descriptions of disposal methods. See the chart for recommendations by species.

Burning: Large woody branches and trunks can be used as firewood or burned in piles. For outside burning, a written fire permit from the local forest fire warden is required unless the ground is covered in snow. Brush larger than 5 inches in diameter can't be burned. Invasive plants with easily airborne seeds like black swallow-wort with mature seed pods (indicated by their brown color) shouldn't be burned as the seeds may disperse by the hot air created by the fire.

Bagging (solarization): Use this technique with softer- tissue plants. Use heavy black or clear plastic bags (contractor grade), making sure that no parts of the plants poke through. Allow the bags to sit in the sun for several weeks and on dark pavement for the best effect.

Tarping and Drying: Pile material on a sheet of plastic.

Japanese knotweed
Polygonum cuspidatum USDA-NRCS PLANTS Database / Britton, N.L., and A. Brown. 1913. An illustrated flora of the Southern United States, Canada and the British Possessions. Vol. 1: 676.

and cover with a tarp, fastening the tarp to the ground and monitoring it for escapes. Let the material dry for several weeks, or until it is clearly nonviable.

Chipping: Use this method for woody plants that don't reproduce vegetatively.

Burying: This is risky, but can be done with watchful diligence. Lay thick plastic in a deep pit before placing the cut up plant material in the hole. Place the material away from the edge of the plastic before covering it with more heavy plastic. Eliminate as much air as possible and toss in soil to weight down the material in the pit. Note that the top of the buried material should be at least three feet underground. Japanese knotweed should be at least 5 feet underground!

Drowning: Fill a large barrel with water and place soft-tissue plants in the water. Check after a few weeks and look for rotted plant material (roots, stems, leaves, flowers). Well- rotted plant material may be composted. A word of caution- seeds may still be viable after using this method. Do this before seeds are set. This method isn't used often. Be prepared for an awful stink!

Composting: Invasive plants can take root in compost. Don't compost any invasives unless you know there is no viable (living) plant material left. Use one of the above techniques (bagging, tarping, drying, chipping, or drowning) to render the plants nonviable before composting. Closely examine the plant before composting and avoid composting seeds.

Be diligent looking for seedlings for years in areas where removal and disposal took place.

Suggested Disposal Methods for Non-Native Invasive Plants
This table provides information concerning the disposal of removed invasive plant material. If the infestation is treated with herbicide and left in place, these guidelines don't apply. Don't bring invasives to a local transfer station, unless there is a designated area for their disposal, or they have been rendered non-viable. This listing includes wetland and upland plants from the New Hampshire Prohibited Invasive Species List. The disposal of aquatic plants isn't addressed.

Woody Plants	Method of Reproducing	Methods of Disposal
Norway maple (Acer platanoides) European barberry (Berberis vulgaris) Japanese barberry (Berberis thunbergii) autumn olive (Elaeagnus umbellata) burning bush (Euonymus alatus) Morrow's honeysuckle (Lonicera morrowii) Tatarian honeysuckle (Lonicera tatarica) showy bush honeysuckle (Lonicera x bella) common buckthorn (Rhamnus cathartica) glossy buckthorn (Frangula alnus)	Fruit and Seeds	Prior to fruit/seed ripening Seedlings and small plants Pull or cut and leave on site with roots exposed. No special care needed. Larger plants Use as firewood. Make a brush pile. Chip.
		After fruit/seed is ripe Don't remove from site. Burn. Make a covered brush pile. Chip once all fruit has dropped from branches. Leave resulting chips on site and monitor.
oriental bittersweet (Celastrus orbiculatus) multiflora rose (Rosa multiflora)	Fruits, Seeds, Plant Fragments	Prior to fruit/seed ripening Seedlings and small plants Pull or cut and leave on site with roots exposed. No special care needed. Larger plants Make a brush pile. Burn.
		After fruit/seed is ripe Don't remove from site. Burn. Make a covered brush pile. Chip – only after material has fully dried (1 year) and all fruit has dropped from branches. Leave resulting chips on site and monitor.

	Method of Reproducing	Methods of Disposal
garlic mustard (Alliaria petiolata) spotted knapweed (Centaurea maculosa) Sap of related knapweed can cause skin irritation and tumors. Wear gloves when handling. black swallow-wort (Cynanchum nigrum) May cause skin rash. Wear gloves and long sleeves when handling. pale swallow-wort (Cynanchum rossicum) giant hogweed (Heracleum mantegazzianum) Can cause major skin rash. Wear gloves and long sleeves when handling. dame's rocket (Hesperis matronalis) perennial pepperweed (Lepidium latifolium) purple loosestrife (Lythrum salicaria) Japanese stilt grass	Fruits and Seeds	Prior to flowering Depends on scale of infestation Small infestation Pull or cut plant and leave on site with roots exposed. Large infestation Pull or cut plant and pile. (You can pile onto or cover with plastic sheeting). Monitor. Remove any re-sprouting material. During and following flowering Do nothing until the following year or remove flowering heads and bag and let rot. Small infestation Pull or cut plant and leave on site with roots exposed. Large infestation Pull or cut plant and pile remaining material. (You can pile onto plastic or cover with plastic sheeting). Monitor. Remove any re-sprouting material.
common reed (Phragmites australis) Japanese knotweed (Polygonum cuspidatum) Bohemian knotweed (Polygonum x bohemicum)	Fruits, Seeds, Plant Fragments Primary means of spread in these species is by plant parts. Although all care should be given to preventing the dispersal of seed during control activities, the presence of seed doesn't materially influence disposal activities.	Small infestation Bag all plant material and let rot. Never pile and use resulting material as compost. Burn. Large infestation Remove material to unsuitable habitat (dry, hot and sunny or dry and shaded location) and scatter or pile. Monitor and remove any sprouting material. Pile, let dry, and burn.

In the event that invasive species are noticed growing in any of the stormwater management practices, the invasive vegetation shall be removed completely to include root matter and disposed of properly. Prior to disposal, the vegetation shall be placed on and completely cover with a plastic tarp for a period of two – three weeks until plants are completely dead. If necessary or to expedite the process, spray only the invasive vegetation and roots with a systemic nonselective herbicide after placement on the tarp (to prevent chemical migration) and then cover as described above.

Annual Report:
Description: The owner is responsible to keep an **I & M** Activity Log that documents inspection, maintenance and repairs to the storm water management system, and a
Deicing Log to track the amount and type of deicing material applied to the site. The original owner is responsible to ensure that any subsequent owner (s) have copies of the Stormwater System Operation and Maintenance Plan & Inspection and Maintenance Manual, copies of past logs and check lists. This includes any owner association for potential condominium conversion of the property. The Annual Report will be prepared and submitted to the Town of Newmarket DPW and or Planning Dept.

STORMWATER CONSTRUCTION SITE INSPECTION REPORT

Inspection & Maintenance Manual Checklist

DR Lemieux Builders Site Plan
242 So. Main St.
Newmarket, NH

BMP / System	Minimum Inspection Frequency	Minimum Inspection Requirements	Maintenance / Cleanout Threshold
Pavement Sweeping	Two Times Per Year	N/A	N/A
Litter/Trash Removal	Routinely	Inspect dumpsters, outdoor waste receptacles area, and yard areas.	Parcel will be free of litter/trash.
Deicing Agents	N/A	N/A	Use salt as the primary agent for roadway safety during winter. See attached deicing data form to be completed as required.

Closed Drainage System:			
Drainage Pipes/Catch Basins	1 time per 2 years	Check for sediment accumulation & clogging.	Less than 2" sediment depth
Bioretention/Filtration ponds	Twice Annually After every 2.5" of rain or greater.	72-Hour drawdown time evaluation and vegetation evaluation.	Remove sediment and oil/grease from pretreatment devices and overflow structures if they exist. Remove dead & diseased vegetation along with all debris; take corrective measures of filtration media if required.
Infiltration Trenches	2 times per year	Check that the trench is draining within 72 hours of a rain event equivalent to 1/2" or more	Remove sediment and oil/grease from pretreatment devices and overflow structures if they exist.
Riprap Outlet Protection	Annually	Check for sediment buildup and structure damage.	Remove excess sediment and repair damage.
Annual Report	1 time per year	Submit Annual Report to Town of Newmarket Inspector upon request	

Inspection Notes:

CHECKLIST FOR INSPECTION OF BIORETENTION SYSTEM / TREE FILTERS

Location: Inspector:
Date: Time: Site Conditions:
Date Since Last Rain Event:

Inspection Items	Satisfactory (S) or Unsatisfactory (U)	Comments/Corrective Action
1. Initial Inspection After Planting and Mulching		
Plants are stable, roots not exposed	S U	
Surface is at design level, typically 4" below overpass	S U	
Overflow bypass / inlet (if available) is functional	S U	
2. Debris Cleanup (2 times a year minimum, Spring & Fall)		
Litter, leaves, and dead vegetation removed from the system	S U	
Prune perennial vegetation	S U	
3. Standing Water (1 time a year, After large storm events)		
No evidence of standing water after 72 hours	S U	
4. Short Circuiting & Erosion (1 times a year, After large storm events)		
No evidence of animal burrows or other holes	S U	
No evidence of erosion	S U	
5. Drought Conditions (As needed)		
Water plants as needed	S U	
Dead or dying plants	S U	
6. Overflow Bypass / Inlet Inspection (1 times a year, After large storm events)		
No evidence of blockage or accumulated leaves	S U	
Good condition, no need for repair	S U	
7. Vegetation Coverage (once a year)		
50 % coverage established throughout system by first year	S U	
Robust coverage by year 2 or later	S U	
8. Mulch Depth (if applicable)(once every 2 years)		
Mulch at original design depth after tilling or replacement	S U	
9. Vegetation Health (once every 3 years)		
Dead or decaying plants removed from the system	S U	
10. Tree Pruning (once every 3 years)		
Prune dead, diseased, or crossing branches	S U	
Corrective Action Needed		**Due Date**
1.		
2.		
3.		

Beals Project # NH-1449 5/23/23
242 S Main St., Newmarket, NH

INFILTRATION TRENCH INSPECTION CHECKLIST

Location:

Owner Change since last inspection? Y N

Owner Name, Address, Phone: _____ Time: Site conditions: _____

Inspection Items	Satisfactory (S) or Unsatisfactory (U)	Comments/Corrective Action
Inspection List		
Complete drainage of the filter in about 40 hours after a rain event?		
Clogging of filter surface?		
Clogging of inlet/outlet structures?		
Clogging of filter fabric?		
Clear of debris and functional?		
Leaks or seeps in filter?		
Obstructions of spillway(s)?		
Animal burrows in filter?		
Sediment accumulation in filter bed (less than 50% is acceptable)?		
Cracking, spalling, bulging or deterioration of concrete?		
Erosion in area draining to sand filter?		
Erosion around inlets, filter bed, or outlets?		
Pipes and other structures in good condition?		
Undesirable vegetation growth?		
Other (describe)?		
Hazards		
Have there been complaints from residents?		
Public hazards noted?		

If any of the above inspection items are **UNSATISFACTORY**, list corrective actions and the corresponding completion dates below:

Corrective Action Needed	Due Date

Inspector Signature: _____

Inspector Name (printed) _____

Beals Project # NH-1449 5/23/23
242 S Main St., Newmarket, NH

Anti-icing Data Log Form			
Truck:			
Date:			
Air Temperature	Pavement Temperature	Sky	
Reason for applying:			
Road Name:			
Chemical: Sand/Salt - Salt - Other (List below) (Circle one)			
Application Time:			
Application Amount:			
Name:			

[Sec. 6.01.] - Stormwater management checklist.

Stormwater Management Checklist

Please use the following checklist as a guide to assess whether the various stormwater management components as required by Site Plan Regulations have been completed and are included in the site design and application materials. Please check each box as it applies consistent with the regulations. If certain items could not be completed or are not included in the site design, please provide separate written explanations as to why these items could not be completed or be included in the site design process due to site conditions.

Project Contact Information		
Project Name: Residential Site Plan		
Project Street Address: 242 So. Main Street		
Applicant's Name: DR Lemieux	Phone No.: 603-235-4370	Email: David@lemieuxbuildersllc.com
Engineer's Name /Company: Christian Smith/Beals Associates, PLLC	Phone No.: 603-583-4860	Email: CSmith@bealsassociates.com
Property Owner (if different)	Phone No.	Email
Architect: Lassel Architects	Phone No.: 207-384-2049	Email: Keegan@lasselarchitects.com

Basic Project Information and Type of Development		
☒	Completed Site Plan Review Application	Date of Submittal: 5/23/2023
☒	New Development	☐ Redevelopment
☒	Describe Type of Development: 32-unit age-restricted housing	
☒	Total Area of Site: 7.22 acres	
☒	Describe Existing Use/Land Cover of Property: Vacant land (after subdividing the house off) with a large mowed field, forested wetland and upland area.	
☒	List Adjacent Receiving Water Bodies: onsite wetland system (ultimately Piscassic River)	
☒	Onsite and Adjacent Wetland Areas have been Delineated	

Thresholds for Requiring a Stormwater Management and Erosion Control Report			
Total Area of Proposed Disturbance			Square Feet
	☐	< 20,000 square feet	Not Required
	☒	>20,000 square feet	Required
OR			
Total Amount of new impervious area added			Square Feet
	☐	< 5,000 square feet impervious area	Not Required
	☐	> 5,000 square feet impervious area	Required

Stormwater Management and Erosion Report Contents			
☒	***Existing Conditions Plans***		*Section 3.07 (B) (1)*
	☒	Title Block, Scale, Legend, Datum, Locus Plan, Professional Stamp(s)	
	☒	Topographic Contours and Benchmarks	
	☒	Pre-development Watershed Boundaries, Drainage Patterns, Channelized Flow Areas	
	☒	Conveyance Structures, Location where runoff exits the site	
	☒	Buffer and Setback limits as required by Town Ordinances and State Regulations	
	☒	Buildings, Structures, Wells, Septic systems, Utilities	
	☒	Water Bodies, Wetlands, Hydrologic Features, Soils Codes	

	☒	Areas of Existing vegetation and mature trees shown			
☒	***Proposed Conditions Plans***		*Section 3.07 (B) (2)*		
	☒	Title Block, Scale, Legend, Datum, Locus Plan, Professional Stamp(s)			
	☒	Topographic Contours and Benchmarks			
	☒	Post-development Watershed boundaries, drainage patterns, channelized flow areas			
	☒	Proposed areas of disturbance			
	☒	Proposed impervious areas			
	☒	Temporary stock pile areas (N/A fill site)			
	☒	Construction refueling areas (None on site)			
	☒	Temporary and permanent stormwater treatment BMP location and details are shown			
	☒	Erosion Control Measure locations and details are shown on plans			
	☒	Stormwater outlet locations			
	☒	Drainage and Access Maintenance Easements (N/A private maint.)			
	☒	Name of Receiving Waters			
	☒	Connection to municipal stormwater drainage facilities N/A			
☒	**Drainage Analysis Completed**		*Section 3.07 B (3)*		
	24 – Hour Storm Event	**Runoff**	**Pre-development**		**Post-development**
	2-Year	Rate	7.59 (CFS)		6.90 (CFS)
	2-Year	Volume	40,467 (CF)		36,241 (CF)
	10-Year	Rate	16.32 (CFS)		16.18 (CFS)
	10-Year	Volume	84,245 (CF)		78,887 (CF)
	25-Year	Rate	23.78 (CFS)		23.74 (CFS)
	25-Year	Volume	122,490 (CF)		116,392 (CF)
	50-Year	Rate	31.01 (CFS)		30.86 (CFS)
	50-Year	Volume	160,083 (CF)		153,113 (CF)
	100-Year	Rate	39.65 (CFS)		39.54 (CFS)
	100-Year	Volume	205,733 (CF)		198,851 (CF)
Stormwater BMP Design					
Have Low Impact Development measures been included in Design ☒ Yes, list below; ☐ No, Explain separately					
List LID Measures included: Bioretention ponds, stone drip edge for roof infiltration					
☒	Have the stormwater BMP and erosion control measures been designed and sized in accordance with NHDES Stormwater Manual Design Guidance as required by Site Plan Regulations *3.07 (B) 6*				
☒	Percentage of Impervious Area Treated 96		Type of BMP treatment: Filtration/infiltration		
☒	Landscaping plans and details of planting areas have been included and specify planting species that are native, non-invasive and appropriate for site conditions. *Section 3.07 (B) (7)*				
☒	Covenants and deed restrictions for access prepared for filing with the Register of Deeds. *Section 3.07 (B) (9)*				
☒	**Other Permits or Plans Required by US EPA or NH DES** (as applicable) *Section 3.07 (B) (10)*				
	☒	US EPA Notice of Intent			
	☐	NH DES Alteration of Terrain Permit			
	☐	Other (Please list)			
☒	**Operations and Maintenance Plan** *Section 3.07 (B) (8)*				
	Responsible Party for Future Maintenance HOA				
☐	Need for 3rd Party Review		Yes		No

[Sec. 6.03.] - Application completeness checklist for major review.

GOVE ENVIRONMENTAL SERVICES, INC

SITE-SPECIFIC SOIL SURVEY REPORT
For
242 South Main Street, Newmarket, NH
By
GES, Inc.
Project # 2022280
Date: 4-14-2023

1. MAPPING STANDARDS

Site-Specific Soil Mapping Standards for New Hampshire and Vermont. SSSNNE Special Publication No. 3, Version 7.0, July, 2021.

This map product is within the technical standards of the National Cooperative Soil Survey. It is a special purpose product, intended for infiltration requirements by the NH DES Alteration of Terrain Bureau. The soil map was produced by a professional soil scientist and is not a product of the USDA Natural Resources Conservation Service. This report accompanies the soil map.

The site-specific soil map (SSSM) was produced 4-10-2023; prepared by JP Gove, CSS #004, GES, Inc. The survey area is located in Newmarket, NH.

Soils were identified with the New Hampshire State-wide Numerical Soils Legend, USDA NRCS, Durham, NH. Issue # 10, January 2011.

Hydrologic Soil Group was determined using SSSNNE Special Publication No. 5, Ksat Values for New Hampshire Soils, September 2009.

High Intensity Soil Map symbols, based upon SSSNNE Special Publication 1, December 2017, were added to the Soil Legend.

Scale of soil map: Approximately 1" = 100'.

Contours Interval: 2 feet

2. LANDFORMS & EXISTING CONDITIONS:

The site is located on part of a large plain that has marine sediments overlain by outwash sands. The site is an old farm, with open fields on the southern portion. The northern portion is woodland. The floodplain of the Piscassic River is also on the northern portion of the site.

3. DATE SOIL MAP PRODUCED

Date(s) of on-site field work: 4-10-2023

Date(s) of test pits: 4-10-2029

Test pits recorded by: James Gove, CSS #004

4. GEOGRAPHIC LOCATION AND SIZE OF SITE

City or town where soil mapping was conducted: Newmarket

Location: 242 South Main Street

Size of area: 7.5 Acres

Was the map for the entire lot? Yes

If no, where was the mapping conducted on the parcel: n/a

5. PURPOSE OF THE SOIL MAP

Was the map prepared to meet the requirement of Alteration of Terrain? no

If no, what was the purpose of the map? Town of Newmarket requirements

Who was the map prepared for? DR Lemieux Builders, Inc.

6. SOIL IDENTIFICATION LEGEND

Map Unit Symbol	Map Unit Name	HISS Symbol	Hydrologic Soil Group
38	Eldridge loamy sand	343	C
538	Squamscott loamy sand	543	C
134	Maybid mucky silt	643	D

SLOPE PHASE:

0-3%	A	3-8%	B		8-15%	C	
15-25%	D	25%+		E			

7. OFFICIAL SOIL SERIES DESCRIPTIONS

ELDRIDGE SERIES

The Eldridge series consists of very deep, moderately well drained soils on glacial lake plains, terraces, and glacial outwash areas. The soils formed in sandy glaciofluvial or aeolian deposits underlain by loamy estaurine or glaciolacustrine deposits. Permeability is rapid in the solum and moderately slow or slow in the substratum. Slope ranges from 0 to 50 percent. Mean annual precipitation is about 34 inches and mean annual temperature is about 49 degrees F.

TAXONOMIC CLASS: Sandy over loamy, mixed, active, nonacid, mesic Aquic Udorthents

TYPICAL PEDON: Eldridge fine sandy loam, on a 3 percent south facing slope in a hayfield. (Colors are for moist soils unless otherwise noted.)

Ap--0 to 9 inches; very dark grayish brown (10YR 3/2) fine sandy loam, grayish brown (10YR 5/2) dry; moderate fine and very fine granular structure; very friable; slightly acid; abrupt smooth boundary. (5 to 10 inches thick)

Bw1--9 to 17 inches; olive brown (2.5Y 4/4) loamy fine sand; weak fine granular structure; very friable; moderately acid; abrupt irregular boundary.

Bw2--17 to 27 inches; olive brown (2.5Y 4/4) loamy fine sand; single grain; loose; few small distinct yellowish brown (10YR 5/6) redoximorphic accumulations; slightly acid; abrupt smooth boundary. (Combined thickness of the Bw is 11 to 20 inches thick.)

2C--27 to 65 inches; stratified olive (5Y 4/3) very fine sand and silt and dark grayish brown (10YR 4/2) clay with lenses of sand; massive; friable; slightly acid.

DRAINAGE AND PERMEABILITY: Moderately well drained. Permeability is rapid in the solum and moderately slow or slow in the substratum.

SQUAMSCOTT SERIES

The Squamscott series consists of very deep, poorly drained soils that formed in sandy materials overlying loamy sediments on marine or lacustrine plains or terraces. Permeability is rapid in the upper part of the soil and moderately slow in the lower part. Slope ranges from 0 to 5 percent. Mean annual precipitation is about 40 inches, and mean annual temperature is about 48 degrees F.

TAXONOMIC CLASS: Sandy over loamy, mixed, active, mesic Typic Epiaquods

TYPICAL PEDON: Squamscott fine sandy loam - on a nearly level area in woodland. The surface is covered by a one inch layer of loose needles, leaves, and twigs.(Colors are for moist soil.)

0e--0 to 2 inches; dark reddish brown (5YR 3/3) hemic material; 35 percent fibers, rubbed; many very fine and fine roots; extremely acid; abrupt wavy boundary.

0a--2 to 3 inches; black (5YR 2/1) sapric material; 10 percent fibers, rubbed; many fine and common medium roots; extremely acid; abrupt wavy boundary. (Combined thickness of the 0 horizon is 0 to 5 inches.)

A--3 to 4 inches; black (5YR 2/1) fine sandy loam; weak fine granular structure; friable; many fine, medium and coarse roots; extremely acid; abrupt wavy boundary. (1 to 4 inches thick)

Eg--4 to 6 inches; light brownish gray (10YR 6/2) fine sandy loam; weak medium platy structure; friable; common fine and medium roots; common coarse distinct grayish brown (2.5Y 5/2) and many medium distinct very dark grayish brown (10YR 3/2) iron depletions; very strongly acid; abrupt wavy boundary. (0 to 9 inches thick)

Bhs--6 to 8 inches; dark reddish brown (5YR 2/2) loamy sand; weak medium granular structure; very friable, weakly smeary; common fine and medium roots; weak random cementation; many fine faint black (5YR 2/1) iron depletions; strongly acid; abrupt broken boundary. (0 to 4 inches thick)

Bs1--8 to 10 inches; brown (7.5YR 4/4) loamy sand; weak fine granular structure; very friable; common very fine, fine and medium roots; weak random cementation; common medium prominent olive (5Y 4/4) and few coarse distinct brown (10YR 5/3) masses of iron accumulation; strongly acid; clear wavy boundary.

Bs2--10 to 14 inches; brownish yellow (10YR 6/6) loamy sand; weak fine granular structure; very friable; few fine and medium roots; common coarse prominent yellowish red (5YR 5/8) and common medium prominent light yellowish brown (2.5Y 6/4) masses of iron accumulation; strongly acid; clear wavy boundary.

Bs3--14 to 21 inches; light olive brown (2.5Y 5/4) fine sand; weak medium platy structure; friable; few fine and medium roots; light olive gray (5Y 6/2) bands of loamy fine sand; few medium prominent yellowish red (5YR 5/8) masses of iron accumulation and many coarse prominent light gray (5Y 7/2) iron depletions; slightly acid; abrupt wavy boundary. (Combined thickness of the Bs horizon is 4 to 20 inches).

2C1--21 to 38 inches; gray (5Y 5/1) silt loam; massive; firm; few fine vesicular pores; few fine prominent strong brown (7.5YR 4/6) and many medium prominent light olive brown (2.5Y 5/4) masses of iron accumulation; neutral; gradual wavy boundary.

2C2--38 to 67 inches; light olive brown (2.5Y 5/4) silt loam; moderate fine angular blocky structure; firm; dark reddish brown (5YR 3/2) stains on faces of peds; common medium prominent gray (5Y 5/1) iron depletions in the upper part; neutral.

DRAINAGE AND PERMEABILITY: Poorly drained. Permeability is rapid above the lithologic discontinuity and moderately slow below.

MAYBID SERIES

The Maybid series consists of very deep, very poorly drained soils formed in lacustrine or marine

sediments. They are nearly level or level soils on lowlands. Slope ranges from 0 to 3 percent. Saturated hydraulic conductivity is moderately high or high in the surface layer and very low to moderately high in the subsoil and substratum. Mean annual temperature is about 48 degrees F. and the mean annual precipitation is about 45 inches.

TAXONOMIC CLASS: Fine, mixed, semiactive, nonacid, mesic Typic Humaquepts

TYPICAL PEDON: Maybid silt loam forested, at an elevation of about 85 feet. (Colors are for moist soils.)

A--0 to 7 inches; very dark gray (10YR 3/1) silt loam, grayish brown (10YR 5/2) dry; moderate fine and medium granular structure; friable, slightly sticky, nonplastic; many fine, medium and coarse woody roots; moderately acid; clear smooth boundary. (6 to 10 inches thick)

Bg1--7 to 11 inches; gray (5Y 5/1) silty clay loam; moderate medium and coarse blocky structure; friable, sticky, slightly plastic; common fine, medium and *coarse woody roots; moderately acid; clear wavy boundary.*

Bg2--11 to 19 inches; greenish gray (5GY 5/1) silty clay; massive; firm, sticky, plastic; very few fine woody roots; few fine prominent brown (7.5YR 4/4) masses of iron accumulation; neutral; gradual smooth boundary. (Combined thickness of the Bg horizons is 6 to 22 inches.).

Cg1--19 to 27 inches; greenish gray (5GY 5/1) silty clay; massive; firm, sticky, plastic; neutral; gradual smooth boundary. (0 to 30 inches thick)

Cg2--27 to 65 inches; dark greenish gray (5GY 4/1) silty clay; massive; firm, sticky, plastic; neutral.

DRAINAGE AND PERMEABILITY: Very poorly drained. Internal drainage is very slow. Permeability is slow or very slow. Saturated hydraulic conductivity is moderately high or high in the surface layer very low to moderately high in the subsoil and substratum. The soil is intermittently ponded or has very low runoff.

8. ONSITE MAP UNIT DESCRIPTIONS

38 Eldridge loamy sand

Test Pit No.	**1**	Soils Series:	Eldridge
ESHWT::	26”	Landscape:	Flat
Termination @	60”	Slope:	A

Refusal:	None	Parent Material:	Sand over silt
Obs. Water:	None	Ksat (above ESHWT):	6 in/hr.

Horizon	Color (Munsell)	Texture	Structure-Consistence-Redox
A 0-10”	10YR3/2	loamy sand	granular-friable-none
Bw 10-26”	10YR4/4	loamy sand	granular-friable-none
B/C 26-48”	10YR4/3	loamy fine sand	massive-friable-2.5Y5/3
Cd 48-60”	2.5Y5/2	silty clay loam	blocky-firm-7.5YR5/8

Hydrologic Soil Group of this Eldridge soil test pit is C.

Test Pit No.	**2**	Soils Series:	Eldridge
ESHWT::	24”	Landscape:	Flat
Termination @	60”	Slope:	A
Refusal:	None	Parent Material:	Sand over silt
Obs. Water:	59”	Ksat (above ESHWT):	6 in/hr.

Horizon	Color (Munsell)	Texture	Structure-Consistence-Redox
A 0-13”	10YR3/2	loamy sand	granular-friable-none
Bw 13-24”	10YR4/4	loamy sand	granular-friable-none
B/C 24-31”	10YR4/3	loamy fine sand	massive-friable-2.5Y5/3
Cd 31-60”	2.5Y5/2	silty clay loam	blocky-firm-7.5YR5/8

Hydrologic Soil Group of this Eldridge soil test pit is C.

Test Pit No.	**3**	Soils Series:	Eldridge
ESHWT::	15”	Landscape:	Flat
Termination @	60”	Slope:	A
Refusal:	None	Parent Material:	Sand over silt
Obs. Water:	46”	Ksat (above ESHWT):	6 in/hr.

Horizon	Color (Munsell)	Texture	Structure-Consistence-Redox
A 0-8”	10YR3/2	loamy sand	granular-friable-none
Bw 8-15”	10YR4/6	loamy sand	granular-friable-none
B/C 15-30”	10YR4/6	loamy fine sand	massive-friable-2.5Y5/3
Cd 30-60”	2.5Y5/2	silty clay loam	blocky-firm-7.5YR5/8

Hydrologic Soil Group of this Eldridge soil test pit is C.

Test Pit No.	**4**	Soils Series:	Eldridge
ESHWT::	30”	Landscape:	Flat
Termination @	60”	Slope:	A
Refusal:	None	Parent Material:	Sand over silt
Obs. Water:	30”	Ksat (above ESHWT):	6 in/hr.

Horizon	Color (Munsell)	Texture	Structure-Consistence-Redox
A 0-12”	10YR3/2	loamy sand	granular-friable-none
E 12-24”	2.5Y7/2	loamy sand	granular-friable-none
Bhs 24-30”	7.5YR4/6	loamy fine sand	massive-friable-none
Cd 30-60”	2.5Y5/2	silty clay loam	blocky-firm-7.5YR5/8

Hydrologic Soil Group of this Eldridge soil test pit is C.

Topography: flat.
Location: southwestern all of the upland portions of the site.
Inclusions: somewhat poorly drained mineral soils along the edge of the wetlands – 5%.

538 Squamscott loamy sand

0 – 8” 10YR3/2 loamy sand, friable, granular

8-20” 2.5Y5/2 loamy sand, friable, massive, redox.

20 – 40” 2.5Y5/2 silty clay loam, firm, blocky, redox.

Topography: flat

Location: mostly in the southern section of the site.

Inclusions: Areas where a muck layer of 2 to 4 inches has accumulated – 15%.

134 Maybid silt loam

0-10" 10YR3/1 silt loam, granular, friable, redox

10-20"+ 2.5Y5/1 silty clay loam, blocky, firm, redox

Topography: flat

Location: northern portion of the site and includes the floodplain.

Inclusions: areas of mucky soils closer to the river – 15%.

9. RESPONSIBLE SOIL SCIENTIST

Name: James Gove

Certified Soil Scientist Number: 004

10. OTHER DISTINGUISHING FEATURES OF SITE

Is the site in a natural condition? Yes, for the most part

If no, what is the nature of the disturbance? Just agriculture.

GOVE ENVIRONMENTAL SERVICES, INC.

TEST PIT DATA

Project 242 South Main Street, Newmarket, NH
Client D.R. Lemeiux Builders, LLC
GES Project No. 2022280
MM/DD/YY Staff 04-10-2023 James Gove, CSS#004

Test Pit No.	**1**	Soils Series:	Eldridge
ESHWT::	26”	Landscape:	Flat
Termination @	60”	Slope:	A
Refusal:	None	Parent Material:	Sand over silt
Obs. Water:	None	Ksat (above ESHWT):	6 in/hr.

Horizon	Color (Munsell)	Texture	Structure-Consistence-Redox
A 0-10”	10YR3/2	loamy sand	granular-friable-none
Bw 10-26”	10YR4/4	loamy sand	granular-friable-none
B/C 26-48”	10YR4/3	loamy fine sand	massive-friable-2.5Y5/3
Cd 48-60”	2.5Y5/2	silty clay loam	blocky-firm-7.5YR5/8

Hydrologic Soil Group of this Eldridge soil test pit is C.

Test Pit No.	**2**	Soils Series:	Eldridge
ESHWT::	24”	Landscape:	Flat
Termination @	60”	Slope:	A
Refusal:	None	Parent Material:	Sand over silt
Obs. Water:	59”	Ksat (above ESHWT):	6 in/hr.

Horizon	Color (Munsell)	Texture	Structure-Consistence-Redox
A 0-13”	10YR3/2	loamy sand	granular-friable-none
Bw 13-24”	10YR4/4	loamy sand	granular-friable-none
B/C 24-31”	10YR4/3	loamy fine sand	massive-friable-2.5Y5/3
Cd 31-60”	2.5Y5/2	silty clay loam	blocky-firm-7.5YR5/8

Hydrologic Soil Group of this Eldridge soil test pit is C.

8 Continental Dr Bldg 2 Unit H, Exeter, NH 03833-7526
Ph (603) 778 0644 / *Fax* (603) 778 0654
info@gesinc.biz
www.gesinc.biz

Test Pit No.	**3**	Soils Series:	Eldridge
ESHWT::	15”	Landscape:	Flat
Termination @	60”	Slope:	A
Refusal:	None	Parent Material:	Sand over silt
Obs. Water:	46”	Ksat (above ESHWT):	6 in/hr.

Horizon	Color (Munsell)	Texture	Structure-Consistence-Redox
A 0-8”	10YR3/2	loamy sand	granular-friable-none
Bw 8-15”	10YR4/6	loamy sand	granular-friable-none
B/C 15-30”	10YR4/6	loamy fine sand	massive-friable-2.5Y5/3
Cd 30-60”	2.5Y5/2	silty clay loam	blocky-firm-7.5YR5/8

Hydrologic Soil Group of this Eldridge soil test pit is C.

Test Pit No.	**4**	Soils Series:	Eldridge
ESHWT::	30”	Landscape:	Flat
Termination @	60”	Slope:	A
Refusal:	None	Parent Material:	Sand over silt
Obs. Water:	30”	Ksat (above ESHWT):	6 in/hr.

Horizon	Color (Munsell)	Texture	Structure-Consistence-Redox
A 0-12”	10YR3/2	loamy sand	granular-friable-none
E 12-24”	2.5Y7/2	loamy sand	granular-friable-none
Bhs 24-30”	7.5YR4/6	loamy fine sand	massive-friable-none
Cd 30-60”	2.5Y5/2	silty clay loam	blocky-firm-7.5YR5/8

Hydrologic Soil Group of this Eldridge soil test pit is C.