

TOWN OF MILFORD

Office of Community Development
Planning • Zoning • Building Safety • Code Enforcement • Health
Economic Development • Active Projects



Administrative Review

Date: August 10, 2022
To: Jason Plourde, Chair, Zoning Board of Adjustment
From: Lincoln Daley, Community Development Director
Subject: **Case #2022-14 TM Bolduc Holdings, LLC. and Salt Creek Properties, LLC. for the property located at Tax Map 43, Lot 69** – Special Exception Application to Exceed Maximum Structure Height. *Continued from 7/21/22*

The applicants are before the Board of Adjustment seeking a Special Exception from the Milford Zoning Ordinance, Article V, Section 5.05.8.C and 5.07.7.C to allow the construction of six, multi-family buildings with a maximum height of 56 feet where 35 feet is permitted in the Limited Commercial-Business District “LCB” Zoning District and 45 feet is permitted in the Commercial ‘C’ Zoning District. In reviewing the files for this property, I offer the following comments:

1. Existing Conditions:
 - a. The subject property is approximately 61 acres with 900 linear feet of frontage on Stoneyard Drive and 90 feet Ponemah Hill Road. The property is undeveloped.
 - b. The subject property is situated an established mixed use area. To the north, southeast, and east, the subject property abut single- and multi-family uses and vacant land. To the west and southwest, the property abuts commercial uses on Hammond Road and vacant land.
 - c. The property is bisected by the Commercial Zoning District to the west and the Limited Commercial Business District to east.
2. The proposal calls for the construction of six (6) residential, multi-family buildings with a maximum stated height of 56 feet within both the Commercial Zoning District and Limited Commercial Business Zoning District.
3. In accordance with Section 5.07.7.C, the maximum height of a structure within the Limited Commercial-Business District “LCB” Zoning District is 35 feet. In accordance with Section 5.05.8.C, the maximum height of a structure permitted within the Commercial Zoning District is 45 feet. As such, a special exception is required by the applicant to receive the requested relief.
4. Staff Comments:
 - a. The application states that there will be minimal visual impact on abutting properties given it proposed location and natural buffering. The applicant should be prepared to explain/detail what analysis has been completed to make this determination? The Board may want to consider additional analysis to determine the potential visual impact along abutting properties and Route 101, South Street/Rte. 13 South, Ponemah Hill Road, Powers Street, and Hammond Road.
 - b. A site walk of the property was conducted July 14, 2022. The Board should be prepared to discuss their observations as it relates to the case.

- c. In addition to requiring a Special Exception, the project will also require approval by the Planning Board for a major site plan application. It is recommended that the Board request formal input from the Planning Board.

On July 19, 2022, the Planning Board discussed the project and provided the following input as requested by the Board of Adjustment. Board members expressed general support for project and attempt to minimize the overall development footprint. The Board expressed concerns involving the requested 56' building height and potential visual impacts to residences near Ponemah Hill Road. The Board concluded that if the relief were to be denied that it would most likely result in an additional building to achieve the desired 216 unit density. See Draft 7/19/22 Planning Board Meeting Minutes.

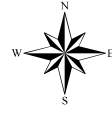
- d. At the July 7, 2022 ZBA meeting, the Board requested traffic information related the proposed 216 units and potential impacts to South Street/Rte 13, Union Street Clinton Street, Armory Road, Emerson Road, and Route 101.

In response, the applicant provided a technical memorandum and Traffic Impact & Access Study detailing and analyzing the traffic impacts of the 216 proposed multi-family units. See attached Traffic Impact And Access Study dated July 2022. The report has since been reviewed by the Town's traffic consultant. See attached 7/30/22 letter from Hoyle Tanner.

- e. At the July 7, 2022 ZBA meeting, the Board requested general input from the Conservation Commission. See attached 7/18/22 memorandum from the Conservation Commission.

Aerial Photos of Subject Property:





Map 43 Lot 69

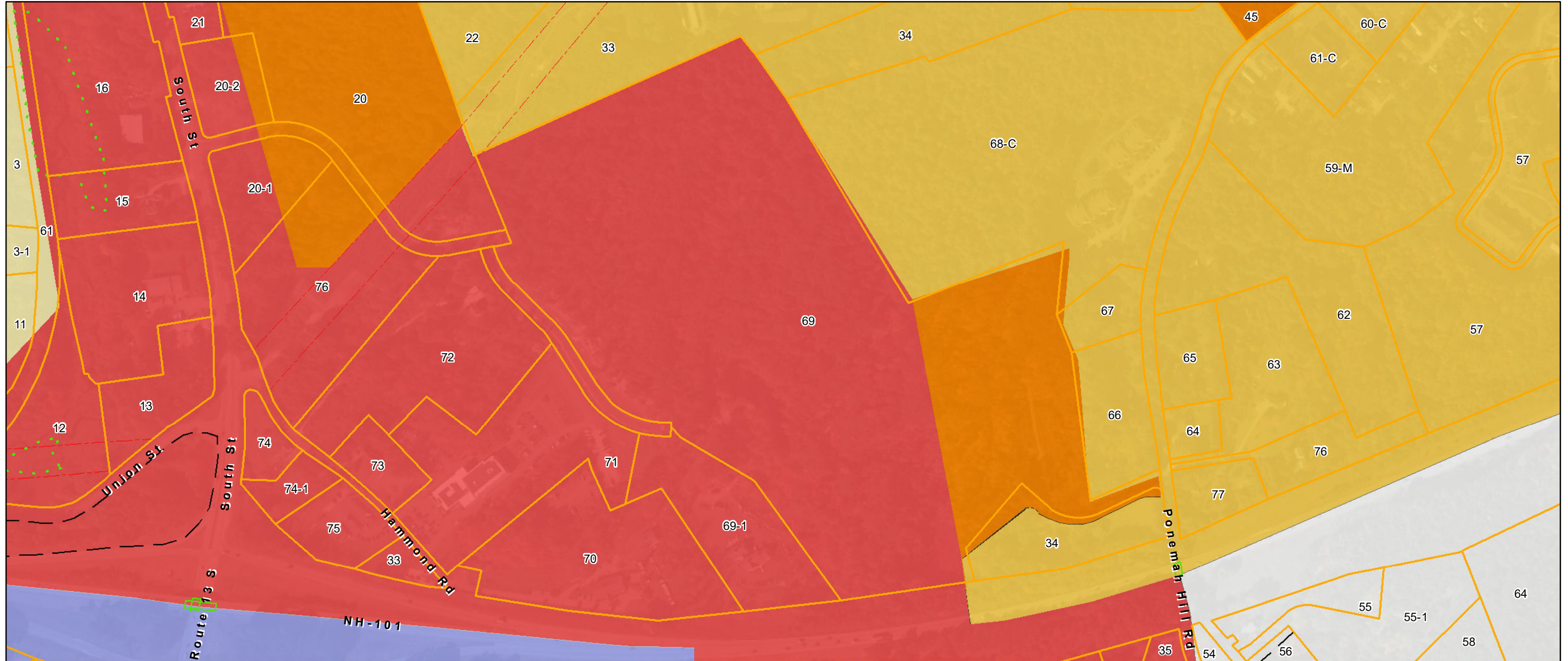
Zoning Map

1 inch = 350 Feet



July 2, 2022

www.cai-tech.com



	Private Road		Utility		Residence B
	Property Line		Bridge		Residence R
	Public Road		Intergrated Commercial Industrial		Commercial
	Wetland		Limited Commercial		Residence A
	Right of Way				
	Private Road ROW				

Data shown on this map is provided for planning and informational purposes only. The municipality and CAI Technologies are not responsible for any use for other purposes or misuse or misrepresentation of this map.

CHRISTOPHER A. SWINIARSKI
Admitted in NH and MA

Devine, Millimet & Branch
111 Amherst Street
Manchester, NH 03105

Direct Dial: 603.695-8709
cswiniarski@devinemillimet.com

July 12, 2022

VIA email to Lincoln Daley: ldaley@milford.nh.gov

Zoning Board of Adjustment (the "Board")
Town of Milford
1 Union Square
Milford, NH 03055

RE: Amendment to Application for Special Exception (the "Application") of TM Bolduc Holdings, LLC (the "Applicant") for building heights in excess of 35 feet at Tax Map 43 Lot 69, on Ponemah Hill Road, Milford, NH (the "Property")

Hello Board Members:

The purpose of this submission is to amend the above referenced application pursuant to the Board's discussion at its July 7, 2022 public meeting. Specifically, the Applicant hereby amends the application for Special Exception from allowing a height of 56 feet to allowing a height of 56 feet for all buildings, plus up to 10 additional feet for any architectural components or accessories required by the Town of Milford Planning Board to be placed above the roofline of any of the buildings. Thank you.

Sincerely,



Christopher Swiniarski
Attorney for TM Bolduc Holdings, LLC



CHRISTOPHER A. SWINIARSKI
Admitted in NH and MA

Devine, Millimet & Branch, P.A.
111 Amherst Street
Manchester, NH 03105

Direct Dial: 603.695-8709
cswiniarski@devinemillimet.com

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Application for Special Exception

The Q

Ponemah Hill Road, Milford, NH

Tax Map 43 Lot 69

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Conceptual Site Plan	4.
Elevation Plans	5.
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Tax Map	7.
GIS Map	8.
Letter of Authorization	9.

May 19, 2022



ZBA Application
MILFORD ZONING BOARD OF ADJUSTMENT
GENERAL PROPERTY INFORMATION FOR ALL APPLICATIONS

PROPERTY INFORMATION

Street Address: Ponemah Hill Road

Tax Map / Parcel #: Map 43 Lot 69 Lot Size: 60.73 acres +/-

PROPERTY CURRENTLY USED AS

Vacant land - historic quarry site

If the application involves multiple lots with different owners, attach additional copies of this page.

PROPERTY OWNER

Name: Salt Creek Properties, L.L.C.

Address: P.O. Box 967

City/State/Zip: Amherst, New Hampshire 03031

Phone: () (603) 554-1749

Email: tqinn@tfqtitle.com

APPLICANT/REPRESENTATIVE

The applicant is the person who is making this proposal on behalf of themselves, the owner or a third party. This is usually the same as the property owner, but might be a tenant, someone who plans to purchase the property, an engineer or lawyer, etc. If the applicant is the same as the owner, just check "Same as owner" and leave the rest of this section blank.

SAME AS OWNER

Name: TM Bolduc Holdings, LLC

Address: c/o Devine Millimet, 111 Amherst Street

City/State/Zip: Manchester, NH 03101

Email: cswiniarski@devinemillimet.com

Phone: () 603-695-8709 Cell: ()

APPLICANT/REPRESENTATIVE

SAME AS OWNER

Name: TM Bolduc Holdings, LLC

Address: c/o Devine Millimet, 111 Amherst Street

City/State/Zip: Manchester, NH 03101

Email: cswiniarski@devinemillimet.com

Phone: () 603-695-8709 Cell: ()

The undersigned property owner(s) hereby authorize(s) the filing of this application and agree to comply with all code requirements applicable to this application.

5/19/22

Property Owner's signature

Date:

Date Received: _____
Case Number: _____
Application Number: _____
Hearing Date: _____
Decision Date: _____
Decision: _____

Zoning District (check one):

- Residence A
- Residence B Residence R
- Commercial
- Limited Commercial
- Industrial
- Integrated Commercial-Industrial
- Integrated Commercial-Industrial-2

Overlay District (check any that apply):

- West Elm Street Overlay
- Nashua/Elm Street Overlay
- Commerce & Community Overlay
- Open Space & Conservation
- Wetlands Conservation
- Groundwater Protection
- Floodplain Management

APPLICATION FEES

Application Fee:	\$75.00
Abutters Fee: \$4 x _____	
Amount received:	
Date Received:	

Check _____ Cash _____

THE FEES ASSOCIATED WITH THIS APPLICATION DO NOT APPLY TO ANY OTHER FEES REQUIRED FOR APPROVAL OF THIS PROJECT. PLANNING, IMPACT, BUILDING AND OTHER FEES MAY APPLY.



ZBA Application – Special Exception
MILFORD ZONING BOARD OF ADJUSTMENT

Date Received: _____
 Case Number: _____
 Application #: _____
 Date Complete: _____
 Hearing Date: _____
 Decision Date: _____
 Decision: _____

PROPERTY INFORMATION

Street Address: Ponemah Hill Road

Tax Map / Parcel #: Map 43, Lot 69

A Special Exception is a use which is permitted by the Zoning Ordinance, but requires approval from the Zoning Board of Adjustment. Most special exceptions have a list of additional criteria that must be met in order for the ZBA to approve the application.

***Note that in addition to the specific criteria that may be listed for a particular special exception, all special exceptions are subject to the general criteria in Section 10.02.1 of the Zoning Ordinance.**

What section of the Zoning Ordinance are you applying under?

Article 5 Section 5.8 C and/or 7.7 C

Describe the **use** you are proposing under the above section of the Ordinance.

Multi-family residential development

**Application for
(check all that apply):**

- Change/Expansion of Non-conforming Use/Structure (2.03.1.C)
- Wetland Buffer Impact (6.02.6)
- Accessory Dwelling Unit (10.2.6)
- Office in Res-A & B (10.2.7)
- Home Business (7.12.6)
- Side/Rear Yard Setback Reduction (Zoning District Specific)
- Other

General Criteria Section 10.02.1

Describe the project you are requesting a Special Exception for:

Redevelop abandoned old quarry property into 6 buildings of multi-family housing with approximately 216 units on approximately 43 acres of available land on a parcel which is approximately 60 acres.

Explain how the proposal meets the general criteria as specified in Article X, Section 10.02.1 of the Zoning Ordinance:

A. The proposed use is similar to those permitted in the district because:

see project narrative and special exception criteria at Tab 3

B. The specific site is an appropriate location for the proposed use because:

see project narrative and special exception criteria at Tab 3

C. The use as developed will not adversely affect the adjacent area because:

see project narrative and special exception criteria at Tab 3

D. There will be no nuisance or serious hazard to vehicles or pedestrians because:

see project narrative and special exception criteria at Tab 3

E. Adequate appropriate facilities will be provided for the proper operation of the proposed use because:

see project narrative and special exception criteria at Tab 3

May 19, 2022

VIA Hand Delivery
Zoning Board of Adjustment (the "Board")
Town of Milford
1 Union Square
Milford, NH 03055

RE: Application for Special Exception (the "Application") of TM Bolduc Holdings, LLC (the "Applicant") for building heights in excess of 35 feet at Tax Map 43 Lot 69, on Ponemah Hill Road, Milford, NH (the "Property")

Hello Board Members:

The purpose of this submission is to provide you with the information evidencing the Applicant's compliance with the Special Exception criteria set forth in of the Town of Milford Zoning Ordinance, 2022 Edition (the "Ordinance"). Specifically, this submission addresses the special exception criteria for building heights in excess of 35 feet as set forth in § 5.05.8 C (C District) or § 5.07.7 C (LC District) of the Ordinance.

INTRODUCTION

The Property is an approximately 61 acre parcel located off of Ponemah Hill Road. It is in partially in the C zoning district, and partially in the LCB zoning district. The Property is currently vacant land, but was historically one of the many granite quarries in Milford. The Property is surrounded by dense vegetative buffers to the North, South, East, and partially to the West, with some commercial development to the South West on Hammond Road. Access to the Property and proposed development would be via Stoneyard Drive out to Route 13, linking residents to Rt 101.

The Applicant requests a Special Exception to construct six (6) buildings in the development at heights that exceed the Ordinance's stated maximums of 40 (C District) and 35 (LC District) feet. Specifically, both § 5.05.8 (C District) or § 5.07.7 (LC District) state as follows (highlighting added):

5.05.8 HEIGHT REQUIREMENTS (2005)

A. *The maximum height of a building or structure in the Commercial District shall be forty (40) feet, except as noted in B. below.*

B. The maximum height of school and municipal buildings or structures in the Commercial District shall be forty-five (45) feet.

C. A Special Exception shall be required for heights greater than allowed in either A or B above.

5.07.7 HEIGHT REQUIREMENTS (2005)

A. The maximum height of a building or structure in the Limited Commercial-Business District shall be thirty-five (35) feet, except as noted in B. below.

B. The maximum height of school and municipal buildings or structures in the Limited Commercial-Business District shall be forty-five (45) feet.

C. A Special Exception shall be required for heights greater than allowed in either A or B above.

The Applicant seeks the Special Exception analyzed below to construct the six (6) buildings of the proposed development at the heights set forth in the table below. Building designations are shown on the Conceptual Site Plan found at Tab 4. The elevations showing the heights are depicted on the Elevation Plans found at Tab 5. The maximum height of buildings by the Special Exception sought in this Application will be 56 feet.

Building	Front Height	Rear Height	Side Heights
B	56'	56'	56'
C	56'	56'	56'
D	56'	56'	56'
E	56'	56'	56'
F	56'	46'	51'
G	56'	46'	51'

ANALYSIS

Section 10.02.1 of the Ordinance provides the following special exception criteria in pertinent part:

The Board of Adjustment, in acting on an application for a special exception shall take into consideration the following conditions: (1992)

- A. *The proposed use shall be similar to those permitted in the district.*
- B. *The specific site is an appropriate location for the proposed use.*
- C. *The use as developed will not adversely affect the adjacent area.*
- D. *There will be no nuisance or serious hazard to vehicles or pedestrians.*
- E. *Adequate appropriate facilities will be provided for the proper operation of the proposed*

use.

The Applicant provides the following analysis for each of the foregoing criteria:

A. The proposed use shall be similar to those permitted in the district.

The proposed use is a multi-family residential development, which is expressly permitted in both the LC and C Districts. Sections 5.05.01 P (C District) and 5.07.01 H (LC District) specifically allow as an "Acceptable Use" the following:

"Two-family and multi-family dwellings and their accessory uses and structures, with their related conditions set forth in the Residence "B" District."

Section 5.03.01 C. (pertaining to the RB District) specifically allows as an "Acceptable Use" the following:

"Multi-family dwellings with municipal sewerage and water systems and their accessory uses and structures."

The proposed project that is the subject of this Application will be served by municipal sewerage and water systems accessed from Ponemah Hill Road via the gated utility road shown at the Eastern edge of the Conceptual Site Plan at Tab 4. It is therefore fully compliant with this criteria for Special Exception.

Similar use completed in the past five years located east of the Property.



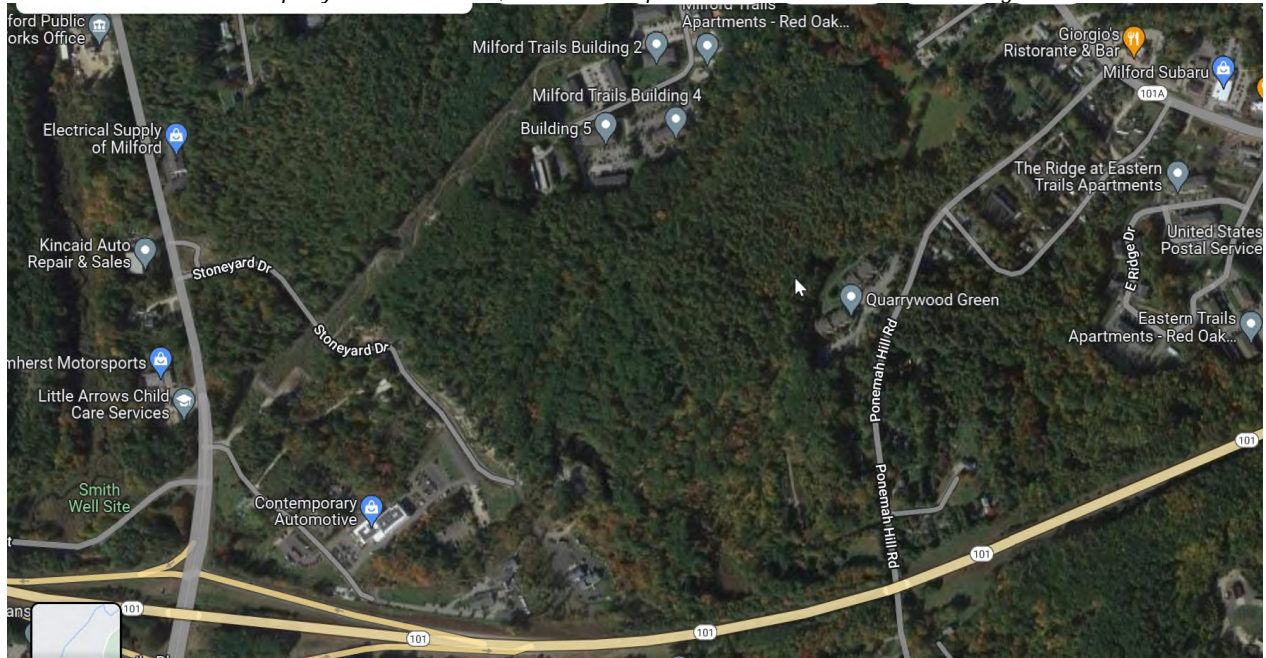
B. The specific site is an appropriate location for the proposed use.

The Property is quite perfectly suited for the proposed use. Among other things:

- Proposed use is expressly allowed in the zoning district in which the Property is located
- Access to the property is virtually direct to Route 13 from Stoneyard Road and from there only approximately 1,500 feet to Route 101.
- The Property is not visible from residential properties in the community, or from Route 13 or Route 101.

- The proposed project on the Property is an adaptive re-use of a historic quarry site that utilizes the land for much needed housing while leaving large areas of land undeveloped and green.
- The proposed project conserves vast wetlands while making the best use of the density allowed by the Ordinance, i.e., 5 units per acre.

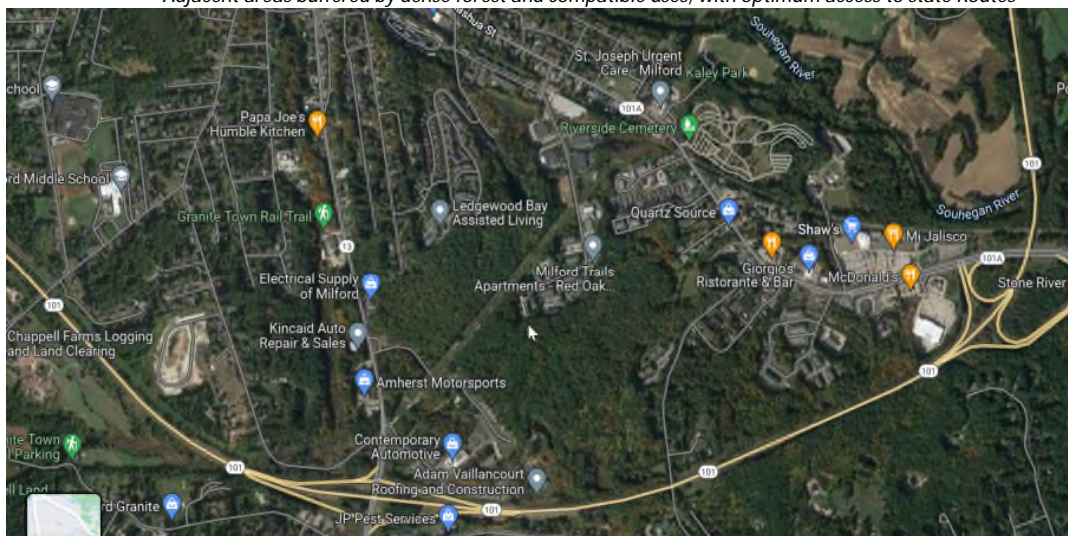
Property shown at middle, with several apartments and amenities surrounding



C. The use as developed will not adversely affect the adjacent area.

Quite the opposite, proposed use will be a vital enhancement to the adjacent commercial areas on Route 13 and Route 101, providing a significant additional customer base that will be an economic boost to this micro-economy. This economic boost comes with no discernable detriment, as the buildings even at their tallest 56 foot height will not be visible from any surrounding properties. There will be no adverse effect on water supplies or septic capabilities, as the project will utilize municipal utilities for both.

Adjacent areas buffered by dense forest and compatible uses, with optimum access to state Routes



D. There will be no nuisance or serious hazard to vehicles or pedestrians.

The proposed project has no discernable way to cause nuisance or hazard to pedestrians or vehicles. As stated above, the housing units will access Route 13 from Stoneyard Road only, and Route 101 from Route 13. The Applicant has commenced a traffic study in anticipation of its site plan review before the Planning Board. Preliminary results show no significant impact to vehicular traffic.

E. Adequate appropriate facilities will be provided for the proper operation of the proposed use.

The proposed project requires no extraordinary facilities and will utilize municipal water and sewer. Residents of the community will have ample parking, including garage parking under several of the buildings. As shown on the Conceptual Site Plan, large areas of the development will remain green.

SUMMARY

The Applicant seeks to provide much needed housing by reuse of a historic granite quarry at the Property now abandoned. The proposal unquestionably meets the exception special exception criteria as noted above, and largely exceeds the criteria in several instances. The Ordinance expressly allows for the increased height that the Applicant seeks when the Special Exception criteria are met as set forth above. The Applicant therefore respectfully requests that this Board grant the Special Exception sought for 56' building heights for the proposed use described above, which will be known as "The Q." Thank you.

Sincerely,

A handwritten signature in blue ink, appearing to read 'CS', is positioned above the typed name of Christopher Swiniarski.

Christopher Swiniarski
Attorney for TM Bolduc Holdings, LLC

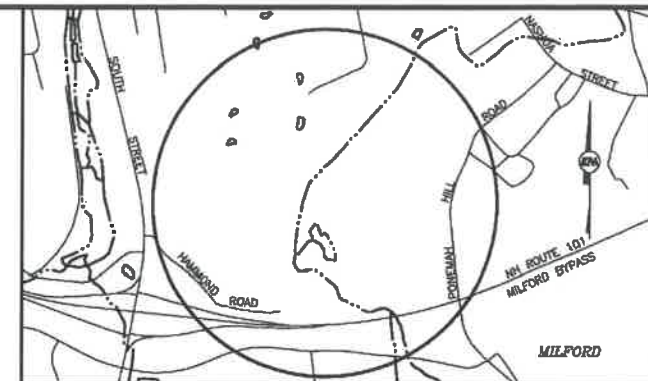
SOILS LEGEND

MAP UNIT	SOIL TYPE
CmC	CANTON FINE SANDY LOAM 8 TO 15 PERCENT SLOPES
CmD	CANTON FINE SANDY LOAM 15 TO 25 PERCENT SLOPES, VERY STONY
CmC	CHATFIELD-HOLLIS COMPLEX 8 TO 15 PERCENT SLOPES, ROCKY
CLD	CHATFIELD-HOLLIS-ROCK OUTCROP COMPLEX 15 TO 35 PERCENT SLOPES
CVA	LEICESTER-WALPOLE COMPLEX STONY, 0 TO 3 PERCENT SLOPES
Qr	QUARRIES
SaB	SCITUATE FINE SANDY LOAM 3 TO 8 PERCENT SLOPES

SOURCE: USDA-SCS WEB SOIL SURVEY
HILLSBOROUGH COUNTY

REFERENCE PLANS:

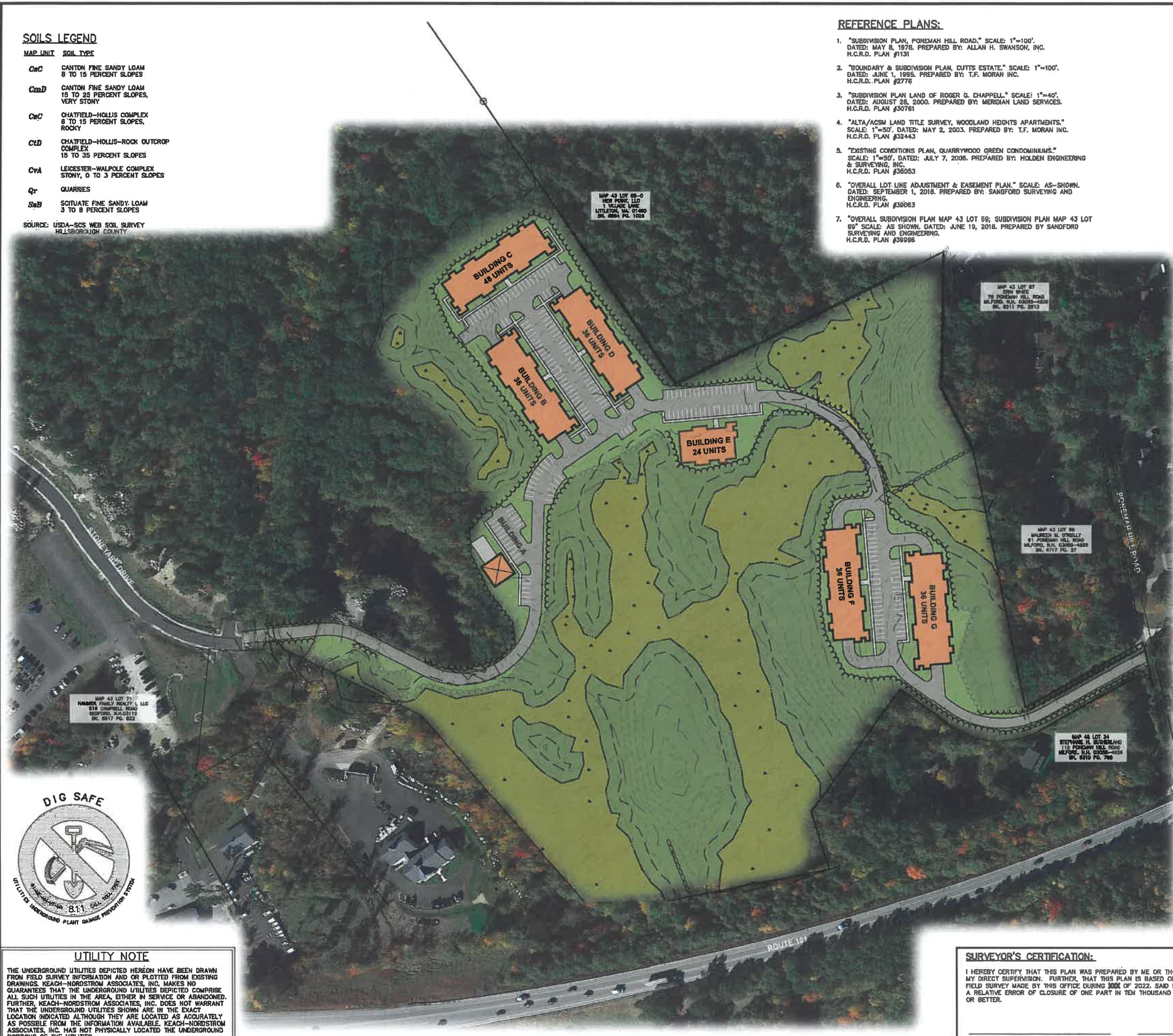
- "SUBDIVISION PLAN, PONEMAH HILL ROAD." SCALE: 1"=100'. DATED: MAY 8, 1978. PREPARED BY: ALLAN H. SWANSON, INC. H.C.R.D. PLAN #1131
- "BOUNDARY & SUBDIVISION PLAN, CUTTS ESTATE." SCALE: 1"=100'. DATED: JUNE 1, 1995. PREPARED BY: T.F. MORAN INC. H.C.R.D. PLAN #2776
- "SUBDIVISION PLAN LAND OF ROGER G. CHAPPELL." SCALE: 1"=40'. DATED: AUGUST 28, 2000. PREPARED BY: MERIDIAN LAND SERVICES. H.C.R.D. PLAN #30761
- "ALTA/ACSM LAND TITLE SURVEY, WOODLAND HEIGHTS APARTMENTS." SCALE: 1"=50'. DATED: MAY 2, 2003. PREPARED BY: T.F. MORAN INC. H.C.R.D. PLAN #32443
- "EXISTING CONDITIONS PLAN, QUARRYWOOD GREEN CONDOMINIUMS." SCALE: 1"=50', DATED: JULY 7, 2006. PREPARED BY: HOLDEN ENGINEERING & SURVEYING, INC. H.C.R.D. PLAN #36053
- "OVERALL LOT LINE ADJUSTMENT & EASEMENT PLAN." SCALE: AS-SHOWN. DATED: SEPTEMBER 1, 2018. PREPARED BY: SANDFORD SURVEYING AND ENGINEERING. H.C.R.D. PLAN #39063
- "OVERALL SUBDIVISION PLAN MAP 43 LOT 69; SUBDIVISION PLAN MAP 43 LOT 69" SCALE: AS SHOWN. DATED: JUNE 19, 2018. PREPARED BY SANDFORD SURVEYING AND ENGINEERING. H.C.R.D. PLAN #39998



LOCUS MAP
SCALE: 1" = 1000'

NOTES:

- THE PURPOSE OF THIS PLAN IS TO DEPICT THE EXISTING CONDITIONS PRESENT ON MAP 43 LOT 69 IN THE MILFORD, N.H.
- EXISTING LOT AREA:
XXXX
- OWNER OF RECORD:
SALT CREEK PROPERTIES, LLC
P.O. BOX 987
AMHERST, N.H. 03031-0987
BK. B420 PG. 1596
- THE SUBJECT PARCEL IS LOCATED WITHIN THE COMMERCIAL (C) & LIMITED COMMERCIAL (LC) ZONING DISTRICT. DIMENSIONAL REQUIREMENTS ARE AS FOLLOWS:
FRONT: 30'
SIDE: 15' (30' IF BORDERING A STREET, LANE OR PUBLIC WAY)
REAR: 15'
- HORIZONTAL DATUM IS NAD 83. VERTICAL DATUM IS NAVD 88 OBTAINED THROUGH GPS OBSERVATIONS POST PROCESSED THROUGH NOAA-OPUS.
- TOPOGRAPHIC AND BOUNDARY INFORMATION SHOWN HEREON IS THE RESULT OF AN ACTUAL FILED SURVEY PERFORMED BY THIS OFFICE IN XXX OF 2022.
- THE LOCATION OF ANY UNDERGROUND UTILITY INFORMATION SHOWN ON THIS PLAN IS APPROXIMATE. KEACH-NORDSTROM ASSOCIATES, INC. MAKES NO CLAIM TO THE ACCURACY OR COMPLETENESS OF UTILITIES SHOWN. PRIOR TO ANY EXCAVATION ON SITE THE CONTRACTOR SHALL CONTACT DIG SAFE AT 811.
- EXAMINATION OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) FOR THE TOWN OF MILFORD MAP NUMBER 33011C04590, PANEL NUMBER 459 OF 701 EFFECTIVE DATE: SEPTEMBER 25, 2009 INDICATES THAT NO PORTION OF THE SUBJECT PARCEL IS LOCATED WITHIN A DESIGNATED FLOOD HAZARD AREA.
- EASEMENTS, RIGHTS AND RESTRICTIONS SHOWN OR IDENTIFIED HEREON ARE THOSE FOUND DURING RESEARCH AT THE HILLSBOROUGH COUNTY REGISTRY OF DEEDS. OTHER EASEMENTS, RIGHTS AND RESTRICTIONS MAY EXIST WHICH A TITLE EXAMINATION OF THE SUBJECT PREMISES MAY DETERMINE.



UTILITY NOTE

THE UNDERGROUND UTILITIES DEPICTED HEREON HAVE BEEN DRAWN FROM FIELD SURVEY INFORMATION AND OR PLOTTED FROM EXISTING DRAWINGS. KEACH-NORDSTROM ASSOCIATES, INC. MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES DEPICTED COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. FURTHER, KEACH-NORDSTROM ASSOCIATES, INC. DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE. KEACH-NORDSTROM ASSOCIATES, INC. HAS NOT PHYSICALLY LOCATED THE UNDERGROUND PORTIONS OF THE UTILITIES.

**EXISTING CONDITIONS
THE Q AT MILFORD**
MAP 43 LOT 69
0 PONEMAH HILL ROAD
MILFORD, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD:
SALT CREEK PROPERTIES, LLC
P.O. BOX 987
AMHERST, N.H. 03031-0987
BK. B420 PG. 1596

APPLICANT:
LOYAL HOLDINGS, LLC
131 BURKE STREET
SUITE A
NASHUA, N.H. 03080

KN KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 303, Bedford, NH 03110 Phone (603) 687-2881

SURVEYOR'S CERTIFICATION:

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR THOSE UNDER MY DIRECT SUPERVISION. FURTHER, THAT THIS PLAN IS BASED ON AN ACTUAL FIELD SURVEY MADE BY THIS OFFICE DURING XXX OF 2022. SAID SURVEY HAS A RELATIVE ERROR OF CLOSURE OF ONE PART IN TEN THOUSAND (1:10,000) OR BETTER.

LICENSED LAND SURVEYOR

DATE

REVISIONS

No.	DATE	DESCRIPTION	BY

DATE: APRIL 11, 2022
PROJECT NO: 21-1216-1

SCALE: 1" = 100'
SHEET 1 OF 1

SOILS LEGEND

MAP UNIT	SOIL TYPE
CaC	CANTON FINE SANDY LOAM 8 TO 15 PERCENT SLOPES
CmD	CANTON FINE SANDY LOAM 15 TO 25 PERCENT SLOPES, VERY STONY
CaC	CHATFIELD-HOLLIS COMPLEX 8 TO 15 PERCENT SLOPES, ROCKY
CLD	CHATFIELD-HOLLIS-ROCK OUTCROP COMPLEX 15 TO 35 PERCENT SLOPES
CvA	LEICESTER-WALPOLE COMPLEX STONY, 0 TO 3 PERCENT SLOPES
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SOURCE: USDA-SCS WEB SOIL SURVEY
HILLSBOROUGH COUNTY

REFERENCE PLANS:

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- "OVERALL SUBDIVISION PLAN MAP 43 LOT 69; SUBDIVISION PLAN MAP 43 LOT 69" SCALE: AS SHOWN. DATED: JUNE 19, 2018. PREPARED BY SANDFORD SURVEYING AND ENGINEERING. H.C.R.D. PLAN #39996



LOCUS MAP
SCALE: 1" = 1000'

NOTES:

- THE PURPOSE OF THIS PLAN IS TO DEPICT THE EXISTING CONDITIONS PRESENT ON MAP 43 LOT 69 IN THE MILFORD, N.H.
- EXISTING LOT AREA:
XXXX
- OWNER OF RECORD:
SALT CREEK PROPERTIES, LLC
P.O. BOX 967
AMHERST, N.H. 03031-0967
BK. 8420 PG. 1596
- THE SUBJECT PARCEL IS LOCATED WITHIN THE COMMERCIAL (C) & LIMITED COMMERCIAL (LC) ZONING DISTRICT. DIMENSIONAL REQUIREMENTS ARE AS FOLLOWS:
FRONT: 30'
SIDE: 15' (30' IF BORDERING A STREET, LANE OR PUBLIC WAY)
REAR: 15'
- HORIZONTAL DATUM IS NAD 83 VERTICAL DATUM IS NAVD 88 OBTAINED THROUGH GPS OBSERVATIONS POST PROCESSED THROUGH NOAA-OPUS.
- TOPOGRAPHIC AND BOUNDARY INFORMATION SHOWN HEREON IS THE RESULT OF AN ACTUAL FILED SURVEY PERFORMED BY THIS OFFICE IN XXX OF 2022.
- THE LOCATION OF ANY UNDERGROUND UTILITY INFORMATION SHOWN ON THIS PLAN IS APPROXIMATE. KEACH-NORDSTROM ASSOCIATES, INC. MAKES NO CLAIM TO THE ACCURACY OR COMPLETENESS OF UTILITIES SHOWN. PRIOR TO ANY EXCAVATION ON SITE THE CONTRACTOR SHALL CONTACT DIG SAFE AT 811.
- EXAMINATION OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) FOR THE TOWN OF MILFORD MAP NUMBER 33011C0459D, PANEL NUMBER 459 OF 701 EFFECTIVE DATE: SEPTEMBER 25, 2009 INDICATES THAT NO PORTION OF THE SUBJECT PARCEL IS LOCATED WITHIN A DESIGNATED FLOOD HAZARD AREA.
- EASEMENTS, RIGHTS AND RESTRICTIONS SHOWN OR IDENTIFIED HEREON ARE THOSE FOUND DURING RESEARCH AT THE HILLSBOROUGH COUNTY REGISTRY OF DEEDS. OTHER EASEMENTS, RIGHTS AND RESTRICTIONS MAY EXIST WHICH A TITLE EXAMINATION OF THE SUBJECT PREMISES MAY DETERMINE.



MAP 43 LOT 68-C
NEW POINT, LLC
1 VILLAGE LANE
LITTLETON, MA 01460
BK. 8884 PG. 1026

MAP 43 LOT 67
ERIN WHITE
79 PONEMAH HILL ROAD
MILFORD, N.H. 03055-4928
BK. 6311 PG. 2813

MAP 43 LOT 66
MAUREEN M. O'REILLY
91 PONEMAH HILL ROAD
MILFORD, N.H. 03055-4928
BK. 4717 PG. 27

MAP 48 LOT 34
STEPHANIE H. SUTHERLAND
115 PONEMAH HILL ROAD
MILFORD, N.H. 03055-4928
BK. 6310 PG. 785

MAP 43 LOT 71
HAMMER FAMILY REALTY L LLC
219 CAMPBELL ROAD
BEDFORD, N.H. 03110
BK. 8917 PG. 822



UTILITY NOTE

THE UNDERGROUND UTILITIES DEPICTED HEREON HAVE BEEN DRAWN FROM FIELD SURVEY INFORMATION AND OR PLOTTED FROM EXISTING DRAWINGS. KEACH-NORDSTROM ASSOCIATES, INC. MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES DEPICTED COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. FURTHER, KEACH-NORDSTROM ASSOCIATES, INC. DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE. KEACH-NORDSTROM ASSOCIATES, INC. HAS NOT PHYSICALLY LOCATED THE UNDERGROUND PORTIONS OF THE UTILITIES.

SURVEYOR'S CERTIFICATION:

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR THOSE UNDER MY DIRECT SUPERVISION. FURTHER, THAT THIS PLAN IS BASED ON AN ACTUAL FIELD SURVEY MADE BY THIS OFFICE DURING XXXX OF 2022. SAID SURVEY HAS A RELATIVE ERROR OF CLOSURE OF ONE PART IN TEN THOUSAND (1:10,000) OR BETTER.

LICENSED LAND SURVEYOR DATE

EXISTING CONDITIONS
THE Q AT MILFORD
MAP 43 LOT 69
0 PONEMAH HILL ROAD
MILFORD, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD: SALT CREEK PROPERTIES, LLC P.O. BOX 967 AMHERST, N.H. 03031-0967 BK. 8420 PG. 1596	APPLICANT: LOYAL HOLDINGS, LLC 131 BURKE STREET SUITE A NASHUA, N.H. 03060
--	---

KA KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

REVISIONS			
No.	DATE	DESCRIPTION	BY

DATE: APRIL 11, 2022	SCALE: 1" = 100'
PROJECT NO: 21-1216-1	SHEET 1 OF 1



FRONT ELEVATION BUILDING B&D

NTS SCALE

THE Q at MILFORD
MILFORD, NEW HAMPSHIRE

BURNELL  JOHNSON
ARCHITECTS

80 STARK STREET, MANCHESTER, NEW HAMPSHIRE 03101
(603) 625-5098 (603) 625-5107 FAX

MAY 16, 2022

EMAIL: jburnell@burnellarchitects.com



1 Front Bldg C Elev
SCALE: 1/8" = 1'-0"

FRONT ELEVATION BUILDING C
NOT SCALE

THE Q at MILFORD
MILFORD, NEW HAMPSHIRE

BURNELL  JOHNSON
ARCHITECTS

80 STARK STREET, MANCHESTER, NEW HAMPSHIRE 03101
(603) 625-5098 (603) 625-5107 FAX

MAY 16, 2022

EMAIL: jburnell@burnellarchitects.com



FRONT ELEVATION BUILDING F&G
SCALE 1/8" = 1'-0"

56'



LEFT SIDE BUILDING ELEVATION F&G
SCALE 1/8" = 1'-0"

51'

THE Q at MILFORD
MILFORD, NEW HAMPSHIRE

BURNELL & JOHNSON
ARCHITECTS

89 STARK STREET, MANCHESTER, NEW HAMPSHIRE 03101
(603) 625-5098 (603) 625-5107 FAX

MAY 16, 2022

EMAIL: tburnell@burnellarchitects.com



46'

REAR ELEVATION BUILDING F&G
SCALE 1/8" = 1'-0"



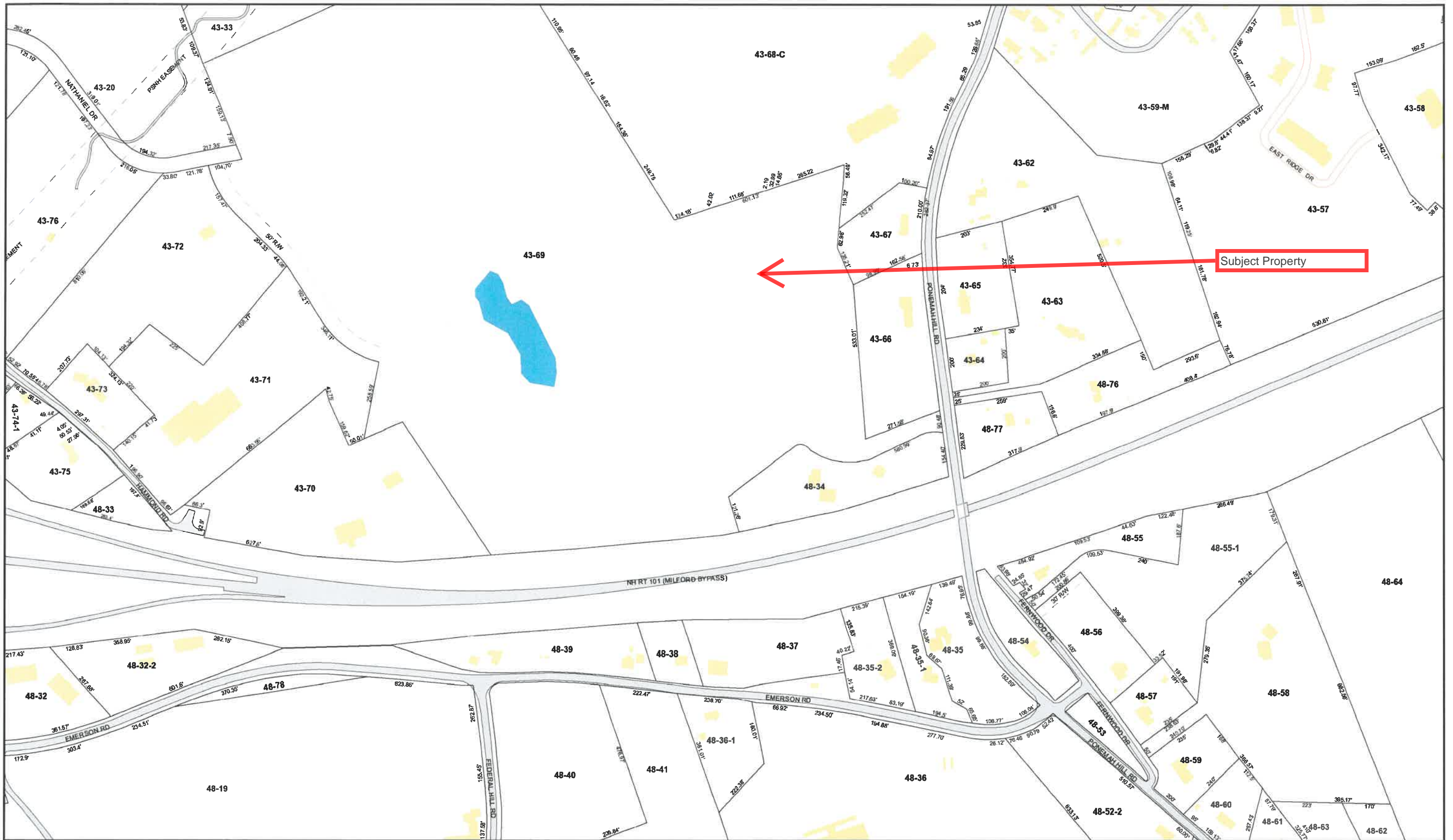
51'

RIGHT SIDE BUILDING ELEVATION F&G
SCALE 1/8" = 1'-0"

THE Q at MILFORD
MILFORD, NEW HAMPSHIRE

BURNELL & JOHNSON
ARCHITECTS
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MAY 16, 2022



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- Parcel
- Town Owned Land
- Cemetery
- State
- Class VI
- Wetlands
- Water
- Road
- Abandoned/Discontinued Rd
- Conservation Easement
- Easement
- Private

MILFORD, NH

This document has been prepared to show approximate lot location only. Information shown is not to be used for deed descriptions. The Community Development Department maintains a continuing program to identify and correct errors. The Department makes no claims to the validity or reliability, or to any implied uses of this representation.

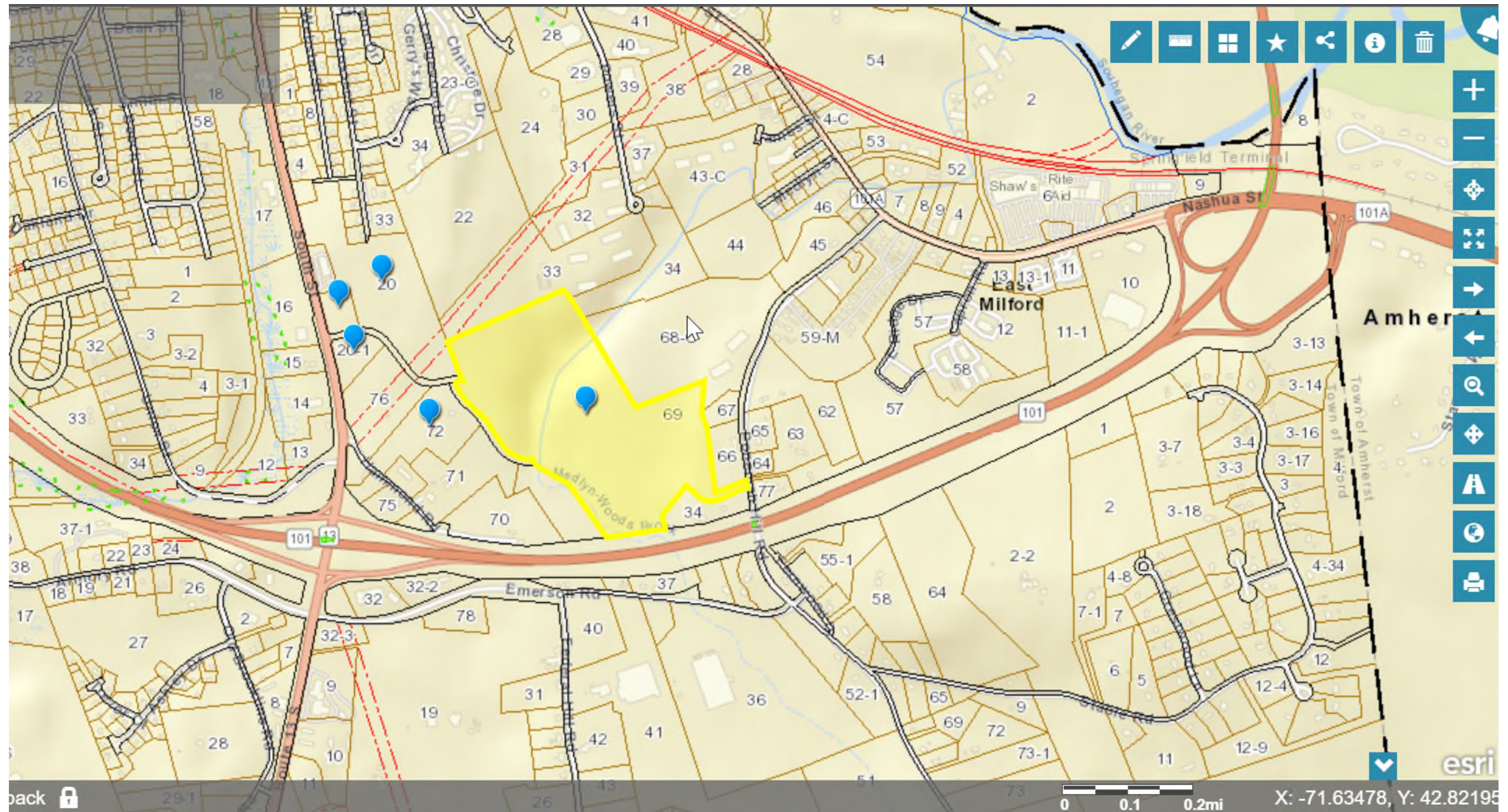


Date:
April 2018
 1 inch approx. 300 feet



G6

THE Q
Milford, NH



TRAFFIC IMPACT AND ACCESS STUDY

RESIDENTIAL DEVELOPMENT
MILFORD, NEW HAMPSHIRE

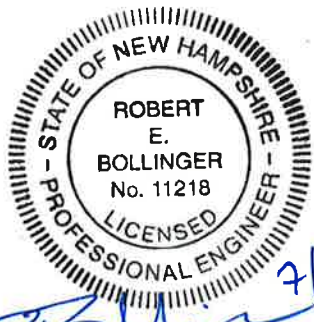
GPI

GPI

116 South River Road
Building B, Suite 1
Bedford, NH 03110
(603) 766-5229

SUBMITTED TO:

Mr. Tommy Bolduc
TM Bolduc Holdings, LLC
131 Burke St., Suite A
Nashua, New Hampshire 03060



[Handwritten signature]
7/12/2022

July 2022

*Mr. Tommy Bolduc
Residential Development
Traffic Impact and Access Study
July 2022*

TECHNICAL MEMORANDUM

REF: NEX-2021414.00

DATE: July 12, 2022

TO: Mr. Tommy Bolduc
TM Bolduc Holdings, LLC
131 Burke St., Suite A
Nashua, NH 03060

FROM: Mr. Robert E. Bollinger, P.E., PTOE, Senior Project Manager
Mr. Donald Panjaitan, Assistant Designer

RE: Traffic Impact & Access Study
Proposed Residential Development
South Street (NH Route 13) – Milford, New Hampshire

INTRODUCTION

Greenman-Pedersen, Inc. (GPI) has prepared this *Traffic Impact and Access Study* (TIAS) for a proposed residential development to be located at 0 Ponemah Hill Road (Map 43 Block 69) in Milford, New Hampshire. The site is currently vacant. The project consists of constructing 216 garden style apartments housed in 6 (six) separate buildings.

Primary access and egress are proposed to the site via Nathaniel Drive, an existing driveway on the east side of NH Route 13 (South Street), approximately 1,000 feet north of Union Street. Secondary access and egress for emergency purposes only are proposed via a new driveway on the west side of Ponemah Hill Road, approximately 0.2 miles north of Emerson Road. Should the emergency access on Ponemah Hill Road ever be reconsidered as a primary point of access/egress, additional analysis may be required. This TIAS evaluates the traffic impacts and access/egress requirements for the proposed residential development. The requirements of this study were set forth in a scoping meeting conducted with Town officials on April 15, 2022.

South Street in the vicinity of Nathaniel Drive is under the jurisdiction of the Town of Milford. Accordingly, a New Hampshire Department of Transportation (NHDOT) Driveway permit will not be required for the project. The site location in relation to the surrounding roadway network is shown on the map on Figure 1.

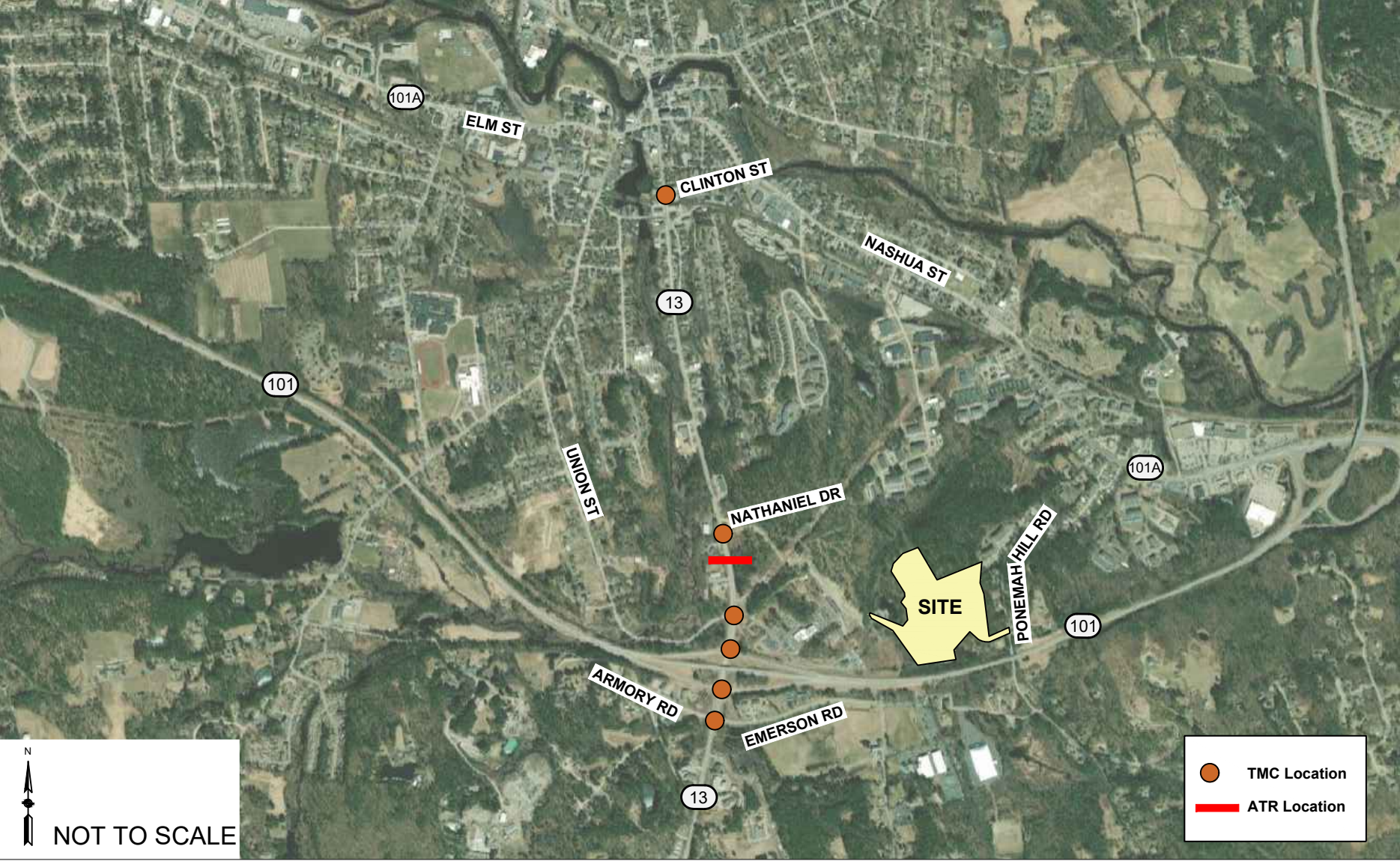


Figure 1
SITE LOCATION MAP

EXISTING CONDITIONS

Study Area

Evaluation of the traffic impacts associated with the proposed project requires an evaluation of existing and projected traffic volumes on the adjacent streets, the volume of traffic expected to be generated by the project, and the impact that this traffic will have on the adjacent streets and nearby intersections. In preparing the TIAS for the proposed site, the following intersections have been analyzed and evaluated based on scoping meeting requirements set forth by Town staff and their review consultant:

- South Street at Nathaniel Drive
- South Street at Clinton Street
- South Street at Union Street
- South Street at NH 101 WB Ramps
- South Street at NH 101 EB Ramps
- South Street at Armory Road & Emerson Road

South Street (NH Route 13)

South Street (NH Route 13) is classified as an urban minor arterial running in a general north-south direction in the study area. Adjacent to the site, both the northbound and southbound directions of travel consist of one general purpose travel, approximately 12-foot wide, with variable width paved shoulders. The posted speed limit is 35 miles per hour (mph) in both directions. Neither sidewalks nor formal bicycle accommodations are provided. Land uses along South Street primarily consist of commercial and residential properties, and areas of wooded space.

South Street at Nathaniel Drive

Nathaniel Drive intersects South Street from the east to form a T-type unsignalized intersection, with the Nathaniel Drive westbound approach under STOP control. The South Street northbound and southbound approaches each consist of a shared 12-foot travel lane from which all maneuvers are completed, with variable width paved shoulders, delineated by white edge lines. Directions of travel on South Street are delineated by a double-yellow center-line. The Nathaniel Drive east leg of the intersection consists of a 24-foot wide paved area. There are no pavement markings delineating vehicular travel on its approach to South Street. A STOP-sign on the Nathaniel Drive approach to South Street reinforces the vehicular right-of-way. Neither crosswalks nor sidewalks are provided at this location.

South Street at Clinton Street

Clinton intersects South Street from the east to and effectively operates as a T-type unsignalized intersection, with the Clinton Street westbound approach under STOP-sign control. It should be noted that a residential driveway is present on the west side of South Street, opposite Clinton Street. However, observed traffic volumes were negligible, and the residential driveway was omitted from all future analysis scenarios. The South Street northbound and southbound approaches each consist of a shared 12-foot travel lane from which all maneuvers are completed. Directions of travel on South Street are delineated by a double-yellow center-line. The Clinton Street westbound consists of a shared 12-foot wide travel lane from which all maneuvers are completed. Directions of travel on Clinton Street are separated by a double-yellow center-line, and a STOP-sign and STOP-bar reinforce the vehicular right-of-way. Sidewalks are provided along the east and west sides of South Street, and the north side of Clinton Street. A crosswalk

is provided along the east and north legs of the intersection. It should be noted that there is an active rail crossing across South Street, approximately 100-feet south of Clinton Street.

South Street at Union Street

Union Street intersects South Street from the west to form a T-type unsignalized intersection, with the Union Street eastbound approach under STOP-sign control. The South Street northbound approach is comprised of a 12-foot through lane and a 12-foot exclusive left-turn lane. The South Street southbound approach consists of a 12-foot travel lane from which all maneuvers are completed. Directions of travel on South Street are delineated by a raised median south of Union Street, and by a painted island north of Union Street. The Union Street eastbound consists of a shared 14-foot wide travel lane from which all maneuvers are completed. Directions of travel on Union Street are separated by a double-yellow center-line, and a STOP-sign and STOP-bar reinforce the vehicular right-of-way. Neither crosswalks nor sidewalks are provided at this location.

South Street at NH Route 101 Westbound Ramps

The NH Route 101 Westbound Ramps intersect South Street from the east and west to form this four-legged unsignalized intersection, with the NH Route 101 Westbound off-ramp under STOP-sign control. The South Street northbound approach is comprised of a 12-foot through lane and a 12-foot exclusive left-turn lane. The South Street southbound approach bifurcates near its intersection with the NH 101 Westbound on-ramp, providing a channelized right-turn lane, separated from the rest of the intersection, effectively removing its influence on other traffic maneuvers. Additionally, an exclusive 12-foot southbound through lane is provided. Directions of travel on South Street are delineated by raised medians north and south of the NH Route 101 Westbound Ramps.

The NH Route 101 Westbound off-ramp consists of 21-foot wide travel lane, and approximately 6-foot wide paved shoulder. Although not delineated, field observations determined that this approach operates with two de-facto approach lanes; a shared through/left-turn lane, and an exclusive right-turn lane. Two flanking STOP-signs and STOP-bar on the NH Route 101 Westbound off-ramp approach reinforce the vehicular right-of-way. Neither crosswalks nor sidewalks are provided at this location.

South Street at NH Route 101 Eastbound Ramps

The NH Route 101 Eastbound Ramps intersect South Street from the east and west to form this four-legged unsignalized intersection, with the NH Route 101 Eastbound off-ramp under STOP-sign control. The South Street southbound approach is comprised of a 12-foot through lane and a 12-foot exclusive left-turn lane. The South Street northbound approach bifurcates near its intersection with the NH 101 Eastbound on-ramp, providing a channelized right-turn lane, separated from the rest of the intersection, effectively removing its influence on other traffic maneuvers. Additionally, an exclusive 12-foot northbound through lane is provided. Directions of travel on South Street are delineated by raised medians north and south of the NH Route 101 Eastbound Ramps.

The NH Route 101 Eastbound off-ramp consists of 22-foot wide travel lane. Although not delineated, field observations determined that this approach operates with two de-facto approach lanes; a shared through/left-turn lane, and an exclusive right-turn lane. Two flanking STOP-signs and STOP-bar on the NH Route 101 Westbound off-ramp approach reinforce the vehicular right-of-way. Neither crosswalks nor sidewalks are provided at this location.

South Street at Armory Road and Emerson Road

Emerson Road intersects South Street from the east, and Armory Road intersects South Street from the west to form this four-legged signalized intersection. The northbound and southbound South Street approaches are each comprised of an exclusive left-turn lane, and exclusive right-turn lane and a through lane. The westbound Emerson Road approach is comprised of an exclusive left-turn lane, an exclusive right-turn lane, and a through lane. The eastbound Armory Road approach is comprised of an exclusive left-turn lane, and a shared through/right-turn lane. Directions of travel on south, east, and west legs are delineated by a double-yellow center-line, while directions of travel on the north leg are separated by a raised median.

The signal operates with four basic phases: northbound and southbound left-turns; all northbound and southbound movements; eastbound and westbound left-turns; and eastbound/westbound through/right-turn movements. An exclusive pedestrian phase, if actuated, is also accommodated. A crosswalk is present on the north leg of the intersection, and a short section of sidewalk is present on the east side of South Street from its intersection with Emerson Road to the NH 101 Eastbound on-ramp. Although there is no connection, there is a short sidewalk stub/platform on the northwest corner of the intersection where South Street intersects Armory Road.

Public Transportation

Souhegan Valley Rides is a demand responsive bus service available to residents of Milford. According to their website, “The focus for this service is on providing transportation to non-emergency health care appointments and assisting those in greatest need – elderly residents, those living with a disability, and residents who are unable to drive. Other residents may use the service as space is available in the schedule.” No other public transportation facilities were identified.

Traffic Volumes

Base traffic conditions within the study area were developed by collecting manual turning movement counts (TMC) at the study area intersections on Thursday, May 12, 2022 during the weekday AM peak period (7:00 to 9:00 AM) and weekday PM peak period (4:00 to 6:00 PM), and the Saturday midday peak period (11:00 AM to 2:00 PM) data were collected on Saturday, May 14, 2022. In addition, automatic traffic recorder (ATR) counts were collected along South Street (Route 13) south of Nathaniel Road for a 72-hour period extending from Thursday, May 12 to Saturday, May 14, 2022 to obtain daily traffic volumes and vehicle travel speeds along the roadway.

Seasonal Adjustment

Traffic on a given roadway typically fluctuates throughout the year depending on the area and the type of roadway. Based on NHDOT guidelines for the preparation of a traffic study, existing traffic volumes must represent the peak of the monthly average peak-hour conditions. To determine if the data needed to be adjusted to account for this fluctuation, seasonal adjustment and historical count data provided by NHDOT were reviewed.¹ This information revealed that May traffic volumes are 4-percent lower than peak-month conditions. Therefore, the traffic counts were upwardly adjusted to reflect peak-month conditions, as needed. The NHDOT seasonal adjustment factors are provided in the Appendix.

¹ NHDOT Data Management System; Group 4 (Urban Highways) Averages, 2017-2019.

COVID-19 Adjustment

Due to the COVID-19 pandemic, current traffic volumes may vary from typical historic conditions. In order to determine what additional data adjustment may be required to reflect pre-pandemic traffic conditions, a comparative analysis was conducted between 2022 ATR data collection by GPI and the closest active NHDOT short-term count station². Specifically, 2022 weekday and Saturday data collected by GPI were compared with August 2019 data collected by NHDOT. The results of this analysis indicate that weekday and Saturday traffic volumes are at or above 2019 conditions. Therefore, no further adjustment is necessary. Supporting documentation for these results is included in the Appendix.

Table 1 summarizes the existing daily and peak-hour traffic volumes on NH Route 13 (South Street). The 2022 Existing traffic-flow networks for the weekday AM, weekday PM, and Saturday midday peak hours are shown graphically on Figures 2.

**TABLE 1
Existing Traffic Volume Summary**

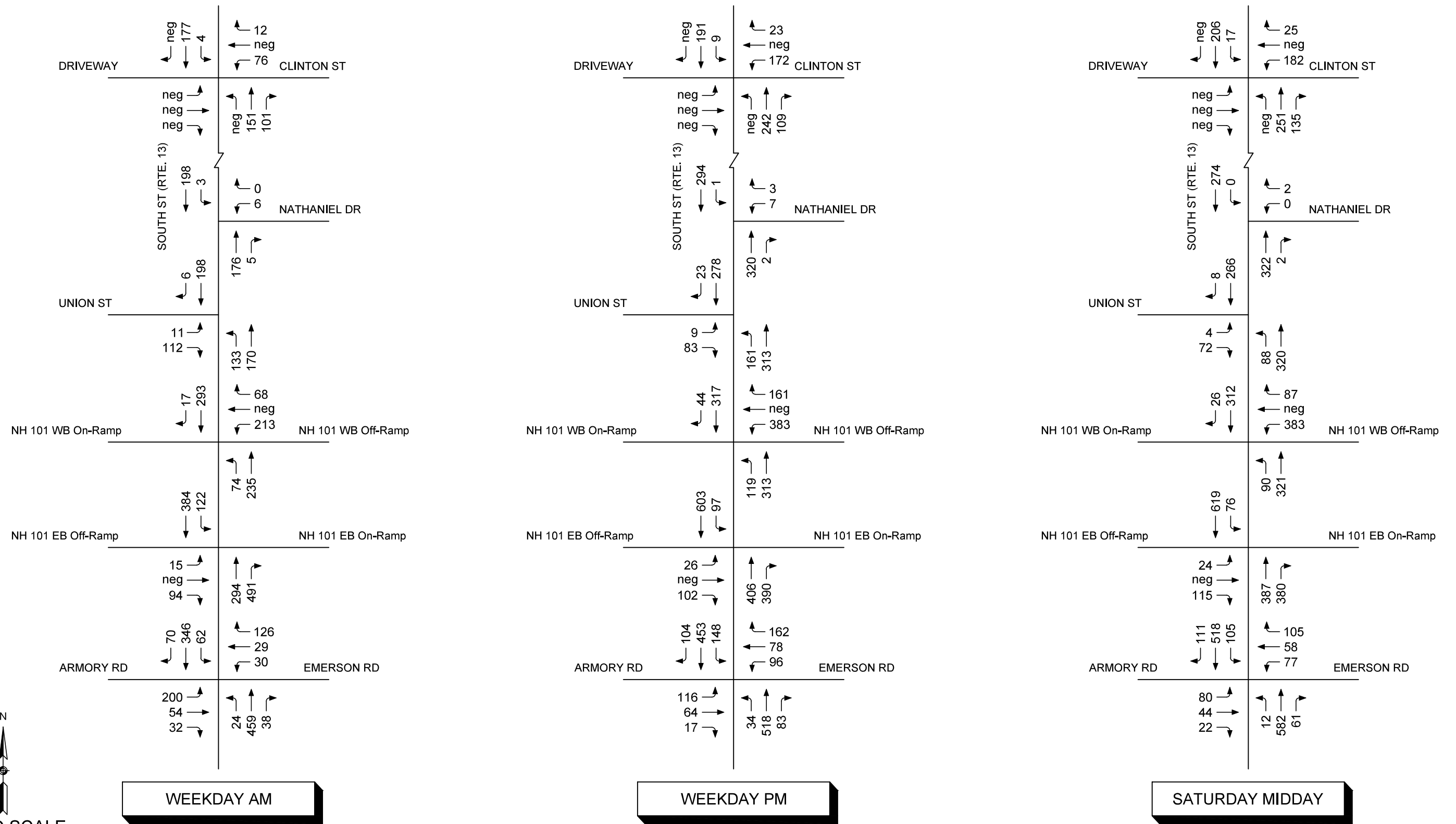
Location/Time Period	Daily Volume (vpd) ^a	Peak Hour Volume (vph) ^a	K Factor (%) ^b	Directional Distribution ^c
South Street, south of Nathaniel Drive:				
Weekday Daily	6,200			
Weekday AM Peak Hour		385	6.2	53% SB
Weekday PM Peak Hour		623	10.0	52% NB
Saturday Daily	5,950			
Saturday Midday Peak Hour		598	10.1	54% NB

^a In vehicles per day. Based on ATR counts collected on May 12-14, 2022 and seasonally adjusted by 4.0%.

^b Percentage of daily traffic occurring during the peak hour.

^c NB = northbound and SB = southbound.

² NHDOT Count Station 82303057 – NH 13 (South St) north of Milford Bypass



NOT TO SCALE

Figure 2
2022 Existing
Peak Hour Traffic Volumes

Collisions

Collision data for the study area intersections and roadways were obtained from NHDOT for the latest complete three years available (2013-2015). A summary of the applicable crashes at the study area intersections are provided in Table 2. All detailed collision data is provided in the Appendix. It should be noted that a limited set of crash data was received from the Milford, NH Police Department; however, the data lacked sufficient detail necessary for further analysis.

The intersection of South Street / Union Street experienced an average of 1.0 crashes per year over the three-year study period. Approximately 33 percent (1 of 3) of the collisions occurred during inclement weather conditions and 0 percent of the collisions occurred during the weekday commuter peak periods. All three crashes involved single vehicle where two of the crashes were collision with fix objects and the other crashes involved crash with wildlife.

The intersection of South Street / NH Route 101 WB Ramps experienced an average of 1.0 crashes per year over the three-year study period. Approximately 33 percent (1 of 3) of the collisions occurred during inclement weather conditions and 67 percent (2 of 3) of the collisions occurred during the weekday commuter peak periods. All three crashes resulted in non-incapacitating injuries.

All other study area intersections experienced an average of fewer than one collision per year over the three-year study period, indicating no particular safety issue exists.

**TABLE 2
Collision Summary**

Location	Number of Collisions		Severity ^a				Collision Type ^b						Percent During	
	Total	Average per Year	PD	PI	F	NR	SS	RE	CM	FO	SV	U	Commuter Peak ^c	Wet/Icy Conditions ^d
South Street at Nathaniel Drive	0	0.0	--	--	--	--	--	--	--	--	--	--	--	--
South Street at Union Street	3	1.0	3	--	--	--	--	--	--	2	1	--	0%	33%
South Street at NH Rte. 101 WB Ramps	3	1.0	--	3	--	--	--	--	--	1	1	1	67%	33%
South Street at NH Rte. 101 EB Ramps	1	0.3	--	1	--	--	--	--	--	--	--	1	0%	0%
South Street at Armory Rd/Emerson Rd	1	0.3	1	--	--	--	--	--	--	--	--	1	100%	0%
South Street at Clinton Street	1	0.3	1	--	--	--	--	--	--	--	--	1	100%	100%

Source: NHDOT (2013-2015).

^aPD = property damage only; PI = personal injury; F = fatality, NR = not reported.

^bSS = sideswipe; RE = rear end; CM = cross movement/angle; FO = fixed object; SV = single vehicle; U = unknown.

^cPercent of vehicle incidents that occurred during the weekday AM (7:00 AM-9:00 AM) and weekday PM (4:00 PM -6:00 PM) commuter peak periods.

^dRepresents the percentage of only “known” collisions occurring during inclement weather conditions.

Vehicle Speeds

Vehicle speed measurements were conducted along South Street (Route 13) as part of the ATR counts collected in May 2022. The primary use of this information is explained in the *Sight Distance* section where the speeds are correlated to sight distance measurements taken at Nathaniel Road to assure that adequate sight distances exist at the access road to provide safe operation. The speed data is provided in the Appendix and the results of the speed measurements are summarized in Table 3.

**TABLE 3
Observed Travel Speeds**

Location/Direction	Posted Speed Limit ^a	Average Speed ^b	85 th Percentile Speed ^c
South Street, south of Nathaniel Road:			
<i>Northbound</i>	35	40-41	45
<i>Southbound</i>	35	40-41	46

^a In miles per hour (mph).

^b Average speed at which observed vehicles travel. Range of speeds reported, as average varied by day.

^c Speed at, or below which 85 percent of all observed vehicles travel. Highest 85th Percentile Speed of all days is reported.

As shown in Table 3, the average and 85th percentile speeds were found to be higher than the posted speed limit of 35 mph on South Street.

Sight Distance

To identify potential safety concerns associated with site access and egress, sight distances have been evaluated at the proposed site driveway locations to determine if the available sight distances for vehicles exiting the site meet or exceed the minimum distances required for approaching vehicles to safely stop. The available sight distances were compared with minimum requirements, as established by the American Association of State Highway and Transportation Officials (AASHTO)³. AASHTO is the national standard by which vehicle sight distance is calculated, measured, and reported. In addition, the available sight distances were compared with the NHDOT requirement of 400-feet of All-Season Safe Sight Distance.

Sight distance is the length of roadway ahead that is visible to the driver. Stopping Sight Distance (SSD) is the minimum distance required for a vehicle traveling at a certain speed to safely stop before reaching a stationary object in its path. The values are based on a driver perception and reaction time of 2.5 seconds and a braking distance calculated for wet, level pavements. When the roadway is either on an upgrade or downgrade, grade correction factors are applied. Stopping sight distance is measured from an eye height of 3.5 feet to an object height of 2 feet above street level, equivalent to the taillight height of a passenger car. The SSD is measured along the centerline of the traveled way of the major road.

Intersection sight distance (ISD) is provided on minor street approaches to allow the drivers of stopped vehicles a sufficient view of the major roadway to decide when to enter the major roadway. By definition, ISD is the minimum distance required for a motorist exiting a minor street to turn onto the major street,

³ *A Policy on Geometric Design of Highways and Streets*; American Association of State Highway and Transportation Officials (AASHTO); 2018.

without being overtaken by an approaching vehicle reducing its speed from the design speed to 70 percent of the design speed. ISD is measured from an eye height of 3.5 feet to an object height of 3.5 feet above street level. The use of an object height equal to the driver eye height makes intersection sight distances reciprocal (i.e., if one driver can see another vehicle, then the driver of that vehicle can also see the first vehicle). When the minor street is on an upgrade that exceeds 3 percent, grade correction factors are applied.

SSD is generally more important as it represents the minimum distance required for safe stopping while ISD is based only upon acceptable speed reductions to the approaching traffic stream. The ISD, however, must be equal to or greater than the minimum required SSD in order to provide safe operations at the intersection. In accordance with the AASHTO manual, *“If the available sight distance for an entering or crossing vehicle is at least equal to the appropriate stopping sight distance for the major road, then drivers have sufficient sight distance to anticipate and avoid collisions. However, in some cases, this may require a major-road vehicle to stop or slow to accommodate the maneuver by a minor-road vehicle. To enhance traffic operations, intersection sight distances that exceed stopping sight distances are desirable along the major road.”* Accordingly, ISD should be at least equal to the distance required to allow a driver approaching the minor road to safely stop.

The available SSD and ISD at Nathaniel Drive were measured and compared to minimum requirements as established by AASHTO. Based on the posted and observed speeds, the SSD and ISD requirements at this intersection were calculated. The required minimum sight distances for the driveways are compared to the available distances, as shown in Table 4.

As indicated in Table 4 below, available sight distances at the access road (Nathaniel Drive) on South Street exceed the minimum SSD and ISD requirements for safe operation. Additionally, the NHDOT requirement of 400-feet of All-Season Safe Sight Distance is also satisfied. To ensure that sight lines remain unobstructed, it is recommended that any proposed plantings, vegetation, landscaping, and signing along the Nathaniel Drive or South Street be kept low to the ground (no more than 3.0 feet above street level) or set back sufficiently from South Street and Nathaniel Drive so as not to restrict the available sight lines.

**TABLE 4
Sight Distance Summary**

Location/Direction	Stopping Sight Distance (feet)		Intersection Sight Distance (feet)		
	Measured	Minimum Required ^a	Measured	Minimum Required ^b	Desirable ^c
South Street (Rte. 13) at Nathaniel Road:					
<i>South of intersection (NB)</i>	500+	360	500+	360	335
<i>North of intersection (SB)</i>	500+	375	500+	375	390

^a Values based on AASHTO requirements for minimum SSD based on 85th percentile speeds; 45 mph for northbound travel and 46 mph for southbound travel on South Street.

^b Values based on AASHTO requirements for SSD.

^c Values based on AASHTO requirements for ISD for posted speed of 35 mph on South Street.

FUTURE CONDITIONS

To estimate the impact of site-generated traffic within the study area, existing traffic volumes were projected to the year expected opening year (2023) of the project, and to the future year of 2033. These design horizons were chosen to be consistent with NHDOT guidelines for the preparation of a traffic study. Traffic volumes on the roadway network at that time will include existing traffic and new traffic due to normal traffic growth, and traffic related to any significant development by others expected to be completed within the area by the 2022 and 2032 design years. Consideration of these factors resulted in the development of 2023 No-Build and 2033 No-Build traffic volumes, which projects traffic without the proposed Project built. The incremental impacts of the proposed project may then be determined by adding site-generated traffic volumes (Build conditions) and making comparisons to the No-Build conditions.

Traffic Growth

To develop the 2023 No-Build and 2033 No-Build forecast volumes, two components of traffic growth were considered. First, an annual growth percentage was determined based on the historical traffic count data obtained from NHDOT⁴. The historical traffic count data indicate that traffic volumes in the area have been decreasing by 0.18 percent in the period between 2013 and 2019. In order to provide a conservative (worst-case) analysis scenario, a compounded annual traffic growth rate of 1.0 percent per year was assumed to account for general population growth and the traffic generated by smaller area developments. The NHDOT historical traffic volume data are provided in the Appendix.

Second, any traffic that may be generated by planned developments that may add a substantial volume of traffic through the study area during the design horizons was considered. Based on discussions with the Milford Planning Department, the following private developments were identified.

- **Ponemah Hill Road, Milford, NH (Map 43/Lots 44 & 45)** – This project is in the conceptual design stage for residential development, which will construct 46 townhouse style residential homes (single-family attached). Given the anticipated trip generation characteristics and distribution patterns associated with this development, it is assumed that site specific traffic will be accounted for under the conservative growth rate.

Planned Roadway Improvements

Based on discussions with the Town of Milford, NHDOT, and after reviewing the NHDOT Roads & Projects Website, the following projects in the vicinity of the proposed development were identified.:

Other nearby projects identified, but not expected to impact the study area, are the following:

- NHDOT Project No. 43031 – This project is currently under construction, and involves pavement resurfacing operations on NH Route 101 from Blueberry Hill Road in Amherst to Old Wilton Road in Milford. Completion is expected in September 2022.
- NHDOT Project No. 43063 – This project currently under construction, and involves pavement preservation operations on NH Route 13 from the Massachusetts state line to Union Street in Milford. Completion is expected in the fall of 2022.

⁴ NHDOT Transportation Data Management System.

- NHDOT Project No. 13692D – This project is in the design phase and involves traffic and safety improvements along the NH 101 corridor in the Towns of Wilton, Milford, Amherst, and Bedford.
- NHDOT Project No. 42470 – This project is in the design phase and involves improvements to the Milford Oval area.

No-Build Conditions

The 2023 No-Build peak-hour traffic volumes were developed by applying a 1.0-percent compounded annual traffic growth rate (1.0 percent compounded over one year) to the 2022 Existing traffic. The 2033 No-Build peak hour traffic volumes were developed by applying an approximately 11.6-percent compounded annual traffic growth rate (1.0 percent compounded over eleven years) to the 2022 Existing traffic volumes. The 2023 and 2033 No-Build peak-hour traffic volumes are shown graphically on Figure 3 and Figure 4, respectively.

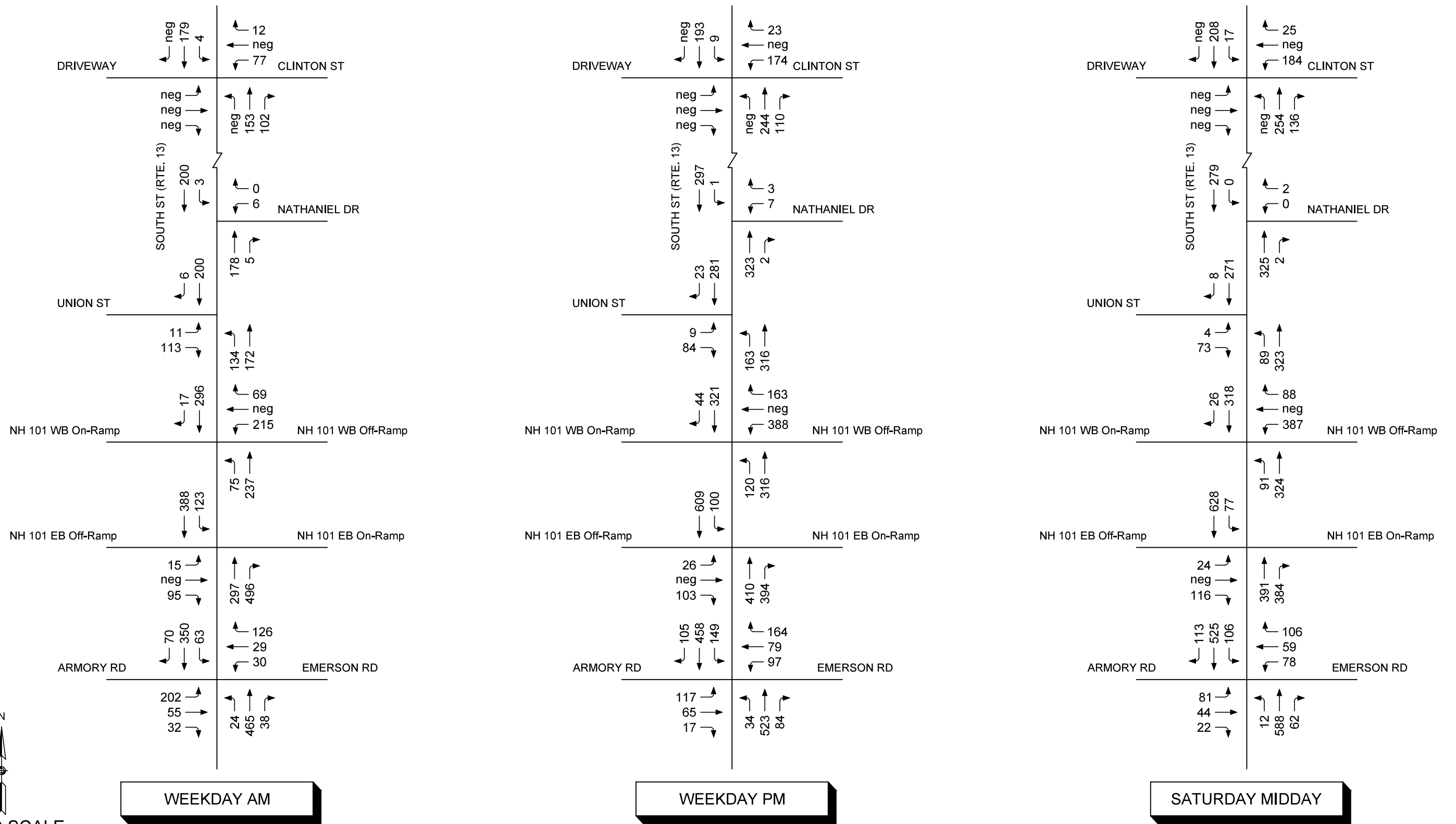
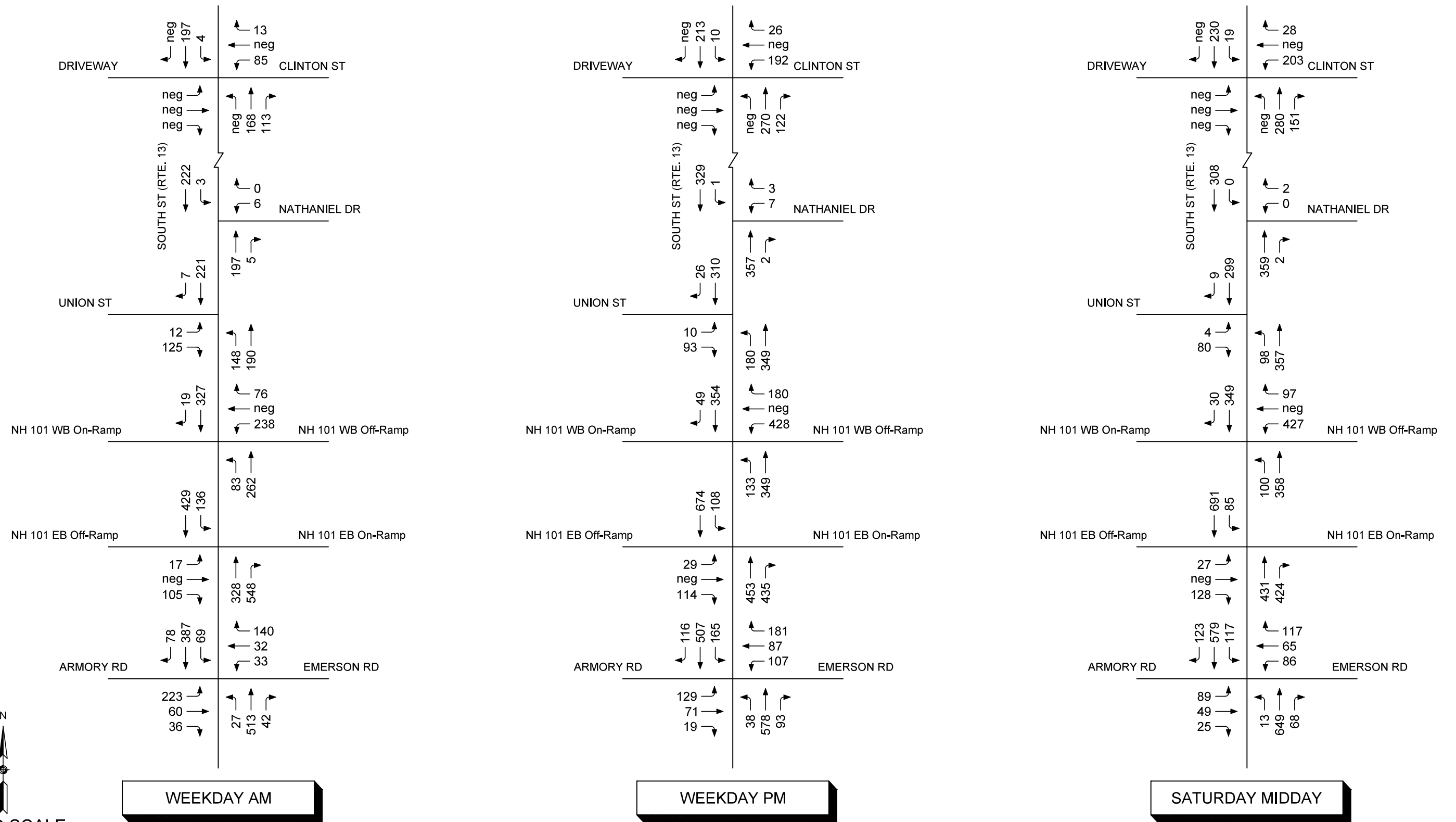


Figure 3
2023 No-Build
Peak Hour Traffic Volumes



NOT TO SCALE

Figure 4
2033 No-Build
Peak Hour Traffic Volumes

Trip Generation

The site is currently vacant. The project consists of construction 216 garden style apartments, that will be comprised of 3- to 7- buildings, and not more than 3 floors per building. Traffic to be generated by the proposed development was forecast using trip rates contained in the ITE Trip Generation Manual, 11th Edition⁵ for Land Use Code (LUC) 221 (Multifamily Housing – Mid-Rise). All trip-generation data are provided in the Appendix. Table 5 Summarizes the results of the trip-generation estimates.

**TABLE 5
Trip Generation Summary**

Time Period/Direction	Proposed Trips ^a
Weekday Daily	984
Weekday AM Peak Hour: <i>Enter</i> <i>Exit</i> <i>Total</i>	19 <u>64</u> 83
Weekday PM Peak Hour: <i>Enter</i> <i>Exit</i> <i>Total</i>	52 <u>33</u> 85
Saturday Daily	986
Saturday Midday Peak Hour: <i>Enter</i> <i>Exit</i> <i>Total</i>	44 <u>43</u> 87

^a Total Site Generated Trips for ITE LUC 221 (Multifamily Housing – Mid-Rise) for 216 dwelling units.

As shown in Table 5, the proposed development is expected to generate 83 vehicles trips (19 entering and 64 exiting) during the weekday AM peak hour, 85 vehicles trips (52 entering and 33 exiting) during the weekday PM peak hour, and 87 vehicle trips (44 entering and 43 exiting) during Saturday midday peak hour.

⁵ *Trip Generation Manual, 11th Edition*. Institute of Transportation Engineers; Washington, DC; 2021.

Trip Distribution

Having estimated project-generated vehicle trips, the next step is to determine the distribution of project traffic and assign these trips to the local roadway network. The directional distribution of site traffic is dependent on a combination of expected travel route to and from the site, existing travel patterns, and Journey-to-Work data published by the US Census Bureau. Accordingly project generated traffic is expected to be distributed in the following manner: 55 percent to/from the east via NH 101; 10 percent to/from the north via South Street; 10 percent to/from the south via South Street; 5 percent to/from the west via NH 101; 5 percent to/from the east via Emerson Road; 5 percent to/from the west via Armory Road; 5 percent to/from the west via Union Street; and 5 percent to/from the east via Clinton Street.

Build Traffic Volumes

Based on the traffic generation and distribution estimates for this project, the traffic volumes associated with the proposed redevelopment were assigned to the roadway network. The site-generated traffic networks are shown on Figure 5 for the weekday AM, weekday PM, and Saturday midday peak hours. The site-generated traffic volumes were then combined with the 2023 No-Build traffic volumes to develop the 2023 Build peak-hour traffic-volume networks. The site-generated traffic volumes were then added to the No-Build traffic volumes to develop the Build peak-hour traffic-volumes networks. The 2023 and 2033 Build peak-hour flow networks are graphically depicted on Figures 6 and 7, respectively

Traffic Increases

The proposed development will result in increases in traffic within the study area network. As shown on Figure 5, traffic-volume increases immediately north and south of Nathaniel Drive are expected to be in the range of 14 to 73 vehicles. These increases represent, on average, one additional vehicle trip approximately every 1 to 4 minutes during the peak hours.

Site Access

In order to determine the appropriate geometric configuration of South Street on its approaches to Nathaniel Drive, auxiliary turn lane warrants analyses were conducted. These analyses assessed the need for separate left- and right-turn lanes on the mainline approaches to Nathaniel Drive. Based on an analysis of 2033 Build conditions, projected traffic volumes with the proposed residential development fully occupied indicate that neither an exclusive northbound right-turn lane, nor an exclusive southbound left-turn lane on South Street at Nathaniel Drive are warranted. Computations pertaining to this analysis are included in the Appendix.

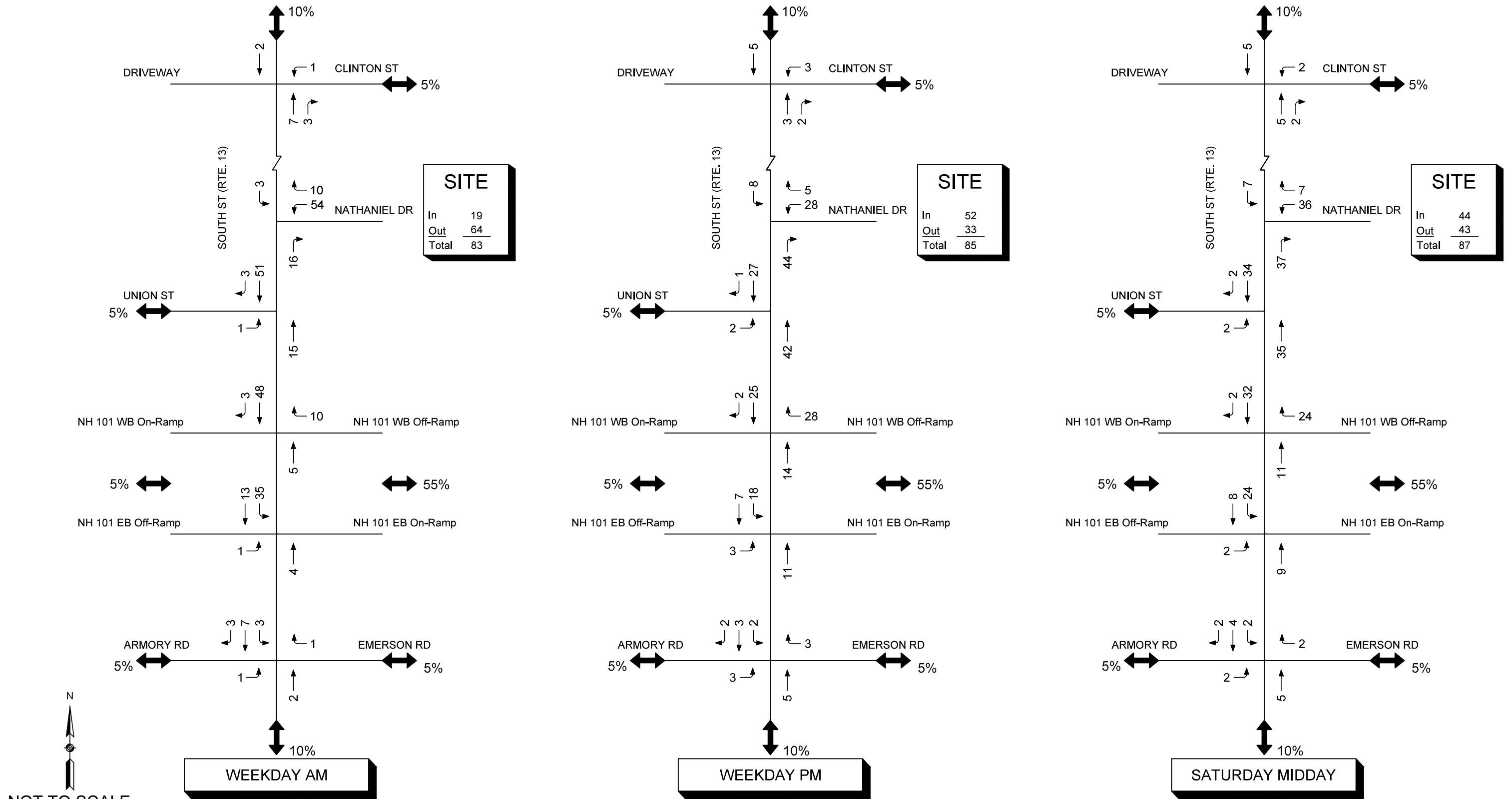
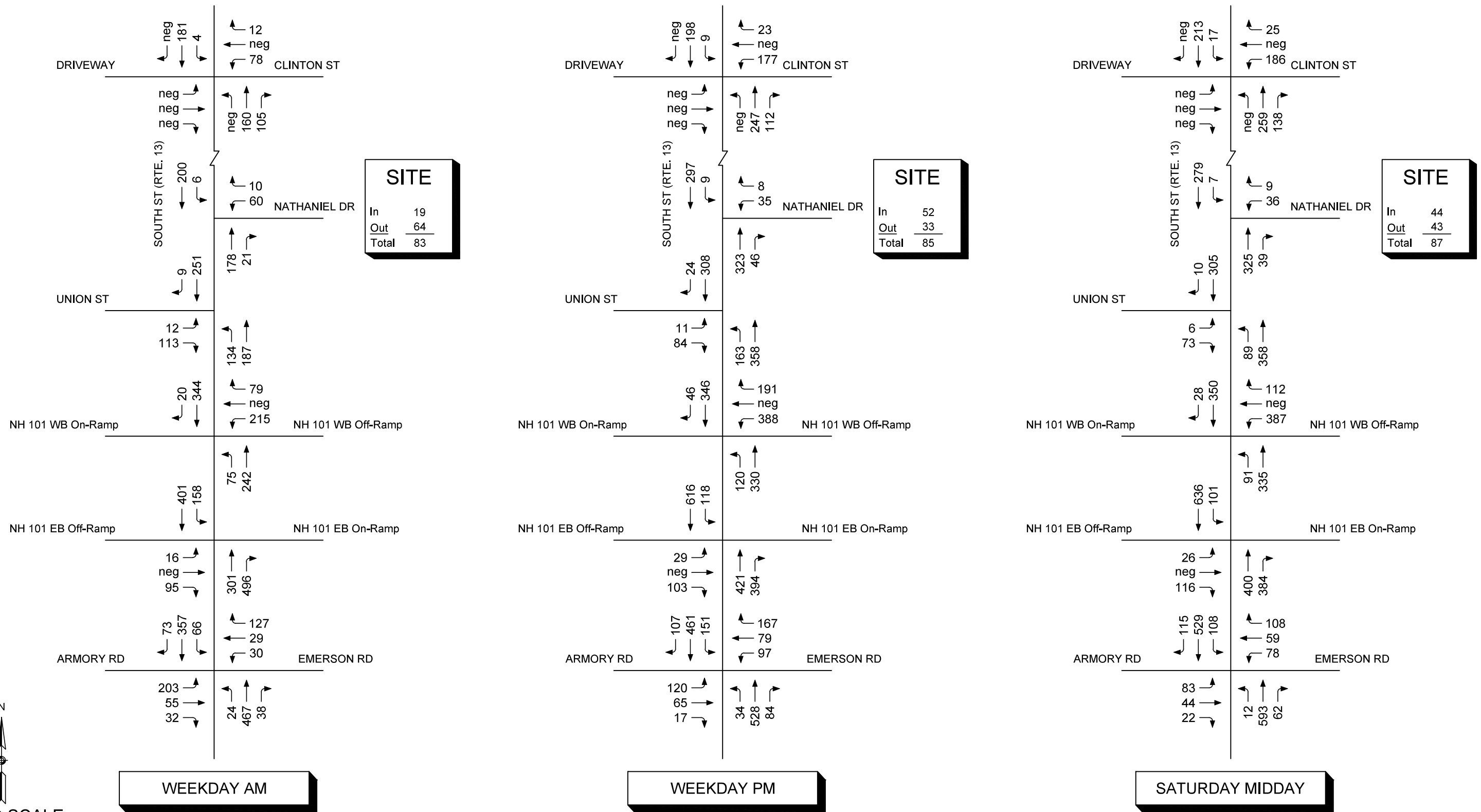


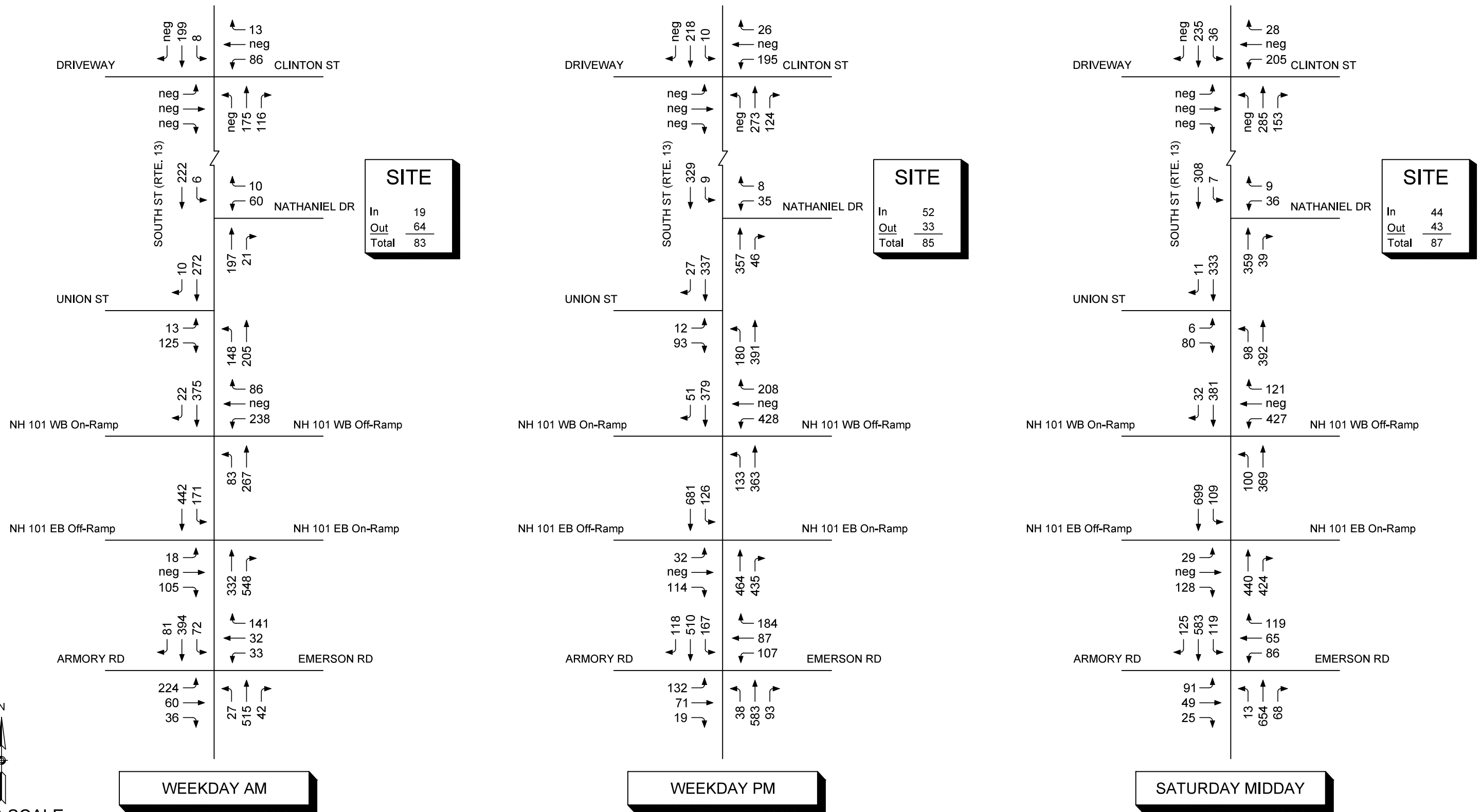
Figure 5

Site-Generated Trips
Peak Hour Traffic Volumes



NOT TO SCALE

Figure 6
2023 Build
Peak Hour Traffic Volumes



NOT TO SCALE

Figure 7
2033 Build
Peak Hour Traffic Volumes

CAPACITY AND QUEUE ANALYSIS

Capacity and queue analyses were conducted at all study area locations under 2022 Existing, 2023 No-Build, and 2023 Build traffic-volume conditions. The impact of site-generated traffic can be measured by comparing the No-Build conditions to Build conditions.

Methodology

The capacity analysis methodology is based on the concepts and procedures in the *Highway Capacity Manual* (HCM)⁶ and is described in the Appendix. The TIAS utilizes the HCM 6th Edition methodology as it is the most recently approved method by NHDOT.

For unsignalized intersections, the 95th percentile queue represents the length of queue of the critical minor-street movement that is not expected to be exceeded 95 percent of the time during the analysis period (typically one hour). In this case, the queue length is a function of the capacity of the movement and the movement's degree of saturation. For signalized intersections, the maximum back of queue during a typical (average) signal cycle and a 95th percentile signal cycle was calculated for each lane group during the peak periods studied. The back of queue is the length of a backup of vehicles from the stop line of a signalized intersection to the last vehicle in the queue that is required to stop, regardless of the signal indication. The length of this queue depends on a number of factors including signal timing, vehicle arrival patterns, and the saturation flow rate.

Analysis Results

The results of the level-of-service (LOS) and queue analyses are shown in Table 6 and are discussed below. Capacity and queue analyses were conducted at the study area intersections utilizing *Synchro* software.⁷ The capacity and queue analysis worksheets for all conditions are provided in the Appendix.

South Street at Clinton Street

Under existing and future traffic-volume conditions, westbound movements from Clinton Street are expected to operate well below capacity and function at LOS B or better during the weekday AM peak hour, LOS C or better during the weekday PM Peak hour, and LOS D or better during the Saturday midday peak hour. Southbound left-turn movements from South Street are expected to operate at LOS A during all analysis scenarios. Queue lengths on the Clinton Street approach to South Street are expected to be 4 vehicles or less during all analysis scenarios. All critical movements are under capacity with and without the proposed development in place.

South Street at Nathaniel Drive

Under existing and future traffic-volume conditions, westbound movements from Nathaniel Drive are expected to operate well below capacity and function at LOS B or better during the weekday AM peak hour, LOS C or better during the weekday PM Peak hour, and LOS C or better during the Saturday midday peak hour. Further, this analysis demonstrates that a single approach lane on the Nathaniel Drive approach to South Street is sufficient to accommodate the additional site generated traffic associated with the proposed development. Southbound left-turn movements from South Street are expected to operate at LOS A during

⁶ *Highway Capacity Manual 6th Edition*, Transportation Research Board; Washington, D.C.; 2016.

⁷ *Synchro plus SimTraffic 11*; Trafficware LLC.; Sugar Land, TX; 2019.

all analysis scenarios. Queue lengths on the Nathaniel Drive approach to South Street are expected to be 1 vehicle or less during all analysis scenarios. All critical movements are under capacity with and without the proposed development in place.

South Street at Union Street

Under existing and future traffic-volume conditions, eastbound movements from Union Street are expected to operate well below capacity and function at LOS B or better during the weekday AM peak hour, LOS C or better during the weekday PM Peak hour, and LOS B or better during the Saturday midday peak hour. Northbound left-turn movements from South Street are expected to operate at LOS A during all analysis scenarios. Queue lengths on the Union Street approach to South Street are expected to be 1 vehicle or less during all analysis scenarios. All critical movements are under capacity with and without the proposed development in place.

South Street at NH Route 101 WB Ramps

Under existing traffic-volume conditions, westbound left-turn movements from the NH Route 101 WB off-ramp approach to South Street are currently operating at LOS D during the weekday AM peak hour, LOS F during the weekday PM peak hour, and LOS F during the Saturday midday peak hour. Capacity deficiencies and delays are expected to continue, with or without the proposed project. It should be noted that queue lengths for the westbound left-turn movement are only expected to increase by 2 vehicles or less during all Build analysis scenarios. Favorably, westbound right-turn movements from the NH Route 101 WB off-ramp approach to South Street are expected to operate at LOS B or better during all analysis scenarios. Northbound left-turn movements from South Street are expected to operate at LOS A during all analysis scenarios.

South Street at NH Route 101 EB Ramps

Eastbound left-turn movements from the NH Route 101 EB off-ramp approach to South Street are expected to operate well below capacity and function at LOS D or better during the weekday AM peak hour, LOS E or better during the weekday PM peak hour, and LOS E or better during the Saturday midday peak hour. Favorably, eastbound right-turn movements from the NH Route 101 EB off-ramp approach to South Street are expected to operate at LOS C or better during all analysis scenarios. Southbound left-turn movements from South Street are expected to operate at LOS A during all analysis scenarios.

South Street at Armory Road & Emerson Road

Under existing conditions, this signalized intersection currently operates at LOS D during weekday AM peak hour, and is expected to continue to operate at LOS D during all analysis scenarios, with or without the proposed development. Under existing conditions, this signalized intersection currently operates at LOS C during both the weekday PM peak hour and Saturday midday peak hour, and is expected to continue to operate at LOS C during all analysis scenarios, with or without the proposed development. Overall, negligible increases in vehicle delay and queue lengths are expected as a result of the proposed development.

TABLE 6
Intersection Capacity Analysis Summary

Intersection/Peak Hour/Lane Group	2022 Existing				2023 No-Build				2033 No-Build				2033 Build				2033 Build			
	V/C ^a	Del. ^b	LOS ^c	Queue ^d	V/C	Del.	LOS	Queue	V/C	Del.	LOS	Queue	V/C	Del.	LOS	Queue	V/C	Del.	LOS	Queue
South Street at Clinton Street																				
<i>Weekday AM:</i>																				
South St. SB left-turns	0.00	7.8	A	--/<25	0.00	7.8	A	--/<25	0.00	7.9	A	--/<25	0.00	7.8	A	--/<25	0.01	7.9	A	--/<25
Clinton St. WB left/right-turns	0.16	12.0	B	--/<25	0.16	12.0	B	--/<25	0.18	12.7	B	--/<25	0.16	12.2	B	--/<25	0.19	13.0	B	--/<25
Overall Intersection	--	--	--	--/--	--	--	--	--/--	--	--	--	--/--	--	--	--	--/--	--	--	--	--/--
<i>Weekday PM:</i>																				
South St. SB left-turns	0.01	8.1	A	--/<25	0.01	8.2	A	--/<25	0.01	8.3	A	--/<25	0.01	8.2	A	--/<25	0.01	8.3	A	--/<25
Clinton St. WB left/right-turns	0.47	18.9	C	--/63	0.48	19.2	C	--/63	0.58	23.6	C	--/88	0.49	19.7	C	--/68	0.59	24.4	C	--/93
Overall Intersection	--	--	--	--/--	--	--	--	--/--	--	--	--	--/--	--	--	--	--/--	--	--	--	--/--
<i>Saturday Midday:</i>																				
South St. SB left-turns	0.02	8.2	A	--/<25	0.02	8.2	A	--/<25	0.02	8.3	A	--/<25	0.02	8.2	A	--/<25	0.04	8.4	A	--/<25
Clinton St. WB left/right-turns	0.46	18.8	C	--/60	0.47	19.1	C	--/63	0.57	23.5	C	--/85	0.48	19.6	C	--/65	0.62	27.3	D	--/100
Overall Intersection	--	--	--	--/--	--	--	--	--/--	--	--	--	--/--	--	--	--	--/--	--	--	--	--/--
South Street at Nathaniel Drive																				
<i>Weekday AM:</i>																				
South St. SB left-turns	0.00	7.6	A	--/<25	0.00	7.6	A	--/<25	0.00	7.7	A	--/<25	0.01	7.7	A	--/<25	0.01	7.7	A	--/<25
Nathaniel Dr. WB left/right-turns	0.01	11.4	B	--/<25	0.01	11.5	B	--/<25	0.01	11.9	B	--/<25	0.14	12.2	B	--/<25	0.15	12.8	B	--/<25
Overall Intersection	--	--	--	--/--	--	--	--	--/--	--	--	--	--/--	--	--	--	--/--	--	--	--	--/--
<i>Weekday PM:</i>																				
South St. SB left-turns	0.00	8.0	A	--/<25	0.00	8.0	A	--/<25	0.00	8.2	A	--/<25	0.01	8.2	A	--/<25	0.01	8.3	A	--/<25
Nathaniel Dr. WB left/right-turns	0.03	13.3	B	--/<25	0.03	13.4	B	--/<25	0.03	14.3	B	--/<25	0.13	15.6	C	--/<25	0.15	16.9	C	--/<25
Overall Intersection	--	--	--	--/--	--	--	--	--/--	--	--	--	--/--	--	--	--	--/--	--	--	--	--/--
<i>Saturday Midday:</i>																				
South St. SB left-turns	0.00	0.0	A	--/<25	0.00	0.0	A	--/<25	0.00	0.0	A	--/<25	0.01	8.1	A	--/<25	0.01	8.2	A	--/<25
Nathaniel Dr. WB left/right-turns	0.00	10.3	B	--/<25	0.00	10.3	B	--/<25	0.00	10.6	B	--/<25	0.12	14.5	B	--/<25	0.13	15.5	C	--/<25
Overall Intersection	--	--	--	--/--	--	--	--	--/--	--	--	--	--/--	--	--	--	--/--	--	--	--	--/--

^a Volume-to-capacity ratio.

^b Average control delay in seconds per vehicle.

^c Level of service.

^d Average/95th percentile queue length in feet per lane (assuming 25 feet per vehicle).

TABLE 6 (continued)
Intersection Capacity Analysis Summary

Intersection/Peak Hour/Lane Group	2022 Existing				2023 No-Build				2033 No-Build				2033 Build				2033 Build			
	V/C ^a	Del. ^b	LOS ^c	Queue ^d	V/C	Del.	LOS	Queue	V/C	Del.	LOS	Queue	V/C	Del.	LOS	Queue	V/C	Del.	LOS	Queue
South Street at Union Street																				
<i>Weekday AM:</i>																				
South St. NB left-turn	0.11	8.0	A	--/ < 25	0.11	8.0	A	--/ < 25	0.12	8.1	A	--/ < 25	0.11	8.2	A	--/ < 25	0.13	8.3	A	--/ < 25
Union St. EB left/right-turns	0.18	10.9	B	--/ < 25	0.18	11.0	B	--/ < 25	0.21	11.5	B	--/ < 25	0.20	11.7	B	--/ < 25	0.23	12.3	B	--/ < 25
Overall Intersection	--	--	--	--/ --	--	--	--	--/ --	--	--	--	--/ --	--	--	--	--/ --	--	--	--	--/ --
<i>Weekday PM:</i>																				
South St. NB left-turn	0.16	8.5	A	--/ < 25	0.16	8.5	A	--/ < 25	0.18	8.8	A	--/ < 25	0.16	8.7	A	--/ < 25	0.18	8.9	A	--/ < 25
Union St. EB left/right-turns	0.19	12.7	B	--/ < 25	0.19	12.8	B	--/ < 25	0.23	13.9	B	--/ < 25	0.22	13.9	B	--/ < 25	0.26	15.3	C	--/ 25
Overall Intersection	--	--	--	--/ --	--	--	--	--/ --	--	--	--	--/ --	--	--	--	--/ --	--	--	--	--/ --
<i>Saturday Midday:</i>																				
South St. NB left-turn	0.08	8.2	A	--/ < 25	0.09	8.2	A	--/ < 25	0.10	8.3	A	--/ < 25	0.09	8.3	A	--/ < 25	0.09	8.4	A	--/ < 25
Union St. EB left/right-turns	0.13	11.2	B	--/ < 25	0.14	11.2	B	--/ < 25	0.16	11.7	B	--/ < 25	0.15	12.0	B	--/ < 25	0.16	12.2	B	--/ < 25
Overall Intersection	--	--	--	--/ --	--	--	--	--/ --	--	--	--	--/ --	--	--	--	--/ --	--	--	--	--/ --
South Street at NH Route 101 WB Ramps																				
<i>Weekday AM:</i>																				
South St. NB left-turn	0.06	8.2	A	--/ < 25	0.07	8.2	A	--/ < 25	0.08	8.3	A	--/ < 25	0.07	8.3	A	--/ < 25	0.08	8.5	A	--/ < 25
NH 101 WB Off-Ramp left-turn	0.62	29.5	D	--/ 98	0.63	30.5	D	--/ 103	0.78	46.7	E	--/ 155	0.68	35.9	E	--/ 118	0.84	> 50.0	F	--/ 180
NH 101 WB Off-Ramp right-turn	0.09	10.1	B	--/ < 25	0.09	10.1	B	--/ < 25	0.11	10.4	B	--/ < 25	0.11	10.2	B	--/ < 25	0.12	10.5	B	--/ < 25
Overall Intersection	--	--	--	--/ --	--	--	--	--/ --	--	--	--	--/ --	--	--	--	--/ --	--	--	--	--/ --
<i>Weekday PM:</i>																				
South St. NB left-turn	0.11	8.3	A	--/ < 25	0.11	8.4	A	--/ < 25	0.12	8.5	A	--/ < 25	0.11	8.4	A	--/ < 25	0.13	8.6	A	--/ < 25
NH 101 WB Off-Ramp left-turn	1.56	> 50.0	F	--/ 618	1.61	> 50.0	F	--/ 643	2.06	> 50.0	F	--/ 865	1.70	> 50.0	F	--/ 683	2.19	> 50.0	F	--/ 903
NH 101 WB Off-Ramp right-turn	0.25	11.7	B	--/ < 25	0.25	11.8	B	--/ 25	0.29	12.5	B	--/ 30	0.30	12.4	B	--/ 30	0.34	13.2	B	--/ 38
Overall Intersection	--	--	--	--/ --	--	--	--	--/ --	--	--	--	--/ --	--	--	--	--/ --	--	--	--	--/ --
<i>Saturday Midday:</i>																				
South St. NB left-turn	0.08	8.3	A	--/ < 25	0.09	8.3	A	--/ < 25	0.10	8.4	A	--/ < 25	0.09	8.4	A	--/ < 25	0.10	8.5	A	--/ < 25
NH 101 WB Off-Ramp left-turn	1.50	> 50.0	F	--/ 610	1.55	> 50.0	F	--/ 635	1.96	> 50.0	F	--/ 855	1.65	> 50.0	F	--/ 680	2.10	> 50.0	F	--/ 900
NH 101 WB Off-Ramp right-turn	0.14	11.1	B	--/ < 25	0.14	11.2	B	--/ < 25	0.17	11.7	B	--/ < 25	0.19	11.6	B	--/ < 25	0.21	12.2	B	--/ < 25
Overall Intersection	--	--	--	--/ --	--	--	--	--/ --	--	--	--	--/ --	--	--	--	--/ --	--	--	--	--/ --

^a Volume-to-capacity ratio.

^b Average control delay in seconds per vehicle.

^c Level of service.

^d Average/95th percentile queue length in feet per lane (assuming 25 feet per vehicle).

TABLE 6 (continued)
Intersection Capacity Analysis Summary

Intersection/Peak Hour/Lane Group	2022 Existing				2023 No-Build				2033 No-Build				2033 Build				2033 Build			
	V/C ^a	Del. ^b	LOS ^c	Queue ^d	V/C	Del.	LOS	Queue	V/C	Del.	LOS	Queue	V/C	Del.	LOS	Queue	V/C	Del.	LOS	Queue
South Street at NH Route 101 EB Ramps																				
<i>Weekday AM:</i>																				
South St. SB left-turn	0.11	8.2	A	--/<25	0.11	8.2	A	--/<25	0.12	8.4	A	--/<25	0.14	8.4	A	--/<25	0.16	8.5	A	--/<25
NH 101 EB Off-Ramp left-turn	0.07	20.9	C	--/<25	0.07	21.2	C	--/<25	0.09	24.5	C	--/<25	0.09	24.5	C	--/<25	0.11	28.6	D	--/<25
NH 101 EB Off-Ramp right-turn	0.16	11.9	B	--/<25	0.17	11.9	B	--/<25	0.19	12.6	B	--/<25	0.17	12.1	B	--/<25	0.20	12.8	B	--/<25
Overall Intersection	--	--	--	--/--	--	--	--	--/--	--	--	--	--/--	--	--	--	--/--	--	--	--	--/--
<i>Weekday PM:</i>																				
South St. SB left-turn	0.09	8.5	A	--/<25	0.09	8.5	A	--/<25	0.10	8.7	A	--/<25	0.11	8.6	A	--/<25	0.12	8.8	A	--/<25
NH 101 EB Off-Ramp left-turn	0.16	30.0	D	--/<25	0.16	30.7	D	--/<25	0.22	38.6	E	--/<25	0.20	34.7	D	--/<25	0.27	44.0	E	--/25
NH 101 EB Off-Ramp right-turn	0.22	14.6	B	--/<25	0.23	14.7	B	--/<25	0.27	16.3	C	--/28	0.23	14.9	B	--/<25	0.28	16.5	C	--/28
Overall Intersection	--	--	--	--/--	--	--	--	--/--	--	--	--	--/--	--	--	--	--/--	--	--	--	--/--
<i>Saturday Midday:</i>																				
South St. SB left-turn	0.07	8.4	A	--/<25	0.08	8.4	A	--/<25	0.09	8.6	A	--/<25	0.10	8.5	A	--/<25	0.11	8.7	A	--/<25
NH 101 EB Off-Ramp left-turn	0.16	30.3	D	--/<25	0.16	31.0	D	--/<25	0.22	38.8	E	--/<25	0.20	35.6	E	--/<25	0.27	46.1	E	--/<25
NH 101 EB Off-Ramp right-turn	0.29	16.2	C	--/30	0.29	16.5	C	--/30	0.35	18.7	C	--/40	0.30	16.6	C	--/30	0.36	19.0	C	--/40
Overall Intersection	--	--	--	--/--	--	--	--	--/--	--	--	--	--/--	--	--	--	--/--	--	--	--	--/--

^a Volume-to-capacity ratio.

^b Average control delay in seconds per vehicle.

^c Level of service.

^d Average/95th percentile queue length in feet per lane (assuming 25 feet per vehicle).

TABLE 6 (continued)
Intersection Capacity Analysis Summary

Intersection/Peak Hour/Lane Group	2022 Existing				2023 No-Build				2033 No-Build				2033 Build				2033 Build			
	V/C ^a	Del. ^b	LOS ^c	Queue ^d	V/C	Del.	LOS	Queue	V/C	Del.	LOS	Queue	V/C	Del.	LOS	Queue	V/C	Del.	LOS	Queue
South Street at Armory Road & Emerson Road																				
<i>Weekday AM:</i>																				
South St. NB left-turn	0.06	12.2	B	<25/<25	0.06	12.2	B	<25/<25	0.08	12.4	B	<25/<25	0.06	12.3	B	<25/<25	0.08	12.5	B	<25/<25
South St. NB through	0.61	20.5	C	219/330	0.62	20.7	C	223/335	0.68	22.7	C	258/385	0.62	20.9	C	225/338	0.68	22.8	C	259/388
South St. NB right-turn	0.06	12.9	B	<25/<25	0.06	13.0	B	<25/<25	0.06	13.1	B	<25/<25	0.06	13.0	B	<25/<25	0.06	13.1	B	<25/<25
South St. SB left-turn	0.18	13.3	B	<25/31	0.18	13.4	B	<25/32	0.22	14.3	B	<25/34	0.19	13.5	B	<25/33	0.23	14.4	B	<25/35
South St. SB through	0.44	16.2	B	100/232	0.44	16.3	B	102/235	0.49	17.2	B	116/265	0.45	16.4	B	105/240	0.50	17.4	B	119/271
South St. SB right-turn	0.11	12.5	B	<25/<25	0.11	12.5	B	<25/<25	0.12	12.7	B	<25/<25	0.11	12.5	B	<25/<25	0.13	12.8	B	<25/<25
Armory Rd. EB left-turn	1.22	>80.0	F	163/303	1.24	>80.0	F	165/305	1.37	>80.0	F	193/339	1.24	>80.0	F	167/307	1.37	>80.0	F	194/340
Armory Rd. EB through/right-turn	0.29	31.2	C	37/86	0.30	31.3	C	38/86	0.34	31.9	C	43/96	0.30	31.3	C	38/26	0.34	32.0	C	43/96
Emerson Rd. WB left-turn	0.62	63.3	E	<25/46	0.62	63.3	E	<25/46	0.64	63.8	E	<25/48	0.62	63.4	E	<25/46	0.64	63.9	E	<25/48
Emerson Rd. WB through	0.17	35.6	D	<25/45	0.17	35.6	D	<25/45	0.19	35.8	D	<25/48	0.17	35.6	D	<25/45	0.19	35.9	D	<25/48
Emerson Rd. WB right-turn	0.58	39.2	D	<25/43	0.58	39.1	D	<25/43	0.64	41.8	D	<25/45	0.59	39.3	D	<25/43	0.65	41.8	D	<25/46
Overall Intersection	--	43.4	D	--/--	--	44.0	D	--/--	--	52.2	D	--/--	--	44.3	D	--/--	--	52.4	D	--/--
<i>Weekday PM:</i>																				
South St. NB left-turn	0.09	12.4	B	<25/<25	0.09	12.5	B	<25/<25	0.11	13.4	B	<25/<25	0.09	12.6	B	<25/<25	0.11	13.5	B	<25/<25
South St. NB through	0.64	21.6	C	266/392	0.65	21.9	C	271/399	0.73	25.3	C	314/466	0.66	22.3	C	275/404	0.74	25.8	C	318/480
South St. NB right-turn	0.12	13.8	B	<25/<25	0.12	13.8	B	<25/<25	0.14	14.6	B	<25/<25	0.12	14.0	B	<25/<25	0.14	14.7	B	<25/<25
South St. SB left-turn	0.40	14.7	B	41/72	0.41	14.9	B	42/73	0.50	17.4	B	47/80	0.42	15.1	B	42/74	0.51	17.8	B	48/81
South St. SB through	0.51	16.8	B	217/327	0.52	17.0	B	221/332	0.58	18.6	B	256/379	0.52	17.1	B	223/334	0.58	18.8	B	258/383
South St. SB right-turn	0.14	12.3	B	<25/<25	0.14	12.3	B	<25/<25	0.16	12.8	B	<25/<25	0.15	12.4	B	<25/<25	0.16	12.9	B	<25/<25
Armory Rd. EB left-turn	0.77	53.8	D	68/125	0.77	53.8	D	69/126	0.79	53.7	D	77/137	0.78	53.7	D	71/128	0.79	53.6	D	79/139
Armory Rd. EB through/right-turn	0.38	36.9	D	40/84	0.39	37.1	D	40/85	0.43	38.3	D	45/93	0.38	37.0	D	40/85	0.42	38.2	D	45/93
Emerson Rd. WB left-turn	0.78	59.1	E	59/124	0.78	59.2	E	60/126	0.79	61.2	E	67/145	0.78	59.4	E	60/126	0.79	61.4	E	67/145
Emerson Rd. WB through	0.42	39.0	D	48/96	0.43	39.1	D	48/96	0.48	40.9	D	54/105	0.43	39.3	D	48/96	0.48	41.1	D	54/105
Emerson Rd. WB right-turn	0.62	38.7	D	<25/49	0.62	39.0	D	<25/49	0.67	41.5	D	<25/53	0.63	39.5	D	<25/50	0.68	42.0	D	<25/58
Overall Intersection	--	25.7	C	--/--	--	25.8	C	--/--	--	27.9	C	--/--	--	26.1	C	--/--	--	28.2	C	--/--
<i>Saturday Middy:</i>																				
South St. NB left-turn	0.03	11.0	B	<25/<25	0.03	11.1	B	<25/<25	0.04	12.1	B	<25/<25	0.04	11.2	B	<25/<25	0.04	12.3	B	<25/<25
South St. NB through	0.68	19.7	B	307/508	0.69	20.0	C	312/517	0.77	23.8	C	366/604	0.69	20.4	C	281/410	0.78	24.5	C	372/613
South St. NB right-turn	0.08	11.1	B	<25/<25	0.08	11.2	B	<25/<25	0.09	11.8	B	<25/<25	0.08	11.3	B	<25/<25	0.09	11.9	B	<25/<25
South St. SB left-turn	0.30	12.8	B	27/54	0.31	13.0	B	27/55	0.39	15.6	B	31/59	0.32	13.3	B	25/46	0.41	16.1	B	32/60
South St. SB through	0.56	14.8	B	177/394	0.57	15.0	B	182/401	0.63	17.0	B	212/467	0.57	15.2	B	168/338	0.64	17.3	B	215/478
South St. SB right-turn	0.14	9.9	A	<25/<25	0.14	10.0	A	<25/<25	0.16	10.6	B	<25/<25	0.14	10.1	B	<25/<25	0.16	10.7	B	<25/<25
Armory Rd. EB left-turn	0.75	55.7	E	46/92	0.75	55.5	E	47/93	0.75	54.5	D	52/101	0.75	55.2	E	53/102	0.75	54.3	D	53/103
Armory Rd. EB through/right-turn	0.42	37.6	D	26/66	0.42	37.6	D	26/66	0.44	38.0	D	30/73	0.41	37.3	D	30/73	0.43	37.7	D	30/73
Emerson Rd. WB left-turn	0.76	57.8	E	46/96	0.76	57.7	E	47/96	0.77	56.7	E	52/104	0.76	57.8	E	50/98	0.77	56.9	E	52/104
Emerson Rd. WB through	0.37	37.0	D	35/77	0.37	37.1	D	35/77	0.39	37.3	D	39/83	0.37	37.1	D	37/80	0.38	37.3	D	39/83
Emerson Rd. WB right-turn	0.47	34.2	C	<25/41	0.47	34.2	C	<25/41	0.50	34.7	C	<25/43	0.48	34.3	C	<25/44	0.50	34.7	C	<25/43
Overall Intersection	--	22.3	C	--/--	--	22.4	C	--/--	--	24.4	C	--/--	--	22.6	C	--/--	--	24.8	C	--/--

^a Volume-to-capacity ratio.

^b Average control delay in seconds per vehicle.

^c Level of service.

^d Average/95th percentile queue length in feet per lane (assuming 25 feet per vehicle).

CONCLUSIONS

Existing and future conditions in the study area have been described, analyzed, and evaluated with respect to traffic operations and the impact of the proposed redevelopment. Conclusions of this effort are presented below.

- The site is currently vacant. The project consists of constructing 216 garden style apartments housed in 6 (six) separate buildings. Primary access and egress are proposed to the site via Nathaniel Drive, an existing driveway on the east side of NH Route 13 (South Street). Secondary access and egress for emergency purposes only are proposed via a new driveway on the west side of Ponemah Hill Road, approximately 0.2 miles north of Emerson Road. Should the emergency access on Ponemah Hill Road ever be reconsidered as a primary point of access/egress, additional analysis may be required.
- Available sight distances at the access road (Nathaniel Drive) on South Street exceed the minimum SSD and ISD requirements for safe operation. Additionally, the NHDOT requirement of 400-feet of All-Season Safe Sight Distance is also satisfied. To ensure that sight lines remain unobstructed, it is recommended that any proposed plantings, vegetation, landscaping, and signing along the Nathaniel Drive or South Street be kept low to the ground (no more than 3.0 feet above street level) or set back sufficiently from South Street and Nathaniel Drive so as not to restrict the available sight lines
- The proposed development is expected to generate 83 vehicles trips (19 entering and 64 exiting) during the weekday AM peak hour, 85 vehicles trips (52 entering and 33 exiting) during the weekday PM peak hour, and 87 vehicle trips (44 entering and 43 exiting) during Saturday midday peak hour. Traffic-volume increases immediately north and south of Nathaniel Drive are expected to be in the range of 14 to 73 vehicles. These increases represent, on average, one additional vehicle trip approximately every 1 to 4 minutes during the peak hours
- Under existing and future traffic-volume conditions, westbound movements from Nathaniel Drive, the primary point of access and egress, are expected to operate well below capacity and function at LOS B or better during the weekday AM peak hour, LOS C or better during the weekday PM Peak hour, and LOS C or better during the Saturday midday peak hour. Further, this analysis demonstrates that a single approach lane on the Nathaniel Drive approach to South Street is sufficient to accommodate the additional site generated traffic associated with the proposed development. Southbound left-turn movements from South Street are expected to operate at LOS A during all analysis scenarios. Queue lengths on the Nathaniel Drive approach to South Street are expected to be 1 vehicle or less during all analysis scenarios. All critical movements are under capacity with and without the proposed development in place. Additionally, based on an analysis of 2033 Build conditions, projected traffic volumes with the proposed residential development fully occupied indicate that neither an exclusive northbound right-turn lane, nor an exclusive southbound left-turn lane on South Street at Nathaniel Drive are warranted.
- At the intersection of South Street at Clinton Street, under existing and future traffic-volume conditions, westbound movements from Clinton Street are expected to operate well below capacity and function at LOS B or better during the weekday AM peak hour, LOS C or better during the weekday PM Peak hour, and LOS D or better during the Saturday midday peak hour. Southbound left-turn movements from South Street are expected to operate at LOS A during all analysis scenarios. Queue lengths on the Clinton Street approach to South Street are expected to be 4 vehicles or less during all analysis scenarios. All critical movements are under capacity with and without the proposed development in place.

- At the intersection of South Street at Union Street, under existing and future traffic-volume conditions, eastbound movements from Union Street are expected to operate well below capacity and function at LOS B or better during the weekday AM peak hour, LOS C or better during the weekday PM Peak hour, and LOS B or better during the Saturday midday peak hour. Northbound left-turn movements from South Street are expected to operate at LOS A during all analysis scenarios. Queue lengths on the Union Street approach to South Street are expected to be 1 vehicle or less during all analysis scenarios. All critical movements are under capacity with and without the proposed development in place.
- At the intersection of South Street at NH Route 101 WB Ramps, under existing traffic-volume conditions, westbound left-turn movements from the NH Route 101 WB off-ramp approach to South Street are currently operating at LOS D during the weekday AM peak hour, LOS F during the weekday PM peak hour, and LOS F during the Saturday midday peak hour. Capacity deficiencies and delays are expected to continue, with or without the proposed project. It should be noted that queue lengths for the westbound left-turn movement are only expected to increase by 2 vehicles or less during all Build analysis scenarios. Favorably, westbound right-turn movements from the NH Route 101 WB off-ramp approach to South Street are expected to operate at LOS B or better during all analysis scenarios. Northbound left-turn movements from South Street are expected to operate at LOS A during all analysis scenarios.
- At the intersection of South Street at NH Route 101 EB Ramps, eastbound left-turn movements from the NH Route 101 EB off-ramp approach to South Street are expected to operate well below capacity and function at LOS D or better during the weekday AM peak hour, LOS E or better during the weekday PM peak hour, and LOS E or better during the Saturday midday peak hour. Favorably, eastbound right-turn movements from the NH Route 101 EB off-ramp approach to South Street are expected to operate at LOS C or better during all analysis scenarios. Southbound left-turn movements from South Street are expected to operate at LOS A during all analysis scenarios.

Based on the findings above, the proposed residential redevelopment can be safely and efficiently accommodated along the existing roadway network. No additional project-specific mitigation is warranted based on the incremental impacts of the redevelopment.

- APPENDIX

- *Traffic Count Data*
 - *Crash Data*
 - *Sight Distance Calculations*
 - *Traffic Volume Adjustments*
- *Trip Generation & Trip Distribution Calculations*
 - *Auxiliary Lane Warrants Analysis*
 - *Capacity Analysis Methodology*
- *Capacity and Queue Analysis Worksheets*

TRAFFIC REVIEW MEMORANDUM

To: Lincoln Daley
Director of Community Development,
Town of Milford

Date: July 30, 2022

From: Stephen B. Haas, PE
Alyssa Smith

Re: Traffic Impact and Access Study
Proposed Residential Development
0 Ponemah Hill Road (Map 43 Block 69)
Milford, NH

Applicant: Tommy Bolduc
TM Bolduc Holdings, LLC

Hoyle, Tanner & Associates has been retained by the Town of Milford, NH to review the Traffic Impact & Access Study (TIAS) prepared by Greenman-Pedersen, Inc. (GPI) for the proposed residential development located at 0 Ponemah Hill Road in Milford. The scope of the review includes the review of the traffic memo (July 12, 2022), the associated traffic volumes, trip generation, and intersection analysis.

The Applicant has collected and adjusted the existing traffic data in a manner consistent with good engineering practice. The Applicant has investigated potential impacts the COVID-19 pandemic may have on current traffic volumes and found none. The Applicant also used a conservative growth rate of 1.0, although historic traffic volumes indicate a decrease in volumes in the several years leading up to the pandemic. Furthermore, we concur that the applicant has utilized the appropriate ITE Land use code for trip generation of the proposed development.

Based upon the documents received and received, we recommend that the Applicant address the following items:

1. The Applicant has noted that the AM Peak Period is from 7:00 to 9:00 AM, but has not indicated what peak hour during this period was used for intersection capacity analysis. As the peak hour seems to fluctuate from intersection to intersection (according to the PDI turning movement counts), establishment of this time frame is important to confirm that the peak traffic period across the network has been utilized and that the capacity analysis represents the worst-case scenario impact on the network. In addition, based on the ATR counts provided by PDI, the peak hour volumes seem to slowly increase throughout the morning rather than providing a defined peak. The Applicant should address whether utilizing their chosen peak hour and changing to "Peak Hour of Generator" for Trip Generation might truly represent the peak impact on the network during the AM, or adjusting the chosen peak hour is appropriate.

2. The Applicant notes that the available sight distance for vehicles turning from Nathaniel Drive onto NH Route 13 is in excess of 500', that this distance exceeds the New Hampshire Department of Transportation (NHDOT) 400 feet of All-Season Safe Sight Distance, and that this distance exceeds the AASHTO minimum Stopping Sight Distance and Intersection Sight Distance. No figures or diagrams are provided to verify the sight distance as it was measured in the field. In accordance with best practices, an exhibit showing measured Intersection Sight Distance should be included to prove that there are no obstructions in the sight triangle. This should include sightline profiles taking into consideration snow cover. Of concern is the embankment along the east side of NH Route 13 south of Nathaniel Drive. We recommend that these diagrams are either provided for review with revisions to this report or are presented for review as part of the site plan package for Planning Board approval.
3. The proposed development is situated between the center of Milford and NH Route 101. The Journey to Work data suggests that a significant proportion of trips will travel south to NH Route 101 on their way to work with 10% of trips travelling to the center of Milford. These travel patterns may not be applicable to Saturdays with the center of town and attractions along NH Route 101A being a short drive to the north of the development. We suggest the Applicant address this and consider if a gravity model may be more appropriate to assign trip distribution from the development on Saturday.
4. In reviewing the Synchro inputs, some anomalies were found. Some of the 2022 Existing volumes were not consistent with the turning movement count data (with seasonal adjustments taken into account). Most of the time, the inputted volumes discrepancies were minor and erred on the side of being conservative and would have little impact on LOS. NHDOT Synchro guidelines recommend that the peak hour factor (PHF) be entered as a weighted average of the PHFs for a single approach whereas the Applicant used a single PHF for the entire intersection. The PHF for all future build scenarios (2023 Build and 2033 Build) should be 0.90. The Heavy Vehicle percentage should be a weighted average for each approach, unless the heavy vehicle percentage is greater than eight. In that case, the percentage for that approach should not be included in the average of the approach value. The Applicant did not enter the heavy vehicle percentages in the recommended manner.
5. The Applicants intersection capacity analysis indicates that the left turn maneuvers at the NH 101 WB ramps will operate at a Level of Service (LOS) F during the PM & Saturday peak hour for 2023 & 2033 No-Build scenarios, with significant queueing and volume to capacity (V/C) ratios well over 1.0. The proposed development is expected to increase delay and queueing for this movement during these periods, and will reduce the LOS for 2023 AM peak from D to E and the

2033 AM peak from E to F. It is recommended that the Town and Applicant coordinate with NHDOT to determine if these impacts are acceptable or if mitigation will be required.

6. The Applicant has not provided a statement on the need for a traffic signal at the site driveway, as agreed to in their scope. Although it was agreed that a full MUTCD warrant analysis would not be required, a statement comparing the peak volumes at the site drive to warrant thresholds should be provided for the Town's benefit.

Town of Milford
CONSERVATION COMMISSION

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July 18, 2022

To: Zoning Board of Adjustment

Re: Case # 2022-14 Map 43 Lot 69
Request for relief from height restrictions. Special Exception from Article V, Section 5.05.8.C and 5.07.7.C

To the Board,

The Conservation Commission met with the applicant at the June 9A, 2022 meeting. A quorum of members met with the applicant at the site on June 28, 2022. The same quorum discussed this application at their July 14 2022 meeting.

Criteria for Evaluation with MCC comments italicized

1. The need for the impact. *The height variance which will allow for underground parking will reduce potential wetland and buffer impacts which will be a consequence of the equivalent parking lots.*
2. The plan is the least impact to the site. *The inground parking will result in less wetland and buffer impacts to the site*
3. The impact on plants, fish and wildlife. *The enclosed parking under the housing will reduce the at ground parking impacts to the plants, fish and wildlife.*
4. The impact on the quantity and quality of surface and ground water. *Putting the parking under the housing will reduce the square foot site development impacts which will reduce the impact to the site functionality to treat stormwater*
5. The potential to cause or increase flooding, erosion or sedimentation. *Putting the parking under the housing will reduce the square foot site development impacts which will reduce the impact to the site functionality to treat stormwater*
6. The cumulative impact if all parties abutting this wetland or buffer were permitted to make equivalent alterations to the landscape. *This site has been impacted in the past. The applicant is reusing these impacts to restrict future increased impacts to the site. Putting the parking below the housing will continue with that intent to minimize future impacts to the site.*

7. The impact of the proposed project on the values and functions of the total wetland or wetland complex. *Putting the parking below the housing will reduce the potential impact that a subdivision of this size would have on the functions and values of the total wetland complex.*

Very Respectfully,



John Yule, Chair
Milford Conservation Commission

4 **Members Present:**

5 Doug Knott, Chairman
6 Tim Finan, Selectmen’s Rep
7 Pete Basiliere, Member
8 Elaine Cohen, Member
9 Paul Amato, Member
10 Janet Langdell, Vice Chairman
11 Susan Robinson, Member
12

Staff:

Lincoln Daley, Comm. Dev. Director (via Zoom)
Darlene Bouffard, Recording Secretary

13
14
15 **1. Call to order:** Chairman Knott called the meeting to order at 6:30 p.m. indicating that tonight is for the
16 public hearing of two Planning Board applications. Planning Board members and staff were introduced by
17 D. Knott.
18

19 **2. Public Hearings:**
20

21 a) **Case SP2022-05 30 Wilton Road LLC for the property located at Tax Map 6, Lot 14, 30 Wilton**
22 **Road.** Public Hearing for a Conditional Use Permit/Major Site Plan Application to construct 3-story,
23 40 foot tall, 13,950 square foot (41,850 square foot gross floor area) self-storage facility and associated
24 parking, site and drainage improvements in the Integrated Commercial Industrial zoning district and
25 West Elm Overlay (tabled 6-21-22).

26 This application was continued from the June 21, 2022 Planning Board public meeting. Tonight the
27 applicant representatives are Jeff Merritt, Brent Cole, Dennis Myer and Scott Sprindler, who are here
28 to answer any questions the Board may have. One month ago, Jeff Merritt explained the Planning
29 Board asked for the applicant to look at certain items. J. Merritt reviewed those items such as the bus
30 stop, cross walk and aligning the driveway with North River Road. New elevations will be presented;
31 the bus stop is in tonight’s handout. The original site had the easement for that, which was never done.
32 We have the opportunity to put the bus stop where it should be. The bus stop location was discussed
33 with L. Daley for it to be between the existing driveway to the dam and Dollar General. That would
34 allow for a bus pull off. The storage facility does not generate a lot of pedestrian traffic.

35 On the north side of North River Road, there is a sidewalk with close proximity to the future bus stop.
36 J. Langdell said the idea at the time was to have the ability to have the bus stop and sidewalk in the
37 neighborhood because of the apartments being built at the time (Pine Valley Mill). J. Merritt agrees it
38 is good planning for the future. There is space there, the easements are there, it would make sense in
39 this location; we have done similar bus stops for HUD housing. J. Langdell asked what size bus is
40 being planned for? J. Merritt said it is for a full-sized bus. Along that same line, sidewalks were looked
41 at, sidewalks plans were discussed. A mid-block crosswalk would be tricky, they can be dangerous if
42 not done correctly. There is no light in this instance, so it could be more dangerous. If the number of
43 pedestrians crossing is low or no one ever crosses, the drivers get used to not having any pedestrians.
44 This type of mid-crosswalk can be very dangerous to install. In the future it could be added if the
45 pedestrian use were to increase. Those types of crossings are reviewed by an employee at the State of
46 NH. In a stop-controlled crosswalk, it is much safer because there is a stop already there. More than
47 20 pedestrians would need to be crossing every day. There are certain criteria that must be met to have
48 this type of crossing. The sidewalks could be made and if the need is met, the town could stripe it for
49 a mid-stop crosswalk.

50 J. Langdell asked how many of mid-stop crosswalks does Milford have already? T. Finan said there
51 are many of these already. J. Merritt said those were most likely added before all the criteria began. In
52 Manchester there are a lot of them. You do not see 20 people cross at one time in an hour. J. Langdell
53 said this will not meet that; this is not Route 101A, it is a side road going into the town of Wilton. J.
54 Merritt said the applicant did meet with the town engineer and agreed it is not warranted. P. Basiliere

55 said this is to install the sidewalk but in the future the town can stripe it if needed. J. Merritt said yes it
56 should not be done until it is warranted and the criteria is met.

57 J. Merritt said tonight he is reviewing the comments from the last Planning Board meeting. L. Daley
58 said the applicant will address some of the other comments at the next meeting, tonight he is addressing
59 specific items. P. Basiliere understands the mid-block crossing, he also knows there are other mid-
60 block crossings specifically near the schools. J. Merritt noted that schools are where there might be
61 additional crossings. P. Basiliere agrees building the sidewalk now makes sense. J. Langdell asked if
62 there is anything that would prevent the sidewalk from being extended down to the river? Brent Cole
63 said nothing would prevent that, the biggest hurdle would be getting over the Penn stock. L. Daley
64 indicated the mid-block crossing is an issue, but is it possible to have a button to press that would allow
65 a flashing light to warn drivers of a crossing? J. Merritt said that is something that could be done if it
66 is warranted. It depends on a lot of factors, maybe in 20 years, it really depends on how it is developed.
67 L. Daley asked if the sidewalk extension along the property itself would be considered for the site plan?
68 P. Amato said we should know if it is possible at some point. J. Langdell just wanted to know if it is
69 possible.

70 L. Daley asked if the Planning Board is okay with the current length of sidewalk? J. Langdell said we
71 can talk more as we go along. J. Merritt pointed out the access easement along North River Road and
72 if the access for this property could better align with the driveway to make it a 4-way intersection? This
73 plan does not align it exactly, that would get into the radius and impact the building itself. If it were
74 not aligned exactly with what is across the street, the configuration brought forward could not be done.
75 The water line was brought up, there is a hump in the road, that is where the water line in Wilton
76 crosses. The water line would need to be changed and that is a larger issue. There are also a lot of
77 utilities that would need modification. The skew is not advisable at less than 75 degrees. If we came
78 in at an angle, it would not be safe. What was presented at the last meeting was safer. This use does
79 not generate significant trips in and out, the suggestion from L. Daley was to level it with gravel and
80 not use that as an entrance, that would be acceptable? If it was needed, it could be used. D. Knott
81 asked could it be gated? J. Merritt indicated if it is gated, in order to get in you need to stop to open
82 the gate then stop to close the gate. The preference would be to leave it not gated. The applicant does
83 not need that access.

84 P. Basiliere asked if the town will find that the visitors of Dollar General would then use the easement
85 to go over to the storage facility? J. Merritt said people could do that, but it would not be advised, that
86 is not meant to be the access. L. Daley indicated the traffic is pretty minimal for this use. P. Amato
87 said the town must anticipate another use and they cannot expect it to be more storage. J. Merritt said
88 the access is the safest location but he does not see a lot of difference in either of the accesses. P. Amato
89 asked if there might be another way to access the storage facility? J. Merritt answered no, there is no
90 light to Dollar General. If it is a situation where the Planning Board wants to see more parking, we do
91 not think more parking will be used. Should additional parking be needed, they could add striping for
92 the parallel spots. Milford does not have an ordinance for parking for this type of activity. The plan
93 shows what the applicant thinks will be needed. People are doing things on-line, not coming to the site.
94 A condition could be added to the plan for future additional parking. J. Langdell said maybe the Site
95 Plan is looked at again in one year and if there is a need for additional parking, we look at it then. D.
96 Knott said if we see a need, what is that process? J. Langdell said there would be further evaluation
97 out of Community Development. J. Merritt said the applicant has done this before, at some point if
98 there is not enough parking, it can be dealt with. Brent Cole said at that point, it becomes an
99 enforcement issue. L. Daley said there is currently one employee that could enforce this after
100 reviewing. J. Merritt said when occupancy is about 80%, the parking could be reviewed so that the
101 normal activity is monitored. S. Sprindler indicated the parking is for future customers, it is for people
102 that do not have a unit and want to look at them.

103 D. Knott asked the percentage of people that set up the agreement on line versus in person? S. Sprindler
104 said he has 3-4 facilities that have about 5% of the occupancy set up the account in person (in the
105 office). The majority of lease agreements are done on line. Staff is there six days a week but not on
106 Sunday. P. Basiliere's concern is the traffic study that was provided previously, it shows there would
107 be more than four cars during peak hours. He is not convinced there is enough parking and would like
108 to see two additional parking spots for a total of five spaces. P. Amato said if someone has to park out

109 back, the person will pull over to the gravel to park. D. Knott asked if Scott would be open to an
110 unofficial traffic count on parked cars to provide to the Town? Scott said they will start off with an
111 employee in the office six days a week and adjust it as necessary. D. Knott said if there are any parking
112 problems, it would be reported to Community Development. Scott said we have the same type of
113 building in Raymond NH and he has never had a parking issue since that opened. J. Langdell asked if
114 there is more than 80% occupancy in Raymond? Scott said no, it has been open for about four months
115 and it is 46% occupied. The parking is for potential customers. L. Daley asked if it is possible to have
116 a grassy area where cars could park? J. Merritt said the access easement could not be used for that. At
117 this point, we should go with what the applicant knows for this business. E. Cohen and P. Amato think
118 it is fine. P. Basiliere wants striping to be done. J. Langdell likes the way it is presented and then we
119 can review after one year in business to assess. D. Knott and T. Finan are fine with the way the parking
120 is on the plan.

121 L. Daley wants to include the spaces on the Site Plan but only stripe them in the future if needed; he
122 will have that in the next meeting. J. Merritt said he will work with L. Daley on those notes for the
123 next meeting. Scott is okay with the suggestion but does not want to assess the parking every year. L.
124 Daley said the parking would be handled in Community Development and the worst case would require
125 the striping of that parking if needed. Scott said if the spaces are striped now, this becomes a non-issue.
126 D. Myers, architect, reviewed the regulations and the neighborhood to understand the context. The
127 exterior will be part brick finish to match the Mill apartments and part horizontal siding. Horizontal
128 boards will be utilized and the color will be like the red brick. One overhead door and one employee
129 door will be built with one loading door for this size building. L. Daley said this comes into play with
130 the queuing time. P. Amato said this model obviously works for this job with one overhead door. D.
131 Knott asked if there is one door in the other buildings? Scott said that is correct and this building will
132 have an elevator door, so two cars can unload at one time.

133 D. Myers continued that there will be some plantings added to what is already there. J. Langdell asked
134 if the second floor is bumped out a little? D. Myers said yes, the height of the building is 40', Dollar
135 General is 28'. D. Knott appreciates the brick being incorporated like the Mill apartments. The Dollar
136 General strip (of landscaping) will be extended on this site. D. Myers said they will be staggered. D.
137 Knott asked if there are other places on the property that the landscaping could be done? There is
138 already screening at that point and we want to prevent over population of plantings. L. Daley agreed
139 and said he can work with J. Merritt on the plantings. There was a request at the last meeting to have
140 the trees on that side of the building, but is there is another area where the plantings could be? P. Amato
141 said it could be on the east side of the building. J. Merritt said there will be trees planted for frontage.
142 L. Daley will work with the applicant on a review of the landscaping plan, this is a bigger building so
143 we want to minimize its impact. D. Knott does not want to overpopulate the area which would look
144 bad in ten years. We also cannot put trees on the Penn Stock. A planting every five feet for frontage
145 would work.

146 P. Amato commented that the ordinance for industrial buildings does not work here, but in ten years,
147 the trees might break up the size of a building. All were in agreement to have staff work with the
148 applicant on the landscaping. E. Cohen feels they did a nice job to incorporate the West End Overlay
149 District requirements into this plan. P. Basiliere also likes that the ordinance was incorporated. J.
150 Langdell said it is an improvement since the last presentation. T. Finan also likes the new plan. D.
151 Myers said the bricks have a range of color so it actually looks like brick. D. Knott agreed the veneer
152 is like real bricks. Seeing no further comments or questions from the Board, D. Knott opened the
153 hearing to the public, with abutters welcome to comment first. Seeing no abutters, D. Palance, Heritage
154 Commission Chair, was recognized and stated the Dollar General had a sidewalk put in; he walks down
155 this way and he hopes that this plan has a sidewalk as well. D. Knott said there is a sidewalk on the
156 plan. J. Langdell said the beginning of tonight's meeting had a discussion on sidewalks, if Dave came
157 in late, he may have missed that. D. Knott said the plan documents have the sidewalks that will be
158 available on line in the next week. Seeing no further comments or questions from the public D. Knott
159 closed the public hearing.

160 J. Merritt said the location of the bus stop, sidewalk, crosswalk, entrance access will be finalized at the
161 next meeting. P. Basiliere asked if the applicant wants to leave the entrance gravel? All agreed the
162 gravel driveway would be used by the abutter and the easternmost access would be used by Dollar

163 General. J. Langdell said the bus stop is there for a reason, and she asked if it must be in that location
164 on the plan? J. Merritt said yes, the bus stop is more for the Dollar General use. L. Daley asked if a
165 sidewalk could be designed to head east to the end of the undeveloped property, not built, just designed.
166 Scott asked who would be responsible for the maintenance of that? L. Daley responded if the sidewalk
167 were ever built, it would be the town's responsibility to maintain.

168 J. Langdell moved to continue this application to the August 16, 2022 Planning Board meeting. T.
169 Finan seconded. All were in favor. Motion passed.

170

171 **b) SP2022-06 Battle Axe, LLC, for the property located at Tax Map 44, Lot 6, 614 Nashua Street,**
172 **Units 1-4. Minor Site Plan Application for a change of use from Retail to a Commercial**
173 **Recreational Facility use within the Commercial 'C' Zoning District.**

174

175 D. Knott read the explanation of the application asking for the representative to step forward. T. Finan
176 moved to accept the application for review. J. Langdell seconded. All were in favor. T. Finan moved
177 no potential regional impact. E. Cohen seconded. All were in favor. Abutters were read into the record
178 by D. Bouffard.

179

180 Candice Lima, applicant, explained the application for Battle Axe and what it is. P. Amato asked why
181 this application is before the Planning Board? L. Daley explained it is in a retail space and the biggest
182 issue is traffic and the abutting parcels. The Change of Use and potential change of traffic and parking
183 is the main reason this is before the Planning Board. P. Basiliere is alright with this use. J. Langdell
184 said this is a Commercial Lot with recreational use for parking etc. versus retail use. L. Daley said it
185 is a little more intensive than a retail use.

186

187 C. Lima indicated this will have about four people in the property at any given time. There are 14
188 lanes, that can have up to four people per lane, for a total of 64 individuals plus there might be people
189 that watch for 85 people maximum in the facility which is the amount allowed by the Fire Department.
190 Each lane would be used for 1-2 hours at one time. There is a VIP room to accommodate a party. D.
191 Knott asked if food and seating will be available? C. Lima explained it will only be packaged food,
192 beer, wine and soda, but people can also bring in outside food; the business would like to partner with
193 other food vendors in the area. Hours of operation are W,T,F 4-10, Sat 10-10 and Sun 11-8 with Mon-
194 Tues closed. There could be leagues at some point which would be held on one of the days the business
195 is closed to the public. L. Daley said all of the buildings out there have cross easements for utilities
196 and parking. C. Lima added that there will be two stools in each lane and some people could stand. P.
197 Amato said this sounds similar to the way a bowling alley operates, which is a common recreational
198 use. L. Daley is excited about this to bring in other businesses to that plaza and this could generate
199 some complementary uses to this use. C. Lima said there will be one person throwing in a lane at one
200 time and the lane is completely enclosed; there is a coach that explains the use to each thrower and 3lb
201 hatchets are provided. The hatchet is provided by Battle Axe unless it is a league and the facility is
202 ADA compliant. It will cost \$25 per person for one hour. She is hoping to open by Labor Day 2022.

203

204 Seeing no further comments or questions from the Board, D. Knott opened the hearing to the public.
205 There were no public questions or comments. C. Lima said a sign will be approved by the Landlord
206 before it is brought to the sign for approval. P. Amato moved to approve this application. E. Cohen
207 seconded. All were in favor. Motion passed.

208

209 **3. Other Business:**

210

211 a. **ZBA Case 2022-06 for the property located at Tax Map 43, Lot 69 seeking Special**
212 **Exception from the Milford height requirement.** L. Daley indicated the ZBA is looking
213 for Planning Board input on this application. The application will be coming to the
214 Planning Board eventually, but at this time the applicant is seeking this Special Exception
215 for the height of the buildings. This is for 6 multi-unit apartment buildings for a total of
216 216 apartment at market rate, requesting 56' of height where 45' is allowed. The site walk

217 had a crane showing the height of four corners of one building. P. Amato viewed this from
218 a nearby sidewalk, but there is no way to see these buildings from anywhere except the
219 highway. The plan was put on the screen to view. L. Daley explained the buildings are set
220 back from view and because of the pine trees it was difficult to see past the Vaillancourt
221 Roofing building and the Ponemah Hill Road properties could see through to the two
222 buildings. A building that is 56' high will potentially be visible from the southern side. P.
223 Amato said most of the buildings will have underground parking, which is why they are
224 56'. L. Daley said there are a lot of wetlands on the parcel so the applicant is trying to
225 minimize the impact which is why the underground parking is on the table. The site plan
226 review will address the blasting and wetlands. The only item before the ZBA right now is
227 the height.

228
229 P. Basiliere provided photos taken from the sidewalks. P. Amato indicated the issue for
230 tonight, is if the extra height should receive ZBA approval, the application is not before
231 the Planning Board yet. P. Basiliere said the buildings will be visible on Ponemah Hill
232 Road. P. Amato said when the condominiums on Ponemah Hill Road were built the
233 residents were vehemently against the building. J. Langdell likes that the parking will be
234 put under the building and the developer is lessening the developed space. D. Knott said
235 it seems like a good project. P. Amato asked if the Capron Road apartments received a
236 Special Exception for the height for the peaked roofs? L. Daley was unsure but said that
237 in addition to a Site Plan, the developer will need to Subdivide the lot and the density will
238 be based on the proposed lot size with a maximum of 216 apartments. If the ZBA does not
239 approve the application for relief on height, P. Basiliere said they would only be able to
240 build three stories and not four stories, this relief would allow an entire extra floor. T.
241 Finan said there is more buildable space out there and if they did not have the height, they
242 could have additional buildings. J. Langdell said they could build what is allowable for
243 the density. L. Daley said there are site limitations, they will need to cross the wetland for
244 example. The total lot will be sized to get the density and to minimize the disturbed area.
245 If the height relief is not given, they will need to have more parking since the underneath
246 parking could not be achieved.

247
248 P. Basiliere indicated one possibility is for the four buildings on the upper side to be granted
249 the height and have underground parking but the two buildings closer to residential areas
250 not be allowed the height but instead add additional buildings. P. Amato said the extra 15'
251 height is just a taller building, but the mass of the building is still there. P. Basiliere said
252 that is the issue for the developer to make it meet the ordinance. L. Daley added that the
253 cupola is not part of the height. The initial application had a cupola for the original
254 proceeding, now they have taken out the cupola to make it less than 56'. The cupolas were
255 in the original ZBA application but have since been taken out. If the Planning Board would
256 like them back, they could have a condition to allow them to be added. L. Daley said this
257 is a typical regulation and the parcel is not located in any Overlay District.

258
259 T. Finan asked what the ZBA is looking for from the Planning Board? L. Daley said the
260 ZBA is not looking for the Planning Board to make a decision, but what is the Planning
261 Board reaction to the ZBA application? P. Amato thinks it is great that the ZBA asked for
262 input from the Planning Board on the proposed height in the application. T. Finan
263 understands the Planning Board sentiment; if the ZBA does not grant the Special
264 Exception, the two buildings closer to the road will cause the biggest impact. P. Amato
265 indicated if they cannot get the height relief, they will just build another building to get the
266 maximum density.

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Public Meeting / Discussion:

L. Daley explained that Chappell wants to use one of the bottom floors of the recently approved climate-controlled storage buildings for their equipment storage. It was mentioned at the Planning Board meeting, but if this use constitutes an amended Site Plan that will be done, or can it be approved administratively by Town staff? This space would be to store things like trailers, or to be used to put together trailers. P. Amato thinks that is a better use of the space. L. Daley said this is easier access on the first floor, below grade, for this type of equipment. J. Langdell read from the ordinance and noted it is a clause. L. Daley said the applicant would be willing to have him add a condition in the Planning Board approval and when Chappell is done with the use, it will be returned to the approved storage lease and use.

T. Finan asked about the Stormwater Management regulations being reviewed, noting the Board of Selectmen increased the threshold to one acre. There are still additional hearings to come but that did get changed at the recent BOS meeting. L. Daley acknowledged there are still public hearings yet to be done.

4. Meeting Minutes:

P. Basiliere moved to approve the minutes of June 7, 2022 as presented. E. Cohen seconded. All were in favor. Motion passed.

P. Basiliere moved to approve the minutes of June 21, 2022 as presented. T. Finan seconded. All were in favor. Motion passed.

5. Upcoming Meetings:

8/2/22 – Planning Board Work Session (D. Knott and T. Finan will not be in attendance)

8/16/22 – Planning Board Public Hearing

6. Adjournment. The meeting was adjourned at 9:01 p.m. on a motion made by T. Finan and seconded by J. Langdell. All were in favor. Motion passed unanimously.

Date: _____

Signature of the Chairperson/Vice-Chairperson:

The Planning Board minutes of 7-19-22 were approved _____