

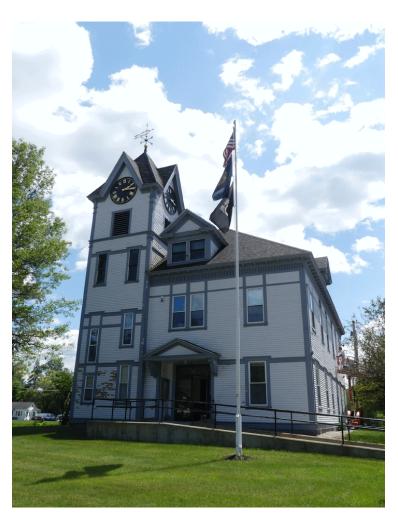








# Town Facilities Plan



Town of New Durham New Durham, New Hampshire

# Town of New Durham

# Town Facilities Plan TOC-1

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# Introduction

The Town of New Durham has in recent years been considering what improvements should be planned for Town facilities, including the Town Hall, Police Station, Fire Station, Library and Public Works. The Town Hall is on the National Register of Historic Place and retains many of its original historic features. An energy audit of the Town Hall was conducted in 2015 and noted major issues with the condition and energy performance of the building which is further detailed in the facility assessment that follows. The Fire Station had a structural review performed in 2003, developed plans for a new fire station on the current site in 2004 which was not acted upon, added the Community Room in 2010, and had minor renovations started but never completed in 2015.

The Town is at a crossroads in its decision making process. In order to better understand the Town's needs, the Town has retained the services of AG Architects, PC for the purpose of preparing a review of the Town's facilities. Evaluating what the needs of each Department are before determining what improvements to make to any of the buildings is both a prudent and logical step in this process. Identifying the space requirements of each Department and confirming what needs should be incorporated into these facilities are all critical elements to consider in conjunction with addressing issues noted in earlier reports. Performing improvements and repairs are also more effectively done in the context of knowing future building plans so that work is not duplicated, done unnecessarily, done without considering the full impact of other planned improvements or done in such a way that work would have to be redone as part of a renovation or replacement. There is certainly a conservation ethic evident in New Durham as noted in the recent 2017 Master Plan, which is reflected in a desire to preserve the Town's sense of history and to maintain its small town image. These values will need to be reflected in our Assessment and design concepts.

The following report provides a comprehensive basis for identifying the space needs for the different Town departments. This is critical in establishing how much space each department needs now and in the future, and will serve as the foundation for site design concepts developed as part of looking at solutions. Identifying the space needs is achieved through an evaluation of each of the departments, an inspection of each facility, developing projections for future needs, preparing a program summary that identifies space needs, assessing the existing sites and other potential sites for expansion, and preparing conceptual site designs that would accommodate the recommended Town facilities.

There were three basic steps taken in preparing this report. The first involved collection of data on functions for each department, along with Boards, Commissions and Committees. A combination of Evaluation Forms, interviews with Departments, and a review of existing facilities provided a base of information for understanding Town services and available space. The evaluation of existing facilities focused on reviewing recent studies, observations on the physical condition of the building, identifying basic life safety code concerns and Americans with Disabilities Act accessibility concerns, and identifying historic elements critical to the history of the facility. A review of population and growth projections for the Town was also performed in order to evaluate the potential impact on Town services and the needs for improvements to the Town facilities. The second step provided conclusions related to future staff projections, its impact on each department, and preparing a space program to meet these future needs. The final task has been to evaluate potential sites for expansion and to develop conceptual site plans that resolve present and future space requirements for each facility.

Our summary concludes with recommendations for resolving current space needs, meeting future anticipated needs, identifying potential sites to accommodate needed facilities, and preparation of several site design concepts that meet the needs of the Town. A final recommendation is provided.



# **Data Collection Overview**

A review of the organization and operations of the Town of New Durham departments, including the Town Hall, Police Department, Fire Department, Library and Public Works, as well as Boards, Commissions and Committees, serves several purposes. First, it identifies the departments' and facility needs, what programs are being provided, what are staffing levels, who is being served by each department, what special needs each department and facility may have, and what activities or other departments are important to be adjacent or accessible to. Present staffing levels are confirmed and present needs are identified. This review is also used to identify existing space utilized by each department. The existing location and square footage for each department and facility is confirmed. This permits a comprehensive look at the needs of the different facilities.

A variety of methods are utilized to confirm the departments' and facilities' organizational and program needs. Program Evaluation Forms are provided for each department to initially complete; a sample of the form is included on pages B-3 to B-6. These Evaluation Forms are then reviewed with each department head through an interview process. The interviews enable a more complete evaluation of program needs. This process permits us to develop a full understanding of each department and its programs, and the space needed to accommodate the program. It is also useful for evaluating what future programs or operations are anticipated or being considered. Photographs of different areas within each facility are included in the facility assessments, which help highlight inadequacies of each facility and the needs to be addressed.

The questionnaire/interview process lays the foundation for determining present and future space needs for the Town. It also helps establish the working relationship and critical adjacencies between departments and identifies their relationships with the public. This information is useful in determining which departments and facilities should be located adjacent to each other for efficiency, and which Departments interact most with the Public.

In the case of the Town Hall, needs are usually broader than the individual Departments within Town Hall. There are Boards, Commissions and Committees that utilize the Town Hall and, most importantly, there is the Public. In order to assess the needs of each of those groups, Supplemental Evaluation Forms were provided to the members of the Town's Boards, Commissions and Committees. Samples of the Supplemental Program Evaluation forms are included on pages B-8 to B-10. The information provided from the Supplemental Evaluation Forms and interviews also affects the approach for meeting space needs and final conclusions.

# **Town Facilities Plan**



# **Department Evaluation/Interviews**

Program Evaluation Forms were provided to the following Town Departments:

Town Hall:

Assessing (via Town Administrator)
Building Inspector
Finance/Treasurer
Parks and Recreation
Planning(via Town Administrator)
Select Board
Tax Collector/Welfare Administration
Town Administrator
Town Clerk

Police Department. Fire Department Library. Public Works.

The Program Evaluation Forms requested information on staffing, equipment, storage, customers served, activities performed, department function, department interaction, size of the space, public/staff meeting space requirements and other staff concerns. AG Architects followed the questionnaires up by meeting individually with each Department in order to thoroughly understand each department, to review responses noted in the questionnaire, and to evaluate current space and conditions. A copy of the Program Evaluation Form is attached.

# Program Evaluation Form New Durham Town Facilities Plan

By the year 2040:

c.



We are requesting Staff's assistance with completing the following survey to help determine current and future space needs for the Town. Please complete this questionnaire with input from you and your staff and return to Scott Kinmond by Thursday, 10 October 2019. We will also be scheduling follow-up interviews with you to discuss these space needs. Thank you for your assistance.

1.	Name of Department:
2.	Phone Number of Department:
	Email for Department:
3.	Name of Person Completing Form:
4.	Employees:
	a. Current number of full time:  b. Current number of part time:  c. Number of full time employees anticipated by the year 2025:  d. Number of full time employees anticipated by the year 2040:  e. Number of part time employees anticipated by the year 2025:  f. Number of part time employees anticipated by the year 2040:
5A.	List current major equipment (ie. copy machine, computer equipment), reference materials (ie. Town tax maps) and storage needs (ie. file cabinets, office supplies) used on a daily basis:
5B.	List current major equipment, reference materials and storage needs which are used occasionally (not on a daily basis, such as archives):
5C.	List those items which you currently intend to purchase that will increase your Department's space requirements:  a. In the near future:
	b. By the year 2025:

New Durham Town Facilities Plan AG Architects Project No. 19-761 **Program Evaluation Form** 

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8B.

Page 2,	27 Sept	ember 2019
5D.	What a	dditional storage space do you need? Currently:
	b.	By the year 2025:
	c.	By the year 2040:
6A.	Who is	your current customer(s)?
		ral Public
6B.	How m	any visits by residents/public do you receive on an average day?
6C.	Are the	re times (time of day, time of month, time of year) that are busier than others? Explain.
7A.	List the	functions/activities/duties that your Department performs:
7B.		functions/activities/duties that you would like to see your Department (or other Departments) now and in the future that are not currently being done and for whom?
8A.	List the Departr	functions/activities/duties within your Department that should be adjacent to or that depend on other ments:

List the functions/activities/duties within your Department that have direct interaction with the public.

# **Program Evaluation Form**

Page 3, 27 September 2019

8C. In order of priority (1 being the least contact, 5 being the most contact), rate the frequency of your Department's contact with other Town Hall Departments, Commissions and/or Committees:

Assessing Building Inspection/Code Enforcement, Health Officer Tax Collector, Welfare Town Clerk, Supervisor of the Checklist Town Administrator Treasurer Parks and Recreation` Planning	1 1 1 1 1 1 1	2 2 2 2 2 2 2 2 2		4 4 4	5 5 5 5 5 5 5
Tidining	1	2	3	7	3
Boards, Commissions, Committees, Other Contacts:					
Board of Selectmen	1	2	3	4	5
Cemetery Trustees	1	2			5
Conservation Commission	1	2			5
Planning Board	1	2			5
Trustees of the Trust Funds	1	2			
Zoning Board of Adjustment	1	2	3	4	5
Other	1	2	3	4	5
Other Town Departments: Fire Forest Fire Warden Public Library	1 1 1	2 2 2	3	4	5 5 5
Public Works	1	2			5
Police	1	2		4	5
Animal Control	1	2	3	4	5

8D. Do you work or assist in more than one Department? □**Yes** □**No** If yes, please list:

- 8E. Do you think there is a more convenient location for your Department to serve its customer(s)? □**Yes** □**No** If Yes, please list:
- 9A. Describe your Department's current space, including approximate square feet (size):
- 9B. Describe the minimum space needs you think your Department needs to do it's job (size):
- 10. What percentage of your time or your staff's time is spent outside the office workspace (List employees and %)?

New Durham Town Facilities Plan AG Architects Project No. 19-761 **Program Evaluation Form** Page 4, 27 September 2019

11A.	How often do you hold meetings with staff or the public in your Department?
11B.	What are your conference/meeting space needs (a chair, table and chairs, etc,)?
11C.	Is it necessary to meet in your own Department or can you share a meeting facility with other Departments?
12.	List special major equipment, functions or activities which may require a special location with your Department (ie. access to Meeting Room, etc.):
13.	What are your feelings concerning the current space you occupy? List positive aspects as well as negative:
14.	In addition to your Department space needs, in what other areas or Departments do you think additional space is needed?
15.	What support facilities do you think are necessary for a Town facility (ie. Lunch/Break Room, Employee Locker Area, Mail/Copy Room, etc.):
16.	List any other equipment/functions/activities or any other unique aspect of your Department that you feel is important to adequately address your Department's current or future needs:



# **Boards, Commissions and Committee Evaluations**

Supplemental Program Evaluation Forms were provided to the members of Town Boards, Commissions and Committees. Responses were received and/or interviews held with the following groups:

Advisory Capital Improvements Program Committee

**Budget Committee** 

**Cemetery Trustees** 

**Conservation Commission** 

Cyanobacteria Mitigation Steering Committee

Planning Board

Trustees of the Trust Funds

Water Quality Committee

Zoning Board of Adjustment

Forms were not received from all the groups, but interviews were held with the different members and comments were incorporated into the space need requirements.

# 634 Central Avenue, Dover, NH 03820 E-Mail aga@agarchitects.com www.agarchitects.com Phone 603•743•3700 Fax 603•743•3777

# Supplemental Program Evaluation Form New Durham Town Facilities Plan

27 September 2019



We are requesting assistance from members of Boards, Commissions and Committees with completing the following questionnaire to help determine current and future space needs for the Town. Please complete this questionnaire with input from you and your colleagues and return to Scott Kinmond by Thursday, 10 October 2019. Thank you for your assistance.

1.	Name of Board, Commission or Committee:
2.	Phone Number of Contact:
	Email for Contact:
3.	Name of Person Completing Form:
4.	Number of Members on Board, Commission or Committee:
5A.	List current equipment, reference materials or storage needs for items kept at Town Hall or other location(s (at home, business, etc.):
	Currently at Town Hall:
	Other Location:
5B.	What storage space do you need at Town Hall? a. Currently:
	b. By the year 2025:
	c. By the year 2040:
6.	How often does your Board, Commission or Committee meet?
7A.	List the functions/activities/duties that your Board, Commission or Committee performs:

7B. Identify functions/activities/duties that you would like to see your Board, Commission or Committee perform now and in the future that are not currently being done and for whom?

New Durham Town Facilities Plan AG Architects Project No. 19-761

# **Supplemental Program Evaluation Form**

Page 2, 27 September 2019

- 8A. List the functions/activities/duties that your Board, Commission or Committee perform that have direct interaction with the public.
- 8B. In order of priority (1 being the least contact, 5 being the most contact), rate the frequency of your contact with other Town Hall Departments, Boards, Commissions and/or Committees:

Assessing	1	2	3	4	5
Building Inspection/Code Enforcement, Health Officer	1	2	3	4	5
Tax Collector, Welfare	1	2	3	4	5
Town Clerk, Supervisor of the Checklist	1	2	3	4	5
Town Administrator	1	2	3	4	5
Treasurer	1	2	3	4	5
Parks and Recreation`	1	2	3	4	5
Planning	1	2	3	4	5
Boards, Commissions, Committees, Other Contacts:					
Board of Selectmen	1	2	3	4	5
Cemetery Trustees	1	2	3	4	5
Conservation Commission	1	2	3	4	5
Planning Board	1	2	3	4	5
Trustees of the Trust Funds	1	2	3	4	5
Zoning Board of Adjustment	1	2	3	4	5
Other	1	2	3	4	5
Other Town Departments:					
Fire	1	2	3	4	5
Forest Fire Warden	1	2	3	4	5
Public Library	1	2	3	4	5
Public Works	1	2	3	4	5
Police	1	2	3	4	5
Animal Control	1	2	3	4	5

- 8C. Where does your Board, Commission or Committee typically meet?
- 8D. Do you think there is a more convenient location for your Board, Commission or Committee to serve its customer(s)? □Yes □No If Yes, please list:
- 9. Describe activities and space needs (such as mail slots, work counter, etc.) that you think your Board, Commission or Committee needs to do it's job:

New Durham Town Facilities Plan AG Architects Project No. 19-761

Supplemental Program Evaluation Form

Page 3, 27 September 2019

10.	How much time (hours per week or month) does your Board, Commission or Committee spend at public meetings or meetings at Town Hall?
11A.	How often do you hold meetings with staff or the public?
11B.	What are your conference/meeting space needs for meeting with the public (a chair, table and chairs, etc.)?
12.	In addition to your Board, Commission or Committee space needs, in what other areas of Town Hall do you think additional space is needed?
13.	What support facilities do you think are necessary for a Town facility (ie. Lunch/Break Room, Employee Locker Area, Mail/Copy Room, Board/Commission/Committee Work Room, etc.):
14.	List any other equipment/functions/activities or any other unique aspect of your Board, Commission or Committee that you feel is important to adequately address your current or future needs:

# Architects, PC

# **Population Projections**

It is important to evaluate the potential growth of a Town in the future, since growth (or minimal growth or even decline) will certainly have an impact on a Town's services. The New Hampshire Office of Strategic Initiatives provides population projections for Towns, Counties and the State, as shown in the following chart:

	New Ha	mpshire	Strafford	l County	Town of New Durham					
	Population	Percent Change	Population	Percent Change	Population	Percent Change				
2010	1,316,470		123,143		2,638					
2015	1,330,501	+1.066%	125,334	+1.779%	2,604	-1.289%				
2020	1,349,908	+1.459%	128,801	+2.766%	2,687	+3.187%				
2025	1,374,702	+1.837%	132,513	+2.882%	2,776	+3.312%				
2030	1,402,878	+2.050%	136,472	+2.988%	2,859	+2.990%				
2035	1,422,530	+1.401%	139,738	+2.393%	2,927	+2.378%				
2040	1,432,730	+0.717%	142,204	+1.765%	2,979	+1.777%				

The Town of New Durham is primarily a rural small town with a preponderance of residential uses, especially surrounding Lake Merrymeeting. There is a seasonal influx of population due to the natural resources in Town, that can double or triple the population. In addition, there has been a trend in this past year due to the Covid pandemic where there has been an increase in people migrating to more rural and more affordable areas with many having the ability to work remotely from home. Whether this trend will continue or not is not yet known, but it could impact the population projections. The development potential for existing lots within the Town will be dependent on zoning limitations and the extent of land and open space that is in conservation.

The Town has also completed its most recent update of the Town's Master Plan in 2017. The Master Plan reinforces the fact that there is land capacity for residential growth and that preservation of natural resources, land conservation and maintaining the rural landscape will continue to be a goal for the Town. One significant issue highlighted in the Master Plan is that the average age of the population is increasing, which could have an impact on the services that the Town needs to provide.

The combination of State population projections, the changing demographics and trends, and the Master Plan direction all point toward continued slow growth for the Town's population, even though it appears to be at a higher rate than many surrounding communities.. The slow growth in population gets reflected in the Town's services and staffing, which also shows slow growth, as noted in the following pages.

# **Staffing Projections**

Our interviews with staff did not identify major changes desired in the level of services that the Town provides, but did show some desired increase in staffing as projected by individual Departments. Although it is conceivable that future events, technology and policy decisions may alter Town services, indications are that growth will be slow for the next two decades. Current needs, particularly for work space, storage space and conference space appear to be the critical issues. Population is projected to increase by 10.9% (292) over the next 20 years.

The number of full-time and part-time staff are noted in the chart below. Estimated staff projections for full-time and part-time employees included in our evaluation as suggested by Staff over the 20 year time period show an increase as follows:

	20	19	20	25	2040			
	Full Time	Part Time	Full Time	Part Time	Full Time	Part Time		
Town Hall								
Town Administrator	1		1		1			
Assessing		1	1		1			
Building Inspector	1		1		1			
Finance/Treasurer	1	1	2	1	2	1		
Parks and Recreation	1	3	1	6	1	6		
Planning		1		1		1		
Select Board	3		3		3			
Tax Collector/Welfare		0.25		1	0.25	1		
Town Clerk	2		2		2			
Trustee of Trust Funds	3		3		3			
Police Department	5	3	6	5	7	7		
Fire Department		25	4	25	8	25		
Library	1	4	1	4	2	5		
Public Works	5	3, 1*	5	3, 1*	6	3, 1*		
Transfer Station	1	2	1	3	2	3		

<sup>\*</sup> Seasonal.

The number of employees within municipal governments for similar size municipalities varies significantly depending on many factors. There are no "acceptable" standards to follow. Identifying the number of projected employees through the evaluation forms and interviews has allowed us to provide a factor in our space program for future space requirements. The anticipated growth can therefore be accommodated in the space planning. The Program Summary provides a table of current square footage for each department and proposed square footage to address current and future staffing needs. Our review of the facilities found a serious lack of present space in most departments that, if properly addressed, would also meet the future growth needs.

# **Adjacency/Interaction Matrix:**

The Departments, Boards, Commissions and Committee evaluations and interviews provided an objective basis for determining which departments interact the most with each other. This is an important element utilized in identifying relationships between departments, which could impact siting of facilities and affect the creation of an efficient design within a single facility, such as the Town Hall. Groups that interact more frequently are better located adjacent to each other. Even in our digital age, a significant amount of communication happens in person. The Adjacency/Interaction Matrix below graphically shows the important relationships. The higher numbers indicate more frequent interaction.

# Adjacency/Interaction Matrix

	Town Hall - Assessing	Building Inspector	Finance/Treasurer	Parks and Recreation	Planning	Select Board	Tax Collector/Welfare	Town Administrator	Town Clerk		Advisory Capital Improvements Program Committee	Budget Committee	Cemetery Trustees	Conservation Commission	Cyanobacteria Mitigation Steering Committee	Planning Board	Trustees of the Trust Funds	Water Quality Committee	Zoning Board of Adjustment	Plotee Department	Fire Departmentibrary	Library	Public Works
Town Hall - Assessing		4.0	2.5	1.0	3.0	3.0	4.5	3.0	2.5		1.0	1.0	1.0	1.0	1.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Building Inspector			3.0	1.0	5.0		4.0	3.0	5.0		1.0	1.0	1.0	0.	-	-	2.0	-	4.0	4.0	-	3.0	
Finance/Treasurer				4.0	1.5	3.0	2.5	5.0	3.0			4.5	1.0	1.0	1.0	2.0	3.0	1.0	1.0	2.5	3.0	2.0	4.0
Parks and Recreation					1.0	4.0	1.5	3.5	2.5		3.0	1.0	1.5	2.0	1.0	2.0	1.0	1.0	1.0	2.5	3.0	5.0	1.0
Planning						3.0	2.5	3.0	3.0		1.0	1.0	1.0	5.0	2.0	5.0	1.0	2.0	5.0	1.0	2.0	1.5	4.0
Select Board							2.0	5.0	2.0		2.0	5.0	1.0	-	4.0	-	5.0	4.0	3.5	3.0		3.0	
Tax Collector/Welfare								3.0	4.0	H .	1.0	1.0	2.0	2.0	1.0	2.0	1.5	1.0	2.5	3.5	2.0	2.0	3.0
Town Administrator						157			3.5	100	5.0	5.0	1.0	1.0	4.0	1.0	3.0	4.0	3.0	4.0	3.0	3.0	3.0
Town Clerk											1.0	1.0	2.5	1.0	3.0	1.0	2.5	3.0	2.0	3.0	1.0	2.5	1.0
				5 9			3. 3																
Advisory Capital Improvements Program Committee			40							31		-	1.0	1.0	4	3.0	1.0	- "	1.0	3.0	3.0	3.0	3.0
Budget Committee													1.0	1.0		1.0	1.0	- 4	1.0	1.0	1.0	1.0	1.0
Cemetery Trustees											8			1.0	1.0	1.0	2.5	1.0	1.0	1.0	1.0	1.0	5.0
Conservation Commission															3.0		1.0	3.0	1.0	1.0		2.0	
Cyanobacteria Mitigation Steering Committee																3.0	2.0		3.0	1.0	1.0	3.0	4.0
Planning Board																30000	1.0	3.0	3.0	1.0	-	2.0	٠.
Trustees of the Trust Funds										1			-					2.0	1.5	1.0	1.0	2.0	1.0
Water Quality Committee	1						+ 0			11									3.0	1.0	1.0	3.0	4.0
Zoning Board of Adjustment						1 1														1.0	1.0	1.0	1.0
Police Department				5 9			3. 3														4.0	3.0	4.0
Fire Department	31						3			3			3									4.0	-
Library																							5.0
Public Works				4																			

- 1 Not Important
- 2 Moderately Unimportant
- 3 Average Importance
- 4 Moderately Important 5 Highly Important
- NOTES: 1) Dashes are due to several departments not being included in surveys, or no response.
  - 2) There are several departments with responses from only that Department.

Town Facilities Plan C-4

# **Program Summary**

A key component of our data collection, analysis and conclusions is the Program Summary on the following pages. The Summary identifies the existing square footage for each Department, the proposed square footage for each, and critical concerns for each space. The existing size of each facility evaluated is summarized below. The basic needs vary from facility to facility, but a common shortcoming is the need for storage space and meeting space. In the case of the Fire Station there are numerous functional and critical safety issues that are identified. The Program Summary provides the basis for identifying site needs and developing the site design concepts.

# **Existing Facility Sizes Gross Square Feet (GSF)**:

Town Hall:	2,712 GSF	First Floor
	2,417 GSF	Second Floor
	5,129 GSF	Total
	2,396 GSF	Basement
Police Station:	1,752 GSF	First Floor
	<u>955</u> GSF	Garage
	2,707 GSF	Total
Fire Station:	5,233 GSF	First Floor
	434 GSF	Second Floor
	5,667 GSF	Total
	1,631 GSF	Community Room
Library:	3,139 GSF	First Floor
Public Works:	4,408 GSF	Garage
	1,337 GSF	Spreader Storage - Open
	2,544 GSF	Recycling Transfer Garage
	246 GSF	Recycling Storage
	608 GSF	Recycling Storage - Bundles
	110 GSF	Staff Shed
	1,824 GSF	Truck Storage
	438 GSF	Storage Shed - Closed
	385 GSF	Storage Shed - Open
	482 GSF	Fuel Tank Enclosure - Open Salt Shed



## Town of New Durham - Town Facilities Plan

Town Hall, Police Station, Fire Station, Library, Public Works

# **Program Summary**

AG Architects Project No. 19-761.0 5 August 2020

Room Name Current Comments **Proposed** SF SF **Town Hall** Selectmen Meeetings 22' x 24' 528 Future 1.200 30' x 40' Selectmen, Boards, Commissions, Committees Planning Board 10-12 Membwers + Public 0-60 Zoning Board 10-12 Members + Public 0-60 Selectmen Meetings Subtotal 528 1,200 Town Clerk/Tax Collector Office 14'-6" x 16'-4" 237 15' x 20' Storage (on Stage) 4' x 22' 88 Archive (behind Stage) 8'-6" x 22' 187 Files/Copy Room 14'-10" x 14'-8" 218 8' x 12' 96 Copy Room with work space Files Storage 0 20' x 30' 600 File storage one location Safe, Storage 0 8' x 8' 64 Archive (Rear Shed) 12'-5" x 16'-8" 213 Supervisor of the Checklist Included in Files/Copy 8' x 10' 80 Separate Office Election Storage 300 Currently at Public Works: Election Booths, Tables, 15' x 20' Chairs 943 1,440 Town Clerk/Tax Collector Subtotal Assessor Office Office 13'-2" x 14'-6" 191 14' x 18' 252 File storage Included 10' x 14' 140 More file storage space Assessor Subtotal 191 392 **Building Inspector Office** Office 14'-6" x 8' 14' x 14' 124 196 ayout space, meeting space **Building Inspector Subtotal** 124 196 Selectmen Office (Second Floor) Selectmen Office 13'-8"' x 14' 191 12' x 15' 180 Desk, computer, chairs 191 180 Selectmen Subtotal Town Administrator (Second Floor) Town Administrator Office 14' x 13'-7" 190 14' x 16' 224 Meeting table 3-4 persons, interact with public **Town Administrator Subtotal** 190 224 Finance Office (Second Floor) Finance Office 13'-3" x 14' 13'-3" x 14' 186 186 Meetings Share meeting space, audits, JMLC, meetings Assistant Office 13' x 14' 182 Files Storage (2) 2' x 7' 28 20' x 20' 400 10' x 20' 200 Futrure Storage Files Storage 100 ocated throughout Town Hall Finance Office Subtotal 314 968 Land Use (Second Floor) Land Use Office 12' x 14' 168 14' x 16' 224 Land Use Subtotal 168 224 Parks and Recreation Office Office 11' x 13-8"' 150 14' x 16' 224 Rec Storage 15' x 20' Currently Utilize Town Hall, Basement Meetings Share meeting space, coaches, volunteers, staff Senior Center/Gym/Bingo To be determined Currently use School, Community Room, Library; pickleball, teen groups, date night Fields/Concession Stand/Stroage Cubes Baseball, soccer, softball, tennis? Beach Summer swim lessons 150 524 Parks and Rec Subtotal Public Conference Room Conference Room (Second Floor) 14' x 21' 15' x 20' 294 300 able, 6-8 Seats, Files Conference Room 16' x 20' 320 Additional meeting space, 10-15 persons, accessible 294 620 **Public Conference Room Subtotal Boards and Commissions** Included Above 12' x 14' File storage, work counter, computer access. Planning Board, Zoning Board, Budget Committee, Separate Workroom, Table, files Advisory Capital Improvement Program Committee, Conservation Commission - (1) 4-drawer file, maps Trustee of the Trust Funds, Water Quality Committee, Cemetery Trustees - (1) 3-drawer file cabinet Cyanbacteria Mitigation Steering Committee, CIP Committee - Shelving, 1 Notebook per year WQC/CMSC - (1) 4-drawer file cabinet Conservation Commission, Cemetery Trustees **Boards and Commissions Subtotal** 168 0

Room Name		Current		Proposed	Comments
		SF		SF	
Town Hall (continued)					
Miscellaneous					
Vestibule, Front		40	7' x 8'	56	
Public Toilet	9' x 10'-8"	96	12' x 20'	240	Women (6) including Great Hall
			12' x 14'	168	Men (4) including Great Hall
- Front at Stair	3' x 6' +/-	18			
- Front at Stair	3' x 6' +/-	18			
Break Room		45	12' x 15'	180	Kitchennette, Table
Copy/Mail Room	Included Town Clerk/Tax	0			
Supply Storage		0		80	
IT Server		65		120	
Corridors	(2) 8' x 55'	440		800	
Stair	(=) ===		8' x 20'		Additional Rear Stair, Enclosd
Elevator			(3) 8'-10" x 10'	250	Access 2 Floors plus Basement
Elevator Machine Room			8' x 8'	64	·
Miscellaneous Subtotal		722		2,118	
Town Hall Subtotal Net SF		3,647		8,254	
25% Circulation and Walls				2,064	
Town Hall Total Estimated Gross SF		5,129		10,318	
Great Hall			61' x 38'	2,417	Restore Second Floor Great Hall
Town Hall Total Estimated GSF with Great Hall				12,735	
Basement - Mechanical, Storage	Existing Basement	2,396		2,396	Existing Mechanical, Storage

Room Name		Current SF		Proposed SF	Comments
Police Station		5F		5F	
Police Station					
Entrance Vestibule and Lobby	8' x 7'	56	8'x 7'	56	Vestibule
Reception Office/Records	13' x 15'	195	13' x 15'	195	
Police Chief Office	13' x 15'	195	13' x 15'	195	
Patrol Office	13' x 12'	156	13' x 15'	195	2 Workstations, copier, printer, shredder
Supervisor Office	13' x 9'-8"	126	13' x 10'	130	Case files
Break Room	10'-8" x 11'-8"	125	12' x 15'	180	More seating, stove
IT Server	7'-8" x 8'-7"	60	8' x 8'	64	Currently includes gun safe, equipment
Equipment Storage, Gun Safe	Included above		8' x 10'	80	
Lockers - Men	8'-4" x 8'-8"	72	10' x 12'	120	3 Lockers
Lockers - Women	8'-4" x 8'-8"	72	10' x 12'	120	2 Lockers
Interview Room	5' x 5'-6"	28	8' x 8'	64	
Evidence Storage	13' x 6'	78	13' x 18'	234	
Booking	10'-10" x 13'	141	12' x 15'	180	
Bathroom	7-2" x 5'	36	7-6" x 8'	60	
Holding	7'-2" x 6'	43	7'-2" x 6'	43	
Corridors	4'-6" x 6'	27	5' x 40'	200	
	4'-6" x 27'	122			
Stroage Closet		0	8' x 12'	96	
File Room		0	12' x 12'	144	
Conference Room		0	14' x 14'	196	
Work Out Room		0	15' x 20'	300	
Mechanical Room	Included				
Garage	25'-4" x 35'-3"	893	30' x 48'	1,440	4 bays
Police Station Subtotal		2,425		4,292	
Police Station Subtotal Net SF		2,425		4,292	
25% Circulation and Walls Police Station Total Estimated Gross SF		2,707		1,073 5,365	
ruice Station Total Estilliated Gross Sr		2,101		5,305	
Animal Holding - Exterior	8' x 8'	64	8' x 8'	64	Protected Space

Room Name		Current		Proposed	Comments
		SF		SF	
Fire Station					
Apparatus Bays					
5 Bays: Ladder, Engine, Engine Aux. Ambulance,	56'-5" x 709"	3,992	60' x 88'	5,280	
Brush, Utility, Trailer, Boat,					
Apparatus Bays Subtotal		3,992		5,280	
Communications Center		,		ĺ	
Dispatch		0	12' x 15'	180	
Emergency Operations Center Private Toilet		0	20' x 25' 7'-6" 8'	500 60	
Tivate Folice		v	, 0 0		
Communications CenterSubtotal		0		740	
Training Facilities			051 001	750	
Training Room Training Storage			25' x 30' 10' x 12'	750 120	
Physical Fitness Room		0	15' x 20'	300	
Training Facilities Subtotal Living Quarters		0		1,170	
Private Bedrooms		0	(5) 9' x 12'	540	
Personal Lockers		0	8' x 15'	120	
Rest Rooms			(2) 10' x 10'	100	
Showers		0	(2) 5' x 10'	100 80	
Laundry		U	8' x 10'	80	
Living Quarters Subtotal		0		940	
Recreation/Dining		•	401 401	050	
Day Room Kitchen		0	16' x 16' 14' x 16'	256 224	
Kitchen Storage			8' x 10'	80	
Dining Area			12' x 15'	180	
Recreation/Dining Subtotal Administration		0		740	
Vestibule	8'-7" x 11'	94	8' x 8'	64	
Entrance/Reception		0	14' x 15'	210	
Fire Chief's Office	Included with Staff Office		10' x 13'	130	
EMD Director Office Assistant Chief Office			10' x 13' 10' x 12'	130 120	
Staff Office	15'-10" x 27'-4" 6 Staff Exist.	434	15' x 20'	300	
Conference Room			12' x 15'	180	
Public Toilets			(2) 7'-6" x 8'	120	Men, Women
Administration Storage			5' x 8'	40	
Administration Subtotal		528		1,294	
Maintenance, Repair, Storage and Support					
Fire Fighting Agent Storage, Hose Storage, Drying Vehicle Maintenance Parts and Tools	10-4" x 18'-4"	189	12' x 18' 12' x 20'	216 240	
Verlicie Maintenance Parts and Tools	7'-2" x 9'-7"	68	12 X 20	240	
SCBA Maintenance and Repair	•		12' x 20'	240	
Protective Clothing Lockers (Gear)	15'10" x 22'-6" Less Vestibule	254	12' x 36'	432	
Protective Clothing Laundry	9'-6" x 11'-6"	109	10' x 12'	120	
Protective Clothing Laundry Disinfecting Facilities	3'-6" x 4'-6"	16	10' x 12'	144	
Toilet	3'-6" x 4'-6" Not Working	16	(2) 7'-6" x 8'		Men, Women
General Supply	, in the second		10' x 20'	200	
Medical Supplies Storage			12' x 15'	180	
Janitor's Cl;oset Supply Closet			6' x 8' 5' x 8'	48 40	
Hazardous Materials Storage			8' x 10'	80	
Mechanical/Electrical/Telephone/Compressor Room			20' x16'	320	
Corridors			5' x 25'	125	
Stairs Elevator			(2) 8' x 20' (2) 8' x 8'	320 128	
Elevator Machine Room			(2) 8 x 8 8' x 10'	80	
Maint., Repair, Storage and Support Subtotal Fire Station Subtotal Net SF		652 5,172		3,033 13,197	
25% Circulation and Walls		5,112		3,299	
Fire Station Total Estimated Gross SF		5,667		16,496	
Community Poom Facility Evicting					
Community Room Facility, Existing Community Room	41'-10" x 27'	1,130		1	
Community Room Kitchen	14'-9" x 17'-9"	262			
Community Room Bathroom	5' x 5'-6"	28			
Community Room Bathroom/Shower	5' x 8'-8"	43			
Community Room Corridor  Community Room Subtotal NSF	3'-7" x 14'-9"	53 <b>1,516</b>			
Community Hoom Oublotal Hol				1	
Community Room Gross SF		1,631			Shared wall with Fire Station
		1,631 7,298		18,127	Shared wall with Fire Station

Room Name		Current		Proposed	Comments
1.95		SF		SF	
Library		I		T	
Library Entrance Vestibule/Lobby	5' x 12'	60	5' x 12'	60	Vestibule Lobby, Access to Circulation Desk Add coat storage
Circulation Front Desk	18' x 9'-9"	174	18' x 9'-9"	174	Improve storage, book processing, staff work space
Stack Entry Area	7' x 8'	56	7' x 8'	56	
Stacks/Reading Room	32' x 35'	1,120	32' x 35' 12' x 30'	1,120 360	Stacks - adult, adult fiction, recent fiction/non-fiction, historical, young adults, DVD's, audio books, maps 14,000-15,000 Volumes; Equipment, storage Add adult/young adult - 1,000-,2000 volumes Add tables, computers, supplies
Children Entry Area	7' x 8'	56	7' x 8'	56	Add tables, computers, supplies
Childrens Room	28' x 35'	980	28' x 35' 12' x 20'	980 240	Children Stacks, mobile stacks, children tables, television, white board Expand early reader section Children and adult use, only meeting space
Collections Room		0	12' x 15'	180	Historical photos, books
Arts and Crafts Room		0	20' x 20'	400	
Meeting Room		0	16' x 24'	384	10-15 Capacity: Tutoring, appointments, meetings, Library programs, outside groups
Communiy Meeting Room		0	TBD		30-40 Capacity, share facilites?
Toilet - Men	6'-10" x 6'-3"	43	7'-6" x 8'	60	Not fully accessible
Toilet - Women	6'-8" x 6'-3"	42	7'-6" x 8'	60	Not fully accessible
Rear Corridor	3'-7" x 18'-2"	65	3'-7" x 18'-2"	65	Table storage
Staff Workrrom	8' x 11'-1"	89	8' x 11'-1"	89	Storage, supplies, no work space
Processing Room	Included Above	0	8' x 12'	96	Receive book donations, process books
Office		0	12' x 12'	144	Individual office
Kitchen	5'-2" x 9'-8"	50	10' x12'	120	Kitchen counter, supply storage shelves
Storage	Included Above	0	15' x 20'	300	Equipment storage, table and chair storage Currently utilize Town Hall basement
Utlity/JC	5'-7" x 9'-8"	54	10' 10'	100	Furnace, hot water, electric panel, janitor sink
Library Subtotal		2,789		5,044	
Library Subtotal Net SF		2,789		5,044	
25% Circulation and Walls Library Total Estimated Gross SF		3,139		1,261 6,305	
Mechanical Cawl Space	18'-2" x 24'-9" Existing	450		450	Existing Mechanical

Room Name		Current		Proposed	Comments
Public Works Garage		SF		SF	
Public Works Garage		I		I	
Office	15'-8" x 5'-4" + 7'-8" x 8'	145	15'-8" x 13'-4"	209	Entrance direct from outside
Break Room	9'-9" x 15'-6"	151	15' x 15'-6"	233	Larger table, seats, sink
Locker Room/Storage	9' x 15'	135	9' x 15'	135	Separate Locker area
Garage Bays	39' x 78'	3,042	200' x 39'	7,800	Expand from 4 bays to 10 bays, 14' doors
Tools Storage	23'-6" x 16'	376	23'-6" x 16'	376	
Bathrooms	(2) 7' x 7'	100	(2) 7'-6" x 8'	120	
Cleaning Supply Closet		0	5' x 8'	40	
Mezzanine Storage	10' x 39'	390	10' x 39'	390	
Public Works Garage Subtotal		4,339		9,303	
Public Works Garage Subtotal Net SF				9,303	
10% Circulation and Walls				930	
Public Works Garage Total Estimated Gross SF		4,408		10,233	
Public Works Recycling Garage GSF		2,544			
Public Works Recycling Storage, Bundles GSF		608			
Public Works Recycling Storage GSF		246			
Public Works Staff Shed GSF		110			
Public Works Spreader Storage - Open GSF		1,337			
Public Works Truck Storage GSF		1,824			
Public Works Fuel Tank Enclosure GSF		482			
Public Works Open Storage Shed GSF		358			
Public Works Wood Storage Shed GSF Public Works Salt/Sand Storage		438			
Public Works Total GSF		7,947		13,772	



# **Existing Facilities and Site Assessments**

AG Architects has conducted an on-site assessment for each of the Town of New Durham facilities, including the Town Hall, Police Station, Fire Station, Library and Public Works Garage. The purpose of these reviews were to evaluate space utilization for each facility and to examine the condition and constraints of both the facilities and sites. None of the facilities have drawings available for the site plans, floor plans, elevations or details, with the exception of a site plan for the Library. Information on utilities and septic systems is also lacking. As part of our evaluation we did take exterior measurements of the buildings, interior measurements for many of the rooms, and utilized the Town's tax assessment data to identify the approximate site size, building locations and potential wetlands. Field inspections were conducted in order to evaluate the site conditions, layouts and limitations, and each facility was examined to establish the potential to accommodate the spaces proposed in the Program Summary. Mechanical, electrical and plumbing systems were reviewed for each facility by our consulting engineer, Bennett Engineering, with a separate summary report provided concerning these systems.

Each facility has been evaluated in the following assessments in terms of Architectural Issues, Site Issues, Accessibility Issues, Code Issues, Energy Issues and Mechanical, Electrical and Plumbing Systems. In addition, more detailed information on the historic designation and character of the Town Hall is provided in the section on Historic Features.

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# Architects, PC

# **Existing Facilities and Site Assessments**

# Town of New Durham Town Facilities Plan

AG Architects Project No. 19-761 24 November 2020

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# **Town Hall**

The Town Hall is a two-story wood-framed building built in 1908. The structure is 38' x 63' with painted wood clapboard siding, hip roof and granite foundation. The building, designed by New Hampshire architect Alvah Ramsdell, was listed on the National Registry of Historic Places in 1980. The original character of this Colonial Revival style building remains intact including the original facade, large windows (replaced with vinyl windows 30+ years ago), an offset clock tower common with Victorian era designs, clocks on each side of the tower with a weathervane on top, and vertical denticular molding below the roof eaves. The visual image of the building helps define the Town Center. The interior, however, has been modified over time. Originally the second floor was a large auditorium with a stage and a high tin ceiling. This has been changed into individual offices with a suspended acoustical ceiling, although the tin ceiling remains above.

There are numerous issues to resolve with the existing Town Hall, as outlined in the following description.

# **Architectural Issues:**

The Town Hall building structure appears to be sound. No framing issues have been identified at this time. The Basement slab is a relatively new concrete slab which has been kept dry with two sump pumps. The granite foundation is sound, although like any granite foundation has numerous joints subject to air infiltration. The wood bulkhead on the Depot Road side has been noted to leak and let air in. There are numerous posts made of brick and granite supporting wood beams at the first floor.

The interior of Town Hall has been reconfigured since it was first built in 1908. There was originally an auditorium with a stage on the second floor, common to Town buildings of this era, that has since been modified to include offices for the Town Administrator, Finance, Parks and Recreation, a Selectmen's office and a conference room. The stage remains in place but has a wall built over it for a storage room. A records storage room was constructed in 1977 with CMU walls at the rear of the building on the first floor. Nearly all the offices in Town Hall have been noted to be inadequate in size,



lacking in files/storage space and poorly heated or cooled, and the lack of meeting space for various Town groups is also an issue. The Program Summary prepared with this report summarizes the specific needs, while a general summary is noted as follows:

• Selectmen Meeting Room (First Floor): Desired capacity for Selectmen's meetings, Planning Board, Zoning Board and other committees and commissions is approximately 70 persons, compared to the approximate 20 persons now with tables and chairs. Additionally the room has work space and files around the perimeter, due to the lack of space elsewhere, and includes a column in the center of the room.



• Numerous offices are too small, lacking sufficient storage/file space and have other issues (refer to Program Summary). This includes the following:

- Improve Town Clerk/Tax Collector pass through windows.
- Provide secure storage and space to secure the safe.
- Create a file/copy room with work space. Files are currently located throughout Town Hall.
- Provide a separate office for the Supervisor of the Checklist.
- Move storage of the election equipment (booths, chairs, tables) from Public Works to a more convenient adjacent location.
- Assessor needs file storage area for records.
- Building Inspector needs adequate office space for layout of plans and files.
- Town Administrator needs space for a meeting table for 3-4 people.
- Selectmen's Office needs an office for the Assessing/Finance Administrative contract assessor.
- Finance Office needs separate space for files currently located throughout Town Hall.









- An additional conference room that is accessible is needed for many groups due to schedule conflicts.
- Boards and Commissions need a work room with file storage space.

# **Site Issues:**

The Town Hall shares a 1.5 acre site with the Police Station and Fire Station. The site is located at the four-way intersection of Main Street, Depot Road, Old Bay Road and Birch Hill Road. It is a relatively flat site with no visible wetlands and only a few trees. Parking is shared with the Police Station and Fire Station, and includes a total of 24 parking spaces plus 2 handicapped accessible spaces. The three buildings have been noted to share a common well. A septic system for the Town Hall is reportedly located on the East Depot Road side of Town Hall, which is where there could be room for a potential addition.



Existing Facilities and Site Assessments - 2
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24 November 2020

The site is effectively fully utilized. There is a residential property immediately to the West side of the Fire Station, and the Town Post Office is located directly to the South. There is very little room for expanding the Town Hall building or shared parking lot. A concept for replacing the existing fire station in its present location with a two story 15,040 SF building was designed in 2004 but was never built.

# **Accessibility Issues:**

The Americans with Disabilities Act (ADA) became effective in 1991. Under Title II of the act, which governs municipal facilities, improvements for accessibility are mandated to be undertaken. Although we have not conducted an accessibility review, there are obvious issues that should be resolved, including the following:

- The Town Hall is only partially accessible at the first floor. There is handicapped parking outside the front entrance, and a concrete ramp providing access to the front door, but there is no automatic door opener as required by NH Building Code.
- The second floor offices and conference room are public spaces which should be accessible by elevator. The lack of access limits the availability of these spaces to the public.
- There is an open non-conforming stairway at the front of the building, a service stair at the rear and an exterior stair from the second floor for egress.
- Many of the doors have the original knob hardware rather than levers that are easier to operate.
- There is one bathroom off the Selectmen's Meeting Room that is of sufficient size (and then some) but the fixtures are not properly located to meet accessibility requirements.
- There are two half baths located at the front of the building beneath the front stair that cannot meet accessibility requirements.
- There are spaces in the rear of the building that are not accessible.

It is recommended that either a complete study be completed to address accessibility issues and a time line for compliance be established, or that these issues be incorporated into any renovations planned for the Town Hall.



# **Code Issues:**

Building and life safety codes have evolved significantly since the Town Hall was originally built. In many cases existing buildings may be considered "grandfathered" until renovations or other changes are made. Life safety issues, however, are not necessarily grandfathered, often requiring improvements to be made to protect the public. Although we have not completed a code review for the Town Hall, there are some basic concerns that we note as follows:

- The Town Hall is considered a Business Use and Assembly Use.
- The second floor Conference Room is approximately 315 NSF in area with furniture, so based on an occupant load of 15 NSF/Occupant there would be a maximum of 21 occupants. This is less than 50 occupants so it still qualifies as a Business Use.
- The first floor Selectmen's Meeting Room is approximately 528 NSF in area with moveable furniture, so based on an occupant load of 7 NSF/Occupant there could be a maximum of 75 occupants. This exceeds the limit of 50 occupants, so this space would be considered an Assembly Use.
- Based on the Business and Assembly Uses, egress from the Town Hall appears to have adequate size doors, and the appear to swing in the correct direction.
- Egress stairs from the second floor are a concern. The front stairway is not properly enclosed with rated walls, and the rear exterior stair is not protected. This is a life safety concern.

- The second floor front stair opens to the corridor on the first floor rather than exiting directly outside. This is permitted when certain conditions are met; modifications to the building would be required to bring this into compliance. This is a life safety concern.
- The Town Hall does not have an automatic sprinkler system, the Assembly and Business uses are not separated by fire rated walls, and the building has two stories. Current codes would require the two story unprotected wood frame structure, non-separated uses, to be fully sprinklered.
- The first and second floor corridors and doors are not fire resistant rated. Current codes require that the corridors be 1-hour rated with 20-minute doors if the building is not sprinklered.
- The existing front stair railings are low in height and do not provide proper handrails. Both the height and shape fo the stair handrails should be changed to improve life safety.

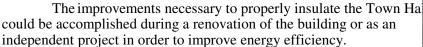
It is recommended that upgrades for life safety be identified and incorporated into any renovations planned for the Town Hall.



# **Energy Issues:**

An energy study was completed in July 2015 for the Town Hall which included recommendations for air sealing and upgrading insulation. The proposed improvements have not yet been completed, including the following:

- Second floor ceiling insulation is 8" (R-18) fiberglass set directly on the suspended ceiling tiles. This was also noted as where the majority of air leakage occurs. It should be noted that the current energy code, International Energy Conservation Code 2015, does not accept this method of insulation on top of ceiling tiles for insulating a roof, and new commercial buildings in Climate Zone 5 would require insulation equal to R-38.
- There is also air leakage around windows and doors, the basement wood bulkhead, and electrical outlets that should be sealed.
- The stone foundation is uninsulated and allows air infiltration which makes the Basement cold and creates drafts and a cold floor on the first floor.
- Existing exterior wall insulation is noted to be limited with an R-value of R-6, compared with R-20 required for new buildings.
- Additional areas require additional insulation including basement walls, stairs and door to the attic and the clock tower.
- The Records Room behind the Town Hall was noted to be lacking insulation at the roof.





# Mechanical, Electrical and Plumbing Systems:

The Existing Conditions Assessment Report prepared by Bennett Engineering identified numerous recommendations for safety, code and operational improvements. Critical issues noted are the lack of mechanical ventilation, numerous repairs required for code compliance, and the need for an efficient air conditioning system rather than the use of window air conditioners. Refer to the full report for complete details.

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# Architects, PC

# **Existing Facilities and Site Assessments Town of New Durham**

**Town Facilities Plan** 

AG Architects Project No. 19-761 24 November 2020

# **Police Station**

The New Durham Police Station is a one-story modular wood framed building erected in 2001. It is located on the same 1.5 acre site as the Town Hall and Fire Station. There are approximately 26 total parking spaces on the site that are shared between all three facilities, including police vehicles. The Police Station structure is approximately 62 feet x 28 feet plus a connected 26 feet x 36 feet garage, for a total area of 2,707 GSF. The building has vinyl siding, is built with prefabricated roof trusses at the gable roof and asphalt shingle roofing, and has an intersecting gable roof at the garage. The garage is a concrete slab-on-grade structure, while the office area consists of wood joists above a crawl space on a poured concrete foundation. The building does not have a sprinkler system, while it does



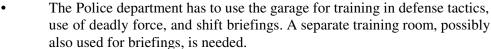
have a fire alarm system and shares an emergency generator for emergency power with the Fire Station. The crawl space contains a fuel oil storage tank, an oil-fired boiler with a tankless coil for domestic hot water, water service in common with the Fire Station and Town Hall, sanitary drainage and a sump pump. Located in the attic is the split system air handler and related ducts for air conditioning, along with overflow file storage. The condenser for the air conditioning is located on grade at the rear of the building.

The Police Station consists of a mix of offices (Police Chief, Supervisor, Patrol Officers, Reception/Records), staff support space (Break Room, Men's and Women's Bathrooms/Lockers, IT Server Closet/Armory), Booking Room with a Bathroom and Holding Cell, a small Interview Room, an Evidence Room, a 2-bay garage and an animal holding pen. Staff includes 5 full time and 3 part time employees.

# **Architectural Issues:**

The existing Police Station is in fairly good repair and is reasonably well maintained. The critical issues are the lack of space throughout the facility that are necessary to efficiently support its operations. The Program Summary prepared with this report summarizes the specific needs, while a general summary is outlined below:

- There is a vestibule but no space for the public to wait.
- Additional office space for patrol officers is needed.
- There should be a meeting room for shared briefings, separate from public areas.



• Archived files lack adequate storage space with over flow files being kept in the unconditioned attic. Additional file storage space is required.





- The current interview room is less than 5 feet x 6 feet, and needs to be larger to accommodate a desk and a couple of chairs.
- The holding and booking areas are very limited with only a bench and one holding cell.
- Additional space for the Aphis (fingerprinting) machine and an additional work station is required.
- The secure evidence room is way undersized. It needs to be increased by 2 to 3 times its current size.
- The armory room with gun safe is currently located in the IT server room. The armory room should be a separate secure room.
- The server room needs to be a separate room with proper climate control. The room currently over
- Garage spaces for four vehicles would allow sufficient space for securing and protecting the vehicles from weather, rather than the current one to two vehicles. Bike storage for stolen bikes and miscellaneous storage also occupies the current garage.
- There is no workout room with training equipment available for staff.
- The break room is a very tight space, has the second exit door for exiting through the space, and does not have a stove.
- Lockers are located within the single men's and women's bathrooms. Access to bathrooms and lockers is limited by this combined use.
- Animal holding is currently an open caged pen. Multiple cages covered for weather protection are needed for holding strays prior to bringing them to the animal shelter.



# **Site Issues:**

The Police station shares a 1.5 acre site with the Town Hall and Fire Station, and the site issues described for the Town Hall apply to the Police Station. The site is located at the four-way intersection of Main Street, Depot Road, Old Bay Road and Birch Hill Road. It is a relatively flat site with no visible wetlands and only a few trees. Parking for all three facilities is inadequate with the 24 spaces plus two handicapped accessible spaces. Police vehicles utilize the same parking area as the general public, and it creates a dangerous situation when a police vehicle needs to leave to respond to a call.













As mentioned previously, the site is effectively fully utilized. The residential Swett property is located immediately to the West side of the Fire Station, and the Town Post Office is located directly to the South. There is essentially very little room on the current 1.5 acre site for expanding the Police Station, which is sandwiched between the Town Hall and Fire Station, or for adding parking spaces to the shared parking lot.

The three buildings on the site share a common well. The water from the well has been noted to require treatment for high iron content. A septic system for the Town Hall is reported to be located to the Depot Road East side of the Town Hall, and likely serves the Police Station as well since the sanitary drain exits the building at the East end.

# **Accessibility Issues:**

The Americans with Disabilities Act (ADA) became effective in 1991. Under Title II of the act, which governs municipal facilities, improvements for accessibility are mandated to be undertaken. Although we have not conducted an accessibility review, there are obvious issues that should be resolved, including the following:



- The Police Station does have a ramp with railings leading to the front entrance as required.
- The second exit to the rear should also be accessible with proper clearances at the door.
- There should be an accessible route from the secure garage to the booking area that does not require traversing stairs.
- The interior corridor is too narrow to provide proper clearance and access to doors along the corridor.
- Door hardware throughout the facility should be lever hardware in lieu of knobs.
- The front entrance is required to have an automatic door operator by State Building Code.
- The Men and Women's bathrooms do not appear to be fully accessible with required clearances and fixtures.

It is recommended that the Town either prepare a study to address accessibility issues in the short term and establish a time line for compliance, or that these issues be incorporated into any renovation or other use planned for the existing Police Station.

# **Code Issues:**

We have not performed a code review for the Police Station, but there are issues that are of concern including the following:

- Compliance with accessibility requirements is required by the ADA, and renovations could affect compliance with State Building Code accessibility issues.
- Energy codes are much stricter today than when this building was built. Renovations could affect compliance, and the Town may want to upgrade the facility regardless to improve energy performance. The lack of insulation at the crawl space and the low insulation at the attic probably did not even meet codes in 2001.
- Mechanical and electrical compliance issues are noted in the Mechanical, Electrical, Plumbing report prepared by Bennett Engineering.

It is recommended that upgrades for life safety be identified and incorporated into any renovations planned for the Police Station.

# **Energy Issues:**

An energy study for the Police Station has not been performed. The mechanical systems in the building and the need for mechanical ventilation and energy recovery have been noted in the Mechanical/Electrical/Plumbing Assessment Report included in our evaluation. Regarding insulation there are clear indications, however, that the facility is not insulated to today's standards, including the following:

- There are ridge and soffit vents on the Police Station building. This indicates that the attic is ventilated and is what is called a "cold attic". The concern with energy performance is that the air handler and ducts for air conditioning are located in the attic space, which can be very hot in the summertime. This affects the over all performance, especially with the impact on the air temperature in the ducts and flexducts running through the attic.
- The attic insulation is poorly fitted between the truss bottom chords, which are 2 x 8 members. The insulation appears to be 6 inches thick; the R-value for this thickness insulation is not very high, probably in the R-15 to R-19 range, compared to current code requirements of R-38. The loose fitting attic insulation also likely results in significant energy loss.
- There is no insulation in the crawl space, either at the floor or at the foundation wall. There is bound to be a fair amount of energy loss through this space, and it likely affects the comfort at the first floor.
- The boiler is located in the uninsulated crawl space, and the hot water pipes are not insulated. Again, this will have an impact on energy performance.
- There is no tempered fresh air introduced at the air handler, which affects energy performance and possibly carbon dioxide levels in the interior space.

The improvements necessary to upgrade the insulation in the Police Station could be accomplished during a renovation/expansion of the building or as an independent project in order to improve energy efficiency.

# **Mechanical, Electrical and Plumbing Systems:**

The Existing Conditions Assessment Report prepared by Bennett Engineering identified several recommendations for safety, code and operational improvements. Critical issues noted are the lack of mechanical ventilation, repairs required to plumbing venting and adding an energy recovery ventilator (ERV) for code compliance, and the need for minor repairs. Refer to the full report for complete details.

# **Existing Facilities and Site Assessments**

# **Town of New Durham Town Facilities Plan**

AG Architects Project No. 19-761 24 November 2020

# **Fire Station**

The New Durham Fire Station is located on the same site as the Town Hall and Police Station. It shares approximately 28 parking spaces with these other facilities. The fire station is primarily a one story building consisting of 6,865 GSF, with a small second floor office area 433 GSF in size. The front of the building includes four vehicle bays for apparatus and small rooms packed with gear, tools and equipment. A gear extractor is squeezed into what had been a bathroom. The apparatus bays include a ladder truck, Engine 1, Engine 2, an ambulance, a forestry/brush truck, a utility truck, a command vehicle, an offroad all terrain vehicle on a trailer, and a boat. At the rear of the building an addition was constructed in 2010 which includes what is now the Town's Community Room with a kitchen and two small bathrooms. The second floor office is a single space office area which contains six desks for officers and firefighters to access computers, prepare reports and perform their office duties. The fire station building construction is a mix of exterior masonry walls and wood frame construction, with prefabricated wood roof trusses and conventiona wood framing. The roof is a red painted metal standing seam roof. There is no automatic sprinkler system in the building.

In general, and described in more detail below and as outlined in the Program of Spaces, there is a severe lack of space for the Fire Department to store and service its equipment and to conduct its operations.

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# **Architectural Issues:**

The existing Fire Department building is in poor condition, with the exception perhaps of the Community Room addition. There are space issues, functional problems and building shortcomings as outlined in the following information.

- There is a noticeable sag in the roof over the vehicle bays, which has been shored up along the wall on the West side of the apparatus bays.
- The building is very poorly insulated and is not especially weather tight. The roof area only has six inches of fiberglass batt insulation, and there is concern that insulating the roof more would impact the capacity of the structure by increasing the amount of snow on the roof.
- There are no thermal breaks in the concrete slab at the overhead doors, resulting in freezing on the interior and drafts at the exterior wall. Fans have been put in place to circulate warm air in order to reduce the freezing, but this condition is very energy inefficient.
- The structural report completed in May 2003 notes that a majority of the walls are cast-in-place concrete to a height of six feet, with concrete masonry units above to a height of fourteen feet. There is concern that the



CMU walls are not sufficiently reinforced, which is a major concern when evaluating risk for a Class IV essential facility.

- There are noticeable cracks in the concrete and concrete masonry walls, in the apparatus bay floor and the aprons at the overhead doors.
- A renovation attempt in 2015 resulted in incomplete and inadequate work, including an unfinished plywood floor at the main entry door.
- There is no decontamination room. It has become increasingly important and a requirement to treat carcinogens/contaminants that may be on a firefighter and their gear after an event from contaminating firefighters and other parts of the fire station. A flow needs to be established from apparatus bays to a decontamination room, to a gear inspection area, and to gear storage; firefighters then need access directly to decontamination showers and toilet rooms, with access then to a clean laundry room. The current facility is completely lacking in these requirements.
- PPE maintenance storage area is lacking. Space is needed for washing and drying PPE, a workbench/table for maintaining PPE, equipment for inspecting and testing PPE, and adequate storage shelving for PPE.
- Gear storage area is inadequate in size.
- There is a direct connect vehicle exhaust extraction system.
- There are no living quarters for firefighters, including sleeping rooms, lockers, bathrooms and showers, or break room with kitchen.
- There is no EMS supply area.
- There is no Emergency Operations Center.
- There is no Communications Room or Dispatch.
- There is no storage area for office equipment or supplies.
- Storage space is lacking and is required for supplies, tools, equipment and parts for truck maintenance.
- The Fire Department performs its own mechanical maintenance on vehicles, but there is no workspace available.
- There is limited classroom space since the Community Room is a shared facility with many Town groups.
- There is no work fitness area.
- There is a lack of parking for firefighters on site, especially when responding to a call.
- Access to the Fire Department office for the public is through the apparatus bay and is not accessible on the second floor.
- The single office area on the second floor does not have space for separate offices where private conversations and employee/management discussions can take place in private.

## **Site Issues:**

The Fire Station shares a 1.5 acre site with the Town Hall and Police Station, and the site issues described for the Town Hall apply to the Fire Station. Parking for all three facilities is maxed out at 24 spaces plus two handicapped accessible spaces. On-call and volunteer firefighters responding to a call drive to the Fire Station and may find a lack of available parking on site when they arrive because spaces may be taken by other user, especially for Town meetings and use of the Community Room by other Town groups. This is a serious concern when time is lost finding space to park, which is especially critical in responding to an emergency.









As mentioned previously, the site is effectively fully utilized. The residential Swett property is located immediately to the West side of the Fire Station, and the Town Post Office is located directly to the South. There is very little room on the current 1.5 acre site for expanding the Fire Station or adding spaces to the shared parking lot. A concept for replacing the existing Fire Station in its present location with a two-story 15,000 SF building was designed in 2004, but was never built. The design, completed before the Community Room was added, completely filled the site and did not adequately address parking or vehicle flow. Due to the tight site the Fire Department vehicles back into the apparatus bays; drive through apparatus bays are preferred in order to minimize backing accidents, particularly with large vehicles.

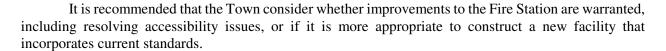
The three buildings on the site share a common well. The water from the well has been noted to require treatment for high iron content. A septic system for the Fire Station is reported to be located behind the building.



# **Accessibility Issues:**

The Americans with Disabilities Act (ADA) became effective in 1991. Under Title II of the act, which governs municipal facilities, improvements for accessibility are mandated to be undertaken. Although we have not conducted an accessibility review, there are obvious issues that should be resolved, including the following:

- The entrance door to the Fire Station opens directly to gear storage and the apparatus bays. The second floor office area is not accessible without going through the bays and up a stair to the second floor. There is no elevator.
- The entry door requires lever hardware in lieu of a knob, and floor level conditions need to be resolved.
- State building code requires an automatic door opener at the public entrance.
- The Community Room entrance is located at grade and with minor improvements would meet accessibility requirements. The entrance ramp slopes should be checked, and the entry door required a lever handle in lieu of a knob.
- Hardware on doors throughout the facility should be lever hardware.
- There are only two bathrooms in the building located in the corridor off the Community Room meeting space.
- The Community Room rear corridor is too narrow to provide proper clearances at door in the corridor, and the two bathrooms do not meet accessibility requirements.





We have not performed a code review for the Fire Station, but there are issues that are of concern including the following:

- Fire stations are considered to be essential facilities that are "...intended to remain operational in the event of extreme environmental loading from flood, wind, snow or earthquakes." The State Building Code (International Building Code 2015) identifies fire stations as essential facilities, Risk Category IV. There are structural requirements that an essential facility is required to meet that this existing building likely does not meet. For instance, it has been noted in prior reports that the CMU bearing walls do not appear to be properly reinforced, which could lead to failure in an earthquake.
- Rated fire separations are required between the apparatus bays and other parts of the building. It does not appear that proper separations have been provided. For instance, the second floor office and other first floor fire department rooms require a 2-hour separation, including rated doors, from the apparatus bays and Community Room in a non-sprinklered building, which does not appear to be the case.
- An automatic sprinkler system may not be required for this size one-story building and the construction type, although it is recommended in this type of facility.
- There is a definite lack of an adequate number of toilet facilities for the Community Room and Fire Station.
- The stair to the second floor needs to be evaluated in terms of fire rating, only one stair, and egress through the apparatus bay.



It is recommended that upgrades for meeting life safety requirements be identified and incorporated into the fire station if it is not replaced in the near future.

# **Energy Issues:**

An energy study for the Fire Station has not been performed. The mechanical systems in the building and lack of proper ventilation have been noted in the Mechanical/Electrical/Plumbing Assessment Report included in our evaluation. Regarding insulation there are clear indications, however, that the facility is not well insulated, including the following:

- The roof does not retain snow on it during the winter, which is an indication of inadequate attic insulation. This may also be important when considering structural concerns about the capacity of the roof since a high snow load would increase the load on the roof. The attic insulation has been noted to be six inch fiberglass batts.
- The exterior walls are concrete and concrete masonry units (CMU) with interior gypsum board walls that are likely framed on interior studs or strapping; this has not been verified. Buildings of this age and type of construction might have fiberglass batt insulation in these walls, which needs to be verified.
- The Community Room appears to be 2 x 6 wood framed wall construction, which likely has 5-1/2 inch fiberglass batt insulation with an R-value of R-19 or R-21. That level of insulation would have met the energy code requirements in 2010.
- The interior slab freezing that occurs at the apparatus bay doors is a clear indication that there is no foundation insulation at the aprons.
- It is not known if there is perimeter slab insulation at the foundation, but based on visible details, the age of the building and comments about drafts, it is likely that there is none. This makes for inefficient energy performance and does affect utility costs.

Retrofitting the existing Fire Station for an improved energy envelope is questionably cost effective when considering the extent of improvements required and the potential impact on the roof structure. The ability to construct new facilities with a highly insulated and tight envelope in conjunction with much more efficient mechanical systems make for a much more energy efficient solution.

#### Mechanical, Electrical and Plumbing Systems:

The Existing Conditions Assessment Report prepared by Bennett Engineering identified numerous recommendations for safety, code and operational improvements. Critical issues noted included numerous improvements required for code compliance, improvements to the domestic water system and plumbing venting, and improvements and upgrading of the mechanical system. The commercial kitchen requires a code compliant kitchen hood, an exhaust and make-up air system, and code compliant systems for the office and Community Room. Refer to the full report for complete details.



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# Architects, PC

# **Existing Facilities and Site Assessments Town of New Durham**

Town of New Durnam Town Facilities Plan

AG Architects Project No. 19-761 24 November 2020

#### Library

The New Durham Public Library is a one-story wood framed building built in 1986. It is located on approximately 1/3 of an acre across the street from the Town Hall at the intersection of Main Street, Old Bay Road and Birch Hill Road. The structure is approximately 36 feet x 80 feet, with painted wood clapboard siding, an asphalt shingled hip roof, and an intersecting gable roof at the front entrance. The building does not have a sprinkler system, and is a slab-on-grade structure at the main Stack/Reading Room and the Children's Room, with a partial crawl space in the center core Total size of the Library is 3,139 GSF with a 450 GSF crawl space. The crawl space contains a fuel storage tank, well water service, sanitary piping and ductwork for the mechanical heating system.



The Library typically has 40 visitors per day, not considering special events or programs. The staff includes the full time director and four part-time employees. The facility has an adult and young adults Stack/Reading Room on one side, and a Children's Room on the other side. The Stack/Reading Room offers access to a collection of 14,000 - 15,000 volumes, a local history and genealogical section, a DVD collection, an audio book collection, six public computer stations, and two reading tables in the space. The Children's Room has a smaller collection including mobile stacks to allow them to be moved for the various programs that take place, along with arts and crafts supplies. The Children's Room is used for numerous programs and meetings for approximately 230 activities each year. It is not just children's activities, but is used for other Library programs, for arts and crafts activities, for Parks and Recreation programs, and by groups such as Alcoholics Anonymous, Boy Scouts and Girl Scouts, 4H, ATV and Snowmobiles.

Located in the center between the two large Stack/Reading and Children's Rooms are service spaces including the front circulation desk, a staff workroom/office, a small staff kitchen used in part for storage, a small mechanical room, and single Men's and Women's bathrooms. The mechanical room is very small and contains an oil-fired furnace, main electric panel, water heater, janitor sink and cleaning supplies, and an access hatch to the crawl space. Split system heat pumps with wall mounted cassettes were added in the Stack/Reading Room and the Children's Room for air conditioning.

#### **Architectural Issues:**

The existing Library is in relatively good condition and appears to be well maintained. The primary issue is the lack of space for a variety of programs and activities. The Program Summary prepared with this report summarizes the specific needs, while a general summary is outlined below:

• The Stack/Reading Room needs additional space to accommodate more DVD's, an additional 1,000 - 2,000 young adult and adult volumes, additional reading tables, and more public computer stations.



- The DVD collection is very active and can expand, except that additional space for shelving is needed.
- Supplies and equipment are currently kept throughout the Library, including in a corner of the Stack/Reading Room. A storage room is required.
- The Children's Room early reader collection needs to be expanded to meet the demand. More space is needed for shelving.
- Currently there are tutoring programs, meetings, Library programs and outside groups using the Children's Room, which impacts the use of the space. A separate enclosed meeting room for both children and adult use with a capacity of 10 to 15 persons is critical.
- There are larger meetings of 30 to 40 persons that take place at various times. A shared meeting room available in Town, such as the Community Room, would serve the purpose.
- Historical photos, books and art work are currently not in a separate secure room.
- A staff workroom for receiving book donations, processing books and to accommodate other staff projects is needed, so that the Director's Office could be used as an office. A staff workroom could also contain space for storage of equipment and supplies.
- The circulation front desk is adequate if storage, book processing and staff workspace are provided.
- The Kitchen is being used for storage including arts and crafts supplies. An adequate storage room for the material is needed, which will make the kitchen more suitable for its intended use.
- Art and crafts activities currently use the Children's room. A dedicated room with a counter, storage space and room for tables and chairs would significantly improve these programs.
- Equipment, supplies and furniture storage space, including storage for chairs and folding tables, is needed. Currently chairs and totes with supplies are stored remotely in the Town Hall basement due to a lack of Library space. Having sufficient storage space would allow more programs to take place with easy, quick access to equipment and materials.
- There is inadequate space for patrons to hang coats.
- The furnace room is an extremely tight space. There is essentially no room for janitorial supplies, for servicing equipment and for accessing the crawl space.
- There are some insulation concerns that are noted in the Energy section of this report.

#### **Site Issues:**

The current Library site is approximately 1/3 of an acre, with the Library located in the center, a well on the Northeast corner, and piping to a septic tank on the Southeast corner. The site is clear of trees in the center and is slightly raised in the center, then drops off several feet on all sides. There are woods behind the building to the North and East. Parking for a total of nine parking spaces, including one handicapped accessible space, is provided on the West side of the building via perpendicular street parking on Birch Hill Road. Refer to the site plan below.

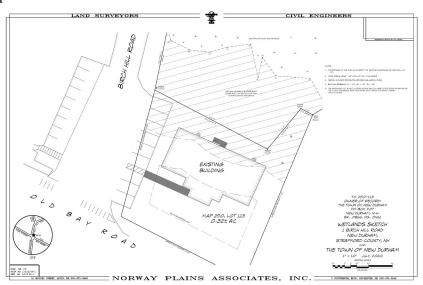






The Library site is not designated as wetlands, but the existing building is positioned mostly within the current Town zoning vegetative buffer strip required adjacent to wetlands.

Expanding the building on the current site in accordance with Town zoning and setback requirements is only possible in the front of the building. Expanding to the East might be feasible with the purchase of land to that side, but that location practically benefits only the Children's Room and could affect well and septic systems. There are wetlands on the adjacent Russell Weldon property to the rear (North), approximately 70 feet from the rear of the building. The preferred expansion direction is to the rear of the building (North), which would require land from the adjacent property owner Russell Weldon, and a waiver or variance to build into the vegetative buffer strip. It should be noted that the Town has approved moving ahead with a land swap with this property owner in order to provide additional land for possible expansion to the rear of the Library. Expansion to the rear would benefit all areas of the Library, including the Stack/Reading Room, Children's Room and staff support spaces.



#### **Accessibility Issues:**

The Americans with Disabilities Act (ADA) became effective in 1991. Under Title II of the act, which governs municipal facilities, improvements for accessibility are mandated to be undertaken. Although we have not conducted an accessibility review, there are obvious issues that should be resolved, including the following:

- The site access and front entrance provide appropriate access to the Library. An automatic door operator is required at the front entrance in accordance with State Building Code.
- In general the access through the Library appears to meet the clearances required by the Americans with Disabilities Act and State Building Code.
- The front circulation desk should be better configured with an appropriate height counter to serve those with disabilities.
- The rear corridor serving the Men and Women's Bathrooms is too narrow for proper clearance needed at the bathroom doors and rear exit.
- The bathrooms are not fully accessible in accordance with required clearances and fixtures.
- Clearances at shelving should be reviewed to verify compliance.

It is recommended that the Town either prepare a study to address accessibility issues in the short term and establish a time line for compliance, or that these issues be incorporated into any renovation and expansion planned for the Library.

#### **Code Issues:**

We have not performed a code review for the Library, but there are issues that are of concern including the following:

- The number of bathrooms for the Library is borderline for serving the code occupant load.
- Men's and Women's bathrooms are not in compliance with accessibility codes.
- The width of the rear corridor has been noted to be too narrow for proper access to the bathroom and exit doors.
- Review fire rating requirements for the furnace room since it is a fuel-fired appliance.

It is recommended that upgrades for life safety be identified and incorporated into any renovations planned for the Library.

#### **Energy Issues:**

An energy study for the Library has not been performed. The mechanical systems in the building and lack of proper ventilation have been noted in the Mechanical/Electrical/Plumbing Assessment Report included in our evaluation. Regarding insulation there are clear indications, however, that the facility is not insulated to today's standards, including the following:

- There is no floor insulation or interior wall insulation in the crawl space. The East crawl space wall is also an exterior foundation wall, and it is clear that there is no insulation on the outside either. The crawl space appears to be uninsulated, which creates a straight path for energy loss.
- There is no visible insulation around the foundation, and based on what is visible in the crawl space, it is likely that there is no perimeter foundation insulation. This causes cold floor space and discomfort on the inside and can create cold drafts. It is also an area where energy is lost.
- The ductwork from the oil-fired furnace is not properly sealed or insulated. This causes a loss of heat as warm air is distributed in the building.
- There are vents in the exterior soffits and a ridge vent at the roof peak. This means that the attic insulation is probably located at the bottom of the roof trusses, or possibly on top of the lay-in ceiling tiles, and the attic is a cold ventilated attic. The R-value of the attic insulation has not been confirmed, but given the age of the building it is probably R-25 or less.

The improvements necessary to upgrade the insulation in the Library could be accomplished during a renovation/expansion of the building or as an independent project in order to improve energy efficiency.

#### **Mechanical, Electrical and Plumbing Systems:**

The Existing Conditions Assessment Report prepared by Bennett Engineering identified recommendations for safety, code and operationa improvements. Critical issues noted are the lack of mechanical ventilation, several repairs required for code compliance, and several safety concerns. There ahs also been an issue with hot water being available at the Men's and Women's Bathrooms. Refer to the full report for complete details.



# **Existing Facilities and Site Assessments**

# Town of New Durham Town Facilities Plan

AG Architects Project No. 19-761 24 November 2020

#### **Public Works Garage**

The Public Works Garage is located on a 27 acre site on Tash Road. The garage is one of several structures on the site including a recycling garage, salt shed, several recycling storage canopies, a spreader storage shed, truck storage, small general storage sheds, fuel tank enclosure, a recycling transfer drop-off center, and outdoor sand storage area. The Public Works Garage is a high 4-bay garage for storing and servicing their vehicles, has a wood-framed mezzanine used for parts storage, and contains a tool storage area, an office with two desks, a staff break room, staff locker room/mechanical room and two bathrooms. The office and staff rooms are at the back of the garage and can only be accessed through the garage bays. The garage is approximately 40 feet x 80 feet with a rear section approximately 16 feet x 45 feet, for a total size of 4,018 GSF. The building has exterior vertical rib metal



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siding and a gable metal roof. It does not have a sprinkler system, but it does have a fire alarm.

The Public Works department includes five full time and three part time staff and one seasonal employee; the transfer station has one full time and two part time staff. The department has numerous vehicles including a grader, dozer, backhoe, 10-wheeler truck, four 6-wheelers, a 250 pick-up, a 350 1-ton truck, a 550 1-ton dump truck and a loader. There are plows and spreaders for the different vehicles.

#### **Architectural Issues:**

The existing Public Works Garage was built in 1980 and accommodates only four of the many vehicles in use, and is in moderate condition. The critical issues are the inability to garage all the department's vehicles in covered and heated space, and the lack of space in office and staff areas. The Program Summary prepared with this report summarizes the specific needs, while a general summary is outlined below:

- An additional 6-bay garage space is needed to keep vehicles covered and heated in order to start them in the cold weather, protect them from the elements which extends there life, and for maintenance purposes. This would include the trucks, grader and dozer. Other vehicles that don't require engine block heaters should at least be covered.
- Vehicles stored outside are currently plugged in for heating the engines to start in cold weather; this drains a fair amount of electricity.
- Access to the office, staff break room and lockers is currently through the garage bays for both the public and staff. There is no direct entrance or exit to the outside for those areas, which is hazardous and a code safety concern.
- The office has two desks and is very cramped. Additional file storage space is required, and an additional work station is needed.

- There are two bathrooms that are unheated, accessed from the vehicle bay area.
- There is no sink in the staff break room.
- There is no stove for staff to use in the break room. During winter storms this becomes more important.
- The break room needs to be larger to provide enough seating for all the employees.
- Public Works is currently storing the voting poll stations. It would be more efficient to store them close to where the voting takes place.
- The locker area also has mechanical equipment and is used for general storage. An improved locker area with additional lockers is needed.
- The mezzanine used for part storage has very low headroom.









#### **Site Issues:**

The Public Works site is a 27 acre site located on Tash Road. The site includes the previous landfill, now capped, and now serves as the Town's transfer and recycling center. The site functions fairly well with garage vehicular traffic separated by a fence from the recycling center used by the public. The site is

relatively flat with minor grade variations. As mentioned previously, the site contains other structures including the recycling garage, salt shed, spreader storage shed, several recycling storage canopies, two small general storage sheds, truck storage, a fuel tank enclosure with fuel tanks and pumps, and an outdoor sand storage area. There are several small parts of the site towards the South that contain wetlands, but the majority of the site is useable land. There is a drilled well adjacent to the garage, and a septic tank on site.



There is capacity on the site for expansion of facilities.

#### **Accessibility Issues:**

The Americans with Disabilities Act (ADA) became effective in 1991. Under Title II of the act, which governs municipal facilities, improvements for accessibility are mandated to be undertaken. Although we have not conducted an accessibility review, there are obvious issues that should be resolved, including the following:

- The Public Works Garage is on a flat portion of the site and can easily be accessed. There is no public entrance other than through the garage bays, which needs to be resolved.
- Access to the office and staff areas needs to be defined, separate from the vehicle bays.
- Toilet facilities are not fully accessible with required fixtures and clearances.

 Hardware on doors throughout the facility should be lever hardware in lieu of knobs.

It is recommended that the Town either prepare a study to address accessibility issues in the short term and establish a time line for compliance, or that these issues be incorporated into any renovation planned for the existing Public Works Garage.



#### **Code Issues:**

We have not performed a code review for the Public Works Garage, but there are issues that are of concern including the following:

- Compliance with accessibility requirements is required by the ADA, and renovations could affect compliance with State Building Code accessibility issues.
- Rated fire separations are required between the vehicle bays and other parts of the building. It does not appear that proper separations have been provided. For instance, the office and other first floor staff rooms require a 2-hour separation, including rated doors, from the garage vehicle bays in a non-sprinklered building, which does not appear to be the case.
- Energy codes are much stricter today than when this building was built. Renovations could affect compliance, and the Town may want to upgrade the facility regardless to improve energy performance. Verifying the wall and roof insulation R-values and reviewing perimeter foundation insulation options should be evaluated.

It is recommended that upgrades for life safety be identified and incorporated into any renovations planned for the Public Works Garage.

#### **Energy Issues:**

An energy study for the Public Works Garage has not been performed. The need for a positive pressure heating, ventilation and air conditioning (HVAC) system in the office area of the building has been noted in the Mechanical/Electrical/Plumbing Assessment Report included in our evaluation. Regarding insulation there are indications, however, that the facility is not insulated to today's standards, including the following:

- There does not appear to be perimeter foundation insulation at the slab-on-grade foundation. This impacts the heat loss for the building as well as the comfort level in the space.
- Although the gypsum board walls and ceiling panels concealed the insulation from view, the age of the building suggests that the insulation used in the walls, and especially the roof, has a lower R-value than the current energy code. This tends to have a large impact on heat loss and energy use.
- Hot water heating piping from the boiler is not insulated.
- Vehicles stored outside that require engine block heaters utilize a fair amount of electricity.

The improvements necessary to upgrade the insulation in the Public Works Garage could be accomplished during a renovation/expansion of the building or as an independent project in order to improve energy efficiency.

#### Mechanical, Electrical and Plumbing Systems:

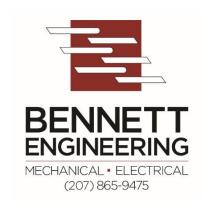
The Existing Conditions Assessment Report prepared by Bennett Engineering identified several recommendations for safety and operational improvements for the Public Works Garage. Issues noted are installing a positive pressure HVAC system for the office area to minimize dust and fume infiltration from the garage area, and several minor improvements to improve safety and to lessen operational costs. Refer to the full report for complete details.

# NEW DURHAM MUNICIPAL BUILDINGS EXISTING CONDITIONS ASSESSMENT REPORT

MECHANICAL / ELECTRICAL / PLUMBING (MEP)



4 Main Street, New Durham, New Hampshire 03855





#### Introduction:

Bennett Engineering, Inc. has been engaged by Art Guadano of AG Architects, PC in Dover, New Hampshire to provide a condition assessment of the Mechanical, Electrical, Plumbing, and Fire Protection Systems at five municipal buildings: Town Hall, Police Department, Fire Station, Library, and Public Works.

Bennett Engineering, Inc. conducted an on-site inspection of the building on February 14, 2020. The goal of this assessment is to outline findings and comment on the condition and integrity of the mechanical, electrical, plumbing and fire protection systems as they currently exist. Bennett Engineering's review is based on current conditions only without consideration of potential future use of this building.

#### **Summary**:

Continued use of the subject buildings for municipal functions will require repairs and upgrades to existing MEP systems to bring them into compliance with current code requirements. Of primary concern is the lack of mechanical ventilation in each building.

Re	Recommendations:		
A.	A. Town Hall		
	1.	Install domestic water sand/sediment and charcoal filtration	Safety
	2.	Consolidate water heaters and add HW recirculating system	Op Cost
	3.	Insulate & label domestic water piping	Op Cost
	4.	Removed abandoned well pump, tank, and piping from basement	Safety
	5.	Re-pipe boiler in accordance with manufacturers recommendations and requirements	
	6.	Repair/replace corroded heating pipe, and fittings	Safety
	7.	Insulate & label heating water piping	Op Cost
	8.	Replace fuel oil storage tank, fill & vent piping, and supply & return pipin accordance with code requirements	
	9.	Ensure windows are operable for fresh air ventilation	Code
	10	.Upgrade sanitary drainage joint couplings and add hangers	Code
	11	.Repair/replace sanitary drainage piping with code compliant materials	Code
	12	. Engage a certified chimney sweep to inspect the chimney	Code
	13	Replace individual window air conditioners with multi-zone heat pump(s)	Op Cost
	14	.Relocate computer servers to interior space. Ventilate through ERV	Op Cost
	15	Install an energy recovery ventilator (ERV) with tempering coils	Code
	16	.Secure electrical entrance cable(s)	Code
	17	.Test and label abandoned-in-place electrical wiring. Remove wiring, junction boxes, fixtures, hangers and supports not in-service.	Code



# B. Police Department Install domestic water sand/sediment and charcoal filtration Safety 2. Repair/extend plumbing vent through the roof\_\_\_\_\_Code 3. Install an energy recovery ventilator (ERV) with tempering coils in attic space and connect to bathroom exhausts and attic air handler Code 4. Repair boiler heating water circulator pump leak\_\_\_\_\_Safety 5. Insulate and label hot water heating piping \_\_\_\_\_Op Cost 6. Insulate and label domestic water piping Op Cost C. Fire Station 1. Perform domestic water quality test......Safety 2. Repair sanitary drain vent at under floor exit from building in accordance with code requirements\_\_\_\_\_Code 3. Replace PVC domestic water pipe with code compliant materials Code 4. Insulate and label domestic water piping Op Cost 5. Re-pipe sanitary drain under three bay kitchen sink in accordance with code requirements for drainage and venting Code 6. Install a code compliant thermostatic mixing valve \_\_\_\_\_Code 7. Label fuel gas piping in accordance with code requirements Code 8. Empty and clean water softener brine tank contaminated with rust. Brine solution should not have rust present\_\_\_\_\_Safety 9. Remove abandoned in place ductwork from apparatus bay ceiling in light of the structural issues with this building Safety 10. SCBA equipment should be located in a clean room isolated from the fumes and dust of the apparatus bay \_\_\_\_\_Code 11. Install code compliant kitchen hood, exhaust fan, and make-up air system for the commercial kitchen in the community/training room addition\_\_\_\_\_Code 12. Install a dedicated forced hot air furnace with heating, ventilation, and air conditioning for the upstairs office\_\_\_\_\_Code 13. Separate existing HVAC unit from upstairs office and install an energy recovery ventilation system for the community/training room Code 14. Rebuild electrical panel closet at front of building to allow opening of electrical panels inside closet in accordance with code requirements Code



# D. Library

	1.	Install domestic water sand/sediment and charcoal filtration	Safety		
	2.	Install a drain pan under electric water heater in furnace room	Code		
	3.	Mechanical Ventilation – Option 1 - Install an energy recovery ventilator with tempering coil in attic or crawl space and connect to bathroom exha furnace return duct	usts and		
	4.	Mechanical Ventilation – Option 2 - Install energy recovery ventilator (ER tempering coil in attic or crawl space in association with an A-coil on the furnace to provide year round ventilation, heating, and cooling	existing		
	5.	Seal, insulate, and label supply and return ductwork	Op Cost		
	6.	Replace furnace flue pipe with insulated and welded one-piece assembly seal tightly at connections to minimize chance of combustion gases being into the adjacent return duct	g drawn		
	7.	Install bulkhead access to the crawl space at the rear of the building as a means of egress to crawl space			
Ε.	Public Works				
	1.	Install domestic water sand/sediment and charcoal filtration	Safety		
	2.	Install a positive pressure heating, ventilation, and air conditioning (HVA) system for the office area to minimize fume and dust intrusion	,		
	3.	Insulate and label hot water heating piping.	Op Cost		
	4.	Insulate and label domestic water piping	Op Cost		
	5.	Re-pipe, re-route, and protect fuel oil supply and return piping through equipment bay area to boiler room	Safety		



## **Town Hall**

#### General:

The town hall building is a circa 1905 wood frame, two story traditional town hall structure with stone foundation and a full height basement. Basement floor is poured concrete of recent vintage.

Vinyl windows were installed approximately 30 years ago. The bulkhead door into the basement is of wooden construction.

Municipal building energy sources are Dead River for heating oil in the Town Hall, Police Department, and Library. Suburban Propane provides liquid propane fuel for the Fire Station.

#### Mechanical - Heating:

Building heat is sourced from an oil-fired cast iron sectional boiler of 420 MBH input manufactured by Pensotti of Italy. The burner is a Riello rated for a nominal 3.0 gallons per hour. Net output rating of the boiler is 311 MBH. Combustion air is provided by a dedicated fan ducted into the basement space.



Town Hall Boiler Room



The boiler P&T relief valve is not installed on the boiler proper, but on the outlet pipe. The hydronic expansion tank is not installed at the air scoop, but at the boiler outlet. The make-up water connection is connected to the return manifold but should be connected at the air scoop/expansion tank location.



Town Hall Boiler Room - Connections



Town Hall Boiler Room - Connections

Seven zone pumps mounted to the return manifold serve the base board heat system throughout the building.



Town Hall Boiler Room - Zone Pumps and Make Up Feed





Town Hall Main Floor - Fin Tube Baseboard

Base board piping is uninsulated, poorly supported, and with several soldered joints failing through corrosive action.

Fuel oil storage tank does not appear to be UL Listed & Labeled in accordance with code requirements. Tank vent pipe connection shows evidence of leaking when tank is filled. Leak appears to be coming from vent whistle fitting. Fuel oil supply and return tubing appears kinked and are not "continuous" runs from tank to burner. Fuel oil tubing is not supported at tank and is not a corrosion resistant coated copper product as required by code. Two abandoned in place copper tubes run through the underground conduit to the boiler room along with the in-service lines.



Town Hall - Fuel Oil Tank





Town Hall - Fuel Oil Piping

#### Mechanical - Cooling:

Window air conditioners are used for seasonal cooling of select rooms. A collection of these units is located in the front stair leading down to the basement.

The server room is cooled with a single hose, portable air conditioner.

#### Mechanical - Ventilation:

Mechanical ventilation (fresh air) is not installed in this building.

#### Plumbing – Domestic Water:

There are two Toilet Rooms on the main floor: one at the front of the building off the main entrance and the other located off the central meeting room. The main entrance toilet room lavatory is just outside the toilet room door. The meeting room toilet includes a tank-type flush toilet, lavatory, and exhaust fan.

A kitchenette is located at the rear of the main floor with one kitchen sink. Over by the server closet is a laundry tub-type utility sink with a through-the-wall exhaust fan operated by a pull chain switch.

Domestic water is sourced from a drilled well adjacent to the Fire Station. The well was noted as having a high iron content and confirmed by rust stains in toilet bowls and lavatory basins. Well age, depth, and performance is unknown. Output from this well is distributed to the Police Department and Townhall by way of underground polyethylene (PE) piping.

The Town Hall domestic water entrance is located in the boiler room against the rear foundation wall. A 1" polyethylene (PE) pipe connects to the strainer/back flow assembly and then to a 3/4" copper pipe. This is the only backflow preventer fitted to the three buildings which share the well.





Town Hall Boiler Room - Domestic Water Entrance

Domestic hot water for the main entrance toilet room is sourced from a 6 gallon electric water heater located in the cabinet under the sink.



Town Hall Main Floor - Entry Lavatory Water Heater



Domestic hot water for the meeting room toilet, kitchenette, and laundry tub is sourced from a 19-gallon electric water heater located in the boiler room.



Town Hall Boiler Room - Water Heater in Boiler Room

Plumbing piping is not insulated nor were pipe markers were observed.

A vintage well pump, expansion tank, and piping is abandoned in place on the Depot Road-side of the basement. It is not known if this equipment is connected to the inservice domestic water system. In any event, this equipment must be disconnected and made safe, removed and disposed of properly, and the electrical removed all the way back to the distribution panel.



Town Hall Well Entrance Abandoned in Place



#### Plumbing - Sanitary Drainage:

Two sanitary drainage mains exit the building: one at the front foundation wall and the other at the rear wall in the boiler room. Septic tank is to the left of the building when viewed from Main Street.

The 4" PVC sanitary drainage main exiting at the front foundation wall (Main Street side) terminates in an unknown location. Snow cover prevented locating the assumed septic tank during this visit. Two 4" PVC risers from the main go up through the ground floor along with a 2" drain serving the lavatory sink at the front of the building.



Town Hall Basement - Sanitary Main at Front

In addition, the front drainage main continues horizontally where it connects to a 4" cast iron pipe that emerges from the foundation wall on the Depot Street side. The PVC to Cast Iron joint is with a two band, no-hub style coupling. Evidence suggests this joint leaks. A heavy duty four band no hub fitting is a better solution for this application.

The PVC to Cast Iron joint is at a 4x2 wye fitting installed backwards. Also, the 2" branch pipe is ABS plastic, which is not compatible with PVC plastic. The joint may be glued, but it is not an acceptable joint. A transition coupling is required when joining two different plastics.





Town Hall Basement - Backward Sanitary Main Fitting

The 4" sanitary pipe is not supported by any pipe hangers. The 2" PVC run is supported by two hangers.

In the boiler room, a second 3" sanitary main exits the rear foundation wall. Again, ABS plastic is improperly joined to PVC plastic. The 4" PVC main through the foundation wall terminates in an unknown location.



Town Hall Boiler Room - Sanitary Main Exit Rear

#### Plumbing – Sump Pumps:

Two sump pumps are located in the basement floor: one on the west side of the main basement space and the other in the boiler room. Discharge from the west side sump exits the foundation wall above grade on that side of the building. Discharge from the boiler room sump pump is through the foundation wall in the southwest corner of the building.





Town Hall Basement - Sump Pump West



Town Hall Boiler Room - Sump Pump

#### Electrical:

Electric power for the building is via overhead wires from a pole-mounted transformer on Depot Road to an electric meter on the outside of the building.





Town Hall Exterior - Electric Meter and Fuel Oil Fill & Vent

Power from the electric meter runs through an unsecured cable up the outside of the building to 200A Main Distribution Panel (MDP) on the second floor landing of the rear stair tower.



Town Hall Upstairs - MDP on Second Floor Landing, Rear

From the MDP conduits and cables run down to the main floor and basement distribution panels, which are adjacent to or below the rear stair tower.





Town Hall Basement - Electrical Distribution Panel in Basement

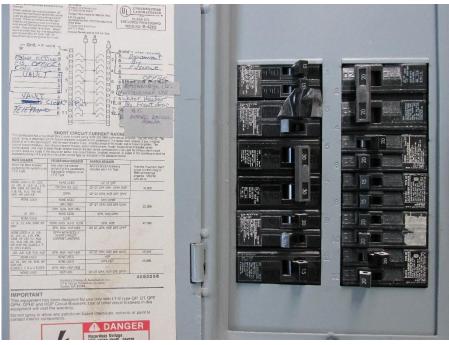
A variety of vintage electrical conductors are visible throughout the basement. It is not known if these circuits are live or abandoned in place.



Town Hall Basement - Variety of Vintage Conductors

The main floor distribution panel is located in a small room off the rear stair and adjacent to the computer server closet.





Town Hall Main Floor - Distribution Panel

The central meeting room on the main floor exhibits three distinct but unlabeled electrical power outlets.



Town Hall Main Floor - Electrical Power Outlets



#### Fire Alarm:

A Honeywell fire alarm system is installed and reported as functional. The control panel is located in the main entrance foyer. There is no automatic fire protection/sprinkler system installed in the building.



Town Hall - Fire Alarm Panel

#### MEP Equipment List: Town Hall

- A. Hot Water Boiler Pensotti Model S2-8 420 MBH Input with Riello oil burner. Age of unit could not be determined.
- B. Domestic Water Heater Boiler Room State Select Model ES620SOMSK 200 19-gallon capacity. Marked on top with 12/4/12.
- C. Domestic Water Heater Entry Lavatory Rheem Rheemglas Standard Model 68V-6S 6-gallon capacity. Age of unit could not be determined.
- D. Domestic Water Entrance Back Flow Preventer 3/4" Watts 909 RPZ
- E. Fuel Oil Tank Eastern Culvert Co. Inc. Underground tank For Flammable Liquids Horizontal unknown capacity.
- F. Packaged Sump Pumps (two) Unknown make & model.
- G. Electrical Main Distribution Panel (MDP) Second Floor 200A "4-Pole" Main Disconnect.



# **Police Department**

#### General:

The building is a 20-year old single-story modular unit sitting on a poured concrete crawl space.

There is one toilet room and one toilet/shower room located adjacent to the kitchen at the rear of the building.

#### Mechanical - Heating:

Building heat is sourced from an oil-fired cast iron of 109 MBH output manufactured by Burnham in October of 2000. System piping includes one circulator pump and three zone valves. The boiler and distribution piping are located in the basement boiler room. None of the heating system piping was insulated.



Police Dept Crawl Space - Oil Fired Hot Water Boiler



## Mechanical Cooling:

A split system air conditioner system is present with the air handler installed in the attic and condensing unit outside at ground level behind the building. This appears to be a nominal 4 Ton capacity system manufactured in June of 2008.



Police Dept HVAC - Air Handler in Attic Space



Police Dept Exterior - Air Conditioning Condensing Unit



#### Mechanical - Ventilation:

Mechanical ventilation (fresh air) is not installed in this building.

#### Plumbing - Domestic Water:

Domestic water is sourced from the same drilled well as Town Hall. The water entrance was noted as emerging from the floor of the crawl space basement. No backflow preventer was fitted.



Police Dept Crawl Space - Domestic Water Entrance

Domestic hot water is sourced from an indirect coil mounted in the boiler.



Police Dept Crawl Space - Boiler Front Showing Tankless Coil



#### <u>Plumbing – Sanitary Drainage</u>:

The 4" PVC sanitary drainage main exits at the east foundation wall (Depot Street side) and terminates in an unknown location. Snow cover prevented locating the assumed septic tank during this visit.



Police Dept Crawl Space - Sanitary Drainage Main

### <u>Plumbing – Sump Pump</u>:

One sump pump basin is built into the basement floor.

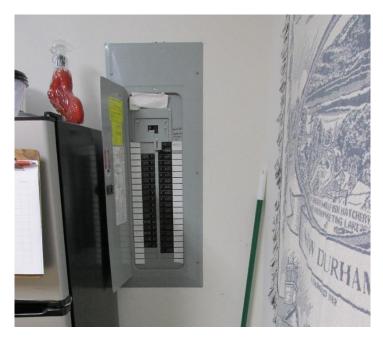


Police Dept Crawl Space - Domestic Water Entrance and Sump Pump



#### Electrical:

Electrical power to the building is via overhead wires from the street to an electric meter on the southwest corner of the building, then to the main distribution panel located on the other side of the wall in the kitchen. Emergency power is available from the fire station generator and is engaged via an interlocked circuit breaker in the Police Department MDP.



Police Department Electrical - 200A MDP



Police Department MDP – Emergency Generator Interlock



#### Fire Alarm:

A Honeywell Fire Alarm system is installed in the building.

There is no fire protection sprinkler system in the building.

#### MEP Equipment List: Police Department

- A. Hot Water Boiler Burnham Model PV83WT-T8WF-8 DOE Heating Capacity 91 MBH at 0.75 GPH burner. Date of manufacture 10/2000.
- B. Domestic Water Heater Tankless Coil in Boiler.
- C. Fuel Oil Tank Granby Steel Tanks Inc. Oil Burner Fuel Tank Horizontal 275-gallon capacity.
- D. Packaged Sump Pump Unknown make & model.
- E. Split System Air Conditioner International Comfort Products LLC Air Handler Model FSM4X4800A date of manufacture June 2008 with Condensing Unit R4A348GKH100 with R-410A date of manufacture May 2017.
- F. Electrical Main Distribution Panel (MDP) Kitchen 200A 2-Pole Main Disconnect with emergency generator feeder interlock.



# **Fire Station**

#### **General**:

The building is a single-story, high bay, wood framed structure sitting on a poured concrete slab on grade. The structure has four vehicle bays and gear storage rooms at the front of the building with two story addition at the back of the building containing a training room/kitchen downstairs and open office area upstairs.

Community/Training Room & commercial kitchen are located in an addition at the rear of the apparatus room. The cooking appliances are not served by a code compliant kitchen exhaust hood and fan system

There is one toilet room and one toilet/shower room located adjacent to the commercial kitchen in the addition.

#### Mechanical - Heating:

Space heating is provided by two gas fired unit heaters in the apparatus room and a gas-fired forced hot air furnace for the office area upstairs and community/training room out back. No fresh air ventilation is observed for the furnace. The thermostat is located downstairs.



Fire Station Apparatus Room - Unit Heater



The previous heating system was comprised of an oil fired forced hot air furnace with distribution ductwork above the equipment bays. The furnace has been removed, but the ductwork remains in place.



Fire Station Apparatus Room - Abandoned Ductwork

#### Mechanical - Ventilation:

Mechanical ventilation (fresh air) is not installed in this building.

#### Plumbing - Domestic Water:

Domestic water is sourced from a drilled well adjacent to the building. The water entrance was noted as emerging from a shallow pit in the floor at the rear of the apparatus room.



Fire Station Well - Domestic Water Well Entrance





Fire Station - Domestic Water Well Entrance

Domestic hot water is sourced from an on-demand tankless unit in the addition kitchen.

#### <u>Plumbing – Sanitary Drainage:</u>

Sanitary drainage is piped to a septic tank located beside the building. The main runs above slab under the wooden deck. Recent renovation work (incomplete) left the main venting into the building at the sanitary tee fitting with the branch pointing up. A temporary cap has been placed on this connection. A permanent fix is required.



Fire Station Plumbing - Sanitary Main Leaving the Building





Fire Station Plumbing - Sanitary Main Vent



Fire Station Plumbing – Three Bay Sink with Unvented Trap



### **Electrical**:

Electrical power to the building is via overhead wires from the street to an electric meter on the northwest corner of the building. The first of two MDP's is located on the other side of the wall from the meter. This panel is paired with a generator transfer (gentran) switch in a small closet without doors. The doorway framing does not allow the gentran panel door to be opened.





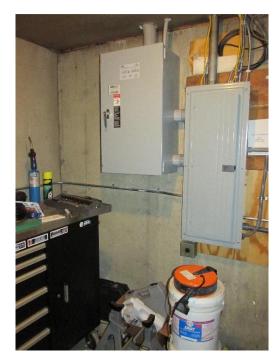


Distribution Panel at Meter w/Gen Tran Switch

A second distribution panel with gentran switch is located in the old boiler room.

The emergency generator is of unknown capacity and is located behind the fire station. Emergency power is available in the fire station and police department buildings only.





Fire Station - Distribution Panel in Old Boiler Room



Fire Station - Distribution Panel in Old Boiler Room

# Fire Alarm:

A Honeywell Fire Alarm system is installed in the building.

There is no fire protection sprinkler system in the building.



## MEP Equipment List: Fire Station

- A. Unit Heaters Propane gas fired of unknown manufacture or capacity.
- B. Well Pump unknown make, model or vintage.
- C. Domestic Water Heater Propane fired, wall mounted tankless style in kitchen, State Model number AT-H3-DV-P, 199 MBH input. Installation does not have a thermostatic mixing valve and, as a result, heater is set to 105 degrees F.
- D. Forced Hot Air Furnace with Split System Air Conditioner unit is hidden in attic space adjacent to the upstairs office.
- E. Electrical Main Distribution Panel (MDP) Front of Building 200A Main Disconnect.
- F. Electrical Main Distribution Panel (MDP) Boiler Room 200A Main Disconnect



# Library

#### General:

The library building is a single-story wood framed structure sitting on a partial, poured concrete crawl space foundation. The central core of the building sits over the foundation, but the underpinnings of the two spaces to either side of the core is unknown. One space accommodates the library stacks and the other an activity room.

The restricted height basement is the location for the domestic water well entrance, fuel oil storage tank, and sanitary drain entrance. Return ductwork (uninsulated) is suspended from the deck above. Access to the crawl space is through a floor hatch in the furnace room.

There is a kitchenette behind reception desk currently used as storage.

There are two Toilet Rooms in the back of the building in a corridor off the activity room. Each toilet room includes a tank-type flush toilet and lavatory with cold and hot water.

## Mechanical - Heating:

Two heating systems are present: one oil-fired forced hot air furnace (FHA) and two independent heat pumps.

Primary space heating is provided by a furnace of 184 MBH capacity located in a small mechanical room in the center of the building. Supply ductwork runs up in the ceiling space above the core of the building. Return ductwork runs down into the crawl space to two return grilles on either side of the core.



Library Furnace Room - Oil Fired Furnace





Library Crawl Space - Fuel Oil Tank

Ductwork is not sealed or insulated. The furnace flue pipe is in close proximity to the furnace return duct allowing a potential combustion gas leak to contaminate the furnace return air.



Library - Ductwork at Furnace Uninsulated





Library - Furnace Flue Pipe Proximity to Return Ductwork



Library Crawl Space - Uninsulated Ductwork



# Mechanical - Cooling:

Air conditioning and heat is provided in the Stacks and Activity Room by two mini-split heat pumps noted in Heating Section. Outdoor units are mounted to wall brackets on the rear wall of the building. The indoor units do not appear to have connections to ventilation air.



Library Interior - Mini-Split Air Conditioner



Library Exterior - Heat Pump Outdoor Units



### Mechanical - Ventilation:

Mechanical ventilation (fresh air) is not installed in this building.

### Plumbing - Domestic Water:

Domestic water is sourced from a drilled well adjacent to the northeast corner of the building. Likewise, the water entrance, well expansion tank, and pressure switch are located in the northeast corner of the crawl space.

Domestic hot water is sourced from a State electric water heater located on a shelf in the furnace room. The water heater is a 20-gallon unit manufactured in 1999.



Library Furnace Room - Water Heater

## Plumbing – Sanitary Drainage:

Sanitary drainage is piped to a septic tank.

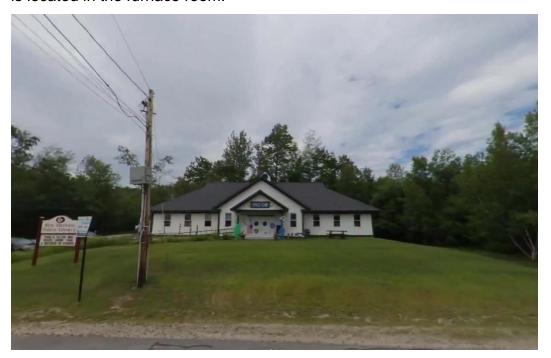


Library Crawl Space - Sanitary Drain



# Electrical:

Electrical power to the building is via underground wires from a pole in front of the building. The electric meter is mounted on the pole and the 150A main distribution panel is located in the furnace room.



Library Exterior - Library Viewed from the Street



Library Furnace Room - MDP



## Fire Alarm:

A Honeywell Fire Alarm system is installed in the building. The control panels are located in the entrance foyer.



Library Fire Alarm - Fire Alarm Panels

There is no fire protection sprinkler system in the building.

## MEP Equipment List: Library

- A. Forced Hot Air Furnace Duo Matic / Olsen BCL 190H, 185 MBH at 1.65 GPH burner. Date of manufacture 10/2000.
- B. Domestic Water Heater State Select P6 20 10MS972 K 1650W 20 gallon capacity. Date of manufacture is unknown.
- C. Fuel Oil Tank manufacturer unknown Oil Burner Fuel Tank Horizontal 275 gallon capacity.
- D. Well Tank & Pump Switch Unknown make & model.
- E. Mini-Split Heat Pumps (two)— Mitsubishi Electric 2-1/2 Ton Capacity Outdoor Unit Model MUZ-D30NA-1 date of manufacture unknown.
- F. Electrical Main Distribution Panel (MDP) Furnace Room 150A 2-Pole Main Disconnect.



# **Public Works**

### General:

The building is a high bay, single-story wood framed structure sitting on a poured concrete slab on grade. The structure has four vehicle bays.



Public Works Garage Exterior

# Mechanical - Heating:

Space heating is provided by an oil-fired, hot water boiler with three zone pumps located in a utility space at the rear of the building. Two of the zones are the equipment bays each served by a ducted fan coil assembly. The third zone is fin tube baseboard serving the office area at the rear of the equipment bays. The boiler date of manufacture

is August 2012.



Public Works Boiler Room - Oil-Fired Boiler





Public Works - Equipment Bay Heater

Mechanical ventilation (fresh air) is not installed in this building.

# Plumbing - Domestic Water:

Domestic water is sourced from a drilled well adjacent to the building. The water entrance was noted as emerging from the wall on the mezzanine in the equipment bays. The pressure switch, well expansion tank, and domestic hot water heater are all located on the mezzanine deck.



Public Works Mezzanine - Domestic Water Entrance



There are two Toilet Rooms in the equipment bays. Each toilet room includes a tanktype flush toilet and lavatory with cold and hot water. Toilet room on the left contains a shower currently used as storage.



Public Works Equipment Bays - Toilet Rooms

# <u>Plumbing – Sanitary Drainage</u>:

Sanitary drainage is piped to a septic tank.

## **Electrical**:

Building power is via overhead wires from street to an electric meter on the northwest corner of the building, then to main distribution panel located in equipment bay.



Public Works - Electrical Entrance



### Fire Alarm:

A Honeywell Fire Alarm system is installed in the building.



Public Works - Fire Alarm Panel

There is no fire protection sprinkler system in the building.

### MEP Equipment List: Public Works

- A. Hot Water Boiler New Yorker DOE Heating Capacity 179 MBH at 1.50 GPH firing rate from Beckett burner. Date of manufacture 08/2012.
- B. Domestic Water Heater Kenmore Power Miser 5 1650W 10-gallon capacity. Date of manufacture is unknown.
- C. Fuel Oil Tank manufacturer unknown above ground double wall horizontal tank unknown capacity.
- D. Well Tank & Pump Switch Well-X-Trol pressure tank.
- E. Electrical Main Distribution Panel (MDP) Equipment Bay 600A.

End of Report



## **Historic Features**

The New Durham Town Hall is a two-story wood framed building built in 1908. It has served since that time as the center of Town government, and originally with the second floor stage and auditorium open was considered a center for social affairs. The structure is 38' x 63' with painted wood clapboard siding, hip roof and granite foundation. A one-story hiproofed addition on the rear built in 1970 contains Town records. The original building, designed by New Hampshire architect Alvah Ramsdell, was listed on the National Register of Historic Places in 1980. There are historic elements of the building that harken to the original 1908 construction, and are considered historically significant. This report identifies elements believed to be significant, but detailed analysis has not been completed to verify original components or dates of construction. It is recommended that an architectural historian be included as part of any subsequent phase of work to ascertain critical elements. Elements and components of the building considered significant that remain are quoted from the Nomination for historic designation as follows:



1. The exterior form of the building "...combines elements of the Italianate and the Colonial Revival architectural styles of the late nineteenth and early twentieth century."



- 2. "Over the entryway is a four-paned transom light and a triangular pedimented door hood supported by two large scroll brackets. (Due to deterioration the original porch was removed circa 1965." Since that time an accessible concrete ramp has been installed.
- 3. "The windows on the second story are topped by single-paned transom lights, and the lintels of the first-story windows are connected by a simple string course." The double hung windows below the second floor transoms and on the first floor were replaced with vinyl windows 30+ years ago.







4. "The roofs of the North, East and West elevations each have a gable dormer with triangular pediment, bracketed eaves and paired windows."





5. The front Northeast corner "...contains a 55', square, four-level clock and bell tower framed by pilasters rising to the top of the third level. The fourth level houses the bell, is louvered on all four sides and supports a hipped roof with two cross gables, each gable containing a circular clock face. The roof is topped by a 6' metal weathervane. The tower features tall, narrow windows on the three

lower levels."

6. "The second floor consists of an auditorium measuring 37' x 41' with an 18' x 20' stage." Modifications to the interior have covered the majority of the stage with a storage room, and the original balcony and stamped metal ceiling are concealed by suspended acoustic ceiling tiles.





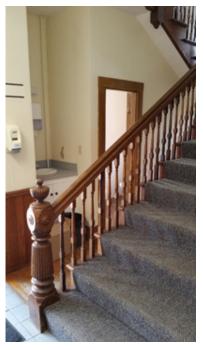
7. Below the hip roof are bracketed eaves with vertical denticular molding.





8. The interior front stair railings and balusters appear to be original, possibly constructed from American Chestnut (to be confirmed). The stair still serves the balcony level, although it is currently enclosed.

The New Durham Town Hall remains a classic example of town halls built in this period, with the building maintaining most of its integrity and many of the historic elements still in place. The historical significance of the building and the details that are integral to its character should be documented as part of the design process by an architectural historian, as previously noted. Maintaining and preserving the character and history of the building should be a defining component of plans for improving, expanding and/or reusing the building. Some of the historic elements are not obvious or often visible to the public, such as the balcony, the second floor Great Hall with its stamped metal ceiling and the raised platform and stage, although they remain intact but partially covered by partitions installed over the years. It is the responsibility of both the Town and its consultants to respect and enhance the building's history. Renovation and/or restoration of this building should remain a focus of any plans for upgrading town facilities, and should be done with care to preserve these features.



# **Site Options for Town Facilities**

# **Town of New Durham - Town Facilities Plan**

AG Architects Project No. 19-761 4 September 2020 AG Architects, PC
634 Central Avenue, Dover, NH 03820
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The analysis for the Town of New Durham facilities identified program needs and provided recommendations in the Program Summary on the spaces needed and the proposed size for each facility, as summarized below. Assumptions are proposed for each facility in order to provide a focus for the options to consider for expanding facilities. This is followed by a list of possible sites that could accommodate these Town facilities, with advantages and disadvantages for each site noted, and whether the site should be considered for further analysis. Each site is highlighted in the following pages. The alternative site concepts to consider are finally noted in the Recommendations for Site Design Concepts.

<b>Existing SF</b>	Proposed SF
5,129 GSF	10,318 GSF/12,735 GSF with Restored Great Hall
2,707 GSF	5,365 GSF
7,298 GSF	16,496 GSF/18,127 GSF with Community Hall
3,139 GSF	6,305 GSF
4,408 GSF	10,233 GSF
	5,129 GSF 2,707 GSF 7,298 GSF 3,139 GSF

#### **Assumptions:**

- Expansion of Town facilities should conform to zoning requirements. Location within the Town Center Mixed Use District allows governmental facilities by right.
- The existing Town Hall will continue to function as the Town Hall on its current site. The historic building and location provides a focal point for the Town Center.
- The existing Library will continue to function on its current site. Possible expansion to the rear has been discussed pending a property exchange with the adjacent Weldon property.
- The existing Public Works garage will continue to function on its current site.
- The Police Station could be located on its current site or on several alternate sites as described in the list of possible sites below.
- The Fire Station could be located on several alternate sites as described in the list of possible sites below.
- Both the Police and Fire departments could be combined into a single Public Safety facility possibly on the existing Town Hall site or on an alternative site.

#### **Possible Sites:**

Site A, Town Hall Site:

Advantages: • The Town Hall site is the traditional Town Center where many of the

Town facilities are located.

 The site is at an intersection of several key roads, including Main Street, Depot Road, Old Bay Road and Birch Hill Road.



- The site includes the existing Town Hall, Police Station and Fire Station, which are valuable resources.
- The site is located within the Town Center Mixed Use Zoning District which allows government facilities.
- Disadvantages: The site is too small to accommodate all the expanded facilities, including space for parking and septic system(s). It is only 1.5 acres.

#### Site B, Library Site:

Advantages:

- The Library site is also at the traditional Town Center, located directly across the street from other Town facilities.
- The site is at the same intersection of Main Street, Depot Road, Old Bay Road and Birch Hill Road.
- The Library was built in 1986 and is in good repair.
- The site is too small to accommodate expansion without additional land. It is currently .31 acres in size. A land swap with the adjacent Weldon property to the rear could provide sufficient land for expansion.
- The site is located within the Town Center Mixed Use Zoning District which allows government facilities.

Disadvantages: • There is insufficient room for other Town facilities to be added to the property.

#### Site C, Public Works Site:

Advantages:

The Public Works site currently accommodates the Public Works garage, several outbuildings and sheds to house trucks, grader and other equipment. The site also has the Town's waste transfer station.

- The site is 27 acres in size and includes the landfill.
- There is available land for expansion of the garage as recommended.
- The site is located within the Town Center Mixed Use Zoning District which allows government facilities.

Disadvantages: • The site is removed from the Town Center and would not be suitable for other Town facilities.

#### Site D, Town Field:

Advantages: • The Town Field site provides recreational fields for baseball, soccer and other activities, including a playground.

The site is a considerable area with

21 acres, but this includes wetlands on the rear third of the property.

• The site is located within the Town

Center Mixed Use Zoning District which allows government facilities.

Disadvantages: • There is not sufficient land available for locating other Town facilities on the site without impacting the recreational uses.

• The site is accessed via Smitty's Way, so the exposure and visibility on

Main Street is non-existent.

#### Site E, Town Forest:

Advantages: • The Town Forest site consists of 21 acres located across Route 11 on

Stockbridge Corner Road, which is a

suitable size.

Disadvantages: • The site is also the Town Forest with use restrictions in place that would

likely have to go through probate.
The property is well removed from

the Town Center which would disperse facilities and have a negative impact on the Town Center character.

• The site currently has an active gravel pit.

• The site is not located within the Town Center Mixed Use Zoning District and does not permit government facilities.

#### Site F, Swett Property:

Advantages: • The Swett property is directly adjacent to the Town Hall site on Main Street. This allows for

expansion of the Town Center.

• The Swett property is 2.5 acres in size, and with its inclusion would provide a total of 4 acres at the Town Hall site.

The site is located within the Town

Center Mixed Use Zoning District which allows government facilities.

Disadvantages: • This is a privately owned property and would require the Town to purchase it from the Owner. The Owner has indicated that they do not wish to sell.

• 4 acres may work for expanding the Town facilities at the Town Hall site, but will likely require some compromises.







#### Site G, Brown Property:

Advantages:

The Brown property is the next property on Main Street after the Swett property, one property down from the Town Hall site. This property would certainly be within the Town Center core.

• The Brown property is 10.5 acres in size, although it does include wetlands on the rear third of the property. This would provide



sufficient land to accommodate a Public Safety building.

- Town facilities on this site, even though not directly adjacent to the Town Hall, would have good exposure to the Town Center.
- The site is located within the Town Center Mixed Use Zoning District which allows government facilities.

Disadvantages: •

- This is a privately owned property and would require the Town to purchase it from the Owner.
- Town facilities on this site would have a residence between the Town Hall and this location.

#### Site H, Lux Property:

Advantages:

- The Lux property is 27 acres in size, although there are wetlands running through the middle of the site.
- The site is mostly located within the Town Center Mixed Use Zoning District which allows government facilities.
- Disadvantages: This is a privately owned property and would require the Town to
  - and would require the Town to purchase it from the Owner.
  - The Lux property is located on Old Bay Road, approximately 1/2 mile from the Town Hall site. It is not visible from the Town Center.
  - The location of the wetlands would limit the location of a facility close to the road and limit the practicality of the site.

#### Site I, Hempel Property:

Advantages:

- The Hempel property is fairly close to the Town Center, although it is behind properties on Old Bay Road.
- The Hempel property is 34.27 acres in size which would certainly provide sufficient capacity for Town Facilities.



- The site is mostly located within the Town Center Mixed Use Zoning District which allows government facilities.
- Disadvantages: This is a privately owned property and would require the Town to purchase it from the Owner.
  - There are wetlands on over one third of the property, located on the Town Center side. This limits access and visibility from the Town Center; access would be required on Brackett Road or through another private property on Old Bay Road.
  - The location of the wetlands would limit the location of a facility close to the road and limit the practicality of the site.

### Site J, 50 Main Street Town Property:

- Advantages: The 50 Main Street property is located on Main Street next to the Merry meeting River and the dam. It is owned by the Town.
  - The site is located within the Town Center Mixed Use Zoning District which allows government facilities.



- Disadvantages: This property is only 1.03 acres in size and would not accommodate the proposed Town Facilities.
  - There is also a flooding concern with the adjacent Merrymeeting river.

#### Site K, Tash Road Town Property:

- Advantages: The Tash Road property is located adjacent to Public Works directly to the South. It is owned by the Town.
  - The site is located within the Town Center Mixed Use Zoning District which allows government facilities.
  - It is a large parcel of almost 25 acres.
- Disadvantages: This property is almost entirely classified as wetlands and significant wetlands, including a pond and stream connecting to the Ela River.
  - There is not sufficient land area not classified as wetlands to build on.



## Site L, Browne, San-Dee Property:

Advantages: • The Browne Tash Road property is within the Town Center Mixed Use Zoning District which allows government facilities.

• It is a large parcel of 6.7 acres that is approximately 60% wetlands. There is a 2.8 acre area of useable land.



Site Options - 5 AG Architects 19-761.0 4 September 2020

- Disadvantages: This is a privately owned property and would require the Town to purchase it from the Owner.
  - The Browne property is located on Tash Road, approximately 1 mile from the Town Hall site. It is not visible from the Town Center.
  - This property could accommodate the police station or possibly a Public Safety facility, but there would not be much land for future expansion.

#### Site M, Fish and Game Club Property:

#### Advantages:

- The Fish and Game Club site is located within the Town Center Mixed Use Zoning District which allows government facilities.
- It is a large parcel of approximately 10.7 acres with only a minor amount of land designated as wetland, running parallel to the stream from Club Pond. The property could accommodate a Public Safety facility while still having land available for future expansion.



#### Disadvantages: •

- This is a privately owned property and would require the Town to purchase it from the Owner.
- The Fish and Game Club property is located on Old Bay Road, approximately 3/4 mile from the Town Hall site. It is not visible from the Town Center.
- The site is directly across Tash Road from Club Pond and the active Fish and Game Club.

#### Site N, Randall Property:

#### Advantages:

- The site is located within the Town Center Mixed Use Zoning District which allows government facilities.
- The Randall property is a large parcel consisting of 34 acres, although 2/3 of the property is classified as wetlands. There is an area of 7.4 acres that could be used with access directly to Tash



Road, and an additional 4 acres that are useable along Old Bay Road.

- Access would be available to both Tash Road and Old Bay Road.
- Disadvantages: This is a privately owned property and would require the Town to purchase it from the Owner.
  - The Randall property is located on both Tash Road and Old Bay Road, approximately 1 mile from the Town Hall site. It is not visible from the Town Center.

#### Site O, Veisel and Troendle Property:

Advantages:

- The Veisel and Troendle property is located on the Westside of Route 11 between Route 11 and Valley Road.
- The property consist of 18.7 acres, with a small area of wetlands at the Southeast corner.
  - The site is located within the Town Center Mixed Use Zoning District which allows government facilities.



Disadvantages: •

- This is a privately owned property and would require the Town to purchase it from the Owner. It is currently on the market for sale.
- The site is approximately 1.3 miles from the Town Hall site. It is not visible from the Town Center.
- The site is farther away from the populated area around Merrymeeting Lake.
- Access is currently from Valley Road. Access directly onto Route 11 would required State approval.
- The site has been used for logging operations and will require restoration.

Based on the evaluations of the possible sites A-O considered above for expanding or locating Town facilities, it is recommended that Site Design Concept Options be prepared for the Town Hall Site (A), the Swett Property (F) and/or the Brown Property (G). The Library Site (B) with a land swap is suitable for expanding the Library, and the Public Works Site (C) is suitable for expanding the Public Works Garage. The other sites are not recommended because of their noted disadvantages.

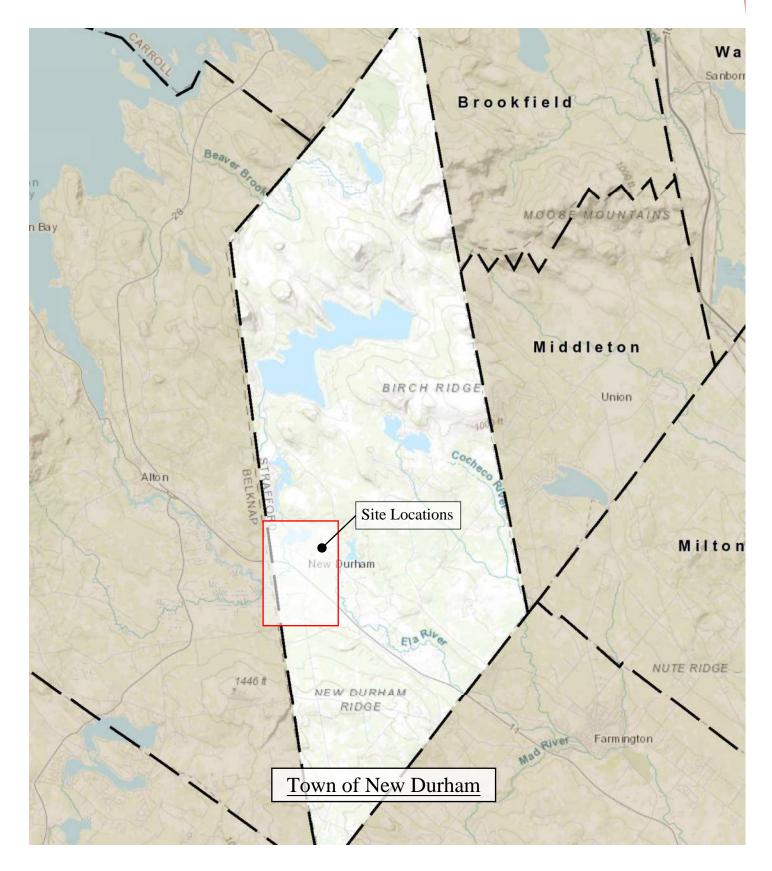
#### **Recommendations for Site Design Concepts:**

The following recommended Site Design Concept Options are proposed for further analysis and design:

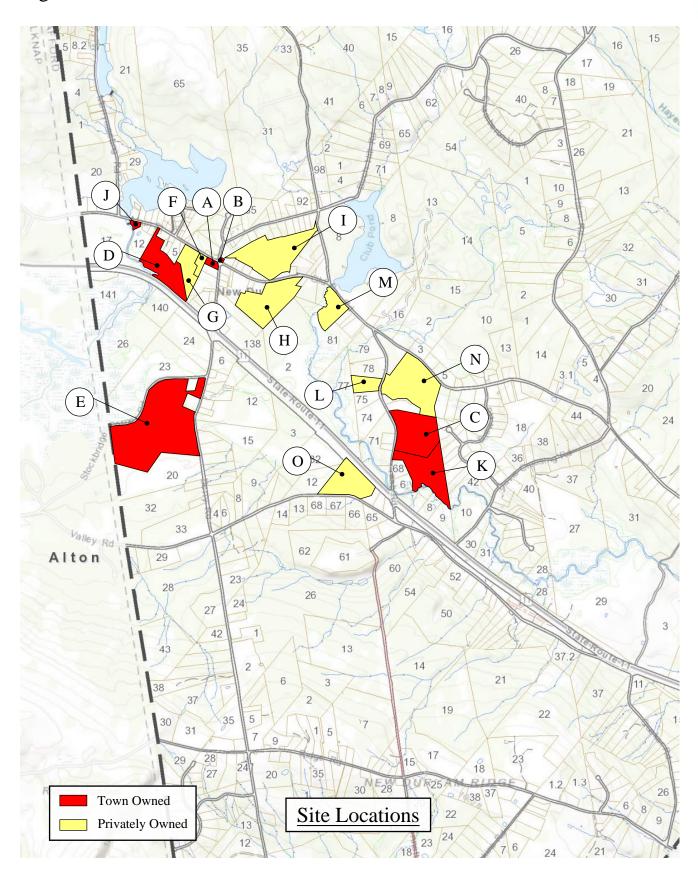
- 1. **Options A1, A2:** Evaluate the existing Town Hall Site (A) to determine if expansion of the Town Hall, Police Station and Fire Station on the site is feasible.
- 2. **Option B1:** Utilize the Town Hall Site (A) for the Town Hall and Police Station expansion, and locate a new Fire Station on the Swett Property (F). Note that the Owner has indicated that they do not wish to sell the property.
- 3. **Option B2:** Utilize the Town Hall Site (A) for the Town Hall and Police Station expansion, and locate a new Fire Station on the Brown Property (G).
- 4. **Option C:** Utilize the Town Hall Site (A) for the Town Hall expansion into the Police Station, and determine if locating the Fire Station and Police Station in a combined Public Safety facility on the adjacent Swett Property (F) is feasible. Note that the Owner has indicated that they do not wish to sell the property.

- 5. **Option D1:** Utilize the Town Hall Site (A) for the Town Hall expansion into the Police Station, and locate the Fire Station and Police Station in a combined Public Safety facility on the entire Brown Property (G).
- 6. **Options D2, D3, D4:** Utilize the Town Hall Site (A) for the Town Hall expansion into the Police Station, and Subdivide the Brown Property (G) to create one parcel including the existing house and garage, and a second parcel on which to locate the Fire Station and Police Station in a combined Public Safety facility.

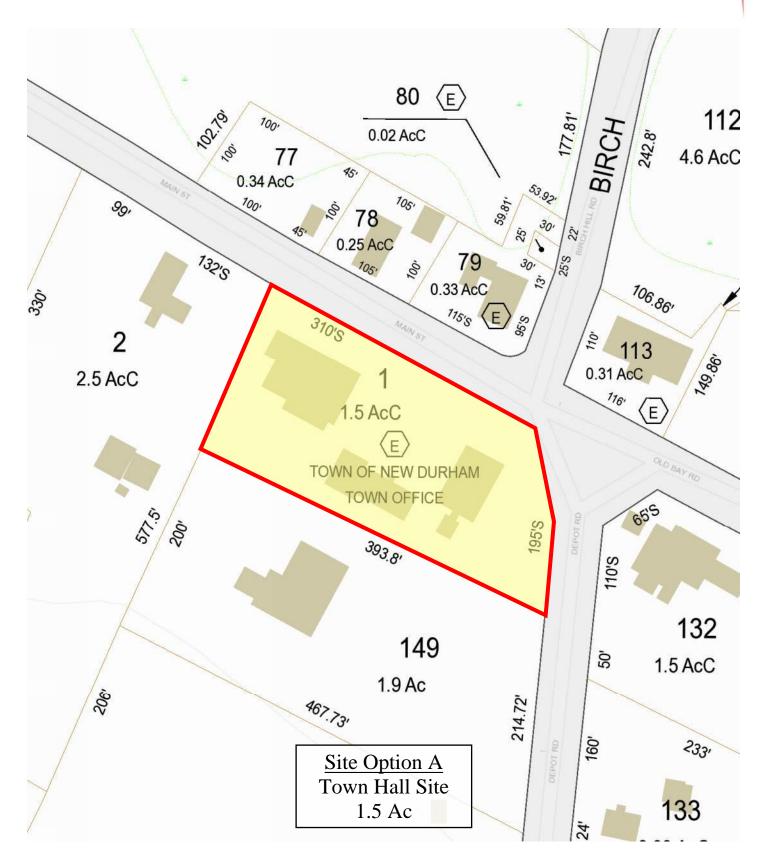




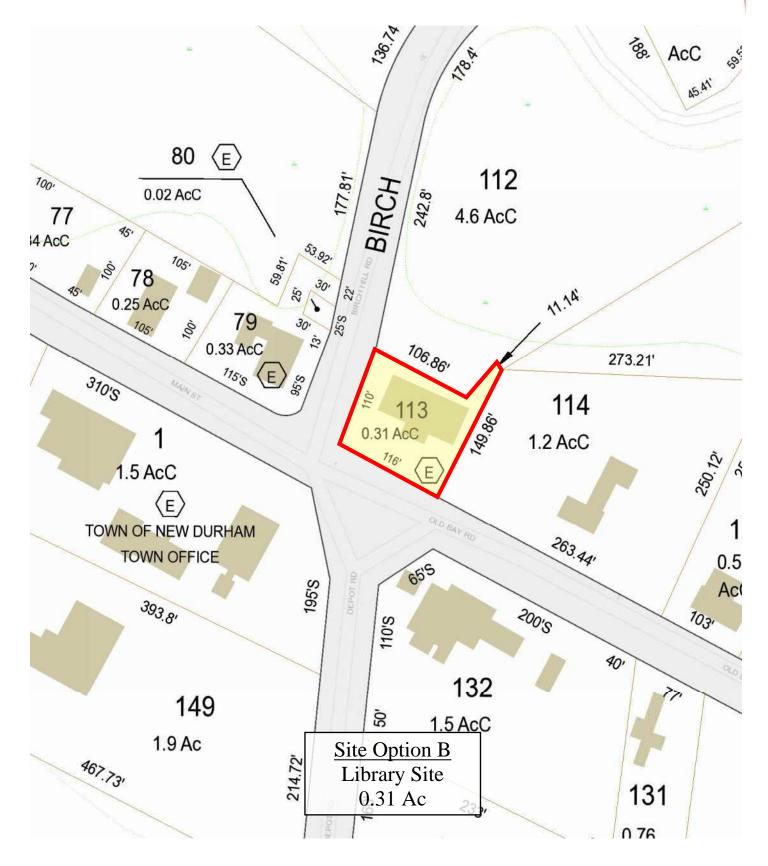




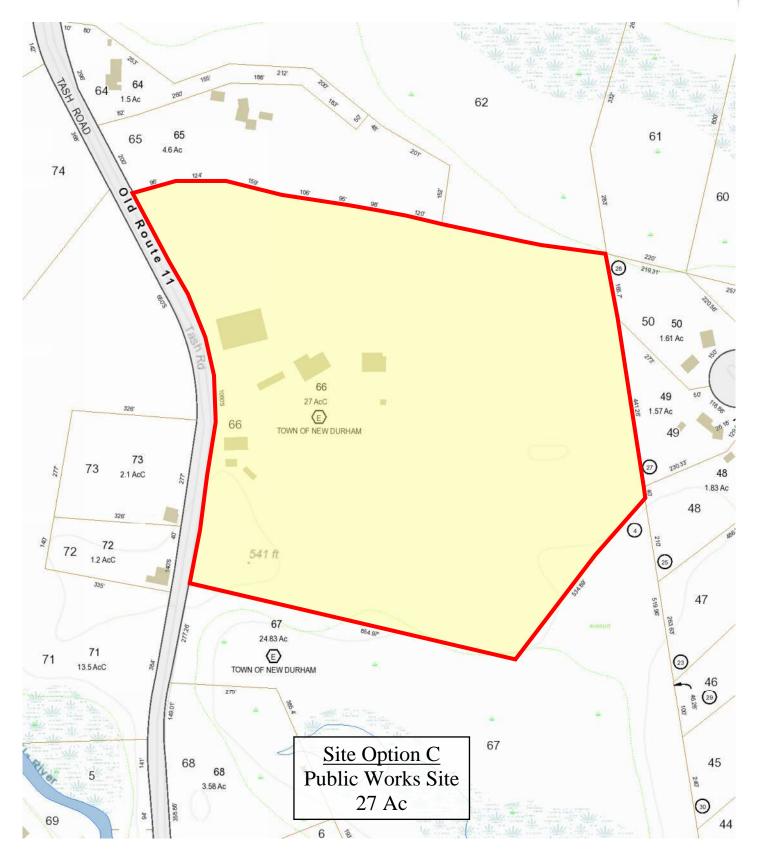




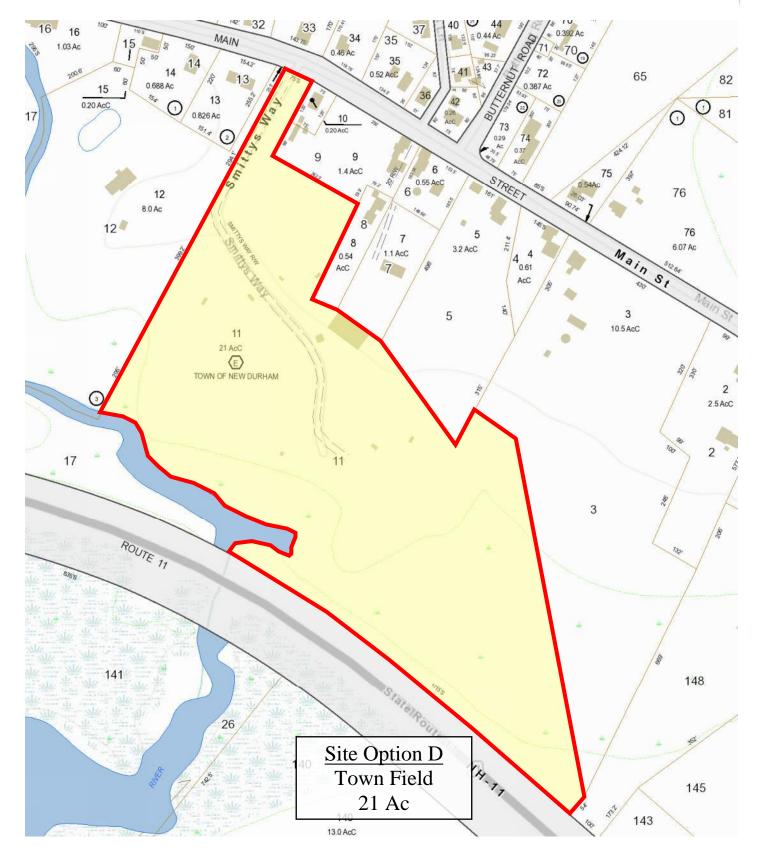




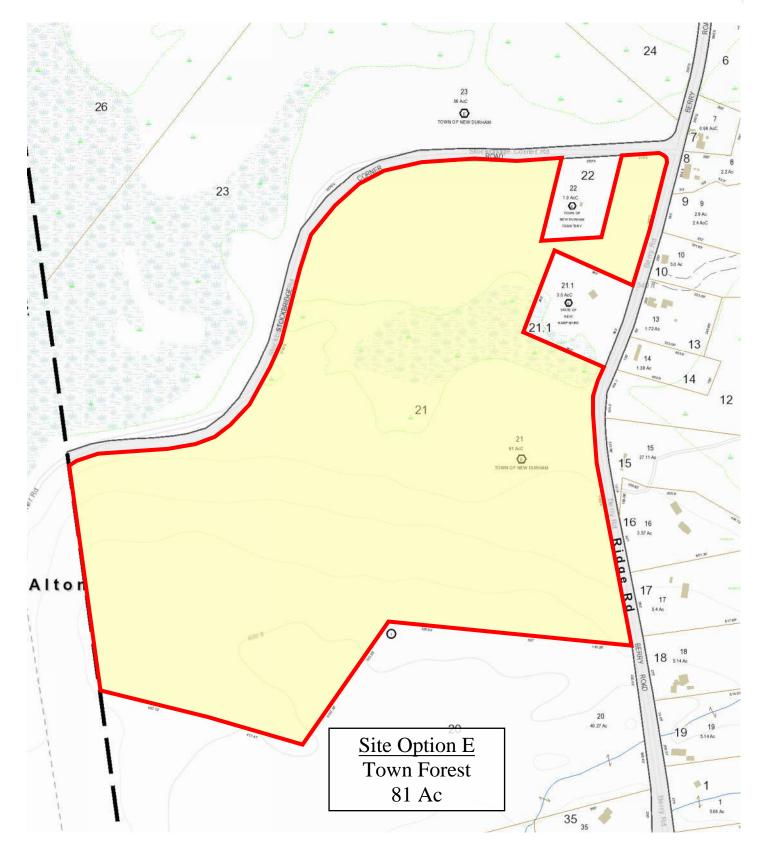




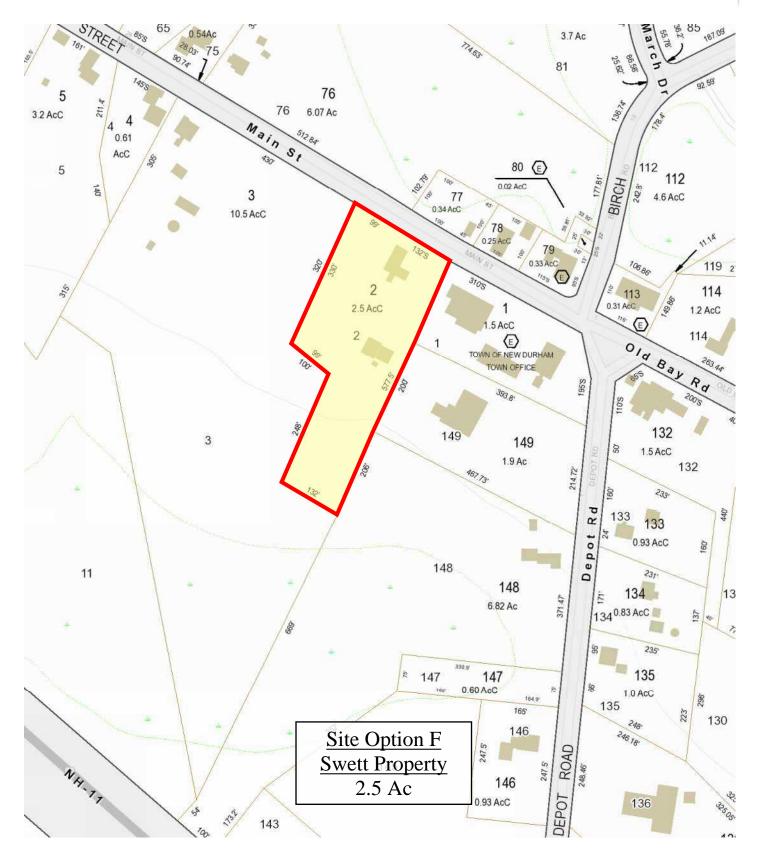




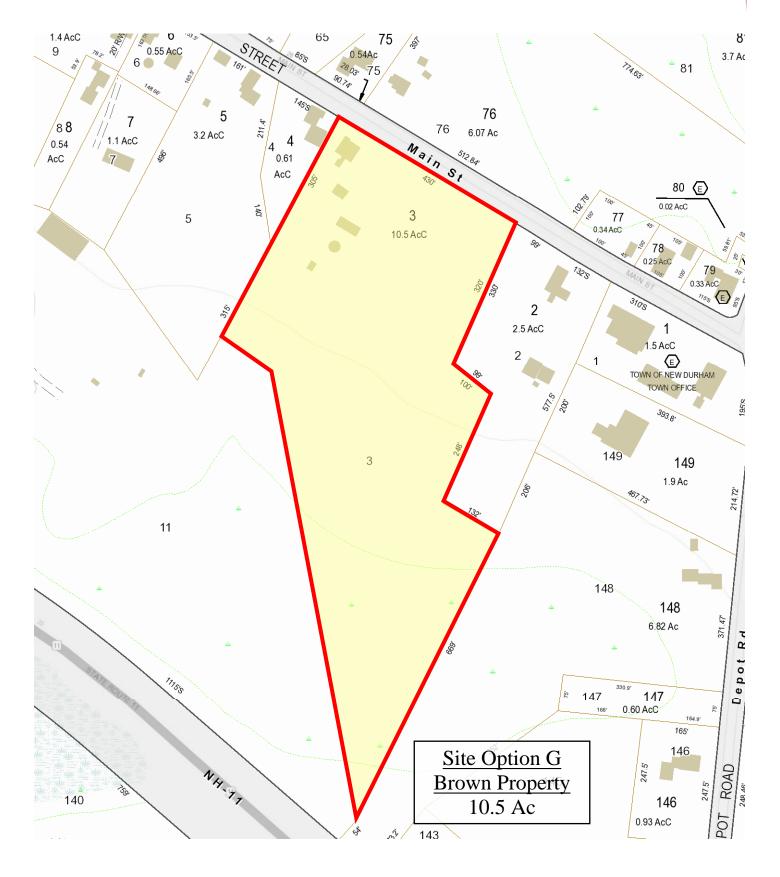




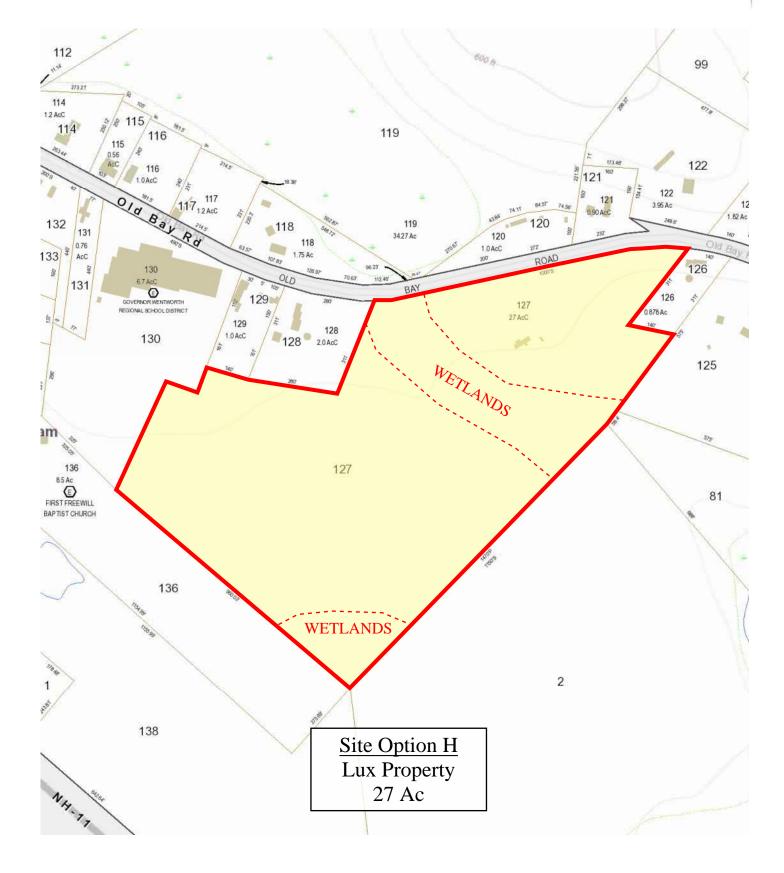




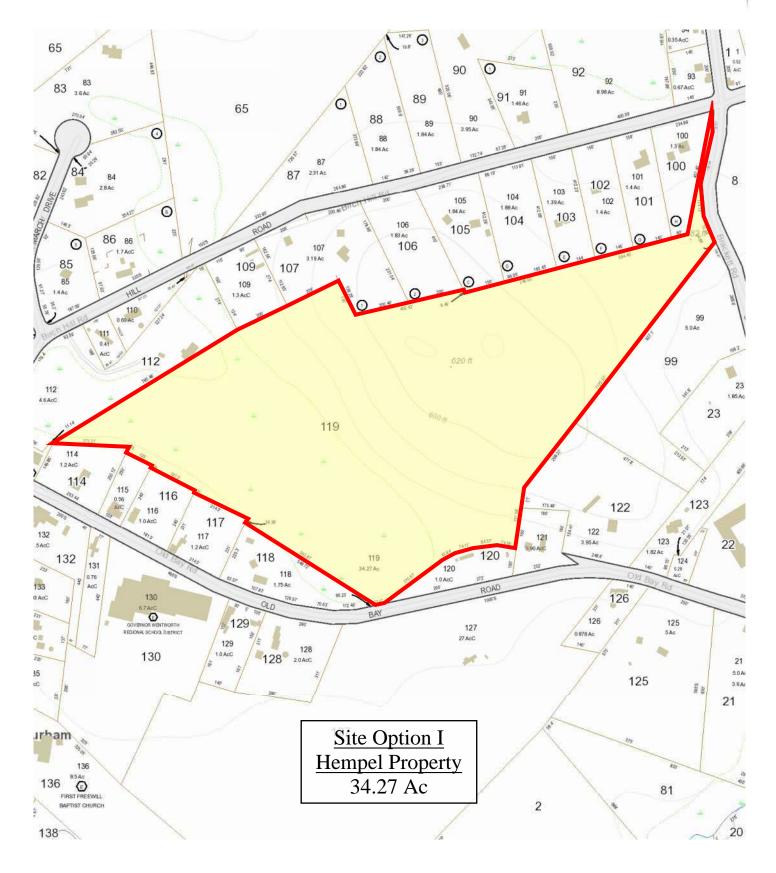






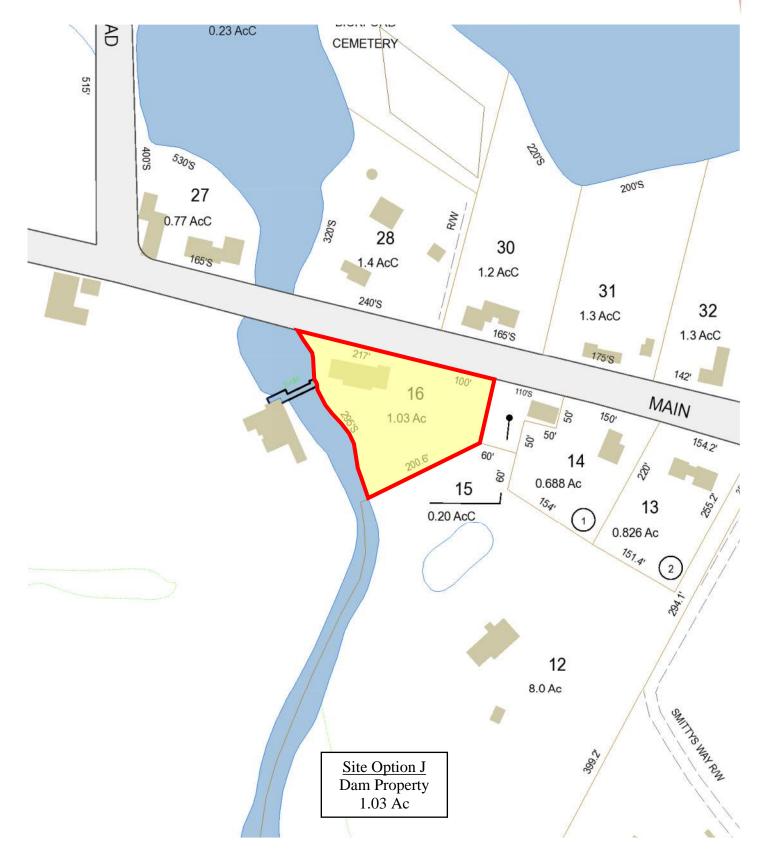


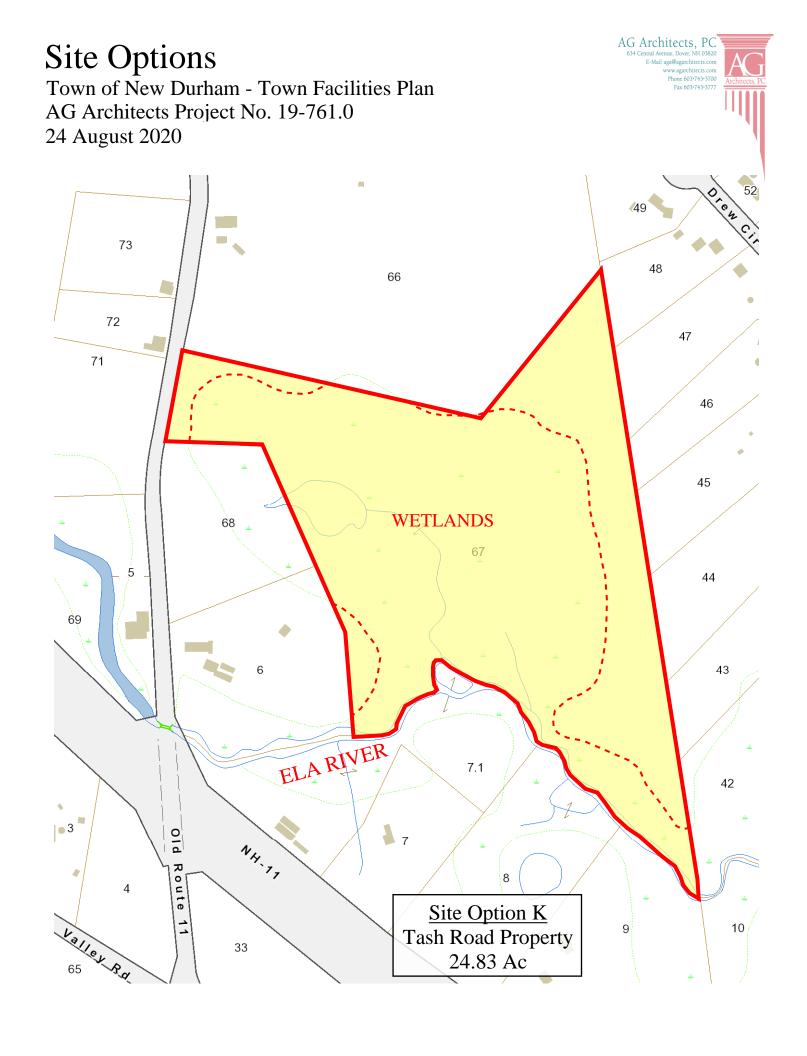




Town of New Durham - Town Facilities Plan AG Architects Project No. 19-761.0 26 June 2020

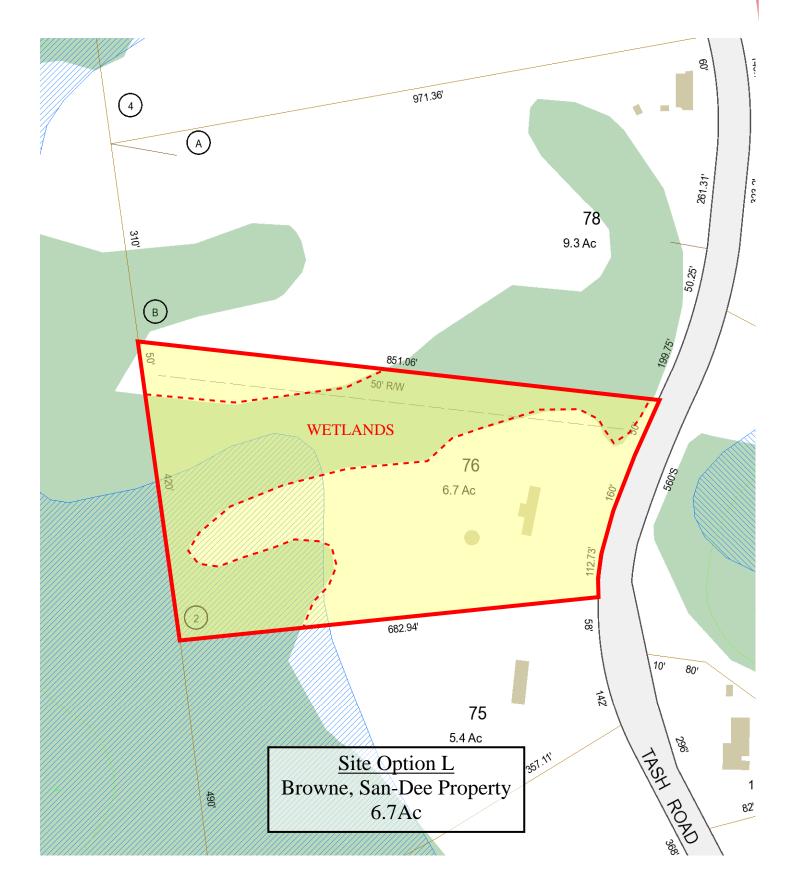






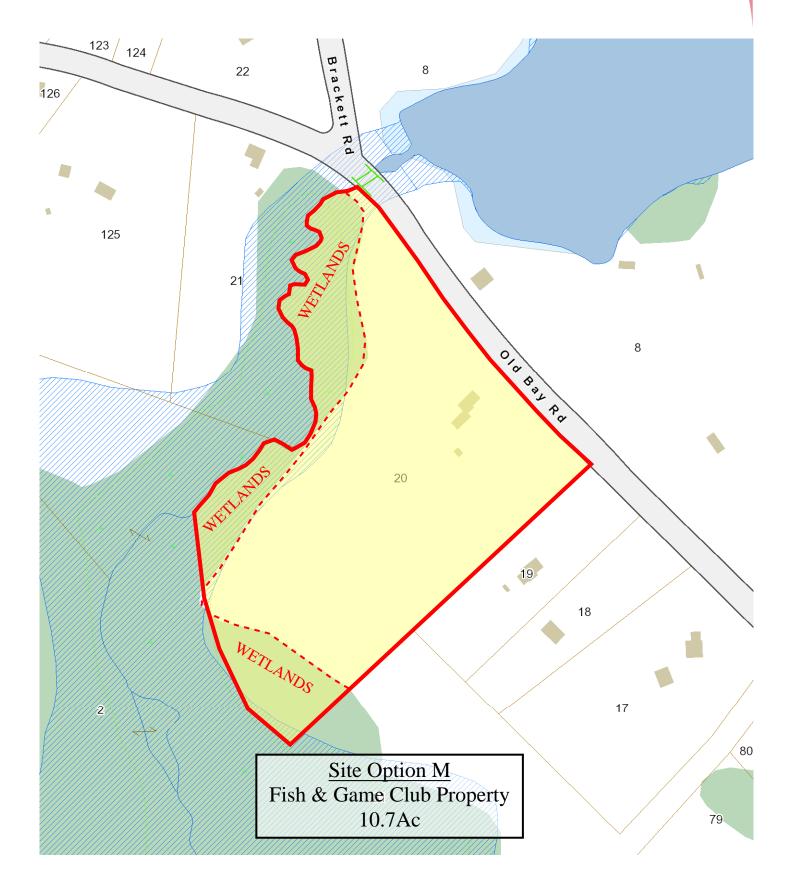
Town of New Durham - Town Facilities Plan AG Architects Project No. 19-761.0 31 August 2020





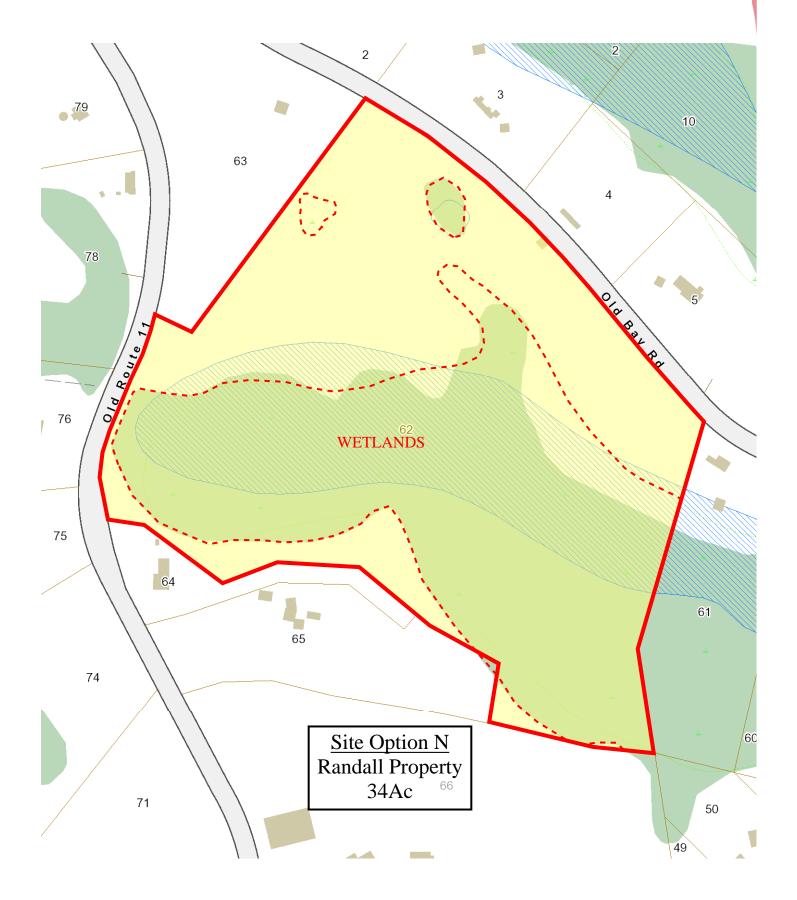
Town of New Durham - Town Facilities Plan AG Architects Project No. 19-761.0 31 August 2020





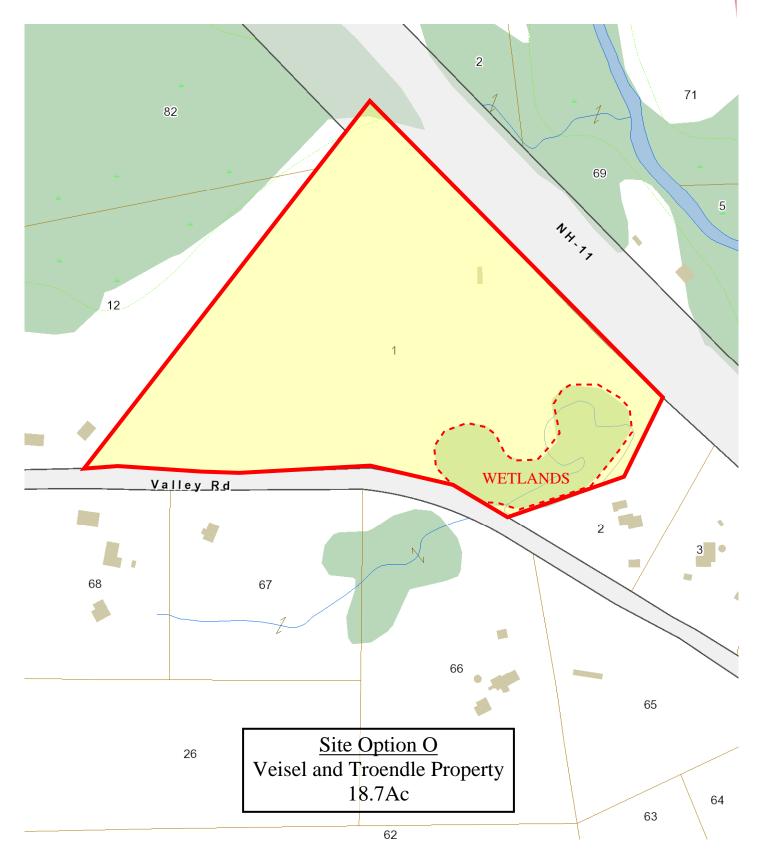
Town of New Durham - Town Facilities Plan AG Architects Project No. 19-761.0 31 August 2020





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### **Site Design Concepts Overview**

The previous section Site Options for Town Facilities identified nine options (A-1 through D-4), plus separate expansion of the Library and Public Works Garage, to consider for solving facility needs for the Town. The nine options look at variations for using the existing Town Hall site, purchase and use of the adjacent Swett property (note that the Owner has indicated that they do not wish to sell the property), or purchase and use of the nearby Brown property. The following Site Design Concept Options explore expansion of facilities, construction of new facilities and either maintaining the Police Station and Fire Station as separate facilities or combining the Police Station and Fire Station into a Public Safety Complex.

A site design concept for each option is presented, and a summary outlines relative costs, possible phasing and advantages and disadvantages for each option. These options were presented to the Committee working on the Town Facilities Plan for their input. Following this, a comparison matrix was then developed to compare the Site Design Concept Options in a reasonably objective manner. A series of Evaluation Criteria were identified and given Importance Values. For instance, one Evaluation Criteria was Item10) Availability of Parking; based on input from the Committee this was given an average Importance Value of 8.5. Once all the Evaluation Criteria had been given a value, each Site Design Concept Option A-1 through D-4 was then rated by the Committee members by assigning a rating for each Site Design Concept Option for all the Evaluation Criteria. The average ratings for each Option are multiplied by the Importance Value to reach a weighted score. The Comparison Matrix Summary (Page E-25) identifies the average rating for each Option and provides a total score.

The rankings shown in the Comparison Matrix Summary indicate that Options D1 (784.56), D-4 (780.94) and B-2 (779.81) are very close in score. All three Options utilize the Brown property.

The Committee reviewed the results of the Comparison Matrix Summary, and in a subsequent discussion made recommendations as noted in the following Summary.

Town of New Durham - Town Facilities Plan AG Architects Project No. 19-761.0 5 October 2020





## **Site Design Concept Option A1**

### **Town of New Durham - Town Facilities Plan**

AG Architects Project No. 19-761.0 20 November 2020

**Site Design Concept Option A1:** Town Hall Site, Expand /Renovate Town Hall 2-Stories and New Public Facilities Complex 2-Stories

**Zoning:** 

Zone: Town Center Mixed Use District

#### **Relative Costs:**

Town Hall Cost

Demolition Police Station/Fire Station/TH Records Site Cost \$ 35,000 - \$45,000 \$ 45,000 - \$50,000

Septic System  $(40' \times 50') =$ 

Well =

Parking Lot 28 Spaces (\$3.10- \$3.85/SF) (8,640 SF) = Driveway Fire/Police Station (\$3.10- \$3.85/SF) (6,325 SF) =

Sidewalks (\$5.50 - \$6.50/SF) (1,600 SF) =

General Sitework =

New Construction (5,500 SF) (\$225 - 275/SF) =

Elevator 3-Stop =

Renovation First Floor (2,417 SF) (\$125 - \$150/SF)= Renovation Great Hall (2,417 SF) (\$130 - 155/SF) =

Subtotal

**Buildings** 

**Subtotal** 

**Subtotal** 

New Construction (23,492 SF) (\$300 - \$350/SF) = Public Safety Complex Cost

Elevator 2-Stop =

**Subtotal** 

Library Cost New Construction (3,166 SF) (\$250 - \$275/SF)

**Public Works Cost** Expand Six Bays + Office (5,825 SF) (\$40 - \$50/SF)

Contingency, 5%

Design Fees, 7% + 2% Site Engineering

\$791,500 - \$870,650

<u>\$233,000 - \$ 291,250</u>

\$ 10,000 - \$15,000

\$ 26,784 - \$33,264

\$19,608 - \$24,351

\$ 8,800 - \$10,400

\$ 325,000 - \$400,000

\$470,192 - \$578,015

\$ 95,000 - \$110,000

\$ 302,125 - \$362,550

<u>\$ 314,210 - \$374,635</u>

\$ 1,948,835 - \$2,359,685

\$ 7,047,600 - \$8,222,200

\$ 7,137,600 - \$8,327,200

\$ 90,000 - \$105,000

\$ 1,237,500 - \$1,512,500

\$10,581,127 - \$12,426,800

<u>\$ 529,056 - \$ 621,340</u>

\$11,110,183 - \$13,048,140 \$ 999, 916 - \$1,174,333

**Total** \$ 12,110,099 - \$14,222,473

#### **Phasing\*:**

1**A** Remove Town Hall Records Room

1B Expand Town Hall with new construction to rear, 2-stories

1C Renovate Town Hall first floor offices and second floor Great Hall

Construct new bays at Public Works

3A Temporarily relocate Police and Fire Departments, utilize Public Works

3B Demolish and remove existing Police Station and Fire Station

3C Install new parking with septic system below; install new well

3D Construct new Public Safety Complex

Expand Library with new construction/renovation 4

Phasing sequence can be modified

#### **Advantages/Disadvantages:**

#### <u>Pro</u>

- Maintains buildings at Town Center
- No additional land purchase required

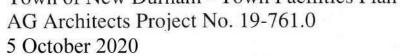
#### Con

- Site will be extremely crowded; buildings and parking fill available land; no room for future expansion
- Parking is inadequate for facilities; parking lot has a dead end
- Public Safety garage access requires vehicles to back in from street; apron at street is very wide
- Public Safety complex has to be 2 stories to fit, requires elevator
- Sequence of work will be disruptive to ongoing operations



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Town of New Durham - Town Facilities Plan





AG Architects, PC

## **Site Design Concept Option A2**

#### Town of New Durham - Town Facilities Plan

AG Architects Project No. 19-761.0 20 November 2020

Site Design Concept Option A2: Town Hall Site, Expand / Renovate Town Hall

2-Stories and New Public Facilities Complex 2-Stories

**Zoning:** 

Zone: Town Center Mixed Use District

#### **Relative Costs:**

Town Hall Cost

Site Cost Demolition Police Station/Fire Station/TH Records \$ 35,000 - \$45,000

Septic System  $(40' \times 50') =$ 

Well =

Parking Lot 28 Spaces (\$3.10- \$3.85/SF) (8,640 SF) = Driveway Fire/Police Station (\$3.10- \$3.85/SF) (7,100 SF) =

Sidewalks (\$5.50 - \$6.50/SF) (1,600 SF) =

General Sitework =

Subtotal

New Construction (5,500 SF) (\$225 - 275/SF) = \$1,237,500 - \$1,512,500

\$ 45,000 - \$50,000

\$ 10,000 - \$15,000

\$ 26,784 - \$33,264

\$22,010 - \$27,335

\$ 8,800 - \$10,400

\$ 325,000 - \$400,000

\$472,594 - \$580,999

\$ 95,000 - \$110,000

\$ 302,125 - \$362,550

<u>\$ 314,210 - \$374,635</u>

\$ 90,000 - \$105,000

\$ 1,948,835 - \$2,359,685

Elevator 3-Stop =

Renovation First Floor (2,417 SF) (\$125 - \$150/SF)= Renovation Great Hall (2,417 SF) (\$130 - 155/SF) =

Subtotal

Public Safety Complex Cost New Construction (23,492 SF) (\$300 - \$350/SF) = \$7,047,600 - \$8,222,200

Elevator 2-Stop =

**Subtotal** \$7,137,600 - \$8,327,200

Library Cost New Construction (3,166 SF) (\$250 - \$275/SF) \$791,500 - \$870,650

Public Works Cost Expand Six Bays + Office (5,825 SF) (\$40 - \$50/SF) \$233,000 - \$291,250

Buildings \$10,583,529 - \$12,429,784

Contingency, 5% \$\frac{\\$529,176 - \\$621,489}{\\$11,112,705 - \\$13,051,273}\$

Design Fees, 7% + 2% Site Engineering

\$\frac{\\$1,000,143 - \\$1,174,615}{\\$12,112,848 - \\$14,225,888}\$

### Phasing\*:

1A Remove Town Hall Records Room

1B Expand Town Hall with new construction to rear, 2-stories

1C Renovate Town Hall first floor offices and second floor Great Hall

2 Construct new bays at Public Works

3A Temporarily relocate Police and Fire Departments, utilize Public Works

3B Demolish and remove existing Police Station and Fire Station

3C Install new parking with septic system below; install new well

3D Construct new Public Safety Complex

4 Expand Library with new construction/renovation

\* Phasing sequence can be modified

#### Advantages/Disadvantages:

#### **Pro**

- Maintains buildings at Town Center
- No additional land purchase required
- Public Safety complex has a dedicated driveway

#### Con

- Site will be extremely crowded; buildings and parking fill available land; no room for future expansion
- Parking is inadequate for facilities; parking lot has a dead end
- Public Safety garage access requires vehicles to back in from driveway apron
- Public Safety complex has to be 2 stories to fit, requires elevator
- Sequence of work will be disruptive to ongoing operations



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**Site Options** AG Architects, PC
634 Central Avenue, Dover, NH 03820
E-Mail aga@agarchitects.com Town of New Durham - Town Facilities Plan AG Architects Project No. 19-761.0 5 October 2020 TOWN HALL W/SECOND FLOOR GREAT ADDITION ITSTORY EXISTINGI LEACH TOWN HALL
ADDITION
2-STORY 12,73554 POLICE STATION FIRE FIELP? COMMUNITY 1-STORY 5,345 = SF ROOM STATION Z-STORY 3,500=SF 15' SETBACK 16,500=SF Option B1 Town Hall Site & Swett Property, APP. 1.5Ac + 2.5AcBAYS \* Town Hall, Police Station, Fire Station & **Community Room** 1" = 50' 100

### **Site Design Concept Option B1**

#### Town of New Durham - Town Facilities Plan

AG Architects Project No. 19-761.0 20 November 2020

**Site Design Concept Option B1:** Town Hall Site/Purchase Adjacent Swett Property,

New Fire Station 2-Stories with Community Center,

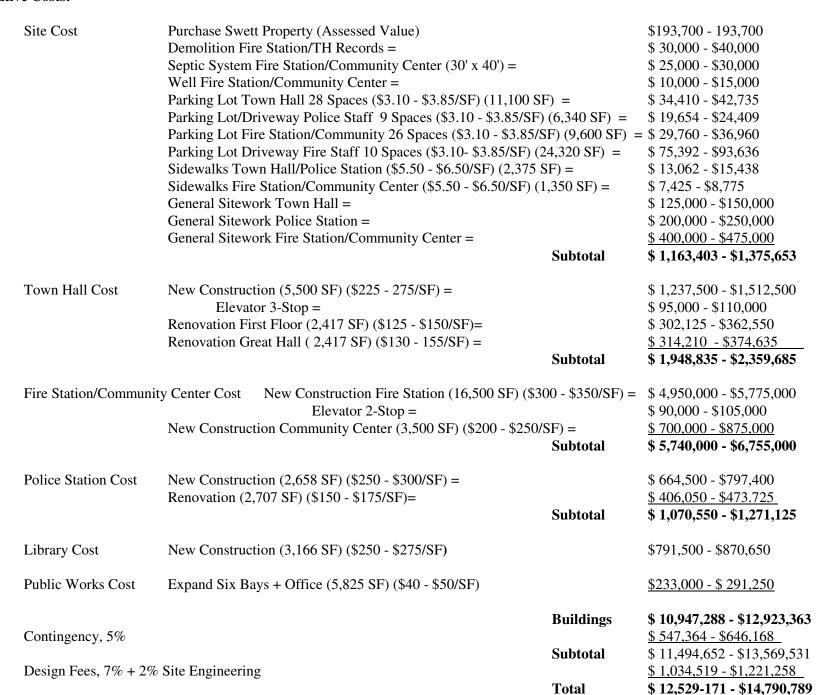
Expand/Renovate Police Station 1-Story, and Expand/Renovat

Town Hall 2-Stories

#### **Zoning:**

Zone: Town Center Mixed Use District

#### **Relative Costs:**



#### Phasing\*:

- 1 Purchase Swett Property
- 2 Build New Fire Station/Community Center with Public and Staff Parking
- 3A Demolish and Remove Existing Fire Station/Community Center
- 3B Expand and Renovate Police Station with Staff Parking
- 3C Reconfigure Town Hall and Police Station Public Parking
- 4 Construct new bays at Public Works
- 5 Expand Library with new construction/renovation
- 6A Remove Town Hall Records Room
- 6B Expand Town Hall with new construction to rear, 2-stories
- 6C Renovate Town Hall first floor offices and second floor Great Hall
- \* Phasing sequence can be modified

#### Advantages/Disadvantages:

#### Pro

- Maintains buildings at Town Center
- Fire Station has a dedicated driveway for fire vehicles
- Fire Station has dedicated staff parking
- Police Station has a dedicated driveway for police vehicles
- Police Station has dedicated staff parking
- There are 28 public parking spaces at Town Hall/Police Station, and 26 public parking spaces at Fire Station/Community Center
- Fire station has drive through bays for fire vehicles
- Work sequence minimizes disruption for Fire Department

#### **Con**

 Adjacent Swett property has to be purchased; Owner is currently not interested in selling; would remove property from tax rolls

AG Architects, PC
634 Central Avenue, Dover, NH 03820
E-Mail aga@agarchitects.com
www.agarchitects.com

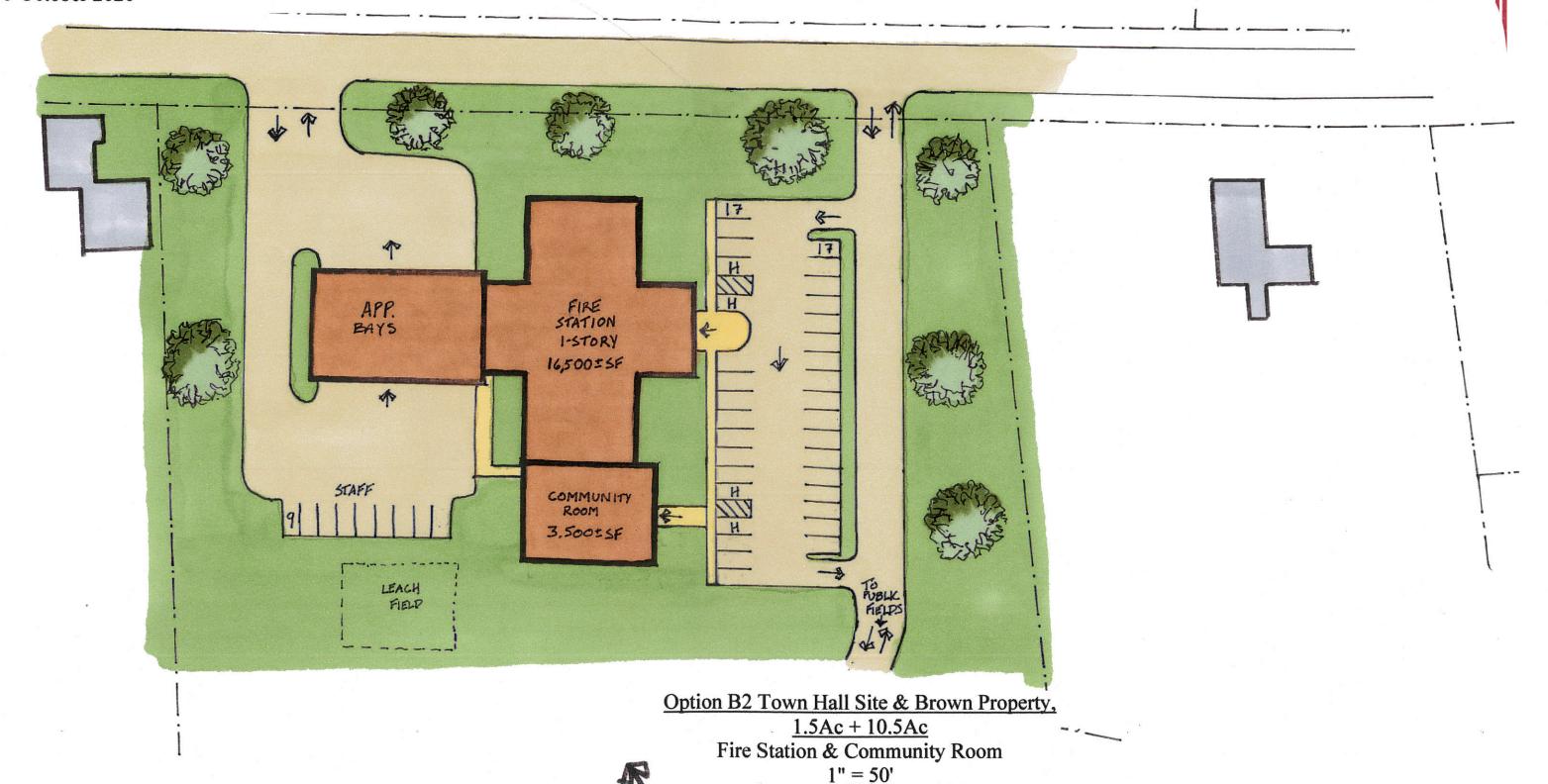
Phone 603•743•3700 Fax 603•743•3777

- Fire Station is 2 stories to fit site, requires elevator
- Combined site is approximately 4 acres; there is not much land remaining for future expansion
- Numerous Town driveways are very close together along Main Street, which is a safety concern
- There is disruption during renovation for Police Station and Town Hall

**Site Options** AG Architects, PC Town of New Durham - Town Facilities Plan AG Architects Project No. 19-761.0 5 October 2020 TOWN HALL WISECOND FLOOR GREAT HALL ADDITION 1-STORY GARAGE! EXISTING , POLICE STATION I-STORY ADDITION MELD? ! 2-STORY 12,735+5F 5,365:5F 15' SETBACK Option B2 Town Hall Site & Brown Property, 1.5Ac + 10.5AcTown Hall & Police Station 1" = 50' 100 <u>5</u>0

Town of New Durham - Town Facilities Plan AG Architects Project No. 19-761.0 5 October 2020





100

### **Site Design Concept Option B2**

#### **Town of New Durham - Town Facilities Plan**

AG Architects Project No. 19-761.0 20 November 2020

#### **Site Design Concept Option B2:**

Town Hall Site/Purchase Brown Property, New Fire Station 1-Story with Community Center, Expand/Renovate Police Station 1-Story, and Expand/Renovate Town Hall 2-Stories

#### **Zoning:**

**Relative Costs:** 

Zone: Town Center Mixed Use District





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Site Cost	Purchase Brown Property (Assessed Value) Demolition Fire Station/TH Records = Septic System Fire Station/Community Center (30' x 40') = Well Fire Station/Community Center = Parking Lot Town Hall 28 Spaces (\$3.10 - \$3.85/SF) (11,100 SF) Parking Lot/Driveway Police Staff 9 Spaces (\$3.10 - \$3.85/SF) Parking Lot Fire Station/Community 34 Spaces (\$3.10 - \$3.85/SF) Parking Lot Driveway Fire Staff 9-10 Spaces (\$3.10 - \$3.85/SF) Sidewalks Town Hall/Police Station (\$5.50 - \$6.50/SF) (2,375 S) Sidewalks Fire Station/Community Center (\$5.50 - \$6.50/SF) (2 General Sitework Town Hall =	(6,340 SF) = F) (18,720 SF) = (20,420 SF) = F) =	\$154,600 - 154,600 \$30,000 - \$40,000 \$25,000 - \$30,000 \$10,000 - \$15,000 \$34,410 - \$42,735 \$19,654 - \$24,409 =\$58,032 - \$72,072 \$63,302 - \$78,617 \$13,062 - \$15,438 \$11,963 - \$14,138 \$125,000 - \$150,000
	General Sitework Police Station =		\$ 200,000 - \$250,000
	General Sitework Fire Station/Community Center =	~	\$ 400,000 - \$475,000
		Subtotal	\$ 1,145,023 - \$1,362,009
Town Hall Cost	New Construction (5,500 SF) (\$225 - 275/SF) = Elevator 3-Stop = Renovation First Floor (2,417 SF) (\$125 - \$150/SF)= Renovation Great Hall (2,417 SF) (\$130 - 155/SF) =	Subtotal	\$ 1,237,500 - \$1,512,500 \$ 95,000 - \$110,000 \$ 302,125 - \$362,550 \$ 314,210 - \$374,635 \$ 1,948,835 - \$2,359,685
Fire Station/Community	y Center Cost New Construction Fire Station (16,500 SF) (\$30 New Construction Community Center (3,500 SF) (\$200 - \$250/S		\$ 4,950,000 - \$5,775,000 \$ 700,000 - \$875,000 \$ 5,650,000 - \$6,650,000
Police Station Cost	New Construction (2,658 SF) (\$250 - \$300/SF) = Renovation (2,707 SF) (\$150 - \$175/SF)=	Subtotal	\$ 664,500 - \$797,400 <u>\$ 406,050 - \$473.725</u> <b>\$ 1,070,550 - \$1,271,125</b>
Library Cost	New Construction (3,166 SF) (\$250 - \$275/SF)		\$791,500 - \$870,650
Public Works Cost	Expand Six Bays + Office (5,825 SF) (\$40 - \$50/SF)		\$233,000 - \$ 291,250
Contingency, 5%		Buildings	<b>\$ 10,838,908 - \$12,804,719</b> <b>\$</b> 541,945 - \$640,236
		Subtotal	\$ 11,380,853 - \$13,444,955

#### Phasing\*:

1

2	Build New Fire Station/Community Center with Public and Staff
	Parking
3A	Demolish and Remove Existing Fire Station/Community Center

- 3B Expand and Renovate Police Station with Staff Parking
- Reconfigure Town Hall and Police Station Public Parking 3C
- Phasing sequence can be modified

Design Fees, 7% + 2% Site Engineering

Purchase Brown Property

#### Advantages/Disadvantages:

- Maintains buildings at Town Center
- Combined site is approximately 12 acres; significant land remains for future expansion or other Town facilities
- The Brown property is connected to the Town fields; the Community Center road can be extended to the fields
- Fire Station is a 1-story facility; no elevator required
- Fire Station has a dedicated driveway for fire vehicles
- Fire Station has dedicated staff parking
- Police Station has a dedicated driveway for police vehicles
- Police Station has dedicated staff parking
- There are 28 public parking spaces at Town Hall/Police Station, and 34 public parking spaces at Fire Station/Community Center
- Spacing of driveways on Main Street is reasonably safe
- Fire station has drive through bays for fire vehicles
- Work sequence minimizes disruption for Fire Department

### Con

**Total** 

Great Hall

4

6A

6B

Brown property has to be purchased; removes property from tax

Construct new bays at Public Works

Remove Town Hall Records Room

<u>\$ 1,024,277 - \$1,210,046</u>

Expand Library with new construction/renovation

Expand Town Hall with new construction to rear, 2-stories Renovate Town Hall first floor offices and second floor

\$ 12,405,130 - \$14,655,001

There is disruption during renovation for Police Station and Town Hall

**Site Options** AG Architects, PC Town of New Durham - Town Facilities Plan www.agarchitects.com Phone 603-743-3700 Fax 603-743-3777 AG Architects Project No. 19-761.0 5 October 2020 FIRE APP. BAYS TOWN HALL W SECOND FLOOR GREAT HALL 12,735±5F EXISTING COMMUNITY ROOM 1 EXISTING LEACH EXISTING POLICE STATION RENOVATED FOR TOWN HALL APPITION PUBLIC SAFETY COMPLEX 21,865±SF FIELD? 2-STORY 3,500:5F 如如 APPITION 2-STORY 1-STORY POLICE Option C Town Hall Site & Swett Property, 1.5Ac + 2.5AcTown Hall, Public Safety Complex & **Community Room** 1'' = 50'100

### **Site Design Concept Option C**

#### Town of New Durham - Town Facilities Plan

AG Architects Project No. 19-761.0

20 November 2020

**Site Design Concept Option C:** Town Hall Site/Purchase Adjacent Swett Property,

New Public Safety Complex 2-Stories, Expand Community Center, and Expand/Renovate Town Hall into Existing Police

Station

#### **Zoning:**

Zone: Town Center Mixed Use District

#### **Relative Costs:**

Site Cost Purchase Swett Property (Assessed Value) \$193,700 - 193,700 Demolition Fire Station/TH Records; Save Community Room = \$ 35,000 - \$45,000 Septic System Public Safety Complex (PSC) (40' x 50') = \$ 45,000 - \$50,000 Well Public Safety Complex = \$ 10,000 - \$15,000 Parking Lot Town Hall/Community 37 Spaces (\$3.10 - \$3.85/SF) (13,400 SF) = \$41,540 - \$51,590 Parking Lot/Driveway PSC Staff 17 Spaces (\$3.10 - \$3.85/SF) (23,520 SF) = \$ 72,912 - \$90,552 Sidewalks Town Hall/Community Center (\$5.50 - \$6.50/SF) (2,200 SF) = \$ 12,100 - \$14,300 Sidewalks Public Safety Complex (\$5.50 - \$6.50/SF) (1,300 SF) = \$ 7,150 - \$8,450 General Sitework Town Hall/Community Center = \$ 300,000 - \$350,000 General Sitework Public Safety Complex = \$ 425,000 - \$500,000 **Subtotal** \$ 1,142,402 - \$1,318,592 Town Hall Cost New Construction 2-Story (3,100 SF) (\$225 - 275/SF) = \$ 697,500 - \$852,500 \$ 95,000 - \$110,000 Elevator 3-Stop = Renovation Former Police Station (2,425 SF) (\$125 - \$150/SF)= \$ 303,125 - \$363,750 Renovation First Floor (2,417 SF) (\$125 - \$150/SF)= \$ 302,125 - \$362,550 Renovation Great Hall (2,417 SF) (\$130 - 155/SF) = <u>\$ 314,210 - \$374,635</u> **Subtotal** \$ 1,711,960 - \$2,063,435 New Construction (1,950 SF) (\$225 - \$250/SF) = \$ 438,750 - \$487,500 **Community Center Cost** Renovation Community Room (1,550 SF) (\$100 - \$125/SF) = \$ 155,000 - \$193,750 \$ 593,750 - \$681,250 Subtotal Public Safety Complex Cost New Construction (21,865SF) (\$300 - \$325/SF) = \$ 6,559,500 - \$7,106,125 Elevator 2-Stop = \$ 90,000 - \$110,000 **Subtotal** \$ 6,649,500 - \$7,216,125 Library Cost New Construction (3,166 SF) (\$250 - \$275/SF) \$791,500 - \$870,650 **Public Works Cost** Expand Six Bays + Office (5,825 SF) (\$40 - \$50/SF) \$233,000 - \$ 291,250 **Buildings** \$ 11,122,112 - \$12,441,302 Contingency, 5% \$ 556,106 - \$622,065 **Subtotal** \$ 11,678,218 - \$13,063,367

#### Phasing\*:

1	Purchase Swett Property	6A	Remove Town Hall Records Room
2	Build New Public Safety Complex with Staff Parking	6B	Expand Town Hall with new construction to rear, 2-stories
3A	Demolish/Remove Existing Fire Station; Save Community Room	6C	Renovate former Police Station for Town Offices
3B	Reconfigure Public Town Hall/Community Center Parking	6D	Renovate Town Hall first floor offices and second floor
4	Construct new bays at Public Works		Great Hall
5	Expand Library with new construction/renovation	7	Expand/renovate Community Center

### \* Phasing sequence can be modified

Advantages/Disadvantages:

Design Fees, 7% + 2% Site Engineering

#### Pro

- Maintains buildings at Town Center
- Creates a single facility, Public Safety Complex, for emergency fire and police services
- Public Safety Complex has a dedicated driveway for fire and police vehicles
- Public Safety Complex has dedicated staff parking with 17 spaces for Fire and Police Departments
- Driveway for emergency vehicles is a reasonable distance (250 feet) from public parking exit driveway
- Fire station has drive through bays for fire vehicles
- Work sequence minimizes disruption for Fire and Police Departments
- Retains existing Community Room

#### <u>Con</u>

**Total** 

Adjacent Swett property has to be purchased; Owner is currently not interested in selling; would remove property from tax rolls

\$ 1,051,040 - \$1,175,703

\$ 12,729,258 - \$14,239,070

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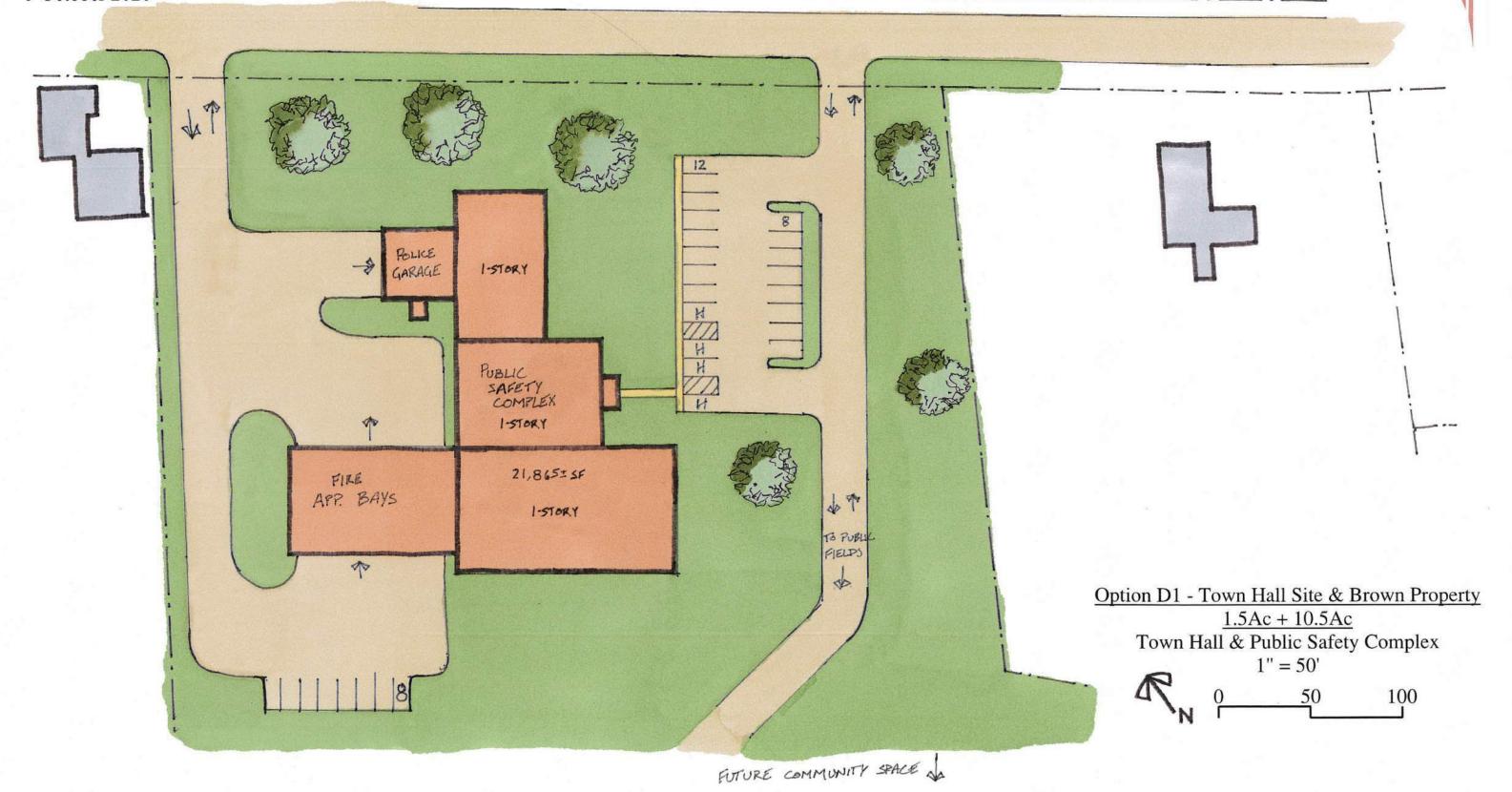
- Public Safety Complex is 2 stories to fit site; requires elevator
- Combined site is approximately 4 acres; there is not much land remaining for future expansion
- Public parking is shared for Town Hall, Community Center and Public Safety Complex, only 37 spaces total
- There is disruption during renovation for Town Hall and Community Center



AG Architects, PC
634 Central Avenue. Dover, NH 03820
E-Mail aga@agarchitects.com **Site Options** Town of New Durham - Town Facilities Plan AG Architects Project No. 19-761.0 5 October 2020 TOWN HALL WISECOND FLOOR GREAT HALL EXISTING 17,735+56 I EXISTING LEACH APPITION EXISTING POLICE STATION RENOVATED FIELD? COMMUNITY ROOM Z-STORY FOR TOWN HALL APPITION Option D Town Hall Site & Brown Property, 1.5Ac + 10.5AcTown Hall & Community Room 1" = 50' 100

Town of New Durham - Town Facilities Plan AG Architects Project No. 19-761.0 5 October 2020





## **Site Design Concept Option D1**

### Town of New Durham - Town Facilities Plan

AG Architects Project No. 19-761.0 20 November 2020

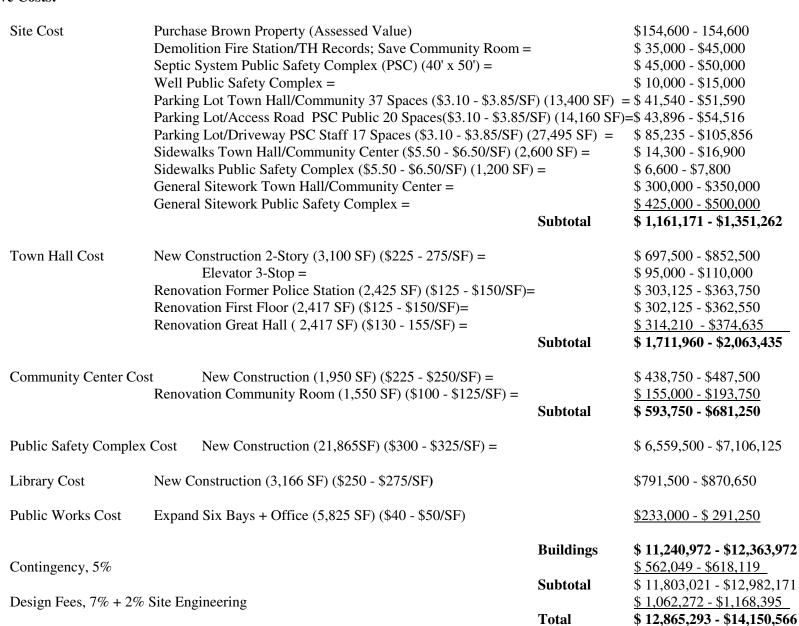
#### **Site Design Concept Option D1:**

Town Hall Site/Purchase Brown Property, New Public Safety Complex 1-Story, Expand Community Center, and Expand/Renovate Town Hall into Existing Police Station

#### **Zoning:**

Zone: Town Center Mixed Use District

#### **Relative Costs:**



#### Phasing\*:

5

1	Purchase Brown Property	6A	Remove Town Hall Records Room
2	Build New Public Safety Complex with Public and Staff Parking	6B	Expand Town Hall with new construction to rear, 2-stories
3A	Demolish/Remove Existing Fire Station; Save Community Room	6C	Renovate former Police Station for Town Offices
3B	Reconfigure Public Town Hall/Community Center Parking	6D	Renovate Town Hall first floor offices and second floor
4	Construct new bays at Public Works		Great Hall

Phasing sequence can be modified

#### Advantages/Disadvantages:

#### <u>Pro</u>

- Maintains buildings at Town Center
- Creates a single more efficient Public Safety Complex for emergency fire and police services

Expand Library with new construction/renovation

- Combined site is approximately 12 acres; significant land remains for future expansion or other Town facilities
- The Brown property is connected to the Town fields; the
- public access road can be extended to the fields Public Safety Complex 1-story facility; no elevator required
- Public Safety Complex has a dedicated driveway for fire and police vehicles
- Public Safety Complex has dedicated staff parking with up to 17 spaces for Fire and Police Departments
- Public Safety Complex has 20 public parking spaces with access separate from emergency and staff vehicles
- There are 37 public parking spaces shared between Town Hall and the Community Center
- Driveway for emergency vehicles is a reasonable distance (350 feet) from public access road
- Fire station has drive through bays for fire vehicles
- Work sequence minimizes disruption for Fire and Police **Departments**

#### Con

7

Brown property has to be purchased; removes property from tax

Expand/renovate Community Center

- 1-Story Public Safety Complex is a sprawling facility
- There is disruption during renovation for Town Hall and **Community Center**



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Site Options AG Architects, PC Town of New Durham - Town Facilities Plan AG Architects Project No. 19-761.0 5 October 2020 150 本物 京 FIRE APP. BAYS -7 -\$ 5-BAYS PARCEL 250-004 PARCEL 250-002 NEW SUB-DIVIDED LOT PUBLIC SAFETY COMPLEX 60,200 SF (1.38 Ac) - STAFF Z-STORY 21,865± SF 10 POLICE GARAGE Option D2 - Town Hall Site & Brown Property 1.5Ac + 10.5Ac如于 Town Hall & Public Safety Complex TO PUBLIC FIELDS 1'' = 50'100 \* FUTURE COMMUNITY SPACE 1301

### **Site Design Concept Option D2**

#### Town of New Durham - Town Facilities Plan

AG Architects Project No. 19-761.0 20 November 2020

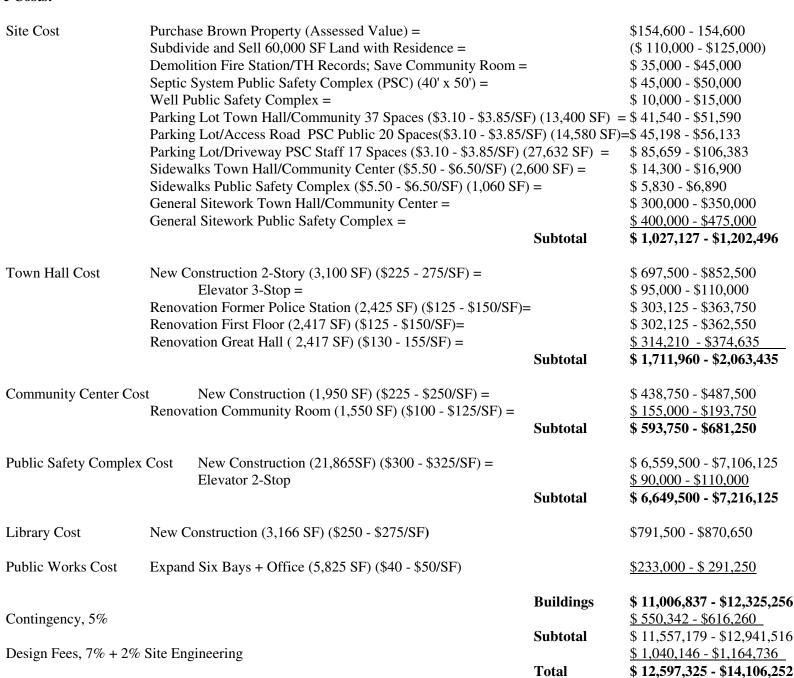
#### **Site Design Concept Option D2:**

Town Hall Site/Purchase Brown Property and Subdivide to Sell Residence, New Public Safety Complex 2-Stories, Expand/Renovate Town Hall in Existing Police Station, and Expand Community Center

#### **Zoning:**

Zone: Town Center Mixed Use District

#### **Relative Costs:**



#### Phasing\*:

1A 1B	Purchase Brown Property Subdivide property, sell residence	6A 6B	Remove Town Hall Records Room Expand Town Hall with new construction to rear, 2-stories
2	Build New Public Safety Complex with Public and Staff Parking	6C	Renovate former Police Station for Town Offices
3A	Demolish/Remove Existing Fire Station; Save Community Room	6D	Renovate Town Hall first floor offices and second floor
3B	Reconfigure Public Town Hall/Community Center Parking		Great Hall
4	Construct new bays at Public Works	7	Expand/renovate Community Center
5	Expand Library with new construction/renovation		

#### Advantages/Disadvantages:

#### Pro

Maintains buildings at Town Center

Phasing sequence can be modified

- Creates a single more efficient Public Safety Complex for emergency fire and police services
- Combined site is approximately 10.6 acres; significant land remains for future expansion or other Town facilities
- Subdivided property allows residence to be sold and kept on tax rolls
- The Brown property is connected to the Town fields; the public access road can be extended to the fields
- 2-Story Public Safety Complex is more compact and energy efficient
- Public Safety Complex has a dedicated driveway for fire and police vehicles
- Public Safety Complex has dedicated staff parking with up to 17 spaces for Fire and Police Departments

#### **Pro**

Public Safety Complex has 20 public parking spaces with access separate from emergency and staff vehicles

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www.agarchitects.com

Phone 603•743•3700 Fax 603•743•3777

- There are 37 public parking spaces shared between Town Hall and the Community Center
- Driveway for exiting emergency vehicles is a reasonable distance (225 feet) from public access road
- Fire and police have drive through bays for vehicles
- Work sequence minimizes disruption for Fire and Police Departments

#### **Con**

- Brown property has to be purchased
- Public Safety Complex is a 2-story facility; requires elevator
- There is disruption during renovation for Town Hall and Community Center

Site Options AG Architects, PC Town of New Durham - Town Facilities Plan AG Architects Project No. 19-761.0 5 October 2020 280 1501 本物 1 FIRE -\$ -> APP. BAYS 5-BAYS PARCEL 250-004 PARCEL 250-002 NEW SUB-DIVIDED LOT 60,200 SF (1.38Ac) PUBLIC. SAFETY COMPLEX 1-STORY STAFF 21,865± SF 1001 -Option D3 - Town Hall Site & Brown Property \* 1.5Ac + 10.5AcTown Hall & Public Safety Complex TA PUBLIC FIELDS POLICE GARAGE 1'' = 50'100 1301 FUTURE COMMUNITY SPACE OF

### **Site Design Concept Option D3**

#### Town of New Durham - Town Facilities Plan

AG Architects Project No. 19-761.0 20 November 2020

#### **Site Design Concept Option D3:**

Town Hall Site/Purchase Brown Property and Subdivide to Sell Residence, New Public Safety Complex 1-Story, Expand/Renovate Town Hall in Existing Police Station, and Expand Community Center

#### **Zoning:**

Zone: Town Center Mixed Use District

#### **Relative Costs:**

\$154,600 - 154,600 Site Cost Purchase Brown Property (Assessed Value) = (\$ 110,000 - \$125,000) Subdivide and Sell 60,000 SF Land with Residence = Demolition Fire Station/TH Records; Save Community Room = \$ 35,000 - \$45,000 Septic System Public Safety Complex (PSC) (40' x 50') = \$ 45,000 - \$50,000 Well Public Safety Complex = \$ 10,000 - \$15,000 Parking Lot Town Hall/Community 37 Spaces (\$3.10 - \$3.85/SF) (13,400 SF) = \$41,540 - \$51,590 Parking Lot/Access Road PSC Public 20 Spaces(\$3.10 - \$3.85/SF) (18,540 SF)=\$ 57,474 - \$71,379 Parking Lot/Driveway PSC Staff 17 Spaces (\$3.10 - \$3.85/SF) (31,304 SF) = \$ 97,042 - \$120,520 Sidewalks Town Hall/Community Center (\$5.50 - \$6.50/SF) (2,600 SF) = \$ 14,300 - \$16,900 Sidewalks Public Safety Complex (\$5.50 - \$6.50/SF) (1,475 SF) = \$ 8,113 - \$9,588 General Sitework Town Hall/Community Center = \$ 300,000 - \$350,000 \$ 425,000 - \$500,000 General Sitework Public Safety Complex = **Subtotal** \$ 1,078,069 - \$1,259,577 New Construction 2-Story (3,100 SF) (\$225 - 275/SF) = Town Hall Cost \$ 697,500 - \$852,500 Elevator 3-Stop = \$ 95,000 - \$110,000 \$ 303,125 - \$363,750 Renovation Former Police Station (2,425 SF) (\$125 - \$150/SF)= Renovation First Floor (2,417 SF) (\$125 - \$150/SF)= \$ 302,125 - \$362,550 Renovation Great Hall (2,417 SF) (\$130 - 155/SF) = \$ 314,210 - \$374,635 **Subtotal** \$ 1,711,960 - \$2,063,435 **Community Center Cost** New Construction (1,950 SF) (\$225 - \$250/SF) = \$ 438,750 - \$487,500 Renovation Community Room (1,550 SF) (\$100 - \$125/SF) = \$ 155,000 - \$193,750 \$ 593,750 - \$681,250 **Subtotal** Public Safety Complex Cost New Construction (21,865SF) (\$300 - \$325/SF) = \$ 6,559,500 - \$7,106,125 Library Cost New Construction (3,166 SF) (\$250 - \$275/SF) \$791,500 - \$870,650 Public Works Cost Expand Six Bays + Office (5,825 SF) (\$40 - \$50/SF) <u>\$233,000 - \$ 291,250</u> **Buildings** \$ 10,967,779 - \$12,272,287 Contingency, 5% <u>\$ 548,389 - \$613,614</u> **Subtotal** \$ 11,516,168 - \$12,885,901 Design Fees, 7% + 2% Site Engineering <u>\$ 1,036,455 - \$1,159,731</u> **Total** \$ 12,552,623 - \$14,045,632

#### Phasing\*:

1 <b>A</b>	Purchase Brown Property	6A	Remove Town Hall Records Room
1B	Subdivide property, sell residence	6B	Expand Town Hall with new construction to rear, 2-stories
2	Build New Public Safety Complex with Public and Staff Parking	6C	Renovate former Police Station for Town Offices
3A	Demolish/Remove Existing Fire Station; Save Community Room	6D	Renovate Town Hall first floor offices and second floor
3B	Reconfigure Public Town Hall/Community Center Parking		Great Hall
4	Construct new bays at Public Works	7	Expand/renovate Community Center
5	Expand Library with new construction/renovation		

#### **Advantages/Disadvantages:**

Maintains buildings at Town Center

Phasing sequence can be modified

- Creates a single more efficient Public Safety Complex for emergency fire and police services
- Combined site is approximately 10.6 acres; significant land remains for future expansion or other Town facilities
- Subdivided property allows residence to be sold and kept on tax rolls
- The Brown property is connected to the Town fields; the public access road can be extended to the fields
- Public Safety Complex is a 1-story facility; no elevator
- Public Safety Complex has a dedicated exit driveway for fire and police vehicles
- Public Safety Complex has dedicated staff parking with up to 17 spaces for Fire and Police Departments

### **Pro**

Public Safety Complex has 20 public parking spaces with access separate from emergency and staff vehicles

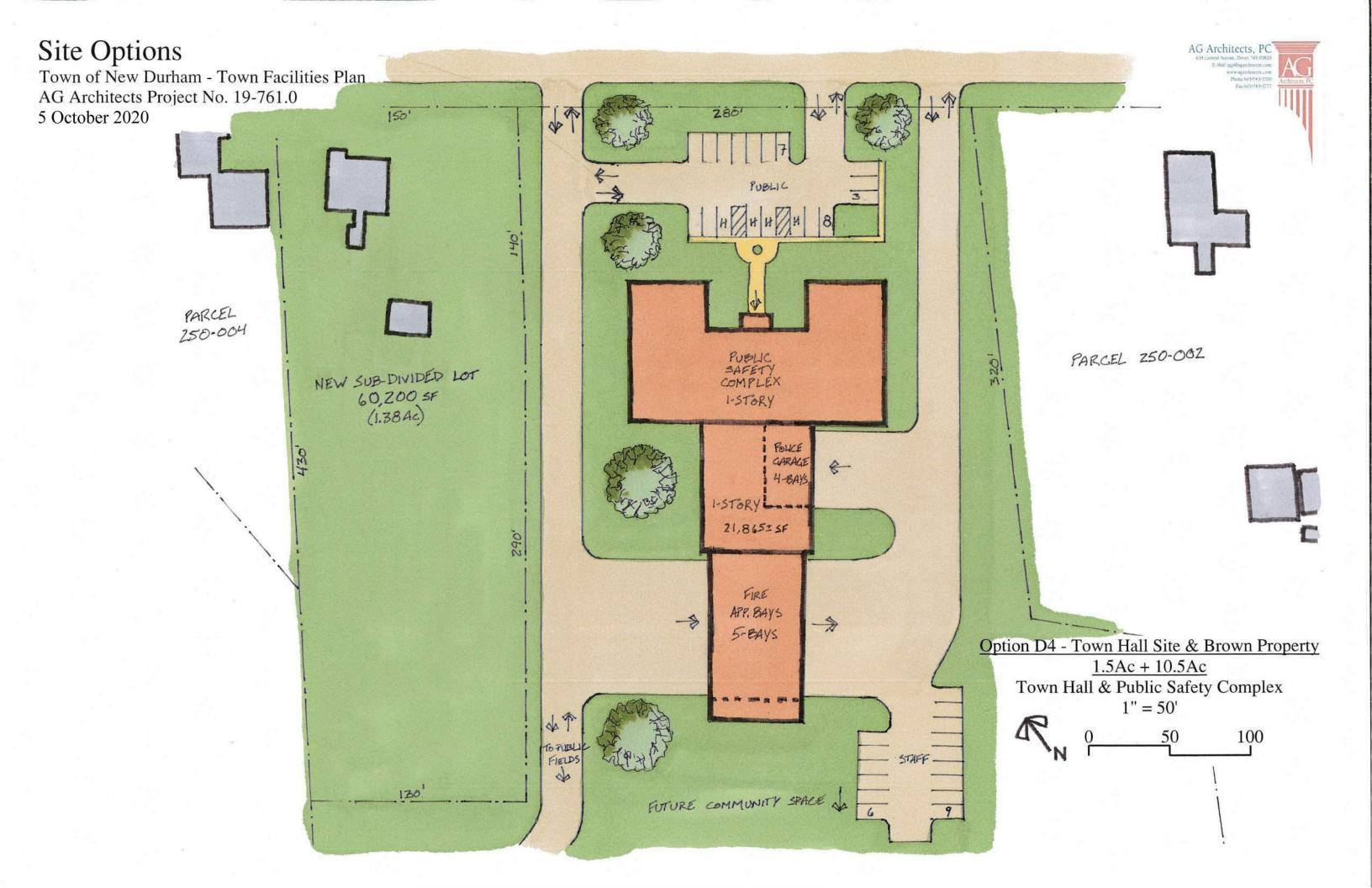
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- There are 37 public parking spaces shared between Town Hall and the Community Center
- Driveway for exiting emergency vehicles is a reasonable distance (225 feet) from public access road
- Fire and police have drive through bays for vehicles
- Work sequence minimizes disruption for Fire and Police Departments

#### Con

- Brown property has to be purchased
- 1-Story Public Safety Complex is a sprawling facility and less energy efficient
- 1-Story facility uses more of site, less land available for other uses
- There is disruption during renovation for Town Hall and Community Center



### **Site Design Concept Option D4**

#### Town of New Durham - Town Facilities Plan

AG Architects Project No. 19-761.0 20 November 2020

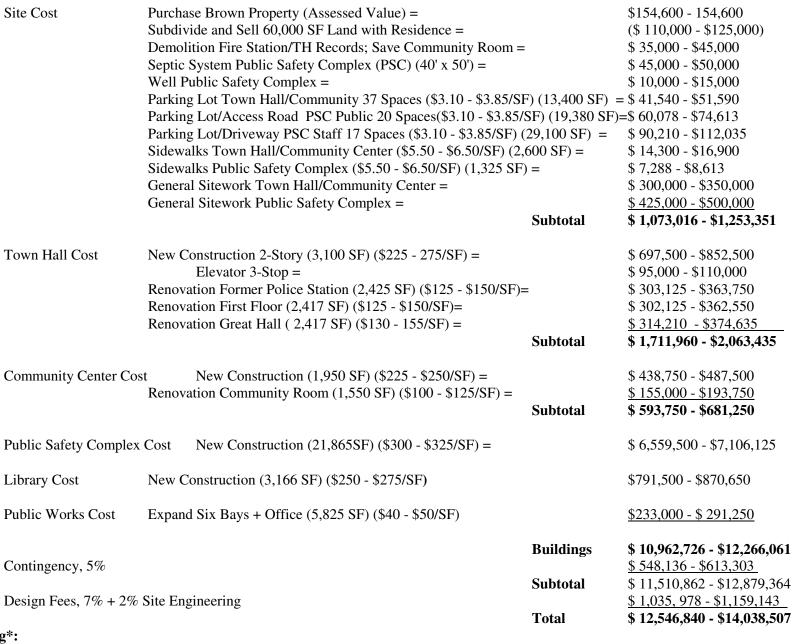
#### **Site Design Concept Option D4:**

Town Hall Site/Purchase Brown Property and Subdivide to Sell Residence, New Public Safety Complex 1-Story, Expand/Renovate Town Hall in Existing Police Station, and Expand Community Center

#### **Zoning:**

Zone: Town Center Mixed Use District

#### **Relative Costs:**



#### Phasing\*:

1A	Purchase Brown Property	6A	Remove Town Hall Records Room
1B	Subdivide property, sell residence	6B	Expand Town Hall with new construction to rear, 2-stories
2	Build New Public Safety Complex with Public and Staff Parking	6C	Renovate former Police Station for Town Offices
3A	Demolish/Remove Existing Fire Station; Save Community Room	6D	Renovate Town Hall first floor offices and second floor
3B	Reconfigure Public Town Hall/Community Center Parking		Great Hall
4	Construct new bays at Public Works	7	Expand/renovate Community Center
5	Expand Library with new construction/renovation		

#### Advantages/Disadvantages:

#### Pro

• Maintains buildings at Town Center

Phasing sequence can be modified

- Creates a single more efficient Public Safety Complex for emergency fire and police services
- Combined site is approximately 10.6 acres; significant land remains for future expansion or other Town facilities
- Subdivided property allows residence to be sold and kept on tax rolls
- The Brown property is connected to the Town fields; the public access road can be extended to the fields
- Public Safety Complex is a 1-story facility; no elevator required
- Public Safety Complex has a dedicated exit driveway for fire and police vehicles
- Public Safety Complex has dedicated staff parking with up to 17 spaces for Fire and Police Departments
- Public Safety Complex has up to 20 public parking spaces with access separate from emergency and staff vehicles

#### **Pro**

There are 37 public parking spaces shared between Town Hall and the Community Center

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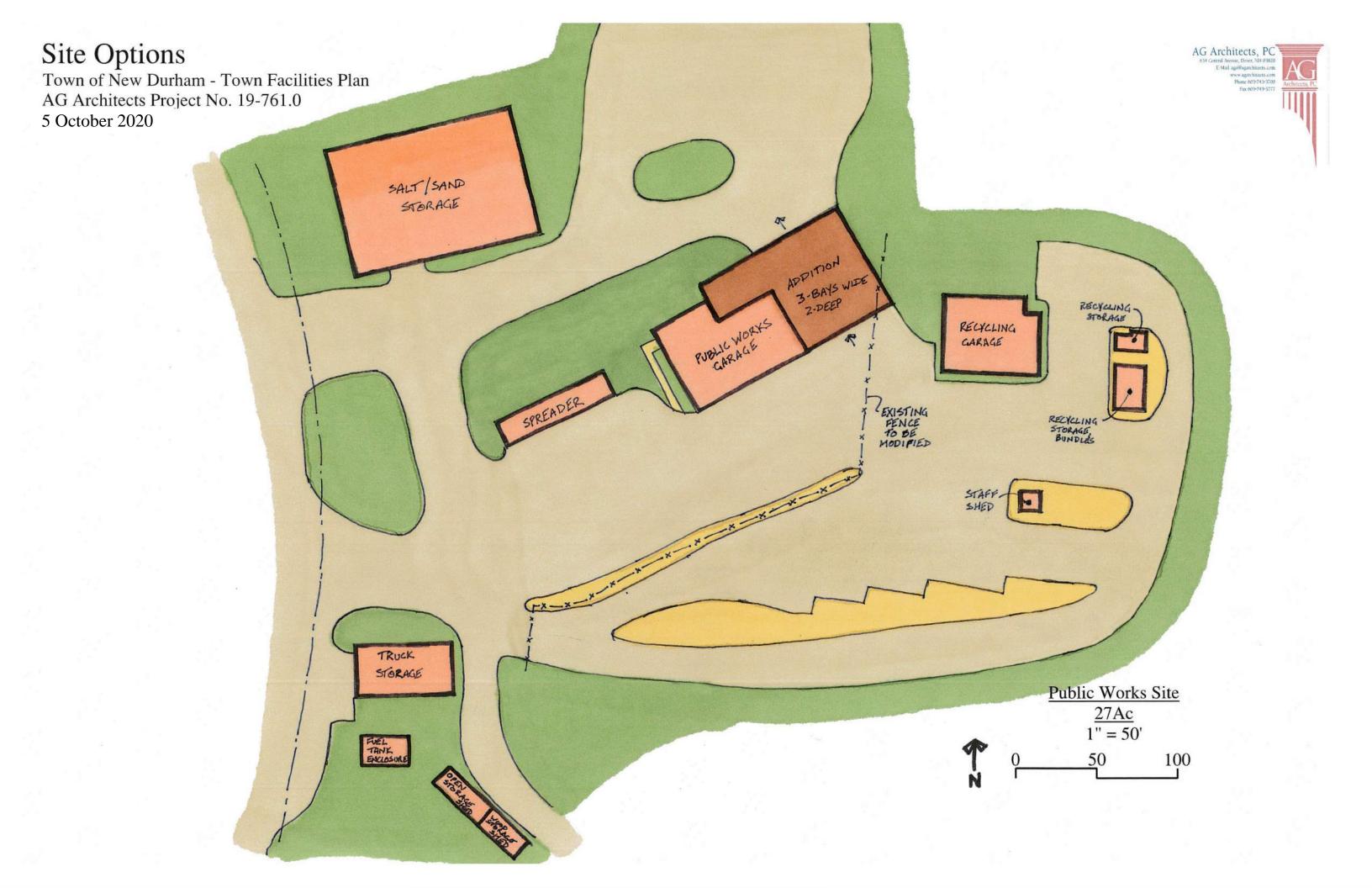
Phone 603•743•3700 Fax 603•743•3777

- Fire Department has drive through bays for fire vehicles
- Work sequence minimizes disruption for Fire and Police Departments
- Public Safety Complex front entry faces Main Street

#### Con

- Brown property has to be purchased
- 1-Story Public Safety Complex is a sprawling facility and less energy efficient
- 1-Story facility uses more of site, less land available for other uses
- Public Safety Complex public parking access drive is only 75 feet from emergency vehicle exit driveway
- There is disruption during renovation for Town Hall and Community Center





### **Town of New Durham**

**Town Facilities Plan** AG Architects Project No. 19-761.0

24 November 2020

#### **Comparison Matrix Summary Site Design Concept Options A1-D4**

















								To the state of th				print design and \$		fire water for					
		Optio	on A1	Optio	on A2	Opt	ion B1	Option B2 Option C		on C	Option D1		Option D2		Option D3		Option D4		
	oortance Value	.,		e Town Hall Site Expand/Renovate Town Hall New Public Safety Complex 2-Stories				New Fire Station 1-Story w/ Community Center Expand/Renovate Police Expand/Renovate Town Hall 2- Stories		Public Safety Complex 1-Story Expand Community Center Expand/Renovate Town Hall into Police Station		w Town Hall +Brown Property New Public Safety Complex 1-Story Expand Community Center to Expand/Renovate Town Hall into Police Station		Public Safety Complex 2- Stories Expan		Subdivide Property Nev Public Safety Complex 1-Stor Expand Community Center Expand/Renovate Town Hall in		1 2	
Evaluation Criteria	Imp	\$ L		\$ L		· ·	ledium		edium	\$ H		\$ H	-		edium		edium	'	edium
T .: 1D1 /0 .: . D1!	10.00	Rating	Sum	Rating	Sum	Rating	Sum	Rating	Sum	Rating	Sum	Rating	Sum	Rating	Sum	Rating	Sum	Rating	Sum
Functional Plan/Service to Public	10.00	3.00	30.00	3.00	30.00	3.75	37.50	4.25	42.50	4.00	40.00	4.25	42.50	4.50	45.00	4.25	42.50	4.75	47.50
Enhance Community Needs - Socializing	6.75	2.25	15.19	2.75	18.56	4.25	28.69	4.25	28.69	4.25	28.69	4.50	30.38	4.50	30.38	4.50	30.38	4.50	30.38
Enhance Community Needs - Meeting Space	8.50	2.50	21.25	2.50	21.25	4.25	36.13	4.25	36.13	4.25	36.13	4.50	38.25	4.25	36.13	4.25	36.13	4.25	36.13
Positive Town Image/Aesthetics	8.75	3.50 4.75	30.63 29.69	3.50 4.75	30.63	3.50 5.00	30.63	3.75 4.25	32.81	4.00 4.75	35.00 29.69	4.25 4.25	37.19 26.56	4.00 4.25	35.00	4.50 4.75	39.38	4.50 4.75	39.38
Perceived Part of Town Center	6.25			4.75	29.69		31.25		26.56	4.75					26.56	3.50	29.69		29.69
Creates a Town Campus	6.50	4.00	26.00		26.00	4.75	30.88	4.00	26.00		30.88	4.25 3.25	27.63	3.50	22.75		22.75	3.75	24.38
Preserves Historical Context	6.50	4.00	26.00	4.00	26.00	3.50	22.75	3.50	22.75	3.75	24.38		21.13	3.75	24.38	3.75	24.38	3.75	24.38
Ease of Access to/from Site	7.50	2.00	15.00	2.50	18.75	3.25		3.50	26.25	3.75	28.13	4.50		4.00	50.00	4.00	30.00	4.00	30.00
Accessibility of Building(s)	9.50	2.75	26.13	2.75	26.13	3.25	30.88	4.00	38.00	3.75	35.63	3.75	35.63 38.25	4.00	38.00	4.00 4.00	38.00	4.00	38.00
Availability of Parking	8.50	2.25	19.13	2.25	19.13	3.75	31.88	4.00	34.00	3.75	31.88	4.50		3.75	31.88		34.00	3.75	31.88
Wetland/Environmental Impacts	5.00	4.00	20.00	4.00	20.00	4.00	20.00	4.00	20.00	3.00	15.00	3.00	15.00	3.50	17.50	3.25	16.25	3.25	16.25
Zoning Impacts (Setbacks, Pervious Coverage)	5.50	3.25	17.88 25.50	3.25	17.88	4.00 3.25	22.00	4.00	22.00	3.00 4.00	16.50	3.00	16.50	3.50	19.25	3.25	17.88	3.00	16.50
Septic System Capacity	8.50	3.00		3.00	25.50	3.25	27.63	4.00	34.00 35.00		34.00 32.81	3.25	27.63 28.44	3.50 3.50	29.75 30.63	3.50	29.75 30.63	3.50	29.75 30.63
Water (Well) Availability Sustainable Design - Energy Efficiency	8.75 7.75	3.00	26.25 25.19	3.00	26.25 25.19	3.00	26.25 25.19	4.00 3.25	25.19	3.75	23.25	3.25 3.25	28.44	3.30	25.19	3.50	25.19	3.50	25.19
		3.23		3.23		3.00		3.00		3.00		3.23		3.23		3.23		3.23	
Sustainable Design - Carbon Footprint  Quality of Interior Space (Windows)	7.75 8.75	0.00	23.25 26.25	0.00	23.25 26.25	3.00	23.25	3.50	23.25 30.63	3.50	23.25 30.63	3.50	23.25 30.63	3.50	23.25 30.63	3.00	23.25 28.44	3.50	23.25 30.63
Future Expansion Possibilities of Buildings	7.75	3.00 1.50	11.63	3.00 1.50	11.63	2.25	28.44 17.44	5.00	38.75	2.50	19.38	5.00	38.75	4.00	31.00	4.00	31.00	4.00	31.00
1	4.75	2.00	9.50	2.00	9.50		10.69	4.75	22.56	2.50		4.50	21.38	3.75	17.81	3.00	14.25	3.50	16.63
Site Capacity for Additional Uses Traffic Concerns	8.25	1.75	9.50	2.00	16.50	2.25 2.25	18.56	3.50	28.88	3.50	11.88 28.88	4.50	35.06	3.75	30.94	3.50	28.88	4.00	33.00
Separation of Public Safety Vehicles from Public	7.50	1.50	11.25	2.50	18.75	3.50	26.25	3.00	22.50	3.50	26.25	4.25	31.88	4.25	31.88	4.00	30.00	4.00	30.00
Staff Safety	10.00	3.75	37.50	3.50	35.00	4.00	40.00	4.00	40.00	4.00	40.00	4.00	40.00	4.23	40.00	4.00	40.00	4.00	40.00
Public Safety	10.00	3.00	30.00	3.00	30.00	3.75	37.50	3.75	37.50	3.75	37.50	4.00	40.00	4.00	40.00	4.00	40.00	4.00	40.00
Property Availability (Town Owned vs. Purchase)	2.75	4.75	13.06	4.75	13.06	2.00	5.50	3.25	8.94	1.75	4.81	3.25	8.94	3.25	8.94	3.75	10.31	3.75	10.31
Construction Time	3.00	2.25	6.75	2.25	6.75	2.00	6.00	2.50	7.50	2.50	7.50	2.75	8.25	2.75	8.25	2.75	8.25	2.75	8.25
Construction Disruption	3.25	2.00	6.50	1.75	5.69	2.75	8.94	3.50	11.38	3.25	10.56	3.50	11.38	3.50	11.38	3.50	11.38	3.50	11.38
Building Safety/Code Compliance	7.00	4.00	28.00	3.75	26.25	4.00	28.00	4.00	28.00	4.00	28.00	3.00	21.00	3.50	24.50	3.50	24.50	3.50	24.50
Impact of Site on Construction	3.25	2.00	6.50	2.00	6.50	2.50	8.13	3.75	12.19	3.00	9.75	3.75	12.19	3.50	11.38	3.50	11.38	3.50	11.38
Type of Construction	5.50	3.00	16.50	3.00	16.50	3.00	16.50	3.25	17.88	3.00	16.50	3.25	17.88	3.00	16.50	3.75	20.63	3.75	20.63
Type of Constitution	3.50	5.00	10.50	5.00	10.50	5.00	10.50	3.23	17.00	5.00	10.50	5.25	17.00	5.00	10.50	5.15	20.05	5.15	20.03
Total Score		1	594.94	<u> </u>	606,56	<u> </u>	701.19	<u> </u>	779.81	1	736.81	<u> </u>	784.56	1	768.81	<u> </u>	769.13		780.94

Importance Value Scale 1 -10

Rankings

Rating System

9

10

Relative Costs

7

Note: Expansion of Library and Public Works is included in all Options A1-D4

1

Critical/High Importance Low importance

Poor Satisfactory Good Excellent

8

\$ Low Cost \$ Medium Cost \$ High Cost

3



6



5

4

Page E-25

2



### **Summary**

The Town Facilities Plan has been approached in a comprehensive manner. We have identified space needs through a series of questionnaires of Town Departments, Town Boards, Commissions and Committees, interviews with staff, and a review of the existing Town Hall, Police Station, Fire Station, Library and Public Works Garage. The existing facilities have been toured to evaluate their condition and suitability for future use, as well as to confirm the amount of space available. The capacity of the existing sites to meet the functional needs of the Town has also been evaluated. Historic considerations are very important with the Town Hall, and these issues are detailed in the Historic Features section. Growth projections for the Town and region have been reviewed and the impact on staffing and potential space needs has been included. The interaction and function of Town Departments has been considered and a Program Summary developed to chart a course for necessary improvements.

The Program Summary projects the spaces needed to properly provide for services required at each facility as follows:

<b>Facility</b>	<b>Existing Square Feet</b>	<b>Proposed Square Feet</b>					
Town Hall	5,129 GSF	10,318 GSF					
Second Floor Great Hall Police Station	2,707 GSF	2,417 GSF 5,365 GSF					
Fire Station	5,667 GSF	16,496 GSF					
Community Room	1,631 GSF	To be Determined					
Library	3,139 GSF	6,305 GSF					
Public Works (Garage)	4,408 GSF	10,233 GSF					

Expansion area on the Town Hall site is inadequate for the recommended facilities, as demonstrated in Site Design Concept Options A-1 and A-2. The site is insufficient in size. Due to this limitation, alternative sites in Town were identified and evaluated. Site Options A through O were considered, and two sites essentially adjacent to Town Hall were selected as the most beneficial for expanding facilities while maintaining a Town Center. These are the Swett property (Site Option F) and the Brown property (Site Option G), which is also connected to the Town's ball fields. Based on using one of these two sites, an additional seven Site Design Concept Options B-1 through D-4 explored how each site could accommodate new and reconfigured Town facilities. It should be noted that the Library and Public Works facilities are recommended to remain in their current location, with expansion potential as shown in the Site Design Concept Options site plans.

The evaluation of the different site options includes the Comparison Matrix Summary (page E-25). The preferred options all include the use of the Brown property for a public safety complex and the redevelopment of the Town Hall site into a campus for the Town Hall and a Community Center. The Town Committee assisting us with our evaluation noted the following:

1. Brown Property: There was consensus that the purchase of the Brown property to locate a public safety complex is the preferred approach. Combining the Police and Fire Departments would keep emergency services together, would improve teaming, would allow sharing of spaces such as conference rooms and training rooms, and it would free up the current Police Station for use by the Town Hall.



- 2. Subdividing the Brown Property: The decision on whether or not the property should be subdivided as shown in several site plan options and the existing house sold as a private residence should be deferred until the value and historical significance of the residence and possible Town uses for the building and site have been evaluated.
- 3. 2-Story versus 1-Story: The Site Design Concept Options present options with either a 1-story or 2-story public safety complex. Additional study as part of the next phase of work is proposed. This would allow a review of plan layouts, an analysis of the impact on the site and land remaining available for other uses, and a more detailed comparison of estimated construction costs.
- 4. Meeting the needs of the Library and Public Works facilities can mostly be accomplished independent of the other facilities. The completion of the land swap related to the Library is necessary and should be finalized. There are also activities related to the Library that could be affected by other facility plans, such as expansion of the Community Room for multiple uses.
- 5. There is significant potential for the Town Hall site to meet other needs if the Police Station and Fire Station move to the Brown property. Discussion included ideas to expand the Community Center, to use the existing Police Station for Town offices, to explore whether the Town Hall second floor should be restored to a Great Hall for community use, and how the Town Hall uses might be reconfigured or expanded. Development of the Town Hall campus should be evaluated further in order to determine the desired solution.

The site design concept options presented are not final plans, but are intended to show the feasibility for resolving Town needs and alternatives to meet those needs.

The need for significant improvements to each facility is clear as outlined in this Town Facilities Plan. The extent and scale of issues to be dealt with are significant. The combination of the pressing need for adequate work space, storage space, and meeting space, the need for energy improvements, along with critical safety and operational issues at the Fire Station, are all issues that are more economically resolved as part of a comprehensive plan that can be phased over time. It is critical that improvements be completed in a way that integrates the diverse needs of the Town and that takes advantage of a planned approach. In the case of the Town Hall building, it has served as the center of Town government since its construction in 1908, and it now defines the Town Center. Renovations to this building should be handled in a way that enhances the historical character of the building and reinforces the Town Center identity.

The first action we recommend as part of these proposed improvements to Town facilities is to secure the purchase of the Brown property. Once that is done, then further study on final solutions for each site and facility can be completed. There is further planning that will be necessary to determine the final use of the Brown property and the redevelopment of the Town Hall campus. The phasing and sequence for making improvements to all the facilities, including the Library and Public Works Garage, needs to be established as part of the Town's priorities and its Capital Improvements Program.

Our goal has been to assist the Town with identifying facility needs and setting a direction to serve those needs. This Town Facilities Plan should be used to confirm that direction and to help establish a course for the future.