

# **Town of Jackson, N.H.**

## Jackson Fire Station Feasibility Study

Samyn-D'Elia Architects, P.A.  
October 13, 2022

# ***Jackson Fire Station Feasibility Study***

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## ***Section I - Executive Summary***

## **Executive Summary**

### **The Jackson Fire Station Feasibility Study**

#### **Site Evaluation Team:**

1. Barbara Campbell
2. Jay Henry
3. Bill Kelly
4. Debony Diehl
5. Dick Bennett
6. Hank Dresch
7. Jerry Dougherty
8. Pat Kelly
9. Peter Benson
10. Burr Phillips, Civil Solutions
11. Ward D'Elia, Samyn – D'Elia Architects

#### **The Scope of the Site Evaluation was to:**

- Current operation provides general evaluation of current fire station and the renovation requirements needed to bring the building up to required code standards.
- Establish best site for locating a new fire station complex.
- Develop space need program for new facility.
- Prepare schematic design concept of new building and required building site development.
- Prepare cost estimate of preferred concept plans.

#### **Evaluation Process**

The group met over fourteen (14) months evaluating the needs of the community and fire services. We looked at the various options to either renovate the current structure or build new on one of the two preferred sites.

#### **Existing Fire Station Evaluation:**

1. There were limitations with the current size of the existing spaces, their lay out and the building structural systems, that would not allow for the needed expansion of apparatus bays.

2. The building does not meet ADA standards, or NFPA code; it would be difficult to bring into requirements.
3. Building envelope construction systems and materials provide very poor thermal performance and are not economical to retro-fit.
4. Overall, the existing building did not meet the required space program requirements without major restructuring that would be more economical to achieve with a new building that did not require compromises to the program goals.

### **New Facility and Site:**

1. Two sites were evaluated to accommodate the building and the necessary site service area practical for public access, vehicle mobility, parking for cars and service vehicles, and provide access to road.
2. Site designs for various site configurations were studied.
3. A building design concept was developed.
4. Cost estimate for site development and building construction were prepared.

### **Site Evaluation ~ Library**

A site concept for the library site was developed and was rejected after review as being too small for the necessary building, vehicle staging and maneuvering, and automobile parking. The building size would dominate the site as you enter the town and block much of the view of the library from the road. In addition, current road access to town property in back would be blocked for future development from this location.

### **Site Evaluation – Current Firehouse**

- The lot has sufficient size for larger building parking, and vehicle maneuverability.
- Allows for better set back distance from the road.
- Adequate parking space for emergency vehicles, volunteer fire staff and for the public.
- The plan did not interfere with current police vehicle access or current highway department vehicle access.
- Space for fuel station.
- Did not diminish the visibility of the adjacent town office or library from the road.

The design space program and goals were based on consensus of the building committee, and was used in the evaluation of the current fire station as well as the design criteria for a new building.

### **Summary**

The recommended site design and building design are not meant to be definitive, but represent a possible solution that addresses the concerns and issues that the building committee set out to address.

The building architectural design is a concept of space, materials, and style that can be modified in a future design development stage.

The projected cost estimates (\$793,278 civil site work and \$4,212,645 building construction 2021), represented a detailed in-depth analysis for that point in time and is likely to be modified to reflect market conditions at some future time.

It was a pleasure to work with this building committee and be part of their knowledge, diligence, motivation and concern for the Jackson community that they were representing. I look forward to our involvement in this project, when it moves forward again.

***Section II - Building Committee Notes {Space Needs for New Facility & Site}***

# Jackson fire station notes and ideas

1/ ability to stand on top of fire trucks would be great

2/ space around trucks to open cabinets

3/ enough length to replace an existing fire truck with a ladder truck if the need ever arises

4/ 6 total bays ambulance would park where pick is if ever needed

We do not anticipate more than 6 total pieces of fire apparatus

5/ we do not anticipate any growth in fire dept. membership

25 to 28 average amount of members 10 to 15 on a regular basis

6/ call dept. with a full time chief only

We could for see a second fulltime person if we ever added ems to our list of duties

As of now we do not provide any ems function

Possibility of some limited ems in distant future

We do not ever anticipate transport ems in Jackson fire station at any point. This should be done in a separate building due to square footage needs. A public safety facility would be very large and would not fit well or look well.

7/ Hose tower: this needs discussion

We could go without it if necessary

8/ ability to drive in and drive out would be preferred if possible

Discussion on this is needed. heat loss and door maintained due to amount of doors, need to be considered. High quality doors and lots of windows preferred

9/snow removal: bollards shall not interfere with snow removal, propane tanks shall not interfere with snow removal, no snow coming off roof in front of garage doors, no valleys or dormers if possible, and steel roofing is preferred

10/ low maintance exterior and low maintance roof. this will need discussion, price compared with looks

11/ 3 offices needed, 2 for now and a third for future use

12/ dispatch office needed with windows that face the front. Dispatch to have sliding window access to garage bays

13/ area needed for cleaning and maintance of scba's with washer and dryer and sink

14/ emergency generator location

15/ garage bays for fire apparatus: exhaust removal system, airline supplies for each truck, water resistant walls, airline refill for cascade, air compressor location for cascade compressor,

16/ epoxy floor ???? discussion with painted access lines

17/ need to look at floor drain options. with drains or no drains???? This is very expensive to maintain

18/ Heating system: we at the highway garage had poor luck with radiant under the trucks. also poor luck with a very expensive high tech furnace so we will have a large involvement in this design. Multiple heating systems, such as two ceiling hung units with the idea of if one goes out you still have heat with the other. This is way our existing station is and it works well. We also want a system that is easy to work on and not computer controlled like the unit we had trouble with. Radiant heat under the trucks did not work well with salt and grime getting baked to the bottom of trucks in the winter no matter how well you washed them.

#### NEW FIRE STATION IN EXISTING LOCATION

Positives: location already sold to taxpayers, the location works well with some minor changes

Negatives: close to neighbor, location of utilities, road location for highway dept.

### ***Section III - Overall New Building Space Program***

## Meeting Notes

**Project Name & Number:** Jackson Fire Department - 2043

**Date & Location:** 12/09/2020 @ Town of Jackson

**Present:** Jerry Dougherty, Jay Henry, Bill Kelley, Hank Dresch, Burr Phillips (Town Engineer), Ward D'Elia (Samyn-D'Elia Architects)

**Distribution:** Barbara Campbell, Dick Bennett, Peter Benson, Deb Diehl, Pat Kelley

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Please note that the following meeting notes are an official part of the legal record for this project. Should any of the items noted not be accurate, please advise SDA immediately so the required correction can be made.

### **1). Began with discussing potential site issues with Burr Phillips:**

- There is a requirement for a 200-400 foot sight distance at the road.
- There are some uncertainties about the location of the water line and septic field for the library.
- Potential cost to relocate utilities.
- This project may be the time to merge town property lines of the fire station, which is a separate lot, with the larger town lot.
- Some wetlands behind fire station. Would be good if this could be mitigated so the area could be usable.
- Look at some possible building location on the library end of property and limits on parking for fire stations.
- On current site possible building locations:
  - 1). Moving building back from road 50' and away from property line 25'.
  - 2). Moving back toward the town office and sit at angle facing town.

### **2). Design concept considerations:**

- Underdrain systems for new building.
- Groundwater contingencies.
- Water usage in new station.
- Possible relocation of power utility pole street by station. NHEC is utility.
- Re-use of existing fire station building if it's not replaced on current site.
- What remaining Town needs exist that could be considered for current fire station.
- Potential relationship of roof lines and building height of fire station, town office and library along the road.
- Need to have new fire station blend into town center scale and style.

### **3). Preliminary program data:**

- 6 trucks; 4 @ 30 ft., 1 @ 35 ft., pickup, forest trailer.
- 80 ft. length of 2 bays, 16 ft. wide, 3 bays 2 vehicles deep.
- Hose tower/drying system to be reviewed.
- Offices: Chief's w/ seating for 6, Code Enforcement, Dispatch.

- Training room/Break room to accommodate 25 - 30 people; training, kitchen, meeting (no separate public accessibility).
- See Jay Henry list of design criteria. Jay Henry had developed an excellent list of “Fire Station notes and ideas.”
- EMS truck and office not planned for now.
- HVAC systems – discussed heat types; radiant, fan coil or hot air.

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**\*\*Next meeting TBD, sometime the second week of January 2021\*\***

### **Jackson Fire Station - Room Areas**

NAME	SIZE	SF.
Training Room	18 x 31	558
Office Code Review & Building	9 x 12'-6"	112.5
Entry Foyer	8 x 18	144
Chief Office	9 x 16	144
Dispatch/Work Room	9 x 16	144
Toilet HC	7 x 7	49
Workshop	11 x 20	220
Apparatus Bay	60 x 78	4,680
Gear Room	18 x 18	324
Decon Room	18 x 17	306
Woman's Toilet/Locker	12 x 9	108
Men's Toilet/Locker	12 x 9	108
Housekeeping	6 x 9	54
Electric Room/STG	9 x 17	153
SCBA	9 x 18	162
Mechanical	20 x 12	240
Mezzanine Storage	20 x 12	240

Overall Building	80 x 100	8,000 SF
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## ***Section IV - Existing Fire Station List of Deficiencies & Photos***

# JACKSON FIRE STATION

## **Existing Building**

- 1) Does not separate hazardous equipment and gear areas (dirty) from administrative and meeting areas (clean).
- 2) No administrative office areas (privacy-accessibility).
- 3) Apparatus bays too narrow for vehicles.
- 4) Existing structure limits use; columns too close.
- 5) Training room (second floor) not ADA accessible.
- 6) No maintenance shop.
- 7) No detox washing area separation.
- 8) No sufficient storage in apparatus bays for equipment.
- 9) Poor fire hose storage conditions.
- 10) Apparatus bay connections to vehicles not to current standards.
- 11) SCABA equipment not secure or adequate to current standards.
- 12) Building does not have adequate fire separation for spaces.
- 13) Vehicle circulation and access at back of bays too narrow.
- 14) Inadequate interior lighting for vehicle maintenance and for work areas.
- 15) No floor drainage.
- 16) Too many areas exposed to chemicals; due to poor ventilation.
- 17) Communication equipment needs upgrade.
- 18) Street presence for a fire station is not the best for community pride.

# JACKSON FIRE STATION

## Photos and Remarks

### **Photo 1:** *Existing Station Facility:*

- The building does not represent an image of a town fire station. Signage is inadequate for a town municipal building.

### **Photo 2:** *Back Apparatus Bay:*

- Crowded, low ceiling, ceiling not fire rated.
- Lacks adequate room for modern size fire fighting vehicles
- Lacks space between vehicles to perform maintenance and service safely.
- Lacks proper ventilation to exhaust vehicle fumes which is a health hazard to occupants.
- No decontamination area adjacent to vehicles for fire fighter safety. Users are subject to chemical and biological hazards from fighting fires and need to clean themselves and equipment in a timely manner.
- The apparatus bay area offers no separation of office space, vehicles and hazardous chemicals.
- Air ventilation is not adequate when overhead doors are down, as there is not fresh air brought into these spaces.
- Lighting is not adequate for proper maintenance and service of vehicles.
- Structure is not built to code and location of columns interfere with vehicle access.
- The overall conditions present are not adequate for the health and safety of the users.

### **Photo 3:** *Back Apparatus Bay:*

- Crowded, Equipment is tight and does not provide adequate service area between vehicles.
- Lighting is inadequate.
- Thermal characteristics poor.
- Heating system and fans need to be updated.
- Concrete slab not drained or sealed.

# JACKSON FIRE STATION

**Photo 4: *Front Apparatus Bays:***

- Structure interferes with vehicle access and service.
- Ceilings low – cannot stand on truck for service.
- Lighting – Poor quality, inadequately placed.
- Ceiling not fire rated.
- Vehicle drop downs limited.

**Photo 5: *Front Apparatus Bay:***

- Side access hindered by vehicle connections.
- No floor drainage.
- Storage limited.
- Inadequate water, power, and air drops.

**Photo 6: *Storage for Equipment:***

- Storage area small, access limited.
- Moving equipment difficult due to poor access.
- Electrical panel access blocked by equipment.
- Air tanks should be separated from general equipment storage.

**Photo 7: *General Work/Maintenance Area:***

- Storage of hoses poor and inadequate.
- Work top table inadequate.
- Limited shelf space for chemicals, cans, bottles and tools.

**Photo 8: *General Maintenance Office:***

- Inadequate office space for faculty.
- Limited shelving and tool storage areas.
- Space not secure or private, open to apparatus bay.
- Lighting inadequate for office and work area.

**Photo 9: *Chief's Office:***

- Inadequate office space for faculty.
- Space is not secure or private, open to apparatus bay.
- Electrical and data services inadequate.

# JACKSON FIRE STATION

- No secure storage for records.
- No wall spaces for white board, charts and shelving or cabinets.

## **Photo 10: Storage Shelving/Maintenance:**

- Space not secure – open to bay.
- Secure cabinets lacking for hazardous chemicals.
- Unfinished/site built shelving, not versatile.

## **Photo 11: Site Built Personnel Lockers – (Photo Not Shown):**

- Inadequate for long term use, should be painted metal units.

## **Photo 12: Back Bay Washing and Sink Area:**

- Residential washing machine, not rated for commercial use.
- Sink – Size too small, inadequately supported and no storage space for chemicals.
- Adjacent storage area inadequate for amount of material shown.
- Inadequate lighting/ventilation.
- No ADA bathroom.

## **Photo 13: Back Bay Washing, Equipment Storage and Maintenance:**

- Compressor should be in a room designed to contain noise.
- Laundry on rolling platform (Residential Model).
- Microwave location.
- Inadequate storage/shelving for equipment and materials.
- Space reduced by vehicles.
- Drying lines or cleaning rags not adequate.

## **Photo 14: Chief's Office Area (Refer to notes with No. 9):**

- Refrigerator poorly located as office is also the day room.
- Vehicles intrude upon office and day room space.

## **Photo 15: Front Apparatus Bay:**

- Access in front of vehicles limited due to short bay depth.
- Ceiling low, overhead doors low, should be minimum 14'-0".

## **Photo 16: Front Apparatus Bay:**

- Servicing engine bay of truck does not allow for access around vehicle. Service bar area is too short for size of vehicles.

# JACKSON FIRE STATION

**Photo 17: Front Apparatus Bay (Back Wall):**

- Access around vehicles is limited when vehicle service or access doors are opened.

**Photo 18: Back Apparatus Bays:**

- Limited work areas around laundry and sink, due to small bay depth and equipment.
- Equipment blocks access to electrical panels.
- Expose electrical wiring not secure or protected.
- Back wall CMU shows sever horizontal cracking.
- Exposed storage of chemicals, drinks and rags does not appear neat or functional. Storage shelves and cabinets required.

**Photo 19: Front Apparatus Bay:**

- Side access around vehicles is less than adequate, limiting how much work can be done on the vehicles while inside.

**Photo 20: Front Apparatus Bay:**

- Structural connection at column to beam does not meet code. Structural beam has butt jointed members. Stacks of wood blocks to level beam and inadequate fasteners at the bearing plate.

**Photo 21: Front Apparatus Bay:**

- Structural crack in the exterior wall, under the window. Origin or reason not known. This is not a safe condition.

**Photo 22: Upper Floor Office Area:**

- Does not meet ADA Accessibility Code.
- Offices offer no privacy, are too small for their intended use and are not laid out functionally. Fire egress is poor.

**Photo 23: Upper Floor Office Area:**

- Records and library room/office does not have adequate storage or shelving space for intended use. Fire egress is poor.

**Photo 24: Upper Floor Day Room:**

- Space is not large enough to handle training sessions with a large group of firemen/women.
- Inadequate storage.

# JACKSON FIRE STATION

**Photo 25: Upper Floor Day Room:**

- Kitchen is comprised of residential type cabinetry, appliances and lacks bulk storage pantry.
- Lighting is poor and ventilation is inadequate.

**Photo 26: Upper Floor Day Room Toilet:**

- Inadequate facilities for female use, as urinal is not screened.
- Step up to toilet area is hazardous.

**Photo 27: Upper Floor Storage Room:**

- Storage room lacks adequate storage shelving or hanging space for supplies, equipment and gear.
- Inadequate lighting and ventilation.

**Photo 28: Single Exit Fire Stairs to Upper Floor:**

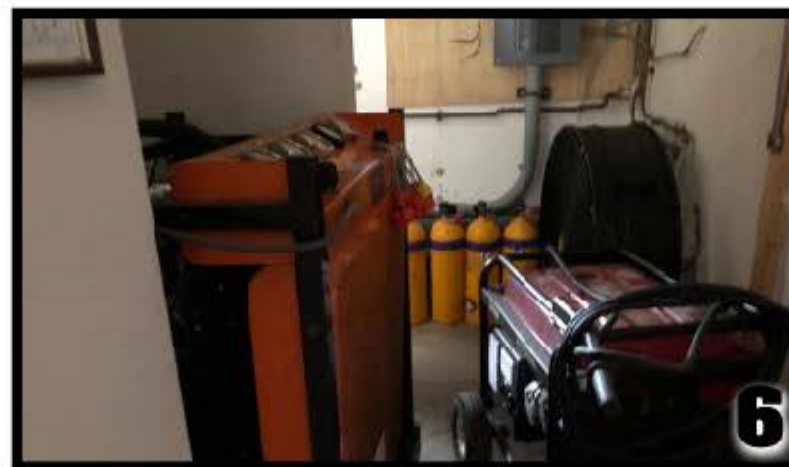
- Single exit stair does not provide adequate egress capacity, limiting the number of personnel on second floor areas.
- The lower door opens into the stair area, creating a dangerous egress condition.

**Photo 29: Exterior View of Back of Building:**

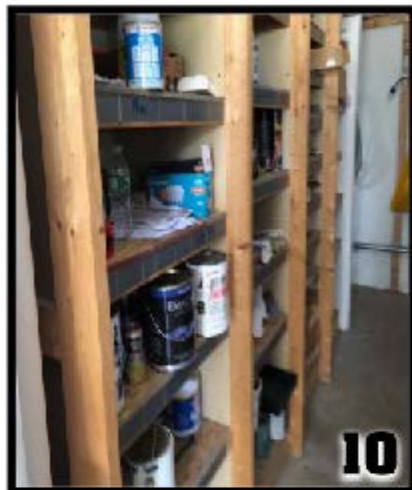
- Existing pavement is in poor condition and is breaking up in the primary road area.
- Building signage is undersized and not lighted.
- Communication antennas need updating.
- Building lacks sidewall protection from vehicle damage.

**Photo 30: Exterior View of Back of Building:**

- Building roof line sheds rain and snow into path of rear garage door access.
- Rear of building lacks adequate surface water drainage and is hard to remove snow and ice from back of building.
- Shed storage area unsightly.



**JACKSON FIRE DEPARTMENT FACILITY**  
TOWN OF JACKSON, NEW HAMPSHIRE



**10**



**13**



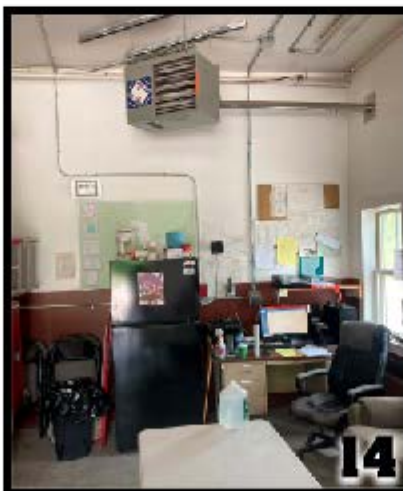
**15**



**17**



**12**



**14**



**16**



**18**

## **JACKSON FIRE DEPARTMENT FACILITY**

TOWN OF JACKSON, NEW HAMPSHIRE



SAMYN - IDOLIA  
ARCHITECTS



**JACKSON FIRE DEPARTMENT FACILITY**  
TOWN OF JACKSON, NEW HAMPSHIRE

# JACKSON FIRE STATION

## New Facility Design

How does the proposed new facility design address the current buildings lack of space, accessibility, separation of uses, public access and adherence to current fire station design standards?

- Single story building provides accessibility for users and public access to offices and meeting room.
- Separation of offices provides privacy for users and for personnel reviews and improves productivity.
- Building is separated into administrative, apparatus bay and support areas. This allows offices and public areas to have a separate HVAC system for air quality and comfort. The apparatus bay has radiant floor heat, and an exhaust fan to remove exhaust and contaminated air quickly, for user comfort and safety.
- The support areas have specialize areas for emergency decontamination of personnel and equipment. There is a large personnel gear room for firefighter's gear storage and response.
- The separate SCABA room provides a clean and safe place to refill personnel air tanks, as well, to store tanks and gear. The toilet/shower facilities for men and women will be clean and adequate for current and future staffing.
- The building provides an energy code compliant envelope for personnel and equipment.
- The apparatus bay provides good work space between vehicles and overhead.
- The interior of the apparatus bay is day lighted with a continuous ridge skylight by Kalwall a NH company.
- The interior lights will only come on as required to augment the daylighting; thereby saving electrical cost.
- The interior vehicle bays are drained, so the vehicles can be cleaned while inside during the winter.
- The maintenance shop is self-contained room with parts storage, adequate and well lighted work areas.

# JACKSON FIRE STATION

- The revised site layout will afford better access for the vehicles, as they can drive
- Through the building at two of the bays. The public has parking with ADA access.
- To the administrative areas of the building. The grading around the building is to be set to keep surface water away from the structure.

The building will have good visibility for the community and will provide a sense of pride for the township, while also providing better fire response and safety going into the future.

***Section V - Five (5) Site Studies at Library & Current Site***

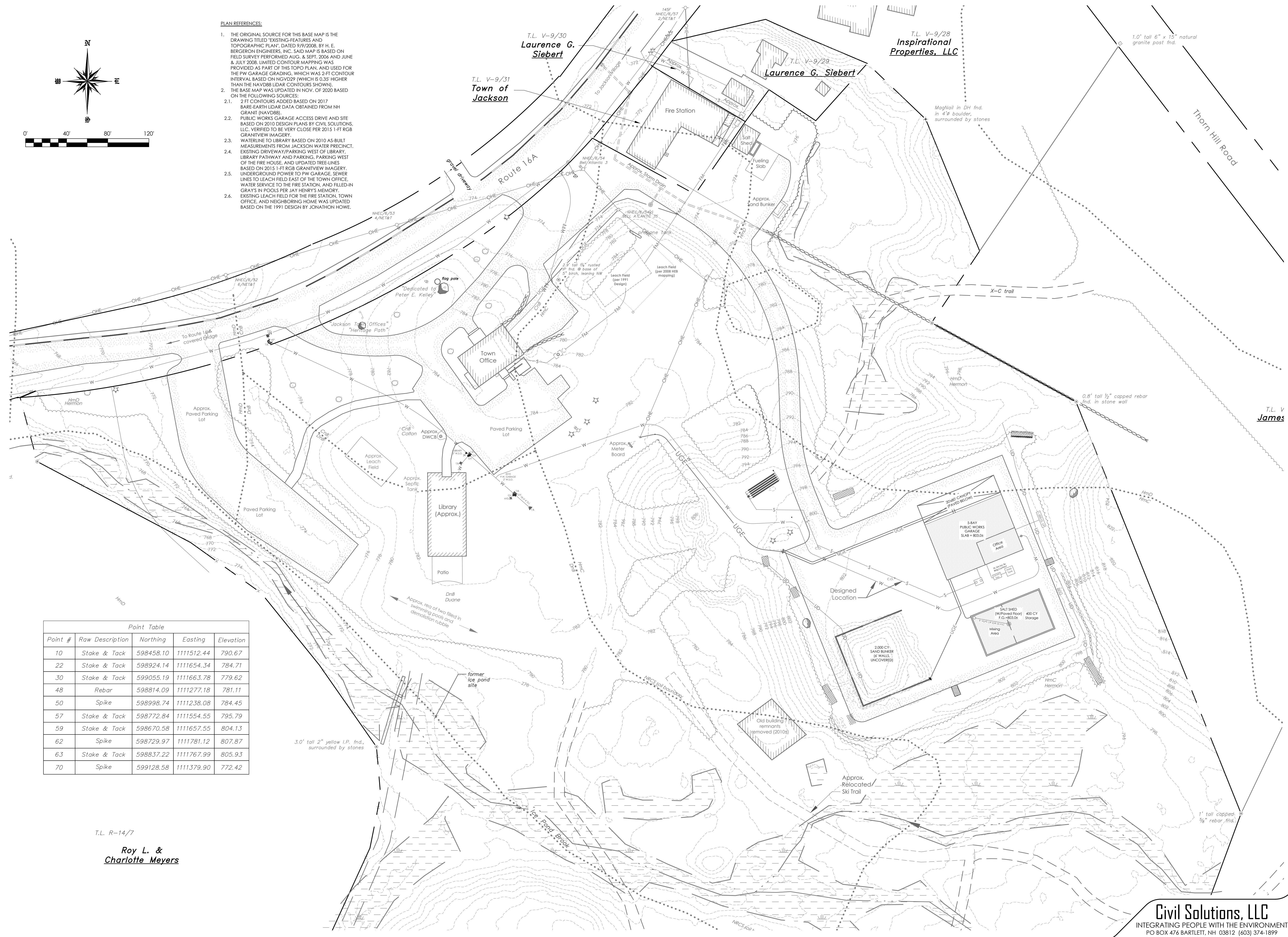


- PLAN REFERENCES:**
1. THE ORIGINAL SOURCE FOR THIS BASE MAP IS THE DRAWING TITLED "EXISTING FEATURES AND TOPOGRAPHIC PLAN," DATED 9/9/2008, BY H. E. BERGERON ENGINEERS, INC. SAID MAP IS BASED ON FIELD SURVEY PERFORMANCE DATED 11/1/2006, 6/1/2007, AND 7/1/2008. LIMITED CONTOUR MAPPING WAS PROVIDED AS PART OF THIS TOPOGRAPHIC PLAN, AND USED FOR THE GRADE GRADING. THE HORIZONTAL CONTROL INTERVAL BASED ON NGVD29 (WHICH IS 0.33' HIGHER THAN THE NAVD83 LINEAR CONTOURS SHOWN).
  2. THE BASE MAP WAS UPDATED IN NOV. OF 2020 BASED ON THE FOLLOWING:
    - a. 2 FT CONTOURS ADDED BASED ON 2017 BARE-EARTH LAND DATA OBTAINED FROM NH (NAVD83).
    - b. PUBLIC WORKS GRADE ACCESS DRIVE AND SITE BASED ON 2010 DESIGN PLANS BY CIVIL SOLUTIONS. THE DRIVE IS TO BE LOCATED CLOSE PER 2015 1-FR GRANTVIEW IMAGER.
    - c. WATERLINE TO LIBRARY BASED ON 2010 AS-BUILT MEASUREMENTS FROM JACKSON PARK PRECINCT.
    - d. EXISTING DRIVEWAY AND DRIVEWAY TO LIBRARY, LIBRARY PATHWAY AND PARKING, PARKING WEST OF THE FIRE HOUSE, AND UPDATED TREE-LINES BASED ON 2015 1-FR RGB GRANTVIEW IMAGER.
    - e. UNDERGROUND POWER TO PW GARAGE, SEWER LINES TO LEACH FIELD EAST OF THE TOWN OFFICE, AND SERVICE TO TOWN OFFICE AND FILLDEN GRAY'S IN POOLS PER JAY HENRY'S MEMORY.
    - f. EXISTING LEACH FIELD FOR THE FIRE STATION, TOWN OFFICE, AND NEIGHBORHOODS TO THE WEST, BASED ON THE 1991 DESIGN BY JONATHAN HOWE.

Point Table				
Point #	Row Description	Northing	Easting	Elevation
10	Stake & Tack	598458.10	111512.44	790.67
22	Stake & Tack	598924.14	111654.34	784.71
30	Stake & Tack	599055.19	111663.78	779.62
48	Rebar	598814.09	111277.18	781.11
50	Spike	598998.74	111238.08	784.45
57	Stake & Tack	598772.84	111554.55	795.79
59	Stake & Tack	598670.58	111657.55	804.13
62	Spike	598729.97	111781.12	807.87
63	Stake & Tack	598837.22	111767.99	805.93
70	Spike	599128.58	111379.90	772.42

T.L. R-14/7

Roy L. &  
Charlotte Meyers



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CIVIL SOLUTIONS, LLC  
ALL RIGHTS RESERVED

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

Inc:

 $\dot{\phi}$ 

SURVEY BY:

DESIGN BY: BHDP

DRAFT BY: BHDP

CHECK BY: BHDP

PROJECT #: 2005-005-X

FIRE STATION PLANNING  
GRAY'S INN EXISTING CONDITIONS PLAN  
LOCATED IN  
TOWN OF JACKSON, NEW HAMPSHIRE  
PREPARED FOR  
TOWN OF JACKSON

SCALE: 1" = 40'

DEC. 2, 2020

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C1.01

ISSUED FOR:  
PLANNING

SHEET 1 OF 2

Civil Solutions, LLC

INTEGRATING PEOPLE WITH THE ENVIRONMENT  
PO BOX 476 BARTLETT, NH 03812 (603) 374-1899





DESIGNED BY:	BHDP
DRAWN BY:	BHDP
CHECK BY:	BHDP

PROJECT #: 2005-005.

# GRAY'S INN EXISTING CONDITIONS PLAN LOCATED IN TOWN OF JACKSON, NEW HAMPSHIRE PREPARED FOR TOWN OF JACKSON

SCALE: 1" = 40'

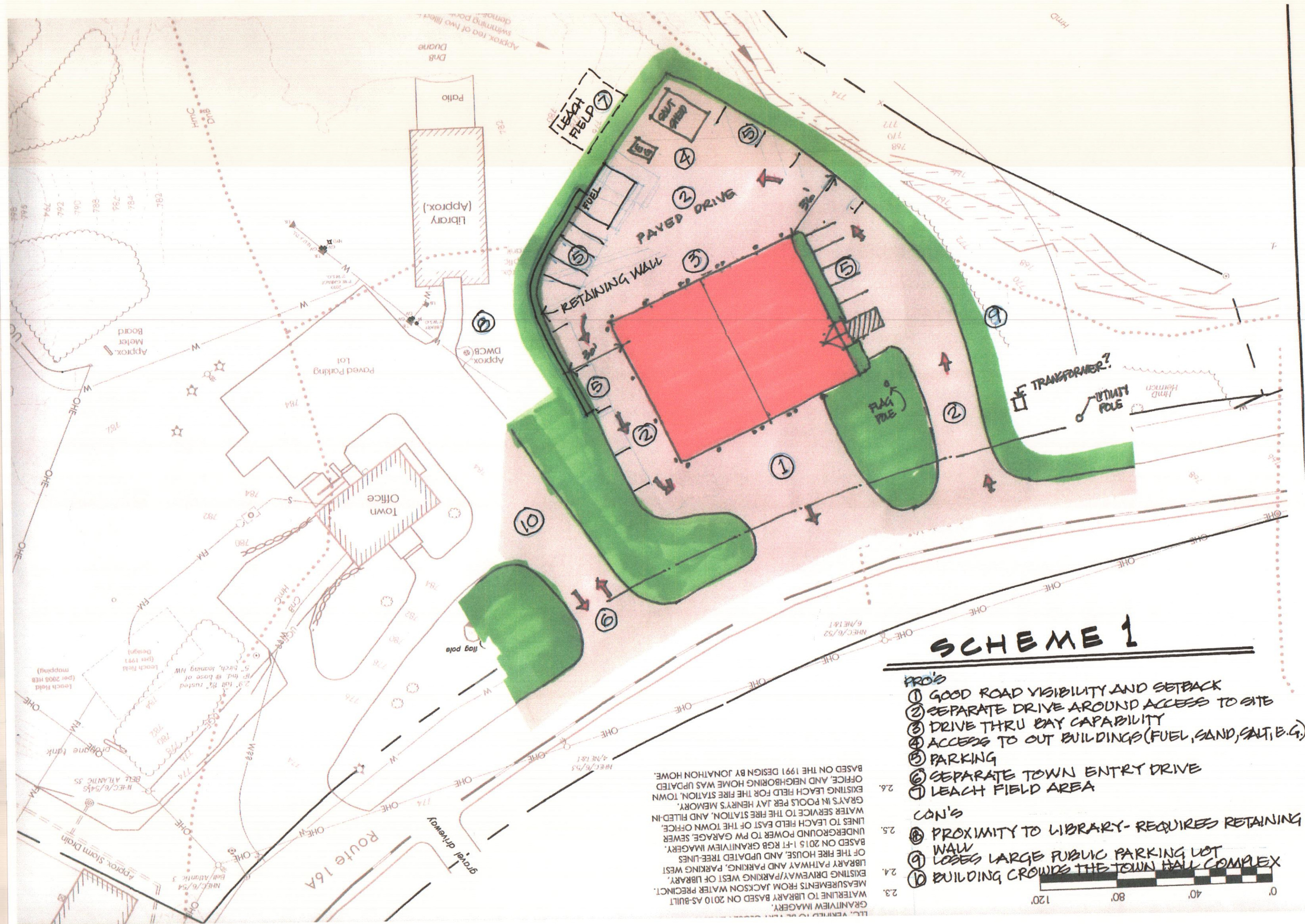
DEC. 2, 2020

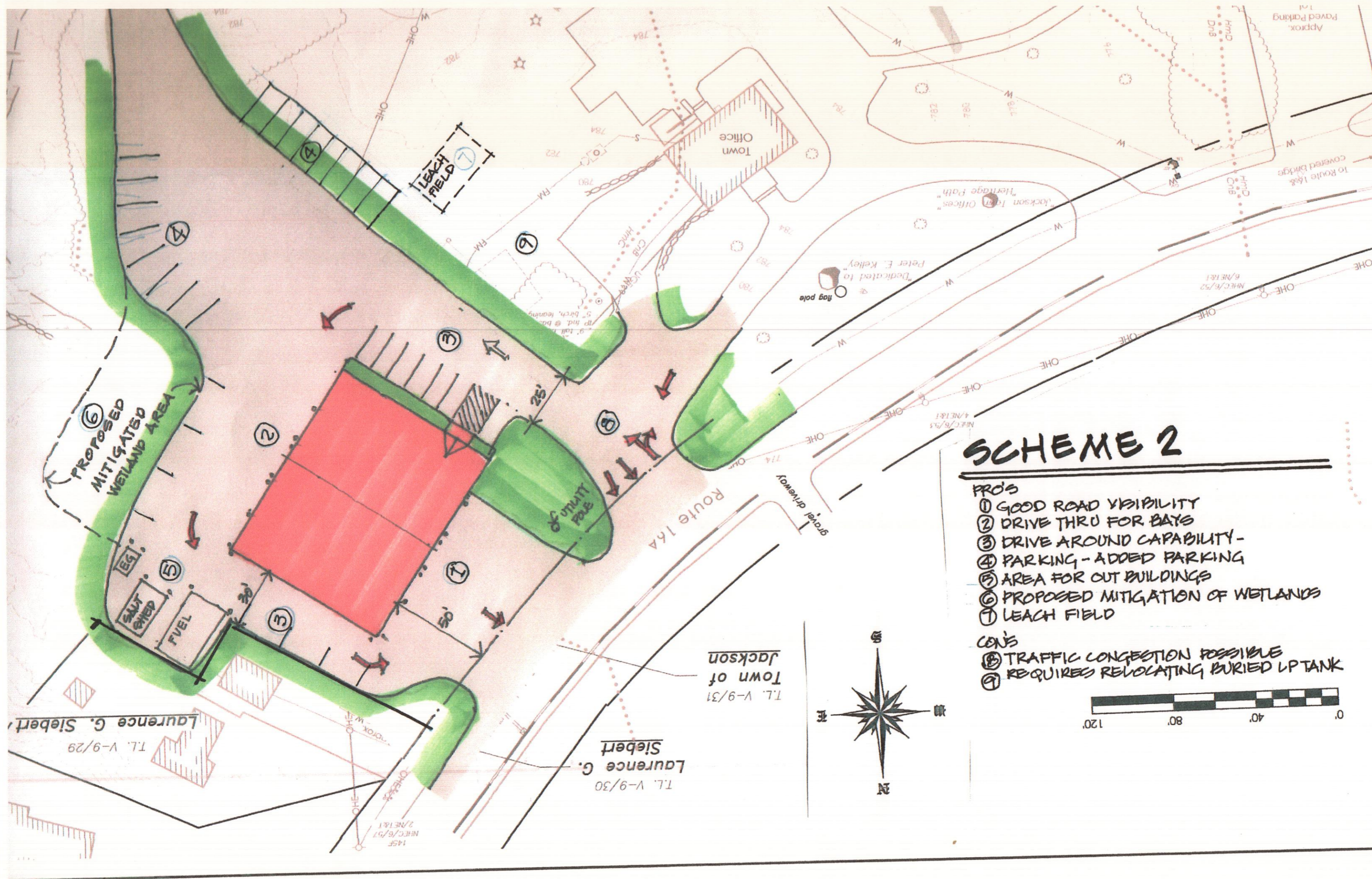
C1.01

ISSUED FOR:  
PLANNING

SHEET 2 OF 2

**Civil Solutions, LLC**  
INTEGRATING PEOPLE WITH THE ENVIRONMENT  
PO BOX 476 BARTLETT, NH 03812 (603) 374-1899









THIS BASE MAP IS THE  
 FEATURES AND  
 ED 9/9/2008, BY H. E.  
 2. SAID MAP IS BASED ON  
 AUG. & SEPT. 2006 AND JUNE  
 OUR MAPPING WAS  
 TOPO PLAN, AND USED FOR  
 3, WHICH WAS 2-FT CONTOUR  
 729 (WHICH IS 0.35' HIGHER  
 CONTOURS SHOWN).  
 ED IN NOV. OF 2020 BASED  
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 D BASED ON 2017  
 TA OBTAINED FROM NH

GE ACCESS DRIVE AND SITE  
 IN PLANS BY CIVIL SOLUTIONS,  
 ERY CLOSE PER 2015 1-FT RGB  
 r.  
 Y BASED ON 2010 AS-BUILT  
 1 JACKSON WATER PRECINCT.  
 ARKING WEST OF LIBRARY,  
 ID PARKING, PARKING WEST  
 ND UPDATED TREE-LINES  
 GB GRANITVIEW IMAGERY,  
 ER TO PW GARAGE, SEWER  
 EAST OF THE TOWN OFFICE,  
 E FIRE STATION, AND FILLED-IN  
 JAY HENRY'S MEMORY.  
 FOR THE FIRE STATION, TOWN  
 DRING HOME WAS UPDATED  
 ESIGN BY JONATHAN HOWE.

T.L. V-9/30  
 Laurence G.  
 Siebert

T.L. V-9/31  
 Town of  
 Jackson

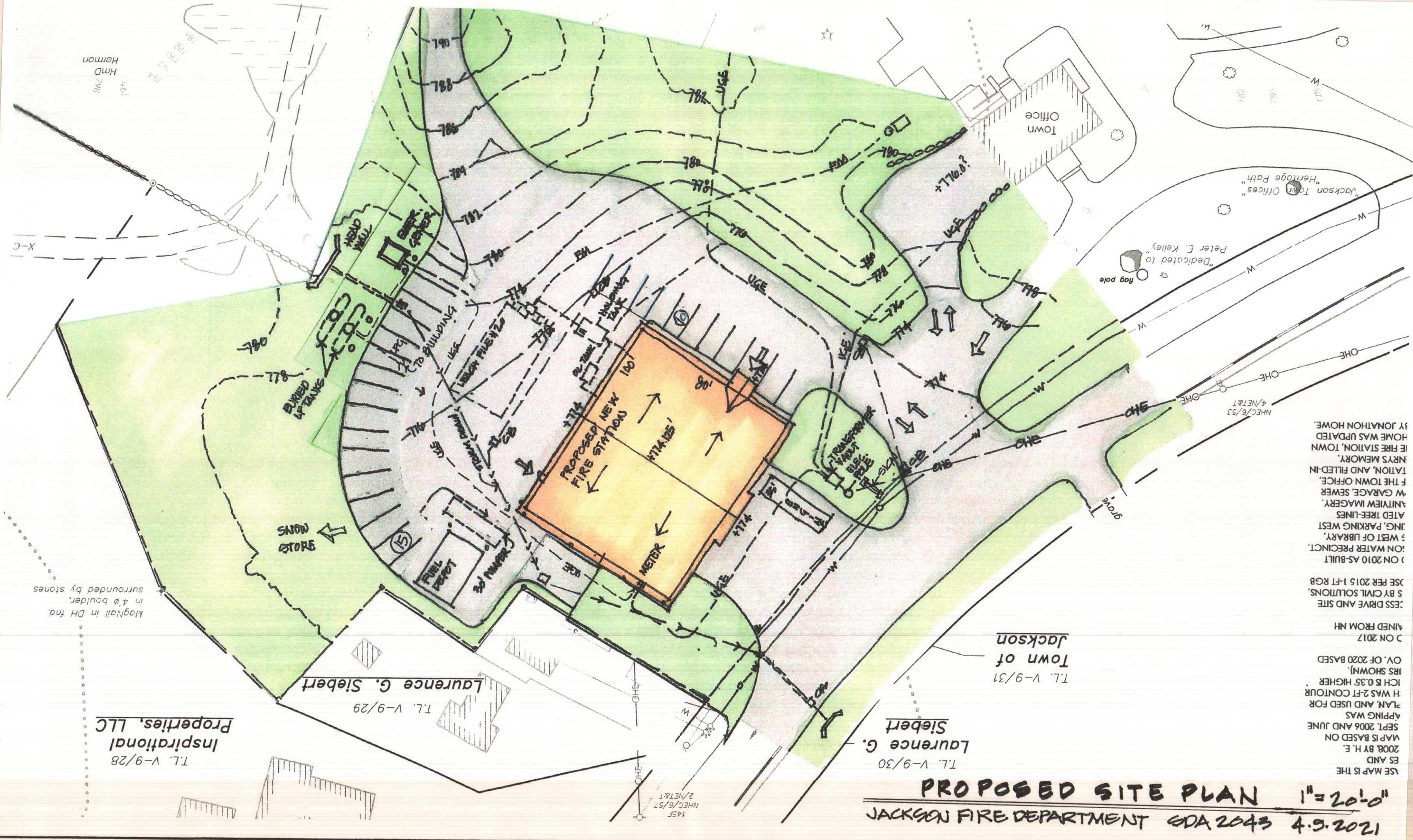
T.L. V-9/29  
 Laurence G. Siebert

T.L. V-9/28  
 Inspirational  
 Properties, LLC

MagNail in DH in  
 in 4" boulder,  
 surrounded by st



***Section VI - Proposed New Site Plan & Building Architectural Plans***



**PROPOSED SITE PLAN 1"=20'-0"**  
**JACKSON FIRE DEPARTMENT SDA 2043 4.9.2021**

**SDA SAMYN - D'ELIA ARCHITECTS, P.A.**  
 P.O. Box 229 • Holderness, NH 03245  
 (603) 968-7133  
 info@sdarchitects.com  
 www.sdarchitects.com

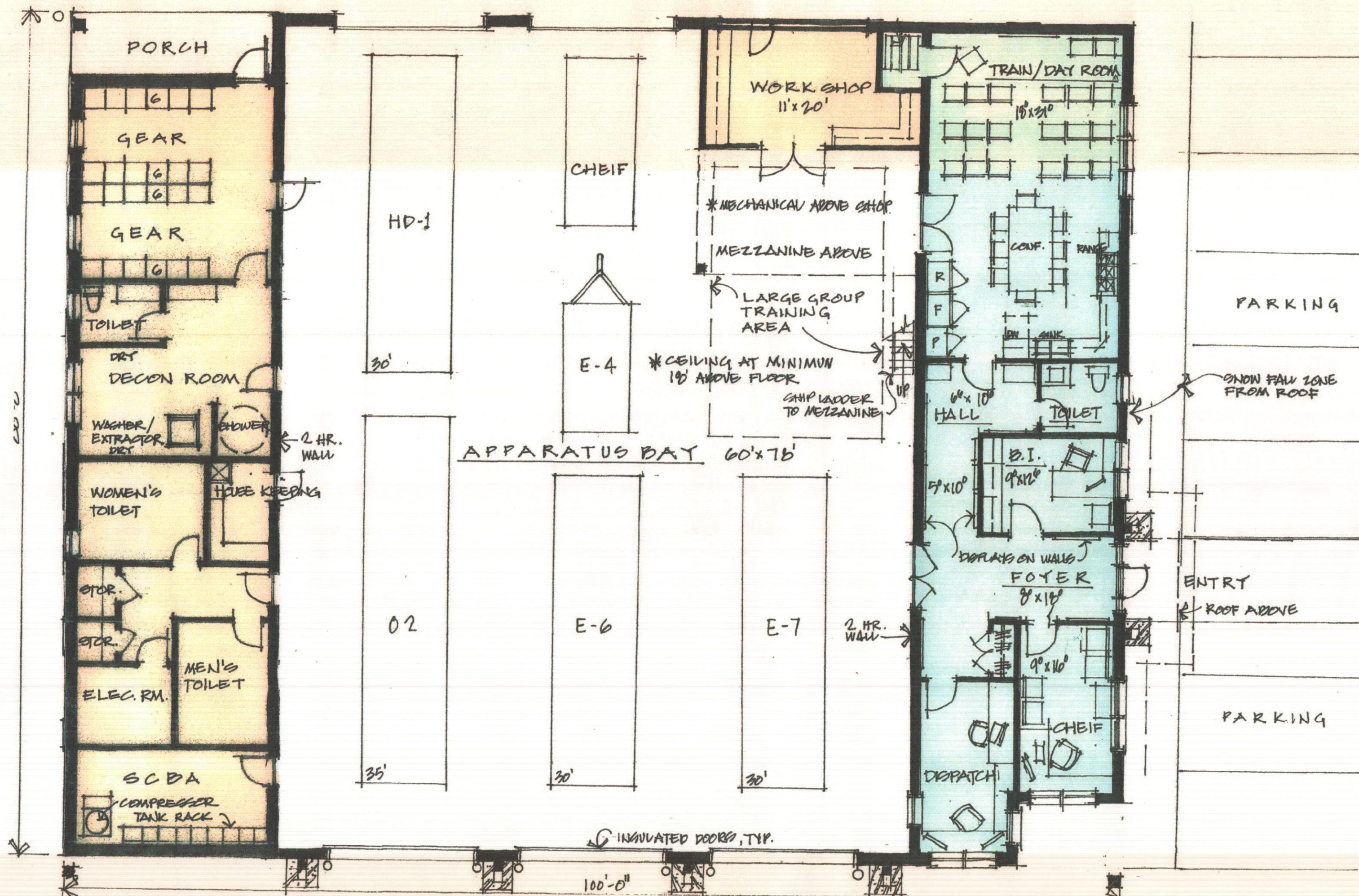
USE MAP IS THE  
 ES AND  
 2008, BY H. E.  
 MAP IS BASED ON  
 SEPT. 2006 AND JUNE  
 APPING WAS  
 PLAN, AND USED FOR  
 H WAS 2-FT CONTOUR  
 ICH IS 0.35 HIGHER  
 IRS SHOWN).  
 OV. OF 2020 BASED  
 C ON 2017  
 AINED FROM NH  
 JESS DRIVE AND SITE  
 S BY CIVIL SOLUTIONS,  
 SE PER 2015 1-FT RG8  
 ) ON 2010 AS-BUILT  
 ION WATER PRECINCT.  
 5 WEST OF LIBRARY,  
 ING, PARKING WEST  
 ATED TREE-LINES  
 ANTIWEW IMAGERY,  
 W GARAGE, SEWER  
 F THE TOWN OFFICE,  
 TATION, AND FILLED-IN  
 NRY'S MEMORY,  
 IE FIRE STATION, TOWN  
 HOME WAS UPDATED  
 BY JONATHAN HOWE.

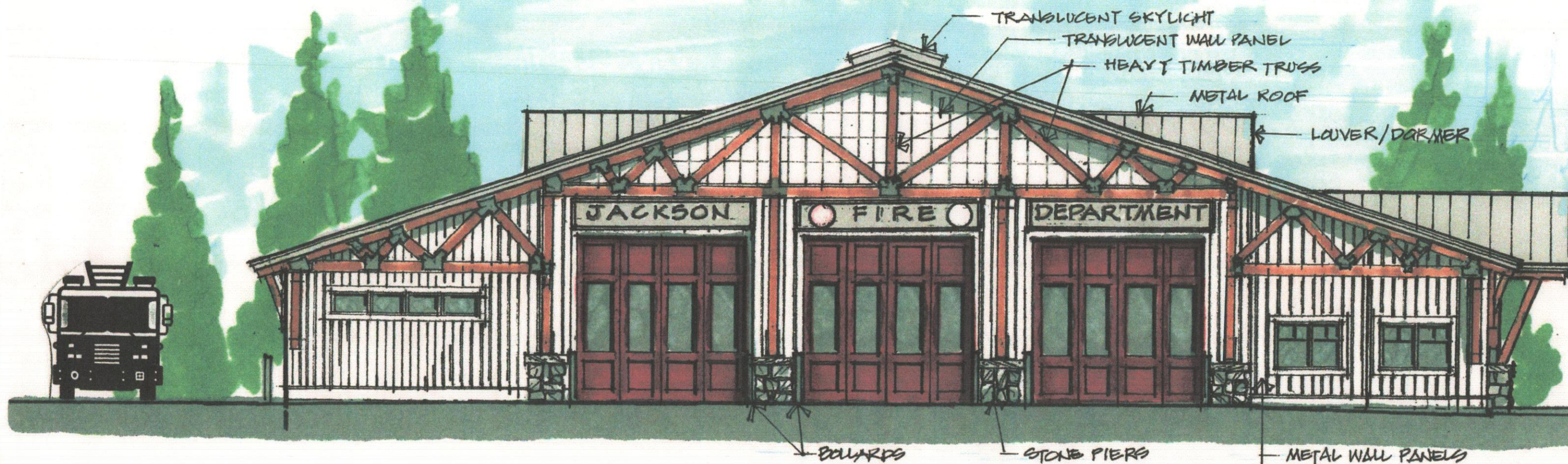
**Inspirational Properties, LLC**  
 T.L. V-9/28

**Laurence G. Siebert**  
 T.L. V-9/29

**Laurence G. Siebert**  
 T.L. V-9/30  
**Town of Jackson**  
 T.L. V-9/31

Magnall in DH ind.  
 in 4' boulder,  
 surrounded by stones





## PROPOSED NORTHWEST ELEVATION STUDY

JACKSON FIRE DEPARTMENT

3.11.2021

SCALE: 1/8" = 1'-0"

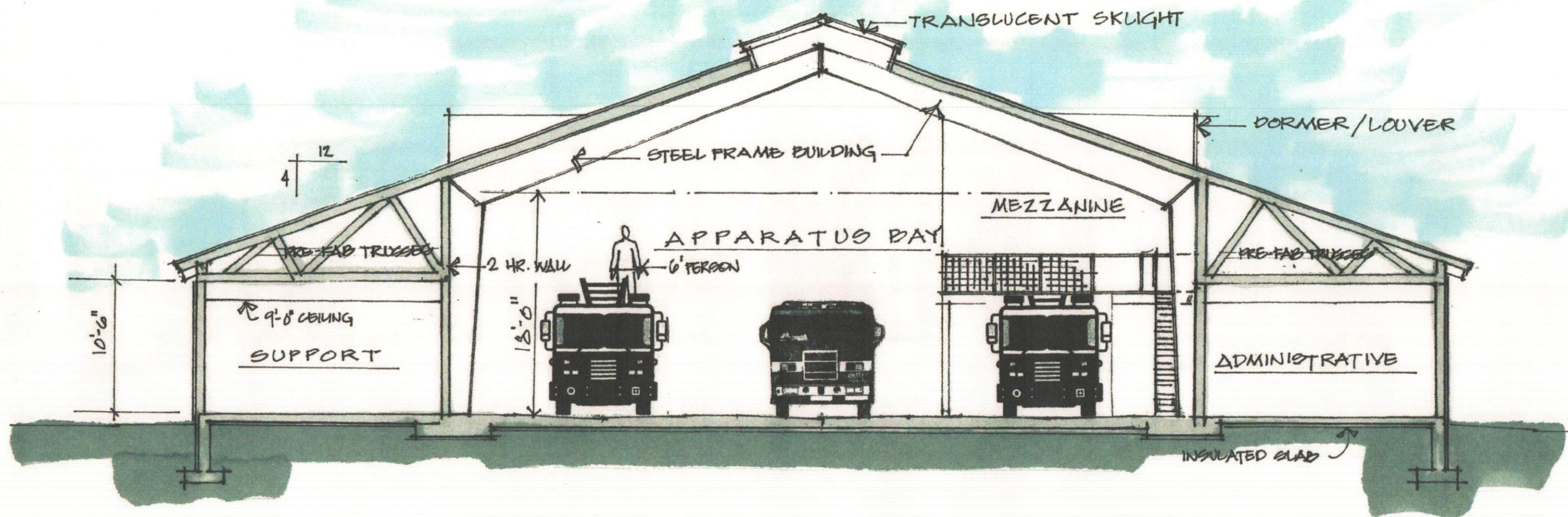
**SDA** **SAMYN - D'ELIA**  
ARCHITECTS, P.A.

P.O. Box 229 • Holderness, NH 03245

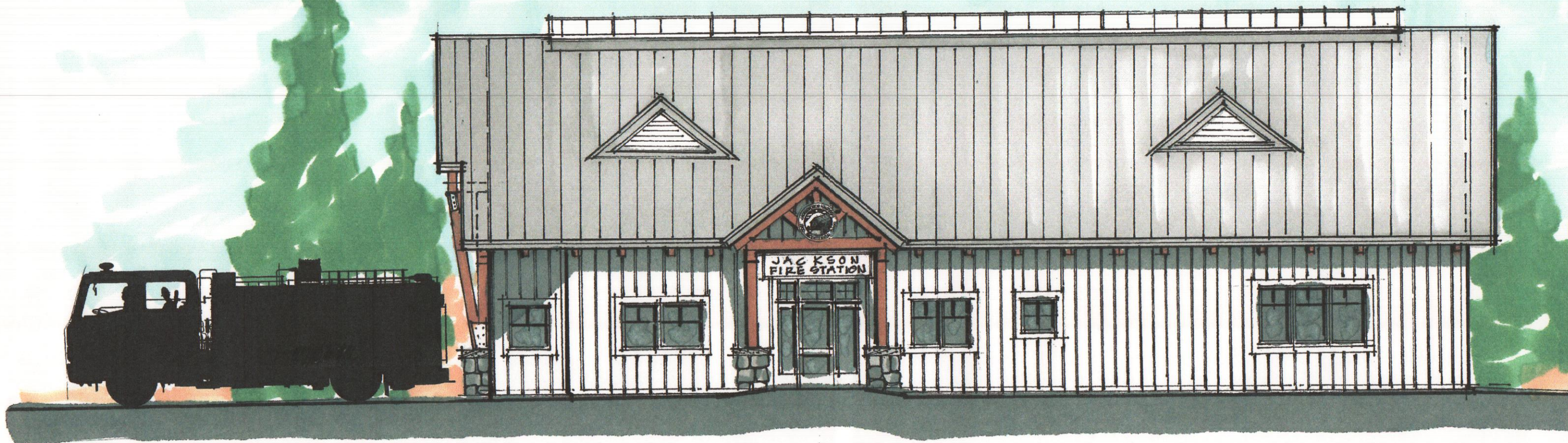
(603) 968-7133

info@sdarchitects.com

www.sdarchitects.com



**SECTION STUDY THRU BUILDING**  
 JACKSON FIRE DEPARTMENT 3.11.2021 SCALE: 1/8" = 1'-0"



**PROPOSED SOUTHWEST ELEVATION STUDY**

JACKSON FIRE DEPARTMENT

3.11.2021

SCALE: 1/8" = 1'-0"



**SAMYN - D'ELIA**  
ARCHITECTS, P.A.

***Section VII - Engineer's Cost Estimate***

**ENGINEER'S OPINION OF BUDGET QUANTITIES****Civil Solutions, LLC**

Bartlett, NH 03812

(603) 374-1899

**Project Data:**

Client: *Town of Jackson*  
 Project: *Fire Station Planning*  
 Location: *Jackson Village - Existing Site Reconstruction*  
 Section: **Site Work - Based on Conceptual Design**

Project#: *2005-005-19*  
 Calc. By: *BHDP*  
 Check By: *BHDP*  
 Date: *9/13/2021*

<u>Item #</u>	<u>Description</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Price</u>
<b>Sitework - On-Site</b>					
1	Mobilization (Mostly Bonds)	1	LS	\$45,000.00	\$45,000.00
2	Clear & Grubbing	1.25	Ac.	\$10,000.00	\$12,500.00
3	Demo - Concrete Fueling Pad	600	SF	\$5.00	\$3,000.00
4	Demo - Asphalt Pavement - On-site	3,200	SY	\$2.25	\$7,200.00
5	Demo - Asphalt Pavement - State Hwy	70	SY	\$5.00	\$350.00
6	Demo - Stormdrains - On-site	300	LF	\$20.00	\$6,000.00
7	Demo - Catch basins	4	EA	\$500.00	\$2,000.00
8	Demo - Pump Station	1	EA	\$1,500.00	\$1,500.00
9	Demo - Leach Field	1900	SF	\$2.00	\$3,800.00
10	Demo - Force Main	160	LF	\$9.00	\$1,440.00
11	Demo - Underground Power/Com.	60	LF	\$15.00	\$900.00
12	Relocate Utility Poles & Anchor Wires	2	EA	\$5,000.00	\$10,000.00
13	Strip & Stockpile Topsoil (6" deep)	600	CY	\$15.00	\$9,000.00
14	Excavate Subgrade (after strip)	8800	CY	\$12.00	\$105,600.00
15	Backfill to Subgrade	20	CY	\$12.00	\$240.00
16	Subgravel Separation Geotextile	3500	SY	\$3.00	\$10,500.00
17	Aggregate Base Gravels, On-Site	2300	CY	\$32.00	\$73,600.00
18	Aggregate Base Gravels, State Hwy / 16A	45	CY	\$50.00	\$2,250.00
19	Pavement (@3.5" thick)	680	Tons	\$105.00	\$71,400.00
20	Pavement (@3.5" thick)	15	Tons	\$200.00	\$3,000.00
21	Granite Curb & Sidewalk Cut/Replace	1	LS	\$2,500.00	\$2,500.00
22	Underdrain, 6" Perf. HDPE	775	LF	\$25.00	\$19,375.00
23	Underdrain, Clean-Out	5	EA	\$500.00	\$2,500.00
24	12" HDPE Culvert	30	LF	\$45.00	\$1,350.00
25	15" HDPE Culvert	260	LF	\$50.00	\$13,000.00
26	18" HDPE Culvert	45	LF	\$60.00	\$2,700.00
27	24" HDPE Culvert	300	LF	\$80.00	\$24,000.00
28	30" HDPE Culvert	85	LF	\$95.00	\$8,075.00
29	Headwall	1	EA	\$2,000.00	\$2,000.00
30	Std Catch Basins (Type B)	11	LS	\$3,000.00	\$33,000.00
31	Septic Effluent Pump Station, 4' Dia., Duplex	1	EA	\$10,000.00	\$10,000.00
32	2" Force Main	350	LF	\$20.00	\$7,000.00
33	Septic Tank, 1,000-Gal.	1	EA	\$3,000.00	\$3,000.00
34	Leachfield	1700	SF	\$25.00	\$42,500.00
35	Flr Drn - Oil/Water Separator, 2,000-Gal.	1	EA	\$6,000.00	\$6,000.00
36	Flr Drn - Holding Tank, 2,000-Gal.	1	EA	\$6,000.00	\$6,000.00
37	Domestic Water Service, 1-inch, 50 LF	1	LS	\$4,000.00	\$4,000.00
38	Fire-Protection Service, 6-inch,	1	LS	\$20,000.00	\$20,000.00
39	Eros. Ctrl Mat	300	SY	\$3.00	\$900.00
40	Erosion & Sediment Ctrl Measures - Misc.	1	LS	\$10,000.00	\$10,000.00
41	Eros. & Sed Ctrl NPDES & Monitoring	1	LS	\$6,000.00	\$6,000.00
42	Turf Establishment w/ Mulch (incl. loam)	3300	SY	\$4.50	\$14,850.00
	Subtotal				\$608,030.00
	Contingency	20	%		\$121,606.00
	Civil Engineering & Permitting	8	%		\$48,642.40
	Permitting (Wetlands, Sptc Sys., Water, DOT)	1	LS		\$15,000.00
	Total Construction				\$793,278.40

**Notes:**

- Opinions of probable cost, sometimes referred to as "cost estimates", are made without any expressed or implied warranty or guarantee.
- Building Demo & Constuction, Foundation excavation & drainage, are part of building construction (not site-work).
- Unit Prices are generally ball-park estimates from local experience
- Unit Prices is **Orange** are wild guesses

***Section VIII - Building Estimates/Cost Estimates***

## Summary Building Cost Estimate

JOB #	2021.16		TOWN OF JACKSON NH - FIRE STATION					SD		8/9/2021	
	page 1										
			Div 1: General Conditions								
Section	Description	Quantity/Unit	MTRL	EQPMNT	SUB	LABOR	OTHER	TOTAL		NOTES	
600	Perf/Pay Bond	Consol sht						0			
	Bldr's Risk	allowance					20,000	20,000			
	Building Permits	allowance	.0045 x construction value				20,000	20,000			
1020	Allowances							0			
	Travel & Lodging	local						0			
1030	Project Manager	45wk/\$950		1/2 time		42,750	12,825	55,575			
	Supervision/FT	45wk/\$950		1/2 time		42,750	12,825	55,575			
	Super/Working	45wk/\$1,750		full time		78,750	39,375	118,125			
	Clerk	45w/\$440		1/3 time		19,800	5,940	25,740			
1045	Cut/Patch							0			
1050	Design Engineering							0			
	Field Engineering							0			
	Field Layout				5,000			5,000			
1170	Safety Program	writeoff					1,250	1,250			
	Safety Officer	Super						0			
1180	Site Safety	Super						0			
	Traffic Control	Div 31						0			
1340	As Builts	allowance			15,000			15,000			
	Shops & Submittals	Proj mgr/clerk						0			
1380	Photographs	lump	750			Super		750			
	Testing	Owner						0			
1430	Mockups					2,000		2,000			
1440	Quality Control	Super						0			
1505	Mobilize/Closeout	lump	1,500	1,000		1,500	750	4,750			
1510	Temp Electrical	allowance			5,000			5,000			
	Power	45w/\$350					15,750	15,750			
	Lamping	allowance			2,000			2,000			
	Temporary Heat	allowance					15,000	15,000			
	Tenting & Heating	allowance					2,000	2,000			
	Snow Removal	allowance					1,250	1,250			
		Sub Total	2,250	1,000	27,000	187,550	146,965	364,765			
Conestco.	222 Mountain Road, Raymond ME 04071 ~ 207.627.4099 ph/fx					Opinions of Probable Cost ~ Construction Consulting ~ Value Engineering					

## Summary Building Cost Estimate

JOB #	2021.16		TOWN OF JACKSON NH - FIRE STATION					SD		8/9/2021	
	page 2										
				Div 1: General Conditions							
Section	Description	Quantity/Unit	MTRL	EQPMNT	SUB	LABOR	OTHER	TOTAL		NOTES	
1515	Telephone	45w/\$100					4,500	4,500			
	Water	temporary			2,500			2,500			
	Sanitary	45w/\$70					3,150	3,150			
	Fire Protection	lump	1,000			Super		1,000			
1525	Staging	allowance					10,000	10,000			
	Shoring	Div 2						0			
	Enclosures		1,000			000	500	1,500			
1530	Barriers	Div 31						0			
	Fences	Div 31						0			
1540	Security	Owner						0			
1560	Temp Controls							0			
	Cleanup	45w/\$500				22,500	6,750	29,250			
	Final Cleanup	lump			6,500			6,500			
	Dump Fees	6 ea \$1,500	non-demo				9,000	9,000			
	Dust Control	Div 31						0			
	Surface Water	Div 31						0			
1570	Traffic Control Off-Site							0			
	Signals							0			
1580	Signs/Project ID	lump					2,000	2,000			
1590	Field Offices	45w/\$100					3,150	3,150			
	Storage Trailers	45w/\$70					5,200	5,200			
1610	Pickup Trucks	45w/\$400		18,000				18,000			
	Forktrucks/Lifts	lump		10,000				10,000			
1620	Storage/Protection	lump	1,500			1,500	750	3,750		Div 1 Analysis	
1650	Test/Balance	see HVAC						0		excluding permits & insurance	
										\$9,650/wk	
		Sub Total page 2	3,500	28,000	9,000	24,000	45,000	109,500			
		SubTotal page 1	2,250	1,000	27,000	187,550	146,965	364,765		Div 1 Analysis	
										w/permits & insurance	
		TOTAL	5,750	29,000	36,000	211,550	191,965	474,265		\$10,540/wk	
Conestco.	222 Mountain Road, Raymond ME 04071 ~ 207.627.4099 ph/fx					Opinions of Probable Cost ~ Construction Consulting ~ Value Engineering					

# General Condition Building Cost Estimate

JOB #	2021.16	TOWN OF JACKSON NH - FIRE STATION / Samyn D'Elia Architects					SD	8/9/2021
DIVISION		MTRL	EQPMT	SUB	LABOR	OTHER	TOTAL	ANALYSIS
1	General Conditions	5,750	29,000	36,000	211,550	191,965	474,265	<u>Building Pad Ready</u>
2	Existing Conditions		building razing part of civil beyond 5'				0	\$134,750 building razing excluded;
3	Concrete	115,670		34,030	49,925		199,625	razing considered part of civil beyond 5';
4	Masonry			165,475			165,475	civil beyond 5' excluded
5	Steel	323,265	24,750		84,450		432,465	\$506.33/sf & \$4,212,645
6	Carpentry	62,765	10,625	63,010	42,500		178,900	
7	Thermal/Moisture			303,985			303,985	<u>Building Project Complete</u>
8	Doors/Glass			290,450			290,450	8,320 sf total project area =
9	Finish			229,675			229,675	7,820 sf slab on grade +
10	Specialties			45,095			45,095	500 sf mezzanine
11	Equipment			91,075			91,075	<u>not applicable</u>
12	Furnishings			4,325			4,325	
13	Special Construction			X			0	<u>Notes</u>
14	Conveying Equipment			X			0	Value of current market offsets
21	Fire Suppression			92,990			92,990	for Divs 3 thru 10 = \$193,340 ..
22	Plumbing			123,395			123,395	including markups = \$232,975
23	HVAC			426,020			426,020	\$28.00/sf
26	Electrical			359,505			359,505	
27	Communications			see Div 26			0	Projected values based on
28	Electronic Safety/Security			see Div 26			0	GenCon select invited list ..
31	Earthwork			78,720	pap prep only		78,720	for CM delivery method,
32	Exterior Improvements			X	civil beyond 5' excluded		0	add \$300,000
33	Utilities			X			0	\$367.06/sf
34	Transportation			X			0	
35	Waterway/Marine			X			0	
41	Material Handling			X			0	
44	Pollution Control			X			0	
	SUBTOTAL	507,450	64,375	2,343,750	388,425	191,965	3,495,965	
5%	Overhead & Profit					174,800	174,800	
	Volume Adjustment			not used			0	
	Complexity & Phasing			not used			0	
5%	Contingency			SD cost contingency		174,800	174,800	
7.50%	Market & Inflation			inflation to Fall 2022 job start & uncertain markets		262,200	262,200	
3%	Bonds & Insurance					104,880	104,880	
	TOTAL	507,450	64,375	2,343,750	388,425	908,645	\$4,212,645	
Conestco.	222 Mountain Road, Raymond ME 04071 ~ 207.627.4099 ph/fx					Opinions of Probable Cost ~ Construction Consulting ~ Value Engineering		

# Building Cost Estimate Breakdown

JOB #	2021.16			TOWN OF JACKSON NH - FIRE STATION	SD			WORKSHEETS			(page 1)	
				8/9/2021								
Qnty	X on	Units		Description	Mtrl	Eqpmt	Subcon	Labor	Other	TOTAL	SECT'N	DIVS'N
					0		0	0		0		
				<u>Div 1 - General Conditions</u>	0		0	0		0		
				See backups attached	5,750	29,000	36,000	211,550	191,965	474,265	474,265	474,265
					0		0	0		0		
				<u>Div 2 - Existing Conditions</u>	0		0	0		0		
				Building Razing	0		0	0		0		
	excluded			Hazardous materials abatement	0		0	0		0		
100,000	cf allow	\$0.25		Fire station building razing	0		25,000	0		25,000		
225	cy allow	\$250		Frost foundation & building slab on grade & OHD landing pads on grade removal	0		56,250	0		56,250		
100	cy allow	\$35		Gravel compacted backfill @ removed frost foundations to subgrade elevation	0		3,500	0		3,500		
50	15 cy	\$1,000		Cleanup & disposal	0		50,000	0		50,000	134,750	
				Total Div 2	Consider	this	as	part	of	civil	beyond 5'	0
					0		0	0		0		
				<u>Div 3 - Concrete</u> (division carrying \$9,705 added cost for current market issues)	0		0	0		0		
				Foundations	0		0	0		0		
115	\$115	cy		Frost foundations 65#/cy	13,225		0	0		13,225		
35	\$115	cy		Column footings 90#/cy	4,025		0	0		4,025		
15	\$115	cy		Column piers 150#/cy	1,725		0	0		1,725		
15	\$115	cy		Frost entry foundations @ building exterior apssdoors & Vestibule overhang 85#/cy	1,725		0	0		1,725		
25	\$115	cy		Interior strip footings for cmu walls 50#/cy	2,875		0	0		2,875		
cy	205	\$225		form labor & material	0		0	46,125		46,125	69,700	
				Slabs	0		0	0		0		
150	\$120	cy		10" slab on grade Apparatus Bays/Workshop 225#/cy & 6x6#6 mesh for radiant floor piping	18,000		0	0		18,000		
45	\$120	cy		5" slab on grade Support & Administration 80#/cy & 6x6#6 mesh Admin radiant floor piping	5,400		0	0		5,400		
8	\$125	cy		6" frost entry slab on grade @ building exterior apssdoors & Vestibule overhang 85#/cy	1,000		0	0		1,000		
20	\$120	cy		5 1/2" slab on deck Mezzanine 6x6#6 mesh	2,400		0	0		2,400		
	Div 32			12" emergency generator pad 185#/cy	0		0	0		0		
30	\$125	cy		12" OHD landing pads 185#/cy	3,750		0	0		3,750		
250	\$2.00	sf		Equipment pads	500		0	0		500		
hrs	80	\$48		form material & labor	0		0	3,800		3,800		
1	days	\$1,500		concrete pumping	0		1,500	0		1,500		
1,500	lf	\$2.50		sawcutting	0		3,750	0		3,750		
7,820	sf	1.25		finish slab on grade interior	0		0	0		0		
1,015	sf	\$1.85		finish slab on grade exterior	0		1,880	0		1,880		
500	sf	\$1.35		finish slab on deck	0		675	0		675		
0.50	\$120	cy		Concrete treads & landings @ steel pan stairs	60		0	0		60		
1	ls	\$1,350		finishing	0		1,350	0		1,350	44,065	
				Reinforcement	0		0	0		0		
60,000	\$0.75	#		Rebar	45,000		0	0		45,000		
6,340	\$0.50	sf		6x6#6 mesh	3,170		0	0		3,170		
1	ls	\$23,500		labor	0		23,500	0		23,500	71,670	
					0		0	0		0		
					0		0	0		0		
					0		0	0		0		
					0		0	0		0		
					0		0	0		0		
Conestco.				222 Mountain Road, Raymond ME 04071 ~ 207.627.4099 ph/fx	Opinions of Probable Cost - Construction Consulting ~ Value Engineering							

# Building Cost Estimate Breakdown

JOB #	2021.16		TOWN OF JACKSON NH - FIRE STATION	SD				WORKSHEETS	(page 2)	
			8/9/2021							
Qnty	X on	Units	Description	Mtrl	Eqpmt	Subcon	Labor	Other	TOTAL	SECT'N
				0		0	0		0	
			Div 3 - (cont.)	0		0	0		0	
			Miscellaneous	0		0	0		0	
25	cy	\$55	Barrier One floor sealing admixture @ slabs on grade w/adhered floor finishes	0		1,375	0		1,375	
645	\$0.60	lf	5" joint filler	390		0	0		390	
45	\$0.65	lf	6" joint filler	30		0	0		30	
425	\$1.10	lf	10" joint filler	470		0	0		470	
100	\$1.25	lf	12" joint filler	125		0	0		125	
9,335	\$0.35	sf	Wet cure burlap	3,270		0	0		3,270	
10	\$13	gal	Hardener sealer compound	130		0	0		130	
24	\$350	set	Anchor bolts & grout plates	8,400		0	0		8,400	
	Div 5		Cmu wall bracing angles	0		0	0		0	
10		set	Cmu wall embedment plates	0		0	0		0	
1		ls	Concrete forming accessories	0		0	0		0	
hrs	140		labor	0		0	0		0	14,190
			Precast Concrete	0		0	0		0	
135	sf		Jackson Fire Department architectural precast wall name planks @ front elevation OHD's	0		0	0		0	0
			Total Div 3	115,670	0	34,030	49,925	0	199,625	199,625
				0		0	0		0	
			Div 4 - Masonry (division carrying \$17,775 added cost for current market issues)	0		0	0		0	
			Unit Masonry	0		0	0		0	
1,510	sf	\$20.00	12" cmu infill exterior Apparatus Bay perimeter walls @ OHD's to 16'	0		30,200	0		30,200	
2,570	sf	\$20.00	12" cmu infill interior Apparatus Bay demising walls @ Support & Admin to 16'	0		51,400	0		51,400	
865	sf	\$16.50	8" cmu infill exterior walls @ Support perimeter to 12' eave & sloping gable ends to 16'	0		14,275	0		14,275	
530	sf	\$16.50	8" cmu infill interior walls @ Apparatus Bay Workshop to Mezzanine deck above	0		8,745	0		8,745	
1,280	sf	\$16.50	8" cmu interior partitions Support core	0		21,120	0		21,120	
280	sf	\$14	6" cmu interior minor partitions Support core	0		3,920	0		3,920	
300	sf	\$55	Grouted fieldstone veneer & granite cap @ OHD timber bases & Vestibule canopy timber bases	0		16,500	0		16,500	
80	hrs	\$50	Labor @ cmu wall HM door frame & OHD & precast panel galvanized lintels & embedments	0		4,000	0		4,000	
40	hrs	\$50	Labor @ cmu wall steel bearing plates & cmu wall angle iron bracing	0		2,000	0		2,000	
20	hrs	\$50	Labor @ cmu wall door frame & embedment grouting	0		1,000	0		1,000	
7,035	sf	\$1.75	Masonry staging	0		12,315	0		12,315	165,475
			Total Div 4	0	0	165,475	0	0	165,475	165,475
				0		0	0		0	
			Div 5 - Metals (division carrying \$66,335 added cost for current market issues)	0		0	0		0	
			Structural Steel-Joist-Deck	0		0	0		0	
64,000	\$1.75	#	Fire House roof structural steel column & beam framing 8#/sf (includes Support rear porch overhang)	112,000		0	0		112,000	
24,000	\$1.75	#	Apparatus Bay roof structural secondary purlin framing 3#/sf	42,000		0	0		42,000	
8,800	\$5.00	sf	Apparatus Bay-Support-Admin 1 1/2" 20 ga galvanized roof deck	44,000		0	0		44,000	
2,000	\$1.75	#	Apparatus Bay Workshop Mezzanine deck composite beam & column framing 4#/sf	3,500		0	0		3,500	
500	\$7.50	sf	Apparatus Bay Workshop Mezzanine 1 1/2" 18 ga galvanized composite deck	3,750		0	0		3,750	
250	\$0.65	ea	Composite deck shear studs	165		0	0		165	
9,000	\$1.75	#	Connections & bracing	15,750		0	0		15,750	
hrs	600	\$85	labor	0		0	51,000		51,000	
hrs	60	\$120	moment connection welding	0		0	7,200		7,200	
hrs	60	\$325	equipment	0	19,500	0	0		19,500	298,865
Conestco.			222 Mountain Road, Raymond ME 04071 ~ 207.627.4099 ph/fx						Opinions of Probable Cost - Construction Consulting - Value Engineering	

# Building Cost Estimate Breakdown

JOB #	2021.16		TOWN OF JACKSON NH - FIRE STATION	SD			WORKSHEETS			(page 3)	
			8/9/2021								
Qnty	X on	Units	Description	Mtrl	Eqpmt	Subcon	Labor	Other	TOTAL	SECT'N	DIVS'N
				0		0	0		0		
			Div 5 - (cont.)	0		0	0		0		
			Miscellaneous Metals	0		0	0		0		
1	\$8,500	flors	Concrete pan steel stairs w/rail systems	8,500		0	0		8,500		
45	\$150	lf	Apparatus Bay Workshop Mezzanine perimeter ground mount guard rails (1 section removable)	6,750		0	0		6,750		
20	\$425	ea	Bollards 6" concrete packed OHD jambs interior & exterior	8,500		0	0		8,500		
10	\$425	ea	Bollards 6" concrete packed civil beyond 5' allowance	4,250		0	0		4,250		
10	\$60	ea	Cmu t.o.w. joist bearing plates (labor Div 4)	600		0	0		600		
600	\$30.00	#	Angle iron w/set tabs @ OHD slab edges & landing pad edges 10#/lf	18,000		0	0		18,000		
3,000	\$2.75	#	Galvanized steel lintels @ cmu wall HM door frame & OHD frame openings (labor Div 4)	8,250		0	0		8,250		
1,000	\$2.75	#	Galvanized steel lintels @ precast OHD name plate panels (labor Div 4)	2,750		0	0		2,750		
3,000	\$3.25	#	OHD galvanized C channel door framing	9,750		0	0		9,750		
1,000	\$2.00	#	Roof mounted antenna steel framing supports	2,000		0	0		2,000		
2,750	\$2.00	#	Cmu wall bracing angles (labor Div 4)	5,500		0	0		5,500		
10	\$60.00	set	Cmu wall embedment plates	600		0	0		600		
50	\$7	lf	Apparatus Bay Workshop Mezzanine slab on deck perimeter floor pour stop angles	325		0	0		325		
750	\$2.00	#	Architectural roof & wall mount support steel	1,500		0	0		1,500		
2,000	\$2.00	#	HVAC roof & wall mount support steel	4,000		0	0		4,000		
185	\$45.00	sf	Decon room stainless steel shower wall & ceiling protection sheeting 28 ga	8,325		0	0		8,325		
civil engineer			Emergency generator pad perimeter 8' height 9 ga chain link fence w/double gates	0		0	0		0		
2,500	\$5.00	#	Apparatus Bay roof gable ends (2 ea) fiberglass frame @ gable mounted Kalwall panels	12,500		0	0		12,500		
hrs	350	\$75	labor	0		0	26,250		26,250		
hrs	35	\$150	equipment	0	5,250	0	0		5,250	133,600	
			Total Div 5	323,265	24,750	0	84,450	0	432,465		432,465
				0		0	0		0		
			Div 6 - Carpentry (division carrying \$20,425 added cost for current market issues)	0		0	0		0		
			Rough Carpentry	0		0	0		0		
4,200	\$6.50	sf	Roof plane prefabricated wood trusses @ Support & Admin single slope roof framing w/eave overhang	27,300		0	0		27,300		
500	\$1.30	bf	Roof plane gable overframing for louver systems & Admin Vest roof overframe	650		0	0		650		
1,500	\$1.30	bf	Roof perimeter framing-blocking-cants	1,950		0	0		1,950		
300	\$55.00	shts	Roof plane 3/4" sheathing over Div 7 rigid insulation systems	16,500		0	0		16,500		
5,000	\$1.30	lf	Roof plane 2 x sleepers for metal roof finish above 3/4" sheathing	6,500		0	0		6,500		
135	\$35.00	shts	Exterior wall 1/2" wall sheathing @ metal panel finish	4,725		0	0		4,725		
850	\$1.25	bf	Window & door header block-shim	1,065		0	0		1,065		
200	\$1.25	bf	In wall & surface mounted blocking	250		0	0		250		
5	\$65	shts	Electric panel & phone backer boards	325		0	0		325		
hrs	850	\$50	labor	0		0	42,500		42,500		
hrs	85	\$125	equipment	0	10,625	0	0		10,625		
1	\$3,500	ls	Hardware	3,500		0	0		3,500	115,890	
			Timber Framing	0		0	0		0		
2,000	bf	\$10.00	Rough 4 x 10 timber & plate exterior wall frame & columns @ Admin Vest & OHD/gable endwall elevations	0		20,000	0		20,000		
40	ea	\$250.00	Timber eave struts (ornamental)	0		10,000	0		10,000	30,000	
				0		0	0		0		
				0		0	0		0		
				0		0	0		0		
				0		0	0		0		
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## Building Cost Estimate Breakdown

JOB #	2021.16		TOWN OF JACKSON NH - FIRE STATION				SD		WORKSHEETS			(page 4)	
Qnty	X on	Units	Description	Mtrl	Eqpmt	Subcon	Labor	Other	TOTAL	SECT'N	DIVS'N		
			8/9/2021										
				0		0	0		0				
			<u>Div 6 - (cont.)</u>	0		0	0		0				
			Architectural Woodwork	0		0	0		0				
26	If	\$375	Training Room Kitchen & B.I. Office base cabinet w/solid surface countertop	0		9,750	0		9,750				
30	If	\$200	Training Room Kitchen & B.I. Office wall cabinet	0		6,000	0		6,000				
45	If	\$185	B.I.-Chief-Dispatch workstation countertop solid surface & open shelving below	0		8,325	0		8,325	24,075			
			Finish Carpentry	0		0	0	0	0				
150	If	\$22.50	Solid surface exterior window sill & stoop	0		3,375	0		3,375				
4	If dbl	\$40	Solid surface interior Dispatch to Apparatus Bay communication window sill & stoop	0		160	0		160				
240	sf set	\$22.50	FRP wall panel & trim Training Room perimeter wainscot & Training room Kitchen cabinet @ backsplash	0		5,400	0		5,400	8,935			
			Total Div 6	62,765	10,625	63,010	42,500	0	178,900		178,900		
				0		0	0		0				
			<u>Div 7 - Thermal &amp; Moisture</u> (division carrying \$38,920 added cost for current market issues)	0		0	0		0				
			Damp Proofing	0		0	0		0				
6	ea	\$40	Damp proof below top of slab steel columns	0		240	0		240	240			
			Insulation & Barriers	0		0	0		0				
2,150	sf	\$2.25	2" extruded polystyrene rigid foundation wall insul & 24" return under slab @ non-radiant (Support typ)	0		4,840	0		4,840				
3,615	sf	\$3.25	3" extruded polystyrene rigid exterior wall insulation	0		11,750	0		11,750				
8,800	sf	\$4.00	R40 polyisocyanurate rigid roof insulation	0		35,200	0		35,200				
1,520	sf	\$1.65	6" exterior wall metal stud denspak blanket insulation (Admin exterior walls)	0		2,510	0		2,510				
875	sf	\$1.65	6" interior stud wall sound batt insulation (Admin stud partitions)	0		1,445	0		1,445				
250	sf	\$1.25	4" interior stud wall sound batt insulation (Admin stud partitions)	0		315	0		315				
1	ls	\$1,000	Insulation end foams & fillers	0		1,000	0		1,000				
3,615	sf	\$5	Peel & stick or liquid spray applied exterior wall air barrier	0		18,075	0		18,075				
6,340	sf	\$3	Crete Heat underslab insulation radiant areas (Apparatus Bays & Admin typical)	0		19,020	0		19,020				
7,820	sf	\$0.90	15 mil reinforced under slab VB	0		7,040	0		7,040	101,195			
			Metal Roofing	0		0	0		0				
9,000	sf	\$10.00	20 ga architectural kynar finish standing seam metal roof & trim	0		90,000	0		90,000				
120	sf	\$8.00	Support rear overhang Porch soffit panels & trim	0		960	0		960				
160	sf	\$8	Admin Vestibule canopy overhang soffit panels & trim	0		1,280	0		1,280				
950	sf	\$8	Building roof eave & gable overhang soffit & trim	0		7,600	0		7,600				
145	If	\$55	Snowguard systems	0		7,975	0		7,975				
145	If	\$30	Eave gutter heavy duty w/downspouts	0		4,350	0		4,350				
475	If	\$12	Eave & gable & canopy perimeter trims & drips-flashings	0		5,700	0		5,700				
1	ls	\$5,000	Project general metal & fabric sheet metal flashing	0		5,000	0		5,000	122,865			
			Metal Wall Panels	0		0	0		0				
3,615	sf	\$12.00	22 ga kynar finish exterior rainscreen metal wall panels & trim	0		43,380	0		43,380				
3,615	sf	\$7	Rainscreen standoff subframing	0		25,305	0		25,305	68,685			
			Fire Proofing	0		0	0		0				
200	sf equiv	\$5	Fire proof wall encased structural steel (limited)	0		1,000	0		1,000	1,000			
			Fire Stopping & Sealants	0		0	0		0				
1	ls	\$3,500	Fire stop project	0		3,500	0		3,500				
1	ls	\$6,500	Caulk & seal project	0		6,500	0		6,500	10,000			
			Total Div 7	0	0								

## Building Cost Estimate Breakdown

[illegible]

## Building Cost Estimate Breakdown

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# Building Cost Estimate Breakdown

JOB #	2021.16		TOWN OF JACKSON NH - FIRE STATION	SD			WORKSHEETS			(page 7)	
			8/9/2021								
Qnty	X on	Units	Description	Mtrl	Eqpmt	Subcon	Labor	Other	TOTAL	SECT'N	DIVS'N
				0		0	0		0		
			<u>Div 10 - Specialties</u> (division carrying \$5,105 added cost for current market issues)	0		0	0		0		
			Accessories	0		0	0		0		
1	ls	\$3,500	Toilet accessories-grab bars-mirrors	0		3,500	0		3,500		
1	set	\$2,500	Support Decon Shower stainless steel bench & coat hook assemblies	0		2,500	0		2,500		
12	vlf	\$35	Corner guards heavy duty stainless steel	0		420	0		420		
2	ea	\$375	Fire extinguishers w/semiflush wall cabinets	0		750	0		750		
1	ea	\$150	Fire extinguishers wall mounted	0		150	0		150		
2	ea	\$1,400.00	Phenolic toilet partition	0		2,800	0		2,800		
1	ea	\$1,100	Phenolic urinal partition	0		1,100	0		1,100		
1	ea	\$300	Ceiling mount for Owner FFE projector Admin Training	0		300	0		300		
60	sf	\$55	Projection screen electrical operated Admin Training	0		3,300	0		3,300		
2	set	\$3,750	Flagpoles (concrete bases by civil beyond 5')	0		7,500	0		7,500		
1	set allow	\$5,750	Support SCBA room compressor stand & tank rack assemblies	0		5,750	0		5,750		
1	ls	\$1,500	Signage interior ADA & directional	0		1,500	0		1,500		
21	ea	\$75.00	Signage exterior precast panel OHD lettering	0		1,575	0		1,575		
24	opngs	\$550	Lockers Turnout Gear 72" slope top w/shelf-coat hooks-wire basket	0		13,200	0		13,200		
10	lf	\$75	Turnout Gear locker bench	0		750	0		750	45,095	
			Total Div 10	0	0	45,095	0	0	45,095		45,095
				0		0	0		0		
			<u>Div 11 - Equipment</u>	0		0	0		0		
			Laundry Equipment	0		0	0		0		
1	ea	\$19,745	Blood removal extracting large capacity washing machine Support Decon 50#	0		19,745	0		19,745		
1	ea	\$10,030	Heavy duty 5 rack gear cabinet dryer large capacity Support Decon	0		10,030	0		10,030		
1	set	\$2,500	Residential washer-dryer set Laundry	0		2,500	0		2,500	32,275	
			Kitchen Equipment	0		0	0		0		
1	ea	\$2,500	Kitchen heavy duty residential upright refrigerator	0		2,500	0		2,500		
1	ea	\$4,000	Kitchen heavy duty residential upright freezer	0		4,000	0		4,000		
1	ea	\$3,500	Kitchen 4 burner cooktop w/oven & cooktop center warming grille	0		3,500	0		3,500		
1	ea	\$2,000	Kitchen heavy duty residential dishwasher	0		2,000	0		2,000		
1	ea	\$500	Kitchen microwave oven	0		500	0		500		
1	set	\$5,000	Kitchen fire suppression hood (also see Div 23 for ductwork & exhaust fan)	0		5,000	0		5,000	17,500	
			Exhaust Capturing	0		0	0		0		
5	stations	\$8,260.00	Plymovent system for 5 magnetic hose assemblies & App Bay roof mount EF & ductwork	0		41,300	0		41,300	41,300	
			Total Div 11	0	0	91,075	0	0	91,075		91,075
				0		0	0		0		
			<u>Div 12 - Furnishings</u>	0		0	0		0		
			Window Treatment	0		0	0		0		
130	sf	\$10	Exterior window treatment horizonmtal slat blinds @ Admin	0		1,300	0		1,300		
70	sf	\$8	Exterior window treatment light filtering single roller shades @ Support	0		525	0		525	1,825	
			Floor Mats	0		0	0		0		
50	sf	\$50	Admin Vestibule 1/8" recessed carpet tile floor mat & frame	0		2,500	0		2,500	2,500	
			Total Div 12	0	0	4,325	0	0	4,325		4,325
				0		0	0		0		
				0		0	0		0		
				0		0	0		0		
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## Building Cost Estimate Breakdown

[illegible]

## Building Cost Estimate Breakdown

[illegible]

## Building Cost Estimate Breakdown

[illegible]

# Building Cost Estimate Breakdown

[illegible]

# Building Cost Estimate Breakdown

JOB #	2021.16		TOWN OF JACKSON NH - FIRE STATION	SD			WORKSHEETS			(page 12)	
			8/9/2021								
Qnty	X on	Units	Description	Mtrl	Eqpmt	Subcon	Labor	Other	TOTAL	SECT'N	DIVS'N
				0		0	0		0		
			<u>Div 32 - Exterior Improvements</u>	0		0	0		0		
			Site Finishes (illustrative scope only)	0		0	0		0		
	sf	t.b.d.	4 1/2" bituminous paving @ heavy duty apparatus traffic areas	0		0	0		0		
	sf	t.b.d.	3 1/2" bituminous paving @ standard duty traffic areas	0		0	0		0		
	lf	t.b.d.	Granite curbs	0		0	0		0		
1	ls	t.b.d.	Striping	0		0	0		0		
	sf	t.b.d.	5" c.i.p. concrete walkways	0		0	0		0		
	sf	t.b.d.	12" c.i.p. dumpster pad on 12" gravel w/perimeter fencing & double gate	0		0	0		0		
	sf	t.b.d.	8" c.i.p. AC condensing pads on 12" gravel	0		0	0		0		
	sf	t.b.d.	12" c.i.p. generator pad on 12" grave	0		0	0		0		
	lf	t.b.d.	Decorative yard fencing t.b.d.	0		0	0		0		
	ea	t.b.d.	Flagpole concrete bases	0		0	0		0		
	set	t.b.d.	Picnic table & trash can sets	0		0	0		0		
	ea	t.b.d.	Monumental signage	0		0	0		0		
1	ls	t.b.d.	Signage ADA & directional	0		0	0		0		
	ea	t.b.d.	ADA walkway transition	0		0	0		0		
	sf	t.b.d.	Loam & seed	0		0	0		0		
1	ls	t.b.d.	Landcaping	0		0	0		0	0	
			Total Div 32	0	0	0	0	0	0		0
				0		0	0		0		
			<u>Div 33 - Utilities</u>	0		0	0		0		
			Site Utilities (illustrative scope only)	0		0	0		0		
	sf	t.b.d.	Stormwater u.g. collection system	0		0	0		0		
	lf	t.b.d.	storm system 12" & 15" average pipe size	0		0	0		0		
	ea	t.b.d.	storm CB pavement	0		0	0		0		
	ea	t.b.d.	storm MH	0		0	0		0		
	ea	t.b.d.	storm field inlet	0		0	0		0		
	set	t.b.d.	storm daylight outfall & riprap	0		0	0		0		
	lf	t.b.d.	Water 6" dedicated sprinkler line w/valves	0		0	0		0		
	lf	t.b.d.	water 2" dedicated domestic line w/valves	0		0	0		0		
	ea	t.b.d.	fire hydrant & water loop	0		0	0		0		
	lf	t.b.d.	Sanitary sewer 6" piping	0		0	0		0		
	ea	t.b.d.	sanitary MH	0		0	0		0		
	Ward??	t.b.d.	sanitary connection to existing system	0		0	0		0		
	Ward??	t.b.d.	septic field & holding tank	0		0	0		0		
	gas company	t.b.d.	Gas lines & building regulators propane service exterior to building	0		0	0		0		
	gallon size??	t.b.d.	u.g. buried propane tank service & c.i.p. pad & hold down system	0		0	0		0		
	ea	t.b.d.	20' parking area light standards & concrete bases	0		0	0		0		
	ea	t.b.d.	walkway bollard lighting & concrete bases	0		0	0		0		
	lf	t.b.d.	field lighting conduits & wiring	0		0	0		0		
1	ls	t.b.d.	flagpole & monumental sign illumination	0		0	0		0	0	
			Total Div 33	0	0	0	0	0	0		0
				0		0	0		0		
				0		0	0		0		
				0		0	0		0		
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