



POLICE STATION – 10 HAZEN STREET

INTRODUCTION

The following report was prepared for the Town of Norwich Vermont by a team of professionals assembled by Mink Brook Management, LLC with the intent to identify the code and functional deficiencies within the three Town buildings housing the Department of Public Works, the Town Police Department, and the Town Fire Department. We have included in this report budget figures showing estimated costs to bring these buildings up to code and meet the functional standards typical for each department if these buildings were new today. The standards were identified by the team of professionals who have designed and constructed complexes in each of the categories discussed. We understand that each of these buildings is in need of maintenance work at this time and there are line items in the budget showing some of the maintenance repairs identified during our inspections. It is not the intent of this report to try to sway the Town of Norwich to perform the remedial work as described as it may not be in the best interest of the Town to do so. It is the intent of the report to inform the Town of Norwich of the costs associated with the work described if in fact remedial work was to be done to each of the existing buildings. The results from previous studies were reviewed and considered while going through the inspection process in each of the buildings mentioned.

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1. Summary

- 1.1. The current Police Department office was built as a private residence in 1957. When the police department moved before the Tracy Hall renovations the move was envisioned as a relatively short term of 5 to 10 years. The plywood sheathed ranch style house on a slab was never designed to house the complex requirements of a modern Police department and with minimal maintenance over the past 25 years, the building has structural, insect, and rodent problems not considering the code deficiencies found during inspections. The building has many maintenance problems that have been deferred over the years and has accessibility limitations. You will see upon review of the floor plan shown below that spatial problems are an issue with this building and there are no accommodations within the small spaces for the requirements of staff, security for personnel, materials, or the public.
- 1.2. Discussion with the Police Chief has uncovered continual leaking roof areas, lack of insulation in the walls and above the ceiling, outdated materials used for the construction that do not meet standards today for ceiling tile, flame spreads, and fireproof characteristics. The exterior of the building needs a lots of attention. The building is in dire need of paint, and renovation repairs. Our last visit to the site found beetles along the sill under the sheathing and a chipmunk sticking his head out from the wall cavity. The existing garage area and furnace room have many code problems and the existing rooms used for offices and storage are inadequate spaces without room for expansion. The kitchen and bathroom / locker room facilities are not ADA compliant and as stated in the report for the Fire Station we feel that all public buildings should be ADA compliant.

2. Functional Deficiencies:

- 2.1. Inadequate public lobby;
- 2.2. Lack of toilet rooms for public or detainees;
- 2.3. No secure sally port;
- 2.4. No secure or private interview room;
- 2.5. No weapons locker;
- 2.6. Inadequate secure evidence storage and record storage;
- 2.7. Inadequate locker room and toilet facilities for officers and staff. Inadequate Male/Female separation;
- 2.8. Lack of assault prevention techniques;
- 2.9. Inadequate training room;
- 2.10. Inadequate space for maintaining equipment;
- 2.11. Inadequate conference space;
- 2.12. Inadequate storage;
- 2.13. Inadequate lighting;
- 2.14. Pest issues;
- 2.15. Inadequate personal maneuvering space (i.e. width of corridors, size of rooms, etc.);
- 2.16. Lack of exterior security surveillance; and
- 2.17. Lack of protection around the building and glass (bollards etc.)

Please review the following report to understand the extent of the major functional and code deficiencies in this building.

3. Code Deficiencies:

The following code changes would certainly have to be implemented if this building was constructed today. The prices shown are estimates showing the cost to alter the existing building to meet these conditions.

- 3.1. Code requires that the building be provided with an accessible route from the parking lot into the building. The accessible parking space including the 60" wide access aisle adjacent to the parking space is required to be relatively level. Grade is not permitted to slope more than 1:50 in all directions. Code also requires a van-accessible parking space with a minimum width of 8 feet and a length of 20 feet. (ADA 28CFR Ch. 1, 7/1/94 edition, section 4, 4.6.6 and 4.12-5-a)
 - 3.1.1. The Fire Station and Police Station parking areas are relatively flat and conform to the ADA requirement for accessible parking on a slope less than 1:50. There is ample room to install parking spaces to accommodate the two buildings and the public. Signage will need to be installed to indicate the area required to allow van accessible handicap parking and line painting could be installed on paved areas of the parking lot if the handicapped spaces were designed on previously paved driveway. Estimated Cost ... \$550
- 3.2. Code requires that accessible entrances be provided with level landings on each side of the door with adequate maneuvering clearances. The existing main entrance has a ramp to the door without a landing. The level landing for this location is required to be a minimum of 60" deep with a minimum of 18" clear to the pull side of the door. (ADA 28CFR Ch. 1, 7/1/94 edition, section 4.8.4-4, 4.13.6 and figure 25)
 - 3.2.1. Renovations to the existing ramp will need to be completed for the ramp to be ADA compliant and acceptable for a handicapped entrance. There is no flat area on the existing ramp and there needs to be a level area 5'-0" square and a minimum of 18" clear to the pull side of the door. Construction to renovate this ramp could be put on the list of carpentry items that need to be done to this building. Estimated Cost ... \$4,000
- 3.3. The existing receptionist counter is in excess of 3 feet in height. Code requires a portion of the counter to be accessible. The top of the accessible counter is required to be a maximum of 36" from the floor (ADA 28CFR Ch. 1, 7/1/94 edition, section 7.2)
 - 3.3.1. There would need to be a section of the existing counter renovated to comply with the above code violation. We would suggest an area approximately three feet in width that would be no more than three feet off the finished floor to allow anyone with a handicap and confined to a wheelchair the opportunity to place items on or in a tray for the receptionist to review. The work would be another carpentry item and would be required to be ADA compliant. Estimated Cost ... \$1,500
- 3.4. Accessible kitchens are required to have a sink with a maximum height of 34" and an accessible counter with a maximum height of 34". (ADA 28CFR Ch. 1, 7/1/94 edition, section 4.24 and 4.32.4)
 - 3.4.1. The kitchen base cabinets would have to be removed and the sink plumbing lowered to accommodate the code requirement height of 34" off finish floor to meet the ADA code requirements. Estimated Cost ... \$4,000
- 3.5. Code requires that all doors on an accessible route within the building shall have a minimum clear width of not less than 32" and a minimum height of 80". (ADA 28CFR Ch. 1, 7/1/94 edition, section 4.13.5)
 - 3.5.1. Code requires that all doors on an accessible route within the building shall have a minimum maneuvering clearance on the pull side of the door of 18". (ADA 28CFR Ch. 1, 7/1/94 edition, section 4.13.6 and figure 25)

- 3.5.2. Maximum allowable height of a door threshold is ½", with 1:2 bevel. (ADA 28CFR Ch. 1, 7/1/94 edition, section 4.13.8)
- 3.6. Code requires that door handles, pulls and latches be no higher than 48" above finished floor and that the handle shall not require tight grasping, pinching or twisting. (ADA 28CFR Ch. 1, 7/1/94 edition, section 4.13.9)
- 3.6.1. Thirteen doors within this building are in non-compliance and will need to be removed and replaced or somewhat relocated in order to have the clearances as called out in the codes above. The installation of pre-fabricated doors and frames and the installation of the proper hardware including closers, and / or panic devices for exit doors is a fairly expensive operation. Other care must be taken to not have the new doors swing into a space where there is a normal flow of traffic, and yet if the door is relocated in the wall area as to allow the proper clearances from the handle side of the door it may than promote an area of the existing room unusable for storage, or furniture that may be in use as it exists now. Estimated Cost ... \$39,000
- 3.7. Interior ceiling finish tiles are required to have a flame spread rating not greater than 200 and a smoke developed rating not greater than 450. (IBC 2006, section 803)
- 3.7.1. The existing ceiling tiles do not meet the characteristics discussed in the above code and are within violation for this IBC requirement. The ceiling grid should be torn out and replaced by a ceiling product that does meet the flame and smoke spread rating. For proposes of this report we carried the cost of the demolition of the existing tile, and the installation of a standard 2 x 4 grid of suspended, insulated ceiling tile. Estimated Cost ... \$6,200
- 3.8. Accessible storage areas are required to have shelves and hooks within the accessible reach ranges, between 9" and 48" above the floor. (ADA 28CFR Ch. 1, 7/1/94 edition, section 4.25)
- 3.8.1. The existing storage areas could be renovated in order to meet the ADA requirement specified above. To adjust the storage areas being used in this building with the exception of the Evidence Locker could be an avenue that was pursued. The result being there would be storage areas that did meet the criteria for the ADA code. Estimated Cost ... \$2,000
- 3.9. The exposed paper faced insulation in the garage is a code violation. Exposed material must meet flame spread and smoke developed requirements, or be covered (and in contact with) an approved finish material, such as gypsum drywall. (IBC 2006, sections 719.2.1, 719.3 and 803)
- 3.9.1. At a minimum the walls will be required to be covered with gypsum wall board and have a least one coat of tape and compound to be considered a "fire taped" condition and meet the code requirements. Estimated Cost ... \$2,700
- 3.10. A chimney vent through the roof is required to be not less than 3' above any other portion of the building within 10'. (IBC, NFPA) Estimated Cost ... \$250
- 3.11. Toilet facilities are required for men and women and shall be accessible. There are numerous code violations (IBC, ADA) with the toilet rooms. It appears to be virtually impossible to correct these deficiencies without providing additional space through renovation (and/or building addition). The existing facility does not seem to have adequate space to accommodate such a renovation without losing other necessary functional space.
- 3.11.1. Men's and Ladies rooms will be constructed as an addition to the building in order to meet the ADA and IBC requirements. Bathroom facilities were figured to be 15'-0" x 22'-0" with ADA lavatories and toilets, toilet partitions, and handicapped grab bars. Estimated Cost ... \$50,000

- 3.12. Certain specific storage rooms, electrical rooms, mechanical rooms and any other accessory use, incidental use, or required separation of uses must be properly classified in terms of fire-resistant construction. (2006 IBC – Chapters 3, 4, 5, 6 and 7; 2006 NFPA 101 – Chapters 6, 8, 9, 40, 42 and 43)
 - 3.12.1. There is a certain amount of work that will need to be done in the room where the furnace is located. Storage shelves will need to be protected from the furnace and all combustible fluids, etc. Box in the existing furnace with louvered doors for air circulation. Estimated Cost ... \$2,000
- 3.13. Lack of ventilation. Natural ventilation (in lieu of mechanical ventilation) of an occupied space is allowed, provided that the room has doors and/or windows such that the opening to the outdoors is at least 4% of the floor area. (2006 IBC – 1203.4)
 - 3.13.1. In most cases the ventilation requirements are able to be met by opening existing windows, and doors. If additional air intake is needed anywhere it would be a minor amount of work, but it is not anticipated. Estimated Cost ... \$0.
- 3.14. This facility is an Occupancy Category IV facility as defined in Table 1604.5 of IBC. The “Importance Factor” (or “I”) is used in calculating snow, wind and seismic forces (NOT dead loads or other live loads). IBC does not include formulas to determining these forces but refers the designer to ASCE 7 “Minimum Design Loads for Buildings and Other Structures” to determine the magnitude of environmental forces. In ASCE 7, there are a number of formulas for calculating these forces and these formulas include the variable “I” along with numerous other variables (i.e. for exposure, site topography, building thermal characteristics, building size/height, soil characteristics, etc.) depending on what environmental force is being calculated. This increases the required design load significantly compared to an occupancy in a lower category. This implies, but does not conclude without further verification, that the existing facility may have a serious code deficiency in terms of the structural requirements of an essential facility.
 - 3.14.1. The Police Station would require a structural analysis to see if it meets the criteria of Occupancy Category IV. This analysis will fail the building in our opinion without question. Estimated Cost ... \$7,500
- 3.15. Building does not have a fire suppression system.
 - 3.15.1. If the Town of Norwich decided to install a fire suppression system in the existing Police Station the cost would be as follows: Estimated Cost ... \$9,200
- 3.16. The Police Station will require an Asbestos and Hazardous Materials Inspection before demolition procedures may start. Estimated Cost ... \$600
- 3.17. There are electrical issues that need to be revised by code. GFI receptacles will need to be installed around all sinks and sources of water where regular receptacles are now in place. The old electrical mast from a previous electrical entrance is required to be taken down by code. Estimated Cost ... \$2,500
- 3.18. The existing roof is in need of replacement. We have asked for an estimate from the same company that retrofit the Fire Station roof. This estimate includes the membrane roof system you have on the Fire Station and added foam insulation under the canopy for more energy efficient heating. Estimated Cost ... (Roof) \$25,000 (Added Insulation) \$15,000 R40

4. Functional and Operational Needs

4.1. Police Department Space Needs Table

SPACE/ACTIVITY	DESCRIPTION / REQUIREMENTS / REMARKS
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Lobby	Shared space that is serviceable, professional and appealing to the customer/citizen and visitors. Limited comfort should be afforded to the "customer". Controlled access to other points in facility. Audio/visual should be in place. 20' x 15' Receptionist greets visitors - 4 people max at a time	
Public Toilets (2)	1 HC unit and 1 non HC unit - unisex/56 sf each	
Mechanical Room		
Conference/Training/Squad Room	Seating for 40 at 2'-0" wide folding tables. Blackboard or Whiteboard and screen. Computer network; EOC function Accessible from lobby & locked off from rest of building	
Conference/Training Storage	Storage of folding tables and chairs	
Receptionist & Communications	Works as confidential secretary to Police Chief. Requires significant office space to place office furnishings and functional area	
Chief of Police	Plans, organizes, staffs, trains, budgets, equips, coordinates, acts as public information person, reports and directs Police Department. Requires significant office space (+/- 208 sq. ft.) For office equipment/ furniture, files, etc.	
Small Conference room attached to Police Chief's office	Meetings with town officials, public and event planning	attached to Police Chiefs Office

Executive Officer/ Sergeant's Office	Functions as second in command, patrol operations supervisor (Job description available.) Requires office space of +/- 200 sq. ft. for office furniture, equipment, space to seat at least two per-sons, room for some storage- personal locker or closet.	Chief of Police and access to main conference/interview room
Detective Office	Functions as major crime investigator, supervised by Chief of Police. (Job description available - needs revision.) Requires office space with ample room for necessary office furniture and files. Space needs somewhat less than Executive Officer/Sergeant. 12' x 12'	
Report Writing	Requires workspace for three officers - office furniture, computers, equipment & 2-drawer file cabinets. (3) 8' x 8' spaces	
Break Room	Functional kitchen, fully applianced with ample room for employees to meet and eat.	Centralized - To Locker Room
M/F Locker rooms with toilets and showers in each	Women's - 3 lockers w/ toilet, sink and shower (120sf) Men's - 8 lockers w/ toilet, sink and shower (180sf) Use large sized lockers - 2' wide x 2' deep w/ sloped top Existing space includes boiler room and uniform storage	Squad Room
Interview	Windows optional in this room. Requires standard office furniture - table, chair, phone - possible one-way glass wall.	Adjacent or close to building entrance/exit
General Storage	Functional, adjustable shelves and various racks for equipment. 15' x 15'	Janitor
Janitor	Space enough to hold all necessary supplies and cleaning equipment with	

sink.

Process	Requires functional space, limited furniture - photo area, DUI testing equipment, fingerprint area - wall-mounted "secure" handcuff rings. 12' x 12'	Sallyport
Sallyport	Functional for one full-size SUV-style vehicle. Overhead auto garage doors. Audio/video. Completely washable walls, floors with center drain - possible dual purpose use to wash vehicles Est. 24' x 20'	Keeps duty vehicle under cover during inclement weather, avoids have to leave vehicle running
Evidence	Requires shelving (adjustable), gun racks, various size bins, se-cure room, fireproof construction - vault-type room, vented 10'x 10'	

5. Photos:



Photograph No. 1: Exit hallway to garage entrance.



Photograph No. 2: Partial locker room.



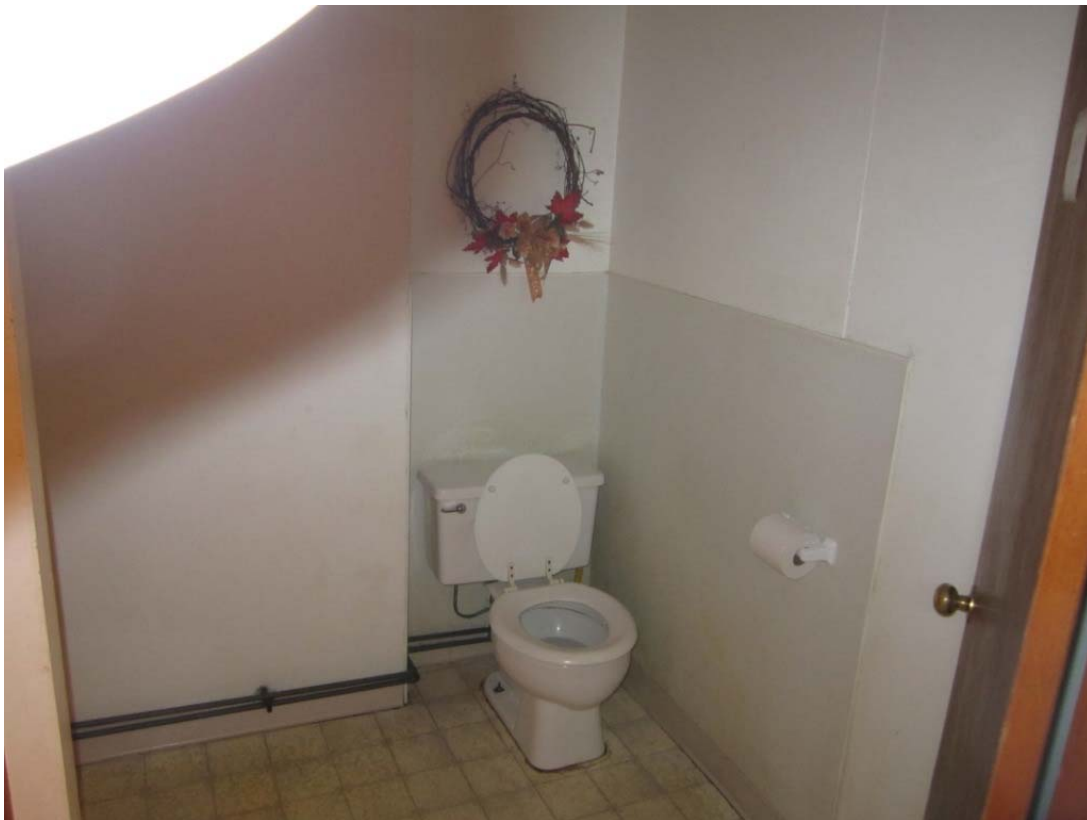
Photograph No. 3: Partial locker room.



Photograph No. 4: Bathroom and shower off locker room.



Photograph No. 5: Narrow corridor from Fire Chief office looking toward conference room and front entrance.



Photograph No. 6: Toilet room off corridor.



Photograph No. 7: Flammable ceiling tile typical throughout the building.



Photograph No. 8: Police Chief office.



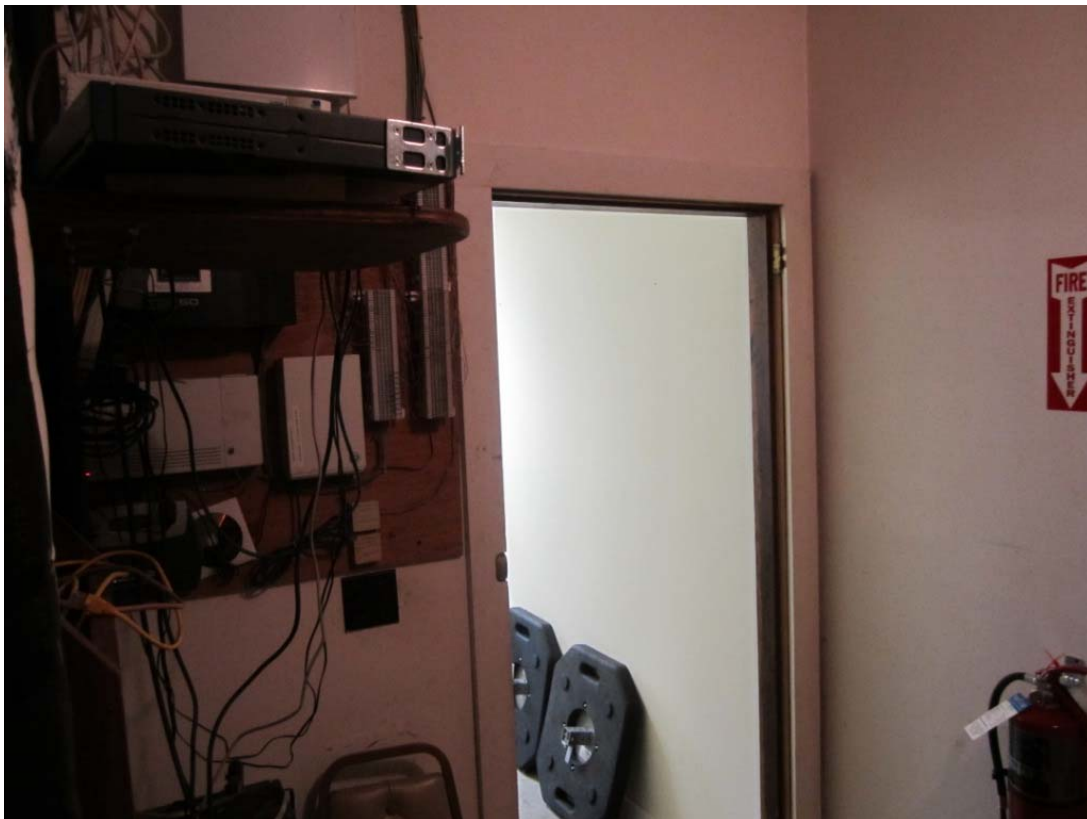
Photograph No. 9: Existing kitchen.



Photograph No. 10: Existing kitchen.



Photograph No. 11: Furnace room with open storage.



Photograph No. 12: Open telephone punch board.

6. Parking

Ample parking is available for the Police Station. (See report on Fire Station).

7. List of Inspectors and Dates:

Landon Wheeler, Division of Fire Safety, State of Vermont (March 23, 2012)

Hazel Hunter, Project WorkSafe, State of Vermont (May 1, 2012)

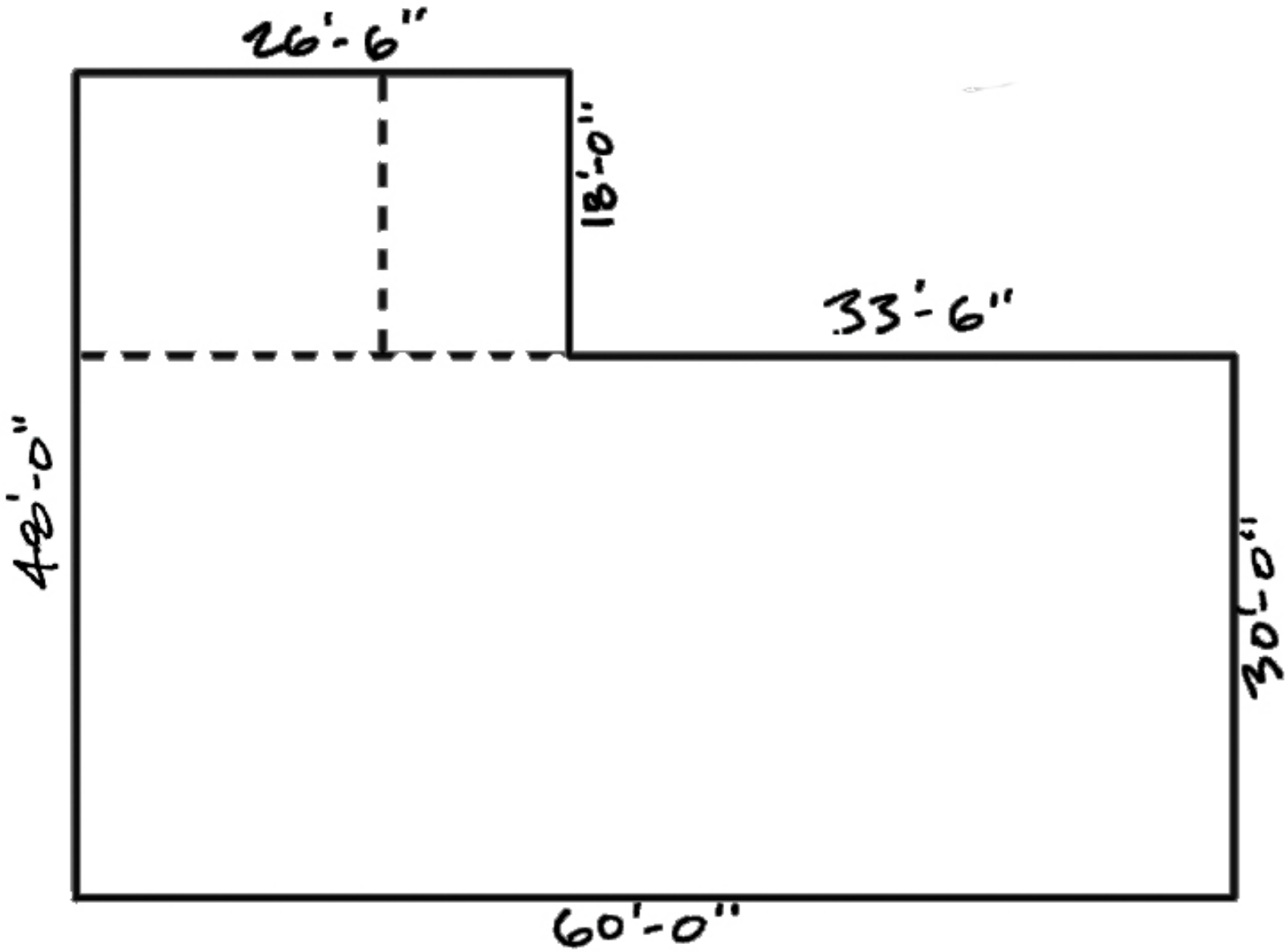
Greg Coates, Architect, New London, New Hampshire (Several Visits over March and April)

Calvin Hunnewell, Director of the Codes Department, Lebanon, New Hampshire (Several visits over March and April.)

All inspections were accompanied by Mink Brook Management representative Leet Ware.

In our estimation, the only way that these deficiencies could be satisfied for the Police Station would be to construct an addition to the Fire Station and tear down the existing Police Facility. The existing Police Station has no room to expand within the parameters of the exterior walls and in our estimation it would be much more costly to try to improve the existing building and bring it up to today's standards. The cost associated in the budget shown is for trying to solve the Functional and Standards Deficiencies for the Police and Fire Stations on the same site with one addition. Again, this budget is for the Town's use to understand the cost implications to improve the conditions for the persons who make up these Departments, it is not intended to imply that this is the action the Town of Norwich should take.

6. Appendix A Building Diagram



7. Appendix B VT Division of Fire Safety Report



Vermont Department of Public Safety
DIVISION OF FIRE SAFETY



Office of the State Fire Marshal, State Fire Academy and State Haz-Mat Team
 firesafety.vermont.gov

Barre Regional Office
 1311 U.S. Route 302 - Berlin, Suite 500
 Barre, VT 05641
 [phone] 802-479-4434
 [fax] 802-479-4446

Rutland Regional Office
 56 Howe Street, Building A, Suite 200
 Rutland, VT 05701-3449
 [phone] 802-786-5867
 [fax] 802-786-5872

Williston Regional Office
 372 Hurricane Lane, Suite 102
 Williston, VT 05495-2080
 [phone] 802-879-2300
 [fax] 802-879-2312

Springfield Regional Office
 100 Mineral Street, Suite 307
 Springfield, VT 05156-3168
 [phone] 802-885-8883
 [fax] 802-885-8885

FIRE INSPECTION RESULTS

Site Id: 53736

Structure Information

Name: NORWICH POLICE STATION
 Structure Id: 53736

Address: 10 HAZEN STREET
 NORWICH, VT 05055

Owner Information

Owner: TOWN OF NORWICH (N 7265)
 Phone: 802-649-1419

Address: MAIN STREET
 PO BOX 376
 NORWICH, VT 05055

Building Description

Risk Index:	Smoke Det:	Occupants:	Units:
Const Type:	CO Detect:	Stand Pipe:	Floors:
Occ Type:	Fire Alarm:	Sprinkler:	Sq Feet:

Project Description

Name: Police Station
 Type: Building Project Received: 03/23/2012 Workitem Id: 337979

Inspection Detail

Insp Date:	03/23/2012	Insp Type:	Follow-up	Violations:	
Comply By:	04/23/2012	Occ Granted:		Hazard Index:	Level 2
Inspector:	LONDON WHEELER (S 79831)				

Violations and Notes

- Interior finish- ceiling tiles non compliant, paper backed insulation non compliant NFPA 101 Chapter 10.2
- Exits through storage, spare boiler room is non complaint, can not pass through boiler room as an exit. NFPA 101 Chapter 7
- old service on end of building shall be removed or comply with NFPA 70 and NFPA 73. Marked, removed, labeled.
- Open electrical shall be covered, old fixtures on ceilings shall be removed, covered or new fixtures added or installed. NFPA 70 and NFPA 73