

# A STUDY OF THE STEPS REQUIRED TO PROVIDE FOR CURRENT AND FUTURE NEEDS OF THE PEEKSKILL FIRE DEPARTMENT BY RENOVATING AND ADDING ONTO THE CURRENT FACILITIES

FINAL



**A Study of the Steps Required  
to Provide for Current and Future Needs  
of the Peekskill Fire Department  
by Renovating and Adding onto the Current Facilities**

**March 23, 2010**

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## General Study Methodology

The purpose of this study is to determine the steps needed to provide for current and future needs of the Peekskill Fire Department by renovating and adding onto the current facilities as an alternative to constructing a new fire headquarters.

## Background

During the winter and spring of 2008 a study was undertaken to determine the best location and space needs for the Department. In addition to evaluating space needs, the study evaluated the impact of alternative station locations on overall coverage.

The outcome of the study was the determination that the Department would be best served with a single headquarters building of 36,583 sq ft located in the vicinity of Main and Broad Streets. The general breakdown of space is as follows:

- Apparatus bay ----- 7,243 sq ft (20%)
- Firematic Support ----- 4,123 sq ft (11%)
- Administration ----- 2,186 sq ft ( 6%)
- Training/Meeting/Public ----- 8,825 sq ft (24%)
- Bunking -----1,709 sq ft ( 5%)
- Firefighters ----- 2,027 sq ft ( 6%)
- Miscellaneous ----- 800 sq ft ( 2%)
- Circulation ----- 4,217 sq ft (12%)
- Walls ----- 5,453 sq ft (15%)

## Summary of Evaluation of the Existing Conditions

The City of Peekskill is presently served by

- Station 1, at 828 Main Street, which houses Cortland Hook and Ladder #1.
- Station 2, at 425 Highland Avenue, which houses the Peekskill Fire Patrol
- Stations 3 and 5, at 1850 Crompond Road, which houses Washington Engine Company #2, and Columbian Engine Company #1
- Station #4, 426 South Division Street (behind the Beech Shopping Center), which houses Columbian Hose Company (not owned by the City)
- Station 6, at 701 Washington Street, which houses Centennial Hose #4

During February 2010, Mitchell Associates Architects visited and reviewed each of these facilities to generally determine the following:

- Physical condition of the buildings and sites
- Condition of the mechanical, electrical and plumbing systems
- A preliminary review of code and regulatory deficiencies
- Adequacy of space available to properly perform the Department's Services
- Necessary steps to correct the deficiencies
- Determination of the feasibility of making the necessary correction and additions

Reports for each building are attached as Appendix D.

In Summary, the findings are as follows:

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**Station #1**

Current Building Size – Approximately 7,724 sq ft.

Site - The site does not allow for proper access or egress for either the truck or personnel. Returning trucks must incur the hazard of blocking traffic to back in, and there is no traffic control light. The apron does not allow the truck to be parked outside of the building for routine maintenance without blocking the street. Parking is marginal (7 during the day).

Building Envelope – The building exterior is a cementitious imitation brick, except for facing the alley which contains aluminum siding. Gutters are missing, caulking is poor, and the building envelope has poor thermal characteristics.

Code and Regulatory Issues – The building has many code violations. Examples include that it does not provide two means of egress, nor ANSI or ADA compliant pathways. The handicap ramp from the member's room comes to a doorway that does not comply with handicap clearance requirements. The lounge, office and bathrooms are down 4 risers from the balance of the space and are not accessible. There are dead end corridors. There is no NFPA compliant diesel fume exhaust system. The bunkroom lacks daylight, air and an egress window, and draws diesel fumes directly in from the apparatus bay. There are not two legal means of egress from the bunkroom, and the bunker's kitchen is located in the apparatus bay. The building has no sprinklers. There is no ventilation air introduced. The heating combustion equipment is not in a fire rated room, and does not have access to outside combustion air. There may be asbestos insulation. The heating fuel tank does not meet new Westchester County Health Department requirements and will need to be replaced. It is not known that the existing tank is sound.

Energy Issues – The heating system does not meet current standards. The lighting is not energy efficient. The building envelope is not energy efficient.

Apparatus Bay – The apparatus bay is significantly too small. There is inadequate clearance front, rear and above. The low ceiling makes it impossible to provide a proper diesel fume exhaust system. The bay lacks a drench/eyewash, drinking fountain, air or power drops, truck fill, hose or gear storage. The floor does not have a friction designed safety finish. There is no oil water separator. The overhead door lacks modern safety features.

Firematic Support – Other than one storage room, the station has no firematic support (radio room, mezzanine, Decon, SCBA, EMS storage, red bag disposal, work room or generator).

Administrative – There is one office of approximately 250 sq ft, and a 54 sq ft storage closet. There is no private space for conferences.

Bunking – There is one non-compliant bunkroom with a bathroom. The driver's kitchen is in the apparatus bay, and there is no dining area or day room away from the company recreation room.

Bathrooms – One bathroom complies with ADA, however, it is not accessible from the apparatus bay, lounge or office.

Mechanical Systems – The mechanical systems are shared with the building's other tenant, and are not set up for independent control. There is no combustion or ventilation air provided. There is no sprinkler system. There appears to be a fuel oil leak.

Ability to Expand the Building – This facility is landlocked. There is no ability to expand it.

Conclusion – This building is wholly inadequate as a fire station. It cannot be effectively fixed. It is our recommendation to relocate the Cortland Hook & Ladder Company #1 to a new location.

**Station #2**

Current Building Size – Approximately 5,500 sq ft.

Site - The site does not allow for proper access or egress for either the truck or personnel. Returning trucks must incur the hazard of blocking traffic to back in, and there is no traffic control light. The apron does not allow the truck to be parked outside of the building for routine maintenance without blocking the street. There is no off-street parking.

Building Envelope – The building exterior is a mixture of concrete block, paneling and stone, and is in poor condition. The windows, doors and caulking are in deteriorated condition. The roof & parapet flashings were not inspected, but are reported as deteriorated. Roof water is carried in internal leaders that are reported as deteriorated. Caulking is poor, and the building envelope has poor thermal characteristics.

Code and Regulatory Issues – The building has many code violations. Examples include that it does not provide two means of egress, nor ANSI or ADA compliant pathways. There is no NFPA compliant diesel fume exhaust system. The bunkroom lacks daylight, air and an egress window, and draws diesel fumes directly in from the apparatus bay. There are not two legal means of egress from the bunkroom, and the bunker's kitchen is accessed directly from the apparatus bay. The stair to the 2<sup>nd</sup> floor does not meet code, and there is no elevator. The building has no sprinklers. There is no ventilation air introduced. The heating fuel tank is located partially beneath the entry hall, and extends to under the sidewalk. The filling port is in the floor of the entry hall, which has a strong smell of diesel fumes. It does not meet new Westchester County Health Department requirements and will need to be replaced. It is not known that the existing tank is sound. There appears to be asbestos in the mechanical room.

Energy Issues – The heating system does not meet current standards. The lighting is not energy efficient. The building envelope is not energy efficient.

Apparatus Bay – The apparatus bay is significantly too small. There is inadequate clearance to the sides and above. The low ceiling makes it impossible to provide a proper diesel fume exhaust system. The bay lacks a drench/eyewash, drinking fountain, air or power drops, hose or gear storage. The truck fill is simply a garden hose. The overhead door is limited to a 10' height requiring customized trucks that are getting increasingly difficult to obtain. The floor does not have a friction designed safety finish. There is no oil water separator. The overhead door lacks modern safety features.

Firematic Support – There is a decent sized storage room. Other than that, the station has no firematic support (radio room, mezzanine, Decon, SCBA, EMS storage, red bag disposal, work room or generator).

Administrative – There are no offices and no private space for conferences.

Bunking – There is one non-compliant bunkroom with a non-compliant bathroom. The driver's kitchen is accessed from the apparatus bay. There is no dining area or day room dedicated to the bunker.

Company Spaces – the upper floor has a generous meeting/training room. However, the bathrooms do not meet code, and there is no compliant access/egress. We have not seen the kitchen.

Bathrooms – No bathrooms comply with ADA.

Mechanical Systems – The mechanical systems are antiquated and inefficient. The upper floor is approximately 20 degrees hotter than the lower floor. There is no combustion or ventilation air provided. There is no sprinkler system. There are open electrical boxes.

Ability to Expand the Building – This facility is landlocked. There is no ability to expand it.

Conclusion – This building is wholly inadequate as a fire station. It cannot be effectively fixed. It is our recommendation to relocate the Peekskill Fire Patrol to a new location.

### **Stations #3 & 5**

Stations #3 and 5 share a single building.

Current Building Size – Approximately 9,980 sq ft.

Site – The building is built into a steep hill running between Crompound Road and South Division Street, along Broad Street. The site does not allow for proper access or egress for either the trucks or personnel. Returning trucks must incur the hazard of blocking traffic, and there is no traffic control light. The apron does not allow the truck to be parked outside of the building for routine maintenance. There is only one off-street parking spot. Although the pathways to two of the exit doors are ADA compliant, the doors and hallways they serve are not.

Building Envelope – The exterior walls are brick over block or concrete with no insulation, along with deteriorating paneling and stucco that was applied over the window systems that face onto the upper porch. The windows are single pane with aluminum frames that have no thermal break. Doors and caulking are in deteriorated condition. The roof has a recent EPDM covering, but it appears that the R-Value may be inadequate. Roof water sheets off of the building onto the ground, contributing to foundation wall leakage.

Code and Regulatory Issues – The building has many code violations. Examples include that it does not provide two means of egress, nor ANSI and ADA compliant pathways. The lower two levels must exit through the apparatus bay. The kitchen and lounge for station 5 are at the end of a dead end exit path of more than 75 feet that exits through the apparatus bay. There is no NFPA compliant diesel fume exhaust system. The station 5 bunkroom lacks an egress window, and draws diesel fumes directly in from the apparatus bay. There are not two legal means of egress from the bunkrooms. The station 5 kitchen has a direct opening into the apparatus bay, and a fire hazard stove hood. The station 5 lounge has a through wall air conditioner that discharges into the apparatus bay. None of the stairs meet code, and there is no elevator. The building has no sprinklers. There is no ventilation air introduced. There is abating asbestos in the meeting room floor tile, and there appears to be asbestos in the mechanical room insulation. The heating fuel tank does not meet new Westchester County Health Department requirements and will need to be replaced. It is not known that the existing tank is sound.

Energy Issues – The heating system does not meet current standards. The lighting is not energy efficient. There is no insulation in the walls. The windows are single pane. The roof appears to have inadequate insulation.

Apparatus Bay – The apparatus bays do not meet current standards for size. The overhead doors are 12' x 12', where current standards are 14' x 14'. The ceiling height allows a proper diesel fume exhaust system, which should be installed. There is no proper floor drainage in station 3, and water leakage around the perimeter has resulted in corrosion and damages in the room below. The bay lacks a drench/eyewash, drinking fountain, air or power drops, hose or gear storage or truck fill. The floor does not have a friction designed safety finish. There is no oil water separator. The overhead doors lack modern safety features.

Firematic Support – Other than small storage rooms, the station has no firematic support (radio room, mezzanine, Decon, SCBA, EMS storage, red bag disposal, work room or generator).

Administrative – There are two 90 sq ft offices for station #5, and one, 180 sq ft office for station #3, along with a few small storage closets. There is no private space for conferences.

Bunking – There is one non-compliant bunkroom with a non-compliant bathroom for each company. The station 5 bunker eats in his dayroom (the former bunkroom for Columbian Hose) after preparing his food upstairs in the

kitchen. Station 3 bunker eats his food in his bedroom, and has access to a kitchenette. There is no kitchen, dining area or day room dedicated to the bunkers.

Company Spaces – The upper floor has a generous meeting/training room. However, the bathrooms do not meet code, and there is no compliant access/egress. The kitchen is small.

Bathrooms – No bathrooms comply with ADA.

Mechanical Systems – The mechanical systems are inefficient. There is no ventilation air provided. There is no combustion air provided to the boiler room. There is no sprinkler system.

Ability to Expand the Building – This facility is landlocked on three sides, but can expand into the firefighter's park.

Conclusion – This building requires major renovations and additions that are described in the recommendations and in Appendix A.

#### **Station #4**

Note – This building is owned by the Columbian Hose Company, and the City has use of the apparatus bay, an office and bunkroom.

Current Building Size – Has entire building not been evaluated, just the portion that the City uses, which is approximately 1,300 sq ft.

Site – The building is located behind the Beech shopping center. The site allows proper access and egress for the truck. There is negligible car parking, which represents an additional problem in light of the 4,000 sq ft meeting room, which is the only room available capable of holding a Department wide meeting. The pavement is deteriorated.

Building Envelope – This facility is a metal building that appears to have very low R-values.

Code and Regulatory Issues – The portions of the building evaluated include the apparatus bay, office, bunkroom and bunker's bathroom. There is no NFPA compliant diesel fume exhaust system. The only egress from the bunkroom and office is through the apparatus bay. In addition, they draw diesel fumes directly in from the apparatus bay. The building has no sprinklers. There is no ventilation air introduced. The heating fuel tank does not meet new Westchester County Health Department requirements and will need to be replaced. It is not known that the existing tank is sound.

Energy Issues – We did not evaluate this.

Apparatus Bay – The apparatus bay does not meet current standards for size. The overhead door is 12' high. Current standards are 14'. There is inadequate clearance in the front and rear. The ceiling height allows a proper diesel fume exhaust system, which should be installed. The bay lacks a drench/eyewash, drinking fountain, air or power drops, hose or gear storage or truck fill. The floor does not have a friction designed safety finish. There is no oil water separator. The overhead door lacks modern safety features.

Firematic Support – The station has no firematic support (radio room, mezzanine, Decon, SCBA, EMS storage, red bag disposal, work room or generator).

Administrative – There is one small office. There is no office related storage, and no private space for conferences.

Bunking – There is one non-compliant bunkroom with a non-compliant bathroom. There is no kitchen, dining area or day room dedicated to the bunker.

Bathrooms – No bathrooms comply with ADA.

Mechanical Systems – Not evaluated

Ability to Expand the Building – The site can accommodate some expansion

Conclusion – This building requires renovations and additions that are described in the recommendations and in Appendix A.

## **Station #6**

Current Building Size – Approximately 7,385 sq ft.

Site - The site contains approximately 2.4 acres, and allows proper access or egress for both trucks and personnel. There is approximately 43 off-street parking spaces. The pavement is deteriorated.

Building Envelope – The building exterior is brick over block. Although the building was constructed in 1978, during the energy crisis, there is no insulation indicated in the walls, and the roof was only designed with 3” of insulation. The windows are double pane and in adequate condition. The condition of the doors varies from adequate to poor, and the caulking is in deteriorated condition. The roof was recently worked on, but is reported to leak.

Code and Regulatory Issues – The building has many code violations. Examples include that it does not provide two means of egress, nor ANSI or ADA compliant pathways. There is no NFPA compliant diesel fume exhaust system. There are not two legal means of egress from the bunkroom. The stair to the 2<sup>nd</sup> floor does not meet code, and there is no elevator. The building has no sprinklers. There is no ventilation air introduced. Although the combustion fuel has been switched to natural gas, the fuel tank appears to still be in place. The heating fuel storage tank does not meet new Westchester County Health Department requirements and will need to be replaced. It is not known that the existing tank is sound. There may be asbestos related to the floor tiles.

Energy Issues – The heating system does not meet current standards. The lighting is not energy efficient. The building envelope is not energy efficient.

Apparatus Bay – The apparatus bay is of reasonable size, and there is adequate clearance to the sides and above. There is no diesel fume exhaust system. The bay lacks a drench/eyewash, drinking fountain, air or power drops, hose or gear storage. The overhead door is limited to a 10’ height requiring customized trucks that are getting increasingly difficult to obtain. The floor does not have a friction designed safety finish. There is no oil water separator. The overhead doors lack modern safety features.

Firematic Support – There is a decent sized storage room. Other than that, the station has no firematic support (radio room, mezzanine, EMS storage, red bag disposal, work room, generator or Decon). The bunker gear washer and SCBA equipment are on the floor of the apparatus bay instead of being in secure, clean rooms as per current standards.

Administrative – There is one office of approximately 210 sq ft, and a 21 sq ft office storage closet. There is a room accessible only through the kitchen identified the Fire Department office. There is no private space for conferences.

Bunking – There is one non-compliant bunkroom with a non-compliant bathroom. There is no kitchen, dining area or day room dedicated to the bunker.

Company Spaces – There is a generous meeting room and commercial kitchen.

Bathrooms – No bathrooms comply with ADA.

Mechanical Systems – The mechanical systems are inefficient. There is no ventilation air provided. There is no sprinkler system.

Ability to Expand the Building – The site can accommodate some expansion

Conclusion – This building requires renovations and additions that are described in the recommendations and in Appendix A.

### **Prototypical Space Needs**

In an effort to determine the degree to which the existing fire stations meet (or can be modified to meet) the physical needs of the Department, a program has been developed to meet the modern space requirements for an single fire company. The program was developed by this consultant in conjunction with the current and past fire chiefs. It describes a one truck company with recommended and mandated support spaces, and results in a 9,565 sq ft building as follows:

- Apparatus bay ----- 1,200 sq ft (13%)
- Firematic Support ----- 1,445 sq ft (15%)
- Administration ----- 578 sq ft ( 6%)
- Training/Meeting/Public ----- 2,663 sq ft (28%)
- Bunking ----- 601 sq ft ( 6%)
- Firefighters ----- 480 sq ft ( 5%)
- Miscellaneous ----- 754 sq ft ( 8%)
- Circulation ----- 1,015 sq ft (11%)
- Walls ----- 801 sq ft ( 9%)

A detailed breakdown of the one-company program is included in appendix A.

Appendix A also contains spreadsheets of the space requirement for the combination of two and/or three companies.

In addition to Company spaces, there are specific Department required spaces that add up to 6,548 sq ft. These spaces include the following:

- o Apparatus bay ----- 2,904 sq ft (44%)
- o SCBA ----- 200 sq ft ( 3%)
- o Chief ----- 247 sq ft ( 4%)
- o Volunteer Line Officers ----- 221 sq ft ( 3%)
- o Career Staff ----- 221 sq ft ( 3%)
- o Department Surgeon-----103 sq ft ( 1%)
- o Association ----- 81 sq ft ( 1%)
- o Fire Prevention & Training ----- 100 sq ft ( 5%)
- o Records Storage & Retention ----- 100 sq ft ( 5%)
- o Exercise & Lockers ----- 1,535 sq ft (22%)
- o Circulation ----- 499 sq ft ( 7%)
- o Walls ----- 645 sq ft ( 9%)

No museum is anticipated in this study.

A detailed breakdown of the Departmental spaces program is included in appendix A.

In addition to the Departmental spaces indicated above, a meeting room needs to be provided that is large enough for departmental meetings.. This room needs to be supported by a kitchen, pantry, table & chair storage, A/V, bathrooms, coat closet, corridors and walls. The total space required for this, if it were to be built to current standards is 8,485 sq ft. For the purposes of this study, and to avoid consideration of this expense, we are proposing that City enter into an agreement with Columbian Hose Company to formalize the use of the meeting room at Station 4. In order for this to occur, the City would incur the expense of providing new ADA compliant entrance and bathrooms. This is not an ideal arrangement, in part, due to the limited parking available at Station 4, but is proposed in the spirit of the intent of this study.

## Recommendations

### Station #1

It is our assessment that Station #1 cannot reasonably be fixed, and recommend that Cortland Hook and Ladder (H&L) be relocated into new space to be added onto stations 3 & 5 on Crompond Road. If the needs of H&L were to be met by a new building, the space required would be 9,565 sq ft as described in the "One Company Fire Station Space/Usage Analysis" attached in appendix A. As an addition to station 3 & 5, the required new space is reduced to 5,136 sq ft due to the ability to use portions of the space already in existence in station 3 & 5.

### Station #2

It is our assessment that Station #2 cannot reasonably be fixed, and recommend that Fire Patrol be relocated into new space to be added onto station 6 on Washington Street. If the needs of H&L were to be met by a new building, the space required would be 9,565 sq ft as described in the "One Company Fire Station Space/Usage Analysis" attached in appendix A. As an addition to station 6, the required new space is reduced to 5,137 sq ft due to the ability to use portions of the space already in existence in station 6.

### Departmental Space

Of the 6,548 sq ft required for Departmental spaces 5,438 sq ft can be added on to Stations #3 & #5. The remaining 1,100 sq ft is a spare truck bay that can be added onto Station #6.

**Stations #3 & #5**

In order for stations #3 & #5 to meet modern standards the building needs to be totally renovated, and an addition of approximately 5,316 sq ft needs to be constructed to the west of the building in the firefighter's park. In addition to this, there will need to be 5,136 sq ft added for H&L, and 5,438 sq ft added for the Department. These additions will be expensive to build due to the steep slopes and the location of South Division Street. Sheet piling and shoring will be required to support a vertical wall of dirt approximately eighteen feet tall. Furthermore, the site will not easily provide space for storage of material and equipment. The station would need to be vacated for at least 14 months.

**Station #4**

In order to bring the apparatus bay and firematic support spaces up to standard, there will need to be renovation of approximately 1,300 sq ft, and an addition of approximately 1,648 sq ft. In addition to this, in order to allow the meeting room to meet ADA requirements, 616 sq ft of space will be required for bathrooms and an entry vestibule. This work does not include any renovations or modifications to the balance of the station.

**Station #6**

Station 6 requires an addition of 4,791 sq ft and general renovation of insulation, bathrooms and mechanical systems to meet the needs of Centennial Hose. In addition, an addition of 3,463 is needed to accommodate the Fire Patrol, and 1,100 sq ft is needed for a spare Departmental bay.

**Cost Summary****Station #3 & #5**

The 9,980 sq ft of renovation, and 15,891 sq ft of new construction will have a brick & mortar cost of approximately \$7,060,000.

**Station #4**

The 1,300 sq ft of renovation and 2,265 sq ft of new construction will have a brick & mortar cost of approximately \$596,000

**Station #6**

The 7,385 sq of renovation and 8,616 sq ft of new construction will have a brick & mortar cost of approximately \$3,140,000.

The sum of these brick & mortar costs is \$10,796,000. With 20% for soft costs, and a 10% project contingency, the total project cost is approximately \$14,247,000.

The total square footage of new construction and renovation of the three fire stations is 45,436 sq ft.

**Central Station**

The proposed central station has 36,583 sq ft. Due to the current depressed construction market, we believe that the central station can now be built in the Spring of 2011 for a brick & mortar cost of approximately \$10,600,000. With soft costs and contingency, this would be approximately \$13,000,000, plus land.

# Appendix A Program Areas

### 3rd Draft Peekskill Base Case, One Company Fire Station Space/Usage Analysis

Program Item	Room Name	1st Floor Area	Mezz	Total Area
<b>Apparatus Bay</b>				
1	One Truck Apparatus Bay (24x 50)	1,200		1,200
<b>Subtotal - Apparatus</b>		<b>1,200</b>		<b>1,200</b>
<b>Firematic Support</b>				
1.1	Mezzanine (assume 14 x 50)		700	700
2	Officers Storage Room	100		100
3	Storage Room #2	120		120
4	Storage Room #3 - Chief Driver	100		100
5	Hose Storage	46		46
6	Decon Laundry	181		181
NA	Janitors Recess	16		16
7	Hazardous Waste	14		14
8	Firefighter's Uni-Sex ADA Rest Room	80		80
9	Officers' Office/Watch Desk	88		88
<b>Subtotal - Firematic Support</b>		<b>745</b>		<b>745</b>
<b>Administration</b>				
10	Firefighter's Lobby	64		64
11	Conference Room	288		288
12	Administrative Office	120		120
13	Work Node	26		26
14	Records Storage	80		80
<b>Subtotal - Administration</b>		<b>578</b>		<b>578</b>
<b>Firefighters</b>				
15	Company Day Room	480		480
16	Career Day Room w/ Kitchenette	250		250
17	Career Pantry	64		64
18	Bunkroom	88		88
19	Career Personnel Lockers	75		75
20	Bunker's Laundry	52		52
21	Bunker's Bathroom	72		72
<b>Subtotal - Firefighters</b>		<b>1,081</b>		<b>1,081</b>
<b>Public Spaces</b>				
22	Public Entry Area	150		150
23	Coat Recess	20		20
24	M & F Rest Rooms	271		271
25	Multi-Purpose Room	1,602		1,602
26	Multi-Purpose Room Table/Chair Storage	160		160
27	A/V	60		60
28	Kitchen	320		320
29	Pantry	80		80
<b>Subtotal - Public Spaces</b>		<b>2,663</b>		<b>2,663</b>
<b>Miscellaneous Space</b>				
30	(2) Entry Vestibules	128		128
31	Janitors Closet	60		60
32	Housekeeping Storage	50		50
33	File Server	50		50
34	Delivery	50		50
35	Generator	156		156
36	Mechanical/Electrical	260		260
<b>Subtotal - Miscellaneous Spaces</b>		<b>754</b>		<b>754</b>
<b>Area Subtotals</b>				
	Bay	1,200		1,200
	Firematic Support	745		745
	Mezzanine		700	700
	Office & Living	5,076		5,076
<b>Walls &amp; Circulation</b>				
	Apparatus Bay Walls @ 10%	120		120
	Firematic Support Walls @ 12%	89		89
	Firematic Support Circulation @ 15%	112		112
	Office Area Walls @ 12%	609		609
	Office Area Circulation @ 18%	914		914
<b>Subtotal - Walls &amp; Circulation</b>		<b>1,844</b>	<b>0</b>	<b>1,844</b>
<b>Total &gt;&gt;</b>		<b>8,865</b>	<b>700</b>	<b>9,565</b>
<b>Footprint&gt;&gt;</b>		<b>8,865</b>	<b>0</b>	<b>8,865</b>

### 3rd Draft Peekskill Base Case, Two Company Fire Station Space/Usage Analysis

Program Item	Room Name	1st Floor Area	Mezz	Total Area
	<b>Apparatus Bay</b>			
1	Two Truck Apparatus Bay (40 x 50)	2,000		2,000
	<b>Subtotal - Apparatus</b>	<b>2,000</b>		<b>2,000</b>
	<b>Firematic Support</b>			
1.1	Mezzanine (assume 14 x 50)		700	700
2	(2) Officers Storage Room	200		200
3	(2) Storage Room #2	240		240
4	(2) Storage Room #3 - Chief Driver	200		200
5	Hose Storage	46		46
6	Decon Laundry	181		181
NA	Janitors Recess	16		16
7	Hazardous Waste	14		14
8	Firefighter's Uni-Sex ADA Rest Room	80		80
9	Officers' Office/Watch Desk	88		88
	<b>Subtotal - Firematic Support</b>	<b>1,065</b>		<b>1,065</b>
	<b>Administration</b>			
10	Firefighter's Lobby	64		64
11	Conference Room (Departmental)	351		351
12	(2) Administrative Offices	240		240
13	Work Node	26		26
14	(2) Records Storage	160		160
	<b>Subtotal - Administration</b>	<b>841</b>		<b>841</b>
	<b>Firefighters</b>			
15	Company #1 Day Room	480		480
16	Company #2 Day Room	480		480
17	Career Day Room w/ Kitchenette	375		375
18	Career Pantry	64		64
19	(2) Bunkrooms	176		176
20	Career Personnel Lockers	150		150
20	Bunker's Laundry	83		83
21	(2) Bunker's Bathrooms	144		144
	<b>Subtotal - Firefighter:</b>	<b>1,952</b>		<b>1,952</b>
	<b>Public Spaces</b>			
22	Public Entry Area	225		225
23	Coat Room	40		40
24	M & F Rest Rooms	488		488
25	300 Person Multi-Purpose Room	2,884		2,884
26	Multi-Purpose Room Table/Chair Storage	288		288
27	A/V	108		108
28	Kitchen	512		512
29	Pantry	144		144
	<b>Subtotal - Public Spaces</b>	<b>4,688</b>		<b>4,688</b>
	<b>Miscellaneous Space</b>			
30	(2) Entry Vestibules	128		128
31	Janitors Closet	60		60
32	Housekeeping Storage	50		50
33	File Server	50		50
34	Delivery	50		50
35	Generator	156		156
36	Mechanical/Electrical	260		260
	<b>Subtotal - Miscellaneous Spaces</b>	<b>754</b>		<b>754</b>
	<b>Vertical Circulation</b>			
37	(2) Stairwells (area per floor)	348	308	656
38	Elevator (area per floor)	58	58	116
39	Elevator Equipment Room	82	0	82
40	Elevator Foyer	80	80	160
	<b>Subtotal - Vertical Circulation:</b>	<b>568</b>	<b>446</b>	<b>1,014</b>
	<b>Area Subtotals</b>			
	Bay	2,000		2,000
	Firematic Support	1,065		1,065
	Mezzanine		700	700
	Office & Living	8,804		8,804
	<b>Walls &amp; Circulation</b>			
	Apparatus Bay Walls @ 10%	200		200
	Firematic Support Walls @ 12%	128		128
	Firematic Support Circulation @ 15%	160		160
	Office Area Walls @ 12%	1,056		1,056
	Office Area Circulation @ 18%	1,585		1,585
	<b>Subtotal - Walls &amp; Circulation:</b>	<b>3,129</b>	<b>0</b>	<b>3,129</b>
	<b>Total &gt;&gt;</b>	<b>14,998</b>	<b>700</b>	<b>15,698</b>
	<b>Footprint&gt;&gt;</b>	<b>14,998</b>	<b>0</b>	<b>14,998</b>

### 3rd Draft Peekskill Base Case, Three Company Fire Station Space/Usage Analysis

Program Item	Room Name	Floor Area	Mezz	Total Area
	<b>Apparatus Bay</b>			
1	Two Truck Apparatus Bay (58 x 54)	3,132		3,132
	<b>Subtotal - Apparatus</b>	<b>3,132</b>		<b>3,132</b>
	<b>Firematic Support</b>			
1.1	Mezzanine (assume 14 x 50)		700	700
2	(3) Officers Storage Room	225		225
3	(3) Storage Room #2	270		270
4	(3) Storage Room #3 - Chief Driver	225		225
5	Hose Storage	46		46
6	Decon Laundry	200		200
NA	Janitors Recess	16		16
7	Hazardous Waste	14		14
8	Firefighter's Uni-Sex ADA Rest Room	80		80
9	Officers' Office/Watch Desk	120		120
	<b>Subtotal - Firematic Support</b>	<b>1,196</b>		<b>1,196</b>
	<b>Administration</b>			
10	Firefighter's Lobby	64		64
11	Conference Room (Departmental)	351		351
12	(3) Administrative Offices	360		360
13	Work Node	26		26
14	(3) Records Storage	240		240
	<b>Subtotal - Administration</b>	<b>1,041</b>		<b>1,041</b>
	<b>Firefighters</b>			
15	(3) Company Day Rooms @ 480 sq ft	1,440		1,440
16	Career Day Room w/ Kitchenette	320		320
17	Career Pantry	36		36
18	(3) Bunkrooms	264		264
19	Career Personnel Lockers	188		188
19	Bunker's Laundry	83		83
20	(3) Bunker's Bathrooms	216		216
	<b>Subtotal - Firefighters</b>	<b>2,547</b>		<b>2,547</b>
	<b>Public Spaces</b>			
21	Public Entry Area	300		300
22	Coat Room	60		60
23	M & F Rest Rooms	542		542
24	(3) Meeting Rooms @ 1,000 sq ft	3,000		3,000
25	(3) Multi-Purpose Room Table/Chair Storage	360		360
26	(3) A/V	135		135
27	(3) Kitchen	720		720
28	(3) Pantries	180		180
	<b>Subtotal - Public Spaces</b>	<b>5,297</b>		<b>5,297</b>
	<b>Miscellaneous Space</b>			
29	(2) Entry Vestibules	128		128
30	Janitors Closet	60		60
31	Housekeeping Storage	50		50
32	File Server	50		50
33	Delivery	50		50
34	Generator	156		156
35	Mechanical/Electrical	260		260
	<b>Subtotal - Miscellaneous Spaces</b>	<b>754</b>		<b>754</b>
	<b>Vertical Circulation</b>			
36	(2) Stairwells (area per floor)	348	308	656
37	Elevator (area per floor)	58	58	116
38	Elevator Equipment Room	82	0	82
39	Elevator Foyer	80	80	160
	<b>Subtotal - Vertical Circulation</b>	<b>568</b>	<b>446</b>	<b>1,014</b>
	<b>Area Subtotals</b>			
	Bay	3,132		3,132
	Firematic Support	1,196		1,196
	Mezzanine		700	700
	Office & Living	10,207		10,207
	<b>Walls &amp; Circulation</b>			
	Apparatus Bay Walls @ 10%	313		313
	Firematic Support Walls @ 12%	144		144
	Firematic Support Circulation @ 15%	179		179
	Office Area Walls @ 12%	1,225		1,225
	Office Area Circulation @ 18%	1,837		1,837
	<b>Subtotal - Walls &amp; Circulation</b>	<b>3,698</b>	<b>0</b>	<b>3,698</b>
	<b>Total &gt;&gt;</b>	<b>18,233</b>	<b>700</b>	<b>18,933</b>
	<b>Footprint&gt;&gt;</b>	<b>18,233</b>	<b>0</b>	<b>18,233</b>

# 3rd Draft Peekskill Required Departmental Spaces Space/Usage Analysis

Program Item	Room Name	Area
	<b>Apparatus Bay</b>	
1	One Truck Apparatus Bay @ 22 x 50	1,100
	One Truck Apparatus Bay @ 22 x 70	1,540
	<b>Subtotal - Apparatus Bay</b>	<b>2,640</b>
2	Engineers Work Room	0
3	Additional to DeCon/Laundry	0
4	SCBA Compressor	100
5	SCBA Fill	100
6	SCBA Cleaning & Repair	0
	<b>Subtotal - Firematic Support</b>	<b>200</b>
	<b>Administration</b>	
7	Conference Room	Incl.
8	Chief's Office	247
9	Volunteer Line Officers	221
10	Career Staff Office	221
11	Department Surgeon	103
12	Association	81
13	Fire Prevention & Training	100
14	Records Storage	100
	<b>Subtotal - Administration</b>	<b>1,073</b>
	<b>Firefighters</b>	
15	Exercise	1000
16	Lockers & Showers	535
	<b>Subtotal - Firefighters</b>	<b>1,535</b>
	<b>Public Spaces</b>	
17	Museum	0
	<b>Subtotal - Public Spaces</b>	<b>0</b>
	<b>Area Subtotals</b>	
	Bay	<b>2,640</b>
	Firematic Support	<b>200</b>
	Mezzanine	
	Office & Living	<b>2,608</b>
	<b>Walls &amp; Circulation</b>	
	Apparatus Bay Walls @ 10%	264
	Firematic Support Walls @ 12%	24
	Firematic Support Circulation @ 15%	30
	Office Area Walls @ 12%	313
	Office Area Circulation @ 18%	469
	<b>Subtotal - Walls &amp; Circulation</b>	<b>1,100</b>
	<b>Total &gt;&gt;</b>	<b>6,548</b>
	<b>Footprint&gt;&gt;</b>	<b>6,548</b>

# 3rd Draft Peekskill Required Departmental Meeting Room Space/Usage Analysis

Program Item	Room Name	Area
1	Meeting Room for 300	4,500
2	Kitchen	400
3	Pantry	221
4	Table & Chair Storage	446
5	A/V	130
6	Bathrooms	360
7	Coats	204
8	Entry	266
	<b>Subtotal</b>	<b>6,527</b>
	<b>Walls &amp; Circulation</b>	
	Office Area Walls @ 12%	783
	Office Area Circulation @ 18%	1,175
	<b>Subtotal - Walls &amp; Circulation</b>	<b>1,958</b>
	<b>Total &gt;&gt;</b>	<b>8,485</b>

**3rd Draft - Additions to Peekskill Station 3-5 w/ HL and Dept.**

Program Item	Room Name	2 & 3		H & L		Common		Department		Total Area
		1st Floor	2nd Floor	1st Floor	2nd Floor	1st Floor	2nd Floor	1st Floor	2nd Floor	
	<b>Apparatus Bay</b>									
1	Enlarge truck bays to meet current standard	Cannot be Done at This Location		1,440		20' x 50' >>>		1,400		2,840
	<b>Subtotal - Apparatus</b>			<b>1,440</b>				<b>1,400</b>		<b>2,840</b>
	<b>Firematic Suppor</b>									
1.1	<b>Mezzanine</b> (assume 16 x 70)	Cannot be Done at This Location								
2	Firematic Storage	Convert Existing Spaces		320	0			0	0	320
3	Hose Storage	0	0	46	0	0	0	0	0	46
4	Decon/Laundry	-----				0	0	200	0	200
5	SCBA	-----				0	0	200	0	200
NA	Janitors Recess	16	0	16	0	0	0	0	0	32
6	Hazardous Waste	14	0	14	0	0	0	0	0	28
7	EMS Storage	-----				100	0	0	0	100
8	Firefighter's Uni-Sex ADA Rest Room	Remodel existing		0	0	0	0	0	0	0
9	Officers' Office/Watch Desk	-----				88	0	0	0	88
	<b>Subtotal - Firematic Support</b>	<b>30</b>	<b>0</b>	<b>396</b>	<b>0</b>	<b>188</b>	<b>0</b>	<b>400</b>	<b>0</b>	<b>1,014</b>
	<b>Administration</b>									
10	Firefighter's Lobby	0	0	0	0	64	64	0	0	128
11	Conference Room	Convert sStation		0	0	0	288	0	0	288
12	Administrative Offices	5 kitchen and lounge		0	120	0	0	0	973	1,093
13	Work Node	-----				0	26	0	0	52
14	Records Storage	80	80	100	0	0	0	100	0	360
	<b>Subtotal - Administration</b>	<b>80</b>	<b>80</b>	<b>100</b>	<b>146</b>	<b>64</b>	<b>378</b>	<b>100</b>	<b>973</b>	<b>1,921</b>
	<b>Firefighters</b>									
15	Company Day Room	0	960	480	0	0	0	0	0	1,440
16	Career Day Room w/ Kitchenette	Renovate		0	0	320	0	0	0	320
17	Career Pantry	Renovate		0	0	64	0	0	0	64
18	Bunkroom	176	0	88	0	0	0	0	0	264
19	Career Personnel Lockers	75	0	75	0	0	0	0	0	150
20	Bunker's Laundry	0	0	0	0	85	0	0	0	85
21	Bunker's Bathroom	144	0	72	0	0	0	0	0	216
22	Exercise	-----				0	0	0	1000	1,000
23	Lockers & Showers	-----				0	0	0	535	535
	<b>Subtotal - Firefighters</b>	<b>395</b>	<b>960</b>	<b>715</b>	<b>0</b>	<b>469</b>	<b>0</b>	<b>0</b>	<b>1,535</b>	<b>4,074</b>
	<b>Public Spaces</b>									
24	Public Entry Area	0	0	0	0	150	0	0	0	150
25	Coat Recess	0	0	0	0	0	0	0	0	20
26	M & F Rest Rooms	Renovate Existing		0	0	0	0	0	0	0
27	Multi-Purpose Rooms	Use Existing		0	1,000	0	0	0	0	1,000
28	Multi-Purpose Room Table/Chair Storage	Renovate Existing		0	130	0	0	0	0	130
29	Kitchen	Renovate Existing		0	195	0	0	0	0	195
30	Pantries	Renovate Existing		0	60	0	0	0	0	60
	<b>Subtotal - Public Spaces</b>	<b>0</b>	<b>20</b>	<b>0</b>	<b>1,385</b>	<b>150</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,555</b>
	<b>Miscellaneous Space</b>									
31	(2) Entry Vestibules	-----				64	64	0	0	128
32	Janitors Closet	-----				30	30	0	0	60
33	Housekeeping Storage	-----				25	25	0	0	50
34	File Server	-----				0	0	0	0	0
35	Delivery	-----				0	0	0	0	0
36	Generator	-----				156	0	0	0	156
37	Mechanical/Electrical	Remodel existing		0	0	200	0	0	0	200
	<b>Subtotal - Miscellaneous Spaces</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>475</b>	<b>119</b>	<b>0</b>	<b>0</b>	<b>594</b>
	<b>Vertical Circulation</b>									
38	Stairwell (area per floor)	-----				174	154	0	0	328
39	Elevator (area per floor)	-----				58	58	0	0	116
40	Elevator Equipment Room	-----					82	0	0	82
41	Elevator Foyer	-----				80	80	0	0	160
	<b>Subtotal - Vertical Circulation</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>312</b>	<b>374</b>	<b>0</b>	<b>0</b>	<b>686</b>
	<b>Area Subtotals</b>									
	Bay	0		1,440		0		1,400		2,840
	Firematic Support	30		396		188		400		1,014
	Mezzanine		0		0		0		0	0
	Office & Living	475	1,060	815	1,531	1,470	871	100	2,508	8,830
	<b>Walls &amp; Circulation</b>									
	Apparatus Bay Walls @ 10%	0		144		0		140		284
	Firematic Support Walls @ 12%	4		48		23		48		122
	Firematic Support Circulation @ 15%	5		59		28		60		152
	Office Area Walls @ 12%	57	127	98	184	176	105	12	301	1,060
	Office Area Circulation @ 18%	86	191	147	276	265	157	18	451	1,589
	<b>Subtotal - Walls &amp; Circulation</b>	<b>151</b>	<b>318</b>	<b>495</b>	<b>459</b>	<b>492</b>	<b>261</b>	<b>278</b>	<b>752</b>	<b>3,207</b>
	<b>Total &gt;&gt;</b>	<b>656</b>	<b>1,378</b>	<b>3,146</b>	<b>1,990</b>	<b>2,150</b>	<b>1,132</b>	<b>2,178</b>	<b>3,260</b>	<b>15,891</b>
	<b>Footprint&gt;&gt;</b>	<b>656</b>	<b>0</b>	<b>3,146</b>	<b>0</b>	<b>2,150</b>	<b>0</b>	<b>2,178</b>	<b>0</b>	<b>8,130</b>

### 3rd Draft - Additions to Peekskill Station #4 (Allows Meeting Hall Use)

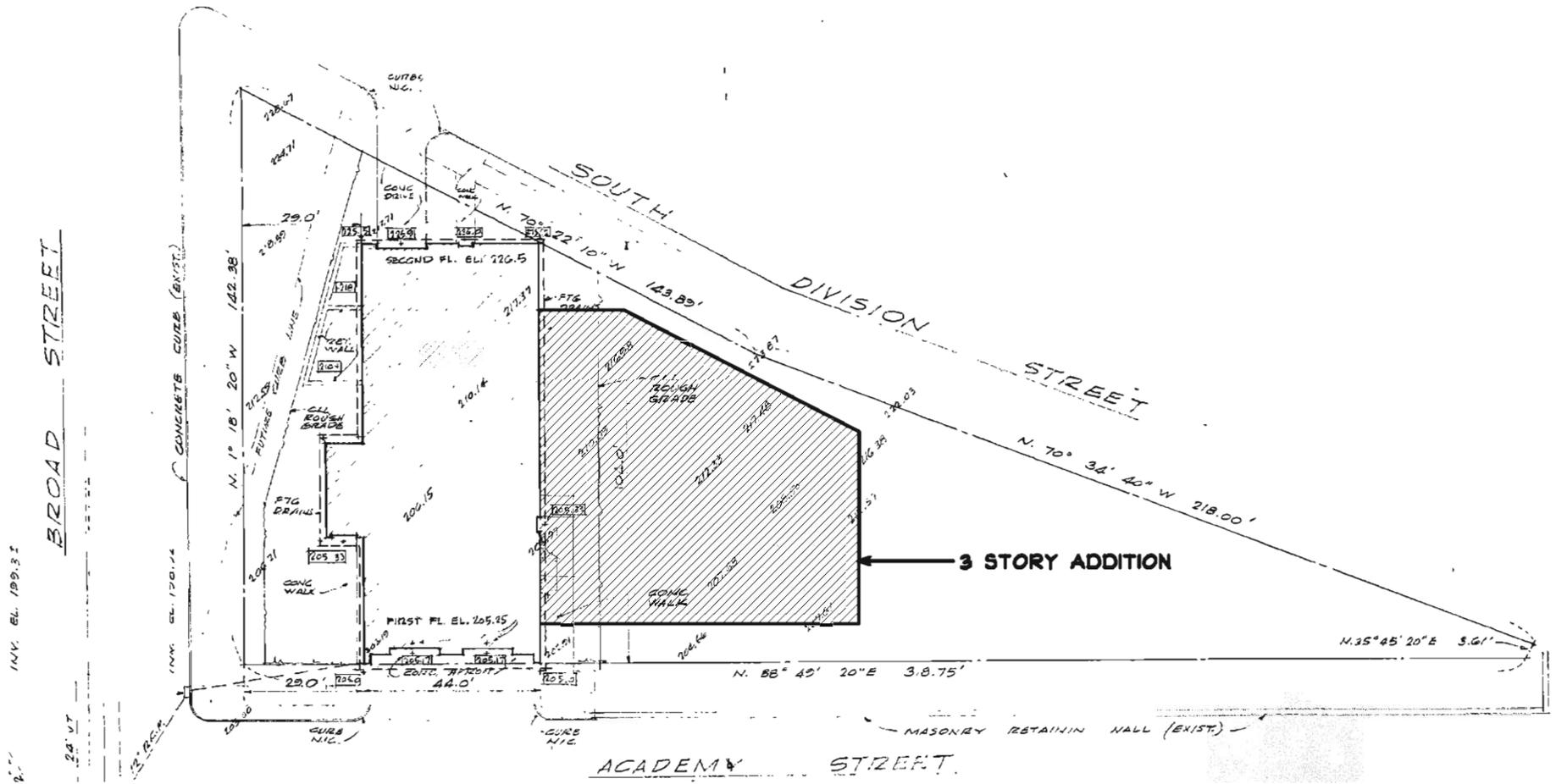
Program Item	Room Name	1st Floor
	<b>Apparatus Bay</b>	
1	Enlarge truck bays to meet current standard	260
	<b>Subtotal - Apparatus</b>	<b>260</b>
	<b>Firematic Support</b>	
1.1	<b>Mezzanine</b> (assume 16 x 70)	
2	Officers Storage Room	100
3	Storage Room #2	120
4	Storage Room #3 - Chief Driver	100
5	Hose Storage	46
6	Decon Only	80
NA	Janitors Recess	16
7	Hazardous Waste	14
8	Firefighter's Uni-Sex ADA Rest Room	72
9	Enlarge Officers' Office/Watch Desk	57
	<b>Subtotal - Firematic Support</b>	<b>605</b>
	<b>Administration</b>	
10	Firefighter's Lobby	0
11	Conference Room	0
12	Administrative Office	0
13	Work Node	0
14	Records Storage	80
	<b>Subtotal - Administration</b>	<b>80</b>
	<b>Firefighters</b>	
15	Career Day Room w/ Kitchenette	220
16	Career Pantry	30
17	Bunkroom	0
18	Career Personnel Lockers	75
19	Bunker's Laundry	52
20	Bunker's Bathroom	0
	<b>Subtotal - Firefighters</b>	<b>377</b>
	<b>Public Spaces</b>	
21	Public Entry Area	0
22	Coat Recess	0
23	M & F Rest Rooms	360
24	Multi-Purpose Room	0
25	Multi-Purpose Room Table/Chair Storage	0
26	Kitchen	0
27	Pantry	0
	<b>Subtotal - Public Spaces</b>	<b>360</b>
	<b>Miscellaneous Space</b>	
28	(1) Entry Vestibules	64
29	Janitors Closet	0
30	Housekeeping Storage	0
31	File Server	0
32	Delivery	50
33	Generator	0
34	Mechanical/Electrical	0
	<b>Subtotal - Miscellaneous Spaces</b>	<b>114</b>
	<b>Area Subtotals</b>	
	Bay	260
	Firematic Support	605
	Mezzanine	
	Office & Living	931
	<b>Walls &amp; Circulation</b>	
	Apparatus Bay Walls @ 10%	26
	Firematic Support Walls @ 12%	73
	Firematic Support Circulation @ 15%	91
	Office Area Walls @ 12%	112
	Office Area Circulation @ 18%	168
	<b>Subtotal - Walls &amp; Circulation</b>	<b>469</b>
	<b>Total &gt;&gt;</b>	<b>2,265</b>
	<b>Footprint&gt;&gt;</b>	<b>2,265</b>

### 3rd Draft - Additions to Peekskill Station #6 w/ Fire Patrol and Spare Dept. Bay

Program Item	Room Name	#6	Fire Patrol	Department	Total Area
		1st Floor	1st Floor	1st Floor	
<b>Apparatus Bay</b>					
1	One Truck Apparatus Bay (20 x 50)	Use Current	1000	1000	2,000
<b>Subtotal - Apparatus</b>		<b>0</b>	<b>1,000</b>	<b>1,000</b>	<b>2,000</b>
<b>Firematic Support</b>					
1.1	Mezzanine (assume 16 x 70)		1,120		1,120
2	Storage Room	100	100		100
3	Storage Room #2		120		0
4	Storage Room #3 - Chief Driver	Use Current	100		0
5	Hose Storage		46		46
6	Decon Only		80		80
NA	Janitors Recess		16		16
7	Hazardous Waste		14		14
8	EMS Storage		103		103
9	Firefighter's Uni-Sex ADA Rest Room		80		80
10	Officers' Office/Watch Desk		88		88
<b>Subtotal - Firematic Support</b>		<b>527</b>	<b>320</b>		<b>847</b>
<b>Administration</b>					
11	Firefighter's Lobby	0			0
12	Conference Room	288			288
13	Administrative Office	120			120
14	Work Node	26			26
15	Records Storage	80			80
<b>Subtotal - Administration</b>		<b>514</b>			<b>514</b>
<b>Firefighters</b>					
16	Company Day Room	480	480		480
17	Career Day Room w/ Kitchenette	320			320
18	Career Pantry	64			64
19	Bunkroom	88	88		88
20	Career Personnel Lockers	75	75		75
21	Bunker's Laundry	52			52
22	Bunker's Bathroom	72	72		72
<b>Subtotal - Firefighters</b>		<b>1,151</b>			<b>1,151</b>
<b>Public Spaces</b>					
23	Public Entry Area	150			150
24	Coat Room	Remodel	120		0
25	M & F Rest Rooms	Remodel			0
26	Multi-Purpose Room	Remodel	1000		0
27	Multi-Purpose Room Table/Chair Storage	Remodel	130		0
28	Kitchen	Remodel	195		0
29	Pantry	Remodel	60		0
<b>Subtotal - Public Spaces</b>		<b>150</b>	<b>1,505</b>		<b>1,655</b>
<b>Miscellaneous Space</b>					
30	(2) Entry Vestibules	128			128
31	Janitors Closet	60			60
32	Housekeeping Storage	50			50
33	File Server	50			50
34	Delivery	50			50
35	Generator	156			156
36	Mechanical/Electrical	Use Current			0
<b>Subtotal - Miscellaneous Spaces</b>		<b>494</b>			<b>494</b>
<b>Area Subtotals</b>					
Bay		<b>0</b>	<b>1,000</b>	<b>1,000</b>	<b>2,000</b>
Firematic Support		<b>527</b>	<b>320</b>		<b>847</b>
Mezzanine			<b>1,120</b>		<b>1,120</b>
Office & Living		<b>2,309</b>	<b>1,505</b>		<b>3,814</b>
<b>Walls &amp; Circulation</b>					
Apparatus Bay Walls @ 10%		0	100	100	0
Firematic Support Walls @ 12%		63	38	0	63
Firematic Support Circulation @ 15%		79	48	0	79
Office Area Walls @ 12%		277	181	0	277
Office Area Circulation @ 18%		416	271	0	416
<b>Subtotal - Walls &amp; Circulation</b>		<b>835</b>	<b>638</b>	<b>100</b>	<b>835</b>
<b>Total &gt;&gt;</b>		<b>4,791</b>	<b>3,463</b>	<b>1,100</b>	<b>8,616</b>
<b>Footprint&gt;&gt;</b>					<b>7,496</b>

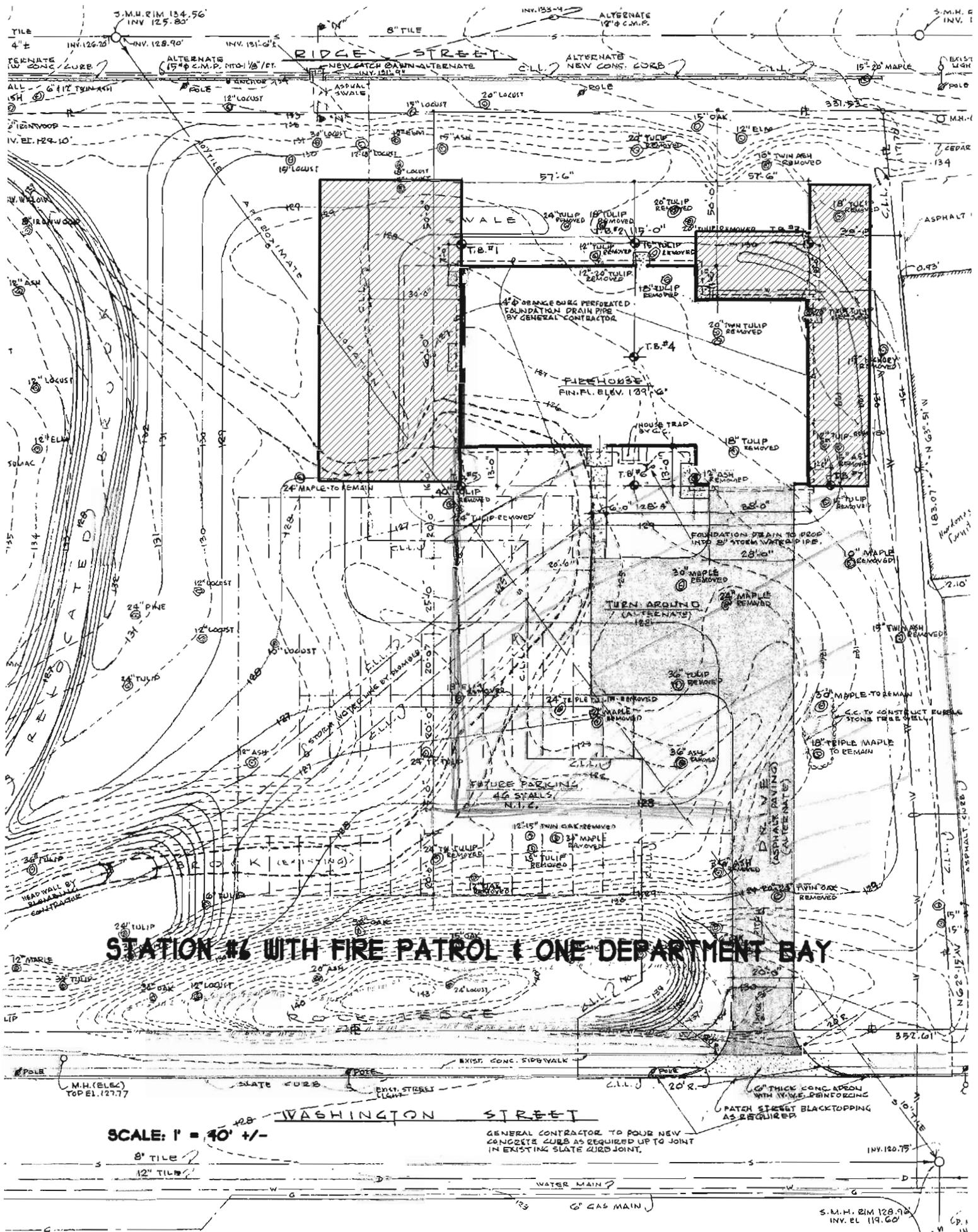
# **Appendix B**

## **Site Plans - Stations 3/5 & 6**



# STATIONS 3 & 5 WITH H&L AND DEPARTMENT

SCALE: 1" = 40' +/-



**STATION #6 WITH FIRE PATROL & ONE DEPARTMENT BAY**

SCALE: 1" = 40' +/-

GENERAL CONTRACTOR TO POUR NEW CONCRETE CURB AS REQUIRED UP TO JOINT IN EXISTING SLATE CURB JOINT.

# Appendix C Cost Projection

## 3rd Draft Peekskill Fire Department Comparison of Renovation/Addition to New Construction

<b>Renovation/Addition Areas and Costs</b>								
	New Construction			Renovation			Total Area	Avg. \$/sq ft
	Area	\$/sq ft	Cost	Area	\$/sq ft	Cost		
Station 3-5, w/ H&L & Department	15,891	\$ 350	\$ 5,561,773	9,980	\$ 150	\$ 1,497,000	25,871	\$ 273
Station 4, w/ Dept. Wide Mtg. Rm.	2,265	\$ 220	\$ 498,223	1,300	\$ 75	\$ 97,500	3,565	\$ 167
Station 6, w/ Fire Patrol & Spare Bay	8,616	\$ 300	\$ 2,584,797	7,385	\$ 75	\$ 553,875	16,001	\$ 196

<b>Renovation/Addition Scheme</b>	
Total Building Area	45,436
Total Construction Cost	\$ 10,793,168
Soft Cost %	20%
Soft Cost	\$ 2,158,634
Hard & Soft Cost	\$ 12,951,802
Project Contingency	10%
<b>Hard, Soft &amp; Contingency</b>	<b>\$ 14,246,982</b>
Land Acquisition	None
<b>Total Project Cost</b>	<b>\$ 14,246,982</b>

<b>Bricks &amp; Mortar Costs</b>	
Station 3-5, w/ H&L & Department	\$ 7,058,773
Station 4, w/ Dept. Wide Mtg. Rm.	\$ 595,723
Station 6, w/ Fire Patrol & Spare Bay	\$ 3,138,672

<b>New Headquarters Scheme</b>	
Proposed Fire Headquarters Area	36,583
Cost/sq ft	\$ 290
Headquarters Construction Cost	\$ 10,609,070
Soft Costs	\$ 1,710,000
Soft Cost %	16%
Hard & Soft Cost	\$ 12,319,070
Project Contingency	5%
<b>Hard, Soft &amp; Contingency</b>	<b>\$ 12,935,024</b>
Land Acquisition	\$ 3,000,000
<b>Total Project Cost</b>	<b>\$ 15,935,024</b>

# **Appendix D**

## **Building Condition Reports**

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# MITCHELL ASSOCIATES ARCHITECTS

## • EMERGENCY SERVICES FACILITIES •

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**Building Name:** Peekskill Station 1

**Occupying Companies:** Cortland Hook & Ladder

**Address:** 828 Main Street

**Date:** 2/4/10      **By:** RAM

**Digital Pictures:** Y

**Year Built:** Prior to 1930

**Building Size:** Approx 7,500 sq ft

Legend: G = Good A = Average P = Poor X = Needs Replacement
-------------------------------------------------------------------------

### Site Assessment

**Lot Size:** \_\_\_\_\_

**North Adjacent Property:** Residences      **Availability:** Not

**East Adjacent Property:** City Parking      **Availability:** Not

**South Adjacent Property:** Street      **Availability:** Not

**West Adjacent Property:** Commercial Building      **Availability:** Not

**Road Frontage:** 32' +/-

**General Site Topography:** Flat

**Accessibility:** Mediocre

**Fencing:** Y (along left side)

**Apparatus Bay Front Aprons:**

**Concrete:** Y      **Bollards:** N

**Condition:** P

**G/C:** Shallow

**Apparatus Bay Rear Aprons:** N/A

**Front Apron to Road:** N/A

**Rear Apron to Road:** N/A

**Heavy Duty Pavement Areas:** None

**Light Duty Pavement Areas:** None

**Sidewalks:** Concrete

**Condition:** A

**ADA Accessible Entrances:** No (Entrance to ramp to members room lacks ANSI clearance)

**Lawns & Landscaping:**G/C: OK**Firefighter Parking & Access:**# of Parking Spaces: 7 during the day, 40 at night # HDCP: ?**Public Parking & Access:** N/A**Ingress/Egress Personal Vehicles:** (Discuss Separation)G/C: Good separation from truck**Ingress/Egress FFE & EMS:****Traffic Control:** N**Returning Apparatus:** Back in from street blocking traffic**Existing Utilities:****Storm Drainage:****Municipal:** Y**Does all storm water go to municipal system:** Y N If N, comment**Roof Drainage:**G/C: Dumps onto ground between station and adjacent building to the west due to missing downspout**Security:****Site:** No**Building:** Key**Site Recommendations for Renovations/Expansions:**Existing site would accommodate a building footprint expansion of: 0 %Acquisition of additional land to the west would permit major expansion.

Site is not adequate to support renovation and modernization as long as footprint is not increased.

Site has too many strikes against it to support any modernization.

G/C: Underground fuel tank does not comply with current Westchester County standards and will be required to be replaced. It should be evaluated for leakage

## Building Envelope

### Roof 1 Location:

**Sloped**

**Type: Shingle**

**General Condition: Unknown**

**Drainage: Gutters**

**Direct to: Ground (downspouts are missing)**

**Drainage System Condition: P**

**Roof Penetrations: Y**

**Curbs Vents Conduits**

**Condition: Unknown**

### Exterior Walls:

**Type: Stucco, Aluminum-Vinyl Siding, imitation brick**

**Sub-structure: Wood**

**General Condition Exterior Skin:**

North -	G	A	P	X
South -	G			
East -	N/A			
West -	P (stucco & siding)			

**Any Signs of Water Penetration: N**

**Control Joints: N**

**Proper Flashing & Sealants: N**

### Windows:

**Type: Wood**

**Style: Double Hung**

**Glazing: Single**

**Weather Tightness & Energy Efficiency: P**

**Screens: Some**

**General Condition: P**

### Louvers: Y

**Type: Aluminum**

**General Condition: A**

### Personnel Doors:

**Type: HM**

**Accessories: None**

**Weather Tightness & Energy Efficiency: P**

**Doors Operate Properly: Y**

**Overhead Doors:****Type:** Insulated Panel**Weather-stripping:** Y                      **Condition:** A**Weather Tightness & Energy Efficiency:** A

G/C Exterior Walls: Imitation brick is not a permanent solution

**Insulation Levels and Energy Efficiency in Building Envelope:** Poor**Building Interior Evaluation****Code Compliance:****Stairways/Corridors/Egress:****Stair Material:****ANSI Compliant:** N**2 Means of Egress:** N**Continuous Pathway to Exterior:** Y**Dead End Corridors:** Y**Adequate Egress Path Width:** Y**Elevator:** N**Sprinkler:** N

G/C: Handicap ramp from member's room leads to non-accessible door

**Energy Efficiency:****Wall Insulation:** P**Ceiling Insulation:** N/A**Window Quality:** A**Door Quality:** A**Caulking Condition:** A**Mechanical Equipment:** P**Duct/Pipe Insulation:** X**Heat Recovery:** N**Occupant Health:****Fresh Air Makeup:** N**Mold Concerns:** Unknown**Radon Concerns:** Unknown**Asbestos Concerns:** Unknown**Daylight:** P

**Potable Water:** Y

**Apparatus Bay:**

**Size:** 25'5" x 51'2"

**# of Truck Bays:** 1      **# that are Drive Thru:** 0

**# of EMS Bays:** 0      **# that are Drive Thru:** 0

**Adequate side clearance:** G

**Adequate front/rear clearance:** P

**Adequate overheard clearance:** P

**Ceiling Construction:** SAC      A

**Wall Construction:** Unknown      P

**Floor Construction:** Concrete      X

**Floor Drainage:** Catch Basin(s)      Does not work

**Overhead Doors:** **Size** 11'-6" w x 14' h

**Thickness:** 2"      **Type:** foam core, alum skin

**Gen Condition:** A

**Operator Condition (Visual):** A

**Controls: At Door:** Y      **Radio Room:** N

**Remotes:** Y

**Safety Edge/Optical Detector:** N

**Manual Operation:** Manual Push-Up

**Accessories:**

**Vehicle Exhaust:** N

**General Exhaust:** Y

**Drench/Eye Wash:** N

**Air Reels:** N

**Power Drops:** N

**Truck Fill:** N

**Ceiling Fans:** N

**Gear Storage:** N

**Hose Reels:** N

**Hose Racks:** N

**Hose Dryers:** N

**Drinking Fountain:** N

**Ice Maker:** Y

**Lighting Adequacy:** A

**Apparatus Bay Support:****Radio Room:** N**Mezzanine:** N**DeCon Room:** N**DeCon Laundry:** N**SCBA:** N**EMS Storage:** N**Firematic Storage:** Y**Size:** Small**Condition:** P**Red Bag Disposal Area:** N**Work Rooms/General Storage:** N**Generator:** N**Toilet Rooms (Accessible from Apparatus Bays):** N

G/C – Apparatus Bay Support: Essentially non-existent

**Living/Office/General Areas:****Basement****Elevator:** N**Bunkrooms:** 1**Access to Apparatus Bay:** Quick**General Condition:** X due to violations**Bunkroom exits through bay – a violation****Bunkroom air is exposed to bay – a violation****Bunkroom lacks light & air – a violation****Bunker's kitchen is in bay – a violation****Bathrooms/Showers/Locker rooms #1:****Location:** in bunkroom**General Condition:** A**Bathrooms/Showers/Locker rooms #2:****Location:** Member's room**Female****General Condition:** G**HDCA Accessible:** Y**Showers:** N**Lockers:** N

**Bathrooms/Showers/Locker rooms #3:****Location:** Member's room**Male****General Condition:** G**HDCP Accessible:** N**Showers:** N**Lockers:** N**Day Lounge/Ready Room:****Size:** 37'-6" x 63'**General Condition:** G**Kitchen/Dining Area:****Kitchen size:** 6' x 20'**Kitchen:** Semi-Commercial**Pantry:** N**Dishwasher:** Commercial**Refrigerator:** Commercial**Freezer:** None**Stove:** Commercial**Exhaust Hood:** Commercial**Ansul System:** Y**Flooring:** CT**General Condition:** G**Lounge/Training Room:****Size:** 12'-9" x 30'-9"**General Condition:** G**Exercise Room:** N**Office Area:** Y**Size:** 13'-6" x 19'**Conference Room:** N**Storage Rooms/Janitor Closets, etc.:** Y**Doors & Door Hardware****Electronic Hardware:** N**Is the building currently used as a public polling place:** N

*Mechanical Systems Inspection*

City of Peekskill  
Hook and Ladder  
828 Main Street  
Peekskill, New York

February 22, 2010

On February 16, 2010, Whitman Engineering, PC conducted a visual inspection of the observable portions of the heating, ventilating & air conditioning (HVAC), electrical, plumbing, and fire protection (sprinkler) systems at the City of Peekskill fire house known as Hook and Ladder at 828 Main Street, Peekskill, New York.

The purpose of the inspection was to determine the general, overall condition of the systems and to provide our general recommendations for the station. The following is a summary of our recommendations:

1. A separate heating system should be installed to serve the Peekskill Youth Bureau, so that one “tenant” does not have to depend on the other for heat.
2. Bring combustion and dilution air in to the boiler room in accordance with chapter 7 of the Mechanical Code of New York State.
3. Repair all holes in boiler room walls. Verify fire rating of boiler room walls and door.
4. Install a floor drain in the boiler sump.
5. Repair leak in fuel oil system.
6. Install a mechanical, fan forced, ventilation system in the apparatus bay, in conjunction with a NFPA 1500 compliant tailpipe attached mechanical, fan forced, ventilation system.
7. Test for and abate asbestos insulation.
8. Install a separate electrical service, meter and sub panels for the fire station so that one “tenant” does not depend on the other for electricity.
9. Relocate power panels on behind the stage so that the top breaker handle is less then 6’-7” above the floor, in accordance with Article 404.8 of the National Electric Code.
10. Verify all panel circuit directory cards. Replace those missing.
11. Install motion switches to control lighting in all spaces to conserve energy.
12. Install sprinklers in the remainder of the building and activate the system.

Respectfully submitted by:

Kate Whitman, PE

*Mechanical (HVAC) Systems:*

Heating:

- Heat for the building is derived from an oil fired steam boiler installed in 1996; The boiler inspection is current and expires in May of 2010.
- Upper floors are heated by various radiators with manual thermostatic valves.
- The apparatus bay is heated by unit heaters.

Cooling:

- none

Controls:

- Single T-stat located on lower level.

Apparatus bay exhaust system:

- Through wall exhaust fan

Comments:

- This fire station is unique in that it shares a building with the City of Peekskill Youth Bureau.
- The boiler in the fire station portion of the building also serves the portion of the building not occupied by the PFD.
- No means of combustion air or dilution air was observed for the boiler room. The boiler appears to draw its combustion air from within the boiler room itself.
- Several large holes were observed in the boiler room walls, possible from various mechanical piping additions over the years.
- The boiler is installed on a concrete pad, within a sump depression of approximately 18 inches. The pressure relief valves from the boiler and a nearby water heater are piped to this sump. Various other piping and valves are also installed in the sump. There is no observable drain or pump to evacuate water from the sump. It is evident that there have been several leaks.
- It appears that there is a leak in the fuel oil supply system to the boiler as is evidenced by oil absorbent (or kitty litter) in the bottom of the sump.
- To heat upper areas of building the lower rooms are over heated.
- Existing insulation appears to be asbestos in places.

Recommendations:

- A separate heating system should be installed to serve the Peekskill Youth Bureau, so that one "tenant" does not have to depend on the other for heat.
- Bring combustion and dilution air in to the boiler room in accordance with chapter 7 of the Mechanical Code of New York State.
- Repair all holes in boiler room walls. Verify fire rating of boiler room walls and door.
- Install a floor drain in the boiler sump.
- Repair leak in fuel oil system.
- Install a mechanical, fan forced, ventilation system in the apparatus bay, in conjunction with a NFPA 1500 compliant tailpipe attached mechanical, fan forced, ventilation system.
- Test for and abate asbestos insulation.
- Install ASHRAE compliant ventilation system with heat recovery.
- Convert combustion from oil to gas, remove and remediate existing fuel tank.

*Electrical Systems:*

Power:

- Voltage 120/208V, 3 phase
- Generator: none
- Sub panels- multiple

Lighting Fixtures:

- General lighting: fluorescent with energy efficient T8 style lamps.
- Manual switching.

Fire Alarm:

- Fire alarm appears to be a full coverage system

Comments:

- This fire station is unique in that it shares a building with the City of Peekskill Youth Bureau.
- The fire station derives its power from the portion of the building occupied by City of Peekskill Youth Bureau. Power panels are located behind the stage on the second floor. There is stored material in front of the panels. The top breaker handle appears to be more than 6'-7" above the floor.
- Several junction boxes with open wires exposed were observed in multiple locations
- Some of the subpanels are missing their circuit directory cards.

Recommendations:

- Install a separate electrical service, meter and sub panels for the fire station so that one "tenant" does not depend on the other for electricity.
- Relocate power panels on behind the stage so that the top breaker handle is less than 6'-7" above the floor, in accordance with Article 404.8 of the National Electric Code.
- Verify all panel circuit directory cards. Replace those missing.
- Install motion switches to control lighting in all spaces to conserve energy.

*Plumbing Systems:*

Natural Gas:

- 1" gas main from street.
- 2" gas service from regulator.

Domestic Water Service- City

- Service size: 1"
- Water Meter Size: 1"

Sanitary System:

- City Sewer
- Service Size: not observable
- Piping- combination of exposed copper, PVC and Cast Iron.

Domestic Hot Water:

- Type: Nat Gas
- Size: 50 Gal holding Tank

Comments:

- The domestic water entrance and water meter are located in a closet in the TV lounge.
- The plumbing systems are predominantly concealed from view.

Recommendations:

- None

*Fire Suppression Systems:*

Building Systems:

- New 6" main from City water. Not Activated

Comments:

- The fire sprinkler main enters the building below grade and connects to the header in the fire sprinkler closet. This system covers the portion of the building that the fire station is occupying. The new system is not in use. The remainder of the building appears to be unprotected.

Recommendations:

- Install sprinklers in the remainder of the building and activate the system.

<ul style="list-style-type: none"><li>• Exterior skin is imitation brick with limited lifespan</li><li>• Rain water dumps off roof into alley</li></ul>	
<ul style="list-style-type: none"><li>• Inadequate head room prevents use of 100% source capture fume exhaust</li></ul>	
<ul style="list-style-type: none"><li>• Inadequate space</li></ul>	
<ul style="list-style-type: none"><li>• Inadequate space</li><li>• Bunker's kitchen is in apparatus bay</li></ul>	

<ul style="list-style-type: none"><li>• Inadequate storage</li><li>• No fire protection</li></ul>	 A photograph of a cluttered storage area. The space is filled with cardboard boxes, some labeled 'Pottery' and 'MPS'. There are two red fire extinguishers on the floor. The area appears cramped and disorganized, with pipes and other materials visible in the background.
<ul style="list-style-type: none"><li>• Code violations</li></ul>	 A photograph of an electrical control panel. The panel is open, revealing a complex array of wires and components. The wiring is somewhat disorganized and exposed, which is a code violation. The panel is mounted on a wall in a utility room.
<ul style="list-style-type: none"><li>• There is no sprinkler system attached to the sprinkler riser</li></ul>	 A photograph of a sprinkler riser. The riser is a vertical pipe with several horizontal pipes branching off. There are red valves and fittings. The riser is located in a utility room, and there is no sprinkler system attached to it.

- Mechanical systems are antiquated



- Mechanical systems are antiquated



<ul style="list-style-type: none"><li>• Corrosion</li></ul>	

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# MITCHELL ASSOCIATES ARCHITECTS

## • EMERGENCY SERVICES FACILITIES •

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**Building Name:** Station 2

**Occupying Companies:** Peekskill Fire Patrol

**Address:** 600 Block, Highland Avenue

**Date:** 2/4/10      **By:** RAM

**Digital Pictures:** Y

**Year Built:** Prior to 1930

**Building Size:** Approx 5,500 sq ft (32' +/- x 86' +/-)

Legend: G = Good A = Average P = Poor X = Needs Replacement
-------------------------------------------------------------------------

### Site Assessment

**Lot Size:** Approx 5,500 sq ft

**North Adjacent Property:** At wall      **Availability:** No

**East Adjacent Property:** At wall      **Availability:** No

**South Adjacent Property:** At wall      **Availability:** No

**West Adjacent Property:** Street

**Road Frontage:** 40' +/-

**General Site Topography:** Slopes up from street

**Accessibility:** No

**Fencing:** N

**Apparatus Bay Front Aprons:**

**Bollards:** N

**Condition:** X

**G/C:** Shallow and unsafe

**Apparatus Bay Rear Aprons:** None, and no bollards

**Heavy Duty Pavement Areas:** None

**Light Duty Pavement Areas:** None

**Sidewalks:**

Concrete

**Condition:** P

**ADA Accessible Entrances:** None

**Lawns & Landscaping:** None

**Firefighter Parking & Access:** None

**Public Parking & Access:** None

**Ingress/Egress FFE & EMS:**

**Traffic Control:** N

**Returning Apparatus:** Back in from street blocking traffic

**Existing Utilities:**

**Storm Drainage:**

**Municipal:** Y

**Does all storm water go to municipal system:** Y

**G/C:** Combined sanitary & storm

**Roof Drainage:**

Internal drains to underground city system

**Security:**

**Site:** None

**Building:** Key

**Site Recommendations for Renovations/Expansions:**

Existing site would accommodate a building footprint expansion of: 0 %

No acquisition of additional land is plausible.

Site has too many strikes against it to support any modernization.

**G/C: Underground fuel tank does not comply with current Westchester County standards and will be required to be replaced. It should be evaluated for leakage**

## Building Envelope

**Roofs:** # of Different Roofs: 1

**Roof 1 Location:**

**Flat:** Flat & Sloped

**Type:** EPDM & Shingle

**General Condition:** P

**Drainage:** Internal

**Direct to:** Storm System

**Overflow Scuppers:** N

**Drainage System Condition:** P

**Roof Penetrations:** Y

**Vents:** Horn

**Condition:** P

**Parapets/Flashing:**

**G/C Roof #1:** Parapets, parapet caps and internal leaders are reported as shot.

**Roof Penetrations:**

**Condition:** P

**Exterior Walls:**

**Type:** Plain CMU, plus paneling, plus stone on South \_\_\_\_\_

**Sub-structure:** Unknown

**General Condition Exterior Skin:**

North	-	X
South	-	X
East	-	X
West	-	X

**Any Signs of Water Penetration:** Y

**Control Joints:** N

**Proper Flashing & Sealants:** N

**Fascia/Soffits/Gutters/Downspouts:**

**G/C:** All systems and components are dilapidated

**Windows:**

**Type:** Wood

**Style:** Double Hung

**Glazing:** Single

**Weather Tightness & Energy Efficiency:** X

**Screens:** N

**General Condition:** X

**G/C:** Some aluminum storms

**Louvers:** N

**Personnel Doors:**

**Type:** HM

**Accessories:** None

**Weather Tightness & Energy Efficiency:** X

**Doors Operate Properly:** N

**Overhead Doors:**

**Type:** Insulated Panel

**Weather-stripping:** Y **Condition:** P

**Weather Tightness & Energy Efficiency:** P

**G/C Exterior Walls:** In a state of advanced deterioration.

**Insulation Levels and Energy Efficiency in Building Envelope:**G/C: None**Repair Recommendations to Envelope and Remedial Action to Prevent Continued Decay:**G/C: Abandon**Maintenance Suggestions (Windows Relating to Energy Efficiency, Day Lighting, Operation & Necessary View Lines):**G/C: Abandon**Building Interior Evaluation****Code Compliance:****Stairways/Corridors/Egress:****Stair Material:****ANSI Compliant:** N**2 Means of Egress:** N**Continuous Pathway to Exterior:** N**Dead End Corridors:** Y**Adequate Egress Path Width:** N**Elevator:** N**Sprinkler:** N**Energy Efficiency:****Wall Insulation:** X**Ceiling Insulation:** X**Window Quality:** X**Door Quality:** X**Caulking Condition:** X**Mechanical Equipment:** X**Duct/Pipe Insulation:** P**Heat Recovery:** N**Occupant Health:****Fresh Air Makeup:** N

**Mold Concerns:** Unknown  
**Radon Concerns:** Unknown  
**Asbestos Concerns:** Y  
**Daylight:** P  
**Potable Water:** Y

G/C: Strong fuel fume smell, perhaps emanating from fuel tank.

**Apparatus Bay:**

**Size:** 14'-8" x 42'

**# of Truck Bays:** 1      **# that are Drive Thru:** 0

**# of EMS Bays:** 0      **# that are Drive Thru:**

**Adequate side clearance:** P

**Adequate front/rear clearance:** A

**Adequate overheard clearance:** P

**Ceiling Construction:** Concrete P

**Wall Construction:** Drywall P

**Floor Construction:** Concrete A

**Floor Drainage:** Catch Basin(s) A

**Floors appear to pitch to drains:** Y

**Overhead Doors:**      **Size** 10' x 15'8"

**Thickness:** 2"      **Type:** Insul/Alum

**Gen Condition:** A

**Operator Condition (Visual):** A

**Controls: At Door:** Y      **Radio Room:** N

**Remotes:** Y

**Safety Edge/Optical Detector:** N

**Manual Operation:** Manual Push-Up

**Accessories:**

**Vehicle Exhaust:** N

**General Exhaust:** Y

**Drench/Eye Wash:** N

**Air Reels:** N

**Power Drops:** N

**Truck Fill:** Y (Garden Hose)

**Ceiling Fans:** N

**Gear Storage:** N

**Hose Reels:** N  
**Hose Racks:** N  
**Hose Dryers:** N  
**Drinking Fountain:** N  
**Ice Maker:** N  
**Lighting Adequacy:** P  
**Night Lighting:** Y

G/C – Apparatus Bay: **Terrible**

**Apparatus Bay Support:**

**Radio Room:** N  
**Mezzanine:** N  
**DeCon Room:** N  
**DeCon Laundry:** N  
**SCBA:** N  
**EMS Storage:** N  
**Firematic Storage:** Y

**Size:** 16' x 29'

**Red Bag Disposal Area:** N

**Work Rooms/General Storage:** N

**Generator:** N

**Toilet Rooms (Accessible from Apparatus Bays):** N

**General Traffic Flow in Apparatus Bay:** P

G/C – Apparatus Bay Support: **Essentially non-existent**

**Living/Office/General Areas:**

Basement    1<sup>st</sup> Floor    2<sup>nd</sup> Floor    3<sup>rd</sup> Floor

**Bunkroom:**

**General Condition of Bunkroom:** P

**Floor Material:** VCT

**Condition:** A

**Access to Apparatus Bay:** Quick

**Bathrooms/Showers/Locker rooms #1:**

**Location:** Adjacent bunkroom

Unisex

**General Condition:** X

**HDCP Accessible:** N

**Showers:** Y      **Condition:** X

**Lockers:** N

**Day Lounge/Ready Room:**

**Size:** 16' x 27'-7"

**Kitchen/Dining Area:**

**Career Kitchen size:** 7 x 11'-6"

**Dining size:** None

**Kitchen:** Residential

**Pantry:** N

**Flooring:** VCT

**General Condition:** A

**Training Room:** Y

**Size:** 30'-9" x 47'-8"

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**Exercise Room:** N

**Office Area:** N

**Conference Room:** N

**Storage Rooms/Janitor Closets, etc.: Adequate storage room**

**Doors & Door Hardware**

**Electronic Hardware:** N

**Is the building currently used as a public polling place:** N

**G/C – Living/Office/General Areas:** Extremely Poor

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*Mechanical Systems Inspection*

City of Peekskill  
Fire Patrol  
425 Highland Avenue  
Peekskill, New York

February 22, 2010

On February 16, 2010, Whitman Engineering, PC conducted a visual inspection of the observable portions of the heating, ventilating & air conditioning (HVAC), electrical, plumbing, and fire protection (sprinkler) systems at the City of Peekskill fire house known as Fire Patrol

The purpose of the inspection was to determine the general, overall condition of the systems and to provide our general recommendations for each station. The following is a summary of our recommendations:

- No means of combustion air or dilution air was observed for the boiler room. The boiler appears to draw its combustion air from within the boiler room itself.
- The boiler is installed on a concrete pad.
- To heat lower areas of building the upper rooms are overheated.
- Existing insulation appears to be asbestos in places.
- The fuel oil tank is located under the building entrance.
- Verify all panel circuit directory cards. Replace those missing.
- Install motion switches to control lighting in all spaces to conserve energy.
- Water service should be updated to meet Westchester water department requirements including an RPZ.

Respectfully submitted by:

Kate Whitman, PE

*Mechanical (HVAC) Systems:*

Heating:

Heat for the building is derived from an oil fired Steam boiler-HB Smith- installed 1950. The boiler inspection is current and expires in May of 2010.

Main and upper levels are heated with radiators throughout.

Apparatus bay is heated with unit heaters.

Cooling:

Window AC units.

Controls:

t-stats

Apparatus bay exhaust system:

Exhaust fan

Comments:

No means of combustion air or dilution air was observed for the boiler room. The boiler appears to draw its combustion air from within the boiler room itself.

The boiler is installed on a concrete pad.

To heat lower areas of building the upper rooms are overheated.

Existing insulation appears to be asbestos in places.

The fuel oil tank is located underground inside the building entrance.

Recommendations:

The heating system should be divided into multiple heating zones. This will allow the occupied areas to be heated without heating the unoccupied areas. New piping, circulating pumps and a temperature control system should be installed.

Bring combustion and dilution air in to the boiler room in accordance with chapter 7 of the Mechanical Code of New York State.

Install a mechanical, fan forced, ventilation system in the apparatus bay, in conjunction with a NFPA 1500 compliant tailpipe attached mechanical, fan forced, ventilation system.

The fuel oil tank should be inspected for leaks.

Install ASHRAE compliant ventilation system with heat recovery.

Replace fuel oil tank with Westchester County compliant system.

*Electrical Systems:*

Power:

Voltage 120/240V, 1 phase-200 amp

Generator: none

Lighting Fixtures:

General lighting: fluorescent with energy efficient T8 style lamps.

Manual switching.

Receptacles:

Receptacles in apparatus bay are not GFCI.

Fire Alarm:

Fire alarm appears to be a full coverage system

Comments:

none

Recommendations:

Verify all panel circuit directory cards. Replace those missing.  
Install motion switches to control lighting in all spaces to conserve energy.

*Plumbing Systems:*

Natural Gas:  
1" gas main from street.  
Domestic Water Service- City  
Service size: 1"  
Back flow protection-none  
Water Meter Size: none  
Sanitary System:  
City Sewer  
Service Size: not observable  
Domestic Hot Water:  
Type: electric  
Size: 50 Gal Tank  
Storm Drains:  
Roof drains: not exposed  
Apparatus Bay:  
Water fill station ¾" hose

Comments:

The plumbing systems are predominantly concealed from view

Recommendations:

- Water service should be updated to meet Westchester Joint Waterworks requirements including an RPZ.

*Fire Suppression Systems:*

Building Systems:

none.

Kitchen hood

The kitchen was locked and we were unable to make observations.

Comments:

There is no sprinkler system

Recommendation:

- none

<ul style="list-style-type: none"><li>• No front apron; trucks must block street when returning</li><li>• No parking</li></ul>	
<ul style="list-style-type: none"><li>• Building occupies entire parcel</li><li>• No outdoor storage</li></ul>	
<ul style="list-style-type: none"><li>• Building envelope is dilapidated</li></ul>	

<ul style="list-style-type: none"><li>• Secondary egress from 2nd floor is through alley</li></ul>	
<ul style="list-style-type: none"><li>• Stair from 2nd floor does not meet ANSI requirements</li></ul>	
<ul style="list-style-type: none"><li>• Stair to bunk room &amp; bathroom does not comply with ANSI standards</li></ul>	

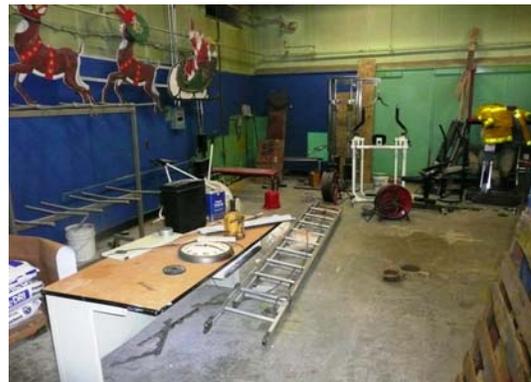
- Boiler room is cramped
- Equipment is archaic
- 2nd floor grossly overheats



- Fuel oil fill in stairwell is a gross life safety violation



- Storage room



- Storage room



- Bathrooms do not comply with ANSI or ADA



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# MITCHELL ASSOCIATES ARCHITECTS

## • EMERGENCY SERVICES FACILITIES •

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Building Name: Stations 3 & 5

Occupying Companies: Washington Engine (#3); Columbia Engine (#5)

Address: 1850 Crompound Road (at Broad)

Date: 2/4/10 By: RAM

Digital Pictures: Y

Year Built: 1962 +/-

Building Size: Approx 9,900 sq ft

Legend: G = Good A = Average P = Poor X = Needs Replacement
-------------------------------------------------------------------------

### Site Assessment

Lot Size: Approx. ¼ acre, plus adjacent firefighter's park

North Adjacent Property: Road

East Adjacent Property: Road

South Adjacent Property: Road

West Adjacent Property: Town Park

Road Frontage: Approx 80' for station 5, and 60' for station 3

General Site Topography: Extremely Steep North to South

Accessibility: Path to North Door is compliant. The door not compliant. No other entries are compliant.

Fencing: N

Apparatus Bay Aprons:

Concrete: N

Bollards: N

Condition: P

G/C: Aprons are unacceptably short - truck must back in blocking road.

Heavy Duty Pavement Areas: None

Light Duty Pavement Areas: N/A

Sidewalks:

Concrete

Condition: A

ADA Accessible Entrances: None Adequate: Y N

Lawns & Landscaping:

G/C: None

**Firefighter Parking & Access:**# of Parking Spaces: On street only # HDCP: 0**Public Parking & Access:**# of Parking Spaces: 0 # HDCP: 0**Ingress/Egress Personal Vehicles:**G/C: None**Ingress/Egress FFE & EMS:****Traffic Control:** None**Returning Apparatus:** Back in from street**Existing Utilities:****Storm Drainage:****Municipal:** Y**Does all storm water go to municipal system:** N If N, comment

G/C: rain water sheets from roof onto the ground. Roof ice slides partly off roof &amp; hangs in large, dangerous sheets.

**Roof Drainage:** Dumps on ground**Security:****Site:** None**Building:** Keys**Site Recommendations for Renovations/Expansions:**Existing site would accommodate a building footprint expansion of: 0 %Acquisition of additional land to the N/A would permit major/minor expansion.

Site has too many strikes against it to support any modernization.

G/C: **Underground fuel tank does not comply with current Westchester County standards and will be required to be replaced. It should be evaluated for leakage**

## Building Envelope

**Roofs:** # of Different Roofs: 1**Roof 1 Location:**

Sloped

**Type:** EPDM**General Condition:** A**Drainage:****Direct to:** Ground

G/C: No Drainage System

**Roof Penetrations:** Y

Curbs Vents

**Condition:** A

**Parapets/Flashing:** None exist

**Exterior Walls:**

**Type:** Brick, Wood Panels, and Stucco (applied over glass on upper porch)

**Sub-structure:** CMU, and Concrete

**General Condition Exterior Skin:**

North	-	G
South	-	G
East	-	G
West	-	G

**Any Signs of Water Penetration:** Y If Y Comment

G/C: Some cracks.

**Control Joints:** N

**Proper Flashing & Sealants:** N

G/C: Deteriorated

**Fascia/Soffits/Gutters/Downspouts:**

G/C: Fascia & Soffits are OK. There are no gutters or downspouts.

**Windows:**

**Type:** Aluminum

**Style:** Fixed Casement (Don't work) Slider

**Glazing:** Single

**Weather Tightness & Energy Efficiency:** P

**Screens:** N

**General Condition:** P

**Louvers:** Y

**Type:** Aluminum

**General Condition:** A

**Personnel Doors:**

**Type:** HM

**Accessories:** Not Insulated, No Weather-stripping, No Thresholds, No Sweeps

**Weather Tightness & Energy Efficiency:** P

**Doors Operate Properly:** Y

**Overhead Doors:**

**Type:** Insulated Panel

**Weather-stripping:** Y **Condition:** P

**Weather Tightness & Energy Efficiency: P**G/C: 12' x 12' (current standard is 14' x 14')G/C Exterior Walls: Some cracking, caulking is deteriorated**Insulation Levels and Energy Efficiency in Building Envelope:**G/C: No insulation in walls, low R-Value in roof (snow slides off)**Repair Recommendations to Envelope and Remedial Action to Prevent Continued Decay:**G/C: Gutters and downspouts, caulking,**Building Interior Evaluation****Code Compliance:****Stairways/Corridors/Egress:**

<b><u>Stair Material:</u></b>	Steel/concrete
<b><u>ANSI/ADA Compliant:</u></b>	N
<b><u>2 Means of Egress:</u></b>	Y
<b><u>Continuous Pathway to Exterior:</u></b>	N
<b><u>Dead End Corridors:</u></b>	Y
<b><u>Adequate Egress Path Width:</u></b>	N
<b><u>Elevator:</u></b>	N
<b><u>Sprinkler:</u></b>	N

G/C: Exit pathway is through lower bays. Significant code violation regarding Station 5 meeting room. Dangerous exit pathway for occupants of Station 5 lounge and kitchen.

**Energy Efficiency:**

<b><u>Wall Insulation:</u></b>	X
<b><u>Ceiling Insulation:</u></b>	P
<b><u>Window Quality:</u></b>	X
<b><u>Door Quality:</u></b>	X
<b><u>Caulking Condition:</u></b>	P

**Occupant Health:**

<b><u>Fresh Air Makeup:</u></b>	N
<b><u>Mold Concerns:</u></b>	Y (water seeps through foundation wall)
<b><u>Radon Concerns:</u></b>	Unknown
<b><u>Asbestos Concerns:</u></b>	Unknown
<b><u>Daylight:</u></b>	P
<b><u>Potable Water:</u></b>	Y



**Ice Maker:** Y**Lighting Adequacy:** A**Night Lighting:** N**G/C – Apparatus Bay:** Need tailpipe fume exhaust.**Apparatus Bay Support:****Radio Room:** N**Mezzanine:** N**DeCon Room:** N**DeCon Laundry:** N**SCBA:** N**EMS Storage:** N**Firematic Storage:** N**Red Bag Disposal Area:** N**Work Rooms/General Storage:** Y (2 that are very small)**Generator:** N**Toilet Rooms (Accessible from Apparatus Bays):** None**General Traffic Flow in Apparatus Bay:** A**G/C – Apparatus Bay Support:** None exists**Living/Office/General Areas:**

Basement	1 <sup>st</sup> Floor	2 <sup>nd</sup> Floor	3 <sup>rd</sup> Floor
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**G/C:** Numerous “land locked spaces”. Cannot wash trucks in apparatus bay for Station3 due to leakage down into Station 5 exercise room, with resulting corrosion of the structure. Slab system should be evaluated for maximum allowable loading.

**Bunkrooms:****Quantity:** 2**Compliant:** N**General Condition of Bunkrooms:** P**Floor Material:** VCT station 3, Indoor/outdoor CPT station 5**Condition:** P**Night Lighting:** Unknown**Access to Apparatus Bay:** Quick**Bathrooms/Showers/Locker rooms:****Location:** Near bunkrooms

Unisex

**General Condition:** P

**HDCP Accessible:** N  
**Showers:** Y      **Condition:** P  
**Lockers:** N

**Day Lounge/Ready Room:**

**G/C: Essentially, none exist. Station 5 driver uses the former bedroom of the driver for Columbian Hose Company (now at station 4) as a day room & dining room. Station 3 driver uses his own bedroom as a day room & dining room.**

**Kitchen/Dining Area:**

**#5 Kitchen size:** 15' x 21', plus 7' x 9'

**#3 Kitchen size:** 14' x 16'

**Dining size:** No dining area

**#5 Kitchen:** Commercial stove, otherwise, residential

**#3 Kitchen:** Mostly Commercial

**Pantry:** N

**#5 Exhaust Hood:** Residential      **Dangerous exhaust in Station 5 kitchen.**

**#3 Exhaust Hood:** Commercial

**Ansul System:** #5 – N, #3 - Y

**Flooring:** VCT

**General Condition:** #3 - A , #5 - P

**Training Room:** Y

**G/C: Station 3 has a good multi-purpose room. Station 5 meeting room has significant code issues.**

**Exercise Room:** Y

**G/C: For station 5, not for station 3.**

**Office Area:** Y

**G/C: One office for station 3, one for station 5.**

**Conference Room:** N**Storage Rooms/Janitor Closets, etc.:**

**G/C: One for station 3, station 5 uses boiler room.**

**Doors & Door Hardware**

**Electronic Hardware:** N

## *Mechanical Systems Inspection*

City of Peekskill  
Columbian Engine  
1850 Crompond Road  
Peekskill, New York

February 22, 2010

On February 16, 2010, Whitman Engineering, PC conducted a visual inspection of the observable portions of the heating, ventilating & air conditioning (HVAC), electrical, plumbing, and fire protection (sprinkler) systems at the City of Peekskill fire house known as Washington Engine Company #2 (station #3), and Columbian Engine Company #1 (Station #5) at 1850 Crompond Road, Peekskill, New York.

The purpose of the inspection was to determine the general, overall condition of the systems and to provide our general recommendations for the station. The following is a summary of our recommendations:

1. Replace circulation pump.
2. Install a mechanical, fan forced, ventilation system in the apparatus bay, in conjunction with a NFPA 1500 compliant tailpipe attached mechanical, fan forced, ventilation system.
3. Install central, ducted HVAC system.
4. Install heat recovery ventilation with CO2 monitoring.
5. Verify all panel circuit directory cards. Replace those missing.
6. Install motion switches to control lighting in all spaces to conserve energy.
7. Install floor drains in the upper apparatus bay. Include oil separator.
8. Install grease trap on kitchen sink. Kitchen hood needs to be brought up to code including a manually activated wet or dry agent protection. All gas and electrical equipment must just

Respectfully submitted by:

Kate Whitman, PE

*Mechanical (HVAC) Systems:*

Heating:

- Heat is derived from an Oil fired Steam boiler-Weil McLain- installed 2004.
- Two pump circulation system with a lead/lag configuration.
- Apparatus bay –gas fired unit heater
- Baseboard heat.

Cooling:

- Air handlers mounted above ceilings.
- System reported to not work.
- Additional window unit from Station 5 lounge exhausts into truck bay.

Controls:

- T-stats

Apparatus bay exhaust system:

- Exhaust fan

Kitchen exhaust system:

- Existing kitchen hood- no ductwork or fan.

Comments:

- (1) Circulation pump is damaged and not in service.

Recommendations:

- Replace damaged circulation pump. With only one pump in operation, the failure of the circulation pump will cause 100% failure of the heating system.
- Convert boiler to gas.
- Remove and remediate fuel oil tank.
- Install a mechanical, fan forced, ventilation system in the apparatus bay, in conjunction with a NFPA 1500 compliant tailpipe attached mechanical, fan forced, ventilation system.
- Install central ducted HVAC systems.
- Install heat recovery ventilation with CO2 monitoring.
- Air handler unit in weight room needs be reworked now that there is no dropped ceiling.

*Electrical Systems:*

Power:

- Voltage 120/208V, 3 phase
- Generator: none

Lighting Fixtures:

- General lighting: fluorescent with energy efficient T8 style lamps.
- Manual switching.

Receptacles:

Receptacles in apparatus bay are not GFCI.

Fire Alarm:

- Fire alarm appears to be a full coverage system

Comments:

- none

Recommendations:

- Verify all panel circuit directory cards. Replace those missing.
- Install motion switches to control lighting in all spaces to conserve energy.

*Plumbing Systems:*

Natural Gas:

- 1" gas main from street.

Domestic Water Service- City

- Service size: 1"
- RPZ- existing
- Water Meter Size: none

Sanitary System:

- City Sewer
- Service Size: not observable

Domestic Hot Water:

- Type: electric
- Size: 50 Gal Tank

Storm Drains:

- Roof drains: concealed

Apparatus Bay:

- Water fill station 1-1/2" hose.

Kitchen:

- No grease trap on kitchen sink.

Comments:

- The plumbing systems are predominantly concealed from view
- No floor drains in truck bay- this has caused water to leak to the floor below.

Recommendations:

- Install floor drains in the upper apparatus bay. Include oil separator.
- Install grease trap on kitchen sink.

*Fire Suppression Systems:*

Building Systems:

- none.

Kitchen hood

- none.

Comments:

- There is no sprinkler system

Recommendation:

- Kitchen hood needs to be brought up to code including a manually activated wet or dry agent fire suppression system. All gas and electrical equipment under the hood must shut down upon fire suppression system activation.

<ul style="list-style-type: none"><li>• 2nd floor secondary egress is via an exposed fire escape</li><li>• Stucco applied over windows on upper porch</li></ul>	
<ul style="list-style-type: none"><li>• Lack of on-site storage results in blockage of 2nd floor secondary egress</li></ul>	
<ul style="list-style-type: none"><li>• Roof water collects at base of wall</li><li>• Site drainage traps water against building</li></ul>	
<ul style="list-style-type: none"><li>• Roof water collects at base of wall</li><li>• Site drainage traps water against building</li></ul>	

- Water and mold deterioration



- On-site parking limited to one space which blocks door egress access



<ul style="list-style-type: none"><li>• Moisture deterioration</li></ul>	
<ul style="list-style-type: none"><li>• Moisture deterioration</li></ul>	
<ul style="list-style-type: none"><li>• Exterior masonry cracks</li></ul>	
<ul style="list-style-type: none"><li>• Corrosion at door guards</li></ul>	

<ul style="list-style-type: none"><li>• Inadequate storage space results in hose rack obstructing ANSI clearance at exit</li></ul>	
<ul style="list-style-type: none"><li>• Lack of storage area results in storage in mechanical room, a code violation</li></ul>	
<ul style="list-style-type: none"><li>• Water leakage from upper bay prevents washing of vehicles and causes corrosion</li></ul>	
<ul style="list-style-type: none"><li>• Water leakage from upper bay prevents washing of vehicles and causes corrosion</li></ul>	

- Lack of operable A/C results in cooling members' room by discharging hot air into apparatus bay



- Stairs not ANSI compliant



- Inadequate clearance



- Lack of storage area results in storage in mechanical room, a code violation



- Bathrooms do not comply with ANSI or ADA standards



- Change in elevation to apparatus bay does not comply with ANSI or ADA standards
- Apparatus bay slab elevation above hallway elevation introduces risk in the event of fuel tank rupture



<ul style="list-style-type: none"><li>• Non-compliant kitchen hood</li></ul>	
<ul style="list-style-type: none"><li>• Fire hazard</li></ul>	
<ul style="list-style-type: none"><li>• Unprotected opening from kitchen/dining to apparatus bay</li></ul>	
<ul style="list-style-type: none"><li>• Unprotected opening from kitchen/dining to apparatus bay</li></ul>	

<ul style="list-style-type: none"><li>• Plumbing system leaks</li><li>• Inadequate storage</li></ul>	 A photograph showing a stainless steel kitchen sink with a three-compartment basin. The area underneath the sink is cluttered with various items, including plastic bottles, a bucket, and other miscellaneous objects, illustrating inadequate storage.
<ul style="list-style-type: none"><li>• Inadequate storage area results in code violation</li></ul>	 A photograph of a storage area. It features a large, grey metal cabinet on the left, a small table with a wooden top in the center, and a large grey trash can on the right. The area appears cluttered and disorganized.
<ul style="list-style-type: none"><li>• Corrosion from leaking plumbing</li></ul>	 A photograph looking up at a ceiling. A large section of the ceiling is missing, revealing a network of pipes and plumbing fixtures. The pipes appear to be in poor condition, with some showing signs of rust or corrosion.
<ul style="list-style-type: none"><li>• Inadequate bunk room</li></ul>	 A photograph of a room that appears to be a bunk room. It contains several green metal lockers, a blue trash can, and a bed with a white sheet. The room looks cramped and poorly maintained.

<ul style="list-style-type: none"><li>• Mechanical equipment in bunk room</li></ul>	 A photograph showing a close-up of mechanical equipment, including a white air conditioning unit and various pipes and wires, installed in a room with bunk beds.
<ul style="list-style-type: none"><li>• Inadequate storage area results in code violation of storage on stairwell landing</li></ul>	 A photograph of a stairwell landing area. A large floor fan is positioned in the center, and a white cabinet or storage unit is visible on the right side. A window is on the left, and a staircase with a metal railing is on the right.
<ul style="list-style-type: none"><li>• Stair does not comply with ANSI standards</li></ul>	 A photograph of a narrow stairwell. The stairs are dark, and the walls are light-colored. A metal railing is visible on the left side. The space appears cramped and narrow.
<ul style="list-style-type: none"><li>• Inadequate storage area results in congested apparatus bay</li></ul>	 A photograph of an apparatus bay. The area is cluttered with various pieces of equipment, including a white cabinet, a blue table, and a red fire extinguisher. The space is narrow and appears congested.

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# MITCHELL ASSOCIATES ARCHITECTS

## • EMERGENCY SERVICES FACILITIES •

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**Building Name:** Station 4  
**Occupying Companies:** Columbian Hose Co.  
**Address:** 426 South Division Street (behind the Beech Shopping Plaza)  
**Date:** 2/4/10      **By:** RAM  
**Digital Pictures:**      Y  
**Year Built:** \_\_\_\_\_  
**Building Size for Related Portion:** Approx 1,300 sq ft

Legend: G = Good A = Average P = Poor X = Needs Replacement
-------------------------------------------------------------------------

### Site Assessment

**Lot Size:** Unknown  
**North Adjacent Property:** Unknown      **Availability:** Unknown  
**East Adjacent Property:** Unknown      **Availability:** Unknown  
**South Adjacent Property:** Unknown      **Availability:** Unknown  
**West Adjacent Property:** Unknown      **Availability:** Unknown  
**Road Frontage:** N/A  
**General Site Topography:** Flat  
**Accessibility:** Can be, except for shortage of parking  
**Fencing:**      N  
**Apparatus Bay Front Aprons:**  
    **Concrete:**      N                      **Bollards:**      N  
    **Condition:**      X  
**Apparatus Bay Rear Aprons:** None  
**Front Apron to Road:**  
**Concrete:**      N  
    **Condition:**      X  
**Rear Apron to Road:** N/A  
**Heavy Duty Pavement Areas:** None  
**Light Duty Pavement Areas:**  
    Asphalt  
    **Condition:**      X

**Sidewalks:** None

**Lawns & Landscaping:** None

**Firefighter Parking & Access:**

**# of Parking Spaces:** \_\_\_\_\_ **# HDCP:** \_\_\_\_\_

**G/C:** \_\_\_\_\_

**Public Parking & Access:** None

**Ingress/Egress Personal Vehicles:** No Separation

**Ingress/Egress FFE & EMS:**

**Traffic Control:** N

**Returning Apparatus:** Back in from within property

**Existing Utilities:** Not evaluated

**Storm Drainage:** Not evaluated

**Roof Drainage:** Not evaluated

**Security:**

**Site:** None

**Building:** Keys

**Site Recommendations for Renovations/Expansions:** Not evaluated

**G/C:** Underground fuel tank does not comply with current Westchester County standards and will be required to be replaced. It should be evaluated for leakage

## Building Envelope

**Roofs:** # of Different Roofs: 1

**Roof 1:** Not evaluated

**Exterior Walls:**

**Type:** Metal Panel

**Sub-structure:** None

**General Condition Exterior Skin:** Not evaluated

**Windows:** Not evaluated

**Personnel Doors:** Not evaluated

**Overhead Doors:**

**Type:** Insulated Panel

**Weather-stripping:** Y

**Condition:** A

**Weather Tightness & Energy Efficiency:** A

## Building Interior Evaluation

**Stairways/Corridors/Egress:** Office, bunk room and bathroom exit through apparatus bay – a violation. Balance of building not evaluated.

**Sprinkler:** N

**Energy Efficiency:** Not evaluated

**Occupant Health:**

**Fresh Air Makeup:** N

**Mold Concerns:** Unknown

**Radon Concerns:** Unknown

**Asbestos Concerns:** Unknown

**Daylight:** Not evaluated

**Potable Water:** Not evaluated

**Apparatus Bay:**

**Size:** 26' x 31'-3"

**# of Truck Bays:** 1      **# that are Drive Thru:** 0

**# of EMS Bays:** 0      **# that are Drive Thru:** 0

**Adequate side clearance:** G

**Adequate front/rear clearance:** P

**Adequate overheard clearance:** A

**Ceiling Construction:** Sheetrock G

**Wall Construction:** Drywall G

**Floor Construction:** Concrete G

**Floor Drainage:** Catch Basin(s) P

**Overhead Doors:** Size 12' high x 18'-6" wide

**Thickness:** 2"      **Type:** foam core, alum skin

**Gen Condition:** G

**Operator Condition (Visual):** G

**Controls:** **At Door:** Y      **Radio Room:** Y      N

**Remotes:** Y      N

**Safety Edge/Optical Detector:** N

**Manual Operation:** Manual Push-Up

**Accessories:**

**Vehicle Exhaust:** N

**General Exhaust:** N

Drench/Eye Wash: N  
Air Reels: N  
Power Drops: N  
Truck Fill: N  
Ceiling Fans: N  
Gear Storage: N  
Hose Reels: N  
Hose Racks: N  
Hose Dryers: N  
Drinking Fountain: N  
Lighting Adequacy: A

**Apparatus Bay Support:**

Mezzanine: N  
DeCon Room: N  
DeCon Laundry: N  
SCBA: N  
EMS Storage: N  
Firematic Storage: N  
Red Bag Disposal Area: N  
Work Rooms/General Storage: N  
Generator: N

**Toilet Rooms (Accessible from Apparatus Bays):**

Quantity: 1 @ 5'-9" x 8'-10" HDGP: N  
Unisex: Y  
Shower: Y HDGP: N  
General Condition: A  
G/C: bathroom serves bunkroom

**G/C – Apparatus Bay Support: Essentially none**

**Bunkrooms:**

QTY = 1 @ 11'-10" x 12'-7"

**Doors & Door Hardware**

Electronic Hardware: N

**Is the building currently used as a public polling place:** Y

**If so, are facilities adequate:** N

**Office:** Y

**Size:** 10'-1" x 11'-7"

**View of Apron:** Y      **View into bays:** Y

**Closed Circuit TV:** N

**Proper Lighting:** N

**Adjacent Bunkroom:** Y

**General Adequacy:** A

**G/C:** Egress is through apparatus bay

**G/C – Living/Office/General Areas:** Kitchen for bunker?

**Is the building currently used as a public polling place:** Y

**If so, are facilities adequate:** N

*Mechanical Systems Inspection*

City of Peekskill  
Columbian Hose  
426 South Division Street  
Behind the Beech Shopping Plaza  
Peekskill, New York

February 22, 2010

On February 16, 2010, Whitman Engineering, PC conducted a visual inspection of the observable portions of the heating, ventilating & air conditioning (HVAC), electrical, plumbing, and fire protection (sprinkler) systems at the City of Peekskill fire house known as Columbian Hose located behind the Beech Shopping Plaza, Peekskill, New York.

The City of Peekskill rents the truck bay and driver's quarters of this building. Access was limited to us. We have been advised that the maintenance calls to this build have been minimal.

The purpose of the inspection was to determine the general, overall condition of the systems and to provide our general recommendations for the station. The following is a summary of our recommendations:

1. Install a mechanical, fan forced, ventilation system in the apparatus bay, in conjunction with a NFPA 1500 compliant tailpipe attached mechanical, fan forced, ventilation system.
2. Install floor drains in the upper apparatus bay. Include oil separator.

Respectfully submitted by:

Kate Whitman, PE

**Mechanical (HVAC) Systems:**

**Heating:**

- Source of heating system was not observable.
- Apparatus bay –gas fired unit heater

**Cooling:**

- None in observable portions of the building

**Controls:**

- T-stats

**Apparatus bay exhaust system:**

- Exhaust fan

**Kitchen exhaust system:**

- Not observable (if any)

**Comments:**

- none

**Recommendations:**

- Install a mechanical, fan forced, ventilation system in the apparatus bay, in conjunction with a NFPA 1500 compliant tailpipe attached mechanical, fan forced, ventilation system.
- Install ASHRAE compliant ventilation system with heat recovery.
- Replace fuel oil tank with Westchester County compliant system.

*Electrical Systems:*

**Power:**

- Voltage 120/208V
- Generator: none

**Lighting Fixtures:**

- General lighting: fluorescent with energy efficient T8 style lamps.
- Manual switching.

**Comments:**

- none

**Recommendations:**

- none

*Plumbing Systems:*

**Natural Gas:**

- Source not observable

**Domestic Water Service- City**

- Source not observable

**Sanitary System:**

- City Sewer
- Service Size: not observable

City of Peekskill  
Columbian Hose  
426 So. Division Street  
Peekskill, New York

Page 3

Domestic Hot Water:

- No access

Apparatus Bay:

- Water fill station 3/4 " hose.
- No floor drains

Comments:

- none

Recommendations:

- Install floor drains in the apparatus bay. Include oil separator.

<ul style="list-style-type: none"><li>• Exterior skin is in poor condition</li><li>• Pavement is too thin and deteriorated</li></ul>	
<ul style="list-style-type: none"><li>• Inadequate front clearance</li></ul>	
<ul style="list-style-type: none"><li>• No source capture fume exhaust</li><li>• No general exhaust</li></ul>	
	<p style="text-align: center;"><b>Not Used</b></p>

- Inadequate rear clearance



**Not Used**

**Not Used**

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# MITCHELL ASSOCIATES ARCHITECTS

## • EMERGENCY SERVICES FACILITIES •

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Building Name: \_\_\_\_\_ Station # 6

Occupying Companies: \_\_\_\_\_ Centennial Hose #4

Address: \_\_\_\_\_ 701 Washington Street

Date: 2/4/10 By: RAM

Digital Pictures: Y

Year Built: 1979

Building Size: Approx 7,385 sq ft

Legend: G = Good A = Average P = Poor X = Needs Replacement
-------------------------------------------------------------------------

### Site Assessment

Lot Size: Approx. 2.4 acres

North Adjacent Property: Stream

Availability: NA

East Adjacent Property: Road

Availability: NA

South Adjacent Property: Furniture Store

Availability: Unknown

West Adjacent Property: Road

Availability: NA

Road Frontage: 352.61 ft

General Site Topography: Flat

Accessibility: Yes

Fencing: N

Apparatus Bay Front Aprons:

Concrete: N

Bollards: N

Condition: P

Apparatus Bay Rear Aprons: None

Front Apron to Road:

Concrete: N

Condition: P

Rear Apron to Road: N/A

Heavy Duty Pavement Areas: None

Light Duty Pavement Areas:

Asphalt

Condition: X

**Sidewalks:**

Concrete (along Washington Street)

**Condition:** Undetermined**ADA Accessible Entrances:** Y **Adequate:** Y subject to evaluation of door pull force**Lawns & Landscaping:** Yes**Firefighter Parking & Access:**# of Parking Spaces: 43 # HDCP: 1**Public Parking & Access:**# of Parking Spaces: Included in the count of firefighter spaces**Ingress/Egress Personal Vehicles:** (Discuss Separation)G/C: Driveway is shared between cars & trucks, and is only 20 ft wide. Recommend separation curb cuts for responding cars and exiting trucks**Ingress/Egress FFE & EMS:****Traffic Control:** Y**Controlled by:** Switch at door**Returning Apparatus:**

Back in from within property

**Existing Utilities:****Storm Drainage:****Municipal:** Y N**Does all storm water go to municipal system:** Y N If N, commentG/C: Street runoff**Roof Drainage:**

Internal drains to underground

**Security:****Site:** None**Building:** Keys**Site Recommendations for Renovations/Expansions:**Existing site would accommodate a building footprint expansion of: 50 %Acquisition of additional land to the N/A would permit major/minor expansion.

Site is adequate to support renovation and modernization as long as footprint is not increased. Y

G/C: Extreme shortage of storage has resulted in materials left on the site in sheds and out in the weather.G/C: Was tank removed. It should be evaluated for leakage.

## Building Envelope

**Roofs: # of Different Roofs:**   2  

**Roof 1 Location:**

Flat w/ Mansard

**Type:** Self adhering bitumen (3 years old), with cedar on mansards

**General Condition:** Bitumen – A, Cedar - P

**Drainage:** Undetermined

**Roof Penetrations:** Y

Curbs Vents

**Condition:** G    A    P    X

**Parapets/Flashing:** Y

**G/C Roof #1:** Flashing to upper were not repaired when new roof installed. Leaks are reported

**Exterior Walls:**

**Type:** Brick

**Sub-structure:** CMU

**General Condition Exterior Skin:**

North	-	G
South	-	G
East	-	G
West	-	G

**Any Signs of Water Penetration:** N

**Control Joints:** N

**Proper Flashing & Sealants:** N

**G/C:** Needs re-caulking

**Fascia/Soffits/Gutters/Downspouts:**

**G/C:** Plywood soffits.

**Windows:**

**Type:** Wood

**Style:** Double Hung

**Glazing:** DBL

**Weather tightness & Energy Efficiency:** A

**Screens:** Y

**General Condition:** A

**G/C:** Caulk is failing.

**Louvers:** Y

**Type:** Aluminum

**General Condition:** A

**Personnel Doors:**

**Type:** Aluminum & Glass, Wood

**Accessories:** None

**Weather Tightness & Energy Efficiency:** P

**Doors Operate Properly:** Y

**G/C:** Wood door is failing.

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**Overhead Doors:**

**Type:** Insulated Panel

**Weather-stripping:** Y                      **Condition:** A

**Weather Tightness & Energy Efficiency:** A

**Insulation Levels and Energy Efficiency in Building Envelope:** P

## Building Interior Evaluation

**Code Compliance:**

**Stairways/Corridors/Egress:**

<b><u>Stair Material:</u></b>	Metal pan w/ concrete
<b><u>ANSI Compliant:</u></b>	N
<b><u>2 Means of Egress:</u></b>	N
<b><u>Continuous Pathway to Exterior:</u></b>	N
<b><u>Dead End Corridors:</u></b>	Y
<b><u>Adequate Egress Path Width:</u></b>	Y
<b><u>Elevator:</u></b>	N
<b><u>Sprinkler:</u></b>	N

**Energy Efficiency:**

<b><u>Wall Insulation:</u></b>	P
<b><u>Ceiling Insulation:</u></b>	P
<b><u>Window Quality:</u></b>	A
<b><u>Door Quality:</u></b>	A
<b><u>Caulking Condition:</u></b>	P

**Occupant Health:**

**Fresh Air Makeup:** N  
**Mold Concerns:** Unknown  
**Radon Concerns:** Unknown  
**Asbestos Concerns:** Unknown **Maybe floor tile**  
**Daylight:** A  
**Potable Water:** Y

**Apparatus Bay:**

**Size:** 1,796 sq ft  
**# of Truck Bays:** 2 **# that are Drive Thru:** 0  
**# of EMS Bays:** 0 **# that are Drive Thru:** 0  
**Adequate side clearance:** G  
**Adequate front/rear clearance:** G  
**Adequate overheard clearance:** G  
**Ceiling Construction:** Exposed Joist G  
**Wall Construction:** CMU Interior G  
 Brick Exterior G  
**Floor Construction:** Concrete G  
**Floor Drainage:** Trench Drains G  
**Overhead Doors:** **Size** 13' w x 12'  
**Thickness:** 2" **Type:** **Foam core, alum skin**  
**Gen Condition:** A  
**Operator Condition (Visual):** A  
**Controls: At Door:** Y **Radio Room:** N  
**Remotes:** Y  
**Safety Edge/Optical Detector:** N  
**Manual Operation:** Manual Push-Up

**Accessories:**

**Vehicle Exhaust:** N  
**General Exhaust:** Y  
**Drench/Eye Wash:** N  
**Air Reels:** N  
**Power Drops:** Y  
**Truck Fill:** Y  
**Ceiling Fans:** N

<b><u>Gear Storage:</u></b>	N
<b><u>Hose Reels:</u></b>	N
<b><u>Hose Racks:</u></b>	Y
<b><u>Hose Dryers:</u></b>	N
<b><u>Drinking Fountain:</u></b>	N
<b><u>Ice Maker:</u></b>	Y
<b><u>Lighting Adequacy:</u></b>	A
<b><u>Night Lighting:</u></b>	N

**Apparatus Bay Support:**

<b><u>Radio Room:</u></b>	N		
<b><u>Mezzanine:</u></b>	N		
<b><u>DeCon Room:</u></b>	N		
<b><u>DeCon Laundry:</u></b>	Have equipment, but no room – are on apparatus floor		
<b><u>Commercial washer/extractor:</u></b>	Y		
<b><u>Commercial Dryer:</u></b>	N		
<b><u>Residential Washer:</u></b>	Y		
<b><u>Residential Dryer:</u></b>	Y		
<b><u>Gear Dryers:</u></b>	N		
<b><u>SCBA:</u></b>	Y		
<b><u>Number of Dedicated Rooms:</u></b>	0 – Located on apparatus floor.		
<b><u>Separate Compressor From Fill Station:</u></b>	N		
<b><u>Bottle Storage:</u></b>	N		
<b><u>Mask Repair/Maintenance:</u></b>	N		
<b><u>Noise Control:</u></b>	N		
<b><u>Piped Intake Air:</u></b>	Y		
<b><u>Adequate Operator Safety Features:</u></b>	Y		
<b><u>Adequate Clearance from Air Pollution:</u></b>	Y		
<b><u>EMS Storage:</u></b>	N		
<b><u>Firematic Storage:</u></b>	Y	<b><u>Locked:</u></b>	Y
<b><u>Size:</u></b>	15'x 17'		
<b><u>Condition:</u></b>	Available storage area is limited due to electric panels and gas meter		
<b><u>Red Bag Disposal Area:</u></b>	N		
<b><u>Work Rooms:</u></b>	N		
<b><u>Generator:</u></b>	N		
<b><u>Toilet Rooms (Accessible from Apparatus Bays):</u></b>			

**Quantity:** 2    **HDCP:** N  
**Male:** 1    **Female:** 1  
**Shower:**    N    **HDCP:** Y    N  
**General Condition:**    A

**General Traffic Flow in Apparatus Bay:**    G

**Living/Office/General Areas:**

1<sup>st</sup> Floor    2<sup>nd</sup> Floor

**Stairways/Corridors/Egress:**

**Stair Material:** \_\_\_\_\_ **Concrete on steel**  
**ANSI Compliant:**    N  
**2 Means of Egress:**    N  
**Continuous Pathway to Exterior:**    N  
**Dead End Corridors:**    N  
**Adequate Width:**    Y  
**Elevator:**    N

**Bunkrooms:**

**Quantity:**    One  
**General Condition of Bunkrooms:**    A  
**Floor Material:**    VCT  
**Condition:**    A  
**Night Lighting:**    N  
**Access to Apparatus Bay:**    Quick

**Bathrooms>Showers/Locker rooms #1:**

**Location:** Adjacent Bunkroom  
 Unisex  
**General Condition:**    A  
**HDCP Accessible:**    N  
**Showers:**    Y    **Condition:**    A  
**Lockers:**    N

**Day Lounge/Ready Room:**

**Size:** 14'-0" x 15'-2"  
**Flooring:**    VCT  
**Condition:**    G

**Kitchen/Dining Area:**

**Kitchen size:**    484 sq ft

**Dining size:** None, eat in meeting room

**Kitchen:** Commercial

**Pantry:** Y

**Dishwasher:** Commercial

**Refrigerator:** Commercial

**Freezer:** Commercial

**Stove:** Commercial

**Exhaust Hood:** Commercial

**Ansul System:** Y

**Flooring:** CT

**General Condition:** G

**Training/Meeting Room:** \_\_\_\_\_ Y

**G/C:** 2,300 sq ft, accessible space. Toilets serving it are not accessible.

**Exercise Room:** N

**Office Area:** Y (14'-0" x 15'-0")

**G/C:** Located on 2<sup>nd</sup> floor w/o legal means of egress.

**Conference Room:** N

**Storage Rooms/Janitor Closets, etc.:** N

**Doors & Door Hardware**

**Electronic Hardware:** N

**Is the building currently used as a public polling place:** Y

**If so, are facilities adequate:** N

## *Mechanical Systems Inspection*

City of Peekskill Fire Department  
Centennial Hose  
701 Washington Street.  
Peekskill, New York

February 22, 2010

On February 16, 2010, Whitman Engineering, PC conducted a visual inspection of the observable portions of the heating, ventilating & air conditioning (HVAC), electrical, plumbing, and fire protection (sprinkler) systems at the City of Peekskill fire house known as Centennial Hose at 701 Washington Street, Peekskill, New York.

The purpose of the inspection was to determine the general, overall condition of the systems and to provide our general recommendations for the station. The following is a summary of our recommendations:

1. Install a mechanical, fan forced, ventilation system in the apparatus bay, in conjunction with a NFPA 1500 compliant tailpipe attached mechanical, fan forced, ventilation system.
2. Replace /repair roof top air conditioner unit.
3. Install heat recovery ventilation with CO2 monitoring.
4. Vent the dryer in the apparatus bay to the outside.
5. Close all open junction boxes
6. Repair damaged flex conduit in boiler room.
7. Test kitchen hood system to ensure all gas and electric appliances under the hood shut down during activation.

Respectfully submitted by:

Kate Whitman, PE

*Mechanical (HVAC) Systems:*

Heating:

- Heat for the building is derived from a steam boiler capable on firing on fuel oil or natural gas.
- Main level and upper floors are heated by various radiators, finned tube radiation and floor mounted fan coil units with manual thermostatic valves.
- Install heat recovery ventilation with CO2 monitoring.
- Apparatus bay is heated by unit heaters unit heater

Cooling:

- Window units
- Roof top unit- not working

Controls:

- There are two zones in the building. One zone is the apparatus bay, the other is the rest of the building

Apparatus bay:

- Through wall exhaust fans
- One commercial grade washer; One set residential grade washer and dryer

Comments:

- Boiler appears to relatively new and in good shape.
- The boiler is currently running on natural gas. It is our understanding that the oil burner has not been used in a number of years.
- The dryer in the apparatus bay is not vented to the outside.

Recommendations:

- Install a mechanical, fan forced, ventilation system in the apparatus bay, in conjunction with a NFPA 1500 compliant tailpipe attached mechanical, fan forced, ventilation system.
- Replace roof top AC unit to restore cooling to the building.
- Vent the dryer to outside.
- Install ASHRAE compliant ventilation system with heat recovery.
- Remove & remediate fuel tank

*Electrical Systems:*

Power:

- Voltage 120/208V, 3 phase-400 amp
- Generator: none
- Sub panels- multiple

Lighting Fixtures:

- General lighting: fluorescent with energy efficient T8 style lamps.
- Gathering room – track lighting incandescent
- Manual switching.

Receptacles:

Receptacles in apparatus bay are not Ground Fault Interrupt type.

Fire Alarm:

- Fire alarm appears to be a full coverage system

Comments:

- Several junction boxes with open wires exposed were observed in multiple locations
- Observed damaged flexible metallic conduit needs repair in the boiler room.
- Overhead door controller with exposed wires.
- Some of the subpanels are missing their circuit directory cards.

Recommendations:

- Verify all panel circuit directory cards. Replace those missing.
- Install motion switches to control lighting in all spaces to conserve energy.
- Replace the incandescent track lighting with more energy efficient lighting.

*Plumbing Systems:*

Natural Gas:

- 2" gas main from street.

Domestic Water Service- City

- Service size: 3"
- RPZ- yes
- Water Meter Size: 3"

Sanitary System:

- City Sewer
- Service Size: not observable
- Piping- combination exposed copper, PVC exposed, Cast Iron into underground

Domestic Hot Water:

- Type: Nat Gas
- Size: 40 Gal holding Tank

Kitchen:

- Grease trap

Storm Drains:

Roof drains: exposed piping with insulation in apparatus bay.

Apparatus Bay:

- Water fill stations
- Washer/dryer

Comments:

- The domestic water entrance and water meter are located in the boiler room
- The plumbing systems are predominantly concealed from view
- Insulation on storm water is damaged along the walls.

Recommendations:

- None

*Fire Suppression Systems:*

Building Systems:

- none.

Kitchen hood

- Manually activated wet or dry agent protection

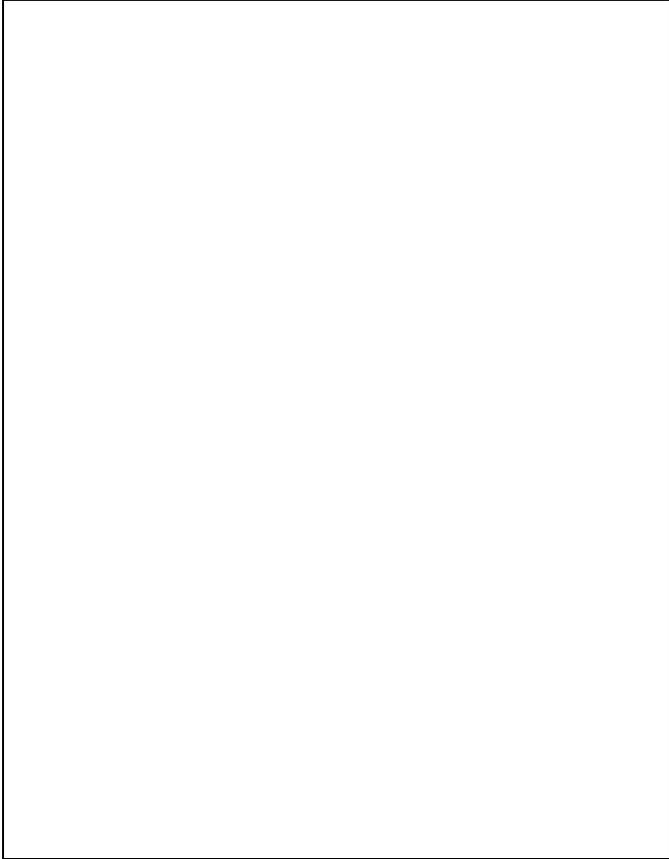
Comments:

- There is no sprinkler system

Recommendation:

- Test kitchen hood system to ensure all gas and electric appliances under the hood shut down during activation.

<ul style="list-style-type: none"><li>• Inadequate storage results in materials stored on site</li></ul>	
	
<ul style="list-style-type: none"><li>• All pavement is in failure</li></ul>	
<ul style="list-style-type: none"><li>• Mechanical system is deteriorated</li></ul>	



- Door needs replacement



<ul style="list-style-type: none"><li>• Lack of storage results in code violation of storage in mechanical room</li></ul>	 A photograph of a mechanical room. On the left, a computer monitor sits on a metal stand. In the center, a blue metal cabinet is partially covered with a white cloth. To the right, a blue water cooler is visible. The room contains various pipes and electrical conduits.
<ul style="list-style-type: none"><li>• Lack of storage results in code violation of storage in mechanical room</li></ul>	 A photograph of a mechanical room showing a large blue metal cabinet. A blue water cooler is positioned in front of it. The room is cluttered with pipes, conduits, and other mechanical components.
	 A photograph of a mechanical room with white cinder block walls. Several electrical control panels are mounted on the wall. A blue water cooler is on the floor. The room appears cluttered with various items.
<ul style="list-style-type: none"><li>• Lack of adequate storage area</li></ul>	 A photograph of a cluttered storage area. Numerous cardboard boxes are stacked on the floor. A yellow chair is in the foreground. In the background, there is a desk with a computer monitor, a bicycle, and various other items.

<ul style="list-style-type: none"><li>• Defunct HVAC system: A/C only available by (#) thru-wall units</li></ul>	
<ul style="list-style-type: none"><li>• Inadequate storage area</li></ul>	
	<p style="text-align: center;"><b>Not Used</b></p>