
North Haven Police Department Berniere Memorial Building

Existing Building Conditions



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**CAPITAL
STUDIO**
architects LLC
1379 MAIN STREET EAST HARTFORD CT. 06108
860.289.3262 fax 860.289.3163

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Foreword

This Building Assessment, and the following associated documents, Space Needs Assessment, Police Facility Comparison Chart, Space Needs Assessment vs. Schematic Design Plans Comparison chart, Schematic Site Plan and Floor Plan and Project Cost Estimate are the culmination of several years and several projects completed at the police facility.

In 2013, Capital Studio Architects, LLC of East Hartford, was asked to review the condition of the existing replacement windows and subsequently design a new commercial grade window system for the building. This design work was completed in early 2014. During the discovery process, it was determined that caulking at the existing windows contained PCB's. A report by Eagle Environmental is available and on file with the Town of North Haven. Also during the discovery process relating to the windows, the roof was inspected to see if roof leaks could be contributing to water infiltration into the building envelope, believed to be caused by poor quality of the existing replacement window installation. In fact, several of the roof flashings at the gravel stop had failed. The roof, being beyond its useful life expectancy, was replaced in 2014. The construction documents were completed by Capital Studio Architects.

The pistol range on the lower level had not been used for some time and removal of the equipment for the purpose of reprogramming the space was planned. Eagle Environmental completed a HAZMAT survey which determined high levels of lead in the sand floor and lead dust throughout the entire space and adjacent spaces. Capital Studio Architects, with Eagle Environmental completed the construction documents. The project was bid in 2015. There was limited bidder participation with only two bids received, both of which exceeded the estimated costs. The contract is yet to be awarded.

During the design process for reprogramming the former pistol range (which was intended to be the new physical training room) the discussions extended to what to do with the existing physical training area, if this function occupied the former pistol range. These discussions triggered some preliminary design work by Capital Studio Architects (drawings on file with the Police Department) for relocating functions within the building to other areas of the building, most notably relocating the Records Division to the main level, accessed directly from the lobby.

Although this design work was valuable, it became apparent that a Space Needs Analysis was necessary for the Departments needs to insure that any construction activity put the department in a position that no major projects would be required for 25-30 years.

Capital Studio Architects enlisted the services of Jacunski Humes Architects of Berlin, CT to assist, as they are experts in the programming of this building type. Jacunski Humes completed the Space Needs Assessment, Cost Estimate and Comparison Charts. Capital Studio and Jacunski Humes worked together on the schematic plans.

Capital Studio, with extensive assistance from Deputy Chief Jonathan Mulhern completed the assessment of the existing building.

It is intended that all of the aforementioned documents be reviewed in concert as the information and content is interrelated.

The results of this endeavor should be considered the road map to creating a facility with all of the necessary amenities, adjacencies and building systems to serve the North Haven Police Department for the next 25-30 years.

Introduction

The original building, constructed c. 1964 is three story with the lowest level ½ below grade and 2 ½ stories above grade in the form of a “U” shaped plan. In approximately 2002, a 2 story addition was constructed to infill the “U” for the purposes of a Sally Port at the lower level and office for the Chief and Deputy Chief on the upper level. An elevator was included in the project program to afford persons with physical disabilities access to all levels of the building. Previously, a ramp and vestibule had been added to the front of the building providing an air lock and wheelchair access to the main level. Currently, the building is approximately 17,300 sf total, with 5,100 sf on the lower level, 6,150 sf on the main level and 6,050 sf on the upper level. Beyond the work mentioned above, there has been little investment into the building. Maintenance work that has been completed includes, window replacements, c. 1994, new roof in 2014 and new boilers in 2015, and updated electrical. Numerous ductless split type HVAC units have been installed over the years to provide air conditioning to the building. It is noted that there are hazardous material issues in the former Shooting range, flooring and window caulk.

The building has served the community well for the past 50 years, with minimal investment. That said, the facility does not meet current design standards and space needs for the department in 2016. A significant investment will be needed to transform the structure to meet current law enforcement needs and standards.

Current Status of Building

The cleanliness and appearance of any facility has a direct correlation to the perception of professionalism. It also has an impact on the internal culture and morale of those that work within. Over the years, maintenance efforts have been made to keep the Police building looking clean and updated. This includes yearly painting of high use areas, some new carpet and replacement of damaged ceiling tiles. Unfortunately, these efforts are purely cosmetic and have little effect on the structural aspects of the building.

Front Steps / Accessible Ramp / Vestibule

The existing concrete entry stairs and accessible ramp, at the front of the building, are seriously deteriorated and do not meet current code requirements. Concrete has spalled and the metal stair nosings have failed, creating a safety issue. Handrails are loose. Further, there appears to have been some movement at the upper level of the landing resulting in sloping and cracking of the upper level slab. This slab is over the lower level Evidence Room and the cracking is likely the reason water and other chemicals leak into the Evidence Room. The doors and glazing of the vestibule addition are included in the design of the window replacement. It is suggested that as part of the window replacement, that power operated doors be added to the program. We estimate the cost of the replacement of the main entrance stairs and ramps and solving the leaking into the Evidence Room to be \$100,000 - \$150,000.

Masonry

The majority of the exterior building envelope is brick with CMU back-up, the exception being the vertical window systems. The CMU back-up runs behind the aluminum and glass windows from the sill to the floor. This has created problems, as no provision for expansion and contraction was provided at the interior CMU where the exterior changes from brick to the window system, resulting in movement of the CMU and subsequent cracking. The cracks have been observed by our structural engineer who notes that although there is no impending structural failure, the cracks should be monitored. There is evidence that the exterior envelope is leaking, particularly after heavy rains. This could be a result of the movement of the masonry, but more likely the poor quality of the installation of the replacement windows. Efflorescence is visible in several areas of the building due to the infiltration of moisture.

Site Impervious Surfaces

The existing bituminous surfaces are aged an approaching or beyond their life expectancy. Curbing is damaged in some areas. The subsurface drainage system was not studied as part of this report, but no deficiencies have been reported. Cast in place concrete sidewalks are deteriorated and in some areas are a safety hazard with the potential for tripping. Much or all of the existing sidewalks will require replacement.

Windows / Panels

The windows to the police building were replaced in 1994. They are a typical aluminum framed insulated glass replacement window. Throughout the entire building, large gaps between the window and structure can be observed. The caulking to cover these gaps has aged and cracked. This condition provides a direct path for water to infiltrate the interior of the building. Several of the windows are visibly out of square and plumb. Several window contractors have looked at the existing windows and the only recommendation given is a complete replacement. This problem is further compounded by the presence of foam insulated stone faced panels above and below the windows. These panels have pulled away from the building and create additional paths for water. These panels cannot be repaired or replaced.

In 2014, the Town of North Haven commissioned Capital Studio Architects to design the replacement window system. Plans for replacement windows are complete. During the design process, it was discovered that PCB's are present in the caulking and remediation will be required. The window specifications and drawings are complete. Initial estimates place the project costs at over \$300,000. The compromised windows are most likely the primary source of water infiltration into the building. Interim steps, such as re-caulking has been done in areas of heavy leakage as a temporary stopgap, with limited success.



Roof

In 2015, Capital Studio Architects designed a new roofing system for the building. The work included removal of existing roofing systems at the original building, new insulation, new reinforced EPDM membrane overlay of the existing EPDM roofing with a reinforced EPDM membrane, at the c. 2003 addition, new flashings, gravel stop and asbestos remediation at the chimney flashing. The EUL of the roof is 30 years and the cost was \$67,400.

Structural Integrity

Throughout the building cracks can be found in the foundation, and the interior and exterior walls. In October 2014, William M. Lapoint PE issued a Structural Report as part of the window replacement project. This report does not highlight any significant structural deficiencies with the building. It does call for the repair of blocks below several window openings that have cracked due to movement. Some of the cracking at interior walls can be attributed to the underpinning process during the 2002 addition.

Pistol Range and Basement Lead Contamination

In 2014 Eagle Environmental Services completed a study of the lower level pistol range. Their analysis revealed high levels of lead within the soil as well as the backstop area of the range. Lead contamination also extended into the entrance hallway and adjoining room. Renovations and remediation of the pistol range and associated areas were designed by Capital Studios and Eagle Environmental and bid in November 2015. Only two bidders responded and the low bid was \$197,800. This exceeded the Design Team's initial estimate. This project has not advanced since the bid opening.



Air Conditioning Units

The building currently has 21 stand-alone air conditioning units. The majority are ductless split type systems and in wall traditional units. A total of three large units are in place on the roof and one on the west side ground level. There are 13 split systems throughout the building and approximately nine of these units were produced in the early 1990's. The majority of the units have approached or exceeded useful life expectancy. Two split systems are tasked with cooling the room that houses the 911 equipment, Public Safety Data Network equipment and other internal servers. These items generate heat and require that the space be cooled all times of the year. Acceptable room temperature ranges are required by the State of Connecticut and the two existing units appear to struggle to meet



the cooling demands. Four traditional window/wall units cool the Gym, Records Division, and Training Room. These units are of various ages and do not function well. The equipment struggles to maintain a comfortable environment in these areas. The units in the Physical Training Room are often turned off because the units are loud when operating. This method of cooling does not meet current design standards. Ongoing maintenance



of the current air conditioning systems continues to be costly.

Electrical / Emergency Generator

The Electrical service has been updated in the past and meets current needs. The generator is 13 years old and has not required anything but normal maintenance.

Radio Room

The majority of the public safety radio system is located in the basement. Unfortunately, this room is located underneath the cell block area and the associated plumbing. If a plumbing failure occur red or there was a clogged sink or toilet, the water or effluent will run into the Radio Room. Steps should to be taken to mitigate this risk.



Existing Spatial and Functional Limitations

The existing building configuration, geometry, floor to floor height and general layout limit opportunities to renovate it to current design standards. Further, its orientation on the site is less than optimally functional. There is no separation from the public for police and staff vehicles, including access to the existing sally port.

Underutilized Square Footage

Seventy-five percent of all the department personnel are assigned to the Uniformed Services Division. Their primary work area encompasses the Roll Call and Report Writing Room. These two areas total approximately 500 square feet. This equals three percent of the total square foot of the building. The underutilized square footage is evident by the fact that seventy-five percent of personnel are primarily working within three percent of the floor area of the building.

In walking through the building, reviewing the plans and developing a “Space Needs Analysis” (by Jacunski Humes Architects), it became obvious that much of the building is underutilized. This should be considered a positive for two reasons. First, any planned addition to meet current space needs would not have to be as ambitious and second, the underutilized space can be used as much needed “swing space”, for any planned renovations and/or additions.

The most underutilized space in the building is found in the lower level. The former pistol range has been of-line for some time and the area noted in the 2002 drawings as “Report Room” (originally labeled for volunteer or community police) is lightly used, in large part due to environmental and creature comfort issues (heating, cooling and ventilation).

While designing the remediation of the lead in the shooting range, the former range was planned to be reprogrammed as the physical training room. It is believed that the current space needs analysis, when considering both of the aforementioned spaces together, might suggest an alternative use.

Records Division

The Records Division of the Police Department is situated on the second floor near the physical training room, locker room, and the Office of the Chief of Police. The primary function of the Records Division is to provide the public with copies of official reports and issuance of permits. The location of the Records Division is problematic in many ways, but most importantly for security reasons. When the public requires access to the Records Division, the desk officer provides access into the center stairwell or elevator (by releasing the electronically controlled door) in order for them to gain access to the second floor. Once inside the Records Division Office, they are greeted by civilian staff. Only a wooden work counter separates the public from the staff. No glass enclosure or other security measures are in place. A sworn member of the Department does have a work station within the office; however, it is common for the civilian staff to be left alone throughout the day, particularly from 3:00 to 4:30 PM. Those seeking police records can sometimes be adversarial, which causes the Records Clerk to phone the Chief's Office or the Patrol Officers for security and assistance. A more suitable location for the Records Division is from the Main Lobby with the staff working behind the cover of ballistic rated service windows. It is important to consider that even with access controlled doors, once within the center stairwell of the building; access is obtained to the common hallways on all levels of the building. A fundamental part of any police building security plan seeks to limit public access to the lobby. A proposed solution would be the relocation of the records division to the first floor where the current Captains Offices are positioned.



Report Writing Room

Currently, the Report Writing Room is inadequate. The space is not large enough to serve the needs of the department. Staff should be complimented for re-purposing donated work stations and cubicles for report writing, but the existing conditions are still inadequate. Relocation of this function was considered early in this process. It was thought that this space may be more suitable for Roll Call, due to its proximity to the stairwell which leads to the rear exterior of the building and subsequently the cruiser parking area.



Cell Blocks

Cell block doors are of steel bar construction and do not comply with current design standards. The doors are a hanging hazard and dangerous to prisoners intent on injuring themselves. The cells should be re-designed to include new safety doors and updated cell sinks and toilets that do not expose supply lines. Additionally, one cell should include padded walls and door. The current design of the cell blocks are an important issue and should be re-designed to current standards.



Locker Rooms

The men's and women's locker rooms are at capacity. Expansion is needed to add additional lockers for staff. Almost all current lockers are 18"x18"x60" and these do not provide adequate storage for the officer's gear. It is common for ballistic vests to be hung on the exterior of the locker door because of the need for air circulation. Contemporary police lockers are 36" wide and include a space for vest storage with ventilation, pistol security, boot draw, and an electrical outlet. The current lockers have been painted in attempts to maintain an acceptable appearance despite the functional limitations.



Physical Fitness Room

The Physical Fitness Room is located on the second level next to the Records Division. A large number of staff members utilize the gym on a daily basis. The location of this room is far from ideal when considering noise, vibration and weight load on the structure of the floor. An area used for such activities belongs on the lower level of the facility.

Vehicle Parking and Security

The parking for staff and police vehicles, located at the rear of the building is inadequate (43 & 2 handicap). The current police fleet contains 29 vehicles. Additional parking spots need to be established and measures taken to restrict public access with fencing. The front lawn of the police building could be converted to parking restricted to the public. This would provide opportunities to separate staff and police vehicles from the public and place the public parking closer to the existing main entrance.

Conclusion /Recommendations

This document is intended to highlight the current condition of the existing North Haven Police Department building, its strengths, its short comings and potential opportunities to correct deficiencies. As well, this document is provided in concert with a current Space Needs Assessment, completed by Jacunski Humes Architects. After spending countless hours studying the building for this report, as well as several construction projects, several things become obvious.

- The building has served the community well for the last 50 years with minimal investment.
- The Police and Town staff and Public officials should be commended for maintaining the buildings as well as they have with limited investment.
- The building has many shortcomings and deficiencies both physically and programmatically.
- The department has outgrown the space available.

The ideal solution would be to construct a new facility, in another location, which would be move in ready for the department. A new facility that meets the needs of the North Haven Police Department could cost in excess of 24 million dollars, without site acquisition costs. Given the fiscal challenges facing most communities, this is not always a favorable endeavor. A more prudent and cost-effective course of action would be to renovate the existing building, with a modest addition and site re-design, including expanded parking, better control of access and separation of staff and police vehicles from the public. The modest addition is required, because even reprogramming the underutilized space in the lower level will not meet the current and future space needs of the department.

The strategy of a modest addition, renovation of the existing building and re-designed site will position the facility in such a way that it will meet the needs of the department for the next 30 years.

During the evaluation process, it is crucial to consider the interrelated material and construction processes needed to address the deficiencies of this building. Addressing the physical needs of the building, a modest project at a time, i.e. windows, stairs and ramp, roof, lead abatement, etc. is achievable, but in the end the building is still too small and combining the known projects previously listed with the needs identified in the

report and the Space Needs Assessment will generate an economy of scale which small individual projects cannot provide.

Addressing the physical needs of the building, a modest project at a time, i.e. windows, stairs and ramp, roof, lead abatement, etc. is achievable, but in the end the building is too small and combining the known projects previously listed with the needs projects identified in the report and the Space Needs Assessment will generate an economy of scale which small individual projects do not.

It is recommended that the space needs analysis and the schematic design work completed in concert with this report be given serious consideration as we believe that given all factors, program, schedule, cost and maintenance, a solution such as that presented is the best for the community of the Town of North Haven.