

SECTION 1 – Introduction

Introduction

In January 2009, Harrisburg Area Community College (HACC) engaged Crabtree, Rohrbaugh & Associates Architects (CRA) to perform Master Planning for the potential expansion of the Senator John J. Shumaker Public Safety Center. This report has been developed to assist the College, Staff and Community involved in the Public Safety Center (PSC) in the decision making process regarding the potential expansion and modernization of the facility.

As such, this report should be viewed as a starting point, or benchmark; providing a framework from which both a short and long term facilities master plan can be implemented for any recommended or desired facility improvements. At the same time, the study evaluates and documents the existing condition of the facility including existing facility deficiencies or safety concerns that should be addressed immediately

This study was prepared by R. Jeffrey Straub AIA, Senior Project Manager and staff of Crabtree, Rohrbaugh & Associates, Mechanicsburg, Pennsylvania and Mark Graham AIA, LEED AP, Principal of G2 Solutions Group. Civil Engineering, site master planning and site due diligence was provided by Kurowski & Wilson (K&W). Structural, Mechanical, Electrical and Plumbing Review and Recommendations were completed by Centerpoint Engineering (CPE) of Mechanicsburg, Pennsylvania.

Program

Based upon interviews with facility staff, the design team generated a potential expanded program for the facility based upon requests of each program within the facility. This program focused predominantly upon actual building square footage requirements which can be compared to the existing facility's size to create an order of magnitude for the expansion.

It was quickly identified that the existing facility is working beyond capacity. In order to increase current programs and training it will be necessary to increase the size of the facility substantially.

It was stressed during interviews to identify all possible program expansion needs, however that the final program may need to be broken down into a phased master plan.

Excluding training ground buildings, the existing North Hall represents approximately 42,122 square feet. **The final master plan program identified 228,237 square feet of total facility need which represented more than a 5 fold increase in the size of the facility including the existing building.** In addition to these requirements, site and training ground improvements were identified.

The following is a list of the square footage requests per department.

• Law Enforcement & Shooting Range	46,527 SF
• Fire/ EMS Training	16,922 SF
• EMS Personnel	13,230 SF
• Health Care Personnel	16,512 SF
• Transportation Technology	70,517 SF
• Common Shared Space	60,053 SF
• Grossing Factor	4,475 SF
• Total Facility	228,237 SF

Phased Construction

Based upon the final program, it was determined that the master plan should be broken into 4 primary phases. In this manner, the facility could be incrementally increased in size. The master plan would address each department, however first priority should be the repair of existing facilities and addressing safety and code related concerns within the facility.

Second to addressing repairs of the existing facility, it was stressed that the master plan should be prioritized by improvements that could quickly increase the capacity of the facility and at the same time benefit all departments. This method was used to generate the following four phases of construction.

- **Phase One**
 - **Renovations and expansion to the existing fire training grounds.**
 - **Construction of a New Law Enforcement Complex.**
 - Complex would be 47,563 square feet.
 - Minor renovations to North Halls to address code and safety related items.
 - Expansion of parking to accommodate expanded programs
 - Construction of a PSC commons to be used for outdoor training and create pedestrian campus center to the facility.
- **Phase Two**
 - New Fire Training Tower
 - **New Mock Fire Training Station**
 - **Emergency Vehicle Operators Course (EVOC)**
 - Connection to Main Campus through a pedestrian bridge and an emergency access road.
- **Phase Three**
 - **New Academic and Administration Building**
 - Building would be 90,000 square feet.
- **Phase Four**
 - **Renovation of North Hall into a Transportation Building.**
 - Additions of approximately 30,000 square feet.

As each phase of construction is completed departments would move into new facilities allowing the remaining programs to expand into the existing space. In this manner, all departments would experience the ability to grow at all phases of the master plan.

Please see the 11 x 17 color Master Plan drawings found in the Master Plan that delineates each Phase of construction.

Option Development of Phase One

HACC asked the design team to develop three levels of scope of work for Phase One of the Master Plan. Options ranged from \$11.4 - \$15.1 Million. Detailed Cost Estimates can be found in Cost Estimate Section of the Master Plan for all three Options along with separate scopes of work. The goal was for these cost estimates to include all project related costs.

After review of the options it was determined that Option B best met the current needs of HACC, the PSC and the community. **The proposed cost for Option B is \$14,273,708.**

Option B included the following components

- New Law Enforcement Complex Building
 - 25 lane indoor firing range for both rifle and pistol training.
- New Parking Lots that would increase parking to 400

- Renovations and expansion to the existing fire training grounds
- A Central Campus and Drill Grounds
- Limited renovations to North Hall relating to code and repair items
- Sustainable Building Design

Facility Assessment Report

Surveys were conducted throughout the facility to identify the existing condition of architectural, mechanical, electrical and plumbing systems throughout the facility. The surveys identified that the facility is in fair condition and a strong maintenance program exists, however due to the age of the facility and the fact that it is used for extremely intensive training, many of the training areas have received damage and should be addressed in the near future to protect the safety of individuals utilizing the facility.

These code related and repairs were identified in the detailed cost estimates and should be a priority as part of any construction project.

Due Diligence Report

As part of the Master Plan, detailed analysis of the existing site and its surrounding grounds were conducted to evaluate the viability of expanding the facility. This analysis included wetlands, historical review, zoning ordinance review, endangered species and utility investigation.

Investigations also including meetings with City of Harrisburg planning officials and engineers, U.S. Army Corps of Engineers and Department of Environmental Protection representatives.

The full detail of the due diligence report can be found in a later section of the report, from these investigations the final Phases of the Master Plan were developed to meet requirements and were reviewed with governmental approving departments to verify that they were acceptable and cost estimates could then be developed for site related issues.

Due to the potential amount of wetland disturbance related with this project, governmental approval for this site development could take 12 to 18 months for processing, **it is strongly recommended that this site development for any potential project be authorized as soon as possible to limit the impact upon a project schedule.**

September 11th Memorial for the Public Safety Center

The events of the terrorist attacks on September 11th, 2001 will be forever etched in the history of this great Nation. On that day members of PA Task Force 1, one of 28 Federal Urban Search and Rescue teams, were deployed to the World Trade Center site to assist with rescue operations. PA Task Force 1 is based in Harrisburg, a short distance from Harrisburg Area Community College, and has utilized the training grounds at the Shumaker Public Safety Center as a primary training site since its inception in the mid 1990's. While the team is composed of personnel from throughout the Commonwealth, most, if not all, of the responders on the team trained at the Shumaker Public Safety Center at one point in time in their career in order to prepare them to respond to the events of that day.

Additionally, in the years that followed the attacks the Shumaker Public Safety Center has played a significant role in training and educating members in the public and private section in prevention and preparedness activities related to both terroristic events and large scale natural disasters.

The construction of a September 11th memorial at the Public Safety Center using a piece of the WTC steel would first and foremost stand as a lasting reminder and tribute to the individuals, both citizens and responders, who paid the ultimate sacrifice that fateful day in the defense and protection of this great Nation. It would literally be viewed by the thousands of students and visitors to the Public Safety

Center who pass through our doors every year to receive some of the best training available in the State and Nation. Secondly, it would also serve as a reminder to the public, college community and future generations of emergency responders of the true impact that the Shumaker Public Safety Center has had in training public safety professionals of all disciplines.

High Performance Building Design

High Performance buildings provide a healthier environment for their occupants and enhance their performance while significantly reducing annual operating costs. Moreover, the cost of building a high performance building or facility is not significantly higher than a conventional building. Typically, construction costs are increased by about 4% to construct a high performance building.

Key to deciding whether to construct a high performance building is the need to generate detailed life cycle cost analysis on the payback for sustainable design. Typically, it is recommended to begin a project with sustainable design as a component of the design. Once energy modeling is completed on the building and facility, a client can more effectively decide whether to proceed with this component of a project.

Sustainable Design Principles include the ability to:

- Optimize site potential
- Minimize non-renewable energy consumption
- Use environmentally preferable products
- Protect and conserve water
- Enhance indoor environmental quality
- Optimize operational and maintenance practices

Currently the facility has a “Greenbelt” nature trail recognized locally and nationally running through the PSC’s campus. The proposed Master Plan proposes to tie into this trail with a new Law Enforcement Complex and enhance the south end of the campus with high quality wetlands. This walking trail can become an asset to help create an identity to the campus and eliminate the current situation in which the facility is a number of buildings in a series of parking lots.

Schedule

A schedule has been provided for the Master Plan that documents the progression of the Master Plan since January 2009. Beyond the completion of the Master Plan in September 2009, the schedule projects a potential schedule for a Phase One of the Master Plan if it was authorized in November of 2009. Design for any projects would be approximately ten to twelve months with fourteen to 16 months of construction. **With this schedule, completion of construction for Phase One of the Master Plan could occur in December of 2011.** Please see the Full Schedule for specific timelines of each component of the potential project.