



WIGHTMAN & ASSOCIATES, INC.

ENGINEERING ♦ SURVEYING ♦ ARCHITECTURE

October 7, 2016

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Attention: Ms. Julie VanderWiere

RE: Charter Township of Texas Assessment of Township Hall/Fire Station

Dear Julie:

Thank you for the opportunity to serve the Township by preparing this Facilities Assessment. In preparation of this assessment we collected information through site observations and interviews with Township employees. The information was then analyzed and condensed to create this report. The report consists of items defined by the scope of work requested to be reviewed in your RFP released mid-December 2015, as well as some supplemental items we believe help provide a complete assessment. The contents are as follows:

- A. Current Facility Conditions and Deficiencies
 - Size (Square Footage)
 - Number of Staff
 - Age of Facility
 - Structural Issues
 - Mechanical/HVAC Systems
 - Electrical Systems/Wiring
 - Plumbing Systems (added)
 - Equipment
 - Storage
 - ADA Compliance
 - Utility Costs
 - Hours of Operations
 - Functional Obsolescence
 - Safety Issues in Meeting with the Public
- B. Township Population and Growth Projections
- C.&D. Future Facility Needs and Space Needs
- E. Preliminary Cost Estimates
- F. Site Design Layouts
- G. Potential Improvements to Existing Buildings
- H. Cost Comparison of Renovation to New Construction
- I. Timeline to Complete Project
- J. Conceptual Schematic Drawings

A. Current Facility Conditions and Deficiencies

- **Size (Square Footage):**
 - 15,938 square feet
- **Number of Staff**
 - Township Administration and Offices:
 - 16 Total (4 Administration, 5 Building Department, 7 Staff)
 - Fire Department: 5 Full-Time, 20 On-Call
- **Age of Facility:**
 - The current building consists of an original, two story structure with 2 additions built over 25 years. (1991 fire station addition 1994-1995 township hall office addition 2012 fire station addition)
 - The facility has been well maintained and is in good condition. Exterior finishes including roof, soffits, gutters/downspouts, and brick veneer are all well maintained. Some work on north siding is required – cleaning mostly.
 - The base of the masonry wall outside the training room and apparatus bay shows signs of water damage. Reworking the downspouts and gutter system along this roof area and investigation along the grade line is recommended to repair and correct issues. **(Images 1 and 2)**



Image 1



Image 2

Water staining and cracking at joints.

- **Structural Issues:**
 - There is some settlement cracking around the elevator shaft and the main entry at the lower level. This will need more in-depth review to confirm if foundation or

building structure needs to be addressed. Investigation of the water condition mentioned above may reveal foundation or roof conditions that need repair.

- The apparatus bays are built of CMU with brick veneer and the roof structure is wood truss framing with asphalt shingles. (**Image 3**).
- The main construction of the existing building is wood frame construction with brick veneer and vinyl siding.



Image 3

- **Mechanical / HVAC Systems:**
 - Gas, forced air furnaces and exterior air-conditioning condensers: Mechanical systems will need to be reviewed by design engineers to determine the expansion and upgrading of systems needed to service new building renovations and expansion, if that option is pursued.
 - Under-slab ducts for forced air in Township Hall addition.
 - The full extent of insulation throughout the building could not be determined. The intention – based on the construction drawings – indicates 6" wood studs with 5 1/2" batt insulation and rigid insulation (thickness not indicated). 12" of batt insulation is indicated in the roof trusses.
 - **Issues:** The HVAC system does not meet the needs of the staff; in the main office there are two thermostats that compete against each other often resulting in the front offices being warmer than the rear offices. The AC blows out at floor level and has to be covered because it is too cold. The Board Room shares an HVAC system with the Training Room below, the damper system in the middle is inefficient and cannot maintain temperature with small to medium sized groups in either room.

- **Electrical Systems / Wiring**

- Underground electrical services are pulled from power poles at the northeast and west sides of the buildings.
- A distribution service panel was added in the first Fire Station addition and pulled from an existing panel in the basement Mechanical Room – 400A single phase.
- Main electrical panel in Mechanical Room (south side of Township Hall addition) is connected underground to service at exterior power pole on the north east corner of the building – 225A 3 phase.
- No open, available breakers are evident in existing panel boxes. New panels will need to be added to accommodate additional loads resulting from remodeling and/or additions.



Image 4

- **Plumbing Systems:**

- No specific concerns were noted with the current system. Updates and additions will be needed to accommodate additional fixtures and usage based on the selected design solution.
- Overall: the building has had several additions, and mechanical systems have been supplemented as needed. Optimum efficiency and effectiveness have been hampered. System review and rework are recommended along with building revisions.

- **Equipment**

- Server and computer systems support equipment should be housed in room(s) separate from mechanical and janitor equipment. Mechanical Room in the Township Hall staff corridor contains server equipment, electrical panels, mechanical system equipment and cleaning/janitorial supplies. **(Image 4)** This main staff corridor also provides access to the main office server which is in a storage closet. The door has been removed to provide improved air circulation. **(Image 5)**



Image 5

- **Storage**
 - Insufficient: Storage for various departments is scattered throughout the building and inconvenient to access by the users. Offices and work spaces are at maximum capacity for current materials storage.
 - Drawing storage is maximized in a closet outside the Building Department area (**Image 6**) and overflow file storage is located in a public corridor. (**Image 7**)
 - By efficiently designing the overall space, storage shall be provided throughout each department. This will provide efficient access to storage from staff work areas and better maintenance of stored materials.
- **ADA Compliance**
 - The building was designed and constructed under the barrier-free code and accessibility requirements that were in force at the time of construction. Since then codes have changed, and some building modifications have taken place. The office area will not change occupancy classification, and the building has been continuously in use since it was built, therefore it is our opinion that, according to the Michigan Barrier Free Code (MBFC) requirements, the office would not be required to be brought into conformance unless renovations are made to the space. The Americans with Disabilities Act (ADA) has different requirements. It is enforced through the court system, so anyone could file a lawsuit against the Township for discrimination based on items that do not conform to the ADA. Consequently, it is our recommendation, at a minimum, to renovate the building to conform with both the MBFC and ADA.
 - A cursory ADA review of the facility uncovered the following items:
 - Parking requirements and minimum number of ADA spaces need to be calculated in conjunction with building revisions pursued. Barrier-free



Image 6



Image 7

parking space signage needs to be placed, and the parking lot needs to be striped accordingly.

- Minimum widths for accessible doors and passageways throughout the facility are inconsistent. All egress routes will need to be reviewed with planned building revisions and confirmed to be in conformance with ADA requirements.
- Proper numbers of plumbing fixtures and facilities for staff and public use will have to be calculated and assessed based on selected design concepts for future use.
- See **Images 8 and 9** for further restroom compliance issues. Only one unisex bathroom is provided in the building (staff area) and it does not meet accessibility requirements. (vertical grab bar and plumbing drain insulation are needed).



Image 8

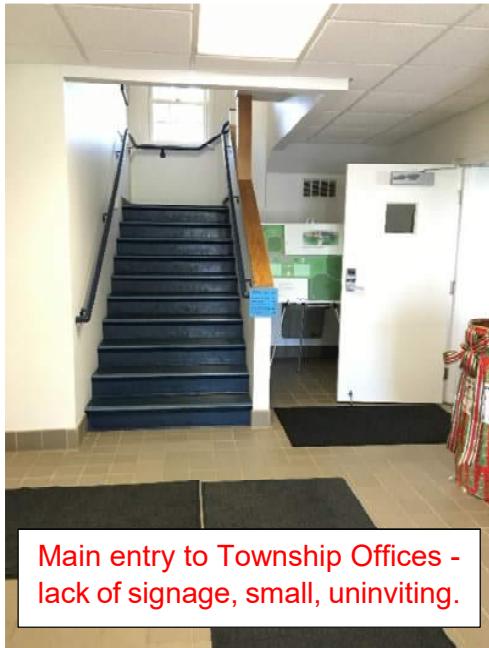


Image 9

- **Utility Costs**
 - Gas Average
Winter: \$1,000.00
Summer: \$100.00
 - Electric Average
Year-Round: \$400.00
- **Hours of Operation**
 - Monday- Thursday 7:30 A.M. to 5:30 P.M.

- **Functional Obsolescence**

- The Main Entrance and Lobby areas for the Township Offices (**Image 10**) and the Fire Station (**Image 11**) are outdated and unappealing to visitors. Lack of openness, proper wayfinding and dark, undefined spaces are not suited to current user-friendly design standards.



Main entry to Township Offices -
lack of signage, small, uninviting.



Fire Station Vestibule -unused
space. Insufficient display for
memorabilia.

Image 10

- The Township desires offices and community support facilities with design representations commensurate with the standards and concerns for its residents that are an integral part of the community.
- Lack of space for daily, work activities due to storage overflow, equipment encroachment, and lack of needed task surfaces creates an environment that is detrimental to maximum productivity and worker satisfaction.

Image 12



Election storage overflow.

Image 13

- The Staff work stations and department spaces (Fire Department and Township offices) are outdated and don't meet the current design standards for efficiency and productivity that are common in workplace research and design.
- The main Board Room deficiencies in acoustics can be modified to increase the functional experience, however the lack of sufficient user amenities and poor orientation of the space do not allow for the future flexibility and expansion needs of the Township.
- The mechanical systems have many add-ons do not meet the comfort needs of the users and the energy efficiency standards that are common in current construction. Storage of records and documents, and computer equipment needs are also not met with the current insufficient temperature and air-quality controls.

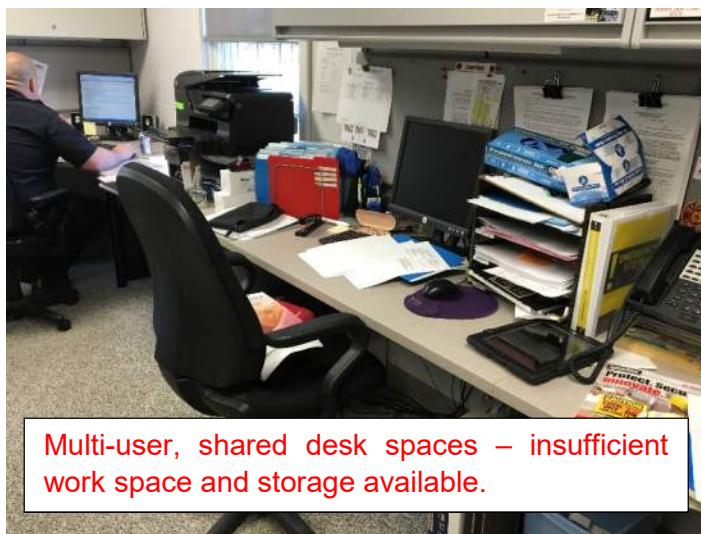


Image 15

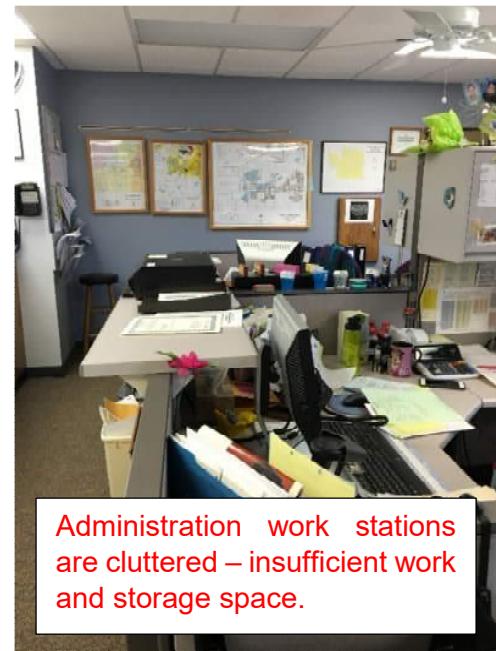


Image 14



Image 17

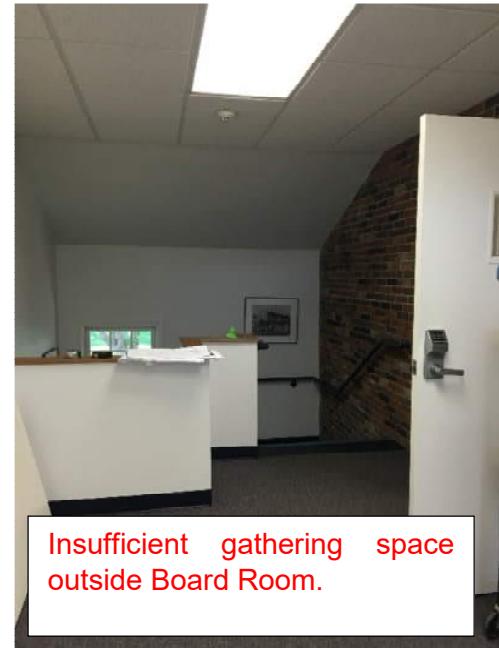


Image 18

- **Safety Issues in Meeting with the Public**
 - Office staff cannot keep secure awareness of building surroundings and people entering into the main entrances. Once people enter the building, there is no way to monitor their whereabouts either for security reasons or to provide guidance or assistance in a welcoming and effective manner.
 - Wayfinding throughout the building and especially for egress is unclear, egress signage may not be fully up to code and should be evaluated.

B. Township Population & Growth Projections

- 2010 Census: 14,697 Residents
- 2015 Projection: 18,041 Residents
- 2020 Projection: 21,385 Residents
- 2030 Projection: 28,073 Residents

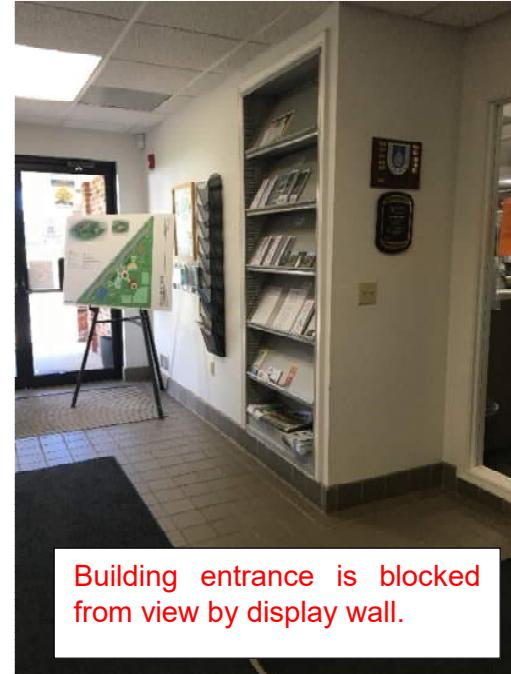


Image 19

C.&D. Future Facility Needs and Space Needs

- **Workspace**

- Administration:
 - Existing = 2,000 SF
 - Current Needs = 2,380 SF
 - Proposed Future Growth = 2,925 SF
- Workspace includes front counter space, all open office and private office space and any layout/copy/print workspace in relation to the Admin department.
- Building Department:
 - Existing = 350 SF
 - Current Needs = 1,300 SF
 - Proposed Future Growth = 1,800 SF
- Fire Station:
 - Existing = 572 SF
 - Current Needs = 2,180 SF
 - Proposed Future Growth = 2,180 SF
- Need to provide new efficiently designed space that allows for better office arrangement and space utilization. By creating better work flow, ease of access will be obtained for those who work closely together.
- Previous copy / supply room was converted to a new staff office and the equipment has been added to the administrative staff area causing clutter, crowding and distraction for the workers.
- Office space must accommodate current full and part-time employees while also providing adequate space for future staff growth. Office spaces will maintain visual connection with one another while also providing a sense of acoustical privacy.
- Fire department offices should be relocated closer to the existing fire department dispatch locations. This will provide efficient emergency access and better connection to the township office wing. Existing offices can be utilized for Public Safety and other Township service offices.

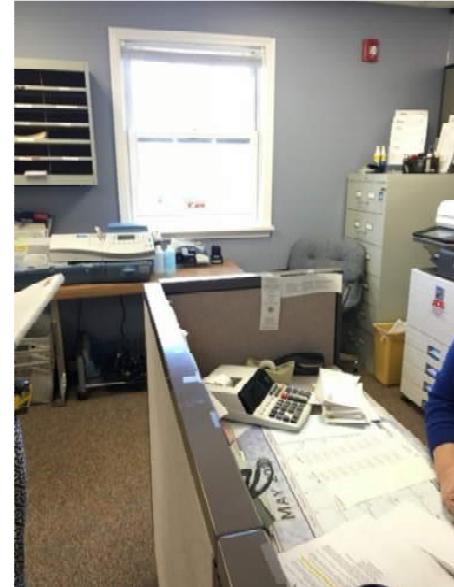


Image 20

- **Storage**
 - Administration:
 - Existing = 365 SF
 - Current Needs = 780 SF
 - Proposed Future Growth = 900 SF
 - Building Department:
 - Existing (incl. w. Admin above) = 0 SF
 - Current Needs (map room – dept. specific) = 150 SF
 - Proposed Future Growth = 200 SF
 - Fire Station:
 - Existing = 780 SF
 - Current Needs = 1,000 SF
 - Proposed Future Growth = 1,000 SF
 - Election Storage:
 - Existing = 117 SF
 - Current Needs = 346 SF
 - Includes election storage closet in close proximity to Admin Assistant office and additional large election storage space near common area
 - Proposed Future Growth (approx. avail.) = 200 SF
 - Potential for building expansion to accommodate Election storage as community grows.
- **Meeting Rooms**
 - Administration:
 - Existing = 260 SF
 - Current Needs = 400 SF
 - Proposed Future Growth = 800 SF
 - Board Room:
 - Existing = 1,320 SF
 - Current Needs = 1,800 SF
 - Proposed Future Growth = 1,800 SF +
 - Based on future, desired seating needs
 - Building Department:
 - Existing (shared w. Admin) = 260 SF
 - Current Needs (shared and layout table) = 350 SF
 - Proposed Future Growth = 100 SF
 - Fire Station:
 - Existing = 0 SF
 - Current Needs = 110 SF
 - Proposed Future Growth = 100 SF

- Provide a variety of meeting room sizes to accommodate a variety of functions. Meeting rooms shall maintain acoustical separation to provide needed privacy for each space.
- The current Board Room is oriented in a manner that does not allow proper viewing of monitors (too close to audience and too high for comfortable angle of view). Acoustics are poor and the geometry of the ceiling effectively traps sound and creates difficulty in communication.

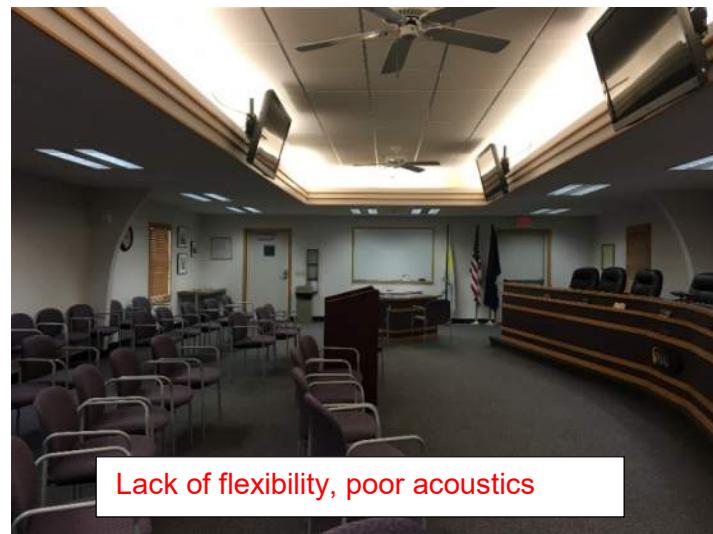


Image 21

- The Training room is on the lower level between the Township staff offices and the Fire Department. The square footage provided is adequate for current needs, but the technology is out of date, and the configuration of the room (with a center column) makes flexibility difficult. The storage and function of election materials and equipment currently overflows into this room, also cutting down on the usability of the space.



Image 22

- **Multi-Purpose Rooms**
 - Administration, Building Department, Fire Station:
 - Existing = 650 SF
 - Current Needs/Proposed = 850 SF
 - Future Growth = 1,000 SF
 - Multiple spaces need to be provided to support multi-purpose functions. Spaces shall be easily adaptable with furniture that is easily rearranged to accommodate specific functions. An additional training space shall be provided in addition to the Board Room.
- **Sustainable Buildings/Potential LEED**
 - The design of a new building for the Township office has full potential to be designed per LEED requirements. LEED for Existing Buildings would be an option for work done to the existing building. Should the Township opt for pursuing LEED certification, the cost of the process will have to be reviewed based on final design concept decisions. We suggest implementing sustainable selections and design decisions regardless of whether LEED certification is pursued.
- **IT and Computer Equipment**
 - Server:
 - Existing Area = 70 SF
 - Current Needs/Proposed Area = 70 SF
 - Future Growth Area = 70 SF
 - Current technology must be integrated throughout all spaces. Ample square footage (as shown in the space needs spreadsheet) will be provided in a single Server Room, appropriately ventilated for the equipment. IT infrastructure will be provided to each work station whether designated for full time use by specific individual or for part-time or drop-in use by multiple staff members. Meeting Rooms and work zones will have necessary data and power to be flexible to meet the needs of current and growing staff. This includes the use of flat screen monitors rather than projection devices currently in use.

E. Preliminary Cost Estimates (Construction Cost only):

- Renovation to Township Hall and Fire Station Building
 - Total = \$ 3,667,925.00
- New Township Hall Building
 - Total = \$ 2,939,400.00
- Adaptive Reuse of Existing Fire Station - New Community Center
 - Total = \$ 1,024,650.00

- See Attached Recommended Preliminary Total Project Budgets for more detailed breakdown of overall project costs for reference.

F. Site Design Layouts

- Parking for the public and Township Offices staff is located at the back of the building with the main driveway off West Q Avenue. 42 spaces (including 3 ADA spaces) are provided in this lot. One of the ADA spaces is shared with the public for use at the Farmer's Market facility to the east. Asphalt paving is in need of resurfacing; however, the striping is well-maintained. (**Image 23**) One (1) additional ADA parking space is located at the southwest corner of the building and is accessed from the driveway accessing Fire Station facilities. Nine (9) parking spaces are placed along the western edge of the west lot at the Fire Department side of the building. Additional Fire Department staff parking is provided in a gravel area to north of the north Apparatus Bay. (**Image 24**).
- During Farmer's Market hours, overflow parking is allowed on the grass island and the area adjacent to the north edge of the paved lot. The grass is striped.

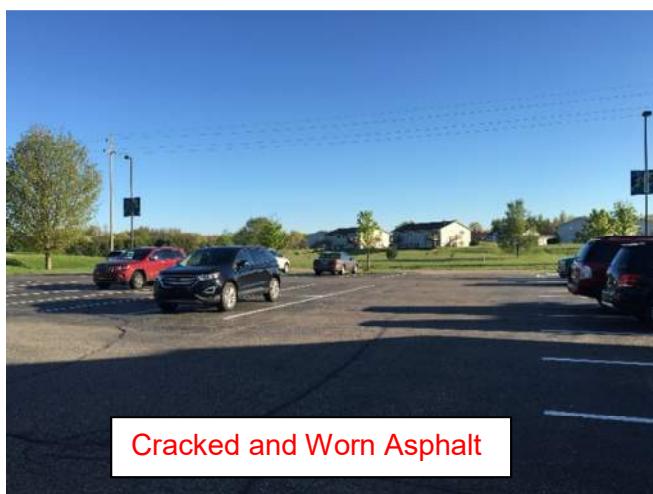


Image 23



Image 24

- Refer to the Site Plan provided for the renovated Township Hall and Fire Station: Plan shows a proposed garage for township vehicle storage which would be accessed from the north parking lot.
 - Overflow parking for community meetings and events is provided in the main parking lot. Agreements exist with neighboring property owners to allow and share parking in the existing lots adjacent to and across Q Ave. from the current site. As the community develops pedestrian access, and flow from these lots to the Township offices and facilities, the walkability of the area around the Township Hall center will be steadily improved.

- Current parking on the west side of the site is to be utilized by the staff and fire station personnel. Signage and clear designations of this will help to deter public use of this area adjacent to emergency vehicle circulation.
- The north parking spaces that are in the existing grass locations can be paved with permeable pavers for a more permanent, environmentally friendly paving option.

G. Potential Improvements to Existing buildings

- Clarity of entry for users: Refer to the Site and Floor Plans for the following:
 - Create a clearly designated public entrance connecting the north and south sides of the site. Pedestrians can access the main circulation spine from the main street sidewalk and visitors parking in the north lot can clearly discern the same entrance/circulation corridor from the parking lot. Redesign of visitor access to the building will aid the staff in secure visual awareness of entries and more clarity for public understanding of the facility.
 - A new entrance to the Fire Department should be added to the east side of the building with direct connection to the north parking lot and a clear relationship/connection with the Township offices entrance.
 - Signage designating the Township Hall, the Fire Department and the associated main entries should be provided along Q Avenue for access and community awareness.



Image 25



Image 26



Community awareness and recognition will be enhanced with signage for Fire Station.

Image 27

- Additions to the Township office wing of the building, with new meeting spaces, expanded storage options and a more functional layout of staff office and public building access should be provided. Refer to Floor Plan and Future Facility Needs above.
- Enhancements to existing Board and Training rooms and improved functionality for the Election process and equipment storage needs will improve staff and public experiences. Multi-purpose spaces and improved spaces with building additions and special adjustments are illustrated in the floor plan options.

H. Cost Comparison of Renovation to New Construction:

- This feasibility report consists of two (2) options for the Township's consideration:
 1. New construction Township Hall building with improvements to the existing Fire Station and an Adaptive Reuse of the current east wing as a Community Center.
 2. Remodeling and addition to the existing Township Hall and Fire Station building.
- Remodeling of existing structures is often less costly than new construction. Preliminary budget estimates for these conceptual solutions to your program requirements might appear to contradict that relationship as the Renovation total is approximately \$1 million less than the New Construction number. It is important to recognize however, that relocation of Township office functions to the New Construction will essentially vacate the existing east wing. We have included in that concept the idea to renovate the east wing to serve as a Community Center and give the Township a facility that can extend the scope of services provided to the community. The Adaptive Reuse estimate of costs, at approximately \$1.5 million should be considered in conjunction with the New

Construction cost thereby putting the total for the full scope of work approximately \$500 thousand above the Renovation option.

- Under the Renovation option, considerations for relocating staff and services during designated periods of construction should be taken. Some options for staff relocation are:
 - Renting nearby office space
 - Leasing mobile unit or office trailer that could be located on site for consistency of location.

I. Timeline for Completion of Project (based on design options provided).

- New building construction and site improvements for the Township Hall building is estimated to be a 12-month construction process under typical conditions. Design and documentation, Bidding and Contract execution will require an estimated additional 12-month period prior to construction start. Renovation to the existing building construction duration is estimated at 10 months. Schedule for renovating and adding on to the existing building is significantly dependent on whether or not staff vacates during construction or if phased schedule is adopted.

J. Conceptual Schematic Drawings: (Attached)

- Floor Plans, Site Plans and Exterior Elevations are provided for the following:
 - Renovation and expansion of existing Fire Station and Township Hall building
 - New construction of a Township Hall Office Building
 - Adaptive re-use and renovation of the existing building.
 1. The re-use plan is considered in conjunction with the new construction of a Township Hall Office Building on a different site. The existing Fire Station would remain and receive some upgrades and improvements. The existing east wing of the facility (Township Offices) would be adapted to serve Community Center functions, activities and appropriate office and staff support spaces (a more thorough programming process for these areas is needed).