

## **Fayette County Prison**

### **ASSIGNMENT**

The County of Fayette has engaged Astorino-CannonDesign for the following scope of work:

1. Review/evaluate previous Facility Needs Assessment/Feasibility Studies performed by others since 2001 for the Fayette County Prison.
2. Determine if the existing Fayette County Prison can be renovated and/or additions added including any and all obstructions to new construction on the existing prison site.
3. Alleviate current inmate overcrowding and provide new kitchen and laundry facilities for a future 400 bed prison but only provide the equipment for the current prison population, including the new inmate housing.

### **Program:**

After reviewing the assessments/studies provided to Astorino-CannonDesign, we understand projected bed counts have declined in number since 2001. From a high of 500 plus to a low of 320 beds with several estimates in between. With the current efforts of Fayette County Officials and alternative sentencing, the average daily population of inmates outsourced to alternate facilities has also declined noticeably. In our opinion, this reduces the future bed count to approximately 350 to 400 projected out twenty to thirty years from now. Of course, there are all types of external factors that can change this projection and sometimes very quickly. We found all studies/assessments of future bed counts to be sound and past inmate history, combined with current county efforts, have reduced the daily inmate population at present. In order to establish current facility protocols and infrastructure we have interviewed the following personnel:

Brian Miller, Warden  
Michael Zavada, Deputy Warden  
Barry Croftcheck, Deputy Warden  
Tammy Lambie, Deputy Court Administrator  
Tamy McCleary, Food Service Coordinator, ABL Management  
Dave Rutter, City of Uniontown Police Chief  
Chris Bennett, Correctional Officer  
Anthony Dragone, Correctional Officer  
Bernie Hamorsky, Correctional Officer  
Bob Yatsko, Correctional Officer

Interviews consisted of reviewing all prison activities and current operations compared to American Correctional Association (ACA) Standards. Previous meeting minutes and information from prior county prison endeavors were not available to Astorino-CannonDesign. The overall objectives of those interviewed can be summarized in the following main categories:

- Eliminate inmate overcrowding.
- Prefer one complex/facility with no out buildings requiring personnel to leave one building to enter another.

- Bring the existing facility into code compliance to provide safety and security for correctional staff as well as inmates.
- Provide building components/departments of the appropriate size with appropriate accommodations for the tasks at hand.
- Housing of SMU, RHU and other low population inmate classifications.

## **Determination:**

A cursory review indicates the existing inmate housing is capable of being renovated while presenting many logistical hurdles. Prison components such as intake, medical/dental, visitation, food service, laundry, property storage, vehicular sally port, staff offices and file storage are currently undersized and relocation to new quarters appears warranted.

To date, site survey, current geotechnical study, Phase I Site Assessment as well as previous geotechnical reports has been completed for the existing site. Currently, we believe the site is capable of sustaining new construction. The site itself poses issues of steep grades and limited area but are not insurmountable issues, however, they will require some building components to be specialized construction such as retaining walls and special deep foundations (caissons/grade beams).

## **Proposal:**

The main issue is reducing the current Prison overcrowding, including the elimination of outsourced inmates to other facilities. New Food Service and Laundry facilities have also been included. In order to eventually provide for all the future prison components, a facility Master Plan has been developed, which identifies the required components for a 350 bed facility that can be built in phases over the course of time, as deemed necessary to address prison population increases.

The facility support components, including Intake, Medical, Visitation, Booking, and Vehicular Sally Port are accounted for in the Master Plan as well as future additional housing. All the components can be included in phased construction, capable of being built when required.

## MASTER PLAN

### **Introduction:**

The City of Uniontown has offered to the County their old, unused city jail as well as closing Court Street from Penn Street to Peter Street to accommodate the prison expansion. The current facility Master Plan utilizes both the old jail and the street closure to expand the buildable site and locate facility components in a logical fashion, appropriate to correctional facility operational guidelines. The new inmate housing maintains the lower vehicular access road along Penn Street with some slight modifications at the current entrance and by spanning a portion of the proposed new housing over the existing access drive, which is proposed to be enclosed.

The access drive will continue to provide access to the existing lower level parking and Annex as well as provide truck access to a new loading dock at the proposed new kitchen and a facility refuse area for trash disposal, as shown on Dwg. A0.1. We propose overhead vehicle doors at both ends of the "tunnel", treating the enclosed area as a vehicular sally port. This offers protection to the facility, so only authorized vehicles may enter the site from this location. (See drawing A0.2 and A0.3).

We maintain a lower portion of Court Street near Penn Street to provide access to the existing parking lot owned by the city as well as to provide access to a new prison vehicular sally port at the lower level, adjacent to intake. At the upper level, immediately above intake (see Dwg A0.2). Public access is provided to the new prison at the intersection of Peter and Court Streets, offering a moderate lobby for queuing of visitors.

### **Site:**

The Fayette County Jail Expansion is proposed to be located to the north of the existing County Jail located at 61 East Main Street in Uniontown, Pennsylvania. The site is considered somewhat steep, sloping from elevation 998.0' in the southeast corner of the development area to about 960.00 feet along Redstone Creek to the north. The building will be situated at the intersection of Penn Street and Court Street.

### **Access:**

An entrance drive is planned to be constructed from Penn Street to provide access to an existing lower parking lot on site that will be reconfigured as a result of the jail expansion. A ramp connection will be considered to provide connection of this lower parking lot to the existing upper parking lot located behind the existing County Building. Site retaining walls will need to be constructed to develop these accesses. Deliveries will be received at a loading dock along the lower access road under the building expansion. Adequate turning radii will need to be considered so that delivery trucks can turn around within the new lower parking lot and exit the site at Penn Avenue.

## **Sanitary Sewage Service:**

Sanitary sewerage service is currently provided to the County Jail site by the City of Uniontown and the Greater Uniontown Joint Sewage Plant Authority. In speaking to the Authority, they are under a consent order with the PaDEP to make improvements to the sewerage system; however, they are allowed to take on additional sewage flow while they improve the sewerage system. In speaking to Phil Mahoney with the City and John Over, the City Engineer, we should be able to connect to an existing sanitary sewer line along Penn Street. John indicated that the exact location of the sanitary sewer service lines to the various County buildings is not known at this time. John will perform additional testing to attempt to locate this line, should we proceed into final design.

A 24 inch sewer line, known as the Redstone Creek interceptor, is located along the north side of the Jail site. The proposed building is shown extending over the Redstone Creek interceptor; however, we do not plan to impact this interceptor with the construction of the building addition.

## **Potable Water Service:**

Potable water service is provided to the County Jail site by PA American Water Company. A 6 inch diameter water line is currently located along the proposed lower access road that provides water service to the existing Jail Annex on the east side of the County property. We anticipate relocating this water service with the construction of the new access road; therefore, close coordination with the operations of the Jail Annex will be required.

The new water service to the Jail addition will be from the existing water line located along Penn Street. PA American Water Company has been contacted to secure flow information for the water system in the vicinity of the site.

## **Stormwater Management:**

Stormwater drainage and management will be provided for the new Jail addition with a series of roof drains and site storm inlets located along the paved areas of the site. We anticipate providing stormwater management facilities under the new lower parking lot prior to discharging storm flows to Redstone Creek. The stormwater management facilities will be designed in accordance with the City of Uniontown stormwater management ordinance.

## Prison Elements:

The basic facility components proposed by phase are as follows:

Phase I: 2 Housing Units  
Food Service/Kitchen  
Laundry  
Temporary Outdoor Recreation Yard

Phase II: Intake with Provisions for Booking  
Vehicular Sally Port  
Staff/Public Spaces  
Medical  
Visitation

Drawing A1 illustrates the proposed lower level floor plan of Phase I and Phase II construction. Phase I construction is the Food Service/Loading Deck/Refuse area. This area will contain all the food service dish washing equipment as well as refrigerated and frozen food stuffs and dry storage. The northwest corner of this area will house the facility electrical entrance. The loading dock is planned for box truck use, not tractor/trailers. Since the dock area is enclosed by the previously mentioned sally port type construction, ventilation, heat and carbon monoxide monitoring/ventilation will be required. A new elevator occurs within this space allowing food carts access between the kitchen and housing units as well as distribution of facility supplies throughout the prison from the loading dock.

Phase II construction at this level includes the vehicular sally port accessible from the lower end of Court Street. The Intake/Booking component is immediately adjacent to the vehicular sally port so all inmate procedures occur within a controlled space/environment. An elevator is added to this component allowing access to Medical and Visitation from Intake/Booking.

To the East of the proposed new Food Service component, the outline of the proposed housing units are visible where they occur at the upper level.

Drawing A2 illustrates the upper level of Phase I and Phase II construction. Phase I work includes the Laundry, two (2) housing units, connecting corridor between existing and new facilities and an outdoor recreation yard since the existing recreation yard is removed in Phase I work.

The Laundry is immediately above the Food Service component. The Laundry is proposed to be at the same elevation as the main floor of the housing units utilizing the new connecting corridor between the existing and new facilities. This allows easy access for intake of soiled linens and distribution of clean items. There is an advantage to sharing utilities needed for Food Service.

East of and adjacent to the Laundry are two (2) proposed housing units each containing 64 beds. The layout is one (1) floor with a mezzanine. The following accessory spaces are included within each housing unit:

- Law Library (caged computers)
- Multi-purpose Room (accessible from Day Room and Sally Port)

- Storage
- Janitor
- Secure outdoor recreation accessible from Day Room
- Cross connecting corridor to adjacent housing. This is for emergency exiting of one housing unit to another to “protect in place” should evacuation be required.

The north end of these housing units span across the existing lower parking access drive as previously discussed.

Since the existing inmate outdoor recreation yard is demolished in this Phase I work, a new outdoor recreation yard is created east of the existing prison and north of the existing Boiler House. This may be a temporary location due to the fact that when the existing inmate housing is renovated, a permanent outdoor recreation yard for each floor or every 2 floors of inmate housing, may be possible, similar to the proposed new housing. Further investigation will be required for this option. A new corridor is proposed to run between the new and existing construction in an east-west orientation. As future housing units are added, this corridor will continue, eventually connecting to the existing Annex Building should it remain. There is also an existing area of the prison, housing SMU inmates, that is scheduled for demolition under Phase I work. These inmates will need to be relocated until the new housing units are operational. Once housing units are operational, existing areas within the current prison will be available for these inmates and will need to be discussed with the operators of the facility. Another major component located on site will be a new emergency generator and fire pump, with provisions for a future additional generator. We propose to locate these within the existing Boiler Building and share the space with the existing boilers. All code required construction and separations will be observed.

Phase II construction at this level includes the public entrance/lobby with staff support offices, medical component and visitation component. Medical component includes exam rooms, an isolation cell, pharmacy, nurse’s station and individual medical cells.

## Infrastructure

### **Electronic Security:**

This applies to Phase I of this project only. New state of the art electronic systems will be provided with the capability of being expanded to subsequent phases of the project. Work in the existing facility will be limited to the design of control consoles for management of Phase 1 at the existing Central Control. Existing electronic systems will not be integrated into the new work at this time. The proposed work includes the following electronic security systems and/or components:

- An integrated security and remotely operated door control system including a programmable logic controller (PLC) and touch screen video terminals.
- Electronic card access control system to include LCD annunciation, remote automated door locking, readers, relay control panels, low voltage and/or UPS power supplies, printers and similar related equipment.
- Selected alarm reporting and emergency sensor annunciation and controls such as emergency generator, fans, water flow and similar items.
- Console (panels, turrets, etc.) layout and design to house the security systems including the graphic and/or LCD-based annunciation and control systems, CCTV monitors and controls.
- Closed circuit television (CCTV) system to include cameras, housing, mounts, lenses, switchers, amplifiers, multiplexers, monitors, controls, video tape recorders, conduit, cable and similar related equipment.
- Security intercommunications systems.
- Duress alarm system.

Since this type of design is particular to each and every facility, discussions with the facility operators will need to occur to establish their particular scope. The Control Center should also be the only location where exterior doors are opened and closed while under camera supervision. Security doors will be of the correctional type with sliders used with the cells and as many other locations as practical. Swing doors will be provided in other locations.

### **HVAC:**

- Housing Units will be provided HVAC by gas fired heating, DX cooling roof top air handling units. Zoning will be provided, as appropriate, by electric heating coils. Smoke evacuation system will be provided for the housing units.
- Kitchen will have single zone gas fired heating, DX cooling roof top air handling unit. Kitchen will also be served by gas fired rooftop air handling unit for makeup to compensate for kitchen exhaust hood(s).
- Laundry will have single zone gas fired heating, DX cooling roof top air handling unit.
- Booking, Intake, Administration, Medical, and Visitation will be provided HVAC by gas fired heating, DX cooling roof top air handling units. Zoning will be provided by VAV air terminal units with electric heating coils.

## Plumbing:

- Plumbing fixtures, kitchen and laundry equipment will be connected to domestic hot and cold water systems and sanitary system.
- Domestic hot water will be provided by gas fired water heaters. Kitchen and Laundry will have booster water heaters to increase water temperature where required.

## Fire Protection:

- Buildings will be fully sprinkled with a wet-pipe sprinkler system. Loading Dock and Drive-Under of Areas of the building will be protected with a dry-pipe sprinkler system. Main Electrical Rooms and Security Rooms will be protected with a double interlock preaction sprinkler system.

## Electrical:

- A new electrical 277/480 volt service will be provided. The utility company will provide a new pad mounted transformer and primary service conductors.
- Provide the utility transformer pad, metering cabinet, trenching and underground primary service conduits from the utility terminal pole to the new transformer pad.
- Provide all secondary service work including underground raceways and conductors, a wall mounted metering cabinet and new main switchgear.
- Provide step down transformers as required to maintain service to the existing buildings.
- Provide a 277/480 volt distribution system to serve the proposed expansion including all new mechanical system and special equipment with local step down transformers for 120/208 volt loads.
- Provide power to all new kitchen and laundry equipment.
- Provide an uninterruptable power supply (UPS) with battery backup to serve all security related systems including the individual cell doors, camera systems, central data systems and similar systems.
- Provide 277/480 volt, diesel engine driven emergency generator, with a minimum 24 hour on site fuel supply, automatic transfer switches and distribution system to serve the following:
  - All code required life safety systems including exit/egress lighting, smoke evacuation systems and elevators.
  - All cell lighting fixtures, these fixtures will be provided with integral batteries to keep them lit until the emergency generator comes online.
  - Designated exit/egress fixtures will be provided with integral batteries to keep them lit until the emergency generator comes online.
  - Optional equipment including the heating and air conditioning equipment, minimal kitchen cooking equipment and all kitchen refrigeration equipment.
  - The UPS (Note: The UPS battery backup is sized to provide uninterrupted power from the time the utility source fails until the emergency generator is up to speed and can accept the connected loads. By code all life safety loads must be picked up within 10 seconds).

- The optional loads described above can be brought online after an adjustable time delay.
- All site lighting – note the site lighting will be provided with an automated control system – ON dusk to dawn and OFF during daylight hours.
- Selected loads and equipment within the existing buildings.
  
- Lighting fixtures will utilize LED light sources wherever possible. Security type light fixtures will be provided in all inmate areas. Commercial grade light fixtures will be provided in administrative and similar areas. A central automated lighting control system will be provided with local over rides as appropriate.
- Each individual housing unit bed will be provided general use and night lighting, a duplex receptacle and cable service. Power to all line voltage devices – lights and receptacles – will be provided with remote ON – OFF control from a central security location.

## **Fire Alarm System:**

- Fire Alarm System: Complete and operational for intended use as required by NFPA 72 and all local and applicable codes. System shall be an addressable fire alarm system with connections to Campus System. System shall be point addressable with capabilities and features as specified herein.
  
- Annunciation devices shall be manual pull stations, sprinkler system flow and tamper switches, smoke detectors, and duct smoke detectors. All devices shall be located according to the Life Safety Code (NFPA 101) and the Americans with Disabilities Act (ADA).
  
- Notification devices shall be speakers, strobes, and speaker/strobe combination devices. All devices shall be located according to the Life Safety Code (NFPA 101) and the Americans with Disabilities Act (ADA).

## **Telecom:**

- Extend voice services from the existing demarcation facility and data connectivity from the facility main computer center.
- Provide optical fiber and high pair count backbone cabling to a new Telecommunication room.
- Provide a Category 6 UTP structured cabling system to support data & voice services to information outlets.
- Terminate all new cabling infrastructures on rack mounted hardware.

## **Special Requirements**

### **Foundations:**

Soil conditions are not adequate and deep foundation systems are recommended for this site. While not preventing construction, this will increase the cost of the building foundation system above standard spread footings.

## **Agency Reviews/Approvals:**

We will need to submit design documents to the Local Historical Review Board. At this time, our assumption is the Review Board may request we preserve the façade of the existing Uniontown jail. We do not perceive this as insurmountable and will coordinate our design development to coincide with their requirements. We understand there is the possibility of additional funding for historical preservation aspects of this project and will pursue those venues as the project progresses. We will also need to address any concerns they may have where new construction meets existing prison walls.

## **Existing prison:**

Phase I design does not contemplate any renovation work within the existing prison with the following caveats:

- Install new electronic security systems into existing Control Room. We anticipate this to be the routing of data cables into the existing Control Room from the new construction.
- The possibility of renovating one existing stair tower to meet building code, should a second exit be required at Food Service and Laundry and/or to enhance the movement of personnel, inmate and supplies between new and existing facilities.
- Install new emergency generator with provisions for a future generator and a new fire pump in the existing Boiler Building sharing space with the existing boilers and facility switchgear.