

**Feasibility Study  
for a  
Parole Violators Center  
Utah Department of Corrections**

**September 15, 2011**



## Introduction

The Utah State Department of Corrections has determined the need for a 288 bed Parole Violator Center as a part of its strategy to manage population demographics. A Parole Violator Center is a transitional, short term housing facility serving parolees who have violated the conditions of their parole and require closer supervision without returning them to the prison or parolees who are having difficulty transitioning to the community. In addition to the housing and associated services, the facility would also include offices for a regional component of Adult Probation and Parole.

The feasibility study was conducted in two phases. Phase one defined the functional requirements, determined the building code implications and developed a conceptual budget for this facility. Prior to the undertaking of this study, the DOC had explored various existing buildings with the intent of remodeling them to this purpose. The completion of phase one provided a baseline tool to evaluate the suitability of an existing structure. Phase two was the application of the tool to a building that the State purchased for this purpose in the summer of 2011. This involved developing a test fit and systems narratives, and the completion of a second cost estimate.

## General Building Description

The character of the Parole Violator use is dramatically different from a typical detention facility. The occupants of this facility are not locked down, although their activities are monitored. Occupants are expected to have full-time employment in the community. In general terms, the facility provides a very basic level of service: a place to sleep, two meals a day, and group counseling. It is intended that the facility be simple, functional and spare to encourage the parolee to reintegrate into the community and to discourage long-term occupancy.

## Conclusions

### Phase One

The conceptual space allocation indicates a gross area of approximately 50,000 square feet is needed to meet the Department's requirements. The occupancy characteristics of the facility will allow a building constructed of most of the materials allowed by the building code, including wood if properly protected, although abuse potential and longevity may speak to a more durable structural system. If the facility were constructed new, the cost of the facility, based on 1st quarter 2011 construction costs is about \$10.4 million.

### Phase Two

The test fit illustrates that the purchased building can be adapted to meet the Department's requirements. A new floor will need to be constructed within the taller of the two warehouse buildings to create sufficient space for all of the dormitory areas. The remaining functional requirements can be met utilizing the existing space of the building. The cost to remodel the facility to its proposed use is \$6.3 million.



**Phase One**

Space Allocation



| <i>Parole Violator Center</i>          | <i># each</i> | <i>nsf each</i> | <i>total nsf</i> | <i>internal<br/>gross<br/>factor</i> | <i>gsf</i>    | <i>Comments</i>   |
|--|---------------|-----------------|------------------|--------------------------------------|---------------|---|
| <b>Housing</b>                         |               |                 |                  |                                      |               |   |
| <b>Treatment/Non-Treatment Housing</b> |               |                 |                  |                                      |               |   |
| 8 bed units                            | 36            |                 |                  |                                      |               | grouped in 4's = 9 groups @ 32 beds,<br>total of 288 beds                                 |
| Bunk Area                              | 288           | 30              | 8,640            | 80%                                  | 10,800        |   |
| Toilet Area                            | 36            | 145             | 5,220            | 80%                                  | 6,525         | 2 shower heads; 2 water closet; 1 urinal;<br>3 lavs per unit. Gang showers<br>anticipated |
| Common Room                            | 9             | 784             | 7,056            | 85%                                  | 8,301         |   |
| <b>Assessment</b>                      |               |                 |                  |                                      |               |   |
| Single Bed Cells                       | 6             | 90              | 540              | 65%                                  | 831           |   |
| <b>Totals for Housing</b>              |               |                 | <b>21,456</b>    |                                      | <b>26,457</b> |   |



| <i>Parole Violator Center</i> | <i># each</i> | <i>nsf each</i> | <i>total nsf</i> | <i>internal gross factor</i> | <i>gsf</i> | <i>Comments</i>   |
|-------------------------------|---------------|-----------------|------------------|------------------------------|------------|---|
| <b>Resident Services</b>      |               |                 |                  |                              |            |   |
| <b>Therapy</b>                |               |                 |                  |                              |            |   |
| Treatment Rooms               | 3             | 600             | 1,800            | 90%                          | 2,000      | 3 rooms combine together with moveable walls; 2 rooms sub-dividable into 2 equal rooms. |
| Interview Room                | 3             | 140             | 420              | 75%                          | 560        |   |
| Restrooms                     | 2             | 120             | 240              | 75%                          | 320        | single use  |
| <b>Food Service</b>           |               |                 |                  |                              |            |   |
| Kitchen                       | 1             | 1,000           | 1,000            | 90%                          | 1,111      |   |
| Tray Make-Up                  | 1             | 150             | 150              | 90%                          | 167        |   |
| Tray Wash                     | 1             | 225             | 225              | 90%                          | 250        |   |
| Pantry                        | 1             | 250             | 250              | 90%                          | 278        |   |
| Walk-in Freezer               | 1             | 250             | 250              | 90%                          | 278        |   |
| Walk-in Cooler                | 1             | 500             | 500              | 90%                          | 556        |   |
| Kitchen Office                | 1             | 80              | 80               | 90%                          | 89         |   |
| Restroom                      | 1             | 80              | 80               | 90%                          | 89         |   |
| Dining                        | 1             | -               |                  |                              |            | Use combined treatment rooms  |
| <b>Security</b>               |               |                 |                  |                              |            |   |
| Control Office                | 1             | 150             | 150              | 90%                          | 167        |   |
| <b>Violation Intake</b>       |               |                 |                  |                              |            |   |
| Secure Waiting                | 1             | 150             | 150              | 80%                          | 188        | proximity to assessment cells; benches with cuff rails; monitored by control office     |
| Evidence Booking              | 1             | 80              | 80               | 80%                          | 100        |   |
| Evidence Storage              | 1             | 250             | 250              | 80%                          | 313        |   |
| Property Room                 | 1             | 150             | 150              | 80%                          | 188        |   |
| Badging Room                  | 1             | 100             | 100              | 80%                          | 125        |   |



| <i>Parole Violator Center</i>       | <i># each</i> | <i>nsf each</i> | <i>total nsf</i> | <i>internal<br/>gross<br/>factor</i> | <i>gsf</i>   | <i>Comments</i>                    |
|-------------------------------------|---------------|-----------------|------------------|--------------------------------------|--------------|------------------------------------|
| <b>Check-in/Check-out</b>           |               |                 |                  |                                      |              |                                    |
| Group Waiting                       | 1             | 250             | 250              | 90%                                  | 278          |                                    |
| Tool/Uniform Storage Lockers        | 1             | 100             | 100              | 90%                                  | 111          |                                    |
| Toilet Room                         | 1             | 80              | 80               | 90%                                  | 89           |                                    |
| Search Vestibule                    | 1             | 100             | 100              | 90%                                  | 111          |                                    |
| Check-out Workstation               | 4             | 25              | 100              | 90%                                  | 111          |                                    |
| <b>Other Services</b>               |               |                 |                  |                                      |              |                                    |
| Laundry                             | 1             | 880             | 880              | 90%                                  | 978          | 30 sets of coin-operated equipment |
| Resident Vending                    | 1             | 200             | 200              | 90%                                  | 222          | 10 vending machines                |
| Medication Holding                  | 1             | 100             | 100              | 90%                                  | 111          |                                    |
| Library                             | 1             | 250             | 250              | 90%                                  | 278          | storage only, no occupancy         |
| <b>Totals for Resident Services</b> |               |                 | <b>7,935</b>     |                                      | <b>9,065</b> |                                    |



| <i>Parole Violator Center</i>       | <i># each</i> | <i>nsf each</i> | <i>total nsf</i> | <i>internal<br/>gross<br/>factor</i> | <i>gsf</i>   | <i>Comments</i>             |
|-------------------------------------|---------------|-----------------|------------------|--------------------------------------|--------------|-----------------------------|
| <b>Facility Services</b>            |               |                 |                  |                                      |              |                             |
| <b>Administration</b>               |               |                 |                  |                                      |              |                             |
| Facility Administrator Office       | 1             | 150             | 150              | 85%                                  | 176          |                             |
| Support Staff                       | 3             | 80              | 240              | 75%                                  | 320          | Open Office Furniture       |
| Public Lobby                        | 1             | 350             | 350              | 80%                                  | 438          | Shared with Parole Officers |
| Public Toilet Rooms                 | 2             | 80              | 160              | 80%                                  | 200          |                             |
| Toilet Rooms                        |               |                 |                  |                                      |              | Shared with Parole Officers |
| Break Room                          |               |                 |                  |                                      |              | Shared with Parole Officers |
| <b>Receiving</b>                    |               |                 |                  |                                      |              |                             |
| Loading Dock                        | 1             | 288             | 288              | 75%                                  | 384          |                             |
| Laundry Cart Storage                | 10            | 6               | 60               | 75%                                  | 80           | alcoves adjacent to dock    |
| <b>Facility Support</b>             |               |                 |                  |                                      |              |                             |
| Bedding Storage                     | 1             | 250             | 250              | 75%                                  | 333          |                             |
| General Storage                     | 1             | 750             | 750              | 75%                                  | 1,000        |                             |
| Cleaning Supplies                   | 1             | 150             | 150              | 75%                                  | 200          |                             |
| Communication Room                  | 1             | 150             | 150              | 75%                                  | 200          | on exterior wall            |
| <b>Totals for Facility Services</b> |               |                 | <b>2,548</b>     |                                      | <b>3,331</b> |                             |



| <i>Parole Violator Center</i> | <i># each</i> | <i>nsf each</i> | <i>total nsf</i> | <i>internal<br/>gross<br/>factor</i> | <i>gsf</i>   | <i>Comments</i>                   |
|-------------------------------|---------------|-----------------|------------------|--------------------------------------|--------------|-----------------------------------|
| <b>Parole</b>                 |               |                 |                  |                                      |              |                                   |
| <b>Officer Area</b>           |               |                 |                  |                                      |              |                                   |
| Bull Pen                      | 35            | 30              | 1,050            | 80%                                  | 1,313        |                                   |
| Supervisor Office             | 5             | 120             | 600              | 80%                                  | 750          |                                   |
| Interview Room                | 5             | 48              | 240              | 80%                                  | 300          |                                   |
| Agent Assists                 | 5             | 80              | 400              | 75%                                  | 533          | Open Office Furniture             |
| Kiosk Room                    | 1             | 105             | 105              | 80%                                  | 131          | 6 carrel style computer locations |
| <b>Support Services</b>       |               |                 |                  |                                      |              |                                   |
| Work/Copy Room                | 1             | 175             | 175              | 80%                                  | 219          |                                   |
| Computer Room                 | 1             | 330             | 330              | 80%                                  | 413          | verify                            |
| Break Room                    | 1             | 200             | 200              | 80%                                  | 250          |                                   |
| Toilet Rooms                  | 2             | 225             | 450              | 80%                                  | 563          |                                   |
| Staff entry                   | 1             | 120             | 120              | 80%                                  | 150          |                                   |
| Conference Room               | 1             | 310             | 310              | 80%                                  | 388          |                                   |
| <b>Totals for Parole</b>      |               |                 | <b>3,980</b>     |                                      | <b>5,008</b> |                                   |



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|---------------------------------|---------------|-----------------|------------------|--------------------------------------|------------|-----------------|
| <b>Functional Area Summary</b>  |               |                 |                  |                                      |            |                 |
| <i>Housing</i>                  |               |                 |                  |                                      | 26,457     |                 |
| <i>Resident Services</i>        |               |                 |                  |                                      | 9,065      |                 |
| <i>Facility Services</i>        |               |                 |                  |                                      | 3,331      |                 |
| <i>Parole</i>                   |               |                 |                  |                                      | 5,008      |                 |
| <b><i>Sub-Total</i></b>         |               |                 |                  |                                      | 43,861     |                 |
| <i>Facility Grossing Factor</i> |               |                 | 15.0%            |                                      | 6,579      |                 |
| <b><i>Grand Total</i></b>       |               |                 |                  |                                      | 50,441     |                 |



| <i>Parole Violator Center</i> | <i># each</i> | <i>nsf each</i> | <i>total nsf</i> | <i>internal gross factor</i> | <i>gsf</i> | <i>Comments</i>  |
|-------------------------------|---------------|-----------------|------------------|------------------------------|------------|--|
| <b>Exterior Improvements</b>  |               |                 |                  |                              |            |  |
| Outdoor Recreation Area       |               |                 |                  |                              |            | Fenced & screened from public view; acoustical protection; multiple basketball goals; smoking area |
| Bicycle Storage Yard          |               |                 |                  |                              |            | Racks for 50 bikes   |
| Staff Parking                 |               |                 |                  |                              |            | 60 stalls; gated, motorized  |
| Public Parking                |               |                 |                  |                              |            | 20 stalls  |
| Resident Pick-up              |               |                 |                  |                              |            | Pull-through, near check-out   |
| Radio Tower                   |               |                 |                  |                              |            | Fenced   |





## Functional Area Narrative

### Housing

#### Treatment/Non-Treatment Housing

The facility is to provide 288 beds for parolees who are experiencing difficulty integrating back into the community, have violated some condition of their parole and are being evaluated for return to the prison system, or have a requirement for specific treatment regimens. The study anticipates 8-bed units, in groups of four around a common room area. The beds are metal bunk style. The level of finish in both the bed units and the common room are utilitarian, durable and easily cleanable. The goal is to create a minimally comfortable facility that encourages the parolee to reintegrate into the community as quickly as possible. Each 8 bed unit is accompanied by a toilet area that includes 2 shower heads, 2 water closets, 1 urinal and 3 lavatories. Toilet facilities may be combined within the four unit group as the specific design allows. Housing groups will be contained, similar in effect to a detention facility, but the materials will be consistent with the non-detention character of the facility.

#### Assessment

A limited number of single bed cells are provided for temporary holding and assessment of individuals who have violated a condition of their parole. These cells are typical to Level 3 classification requirements.

### Resident Services

#### Therapy

Therapy is an important component of the programmatic offerings of this facility. Three large rooms are provided, two of which can be combined into a single, larger space through the use of a high STC moveable partition. In addition to the group Treatment Rooms, an equivalent number of interview rooms are provided for one-on-one counseling. The level of finish in these spaces is similar to a classroom setting. The combined space will be used for meal service and should have finishes consistent with a dining hall use.

#### Food Service

Full meal preparation and service will be provided on-site. Lunch service is anticipated to be minimal. A full-service, commercial kitchen is anticipated. Meals will be served on trays similar to those used in detention applications. Meals will be prepared and held in carts for delivery to the combined treatment space.

#### Security

The control office will monitor, largely through the use of CCTV the activities of the facility, including each housing group. This office should be built to the standard of a Level 5-6 control room.

#### Violation Intake

The violation intake area provides the spaces necessary for a parole officer to bring a parolee upon violation of a condition of parole. The space is similar in function and character to a booking facility. The level of finish is extremely durable and utilitarian. An evidence booking area will require evidence lockers, and the secure waiting, evidence booking, evidence storage and property rooms should be provided with detention grade doors, frames and hardware.

#### Check-In/Check-Out

Building occupants are expected to be gainfully employed while in residence. The check-in/check-out area provides a secure means for the building occupants to enter and exit the facility and a strategy to prevent contraband from entering the facility. A waiting room immediately adjacent to the exterior provides the transition space; a limited locker area provides storage of tools and uniforms not allowed within the housing area and a search room completes the functional process. Inmates will register their departure and return with staff that occupies as many as four workstations. The level of finish in these spaces is durable and utilitarian.

#### Other Services

In support of the facility occupants, a coin operated laundry, and a vending area are to be provided. The finish of these spaces should be consistent with similar facilities in commercial applications. A book storage room will serve as a library. Additionally, occupant medications will be held in, and dispensed from, a common room. The medication holding room will require a secure enclosure and a detention grade door, frame and hardware set.

#### Facility Services

##### Administration

The administrative office spaces are consistent with any other state facility in character and quality. Because this facility collocates with Parole Officers for the region, a number of support facilities are shared with the Parole Officer group.

##### Receiving

Dock high deliveries of food are expected regularly. Bedding will be laundered at the Draper Prison, utilizing the dock for transfer to and from the facility.

##### Parole

##### Officer Area/Support Services

As noted for Administration, above.

Parole Violator Center

Feasibility Study Code Analysis

Code Basis: IBC 2009

Premises: The Parole Violator Center is not, fundamentally, an "I" occupancy because liberty is not restricted.

The housing component of the facility is a congregate Living, R2 occupancy based on an average stay in excess of 30 days.

The structure will have an automatic fire-protection sprinkler system throughout.

Occupancies:

The following occupancies are anticipated:

| Occupancy Type | Anticipated Area |
|----------------|------------------|
| A3             | 3,000            |
| B              | 18,400           |
| I3             | 1,000            |
| R2             | 26,000           |
| S2             | 2,200            |

Based on a preliminary analysis, it appears that the best strategy is to utilize the Separated Mixed Occupancy requirements. In a sprinkled building, all of the anticipated occupancies would require only a 1-hour separation from each other.

Type of Construction:

The project can be executed in any type of construction allowed by the code, except Type VB. This assumes a 300% increase in allowable area for sprinklers. No assumption has been made for frontage increases.



Cost Estimate



## PAROLE REVOCATION CENTER

Conceptual Construction Cost Estimate  
February 10, 2011

## SUMMARY

| <u>SECTION</u>               | <u>UNIT</u> | <u>UOM</u> | <u>UNIT COST</u> | <u>COST</u>            |             |
|------------------------------|-------------|------------|------------------|------------------------|-------------|
| HOUSING                      | 26,457      | SF @       | 187.20           | \$4,953,000            |             |
| RESIDENT SERVICES            | 9,065       | SF @       | 239.40           | \$2,170,000            |             |
| FACILITY SERVICES            | 3,331       | SF @       | 165.70           | \$552,000              |             |
| PAROLE                       | 5,008       | SF @       | 179.10           | \$897,000              |             |
| <hr/>                        |             |            |                  |                        |             |
| SUB TOTAL                    | 43,861      | SF @       | 195.45           | \$8,572,000            |             |
| GROSSING FACTOR              | 15.0%       | 6,579      | SF @             | 195.45                 | \$1,286,000 |
| SUB TOTAL (Building GSF)     | 50,440      | GSF @      | 195.45           | \$9,858,000            |             |
| <br>                         |             |            |                  |                        |             |
| EXTERIOR IMPROVEMENTS (Site) | 50,000      | SF @       | 11.05            | \$552,000              |             |
| <hr/>                        |             |            |                  |                        |             |
| SUB TOTAL (Building & Site)  | 50,440      | GSF @      | 206.40           | \$10,410,000           |             |
| CONTRACTOR MARK-UP           |             |            |                  | Included in Unit Costs |             |
| TOTAL (Construction)         | 50,440      | GSF @      | 206.40           | \$10,410,000           |             |

**NOTES:** Costs are for Construction Only.  
Costs are Based on an Open Competitive Bid Basis.  
Costs are Current Costs and Do Not Include Inflation.

## PAROLE REVOCATION CENTER

Conceptual Construction Cost Estimate  
February 10, 2011

## DETAIL

| SECTION   | UNIT          | UOM         | UNIT COST     | COST               |
|---|---------------|-------------|---------------|--------------------|
| <b>HOUSING</b>                                  |               |             |               |                    |
| Treatment / Non Treatment Housing (8 Bed Units) | 25,626        | SF @        | 185.00        | \$4,741,000        |
| Assessment (Single Bed Cells)                   | 831           | SF @        | 255.00        | \$212,000          |
|   | <b>26,457</b> | <b>SF @</b> | <b>187.20</b> | <b>\$4,953,000</b> |
| <b>RESIDENT SERVICES</b>                        |               |             |               |                    |
| Therapy   | 2,880         | SF @        | 175.00        | \$504,000          |
| Food Service                                    | 2,817         | SF @        | 315.00        | \$887,000          |
| Security  | 167           | SF @        | 350.00        | \$58,000           |
| Violation Intake                                | 913           | SF @        | 200.00        | \$183,000          |
| Check-in / Check-out                            | 700           | SF @        | 235.00        | \$165,000          |
| Other Services                                  | 1,588         | SF @        | 235.00        | \$373,000          |
|   | <b>9,065</b>  | <b>SF @</b> | <b>239.40</b> | <b>\$2,170,000</b> |
| <b>FACILITY SERVICES</b>                        |               |             |               |                    |
| Administration                                  | 1,134         | SF @        | 200.00        | \$227,000          |
| Receiving                                       | 464           | SF @        | 140.00        | \$65,000           |
| Facility Support                                | 1,733         | SF @        | 150.00        | \$260,000          |
|   | <b>3,331</b>  | <b>SF @</b> | <b>165.70</b> | <b>\$552,000</b>   |



## PAROLE REVOCATION CENTER

Conceptual Construction Cost Estimate  
February 10, 2011

## DETAIL

| SECTION                         | UNIT          | UOM          | UNIT COST     | COST               |                    |
|---------------------------------|---------------|--------------|---------------|--------------------|--------------------|
| <b>PAROLE</b>                   |               |              |               |                    |                    |
| Officer Area                    | 3,026         | SF @         | 175.00        | \$530,000          |                    |
| Support Services                | 1,982         | SF @         | 185.00        | \$367,000          |                    |
|                                 | <b>5,008</b>  | <b>SF @</b>  | <b>179.10</b> | <b>\$897,000</b>   |                    |
| <b>SUB TOTAL</b>                | <b>43,861</b> | <b>SF @</b>  | <b>195.45</b> | <b>\$8,572,000</b> |                    |
| <b>GROSSING FACTOR</b>          | <b>15.0%</b>  | <b>6,579</b> | <b>SF @</b>   | <b>195.45</b>      | <b>\$1,286,000</b> |
| <b>SUB TOTAL (Building GSF)</b> | <b>50,440</b> | <b>GSF @</b> | <b>195.45</b> | <b>\$9,858,000</b> |                    |



## PAROLE REVOCATION CENTER

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## DETAIL

| SECTION                                | UNIT          | UOM          | UNIT COST     | COST                          |
|--|---------------|--------------|---------------|-------------------------------|
| <b>EXTERIOR IMPROVEMENTS (Site)</b>    |               |              |               |                               |
| Hardscape                              | 41,000        | SF @         | 7.00          | \$287,000                     |
| Softscape                              | 9,000         | SF @         | 5.00          | \$45,000                      |
| Chain Link Fencing                     | 800           | LF @         | 50.00         | \$40,000                      |
| Screening / Site Specialties           | 1             | LS @         | 75,000        | \$75,000                      |
| Utilities (Adjacent to Site)           | 1             | LS @         | 85,000        | \$85,000                      |
| Site Lighting                          | 1             | LS @         | 20,000        | \$20,000                      |
| Radio Tower                            |               |              |               | In Other Budget               |
|  | <b>50,000</b> | <b>SF @</b>  | <b>11.05</b>  | <b>\$552,000</b>              |
| <b>SUB TOTAL (Site)</b>                | <b>50,000</b> | <b>SF @</b>  | <b>11.05</b>  | <b>\$552,000</b>              |
| <b>SUB TOTAL (Building &amp; Site)</b> | <b>50,440</b> | <b>GSF @</b> | <b>206.40</b> | <b>\$10,410,000</b>           |
| <b>CONTRACTOR MARK-UP</b>              |               |              |               | <b>Included in Unit Costs</b> |
| <b>TOTAL (Construction)</b>            | <b>50,440</b> | <b>GSF @</b> | <b>206.40</b> | <b>\$10,410,000</b>           |

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Costs are Current Costs and Do Not Include Inflation.

**Phase Two**



## Structural Narrative

### CODES AND STANDARDS

The minimum codes and standards that apply to the design of new buildings include current editions of the following:

- International Building Code (Current Edition)
- American Institute of Steel Construction (AISC) with Commentary
- ACI 318 Building Code Requirements for Reinforced Concrete
- American Iron and Steel Institute (AISI) specifications for the Design of Cold Formed Steel Structural Members
- American Welding Society ANSI/AWS D1.1 Structural Welding codes
- Steel Joist Institute (SJI) for Joists and Girders
- Steel Deck Institute (SDI)

### SITE SPECIFIC REQUIREMENTS

The structural systems in the facility shall be designed to meet specific site driven requirements. These requirements are unique for this structure. Some of these requirements include:

- Soil bearing pressure characteristics based on a site specific Geotechnical Investigation for the referenced site.
- Wind velocity 90 MPH, Exposure C.
- 30 PSF roof snow load. Additional snowdrift loading requirements.
- Soil profile characteristics for ground acceleration - used for design.
- Seismic criteria, with soil profile as directed in the Soils Report.
- Construction staging areas and sequencing.
- Existing utilities.

### BASIC DESIGN

The existing building is currently divided into three areas. The most recent addition includes a two story office building and a large prefabricated metal building. The third section is a shorter prefabricated metal building which was the original building.

As part of this remodel, the warehouse buildings will be converted into dormitory spaces for the Utah Department of Corrections. A second floor will be added to the newer metal building space for sleeping quarters. The current two story office space will remain as the current function with minimal structural modifications required for this area. The intent is to structurally isolate the new floor from the existing structure. There are currently 3 areas of mezzanine framed out of wood framing or concrete over steel beams. It is anticipated that these mezzanines will need to be removed to accommodate the new configuration. For the purposes of this study, two second floor framing systems will be considered.

The first option is a steel wide flange beam system supporting steel deck and concrete supported by steel tube columns. The column spacing for the added 2nd floor will be based on the available layout for the various functions. The structural depth of the new second floor is anticipated to not exceed 30 inches. This will include a 24" deep beam and 6" of slab. Additionally, column spacing is dictated by occupancy and functional needs. This system affords increased flexibility architectural layout and in remodeling opportunities. It does require removal of the existing slab on grade for new spot footings beneath the columns.

The second option is a steel stud bearing wall system supporting light gage steel joists and concrete over metal deck. The wall spacing is assumed to not exceed 16'. The structural depth of this system includes a 10" joist and a 4" slab. In the warehouse area, the slab on grade is a combination of an 8" and 6" slab. At the 8" slab areas, additional footings may not be required to support the new walls based on the soil properties and slab condition. At the 6" slab areas, additional wall footings will be necessary.

The structural framing system and framing components may vary depending upon different architectural requirements, service load needs, desired performance, and availability and economics of material.

## GRAVITY LOADING CRITERIA

Ground Floor: The ground floor of the structure is anticipated to have a slab-on-grade type floor. This slab on grade will exist in the majority of the building footprint. Due to the required addition of underground utilities, it is anticipated that the slab on grade in the warehouse spaces will be completely replaced.

The slab-on-grade shall be designed to satisfy all characteristics of the geotechnical report for the given site. Care should be taken to minimize surface cracks as well as to prevent moisture from permeating from below the slab. In both the office spaces and classroom spaces the slab-on-grade will experience loads of an ordinary institutional facility, thereby permitting normal reinforcing. It is assumed that a 4 inch slab with #4 bars at 18" each way would satisfy these loading requirements.

For the steel beam floor framing option, a system consisting of spread footings will be utilized to support the new floor loads. Typical interior footings are assumed to be approximately 10' x 10' x 20". Perimeter footings are assumed to be 8' x 8' x 16".

For the steel stud bearing wall option, where required, additional continuous footings supporting the new walls are assumed to be approximately 18" wide by 12" deep.

In the current two story office area, the addition of masonry partitions will be required for security cells. These walls will be supported from thickened slab footings which are 18" wide x 12" deep. The existing slab on grade will be cut to allow placement of these footings and the required utilities. The slab on grade in this area will be replaced. It is not anticipated that the remainder of the two story office space will be affected structurally.

It is necessary to add an elevator in the new two story space to service this area. It is anticipated that this elevator will be of typical construction with a 4' deep pit and a 12" thick mat slab at the bottom of the pit. It is anticipated that the elevator will fit beneath the existing roof framing and not require an over-run through the existing roof.

Steel Floor Framing Option: The general floor framing system will consist of steel wide-flange composite beams supporting steel deck. Typical spacing of the wide flange beams is approximately 10 feet to maximize the deck's efficiency. Where possible the deck should span continuously over at least 2 spans.

A concrete fill will be placed on the deck. We anticipate using a 3"-20 gage deck with 3" normal weight concrete over the top for a total depth of 6". It is understood that this floor does not need have a fire rating. If a 1 hour floor becomes required, we would use 3 ½" of normal weight concrete over the deck. Steel tube columns will support the gravity loads.

Typical framing sizes for office and dormitory areas. (approximate sizes)

|                    |                                |
|--------------------|--------------------------------|
| Filler Beams       | W16 x 31 (28' span and 10' oc) |
| Filler Beams       | W18 x 40 (33' span and 10' oc) |
| Long Span Girders  | W24 x 62 (33' oc)              |
| Short Span Girders | W21 x 44 (28' oc)              |
| Perimeter Beams    | W18 x 40                       |
| Columns            | 1.5 psf/floor area             |

Beams have minimal camber. If camber is determined to be more efficient in some of the floor beams, the camber will be limited to 75% of the DL deflection. Nominal reinforcing will be provided directly over the grid line beams to assist in crack mitigation.

Steel Stud Wall Framing Option: The floor framing system will consist of light gage stud joists supporting 1 ½", 20 gage steel deck with 2 ½" normal weight concrete over the top for a total depth of 4". It is understood that this floor does not need a fire rating.

The joists will be 10" deep 16 gage at 16" oc spanning 16' maximum to bearing walls. Should the architectural layout require elimination of walls, steel beams and columns can be utilized. This will reduce the economic efficiency of this system.

The bearing walls will be either 6" 18 gage or 3 5/8"-16 gage based on architectural requirements.

Steel Roof Framing: The roof framing will remain with minimal impact due to the addition of mechanical units added to the roof. These units will be placed over main girder lines in such a manner to minimize the impact to the existing roof framing.

Exterior Wall Systems: The interior and exterior wall systems currently do not support gravity or lateral loads. Several large overhead doors will be eliminated and framed with steel stud framing. They will be designed to support those required loads specified in the code with reference to wind loads, etc. Exterior panels will be supported from the structure.

Seismic Loading Criteria: Seismic loads enter a building by way of ground accelerations. These ground accelerations are absorbed by the lateral force resisting system of a building. Several different types of structural systems can satisfy these lateral forces. The code dictates this number in order to ensure appropriate redundancy.

The existing warehouse is constructed using a prefabricated metal building system. This system would require extensive modification to support the forces from the new floor. For this reason the new floor should be structurally isolated from the existing building system. This will prevent the added mass of the new mezzanine floors from overloading the existing structure during a seismic event. Seismic loads will govern lateral loading criteria for a building addition of this type. Wind loads will not pose any loads on the new mezzanine floors.

Other triggers requiring seismic upgrades are occupancy categories. The original occupancy ASCE category for the existing structure is Category II. If the IBC occupancy is changed to "R-Occupancy" then no seismic upgrade will be required by Code. If the new occupancy is changed to Category III, such as moving to Group I-3; a seismic upgrade would be required. If it could be shown through analysis that the performance of the building would be equivalent to a new building then no upgrade would be necessary. It is unlikely that this existing building would satisfy this requirement. It is our understanding that this building can be designated as a "R-Occupancy" and therefore a seismic upgrade is not required.

## LATERAL SYSTEM OPTIONS

At this stage of design the final lateral system has not been determined. As the building elements continue to change in location and interior space planning is further developed, reasons for specific lateral systems may change as well. Since the lateral system of the additional floor will be isolated from the primary building system, sufficient expansion between the building system and new floor will be necessary.

### Steel Frame Structure Option

Two primary systems are identified herein.

Steel Moment Frames: It may not be possible to find acceptable locations for braced frames in the each direction to support the new floor. As an alternative, steel moment frames can be placed along at least two column grid lines. These lines should be as symmetrical as possible and preferably along the outside grids. The code permits fewer moment frame bays if the frames are located at the perimeter. Moment frames will provide ultimate flexibility for building layout and in this particular structure would be quite efficient. In all cases the moment frames must align vertically from the roof level to the foundation. An approximate tonnage for efficient moment frames could range between 5 and 7 pounds of steel per square foot floor area.

Steel Braced Frames: Braced frame locations will be in areas where they have minimal impact on the architectural characteristics of the building. They should be able to be located in each direction without

compromise. These lines may be located along core areas, mechanical room walls, demising walls or stair towers. An approximate tonnage for efficient braced frames could range between 3 and 5 pounds of steel per square foot area of building.

It is not practical or cost effective to combine moment frames and braced frames in the same direction.

#### Light Gage Wall Framing Option

The lateral system of this option will include utilizing shear walls by either light gage sheet steel or wood sheathing. The shear walls will be located in areas to minimize impact to the architectural layout and provide sufficient wall length to resist the seismic forces. The walls will require screwing the sheathing to the wall studs at a spacing based on load demand. The edges of the sheathing are required to be fully blocked. At each end of the shear wall, a bolted hold down will be provided to resist the uplift forces.

## Mechanical Narrative

### Executive Summary:

The site is made up of (3) three separate buildings constructed over a period of time, a two story office building and (2) open warehouse spaces. The purpose of the observation is to evaluate the existing mechanical and plumbing systems, and provide opinions on suitability of those systems for re-use in the new proposed Architectural plans. The mechanical systems are generally old and outdated, and should be replaced for system efficiency, reliability and functionality. New HVAC and plumbing equipment will be provided as listed below to replace existing worn equipment and to accommodate the new housing spaces proposed. Outdoor air rates will be upgraded to meet current code ASHRAE 62.1, 2007. Fire sprinklers will be upgraded to meet current code NFPA.

### Air Handling 2 Story Office Space

#### Existing equipment

- 14 constant volume rooftop units, gas fired, DX cooled serves all office space.
- 4 exhaust fans serve restrooms.
- Programmable thermostats control HVAC.

#### New equipment

- Replace the existing rooftop units with 14 units (gas fired, DX cooled, constant volume) estimated at 3.5 tons each.
- Modify the existing duct system to accommodate the remodeled spaces.
- Replace the existing exhaust fans to match existing size.
- Upgrade existing controls to Direct Digital Control (DDC) and make available on the Web for remote monitoring.

### Air Handling Middle Warehouse

#### Existing equipment

- 1 constant volume rooftop unit, gas fired, DX cooled serves the interior office space.
- 2 unit heaters, gas fired; serve the open warehouse area.
- 1 evaporative cooler serves the open warehouse area.
- 1 exhaust fan serves the open warehouse area.
- 1 transfer fan serves between the two warehouse areas in the wall.
- Programmable thermostats control HVAC.

#### New equipment

- Replace the existing rooftop unit with 4 units (gas fired, evaporative cooled, constant volume) estimated at 5 tons each.
- Remove the evaporative cooler.
- Remove the exhaust fan.
- Remove the transfer fan.
- Remove the unit heaters.
- New exhaust fans and makeup air unit to accommodate the new restrooms and laundry per the new floor plan.
- Controls will be upgraded to Direct Digital Control (DDC) and available on the Web for remote monitoring.

### Air Handling East Warehouse

#### Existing equipment

- 1 constant volume rooftop unit, gas fired, DX cooled serves the interior office/break/restroom spaces.
- 7 unit heaters, gas fired, serve the open warehouse area.
- 4 radiant heaters, gas fired; serve the dock area.
- 3 evaporative coolers serve open warehouse area.
- 1 exhaust fan serves the interior restrooms.
- Programmable thermostats control HVAC.

#### New equipment

- Replace the existing rooftop unit with 10 units (gas fired, evaporative cooled, constant volume) estimated at 6 tons each.
- Remove the evaporative coolers.
- Remove the exhaust fan.
- Remove the unit heaters & radiant heaters.
- New exhaust fans and makeup air unit to accommodate the new restrooms and laundry per the new floor plan.
- Controls will be upgraded to Direct Digital Control (DDC) and available on the Web for remote monitoring.

#### Fire Protection

- Existing fire protection is only provided in the East warehouse.
- Current code 2009 NFPA will require fire sprinkler system with standpipes to be added to the entire building. Estimate \$2.75/square foot.

#### Domestic Water Systems

- All domestic piping is copper and looks to be in good condition.
- Existing plumbing fixtures are in good condition and will be reused.
- Drinking fountain in warehouse will be removed.
- Hot water for 2 story office building domestic use is provided by one (1) gas fired 80% efficient water heater and is recommended to remain and a point of use water heater in the break room will be removed, sink to be added to the main water heater system.
- Domestic hot water East warehouse office/break/restroom space is provided by one (1) gas fired 80% efficient water heater and is recommended to remain.
- New hot water heater 90% efficient, estimated at 130 gallon capacity to serve new toilet rooms, showers, laundry, etc. with recirculation pump to maintain hot water at points of use.
- New plumbing fixtures to accommodate the new floor plan.

#### Controls Systems

- Controls are simple thermostats with no outside communication.
- Controls to be upgraded to Direct Digital Controls (DDC) system with web availability for remote monitoring and adjustments.

#### Natural Gas

- Natural gas is provided to the building on the West side and routed to all equipment at an elevated pressure.
- Gas piping is in good condition and will be reused as new equipment permits.

## Electrical Narrative

This document is a feasibility study that describes the electrical systems of an existing building that has been purchased and is to be remodeled for the Parole Violator Center. The building (45,000 square feet) consists of three areas: the front office (2 levels), the middle metal building (with mezzanine space), and the back metal building (with mezzanine space). All three buildings are connected together to form a single large building.

This study describes the existing building electrical systems and what must be modified and added to fit with the new building use. Generally, most of the electrical system in the office building will remain in place with minor changes. In the two metal buildings, all of the electrical systems unless noted otherwise will be demolished and redone to fit the new building use.

### 1. Electrical Service

The existing service to the building is a 120/208 volt, 3 phase, 4 wire, 1200 amp electrical service (9.6 watts per square foot). The current transformer cabinet (CT Cabinet) is located at the northwest corner of the building just adjacent to where Rocky Mountain Power's overhead power line is located. The CT Cabinet feeds the main distribution panel which is located in the office building. There isn't one single main breaker, but rather five (5) existing breakers that are each considered a main service disconnect. Because of this fact, only one additional branch feeder can be brought out of the main switchboard (six disconnect rule) if additional capacity were needed in some other part of the building. There are three electrical room/locations. The main electrical room for the building where the main distribution switchboard is located is in the office building and it shall remain as is. The second electrical equipment location is up on the mezzanine of the middle metal building, this location shall also remain in place. The last electrical equipment location is on the mezzanine in the back metal building, this location shall also remain in place. The office building has two normal power panels (400 amps capacity), one emergency panel (100 amps capacity), and one UPS panel (100 amps capacity). The middle metal building has two normal power panels (400 amps capacity) and one emergency panel (100 amps capacity). The back metal building has two normal power panels (400 amps capacity) and one emergency panel (100 amps capacity). There are a couple of other electrical panels scattered around the building that were added later to provide additional space and capacity. Based on the proposed requirements for the new Parole Violator Center (office space, treatment/counseling, sleeping space, and storage), it would appear that the existing service should be able to handle the new building use. There is a possibility that an additional 600 amps would be required depending on mechanical equipment added and other owner furnished equipment. With the extra 600 amps, the power density for the building would be 15 watts per square foot. It is difficult to determine whether additional capacity would be required without doing the actual design. The intent would be to try to keep the service as it currently is. The branch circuiting for the two electrical equipment areas in the two metal buildings will be redone to fit the new build-out.

### 2. Emergency Power

There was an existing 100 KW emergency standby generator that was removed at some time in the past. There is an equipment pad located in the southwest corner of the front parking lot. There is an associated 400 amp, 3 pole automatic transfer switch located in the main electrical room. For the new Parole Revocation Center, a new 100 KW generator will be required. This generator shall have a fuel tank large enough to provide 72 hours of emergency back-up power. The size of the generator is limited due to the existing infrastructure that is currently in place.

### 3. UPS Power

There was an existing 36KVA UPS system that was also removed at some time in the past. The UPS was located in the telephone room located in the office building. The UPS fed an electrical panel within the space that fed all computer equipment. The new center will require UPS power the capacity of which would be similar to what was there before. A 36 KVA UPS shall be provided for the new center. Tie to the existing infrastructure.

#### 4. Interior Building Lighting

The interior office building lighting consists of T8 fluorescent 2X2, 2X4 lay-in fixtures, and compact fluorescent recessed down lights. These lights shall remain in place and unchanged. Metal halide and 8 foot T12 fluorescent strip lights are used in the two metal buildings. All lighting in the two metal buildings will be removed and replaced with new. New lighting used shall consist of linear fluorescent, vandal resistant fixture for corridors, restrooms, and sleeping areas. The choice of fixture will be dependent upon the ceiling type. Exit lighting will be added as needed and will consist of white LED, cast aluminum housings with green letters. Egress lighting will be powered using the emergency standby generator as it is currently installed.

The existing lighting control found in the building is local toggle switches. For the new build-out, lighting control needs to be added to meet the current energy code. Lighting control shall consist of occupancy sensors for office spaces, restrooms, storage rooms, and small enclosed areas. A lighting control panel shall be installed in all three equipment areas to allow for large open areas and corridors to be controlled.

#### 5. Exterior Building Lighting

The exterior building lighting consists of metal halide wall packs. All exterior lighting shall remain in place for the most part. Emergency egress light fixtures will be added at all of the entrance/exit egress paths. The exterior lighting will be connected to the lighting control system and the old time clock and contactors will be demolished.

#### 6. General Power/Mechanical Power

The general power for the office will remain in place. New general power will be provided for the two metal buildings. Outlets shall be provided in restrooms, corridors, sleeping areas, food service areas, etc. and as required for owner furnished equipment.

Any new mechanical equipment will require power to be run. Refer to the mechanical systems study for those requirements.

#### 7. Fire Alarm System

The existing fire alarm system is Silent Knight P/N 5207. Fire alarm horn/strobes are located at various locations throughout the office building. Since the current office building does not have a sprinkler system, smoke detection will be required in the office building. The fire alarm system for the two metal building will need to be redone based on the new occupancy. There is an existing sprinkler system for the two metal buildings. However, due to the type of space, smoke detectors will be required in all sleeping areas. Additionally, horn/strobes shall be placed throughout the space per code requirements. All new HVAC mechanical system equipment that has a capacity of over 2000 CFM will require duct smoke detectors on the return air side.

#### 8. Communication/Data Systems

Communication/data system will be provided by the owner. However, conduit and raceway systems would be required by the contractor. It is assumed that the office building would require only a few new

locations. New locations would be required in the two metal buildings. Location would be provided in treatment rooms, interview rooms, and other spaces as defined by the user.

9. CCTV System

A CCTV system will be provided by the owner. Raceway systems would be required by the contractor. Locations would be determined by the owner.

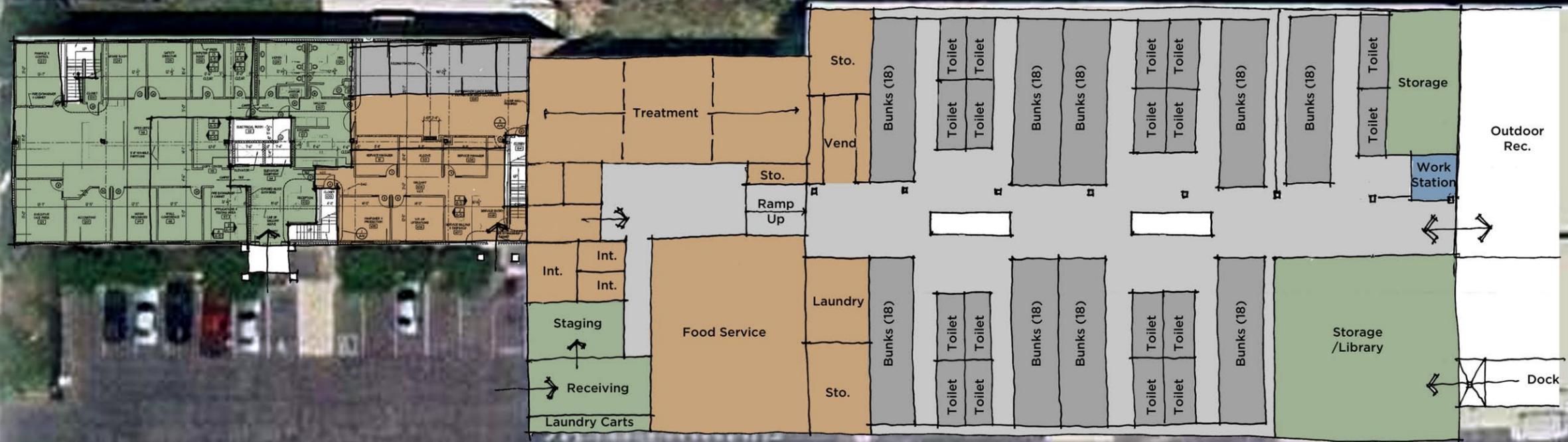
10. Card Access System

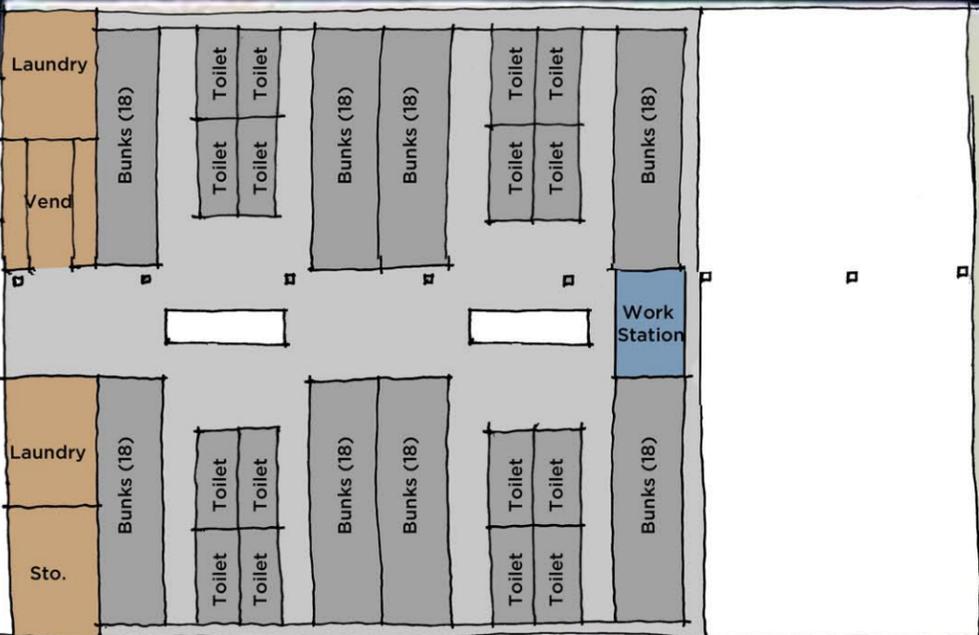
A card access system will be provided by the owner. Raceway systems would be required by the contractor. Locations would be determined by the owner.



Test Fit







Cost Estimate



**PAROLE VIOLATORS CENTER  
REMODEL TAYLOR-HUNT ELECTRIC BUILDING**

**S U M M A R Y**

Preliminary Construction Cost Estimate  
August 31, 2011

| <u>SECTION</u>                         |               |            | <u>COST/SF</u> | <u>COST</u>          |
|--|---------------|------------|----------------|----------------------|
| 02 SITEWORK                            |               |            | 3.08           | \$185,527            |
| 03 CONCRETE                            |               |            | 4.19           | \$251,981            |
| 04 MASONRY                             |               |            | 0.85           | \$50,980             |
| 05 METALS                              |               |            | 7.85           | \$472,337            |
| 06 WOOD AND PLASTICS                   |               |            | 0.61           | \$36,720             |
| 07 THERMAL AND MOISTURE PROTECTION     |               |            | 0.66           | \$39,590             |
| 08 DOORS AND WINDOWS                   |               |            | 2.56           | \$154,326            |
| 09 FINISHES                            |               |            | 12.74          | \$767,072            |
| 10 SPECIALTIES                         |               |            | 1.51           | \$90,821             |
| 11 EQUIPMENT                           |               |            | 2.18           | \$131,425            |
| 12 FURNISHINGS                         |               |            |                | FF&E                 |
| 14 CONVEYING SYSTEM                    |               |            | 0.76           | \$45,900             |
| 15 MECHANICAL                          |               |            | 27.06          | \$1,628,725          |
| 16 ELECTRICAL                          |               |            | 13.67          | \$822,811            |
| <b>SUB-TOTAL</b>                       | <b>60,200</b> | <b>GSF</b> | <b>77.71</b>   | <b>\$4,678,214</b>   |
| CONTRACTOR GENERAL CONDITIONS          | 7.0%          |            | 5.44           | \$327,475            |
| CONTRACTOR BOND                        | 1.5%          |            | 1.17           | \$70,173             |
| CONTRACTOR OVERHEAD AND PROFIT         | 5.0%          |            | 3.89           | \$233,911            |
| <b>SUB-TOTAL</b>                       | <b>60,200</b> | <b>GSF</b> | <b>88.20</b>   | <b>\$5,309,773</b>   |
| DESIGN CONTINGENCY, ALLOW              | 10.0%         |            | 8.82           | \$530,977            |
| <b>TOTAL (Construction)</b>            | <b>60,200</b> | <b>GSF</b> | <b>97.02</b>   | <b>\$5,840,750</b>   |
| <b>ADMINISTRATIVE BUILDING REMODEL</b> | <b>15,680</b> | <b>SF</b>  | <b>25.00</b>   | <b>\$392,000 ADD</b> |

**NOTES:** Costs are for Construction Only.  
Costs are Based on a Traditional Open Competitive Bid Basis.  
Costs are Based on a Construction Start of Winter 2011 / 2012.

**PAROLE VIOLATORS CENTER  
REMODEL TAYLOR-HUNT ELECTRIC BUILDING**

**Preliminary Construction Cost Estimate  
August 31, 2011**

| <u>SECTION</u>                           | <u>QUANTITY</u> | <u>UNIT</u> | <u>UNIT COST</u> | <u>COST</u>      |
|--|-----------------|-------------|------------------|------------------|
| <b>02 SITEWORK</b>                       |                 |             |                  |                  |
| Site Improvements:                       |                 |             |                  |                  |
| Remove Hardscape / Softscape             | 3,000           | SF          | 3.06             | \$9,180          |
| Site Paving                              | 3,000           | SF          | 7.14             | \$21,420         |
| Landscaping & Irrigation                 | 1,500           | SF          | 5.10             | \$7,650          |
| Chainlink Fencing / Gates                | 350             | LF          | 32.64            | \$11,424         |
| Recreation Yard Furnishings / Equipment  | 1               | LS          | 30,000           | \$30,000         |
| Patch & Repair, Miscellaneous            | 1               | LS          | 15,000           | \$15,000         |
| Demolition, Building Related:            |                 |             |                  |                  |
| Remove Slab on Grade                     | 14,350          | SF          | 1.53             | \$21,956         |
| Remove Mezzanine w/ Structure            | 2,378           | SF          | 4.08             | \$9,702          |
| Selective Building Demolition, Warehouse | 44,520          | SF          | 0.51             | \$22,705         |
| Hazardous Material Abatement             |                 |             |                  | Not Required     |
| Earthwork, Building Related:             |                 |             |                  |                  |
| Excavate & Backfill Earth                | 1,325           | CY          | 27.54            | \$36,491         |
|  |                 |             | <b>3.08</b>      | <b>\$185,527</b> |
| <b>03 CONCRETE</b>                       |                 |             |                  |                  |
| Concrete Footings, Reinf                 | 165             | CY          | 443.70           | \$73,211         |
| Concrete Foundation Walls, Reinf         | 1,770           | SF          | 22.44            | \$39,719         |
| Concrete Slab on Grade, Reinf            | 14,350          | SF          | 5.10             | \$73,185         |
| Concrete Slab on Deck, Reinf             | 14,350          | SF          | 4.59             | \$65,867         |
|  |                 |             | <b>4.19</b>      | <b>\$251,981</b> |



**PAROLE VIOLATORS CENTER  
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**Preliminary Construction Cost Estimate  
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| <u>SECTION</u>                                | <u>QUANTITY</u> | <u>UNIT</u> | <u>UNIT COST</u> | <u>COST</u>      |
|---|-----------------|-------------|------------------|------------------|
| <b>04 MASONRY</b>                             |                 |             |                  |                  |
| CMU Wall, Interior                            | 3,570           | SF          | 14.28            | \$50,980         |
|   |                 |             | <b>0.85</b>      | <b>\$50,980</b>  |
| <b>05 METALS</b>                              |                 |             |                  |                  |
| Steel Structure, Columns                      | 14,350          | SF          | 2.55             | \$36,593         |
| Steel Structure & Deck, Floor                 | 14,350          | SF          | 18.36            | \$263,466        |
| Steel Structure & Deck, Roof (Patch & Repair) | 600             | SF          | 14.28            | \$8,568          |
| Steel Structure, Braced Frames                | 30              | TON         | 4,437            | \$133,110        |
| Steel Stairs & Railings                       | 2               | FLT         | 15,300           | \$30,600         |
|   |                 |             | <b>7.85</b>      | <b>\$472,337</b> |
| <b>06 WOOD AND PLASTICS</b>                   |                 |             |                  |                  |
| Base & Upper Cabinets                         | 120             | LF          | 306.00           | \$36,720         |
|   |                 |             | <b>0.61</b>      | <b>\$36,720</b>  |
| <b>07 THERMAL AND MOISTURE PROTECTION</b>     |                 |             |                  |                  |
| Dampproofing / Rigid Insulation, Foundation   | 1,770           | SF          | 3.57             | \$6,319          |
| Roofing, Patch & Repair (Minimal)             | 1               | LS          | 10,000           | \$10,000         |
| Metal Siding, Exterior Wall                   | 1,755           | SF          | 13.26            | \$23,271         |
|   |                 |             | <b>0.66</b>      | <b>\$39,590</b>  |



**PAROLE VIOLATORS CENTER  
REMODEL TAYLOR-HUNT ELECTRIC BUILDING**

**Preliminary Construction Cost Estimate  
August 31, 2011**

| <u>SECTION</u>  | <u>QUANTITY</u> | <u>UNIT</u> | <u>UNIT COST</u> | <u>COST</u>      |
|---|-----------------|-------------|------------------|------------------|
| <b>08 DOORS AND WINDOWS</b>   |                 |             |                  |                  |
| Exterior Door w/ Frame, Per Leaf  | 2               | LEAF        | 2,193            | \$4,386          |
| Interior Door w/ Frame, Per Leaf  | 105             | LEAF        | 1,428            | \$149,940        |
|   |                 |             | <b>2.56</b>      | <b>\$154,326</b> |
| <b>09 FINISHES</b>  |                 |             |                  |                  |
| Metal Stud Wall, Insulation, Sheathing &<br>Gypsum Board, Exterior Infill | 1,755           | SF          | 8.67             | \$15,216         |
| Metal Stud Wall, Insul & Gypsum Board, Interior                           | 43,160          | SF          | 7.14             | \$308,162        |
| Floor, Wall & Ceiling Finishes (Housing Fit-Out)                          | 44,520          | SF          | 9.18             | \$408,694        |
| Patch & Repair, Miscellaneous   | 1               | LS          | 35,000           | \$35,000         |
|   |                 |             | <b>12.74</b>     | <b>\$767,072</b> |
| <b>10 SPECIALTIES</b>   |                 |             |                  |                  |
| Building Specialties / Accessories, Etc.                                  | 44,520          | SF          | 2.04             | \$90,821         |
|   |                 |             | <b>1.51</b>      | <b>\$90,821</b>  |



**PAROLE VIOLATORS CENTER  
REMODEL TAYLOR-HUNT ELECTRIC BUILDING**

**Preliminary Construction Cost Estimate  
August 31, 2011**

| <u>SECTION</u>                             | <u>QUANTITY</u> | <u>UNIT</u> | <u>UNIT COST</u> | <u>COST</u>      |
|--|-----------------|-------------|------------------|------------------|
| <b>11 EQUIPMENT</b>                        |                 |             |                  |                  |
| Metal Detention Cells w/ Accessories       | 5               | EA          | 23,970           | \$119,850        |
| Miscellaneous Equipment, Minimal           | 44,520          | SF          | 0.26             | \$11,575         |
| Food Service Equipment / Laundry Equipment |                 |             |                  | In Other Budget  |
|  |                 |             | <u>2.18</u>      | <u>\$131,425</u> |
| <br><b>12 FURNISHINGS</b>                  |                 |             |                  |                  |
| Bunk Beds                                  |                 |             |                  | FF&E             |
| <br><b>14 CONVEYING SYSTEM</b>             |                 |             |                  |                  |
| Elevator, Hydraulic - 2 Stop               | 1               | EA          | 45,900           | \$45,900         |
|  |                 |             | <u>0.76</u>      | <u>\$45,900</u>  |



**PAROLE VIOLATORS CENTER  
REMODEL TAYLOR-HUNT ELECTRIC BUILDING**

**Preliminary Construction Cost Estimate  
August 31, 2011**

| <u>SECTION</u>                              | <u>QUANTITY</u> | <u>UNIT</u> | <u>UNIT COST</u> | <u>COST</u>        |
|---|-----------------|-------------|------------------|--------------------|
| <b>15 MECHANICAL</b>                        |                 |             |                  |                    |
| Fire Sprinkler System:                      |                 |             |                  |                    |
| Fire Sprinkler System, New                  | 44,520          | SF          | 2.81             | \$125,101          |
| Plumbing:                                   |                 |             |                  |                    |
| Remove Plumbing System                      | 44,520          | SF          | 0.51             | \$22,705           |
| Plumbing Fixtures w/ Piping, Standard       | 272             | EA          | 1,683            | \$457,776          |
| Plumbing Fixtures w/ Piping, Security Combo | 5               | EA          | 3,825            | \$19,125           |
| Plumbing Equipment & Specialties            | 44,520          | SF          | 0.77             | \$34,280           |
| HVAC:                                       |                 |             |                  |                    |
| Remove HVAC Systems                         | 44,520          | SF          | 1.02             | \$45,410           |
| Ductwork & Devices                          | 48,975          | LBS         | 6.89             | \$337,438          |
| HVAC Roof Top Units                         | 29              | EA          | 7,650            | \$221,850          |
| HVAC Equipment, Misc                        | 60,200          | SF          | 1.17             | \$70,434           |
| HVAC Piping & Specialties                   | 44,520          | SF          | 1.79             | \$79,691           |
| HVAC Control System                         | 60,200          | SF          | 3.57             | \$214,914          |
|   |                 |             | <b>27.06</b>     | <b>\$1,628,725</b> |



**PAROLE VIOLATORS CENTER  
REMODEL TAYLOR-HUNT ELECTRIC BUILDING**

**Preliminary Construction Cost Estimate  
August 31, 2011**

| <u>SECTION</u>  | <u>QUANTITY</u> | <u>UNIT</u> | <u>UNIT COST</u> | <u>COST</u>        |
|---|-----------------|-------------|------------------|--------------------|
| <b>16 ELECTRICAL</b>  |                 |             |                  |                    |
| Remove Electrical Distribution System                                   | 44,520          | SF          | 1.02             | \$45,410           |
| Emergency Generator w/ ATS - 100 KW                                     | 1               | EA          | 76,500           | \$76,500           |
| UPS System - 36 KVA   | 1               | EA          | 51,000           | \$51,000           |
| Electrical Panels, Modify Existing                                      | 1               | LS          | 15,000           | \$15,000           |
| Light Fixtures  | 550             | EA          | 331.50           | \$182,325          |
| Power Outlets / Switches  | 750             | EA          | 142.80           | \$107,100          |
| Branch Circuitry & Wiring   | 44,520          | SF          | 3.57             | \$158,936          |
| Fire Alarm System, Modify Existing                                      | 44,520          | SF          | 1.28             | \$56,986           |
| Lighting Control System   | 44,520          | SF          | 0.87             | \$38,732           |
| Special Systems, Conduit Only<br>(Telecomm/Data, Security, Card Access) | 44,520          | SF          | 1.17             | \$52,088           |
| Electrical Specialties  | 44,520          | SF          | 0.87             | \$38,732           |
|   |                 |             | <b>13.67</b>     | <b>\$822,811</b>   |
| <b>SUB-TOTAL</b>  | <b>60,200</b>   | <b>GSF</b>  | <b>77.71</b>     | <b>\$4,678,214</b> |
| <b>CONTRACTOR GENERAL CONDITIONS</b>                                    | <b>7.0%</b>     |             | <b>5.44</b>      | <b>\$327,475</b>   |
| <b>CONTRACTOR BOND</b>  | <b>1.5%</b>     |             | <b>1.17</b>      | <b>\$70,173</b>    |
| <b>CONTRACTOR OVERHEAD AND PROFIT</b>                                   | <b>5.0%</b>     |             | <b>3.89</b>      | <b>\$233,911</b>   |
| <b>SUB-TOTAL</b>  | <b>60,200</b>   | <b>GSF</b>  | <b>88.20</b>     | <b>\$5,309,773</b> |
| <b>DESIGN CONTINGENCY, ALLOW</b>  | <b>10.0%</b>    |             | <b>8.82</b>      | <b>\$530,977</b>   |
| <b>TOTAL (Construction)</b>   | <b>60,200</b>   | <b>GSF</b>  | <b>97.02</b>     | <b>\$5,840,750</b> |

**NOTES:** Costs are for Construction Only.  
 Costs are Based on a Traditional Open Competitive Bid Basis.  
 Costs are Based on a Construction Start of Winter 2011 / 2012.