

7.

**ADJOURNMENT** 

#### MONROE COUNTY COUNCIL

Monroe County Courthouse, Room 306 100 W Kirkwood Avenue Bloomington, Indiana 47404 Office: 812-349-7312 CouncilOffice@co.monroe.in.us Jennifer Crossley, President Peter Iversen, President Pro Tempore Trent Deckard Liz Feitl Marty Hawk David G. Henry Kate Wiltz

#### COUNTY COUNCIL SPECIAL WORK SESSION AGENDA Friday, August 29th, 2025 at 11:30 AM Nat U. Hill Meeting Room and Teams Connection

Click here to join the meeting

Meeting ID: 216 612 152 979 7 Passcode: Zs3QE7rT

- The public's video feed will be turned off by the meeting administrator.
- The public will be able to listen and record.
- The public should raise their hand if they wish to speak during the public comment period.
- Discussion and presentation items are not eligible for public comment.
- Recess may be called when deemed appropriate and/or necessary.

\* \* \* \* \* \* \*

"Anyone who requires an auxiliary aid or service for effective communication, or a modification of policies or procedures to participate in a program, service, or activity of Monroe County, should contact the Monroe County Title VI Coordinator, E Sensenstein, (812) 349-7314, <a href="mailto:esensenstein@co.monroe.in.us">esensenstein@co.monroe.in.us</a>, as soon as possible, but no later than forty-eight (48) hours before the scheduled event. Individuals requiring special language services should, if possible, contact the Monroe County Title VI Coordinator at least seventy-two (72) hours prior to the date on which the services will be needed. The meeting is open to the public."

1.	CALL TO ORDER	
2.	ADOPTION OF AGENDA	
3.	RECAP FROM DLZ AND WGS/REVIEW OF JAIL SCHEMATIC	Pg. 2
4.	DISCUSSION OF JAIL PROJECT	Pg. 26
5.	PUBLIC COMMENT	
6.	COUNCIL COMMENT	





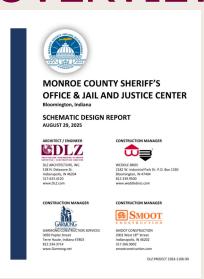
## Monroe County Sheriff's Office & Jail and Justice Center

Schematic Design Phase Presentation

# UNDERSTANDING THE DESIGN PROCESS:



## SCHEMATIC DESIGN PHASE PRESENTATION OVERVIEW



## SCHEMATIC DESIGN PHASE REPORT CONTENT

- » Executive Summary
- » Schematic Design Deliverable (\*\*representative content included)
  - » Site Layout Plan\*\*
  - » Floor Plans\*\*
  - » Enlarged Floor Plans/Interior Elevations
  - » Ceiling Plans
  - » Finish Plans
  - » Building Elevations\*\*
  - » Wall Sections
  - » Roof Plan
  - » Project Renderings\*\*
- » Discipline Narratives
- » Project Cost Estimate
- » Proposed Project Timeline

### EXECUTIVE SUMMARY

#### **BASE BID GROSS SQUARE FOOTAGE SUMMARY:**

FIRST FLOOR: 206,468 GSF MEZZANINE: 10,538 GSF 20,155 GSF SECOND FLOOR: TOTAL 237,161 GSF

#### **ALTERNATE -GROSS SQUARE FOOTAGE SUMMARY:**

1A MEZZANINE: 2A MEZZANINE: 1,552 GSF - ADD SO HIRELEASE AND DISCHARGE ALTERNATE 1.768 GSF - ADD

#### **RATED BED SUMMARY:**

#### **GENERAL POPULATION**

(2) 2 MAN CELLS MENTAL HEALTH HOUSING (24 BEDS / UNIT) 48 RATED BEDS (2) 2 MAN CELLS HOUSING UNITS (12 BEDS / UNIT) 24 RATED BEDS (2) 2 MAN CELLS HOUSING UNITS (16 BEDS / UNIT) 32 RATED BEDS (6) 4 MAN CELLS HOUSING UNITS (32 BEDS / UNIT) 192 RATED BEDS

**GENERAL POPULATION TOTAL** 

296 RATED BEDS

#### MEDICAL / MENTAL HEALTH

#### MALE

DORM MEDICAL OPEN DORM 12 RATED BEDS CELLS SPECIAL HOUSING 4 RATED BEDS CELLS 2 BED CELLS 12 RATED BEDS CELLS 1 BED CELLS **6 RATED BEDS** 

**FEMALE** 

DORM MEDICAL OPEN DORM 10 RATED BEDS CELLS SPECIAL HOUSING 4 RATED BEDS 2 BED CELLS CELLS 8 RATED BEDS CELLS 1 BED CELLS 4 RATED BEDS MEDICAL TOTAL **60 RATED BEDS** 

#### HOLDING

CELLS 2 BED CELLS 12 RATED BEDS 1 BED CELLS 8 RATED BEDS CELLS SPECIAL CUSTODY 3 BEDS NOT INCLUDED IN TOTAL HOLDING TOTAL 20 RATED BEDS

#### INMATE WORKERS

MALE, DOUBLE BUNK 18 RATED BEDS MALE SINGLE ADA BUNK 1 RATED BEDS FEMALE DOUBLE BUNK 8 RATED BEDS FEMALE SINGLE ADA BUNK 1 RATED BEDS **INMATE WORKERS TOTAL** 28 RATED BEDS

TOTAL - BASE BID 404 RATED BEDS

#### **GENERAL POPULATION - ALTERNATE BID**

(4) 4 MAN CELLS HOUSING UNITS (24 BEDS / UNIT)

96 RATED BEDS

GENERAL POPULATION TOTAL 96 RATED BEDS **TOTAL - BASE BID + ALTERNATE 500 RATED BEDS** 

#### BASE BID:

#### Sheriff's Office & Tail

» 404 Inmate Rated Beds

#### **Justice Center**

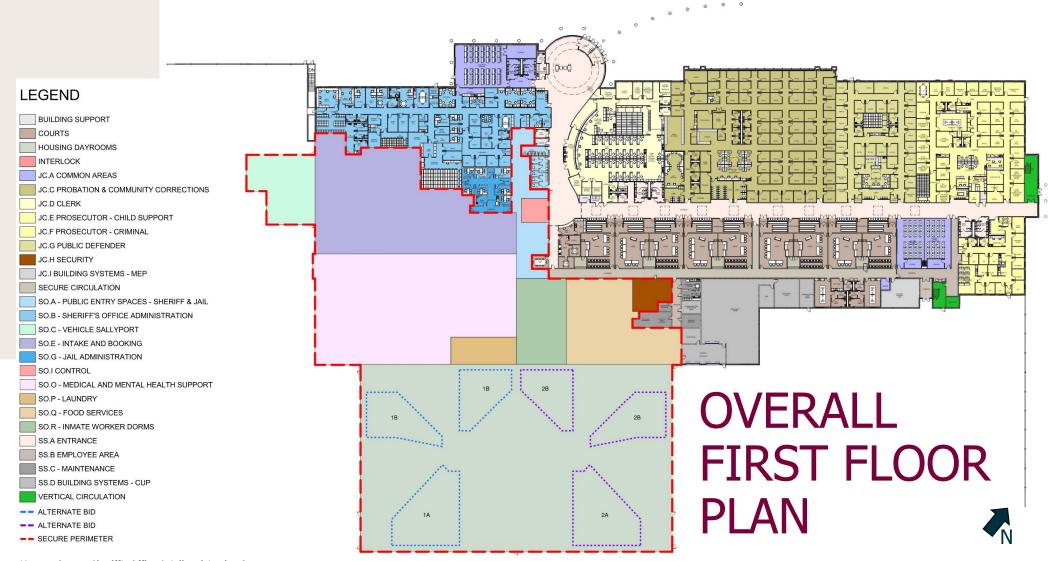
- Courts
- » Probation & Community Corrections
- Clerk
- » Prosecutor
  - Child Support
  - Criminal
- » Public Defender
- » Security

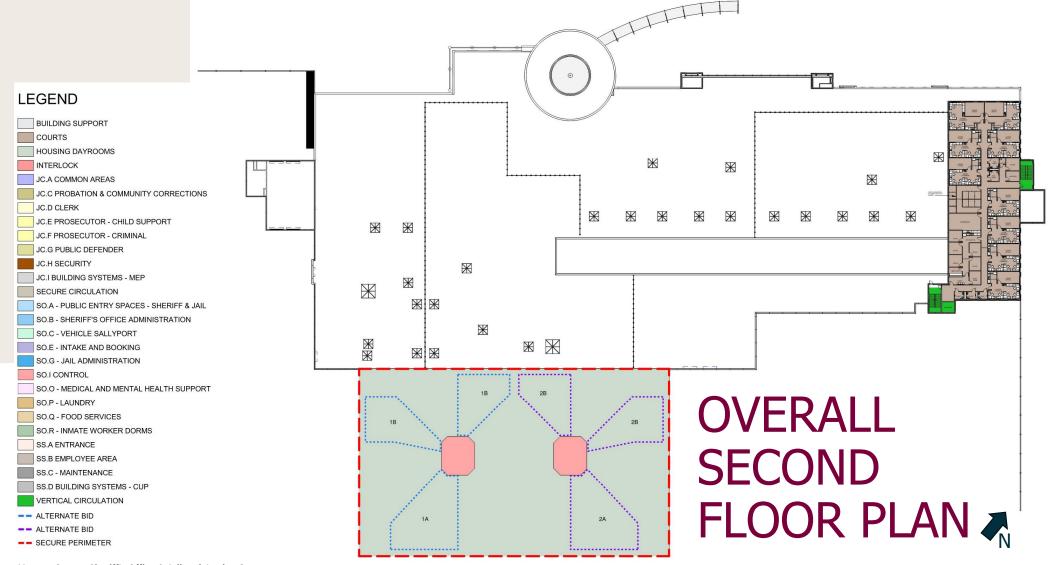
#### **ALTERNATE BID:**

- » 1A Dayroom Buildout adds 48 Inmate Rated Beds
- » 2A Dayroom Buildout adds 48 Inmate Rated Beds
- » Inmate Release & Discharge Resource Center

## SITE LAYOUT PLAN







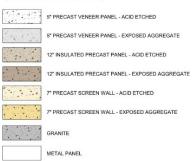


#### PLAN NORTH ELEVATION



PLAN SOUTH ELEVATION

#### **MATERIAL LEGEND**



## BUILDING ELEVATIONS



#### PLAN WEST ELEVATION



PLAN EAST ELEVATION

#### **MATERIAL LEGEND**

5° PRECAST VENEER PANEL - ACID ETCHED

5° PRECAST VENEER PANEL - EXPOSED AGGREGATE

12° INSULATED PRECAST PANEL - ACID ETCHED

12° INSULATED PRECAST PANEL - EXPOSED AGGREGATE

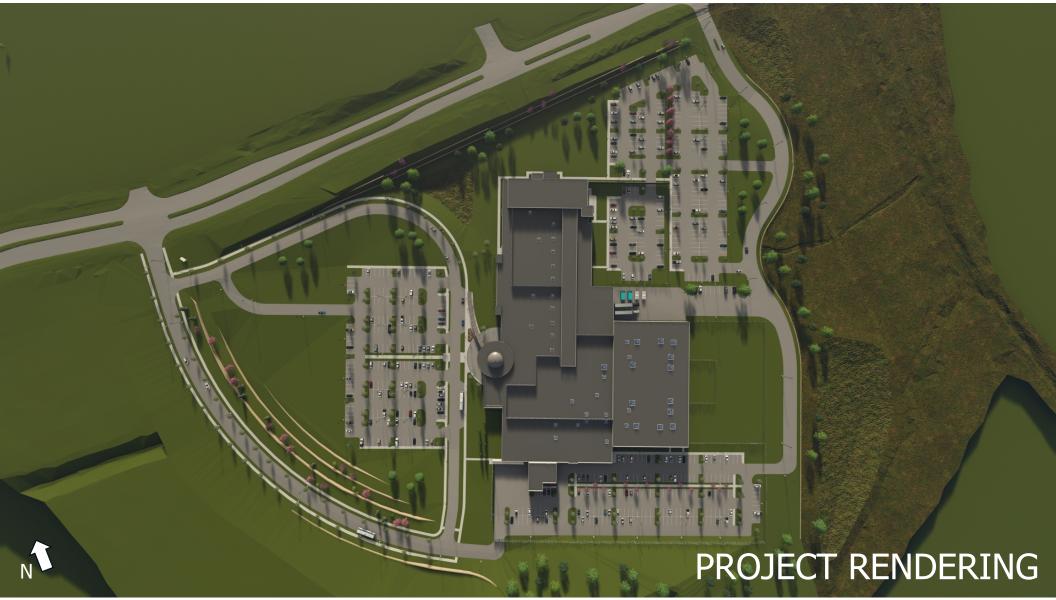
7° PRECAST SCREEN WALL - ACID ETCHED

7° PRECAST SCREEN WALL - EXPOSED AGGREGATE

GRANITE

METAL PANEL

## BUILDING ELEVATIONS









PROJECT RENDERING

















## DISCIPLINE **NARRATIVES**

- » Site Development
- » Architectural
- » Structural
- » Mechanical
- » Plumbing
- » Fire Protection
- » Electrical

MONROE COUNTY SHERIFF'S OFFICE & JAIL AND JUSTICE CENTER SCHEMATIC DESIGN REPORT

#### 2363-1106-90

#### ARCHITECTURAL NARRATIVE

The scope of work includes a new Sheriff's Office & Jail and Justice Center for Monroe County. The proposed Sheriff's Office & Jail and Justice Center is approximately 206,468 gross square feet (GSF) on the first floor, 10,538 GSF on the Jail mezzanine level, and 20,155 GSF on the second floor. The total approximate GSF is 237,161.

The new primary areas include:

- · Sheriff's Office
- Jail
- Courts
- · Probation and Community Corrections
- Clerk's Office
- · Prosecutor's Offices
- · Public Defender's Office

The following design narrative identifies potential building materials and construction methods anticipated to be used in the project - which are subject to refinement per discussions and confirmation with the Owner, User Groups and the Construction Manager during subsequent design phases.

#### EXTERIOR BUILDING DESIGN:

#### EXTERIOR WALL CONSTRUCTION

Non-Secure Areas: Exterior walls will be 12" load bearing insulated precast concrete sandwich panels with integrated color, aggregates, thin set masonry and reveals via form liners. More prominent facing walls will be metal stud and/or concrete masonry unit (CMU) with multiple veneer options including CMU, limestone, architectural precast and metal panel.

Secure Areas: Exterior walls will be 12" load bearing insulated precast concrete sandwich panels with integrated color, aggregates, and reveals via form liners.

#### DOOR, WINDOW, AND SKYLIGHT OPENINGS

Non-Secure Areas: Aluminum curtainwall and storefront systems will be utilized at entrances, window wall, and punched window locations. Exterior glazing will be 1-inch insulated, Low-E coated. Exterior primary entrance doors will be aluminum. Secondary exterior doors will be aluminum and/or standard commercial hollow-metal. Commercial grade skylights and/or clerestory windows are anticipated.

Secure Areas: Glass and frame systems will be detention grade. Inmate daylight requirements at Dayrooms will be achieved with commercial grade skylights and a woven rod security barrier. Skylights and/or clerestory windows may additionally be used at Intake/Booking, Inmate Workers, secure corridors, etc. as applicable.

#### **ROOF SYSTEM**

The building design will include various roof heights. Each roof will be a 1/4:12 low sloped single-ply TPO roofing system, including a minimum of 4" rigid insulation, with a thirty (30) year warranty. Internal roof drains and overflow drains will be utilized for each roof area. Equipment screens will be utilized to visually obscure rooftop mounted equipment.

## PROJECT COST ESTIMATE

#### SCHEMATIC DESIGN PRICE EXHIBIT

AS PREPARED BY WGS

#### PROJECT COST DEVELOPED BASED ON BASE BID SCHEMATIC DESIGN PACKAGE

- 237,161 SF
- 404 BEDS (SHELL SPACE FOR ADDITIONAL 96 BEDS VIA ADD ALTERNATES BELOW)
- FULL SHERIFF'S OFFICE AND JAIL
- FULL JUSTICE CENTER

TOTAL CONSTRUCTION COSTS	\$194,090,689
SOFT COSTS	\$30,409,429

TOTAL PROJECT COSTS	\$224,500,118

#### ADD ALTERNATES:

ALTERNATE 1 & 1a – Add 48 Beds	\$2,458,805
ALTERNATE 2 & 2a – Add 48 Beds	\$2,458,805
ALTERNATE 3 – Add Inmate Resource Center	\$896,656

NOTE: ALL COSTS ARE BASED ON THE BIDDING PERIOD IDENTIFIED ON THE AUGUST 29, 2025 TIMELINE.







# PROPOSED PROJECT TIMELINE









February 27, 2025

August 29, 2025

#### Assumptions:

- DLZ will commence the Conceptual Design and Master Planning work based upon the property included in the Purchase Agreement (November 12, 2024).
- Colocation Sheriff's Office & Jail and the Justice Center both designed, bid and constructed concurrently.
- 3. At least monthly meetings with staff will occur during the project.
- Completion of Predesign is pending successfully completing the Justice Facility Program rectifying the gross square footage with the allowable budget.
  - a. DLZ anticipates three (3) Justice Facility Programming meetings with each Office/Department, with at least two (2) days between the meetings, being required to complete the Justice Facility Program by February 14, 2025. The below Timeline is based on this assumption.
- State Legislation adopts/enacts concession(s) permitting required funding.

#### Timeline:

Date:	Activity:
April 17, 2024	Predesign Justice Facility Programming Commenced
July 22, 2024	Predesign Sheriff's Office & Jail Facility Programming Commenced
August 2024	Phase II Environmental completed at North Park site.
	• Completed
September 23, 2024	Tax Hearing notice sent to newspaper for October 15 <sup>th</sup> Public Hearing date.
	• Completed
October 15, 2024	Public Hearing on Tax Increase.
	• Completed
October 31, 2024	Deadline for Corrections Income Tax Increase.
	• Completed
November 12, 2024	Purchase Agreement completed. Assumptions 1 & 2 are triggered.
January 30, 2025	DLZ forwarded Predesign documents (consisting of Programming, Conceptual Design and Master Planning) to WGS for cost estimating. See Assumption 4 above. **
	Completed

	cost estimate is presented to the County by DLZ/WGS. County Commissioners approve Predesign and authorizes DLZ/WGS to commence the Schematic Design phase.
	Completed
July 18 – Aug 1, 2025	DLZ forwards Schematic Design documents to WGS for cost estimating. **
	• Completed
August 29, 2025	Schematic Design and cost estimate is presented to the County by DLZ/WGS.
August/Sept 2025	Survey completed at North Park site. DLZ to forward to the County.
September 4, 2025	County Commissioners approve Schematic Design and authorize DLZ/WGS to commence the Design Development phase.
September 16, 2025	Closing on North Park site. Property purchased.
November 18, 2025	DLZ forwards Design Development documents to WGS for cost estimating. **
December 23, 2025	Design Development and cost estimate is presented to the County by DLZ/WGS. County Commissioners approve Design Development and authorize DLZ/WGS to commence the Construction Document phase.
January 2026	Begin Bonding process.
May 19, 2026	DLZ forwards Construction Documents to WGS for cost estimating. **
June 23, 2026	Construction Documents and cost estimate is presented to the County by DLZ/WGS. County Commissioners approve Construction Documents and authorize DLZ/WGS to commence the Bidding phase.
August 2026	Receive Bids
August 2026	Close on Bonds. After closing, issue Notice to Proceed to contractors.
October 2026	Begin Construction
June 2029	Construction Substantially Complete
2029	Training, transition and occupancy

Predesign (consisting of Programming, Conceptual Design and Master Planning) and







<sup>\*\*</sup> DLZ continues to work on the subsequent design phase during the four (4) week duration WGS is performing the cost estimate. Any required design revisions will be addressed in the subsequent design phase.



## MONROE COUNTY SHERIFF'S OFFICE & JAIL AND JUSTICE CENTER

**Bloomington, Indiana** 

## SCHEMATIC DESIGN REPORT AUGUST 29, 2025

#### **ARCHITECT / ENGINEER**



DLZ ARCHITECTURE, INC. 138 N. Delaware St. Indianapolis, IN 46204 317.633.4120 www.DLZ.com

#### **CONSTRUCTION MANAGER**



WEDDLE BROS 2182 W. Industrial Park Dr. P.O. Box 1330 Bloomington, IN 47404 812.339.9500 www.weddlebros.com

#### **CONSTRUCTION MANAGER**



GARMONG CONSTRUCTION SERVICES
3050 Poplar Street
Terre Haute, Indiana 47803
812.234.3714
www.Garmong.net

#### **CONSTRUCTION MANAGER**



SMOOT CONSTRUCTION 2001 West 18<sup>th</sup> Street Indianapolis, IN 46202 317.266.9002 smootconstruction.com

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August 29, 2025

Monroe County Board of Commissioners Courthouse - 100 W. Kirkwood Avenue Bloomington, IN 47404

RE: Monroe County Sheriffs' Office & Jail and Justice Center

Schematic Design Phase Executive Summary

**Dear Commissioners** 

**DLZ Indiana, LLC (DLZ)** is pleased to submit the Monroe County Sheriff's Office & Jail and Justice Center Schematic Design Phase report for your review and approval. Your continual support, participation, and efforts in making this Project a success is very much appreciated. DLZ also very much appreciates the input and efforts of all those that have participated in the Schematic Design Phase process.

The Schematic Design Phase consists of further developing the previous Predesign Phase and includes transposing the written Building Program into a more developed graphic Floor Plan layout as well as preliminary Building Elevations, Wall Sections, Ceiling Plans, and Finish Plans. Preliminary building renderings have also been developed to better understand the proposed building massing and materials. Updated Site Layout and preliminary Site Grading, Discipline Narratives, Project Cost Estimate and Project Timeline are also included in the Schematic Design Phase report. There have been many meetings with the Sheriff's Office Transition Team and representatives from the Courts, Clerk, Probation & Community Corrections, Prosecutor's Office, Public Defender's Office, Facility Maintenance and IT Support in the development of this Schematic Design Phase report.

The project site has been determined to be an approximate 56-acre site at North Park at the southeast corner of State Road 46 and Hunter Valley Road in Monroe County/Bloomington, Indiana. The Sheriff's Office & Jail includes four hundred four (404) rated inmate beds and shelling building space (Base Bid) for an additional ninety-six (96) rated inmate beds (Alternate Bid). The Base Bid and Alternate Bid totals five hundred (500) inmate rated beds. The Sheriff's Office & Jail and a Justice Center also includes Sheriff's Office Administration space, Courts, Clerk, Probation & Community Corrections, Prosecutor's Office and Public Defender's Office. The total current Base Bid is approximately 237,161 GSF. The Inmate Release & Discharge Resource Center at approximately 1,768 GSF and is currently identified as an Alternate Bid.

With your approval of this Schematic Design Phase, DLZ will commence the formal Design Development Phase. Each design phase builds on each previous design phase and includes further refinement and detailed information. The first design phase is Schematic Design. The second design phase is Design Development. The final design phase is Construction Documents.

DLZ and the Construction Manager - Weddle, Garmong, Smoot (WGS) will make a formal presentation at the completion of each of the aforementioned formal design phases for your approval – before commencing the

Monroe County Sheriff's Office & Jail and Justice Center Schematic Design Phase Executive Summary Page 2 of 2

next design phase. At the completion of the last formal Construction Document phase, and with your approval, WGS will commence the Bidding/Procurement Phase. DLZ will assist WGS in the Bidding/Procurement Phase.

DLZ sincerely appreciates the opportunity to work with Monroe County on this project.

Sincerely,

Scott A. Carnegie, AAIA

Project Manager

#### **SITE/CIVIL NARRATIVE**

#### SITE IMPROVEMENTS

Site Circulation and Parking:

A new public roadway will be provided from W. Hunter Valley Road to the south end of the Justice Campus and future access to Quarry Park. Two public access points from the new road will be provided to the Sheriff's Office & Jail and Justice Center site serving parking, drop off, and public transit service. One secure access point from the new road and one from W. Hunter Valley Road will be provided to serve secure parking for Sheriff's office and Jail Staff, Sallyport, Justice Staff, Deliveries and Utilities.

Number of proposed parking spaces and delineation as follows:

Public – 180 spaces

Sheriff's Office & Jail Staff – 200 spaces (190 S.O. & Jail and 10 Maintenance)

• Future Parking 30% – 60 spaces

Justice Staff – 260 spaces (60 Secured and 200 unsecured)

Impound Lot – 12 Spaces (within Sheriff's Office & Jail Staff Secure Parking Area)

Covered/photo-voltaic canopies at Staff Parking:

Space for future solar panels canopies will be accommodated over a select number of parking spaces. Number of spaces to receive canopies to be determined.

On-site Parking / Directional Signage:

Post and panel directional signage shall be located as required to adequately serve the project site.

#### Site Security:

Parking for the Sheriff's Office & Jail Staff, Justice Staff, Service and Utility areas shall be secured using pre-cast screen wall and/or anti-climb metal fencing. A combination of high-speed mechanical slide gates and/or gate arms at all access points shall be monitored and controlled by Master Control and/or via card access.

Main Public Entry Plaza and Drop Off:

The main public entry plaza and drop off is located on the plan west side of the new Sheriff's Office & Jail and Justice Center. The Entry Plaza will be developed as an inviting civic outdoor space offering outdoor seating options, flagpoles, landscape plantings and decorative pavements including unit pavers to enhance the function and aesthetics of the space.

#### Public Safety:

Protective safety features such as bollards, walls, curbs etc. may be strategically incorporated at public spaces and entrances. Safety features shall provide a 50' standoff distance between vehicular use areas and the building on any public façade. Buffers shall comply with current crash rating standards to achieve the level of building security required.

#### Monument Signage:

Masonry monument signage will be located at the main entrance to the Justice Campus visible from W. Hunter Valley Road as well as at the intersection of S.R. 46 and W Hunter Valley Road.

SITE/CIVIL NARRATIVE SC - 1

#### Landscape Plantings:

Deciduous and Evergreen trees, shrubs, perennials, groundcovers and turfgrass will be strategically incorporated to achieve ordinance and mitigation requirements while balancing aesthetic appeal and safety on site.

#### Site Grading:

The site features approximately 50' of relief from West to East in the existing condition. Sloped lawns and landscaped areas as well as decorative block, and/or potential natural rock out croppings and/or local large limestone overburden rock retaining walls will be incorporated to achieve a level building pad for the Sheriff's Office & Jail and Justice Center in addition to parking lots, drives, sidewalks, and public plaza area.

#### Maintenance / Storage Facility:

A stand-alone 1,500 NSF / 1,875 GSF maintenance / storage facility shall be located east of the jail site on separate County owned parcel in a separate future project.

#### DRAINAGE/DETENTION

The existing small tributary that enters the site from the west will require rerouting as it currently bisects the entire site. The reroute will be to the southwest along the proposed entrance road. This rerouting will require permits/mitigation from IDEM for loss of stream habitat.

The water that comes from this off-site area can be used as a detention component for the site. That is, the off-site water can be partially detained in-lieu of detaining the entire on-site water. This is a good benefit as detention space east of the on-site component will be limited. A combination of swales and a storm pipe network will be used to route stormwater away from the buildings and into the detention basin(s). The detention basins for the site will likely be wet basins (have a normal pool) that will include wetland shelves for ecological diversity.

Detention and Water Quality will be required for all the proposed impervious surfaces on the site. The detention requirements are the 10-year discharge be released at no greater than 0.25 cfs/acre and the 100-year storm shall be released at 0.45 cfs per acre. Water quality shall be sized based on the total number of outlets into the detention ponds.

#### **FLOODPLAIN**

There is an existing FEMA floodplain on the site for the stream (Stout Creek) running along the eastern edge of the property. This floodplain was developed from an old modeling system no longer used and resulted in the entire floodplain being listed as floodway. Therefore, as of now, no acreage in the floodplain can be used for development. This includes the placement of detention basins as is forbidden by the County's Stormwater Ordinance.

#### PROPOSED SITE/CIVIL OUTLINE SPECIFICATION

**DIVISION 10 - SPECIALTIES** 

#### FLAGPOLES:

Aluminum cone tapered flagpoles fabricated from seamless extruded tubing constructed in one piece:

SITE/CIVIL NARRATIVE SC - 2

- Typically, 25-30 feet exposed height
- Minimum wall thickness of 3/16 inch
- Cast in Place Concrete foundations
- Fittings, Materials, and Finishes in accordance with manufacturer's specifications

### **DIVISION 31 – EARTHWORK**

### SITE CLEARING:

- Clear all existing items on site identified to be removed to install improvements as specified.
- Protect all items identified to remain from construction activities. Conservative limits for site disturbance shall be clearly marked and enforced during construction.

### **EARTH MOVING:**

- Backfill: Fill uniformly in 6-inch horizontal layers over approved compacted subgrade.
   Compact fill materials to meet required minimum percentages of proctor densities required by geotechnical engineer's report.
- Grading: Grade sub grade as required to meet proposed design grades.
- Topsoil: Provide and uniformly place 4" depth min. approved topsoil in lawn and landscape planting areas.
- NPDES / Sediment and Erosion Control: The construction site is required to have a
  Stormwater Pollution Prevention Plan (SWPPP) submitted and approved by IDEM prior to
  construction of the facility. The site is expected to utilize silt fence, and temporary seeding
  to minimize erosion of soils on site. Maintain adequate and positive drainage of entire site
  for duration of project. Do not allow groundwater, surface water, or direct precipitation to
  accumulate on subgrades or in excavations.

### **DEWATERING:**

 Design, furnish, install, test, operate, monitor, and maintain dewatering system of sufficient scope, size, and capacity to control hydrostatic pressures and to lower, control, remove, and dispose of ground water and permit excavation and construction to proceed on dry, stable subgrades.

### **DIVISION 32 – EXTERIOR IMPROVEMENTS**

ASPHALT PAVING: To be used for select vehicular drives and parking areas.

- Shall be in accordance with INDOT Standard Specifications. Paving sections shall be in accordance with Monroe County Engineering Standards, INDOT Standard Specifications and as recommended by geotechnical engineer's report.
- Subgrade: Shall be compacted to 95% of the maximum dry density as determined in accordance with AASHTO T180 or as specified by INDOT Standard Specifications and as recommended by geotechnical engineer's report. If specified compaction cannot be

- obtained, unsuitable soils shall be excavated and replaced with suitable soils compacted as specified.
- Aggregates: Shall be in accordance with INDOT Standard Specifications and as recommended by geotechnical engineer's report.

CONCRETE PAVING: To be used for select vehicular drives, parking areas, and pedestrians walks.

- Portland cement concrete: Shall be minimum 4000 psi, air entrained fiber reinforced concrete in accordance with INDOT Standard Specifications. Concrete curbing, drive approaches, and all other concrete surfacing sections shall be in accordance with Monroe County Engineering Standards, INDOT Standard Specifications and as recommended by geotechnical engineers report.
- Subgrade: Shall be compacted to 95% of the maximum dry density as determined in accordance with AASHTO T180 or as specified by INDOT Standard Specifications and as recommended by geotechnical engineer's report. If specified compaction cannot be obtained, unsuitable soils shall be excavated and replaced with suitable soils compacted as specified.
- Aggregates: Shall be in accordance with INDOT Standard Specifications and as recommended by geotechnical engineer's report.

### **CONCRETE PAVING JOINT SEALANTS:**

- Cold-applied joint sealants: Single-Component, Self-Leveling, Silicone Joint Sealant
- Backing materials: Nonstaining; compatible with joint substrates, sealants, primers, and other
  joint fillers; and approved for applications indicated by joint-sealant manufacturer, based on
  field experience and laboratory testing.

PARKING BUMPERS: To be used at parking areas without cast in place concrete curbs.

 Concrete Wheel Stops: Precast, steel-reinforced, air-entrained concrete, 4000-psi minimum compressive strength, as shown on drawings. Provide chamfered corners, transverse drainage slots on underside, and a minimum of two factory-formed or drilled vertical holes through wheel stop for anchoring to substrate.

### **PAVEMENT MARKINGS:**

- Pavement Marking Paint: shall be in accordance with INDOT Standard Specifications for paint markings.
- Color: White, Yellow, or Blue

CHAIN LINK FENCES AND GATES: To be used for inmate evacuation yard.

• Galvanized steel with barbed wire: Heights to be determined.

DECORATIVE METAL FENCES AND GATES: To be used for at grade utility yards (if required) and secured parking areas.

• Architectural steel fence: 8-10 feet height slats or louvers.

SEGMENTAL RETAINING WALLS: To be used in addition to earthen slopes to provide useable vehicular and pedestrian areas and maintain mowable lawns slopes at 4:1.

Basis of Design: County Materials; "Rib Rock Landscape Block"

### SITE FURNISHINGS:

Commercial grade site furnishing consisting of, but not limited to, the following:

- Benches
- Waste receptacles
- Bicycle racks
- Picnic Tables
- Illuminated Bollards
- Security Bollards

SOIL PREPARATION: To be used in landscape planting areas.

### TURF AND GRASSES:

Turfgrass establishment from seed and sod:

• Seed shall be mechanically placed and immediately protected with hydromulch material on level areas and erosion control blankets on slopes/swales.

### **PLANTS:**

- Landscape plant materials include trees, shrubs and ground covers. Planting material shall be comprised of nursery stock in accordance with the standards contained in "American Standard for Nursery Stock," copyrighted 1986 by the American Association of Nurserymen and approved May 2, 1986, by the American National Standards Institute, Inc. or as hereafter may be subsequently amended.
- Native plantings can be utilized to minimize water use for irrigation and minimizing open turfgrass areas will assist in lowering routine maintenance.

### **DIVISION 33 – UTILITIES**

Gas: Gas service in the area is provided by Centerpoint Energy. There is no gas main directly adjacent to the site. A main extension will be necessary from across SR 46.

Sanitary Sewer: Sanitary sewer service is provided by the South Central Regional Sewer District. A 12" PVC main runs along the south side of Hunter Valley Rd across the frontage of the proposed project site. The sewer does cut across a portion of the property near the southeast corner SR 46 and Hunter Valley Rd. The sewer feeds into a lift station and package treatment plant just east of the site. The plant is nearing capacity and an upgrade is anticipated to be needed to be able to handle the needs of development in this area.

Water: Water service is provided by City of Bloomington Utilities. A 16" D.I. main is located on the north side of Hunter Valley Rd. Preliminary hydrant flow tests performed in 2023 indicate there is sufficient flow available for the project. Updated flow numbers are anticipated to be provided by Bloomington Utilities at the end of July.

Telecommunications: Fiber owned by Smithville Fiber is located along the south side of Hunter Valley Rd.

Electric: 3-phase power owned by Duke Energy is located at the northeast corner of SR 46 and Hunter Valley Rd. Refer to Electrical Narrative for additional information.

## **ARCHITECTURAL NARRATIVE**

### **ARCHITECTURAL NARRATIVE**

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- Probation and Community Corrections
- Clerk's Office
- Prosecutor's Offices
- Public Defender's Office

The following design narrative identifies potential building materials and construction methods anticipated to be used in the project - which are subject to refinement per discussions and confirmation with the Owner, User Groups and the Construction Manager during subsequent design phases.

### **EXTERIOR BUILDING DESIGN:**

### **EXTERIOR WALL CONSTRUCTION**

<u>Non-Secure Areas:</u> Exterior walls will be 12" load bearing insulated precast concrete sandwich panels with integrated color, aggregates, thin set masonry and reveals via form liners. More prominent facing walls will be metal stud and/or concrete masonry unit (CMU) with multiple veneer options including CMU, limestone, architectural precast and metal panel.

<u>Secure Areas:</u> Exterior walls will be 12" load bearing insulated precast concrete sandwich panels with integrated color, aggregates, and reveals via form liners.

### DOOR, WINDOW, AND SKYLIGHT OPENINGS

Non-Secure Areas: Aluminum curtainwall and storefront systems will be utilized at entrances, window wall, and punched window locations. Exterior glazing will be 1-inch insulated, Low-E coated. Exterior primary entrance doors will be aluminum. Secondary exterior doors will be aluminum and/or standard commercial hollow-metal. Commercial grade skylights and/or clerestory windows are anticipated.

<u>Secure Areas:</u> Glass and frame systems will be detention grade. Inmate daylight requirements at Dayrooms will be achieved with commercial grade skylights and a woven rod security barrier. Skylights and/or clerestory windows may additionally be used at Intake/Booking, Inmate Workers, secure corridors, etc. as applicable.

### **ROOF SYSTEM**

The building design will include various roof heights. Each roof will be a 1/4:12 low sloped single-ply TPO roofing system, including a minimum of 4" rigid insulation, with a thirty (30) year warranty. Internal roof drains and overflow drains will be utilized for each roof area. Equipment screens will be utilized to visually obscure rooftop mounted equipment.

### **EXTERIOR DESIGN ELEMENTS**

Non-Secure Area – The dome at the primary entry will be constructed either with traditional structural steel/joists or a premanufactured unit – such as Campbellsville Industries, Inc. The most cost-effective/efficient method of dome construction will be explored in subsequent design phases. Below the dome will be a band of prefinished metal panels and clerestory storefront windows. Precast column surrounds will be provided at the entry colonnade and canopy to the vehicular drop-off.

### **INTERIOR BUILDING DESIGN:**

### **FLOOR FINISHES**

<u>Non-Secure Areas:</u> Floor surfaces in the public lobby/corridor/waiting spaces and public restrooms will be porcelain tile, polished concrete, or terrazzo.

Floor surfaces in the courtrooms, administration, departmental corridors, elevator, conference areas, etc. will be a combination of carpet tile and luxury vinyl tile. Various patterns, colors, textures and grades will be used in the different areas.

Floor surfaces at entry vestibules will be a walk-off carpet tile material.

Floor surfaces in staff and private restrooms will be a porcelain tile.

<u>Secure Areas:</u> Floor surfaces at inmate dayrooms/dormitories, secure corridors, intake/booking, control stations, etc. will be concrete slab on grade with either a polished finished or a sealer. Floor surfaces at storage areas, mechanical, electrical, security electronic rooms, etc. will be sealed concrete flooring. The Vehicle Sallyport will have a concrete floor with a hardener.

### **INTERIOR WALLS**

<u>Non-Secure Areas:</u> Wall treatment in the public lobby/corridor/courtroom and departmental entries will utilize gypsum board with accents of higher end finish materials including stone, tile, wood/wood veneer paneling, fabric wrapped sound panels for acoustical treatment, metal and decorative glass.

Wall treatment in the courtrooms will include gypsum board, wood veneer paneling and fabric wrapped sound panels for acoustical treatment.

Toilet Room wall finish materials will be full height porcelain tile on wet and adjacent walls and painted gypsum board elsewhere.

Walls in administrative, conference and private offices, etc. will be painted gypsum board and/or vinyl wall covering.

<u>Secure Areas:</u> Walls in secure areas will be constructed with concrete masonry units (CMU) and/or precast concrete panels. CMU walls will be grouted solid with steel reinforcing and security bars. Walls at secure areas will extend to the bottom of structure/slab or above security ceiling systems. Acoustic wall panels may be installed for acoustical purposes.

Cells at inmate housing and holding cells in intake/booking will be five-sided prefabricated modular steel cells (i.e., four walls and ceiling). Cell walls, ceiling, and primary cell detention furnishings shall receive factory applied high-performance polyurea coating for durability.

Walls around master/satellite control, indoor/outdoor recreation, temporary holding, dayrooms, and other locations as applicable will be 8" painted, CMU grouted, steel reinforced with security bars and/or precast concrete panels with detention hollow-metal frames and glass-clad polycarbonate security glazing.

A one-way film is anticipated at master/satellite control windows, dayroom fronts, and in other locations as applicable. Electrified glazing films may also be used in these areas.

Vinyl wall covering murals will be applied to select walls in the inmate dayrooms, dormitories, waiting area and other select locations as applicable.

Wood veneer acoustic metal wall panel/planks will be provided at select inmate dayroom walls that are not readily accessible by inmates.

### **CEILINGS**

<u>Non-Secure Areas:</u> Ceilings in the public lobby, corridor, courtroom entrances, and courtrooms, will be varied heights of 2x2 suspended acoustical panel system with accents of wood panel veneer, suspended wood slats, metal, and painted gypsum board ceilings.

Ceilings in administrative, conference rooms, private offices, etc. will predominately be a 2x2 suspended acoustical panel system.

The vehicle sallyport and non-occupied spaces such as mechanical chases, etc. are anticipated to be exposed structure – painted.

<u>Secure Areas:</u> At secure areas readily accessible to inmates, ceilings will be a prefinished, acoustical, security plank ceilings. Ceilings in the inmate dayrooms will be a prefinished 2'x2' acoustical security ceiling system and wood veneer acoustic metal ceiling panel/plank. Ceilings in inmate cells will be steel with a factory applied high-performance polyurea coating.

### PROPOSED ARCHITECTURAL OUTLINE SPECIFICATION

**DIVISION 3 – CONCRETE** 

### PRECAST CONCRETE PANELS:

Exterior load bearing insulated precast concrete sandwich panels. Typically, 12" thick panels:

- 3" concrete exterior face with reveals, form liners, texture, aggregates and integrated color
- 4" rigid insulation
- 5" concrete interior face

### ARCHITECTURAL PRECAST CONCRETE PANELS:

Veneer precast concrete panels, typically 5" thick.

### PRECAST CONCRETE COLUMNS:

+/- 2'-6" diameter round precast concrete columns placed at the entry.

### **DIVISION 4 - MASONRY**

UNIT MASONRY ASSEMBLIES: Wall assemblies. To be used as a general wall material.

- Concrete Masonry Unit (CMU)
- Limestone Trim accents
- Reinforcing Steel
- Masonry joint reinforcement
- Ties and Anchors
- Embedded Flashing
- Miscellaneous Masonry Accessories
- Rigid Cavity-Wall Insulation. Basis-of-Design: 3" Dow Styrofoam Ultra SL; R-16.8

### STONE

- Exterior limestone trim accents
- Interior stone panels in public lobby/corridor/courtroom entries

### **DIVISION 5 - METALS**

COLD-FORMED METAL FRAMING: To be used for exterior wall framing at architectural precast veneer, and metal panel wall system.

METAL FABRICATIONS: To be used as a general material in areas permitted by code and as required to complete the scope of work:

- Pipe bollards
- Loose bearing plates
- Loose steel lintels
- Steel frames for coiling doors
- Steel framing and supports for countertops
- Steel framing and supports for mechanical and electrical equipment
- Steel framing and supports where framing and supports are not specified in other sections
- Expanded steel security mesh
- Miscellaneous metal trim

### **METAL PAN STAIRS**

Preassembled steel stairs with concrete filled treads

### PIPE AND TUBE RAILINGS

- Steel pipe and tube handrails and railings
  - o Stainless steel tube handrails at Inmate Dayrooms/mezzanine stair locations.

### **DETENTION ENCLOSURES**

- Fixed Woven Rod Security Barriers: Basis of Design: Kane Manufacturing Corporation; "Level 9 Vantage Security Screen, Model SV12Z". 12 gage steel frames infilled with 1/4" diameter woven rods with 2" mesh. Locations: overhead coiling door locations at indoor/outdoor recreation, mezzanine walkways, and skylights.
- Operable security screens with detention locks: Basis of Design: Kane Manufacturing Corporation; "Level 6 Van-Guard, Model SVANO". 12 gage steel frames infilled with 0.047-inch woven wire cloth, 10 mesh. Locations: Overhead coiling door locations at indoor/outdoor recreation.

### **COLUMN COVERS**

Decorative metal column covers

### DIVISION 6 - WOODS, PLASTICS AND COMPOSITES

MISCELLANEOUS ROUGH CARPENTRY: To be used as a general material in areas permitted by code and as required to complete the scope of work:

- Wood blocking and nailers
- Telephone and electrical equipment backing panels

### SHEATHING:

- 1/2" exterior plywood sheathing
- 1/2" glass-mat gypsum sheathing
- Exterior Walls. Basis of Design: 3" Dow Styrofoam Ultra SL; 3" thickness, R-16.8

### ARCHITECTURAL WOODWORK

- Interior wood veneer paneling in the public lobby/corridors/courtroom entries and courtrooms
- Custom millwork at courtrooms

### DIVISION 7 – THERMAL AND MOISTURE PROTECTION

THERMAL INSULATION: To be used as a general material in areas permitted by code and as required to complete the scope of work:

- Extruded Polystyrene Board (Type IV): Foundation Walls, 2" thick; R-10.0
- Glass-Fiber Blanket (Type I unfaced and Type III reflective faced): R-19.0
- Closed-Cell Spray Polyurethane Foam (Type II): Miscellaneous voids in the exterior envelope

### THERMOPLASTIC POLYOLEFIN (TPO) ROOFING SYSTEM:

- Fully-adhered TPO membrane; 80-mil; white; 30-Year Warranty
- Glass-mat, water-resistant gypsum cover board; 1/2" Thick
- Polyisocyanurate Insulation Board (Type II, Class 1, Grade 2); Tapered; Minimum Thickness Required Providing R-30.0

### JOINT SEALANTS

- Single-component pourable urethane sealant: Horizontal traffic joints in cast-in-place concrete slabs.
- Multi-component non-sag urethane sealant: Exterior vertical control joints.
- Single-component non-sag urethane sealant: Interior perimeter joints of exterior openings.
- Single-component mildew-resistant silicone sealant: Interior joints between plumbing fixtures and walls.
- Butyl-Rubber-Based Solvent-Release Joint Sealant: Concealed joints in vertical surfaces and horizontal non-traffic surfaces.
- Flexible, pick-resistant polyurethane security sealant.
- Rigid, pick-resistant epoxy security sealant.

### **METAL PANELS**

- Metal wall/fascia/soffit panels
- Metal column covers

### LOUVERED ROOF EQUIPMENT SCREENS

Inverted blade type anodized aluminum finish

### APPLIED FIREPROOFING

- Cementitious spray applied fireproofing Construction Type 1B:
  - o Primary Structural Steel Framing: 2-hour rating
  - o Floor Assembly: 2-hour rating
  - Roof Assembly: 1-hour rating

### PENETRATION AND JOINT FIRESTOPPING

At fire-rated penetrations

### PREFORMED JOINT SEALS

Preformed acoustic joint seals as required for acoustic considerations/requirements.

### **EXPANSION CONTROL**

Building expansion joints as required

### **DIVISION 8 – OPENINGS**

### ALUMINUM FRAMED ENTRANCES AND STOREFRONTS

- Storefront entry system, Basis of Design: Tri-fab VersaGlaze 451/451T as manufactured by Kawneer
- Thermally broken at exterior only.
- Exterior aluminum doors, Basis of Design: 500 wide stile as manufactured by Kawneer

### **GLAZED ALUMINUM CURTAINWALLS**

Basis of Design: 1600 Wall System 1 Curtain Wall as manufactured by Kawneer

### **GLAZED ALUMINUM CURTAINWALLS**

Basis of Design: 1600 Wall System 1 Curtain Wall as manufactured by Kawneer

### **HOLLOW METAL DOORS AND FRAMES:**

- Exterior doors and frames: Extra-heavy-duty doors and frames (HM-L3): SDI A250.8, Level 3; 16-gauge full flush doors 1 3/4" thick / 16-gauge frames; metallic coated
- Interior doors and frames: Heavy-duty doors and frames (HM): SDI A250.8, Level 2; 18-gauge full flush doors 1 3/4" thick / 16-gauge frames

### **DETENTION DOORS AND FRAMES**

- Exterior doors and frames: ASTM F 1450, Grade 1, 12-gauge seamless doors 2" thick / 12-gauge frames; metallic coated.
- Interior doors and frames: ASTM F 1450, Grade 1, 12-gauge seamless doors 2" thick / 12-gauge frames
- Sliding door: detention glass sliding door with detention frames anticipated at primary circulation corridors, kitchen, and laundry.
- Food pass openings: 5" x 15" clear inside opening dimension; food pass hinge with latch.
- Vision lite shutters: swing door with magnetic latch, where scheduled.

### FLUSH WOOD VENEER DOORS

- Typical at all interior non-secure spaces.
- Oversized wood doors at courtrooms, and public lobby

### **ACCESS DOORS AND FRAMES:**

- Flush access doors with exposed flange: 24" x 24" 16-gage steel; painted (typical)
- Security access doors with exposed flange: 24" x 40" 10-gage steel; painted (typical); detention lock.

### **OVERHEAD COILING DOORS**

- Basis of Design: Overhead Door Corporation; "Series 625 StormTite Insulated Rolling Door";
   Model RHX electric operator; remote operation from Control Room.
- Indoor/outdoor recreation, vehicle sallyport, mechanical room, and shipping receiving / delivery.

### **DOOR HARDWARE**

- Hinges
- Full mortise (butts)
- Continuous gear hinges
- Locks and latches
- Mortise Locksets at exterior doors, secure doors.
- Cylindrical locksets at interior doors.
- Electromagnetic locks
- Exit devices
- Electric strikes
- Electromagnetic holders
- Flush bolts
- Operating trim
- Push/pulls
- Surface closers
- Concealed closers
- Door coordinators
- Door position switches
- Protective trim units
- Door stops
- Overhead stops
- Thresholds
- Gasketing
- Drip caps
- Kick plates

### **METAL-FRAMED SKYLIGHTS**

Standard aluminum framed skylights with insulated glazing

### GLAZING:

- Laminated glass
- Laminated glass; fire-rated

- Insulated glass unit
- Tempered glass
- Ballistic resistant at office/departmental public transition counters

### SECURITY GLAZING:

- Glass-clad polycarbonate: 60 minute attack
- Glass-clad polycarbonate: 40 minute attack
- Glass-clad polycarbonate, fire-rated: 40 minute attack
- Glass-clad polycarbonate, one-way mirrored, fire-rated: 40 minute attack
- Glass-clad polycarbonate: 20 minute attack
- Glass-clad polycarbonate: 10 minute attack
- Security insulating glass unit: 60 minute attack

### **DECORATIVE GLASS GLAZING**

Patterned, acid-etched, sandblasted and laminated glass

### **FIXED LOUVERS**

• Horizontal, drainable blade louver: Basis of Design: Greenheck; "Model ESD-603". Include security bars where applicable.

### **DIVISION 9 – FINISHES**

### **GYPSUM BOARD**

- Type X gypsum board, 5/8" thick
- Impact-resistant gypsum board, 5/8" thick
- Mold-resistant gypsum board, 5/8" thick
- Glass-mat, water-resistant tile backing board
- Ceiling gypsum board, 1/2" thick

### NON-STRUCTURAL METAL FRAMING

 All interior wall metal framing except at shafts, MEP rooms, sallyport, holding cells and enclosed stairways

### ACOUSTICAL PANEL CEILING ASSEMBLIES

- Acoustical panel ceilings with exposed suspension systems
- Wood veneer acoustic plank

### SECURITY CEILING ASSEMBLIES

- Security metal panel ceiling system: Basis of Design: Steel Ceilings, Inc. "Defender;" 24 x 24 x 18 gage; Perforated with sound absorption pads; White
- Security plank ceiling system: Basis of Design: Steel Ceilings, Inc. "Metal Plank Security Ceiling System" 18" wide x 14 gage steel planks, perforated with sound absorptive pads. White.
- Security plank ceiling system: Basis of Design: Steel Ceilings, Inc. "Metal Plank Security Ceiling System" 18" wide x 14 gage stainless steel planks, non-perforated, No 4 finish.

### **CERAMIC TILING**

• For porcelain floor and wall tile

### RESINOUS MATRIX TERRAZZO FLOORING

Thin-set, epoxy resin terrazzo flooring

### TILE CARPETING

- Modular carpet tile with a more luxurious type in courtrooms.
- Walk-off carpet tile at vestibules and entrances/exits.

### **RESINOUS FLOORING**

• Epoxy flooring (inmate shower/shower dry-off areas at slab-on-grade locations, search shower areas at Intake and Medical): Basis of design: Dur-A-Flex; "Dur-A-Quartz "BM" Epoxy Flooring; %" thick.

### **ACOUSTIC WALL PANELS**

- Decorative fabric wrapped decorative wall panels for acoustical performance.
- Tectum acoustic wall panel for acoustic performance in secure areas.

### **PAINTING**

- Exterior painting; HM doors and frames, steel frames, steel lintels, etc.
- Interior painting; HM doors and frames, exposed steel, CMU, insulated precast concrete panels, gypsum board, etc.
- Vinyl stencils for painted graphics in Jail areas.
- High performance coatings
- Epoxy floor coating (as applicable). Basis of Design: Sherwin Williams "General Polymers 3744 High performance cr epoxy" over "General Polymers 3579 Standard Epoxy Primer/Binder".

### WALLCOVERINGS

- Presentation Walltalkers dry erase wallcovering "M2PR Projectable Magrite" laminate wallcovering by Koroseal Interior Products
- Vinyl wall covering mural in inmate dayrooms, dormitories, waiting area and other select locations as applicable. Basis of Design: Maharam Mixed Stripe.

### WOOD CEILINGS AND WALL PANELS

 Linear wood ceilings, Basis of Design: "Woodworks Grille Forte" solid wood slat ceiling as manufactured by Armstrong
 Linear wood wall panels, Basis of Design: "Woodworks Grille Forte" solid wood slat panels as manufactured by Armstrong

### **DIVISION 10 – SPECIALTIES**

### **VISUAL DISPLAY SURFACES**

- Markerboards: Porcelain enamel-faced panel (white) with aluminum frame (clear anodized);
   map rail with map hooks and clips.
  - Walltalkers may be used in lieu of markerboards.

### **PLAQUES**

- Dedication plaque. Basis of Design: A.R.K. Ramos; cast aluminum or bronze; mill finish raised surface with dark oxidized stipple textured background
- Large exterior county seal. Basis of Design: A.R.K. Ramos; cast aluminum or bronze; mill finish raised surface with dark oxidized stipple textured background

### **DIMENSIONAL LETTER SIGNAGE**

Cast dimensional letters: cast aluminum

### **PANEL SIGNAGE**

- Room identification signs: Photopolymer face sheet with raised graphics laminated to acrylic backing sheet; Braille
- Directional signage
- Building directory

### POST AND PANEL/PYLON SIGNAGE

• Basis of Design: ASI Sign Systems, Inc.; "Compass HED-300 Flush Face Exterior Post and Panel Sign". Hollow box design with solid aluminum panels, rectangular posts; graphics on both sides

### **MOVEABLE STORAGE SYSTMES**

• High density storage system. Manually operated. Adjustable shelves. Recessed floor tracks.

### **LOCKERS**

- Evidence processing lockers
- Jail staff lockers

### TOILET AND BATH ACCESSORIES (to be determined)

- Paper towel dispensers
- Soap dispensers
- Toilet paper holders
- Waste receptacles
- Coat Hook: Bobrick B-212
- Grab Bars: Bobrick B-6806 Heavy-duty 1-1/2" diameter stainless steel; 42", 36", 18", Shower (30x18x18)
- Mirror: Bobrick B-165; 24" x 36"
- Napkin disposal

Recessed: Bobrick B-35303 Surface: Bobrick B-270

- Warm air hand dryer: Bobrick B-770 with electronic infrared detection sensor
- Diaper changing

### **DETENTION TOILET AND BATH ACCESSORIES**

- Grab Bars: Norix "IGS Series," stainless steel grab bar with closure plate.
- Mirror: Norix or Cortech USA stainless steel mirror and/or polycarbonate; standard and 11x17 front mounted.
- Recessed toilet tissue holder: Norix "ITP-110"; front mounted.
- Security towel hook: Norix SS65-528 pivoting hook, front mounted.
- Shower curtain: Bobrick 204-2; white.
- Shower curtain rod: Bobrick B-6047; 1 1/4" diameter; concealed mounting.
- Shower seat: Bobrick stainless steel fixed or operable shower seat.

### FIRE PROTECTION CABINETS

• Basis of Design: Larsen's Manufacturing Company; "Architectural Series 2409-6R" semi-recessed cabinet with 2 1/2" rolled edge trim; white

### FIRE EXTINGUISHERS

• Larson's M-9; "Model MP10" multi-purpose dry chemical type

### **PACKAGE PASS**

 Basis of Design: Norix Group; Package Pass IPP-150 with polycarbonate door; 18.5" wide x 18.5" high x 16" deep.

### PHENOLIC-CORE TOILET COMPARTMENTS

Phenolic-core toilet compartments, entrance screens and urinal screens

### WALL AND DOOR PROTECTION

- Plastic wall corner guards for all gypsum board outside corners in non-secure areas.
- Ballistic resistant wall panels at Judge benches

### **ALUMINUM CANOPIES**

• Pre-manufactured aluminum entry canopy, Basis of Design: "Super Lumideck" as manufactured by Mapes Canopies.

### **DECORATIVE VERTICAL FIN**

- 4" X 12" Aluminum rectangular tube.
- Basis of Design: Stanley Series Florida as manufactured by AGS.

### SUN CONTROL

- Vertically supported horizontal sunshades.
- Basis of Design: Versoleil Single Blades 8" Airfoil Profile as manufactured by Kawneer.

### **DIVISION 11 - EQUIPMENT**

### **SECURITY EQUIPMENT**

- Walk-Thru screening at security checkpoint
- Deal tray

### COMMERCIAL LAUNDRY EQUIPMENT

- Washer-extractor
- Tumbler dryers
- Remote liquid detergent supply system
- Laundry carts
- Stackable laundry unit at select locations

### INMATE PROPERTY PACKAGING EQUIPMENT

- Inmate personal property storage equipment: Basis of Design: CPI/Guardian; "Model 1416F."
- Inmate clothing storage equipment: Basis of Design: CPI/Guardian "Model PRES Property Room Expander."

### **DIVISION 12 – FURNISHINGS**

### **ROLLER WINDOW SHADES**

Manually and motor-operated roller shades at exterior windows

### MANUFACTURED PLASTIC-LAMINATE-FACED CASEWORK

- Basis of Design: LSI Corporation; "L44 Design Series"
- Door and drawer edging: 3mm PVC
- Pulls: Stainless steel wire pulls
- Hinges: Heavy-duty stainless steel 5 knuckle hinge
- Locks: Disc tumbler lock

### SOLID SURFACING COUNTERTOPS AND WINDOWSILLS

- Solid surface material; 1/2" thick laminated to 3/4" particle board
- 2" diameter molded plastic grommets with matching plastic caps for cable passage
- Metal counter support brackets

### **DETENTION FURNITURE**

- Double bunk (part of prefabricated modular steel cells); welded bunk, 27" x 84"; lower bunk with or without shelf or property boxes TBD.
- Norix Space Saver; with or without shelf or property boxes TBD Inmate Medical and Mental Health areas.
- Mattress for every bunk surface. (Base-Bid)
- 2/4/6/8 Dayroom Tables: (Base-Bid)
  - Norix "Econo-Max" EMX7233; plain stainless-steel top; slammer stone seats.
  - o Norix "Max-Master" MX3072; plain stainless-steel top; slammer stone seats.
- Bedding (FFE)
- Classroom tables (FFE)
- Norix Integra seating at secure locations (Base-Bid)
- Wall steps for upper bunk (Base-Bid)
- Side rail for upper bunk (Base-Bid)
- Fixed benches in inmate holding area (Base-Bid)
- Fixed beam seating in lobby/waiting areas secure and non-secure locations (Base-Bid)
- Anti-Ligature grab bar horizontally mounted at top of bunk. (Base-Bid)

### **DIVISION 13 – SPECIAL CONSTRUCTION**

### PREFABRICATED MODULAR STEEL CELLS

- Basis of Design: SteelCell of North America
- Galvanized steel cells insulated for sound deadening with polyurea coating; fully factory outfitted with fixtures and furniture.
- Ceilings 9'-0".
- Doors, frames, and windows mounted in modular steel cells.
- Detention accessories and detention furnishings mounted to modular steel cells.
- Plumbing fixtures mounted to modular steel cells.
- HVAC grilles mounted to modular steel cells.
- Power and light fixtures mounted to modular steel cells.
- Intercoms and cameras mounted to modular steel cells.

### DIVISION 14 – CONVEYING EQUIPMENT

### MACHINE ROOM-LESS ELECTRIC TRACTION PASSENGER ELEVATORS

• Passenger and service elevators, traction drive, machine room-less type.

### STRUCTURAL NARRATIVE

### 1) Earthwork:

- a) Sediment and Erosion Control: Temporary and permanent sediment and erosion control elements and storm sewer inlets as required by site development and local regulatory agencies.
- b) Site Grading: Strip surface soils containing organic matter in areas indicated for disturbance. Store stripped soil adjacent to work for testing and subsequent placement in landscape fill areas and conversion to topsoil if found to be suitable.
  - Maintain adequate and positive drainage of entire site for duration of project; do not allow groundwater, surface water or direct precipitation to accumulate on subgrades or in excavations.
  - ii) Excavation: Excavate to depth and limits required for construction of buildings, structures, paving sections, utilities, landscaping items, and topsoil placement.
    - (1) Segregate approved select materials for storage and subsequent backfill and fill operations.
    - (2) Over excavation of loose material: Excavate loose material to limits shown on drawing. Proofroll all subgrade areas to verify compaction requirements.
    - (3) Do not remove soil from site until project landscape area fill requirements have been met.
    - (4) Dispose of excess soil on-site unless off-site disposal is required in accordance with local codes, regulation, and laws. Dispose of unsuitable materials off-site in accordance with local codes, regulation, and laws.
  - iii) Backfill: Fill uniformly in 6-inch horizontal layers, over approved subgrade.
    - (1) Compact and test subgrade and fill materials to meet required minimum percentage of specified proctor density.
    - (2) Fine grade site subgrade as necessary to receive building pad, paving sections, and landscape materials.
  - iv) Backfill materials are as follows:
    - (1) Landscape area fill and backfill: On-site suitable excess material.
    - (2) Building and paved area fill and backfill: Select on-site suitable material or imported pit run sand and gravel.
    - (3) Material under interior slab-on-grade: 6 inches, compacted aggregate.
  - v) Moisture/Vapor Barrier: Under slab vapor barrier meeting ASTM E 1745, Class A, which is a minimum of 15 mils in thickness, is to be placed under slab-on-grade. Include manufacturer's recommended adhesive or pressure-sensitive tape. Placement of vapor retarder is between 6" of compacted aggregate and bottom of slab-on-grade.

### 2) Foundation Systems:

a) Overview: The foundation system is anticipated to consist of shallow spread and strip wall footings. The following properties have been assumed based on the preliminary geotechnical exploration by Patriot Engineering and Environmental, Inc's report dated May 21, 2024. The allowable bearing capacities will be established upon completion of the final investigation and recommendations by a Geotechnical Engineer; however, the bearing capacities are anticipated to be at or above 2,000 pounds per square foot.

- i) Spread Column Footings:
  - (1) Minimum width for spread footing = 3 feet.
  - (2) Minimum depth of exterior footing below grade = 3 feet.
  - (3) Minimum depth of interior footing below grade = 1 foot.
- ii) Strip Wall Footings:
  - (1) Minimum width for wall footing = 18 inches.
  - (2) Minimum depth of exterior footing below grade = 3 feet.
  - (3) Minimum depth of interior footing below grade = 1 foot.
- iii) Foundation Walls:
  - (1) Minimum thickness of foundation thickness of construction supported.
  - (2) Assumed Wall Design Parameters:
    - (a) Rigid Walls Equivalent Fluid Pressure:
      - (i) 62.5 pounds per square foot per foot of wall height (free-draining granular backfill).
    - (b) Coefficient of Friction = 0.30.
- b) The structure is not designed to be expandable and will require expansion joint with any future addition.
- c) No basement is planned for the building addition; however, there will be an elevator pit.

### 3) Slab-on-Grade:

- a) All slab-on-grade will have welded-wire fabric in addition to fibrillated propylene fibers.
- b) Interior Slab-on-Grade: 4-inch-thick, 4000 psi concrete slab with welded-wire fabric in addition to fibrillated propylene fibers. Place on compacted aggregate.
  - i) Vapor barrier is placed between 6" of compacted granular base course and bottom of slabon-grade.
- c) Interior Vehicular Trafficked Slab-on-Grade 6-inch thick, 4000 pounds per square inch concrete slab with fibrillated propylene fibers. Place on 6" of compacted granular fill.
  - i) Vapor barrier is placed between 6" of compacted granular base course and bottom of slabon-grade.
- d) Equipment Pads:
  - i) Interior equipment housekeeping pads shall be set atop roughened slab-on-grade, minimum of 4" thick and 6" larger than equipment supported on all sides.
  - ii) Exterior equipment pads shall 10" thick with turned down edges extending below code prescribed frost depth and set atop 6" minimum of compacted aggregate.
- e) Modulus of Subgrade Reaction for Slab-on-Grade Design: 100 pounds per cubic inch.

### 4) Structural Framing Systems:

- a) Sheriff's Office and Justice Center:
  - i) Overall Structural Concept: The building construction will consist of a cast-in-place concrete foundation. The subsequent floor levels above the foundation will consist of steel beams supporting concrete slab-on-steel composite deck construction. The roof construction is anticipated to be structural steel beams supporting steel joists as appropriate.

ii) Roof Construction:

- (1) 1 ½" x 20 gauge galvanized steel deck.
- (2) Roof steel joists/beams are anticipated to range from 16 to 24 inches in depth spaced between 5 and 6 feet on center.
- (3) Roof steel beams are anticipated to range from 12 to 24 inches in depth.
- iii) Elevated Floor Construction:
  - (1) 3" x 20 gauge galvanized composite steel deck with 7 1/2" total thickness concrete on steel deck.
  - (2) Composite steel infill beams are anticipated to range from 18 to 24 inches in depth.
  - (3) Steel girder beam supporting infill beams are anticipated to range from 24 to 33 inches in depth.
- iv) Columns:
  - (1) Typical steel column sizes are anticipated to range between W10 to W14.
- v) Lateral Force Resisting System Concept: The building construction will consist of a combined steel frame lateral resisting system, precast concrete and/or concrete masonry shear wall systems where practical.
- b) Inmate Housing Building Overall Structural Concept:
  - i) Overall Structural Concept: The building construction will consist of a concrete cast-in-place foundation supporting precast insulated panels acting as load bearing and shear walls. Exterior and interior steel columns supporting steel joists and roof deck. An expansion joint will be set between Inmate Housing and the Sherrif's Office and Justice Center.
  - ii) Roof Construction:
    - (1) Hollowcore precast concrete slabs or steel joists and steel roof deck.
  - iii) Floor Construction:
    - (1) Precast hollowcore slabs with composite topping.
    - (2) Select areas may be comprised of composite steel infill beams.
  - iv) Columns:
    - (1) Typical steel column sizes are anticipated to range between HSS8 to HSS10.
  - v) Lateral Force Resisting System Concept: Precast concrete structural insulated panels will provide lateral load support.
- 5) Loadings:
  - a) Occupancy Category from ASCE 7 Risk Category III.
  - b) Roof Loads:
    - i) Minimum Live Load

**20 PSF** 

ii) Minimum Ground Snow Load

20 PSF + Drifted Areas

- (1) ASCE 7, snow loading criteria:
  - (a) Exposure Factor, C<sub>e</sub> = 1.00
  - (b) Thermal Factor,  $C_t = 1.00$
  - (c) Importance Factor,  $I_S = 1.20$

iii) Minimum Wind Loading ±10 PSF

(1) ASCE 7, wind loading criteria:

- (a) Exposure Category, C
- (b) Three-Second-Gust Wind Speed, 120 miles per hour

iv) Mechanical Equipmentv) Roofing Materialsvi) Dead LoadsSelf WeightSelf Weight

c) Floor Loads:

i) Stairs and Exit Ways
 ii) Floor
 iii) Mechanical Live Loading
 iv) Dead Loads
 100 PSF
 150 PSF
 Self Weight

### 6) Lateral Loads:

a) Minimum Wind Loading ±20 PSF

- i) ASCE 7, wind loading criteria:
  - (1) Exposure Category, C
  - (2) Nominal Design Three-Second-Gust Wind Speed, 120 miles per hour
- b) Seismic
  - i) ASCE 7, seismic loading criteria:
    - (1) Based on site coordinates for latitude (39.19219), longitude (-86.565986).
    - (2) Site Class, D (Per Preliminary Geotechnical Exploration)
    - (3) Mapped spectral response acceleration for short period,  $S_s = 0.224g$
    - (4) Mapped spectral response acceleration for one second period,  $S_1 = 0.107g$
    - (5) Occupancy Category, III
    - (6) Importance Factor,  $I_E = 1.25$
    - (7)  $S_{DS} = 0.239g$
    - (8)  $S_{D1} = 0.169g$
    - (9) Seismic Design Category, C

### 7) Serviceability:

a) Roof Structural Members:

i) Supporting Non-plaster ceilingii) Supporting MasonryL/600

b) Floor Members:

i) Supporting Non-plaster ceilingii) Supporting MasonryL/600

c) Wall Members (Not at Floor):

i) Horizontal L/240 (10-year wind load)

d) Bare Frame Drift:

i) Curtain Wall, Masonry H/500 (10-year wind load)

### e) Floor Vibrations:

i) The remaining areas will be based on a maximum allowable vibration equal to 16,000 micro-inches per second which will provide vibration design typical of Office Space areas.

### 8) Field Quality Control & Special Inspections and Testing:

- a) Field Quality Control and Special Inspections and Testing by Owner's Testing and Inspection Consultant shall be completed for the following construction and will be specified through requirements in the specifications.
  - i) Cast-in-Place Concrete.
  - ii) Prestressed and Precast Structural Concrete.
  - iii) Concrete Unit Masonry Construction.
  - iv) Structural steel.
    - (1) Structural steel specification will require use of an AISC Certified fabricator and erector or equal quality assurance program.
  - v) Steel Joist Framing.
  - vi) Steel decking.
  - vii) Post-Installed Anchors.
  - viii) Soils.
  - ix) Ground Modification.

### 9) Delegated Design:

- a) Delegated Design of components will be identified specified throughout the construction documents. Examples of components requiring delegated design include, but are not limited to:
  - i) Temporary excavation support.
  - ii) Specialty ground modification systems.
  - iii) Shoring and bracing systems.
  - iv) Prestressed and Precast Structural Concrete.
  - v) Structural steel shear connections.
  - vi) Steel Joist Framing.
  - vii) Cold-formed steel framing.
  - viii) Steel stairs.
  - ix) Steel guardrails and railings.
  - x) Prefabricated modular steel cells.
  - xi) Curtain wall systems.
  - xii) Prefabricated metal canopies.
  - xiii) Stone assemblies.
  - xiv) Elevator rails and supports; excluding hoist beam and divider beam supports.

# FIRE PROTECTION NARRATIVE

### FIRE PROTECTION NARRATIVE

### **SYSTEM DESCRIPTION**

An automatic wet sprinkler system will be provided throughout the facility. Dry pipe systems shall be used in areas subject to freezing such as Vehicle Sallyports, etc.

Additional fire protection zones shall be provided and piping provided for proposed future expansion on the site.

The requirement for a fire pump shall be determined based on available water pressure from the utility on site.

Fire Department Connection(s) will be provided on the building as directed and approved by local fire officials.

Any area not having a sprinkler system will be fire rated construction to meet the applicable building codes.

### **DESIGN CRITERIA**

The sprinkler system will be hydraulically calculated based on the A-3, B, I-3, S-1 and S-2 occupancies and shall meet all applicable requirements of NFPA 13.

### FIRE PROTECTION PIPING

Ductile iron pipe will be used for underground supply line into the building. Black, schedule 40 steel pipe will be used for the main distribution line, and branch lines.

### **SPRINKLER HEADS**

<u>Secure areas:</u> Institutional, ligature resistant, standard response, standard coverage sprinkler heads will be utilized in all secure areas. Sprinkler heads maximum coverage area will not exceed 225 square feet and have a temperature rating of 165 degrees Fahrenheit. Design density shall be 0.10 gpm over the most remote area of 1,500 square feet for Light Hazard areas and 0.15 gpm over the most remote 1,500 square feet for Ordinary Hazard areas.

Non-Secure Areas: Concealed type flat cover plate sprinkler heads shall be located in non-secure areas. High temperature sprinklers heads to be used in Electrical rooms where appropriate. Sprinkler heads maximum coverage area will not exceed 225 square feet and have a temperature rating of 165 degrees Fahrenheit. Design density shall be 0.10 gpm over the most remote area of 1,500 square feet for Light Hazard areas and 0.15 gpm over the most remote 1,500 square feet for Ordinary Hazard areas.

### **PRE-ACTION TYPE SYSTEMS**

Spaces such as the IT Equipment Room, Life Safety Equipment Room, and Security Electronic Rooms shall be protected by a dual-interlock, preaction systems. The systems are a dry pipe system that requires activation thru the smoke alarm and a melted fusible link at the sprinkler head for water to fill the pipe and discharge.

### PLUMBING NARRATIVE

In general, the plumbing work will consist of, but is not limited to, the following:

- New water service for domestic and fire protection systems.
- New water treatment equipment for domestic water needs.
- Complete sanitary and storm drainage systems.
- Floor drains and hose bibs

### **SANITARY SYSTEM DRAINAGE**

It is anticipated that sanitary waste from the building will discharge by gravity into the sewer. Floor drains will be provided in all toilet rooms, mechanical rooms, shower rooms, and in kitchen areas.

A grease interceptor will be provided for the kitchen and an oil/solids interceptor for the vehicle sallyport. Lint interceptor will likely be provided for laundry sanitary discharge.

Future expansions shall be considered in system sizing with potential connections to tie into.

### STORM DRAINAGE SYSTEM

Storm drainage system design will be based on 3.2 inches of rain per hour duration and a 100-year return period. All storm water piping shall be collected by roof drains and interior piping that will be routed below grade and collected by the storm sewer system.

The overflow drains will be connected to a separate piping system that discharges at downspout nozzles located above grade. The overflow system daylighting will allow the staff to realize when there is a blockage in the primary storm drainage system.

Future expansions shall be considered in system sizing with potential connections to tie into.

### **DOMESTIC COLD AND HOT WATER SYSTEMS**

The domestic water system will be designed to provide sufficient flow and pressure to all plumbing fixtures and equipment during maximum anticipated demand. Requirement for a booster pump shall be determined based on water flow and pressure data from the utilities, but it is anticipated that a booster pump will be required.

Future expansions shall be considered in system sizing with connections and shut-off valves incorporated.

### DOMESTIC HOT WATER HEATING

A semi-instantaneous water heater system (similar to the AERCO Innovation) will be utilized to provide domestic hot water to the facility. Hot water for general use will be supplied at 105 degrees Fahrenheit and will be re-circulated to reduce the time needed to deliver hot water to each fixture. An ASSE 1017-rated digital thermostatic mixing valve will be provided as required by code.

120-degree water shall be provided to dishwasher by a dedicated line. The equipment will have a hot water temperature booster to achieve 180-degree water.

PLUMBING NARRATIVE P - 1

A hot water recirculation system shall be incorporated to provide relatively quick arrival of hot water to fixtures such as lavatories and showers.

### **WATER TREATMENT**

A water softener system will be provided to treat the incoming water serving the facility for domestic cold water and domestic hot water fixtures. The system will be a triplex, metering type water softener.

A Reverse Osmosis Water System (similar to the Easywater Smart Guard) will be provided for the Kitchen to protect the Kitchen equipment that utilizes steam (tilting skillet, steam convectors, etc).

### **PLUMBING FIXTURES**

<u>Non-Secure Areas:</u> Plumbing fixtures of high-quality non-absorptive acid resistance will be used. Plumbing fixtures will be floor mount with floor outlet, made with vitreous china. Urinals and water closets in public or staff restrooms shall be hard-wired, sensor-operated. Lavatory faucets shall be hard-wired, sensor-operated. Water hammer arrestors will be installed to individual or group of plumbing fixtures per PDI standards. The water service main, branch lines, risers, and branch lines to a fixture group will have individual shut-off valves.

<u>Secure Areas:</u> Fixtures located within holding cells shall be stainless steel, combination water closet-lavatory type fixtures using vandal-proof and suicide resistant push button mechanical valves. The fixtures will be provided with the prefabricated steel cells (where applicable) and be pre-piped for connection points in the perimeter chase area. The outlet of the water closets shall have a pinned trap capable of capturing contraband that may be flushed by an inmate.

The detention grade shower head shall be located at the ceiling of the shower stall. The floor of the non-A.D.A. shower stalls shall be raised to provide a sanitary drain connection to the back chase. Non-ADA Shower stalls located in Intake / Booking areas shall be provided with floor drains in concrete floor. Detox Toilets/Flushable Floor drains will be provided in the Detox and Padded cells.

Water hammer arrestors will be installed to individual or group of plumbing fixtures per PDI standards.

Fixtures in secure areas shall be connected to a Water Management System (Willoughby WMSII or equivalent) that will provide electronic solenoid valves with each security plumbing fixture. The controllers included in the Water Management System will allow the Owner to remotely turn off individual fixtures, groups of fixtures, and entire cell blocks if needed. The system also allows setting that limit the number of flushes/uses per hour of each fixture.

Manual shutoff valves will likely be provided for each of the cell blocks as well. This will provide the Owner with an opportunity to shut off water in each cell block if needed.

### **PLUMBING PIPING**

Schedule 40 cast iron pipe will be used for both below and above ground sanitary and vent piping.

Schedule 40 cast iron pipe will be used for both below and above ground storm piping. Horizontal piping above ground will require insulation.

PLUMBING NARRATIVE P - 2

Ductile iron pipe will be used for underground domestic water main supply line with polyethylene encasement.

Copper pipe (type K and L) will be used for domestic water (hot and cold) distribution system for piping 2" and smaller. Piping 2-1/2" to 4" can be copper or Schedule 10 stainless steel. Schedule 10 stainless steel will be used for piping greater than 4". Schedule 40 galvanized steel will be used for piping larger than 2".

Schedule 40 black steel pipe will be used for domestic gas line above ground and inside the building. Mechanical equipment relying on natural gas fuel shall be provided an individual gas regulator.

### **SPECIAL CONSIDERATIONS**

Color coded jackets shall be provided for domestic water, storm water and sanitary water piping for easier identification in walk thru chases and mechanical rooms.

PLUMBING NARRATIVE P - 3

### HEATING, VENTILATION, AND AIR CONDITIONING (HVAC) NARRATIVE

### **HVAC Design Criteria**

Provide conditioned air in all occupied offices, working spaces, and offender areas. The systems shall provide at least the minimum required amounts of outside air for ventilation through use of a variable air volume (VAV) supply system with variable air volume boxes and reheat coils located within or adjacent to conditioned spaces.

Comply with American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE) Standard 90.1-2007, Energy Standard for Buildings, and ASHRAE Standard 62-2007, Ventilation for Acceptable Indoor Air Quality, as well as all applicable federal, state, and local codes.

Outside Design Conditions:

Summer 91.4 degrees F DB / 74.9 degrees F WB Winter 3.9 degrees F DB / -0.7 degrees F WB

Indoor Design Conditions (typical):

Summer 75 degrees F / 50% RH

Winter 70 degrees F / 30% RH

Indoor Design Conditions (heat only spaces):

Winter 55 degrees F

Outside Air Requirements:

Outside Air Requirements for each space are determined by ASHRAE Standard 62-2007.

### HEATING

The facility will be served via a central heating hot water plant. The plant will consist of three (3) high efficiency condensing gas fired boilers (3,000 MBH/each) which shall provide 140 degrees F water for building heating. Boilers shall be sized for full redundancy to allow sufficient heat for the facility in case one boiler experiences failure or needs to be shut down for maintenance.

Hot water from the boilers will then be pumped to coils at the air-handling units for preheating the outside air and the zone VAV boxes for the room heating. The distribution system will consist of two (2) base-mounted variable speed pumps that distribute the hot water through a piping system. The pumps shall be sized for full redundancy to allow sufficient distribution capacity for the facility in case one pump experiences failure or needs to be shut down for maintenance.

Hydronic hot water shall be a 30% propylene glycol mixture to prevent freezing. All hydronic hot water coils shall be rated for 30% propylene glycol fluid mixture. A glycol feed tank shall be provided in the mechanical room.

The piping shall be Type L copper for piping 2" and smaller and Schedule 40 steel for piping larger than 2"

Consideration shall be taken for future expansion to allow for additional equipment, placement, and connections.

It is anticipated that heating in the Vehicle Sallyport will be provided by overhead two-stage, gas-fired infrared heater(s), one per bay, designed to maintain 55 degrees F in this space. Other heat only areas will likely be provided heat via electric unit heaters or gas fired unit heaters.

Electric wall heaters or fan coil units shall be provided at exterior entrances and vestibules.

Electric ceiling mounted radiant heaters shall be provided in Lactation Rooms to provide additional comfort to occupants in the space.

The housing pod chase areas with exterior exposed walls shall be provided with 4-pipe fan coil units to provide perimeter heating.

Makeup air units will be provided for the Laundry Room to provide makeup air for dryer exhaust. The units shall be packaged units with gas heat to provide conditioned air at 55 degrees F during winter season. No cooling shall be provided for these units.

### COOLING

The facility will be served via a central cooling water plant. Cooling will be provided by three (3) packaged air-cooled chillers (each sized for 300-tons) located at grade. The chiller plant will be sized for N+1 redundancy to allow sufficient cooling for the facility in case one chiller experiences failure or needs to be shut down for maintenance.

Chilled water will be distributed to air handling unit coils for cooling and terminal units such as fan coil units via two (2) base-mounted, variable speed chilled water pumps. The pumps will be sized for full redundancy to allow sufficient distribution capacity for the facility in case one pump experiences failure or needs to be shut down for maintenance.

The chilled water system shall be a 30% propylene glycol mixture to prevent freezing. All chilled water coils shall be rated for 30% propylene glycol fluid mixture. A glycol feed tank shall be provided in the mechanical room.

The water piping will be Type L copper for piping 2" and smaller and Schedule 40 steel for piping larger than 2". Refrigerant pipe shall be copper.

Consideration will be taken for future expansion to allow for additional equipment, placement, and connections.

The housing pod chase areas with exterior exposed walls will be provided with 4-pipe fan coil units to provide perimeter cooling.

### **AIR DISTRIBUTION**

Variable Air Volume (VAV) air handling units will supply conditioned air to the facility.

Typically, a zone may consist of four, six or eight offender cells, or anywhere from two to four office spaces, or a single conference room, depending on its size and intended use. VAV systems modulate the amount of primary air provided to each zone based on the cooling load sensed.

Air Handling units will be outdoor, custom, modular type units consisting of hot water preheat coils, chilled water-cooling coils, supply fan, exhaust fan and filter mixing box. The air-handling units will be located on the roof above the areas they serve. Each fan will have a variable frequency drive. The units will be mounted on roof curbs where the ducts shall be bottom connection to the units to avoid any exposed ductwork to the outside elements. Units serving areas which contain a significant amount of outside air/exhaust air will include an Energy Recovery Ventilator (ERV) such as an enthalpy wheel for reducing the amount of mechanical heating and cooling required. Each unit will be provided with UV lights for air disinfection.

The quantity and sizes of the units are estimated to be:

UNIT	SERVES	CFM
AHU-1	Jail Administration	20,000
AHU-2	Jail Intake Booking	25,000
AHU-3	Housing Pod #1	21,000
AHU-4	Housing Pod #2	21,000
AHU-5	Lobby/Courtrooms	33,000
AHU-6	Office Area #1	23,000
AHU-7	Office Area #2 (includes 2 <sup>nd</sup> Floor)	30,000

A thermostat in each zone controls the temperature. Each thermostat is connected to a fan-powered or shut-off type VAV box with a volume damper, which varies the amount of primary air supplied to the zone served. Series fan powered boxes shall be used in areas requiring constant exhaust (Inmate Cells) while parallel fan powered boxes shall be used in areas with high ceilings (Dayrooms, Courtrooms etc.). The fan on the series fan powered VAV boxes run continuously to ensure a steady total flow of air through the zone.

In offender and public areas, the temperature sensors will be located in return air ducts or exhaust air ducts to prevent abuse or tampering with the controls. The controller will be located adjacent to the appropriate VAV box in those spaces. In non-secure areas, the thermostat shall be located on the wall to allow for individual control.

As the temperature rises due to heat gains, the VAV box increases the volume of primary air to provide additional cooling, typically supplied at 55 degrees F. As the thermostat is satisfied, the box throttles the primary airflow back to a minimum position.

As the zone air temperature falls during heating season, the VAV box closes down to a minimum primary airflow position. If the zone air temperature continues to fall, a control valve on the hot water reheat coil on the box opens, raising the temperature of the supply air, typically to around 100 degrees F.

The building will be maintained at a slightly positive pressurization. While the AHU's are running in the economizer mode, with large quantities of outdoor air being brought into the building, air will relieve through the AHUs to either louvers or roof vents.

<u>Secure Areas:</u> Registers, grilles, and diffusers in offender areas will be maximum-security grade with ligature resistance. Ducts with an area greater than 64 square inches, which penetrate the secure envelope, will have security bars at the penetration.

### **VENTILATION**

Ventilation air is fresh outdoor air that is drawn into the AHU's and then distributed to each zone through the VAV boxes. Heating and cooling ventilation air is energy intensive and expensive.

The minimum volume of ventilation air shall be the amount required by ASHRAE Standard 62.1-2007. A CO<sub>2</sub> sensor located in the return duct of each AHU shall monitor the level of carbon dioxide and modulate the outside air damper to bring in more ventilation air if required. In high occupancy zones such as conference rooms or training areas, CO<sub>2</sub> sensors will also monitor local carbon dioxide levels.

If a zone sensor indicates carbon dioxide levels above an acceptable threshold, that VAV box shall first open up to provide additional primary air, reheating as required to maintain space temperature. If the box is opened up to the maximum primary air position, and the carbon dioxide level remains above an acceptable threshold, then the outside air damper to the air handler shall open up to introduce additional fresh air into the system.

The housing units shall be exhausted at a rate approximately 10% higher than the amount of supply air provided in the cells. Other restrooms and shower rooms shall be ventilated at a rate required by ASHRAE Standard 62.1-2007.

An exhaust fan shall be provided in the vehicle sallyport and connected to a CO/NO2 sensor. The fan shall be activated when unacceptable levels of CO/NO2 occur in the space. An outside air intake shall be provided for exhaust air make-up. The vehicles using the bay(s) are not intended to operate inside the space other than to pull the vehicles in and out. Therefore, source capture exhaust is not required, or provided.

<u>Secure areas:</u> A smoke exhaust system meeting UL-864 criterion standard shall be incorporated into this facility's design. Smoke exhaust fans will be provided in each dayroom and offender area (such as Intake/Booking and Medical). Manual switch overrides shall be provided at central security to allow these individual exhaust fans to be controlled in the event OC Spray is used in a particular offender area.

### **INDOOR AIR QUALITY**

Good indoor air quality involves intake of the freshest air possible, optimal filtration, and suppression of mold growth and other organisms within the system. This is accomplished by air intakes directed away from exhaust fumes such as sanitary ventilation and vehicle exhaust, maintaining indoor humidity between 40% and 60%, and by filtering air for supply both at the central air handlers and at the fan powered VAV boxes.

The Medical Housing area will be designed so that it is at a negative air pressure in relation to the adjacent spaces in the building to prevent the possible spread of airborne contaminants.

## **CONTROL ROOMS**

The security control rooms shall be primarily cooled off the AHU's with a dedicated VAV box. A back-up, ductless split system, providing cooling only, will be incorporated for these spaces. The ductless split system will consist of a ceiling mounted cassette or wall hung unit with an associated air-cooled condensing unit located on the roof or outside on-grade.

## SERVER EQUIPMENT, IT EQUIPMENT, AND SECURITY ELECTRONICS ROOMS

The rooms that contain server equipment, IT equipment, and security electronics equipment shall be served by dedicated Computer Room Air Conditioning (CRAC) units. The units shall be ceiling mounted, cassette type units similar to the Liebert Mini-Mate. The associated air-cooled condensing units shall be located on the roof or outside on-grade.

# **DIRECT DIGITAL CONTROL (DDC) SYSTEM**

A direct digital temperature control system allows accurate monitoring and control of all HVAC systems and building temperatures from a central workstation. The computer graphics of digital control systems are highly developed so that monitoring and control of HVAC systems is readily and simply accomplished from a central station through a web-based browser. Sequences of control for each of the mechanical systems shall be provided to assist future maintenance.

## **MECHANICAL SPACES AND ACCESS**

All HVAC equipment, except for the air-cooled condensing units, cooling towers and chillers, shall be located indoors in mechanical spaces. VAV boxes for offender areas shall be located in accessible spaces above the cellblock areas, with sufficient access for future maintenance. Boilers, hot water pumps, and related equipment shall be placed in a mechanical equipment room inaccessible to offenders. Any ductwork or piping that is within reach of, or subject to, possible abuse by offenders shall be suitably protected. Any HVAC equipment requiring maintenance or testing shall be located no more than 24" above suspended ceilings or access panels.

# **SPECIAL CONSIDERATIONS**

Color coded jackets shall be provided for hydronic piping for easier identification in walk thru chases and mechanical rooms.

Commissioning shall be executed by a third party commissioning agent hired by the Owner on all the mechanical systems (including plumbing and fire protection).

HVAC NARRATIVE M - 5

## **ELECTRICAL NARRATIVE**

### **APPLICABLE CODES & CRITERIA**

- A. Electrical power distribution systems and low voltage building systems will be designed in accordance with following codes and standards:
  - a. 2009 Indiana Electrical Code (2008 National Electrical Code with Indiana Amendments).
  - b. IBC 2012 International Building Code, 2012 edition with Indiana amendments.
  - ASHRAE Standard 90.1-2019 Energy Standard for Buildings Except Low-Rise Residential Building.
- B. Load Densities (in watts per square foot)

a.	General lighting	1.0W/sq. ft
b.	Office and convenience receptacles	2.0W/sq. ft
c.	Mechanical	7.0W/sq. ft

C. Voltage Drop

a.	Feeders	2%
b.	Branch circuits	3%

## **DESIGN CRITERIA**

- A. The scope of work includes a new Sheriff's Office, Jail, and Justice Center. The facility will be provided with one (1) 4000A and one (1) 2000A, 480Y/277V, 3-phase, 4-wire electrical service from the local electric utility company.
- B. The utility company will provide two (2) medium voltage padmount transformers which will be installed by the contractor. Each transformer will provide an underground service below grade in PVC, concrete encased duct bank to separate 480/277V, 3-phase, 4-wire Service Entrance Main Distribution Panels located in the Main Electrical Room.
- C. One Service Entrance Main Distribution Switchboard will contain one (1) 4000A long time, short time, instantaneous with ground fault trip setting, solid state service entrance rated main breaker with copper bussing and circuit breaker distribution breakers. The other will contain one (1) 2000A long time, short time, instantaneous with ground fault trip setting, solid state service entrance rated main breaker with copper bussing and circuit breaker distribution breakers.
- D. A 300kA, 277/480V transient voltage surge suppression device will be provided at each Service Entrance Main Distribution Switchboard.
- E. A power systems study (arc flash, short circuit, and protective device coordination) will be the responsibility of the Electrical Contractor and will be performed under the supervision of a licensed Professional Engineer (PE).

- F. Each Service Entrance Main Distribution Panel will feed power to various distribution panels (277/480V) and lighting panel boards (120/208V). These panels will be in satellite electrical rooms around the Justice Center and Sheriff's Office and Jail. The satellite electrical rooms will be located to limit the distance between panelboards and associated wiring devices & equipment for voltage drop purposes.
- G. A 100kA, 277/480V Type 1 surge protective device (SPD) will be provided on all 277/480V distribution panels. An 80kA, 120/208V Type 1 surge protective device will be provided on all 120/208V lighting panelboards. The SPDs will be externally mounted adjacent to the panels and will have 7-mode surge protection (phase-to-neutral, phase-to- ground and neutral-to-ground). The SPD will have advanced monitoring capabilities and features which allow users to monitor surge events on the incoming AC power line, including magnitude, date and time of the event. An audible alarm will sound, and a red indicator light will illuminate when protection level is at 50% or less.
- H. Low-Voltage 480 wye primary, 120/208V wye secondary transformers will be provided in each electrical room. All low-voltage transformer will comply with title 10 Code of Federal Regulations (CFR) part 431 Department of Energy (DOE) 2016 efficiency levels. Unless otherwise indicated, transformers shall have the following:
  - a. Aluminum cores with continuous windings
  - b. Transformers 7.5kVA to 24kVA: One 5 percent tap above and one 5 percent tap below normal full capacity.
  - c. Transformers 25kVA and larger: Two 2.5 percent taps above and four 2.5 percent taps below normal full capacity.
  - d. Transformer 30kVA and smaller: 180 deg C insulation with a maximum of 115 deg C rise above 40 dec C ambient temperature.
  - e. Transformer 30kVA and larger: 220 deg C insulation with a maximum of 115 deg C rise above 40 dec C ambient temperature.
  - f. Electrostatic shielding.
- Large power equipment (i.e. mechanical HVAC) will be fed at 480V. Lighting will be fed at 277V.
   Small power equipment (i.e. electric water heaters, exhaust fans, overhead doors, etc.) will be fed at 208V. Convenience and equipment receptacles will be fed at 120V.
- J. 120/208V and 277/480V Electrically operated breaker panelboards will be provided to control all lighting and wiring devices located in inmate accessible areas of the Jail.
- K. Large motors such as HVAC air handling unit(s) will be equipped with low harmonic variable frequency drives (VFDs) with full maintenance bypass in accordance with IEEE519.
- L. The facility will be equipped with three (3) 480V, automatic transfer switches (one (1) 4000A, one (1) 1600A and one (1) 400A) for emergency loads. The transfer switches will be located in the Main Electrical Room. The automatic transfer switches will be 4-pole overlapping neutral

type. Transfer switches will be equipped with maintenance bypasses. The transfer switches will contain an automatic exerciser which will automatically start and run (exercise) the generators at a specific data, time and duration.

- M. The facility will be equipped with three (3) parallel 1500kw, 480/277V, 3-phase, 4-wire, diesel engine-generator sets which will be used to provide backup power to building loads via the aforementioned transfer switches. The generator sets will be housed in level 2 sound resistant, non-walk-in enclosures and will be located on the ground near the utility pad-mounted transformers. The generators will be equipped with vibration isolators. The enclosures will be suitable for up to 100mph winds. The enclosures will be equipped with a 120/208V, 1-phase, 3-wire, 100A panelboards to power generator auxiliary equipment (i.e. receptacles, lighting, enclosure heater, anti-condensate heaters, battery charger, battery pad heater, controls, emergency stops, etc.). A base mounted diesel fuel tank, sized for a minimum of 48-hours of operation, will be provided for each generator.
- N. Four (4) 5.0KW and one (1) 3.0KW, 277V-in/277V-out central emergency lighting inverter units will be provided. One will be in the Main Electrical Room (Shared Space), two (2) will be in the Sheriff's Office and Jail. The remaining two (2) will be in the Justice Center. Each Unit will be UL 924 and NFPA 101 listed to provide 90-minutes of battery backup capacity at rated load and have four (4) normally on output breakers.
- O. A 225 KVA static uninterruptible power supply (UPS) will be provided in the Main Distribution Frame (MDF) room (Shared Space). The UPS shall have the following:
  - a. 120/208V, 3-phase, 4-wire normal input and output.
  - b. 0.98 power factor at 100% load.
  - c. 4% or less harmonic distortion at 100% load.
  - d. Maintenance bypass/isolation (kirk key interlocked).
  - e. Power converter and bypass modules shall be designed draw out hot swappable.
  - f. Battery cabinet shall provide 15 minutes of backup power at 100% load.
  - g. Allow for status and functioning interfacing utilizing output contacts and RS232 communications ports.
  - h. All cabinets (maintenance bypass/isolation, battery) shall be front access only.

### **GROUNDING AND BONDING**

- A. The electrical distribution system service entrance will be connected to all available grounding electrodes in accordance with NEC (i.e. steel, rebar, water pipe, grounding electrodes, lightning protection down conductors).
- B. Equipment grounding will be provided for all feeders and branch circuits.
- C. A grounding loop electrode cable will be installed around the building perimeter. All site mounted equipment (i.e. air handlers, chillers, generators, transformers, lighting poles, lighting fixtures, etc.) will be bonded to the grounding loop.

- D. Ground rods will be copper clad steel, 3/4" inch in diameter and 10'-0" long.
- E. Grounding impedance will not exceed 5 ohms.
- F. A master building ground bus bar 'MGB' (1/4"D x 4"H x 2'-0"L copper ground bus bar with 9/32-inch holes spaced 1-1/8 inch apart) will be provided in the Main Electrical Room. Equipment in the Main Electrical Room (i.e. fire alarm batteries, etc.) will be bonded to the master building ground bus bar.
- G. A sub system ground bus bar 'SSGB' will be installed in each MDF, IDF and UPS room. Telecom equipment enclosures will be grounded and bonded per ANSI/TIA-607-D. Telecom grounding bus bars 'SSGB' will be connected to the main ground bus bar in the Main Electrical Room using #1/0 AWG copper green insulated bonding cable.

### LIGHTING

- A. The standard voltage rating for all interior light fixtures will be 277V. The standard lamp utilized will be LED, 4000 degrees K color corrected energy efficient.
- B. Lighting fixture types per area shall be as follows:
  - a. Main corridors and hallways: recessed mounted within gypsum board or lay-in grid.
  - b. Offices and general use rooms: flat panel, direct, LED fixtures.
  - c. Storage, Mechanical, Electrical rooms: linear, strip LED fixtures.
  - d. Conference, Training/Multipurpose rooms: 2x2 architectural LED troffers.
  - e. Lobby: decorative LED fixtures.
  - f. Courtrooms: LED downlights, decorative LED fixtures and LED linear slot/cove fixtures
  - g. Detention area lighting will be LED corner mount, recessed, or surface mounted heavy-duty steel with 0.125" prismatic acrylic inner and 0.500" polycarbonate outer lenses.
- C. Emergency egress lighting will be provided throughout the building interior and at the exterior near exit discharge doors. The egress lighting will illuminate in excess of the NFPA 101 1-foot candle minimum along the path of egress. Egress fixtures will be powered from the emergency power system via the aforementioned central battery inverters to operate within 10 seconds of a power outage in accordance with NFPA 101.
- D. Emergency exit lighting will be provided throughout the facility. Exit lights will be polycarbonate with red LED lamps for energy as well as long lamp life (15 to 20 years). The exit lights will be placed to direct occupants to the exit discharge doors. Exit fixtures will be powered from the emergency power system via the aforementioned central battery inverters to operate within 10 seconds of a power outage in accordance with NFPA 101.
- E. Building façade fixtures, located along the exterior perimeter wall, will be LED fixtures.

- F. Single and double arm mounted LED area pole lights will be provided in the Parking lots and Drives. Poles will be 30'-0" high.
- G. Single arm mounted LED pedestrian lights will be provided along walkways. Poles will be 14'-0" high.
- H. Ground mounted LED tight spot lights will be provided around flag poles and entrance bollard signs.
- I. All foot-candle levels will be based on average values recommended by the Illuminating Engineering Society of North America (IESNA) and Indiana Energy Conservation Code.
- J. The Indiana Energy Code requires that each partitioned interior space have automatic lighting shut-off control. Occupancy sensors will be provided within each partitioned interior space for public and common areas (office areas, corridors, storage, break rooms, etc.).
- K. The Energy Code requires that exterior lighting has automatic lighting shut-off control. Exterior lighting will be automatically controlled with an astronomic time clock with a photocell override (located in Main Mechanical/Electrical Room).
- L. Each office and conference room will be provided with a dimmer switch capable of dimming the room lights down to 10%.
- M. A multi-zone stand-a-lone lighting control system with local controls will be provided in each Courtroom. The system will have a minimum of 3 presets and will facilitate dimming down to 1% for each zone.
- N. Daylight Harvesting (automatic dimming) will be provided in areas with skylights and large windows.

## FIRE ALARM/DETECTION SYSTEMS

A. An addressable fire alarm and detection system and mass notification system (voice actuated) will be installed throughout the facility. The fire alarm system will be provided with a battery backup system that shall be capable of operating for 24 hours.

# B. Devices:

- a. Addressable photoelectric smoke detectors will be installed in all common areas (i.e. corridors) and high combustible areas (i.e. storage rooms, janitor rooms, mechanical/electrical equipment rooms).
- b. Addressable combination rate-of-rise/fixed temperature heat detectors will be installed in the Kitchen.

- c. Addressable duct type smoke detectors will be installed on all air-handling units over 2,000 CFM and interlocked to shut down AHUs upon detection.
- d. Addressable alarm activation 'pull-stations' will be installed at all exits and at 200' intervals in corridors, in accordance with the requirements of the ADA.
- e. Addressable speaker/strobe signaling devices will be installed in corridors and assembly areas (Training/Multipurpose rooms), such a signaling device is no farther than 50' in any direction.
- f. Addressable ADA strobes will be installed in restrooms.
- g. Addressable air sampling smoke detector (VESDA) system will be installed in all detention area "sleeping/housing" areas along with adjacent corridors/interlocks. An air sampling port will be used in the cell exhaust ductwork.
- h. Visible signaling devices and text displays for hearing impaired will be provided in corridors and assembly areas (Courtrooms).
- i. Audio amplifiers will be provided on the system.
- C. Cabling for fire alarm system will be installed in a continuous raceway throughout the building. Conduit will be painted red. Fire alarm cabling will be red. The fire alarm system will be the only electrical system to use red cabling and conduit. This will ensure that the fire alarm system cabling is never mistaken for another building system such as temperature control, voice/data, or security electronics.

### TELEPHONE AND NETWORK DATA SYSTEMS

- A. The new facility will contain one IT/Main Distribution Frame "MDF" room located near the Main Electrical Room. The MDF room will connect to racks and cabinets in satellite Intermediate Distribution Frame "IDF" rooms via fiber optic cabling. Cable trays will be installed and routed from the Voice/Data Cabinet in the IT/MDF room to all accessible areas for any voice/data 'drop' installations. Additional raceways will be provided between floors for cable management.
- B. Rough-in back boxes, device plates, conduit, and structured Category 6A cabling will be provided throughout the facility for the structured telephone and data cabling system. This equipment and cabling will be provided and installed by Contractor.
- C. All communications racks and cabinets will be equipped with power supplies, cabling wire way, and cross connect patch panels. Sufficient vertical mounting space will be provided in the MDF racks to accommodate Owner furnished Ethernet Switch equipment and Owner furnished VOIP equipment. The Owner will furnish the telephone switch and handsets.
- D. A telephone terminal board (TTB) will be installed in the IT/MDF room. The TTB will be a 48"W x 96"H fire resistant plywood board and will be painted to match wall color.
- E. Utility service requirements will be coordinated with the local utility and a raceway (with pull string) will be installed into the IT/MDF room.

- F. A 100-pair UTP copper telephone trunk cable will be provided from the point of demarcation and punched-down at a 100-pair, 110-block located on the TTB.
- G. Computer/data cable shall be installed within a complete raceway/ cable tray system that will be routed up thru the accessible ceiling space and to the IDF/MDF rooms for ease of cable and any cable modifications in the future.
- H. A complete building Wi-Fi system will be installed. The Wi-Fi system will be extended along the site outside the building.

### COURTROOM TECHNOLOGY

- A. Each courtroom will have an integrated system like Crestron NVX or approved performance equal. System shall be provided by a single vendor/integrator, and shall include devices, components, wiring, and accessories for graphic display of information, audible devices for hearing/ADA hearing and closed captioning, recording, and interface of AV to other Owner IT systems for Judicial and Administrative systems.
- B. Each courtroom will have the following equipment: 10.1" touch screens (black), digital media switchers, digital media input cards, HDMI input cards, digital media output cards, HDMI scaling output cards, flex video conference system integration kits, digital media wall plate transmitters, HDMI camera extensions, digital media receivers, power packs, AV switchers, USB converters, digital graphics engines, rack mounted digital media receivers and controllers, 21.5" touch screens, air media WiFi network receivers, distribution amplifiers, commercial power amplifiers, ceiling speakers, network AV encoders/decoders, microphones, and 7" touch screen.
- C. Additionally, AV vendor shall provide cabinets/racks and accessories needed for rack mounted AV head-end equipment. An equipment room will be located near the Courtrooms for Courtroom technology equipment.
- D. Multiple video display monitors will be provided in each Courtroom. Large display monitors will be provided for the Judge, Witness, Litigators and audience viewing. Small display monitors will be provided in the Jury box (1 monitor per 2 Jurors). Large (i.e. 10-gang) floor boxes will be provided at the Judge, Prosecutor, and Clerk areas to accommodate technology input/output connector types.
- E. A video arraignment system will be provided in each of the Courtrooms and designated Video Arraignment Rooms at the Jail.
- F. Voice lift and program sound reinforcement will be provided. Zoning, amplification, and interface to the control system for distribution within the Courtroom and outside of the Courtroom for purposes of Court reporting and remote testimony will be provided.
- G. Video distribution will be designed to accommodate current technology. The control system will be capable of accepting analog, HDMI and USB inputs from outside sources.

- H. An audio-visual control system will be provided to allow the integration of sound and display technologies. Control will be located per the County's direction either at the judge's bench or the court clerk's location. The control system will automate the use of the audio and video technology and integrate lighting control to optimize viewing.
- I. A/V will include video court, attorney client conferencing, and multi-conferencing. Recording capabilities will be provided in all areas.
- J. The audio-visual systems in the Courtroom and Hearing rooms will be standardized throughout. Each system will function identically to the others so operation will be consistent from room to room.

#### **EMERGENCY NOTIFICATION**

A. An emergency notification system will be provided throughout the Justice Center. A display board/monitor will be provided in each Courtroom and two (2) display boards/monitors will be provided in each corridor for notification.

### **MATV SYSTEMS**

- A. Rough-in back boxes, device plates, conduit, and coaxial cabling will be provided throughout the facility for the Cable Television system. The coaxial system will be connected to the coaxial Cable TV Utility service at the point of demarcation. Cable TV service and TV sets to be Owner provided.
- B. TV amplifiers and splitters for the system will be installed in an equipment room.
- C. High speed data is available through a service provider. Owner shall provide service to the building through a conduit installed by this contractor.

# SOLAR (PHOTOVOLTAIC) AND ELECTRIC VEHICLE CHARGING

- A. Provisions will be provided in the Service Entrance Main Distribution Switchboard for a future connection to photo-voltaic solar panels on the rooftop of the facility. Raceways will be provided to allow for connectivity.
- B. Electric vehicle charging stations will be provided in the Staff and Visitor parking lots.

## LIGHTNING PROTECTION

A. Lightning Protection is not required by code but will be provided. The Lighting Protection system will be designed to NFPA 780 standards.

# BRANCH CIRCUIT LOAD REQUIREMENTS

- A. Maximum loading, for branch circuit(s), will be provided as follows:
  - a. For 20A, 120V convenience receptacle branch circuits: Six (6) receptacles (1080VA).
  - b. For 20A, 120V fractional HP motor branch circuits: 1500VA.
  - c. For 20A, 277V lighting branch circuits: 3324VA.
  - d. For office furniture assemblies, no more than three (3) workstations will be wired to a single circuit (1440VA).

### RECEPTACLE AND SPECIAL CONNECTION REQUIREMENTS

- A. Receptacles will be provided in each space per program requirements. At a minimum, each regularly occupied space shall have at least one receptacle per wall.
- B. Receptacles in kitchen, restrooms, janitor closets, counter tops with sinks and as otherwise required per NEC will be GFCI type.
- C. Receptacles for maintenance, any special equipment, and within 25 feet of exterior/rooftop HVAC equipment will be provided as required by NEC.
- D. Building exterior: One (1) weather-proof GFCI duplex receptacle, with while-in-use cast aluminum cover, will be located adjacent to each entry door and hose bib along exterior walls.
- E. Lobby, Public and Service Corridors: Receptacles will be spaced no more than 40 feet apart, for plugging-in housekeeping equipment.
- F. Storage Closets: One (1) duplex receptacle, GFCI as required, per 250 sq. ft.
- G. Janitor's Closets: One (1) GFCI quad receptacle.
- H. Electrical and Mechanical Rooms: One (1) duplex receptacle per wall, GFCI as required.
- I. Telecom Rooms: An electrical panelboard will be provided in each room. These electrical panelboards will be connected to a central UPS. One (1) NEMA L6-30, one (1) NEMA L14-30, and two (2) double duplex receptacles per wall will be provided (final requirements to be coordinated with user's IT requirements). Other receptacles and connections to the system such as security and AV will be provided (requirements to be coordinated with user's IT requirements).
- J. Elevator Machine Rooms: One (1) GFCI duplex receptacle and lighting each on a dedicated circuit.
- K. Elevator Pits: One (1) GFCI duplex receptacle per elevator and lighting, one (1) simplex, non-GFCI, receptacle for sump pump, each on separate circuit.
- L. Elevator Hoistway: One (1) GFCI duplex receptacle per elevator and lighting, each on dedicated circuit.
- M. Public Restrooms: One (1) GFCI duplex receptacle adjacent to lavatory sink countertop, on a dedicated circuit and one (1) GFCI duplex receptacle adjacent to the door for housekeeping.
- N. Audio-Visual (AV) and Security (SEC) Systems: Provide power to AV equipment as required.
- O. 120V connections for fire/smoke damper actuators.
- P. Dedicated receptacle circuits for vending (GFCI type), copiers, refrigerators, printers, electric water coolers (GFCI type).
- Q. Floor boxes equipped with both power and data provisions will be provided for Courtroom in locations as required, and as coordinated with furniture layouts.

## **BASIC MATERIALS**

# A. Wiring Devices:

- a. Wiring devices will be 20 ampere specification grade unless noted otherwise.
- b. Plugs and receptacles will have NEMA configuration(s) as required for connection of cord and plug equipment. Duplex receptacles will be specification grade, back and side wired, two pole, three wire, grounding type, 20 ampere, 125 volt.
- c. Ground fault circuit interrupter duplex receptacles will be specification grade, non-feed-through two-pole, three wire, grounding type, 20 ampere, 125 volt.
- d. All outlets will have ground conductor connected to outlet. Self-grounding receptacles are prohibited.
- e. All switches will have body securely locked to bridge by stacked screw assembly. Back wiring will be through a hole with clamp-type wiring assembly provided that is suitable for stranded wire. Toggle switches will be specification grade, back- and side-wired, 20 ampere, 120/277 volts.
- f. Wall plates will be brushed stainless steel, satin smooth finish, device color selected by Architect. Wall plates will be galvanized steel in unfinished spaces. Blank wall plates will be provided on unused wiring device box openings.
- g. Exterior devices will be installed in weatherproof, while-in-use covers.
- h. Wall plates for control switches will be labeled with the designation for the unit controlled.
- i. Wall plates for convenience receptacles will be labeled with panelboard and circuit designation.

## B. Motors, Controllers, Disconnect Switches:

- a. Motors less than 3/4 horsepower will be connected at 120 volt, 1-phase.
- b. Motors at 3/4 horsepower and higher will be connected at 208 volt, or 480 volt, 3-phase.
- c. Combination motor starters will be in separate stand-alone enclosures as dictated by the motor locations and quantities. Individual starters will have a fused or non-fused disconnect as required.
- d. Variable frequency drives (VFDs) will be equipped with a low-harmonic filter, an EMF filter, and integral disconnect switch with full bypass.
- e. Motor starters, including VFD's, will be equipped with a H-O-A selector switch and LED pilot lights. Full-voltage, non-reversing, motor starters will be equipped with Class 10 enhanced solid-state overload protection.
- f. Motor controls will be equipped with 120V contacts for remote start/stop control as well as for monitoring/alarming/control by the building automation system.
- g. Safety disconnect switches will be heavy-duty type, lockable, multi-pole, fused or non-fused switch type as required.
- n. Variable frequency drives will be provided for HVAC equipment (pumps, air handlers, fans, etc.) per mechanical/plumbing requirements.

i. Power to HVAC, plumbing, and fire protection equipment will be provided in accordance with equipment Manufacturer's recommended minimum circuit ampacity (MCA) and maximum overcurrent protection (MOCP).

# C. Conduit, Wiring and Raceways:

- a. Power cables will be installed in conduit, except as noted below.
- b. For finished interior building spaces, and on building exterior, conduits will be concealed, and wiring devices will be recessed.
- c. Minimum size conduit will be 3/4".
- d. Separate "color coded" raceways (i.e. conduits, sleeves, cable trays, j-hooks, etc.) will be provided for cabling for the following systems:
  - i. 208/120-volt power and 480/277-volt power.
  - ii. 480/277-volt photovoltaic solar power.
  - iii. Fire alarm/detection system.
  - iv. Structured horizontal communication cabling system.
  - v. Structured backbone communication cabling system.
  - vi. Access control system.
  - vii. Building automation/temperature control system.
  - viii. Security (CCTV Video surveillance, intrusion detection, alarm, detention, etc.) systems.
  - ix. Audio-Visual (AV) system.
- e. Electric metallic tubing (EMT) conduit with compression fittings. EMT will be used for all branch circuit home runs. EMT shall be used as interior concealed conduit, such as furred walls, in stud walls, above ceilings and where heavy wall rigid steel conduit is not stipulated. EMT conduit, junction boxes, pull boxes, for fire alarm/detection and mass notification cabling, will be red painted.
- f. Galvanized rigid steel conduit (GRC) will be used in mechanical equipment rooms (except in locations not subject to physical damage such as ceilings) and in other interior locations subject to physical damage.
- g. Long radius bends will be used on raceways (conduits, sleeves) for structured horizontal communication cabling and for structured backbone communication cabling. Pull boxes will be provided such that pulling does not exceed two (2) 90-degree bends.
- h. J-Hooks will be spaced 5'-0" apart; separate J-Hooks will be used for different signal/control/communication cabling systems.
- i. Cable tray will be aluminum basket tray; dividers will be used to separate different signal/control/communication cabling systems.
- j. Galvanized rigid steel conduit (GRC) will be used in outdoor locations and in damp and/or wet interior locations. Direct buried, Rigid PVC Schedule 40 (RNC 40) conduit will be used underground; except GRC will be used under paved vehicular traffic areas.
- k. Liquid-tight flexible steel conduit will be used where exposed to moisture, weather and for motor connections. Flexible conduit connections to motor equipment and/or vibrating equipment (i.e. transformers) will not exceed 3'-0" in length.

- I. Feeder conduits will not be allowed to be installed in concrete floor slabs and/or concrete equipment pads. Branch circuit and control conduits may be installed in slabs and must be GRC. Minimum allowable conduit size will be 1" and must be installed in the middle 1/3 of concrete slabs per structural specifications.
- m. Pull and junction boxes will be provided where necessary. Wiring device boxes and Mutli-User Telecommunications Outlet Assembly (MUTOA) device boxes will be galvanized steel, 4" square, minimum 2-1/8" deep unless otherwise indicated.
- n. Cast type Ferris Box Deep and Ferris Box Standard (FD/FS) conduit bodies with case lugs will be used where exposed to weather and where subject to moisture or mechanical damage. FD/FS covers will be used with these boxes.
- Firestopping will be provided for electrical penetrations through fire rated wall/ceilings/floors, using UL-listed means and methods in accordance with NFPA.
- p. Copper conductors will be used for low-voltage branch circuit and feeder power cabling. Cable insulation will be type THWN for feeder conductors and type THHN/THWN/MC for branch circuit conductors. Conductors installed underground or in wet locations will be THWN or XHHW.
- q. For Branch Circuits: Conductors #12 AWG and smaller will be solid. Conductors #10 AWG and larger will be stranded; wiring installed in areas subject to vibration will be stranded. The minimum size wire for power circuits will be #12 AWG.
- r. For Feeders: Conductors #8 AWG and smaller will be solid. Conductors #6 AWG and larger will be stranded; wiring installed in areas subject to vibration will be stranded.
- s. For discrete signal/alarm/control circuits a minimum #18 AWG may be used. Specialty wiring sizes and types for various other systems such as fire alarm, access control, and CCTV systems will be as required by manufacturer's recommendations. Specialty signal/communication cabling, structured horizontal communication cabling, structured backbone communication cabling, etc. will be plenum rated (type CMP).
- t. Low voltage control wiring in mechanical rooms or other occupied spaces will be routed in EMT, except the final connection from junction box to actuators will be run in 3/8" liquid-tight flexible aluminum conduit. The length of the flexible conduit shall not exceed 24" or the length of the actuator's power cord.

## D. Identification:

- a. Arc flash hazard warning labels will be installed on electrical distribution equipment. Warning labels will include available incident energy, minimum approach distance/arc flash boundary, and minimum PPE (personal protective equipment) clothing requirements as recommended by aforementioned Arc Flash Study to be provided.
- b. Plastic laminate nameplates, with black letters on a white phenolic nameplate, will be provided for electrical equipment enclosures.
- c. Conduit: every 25 feet.
  - i. Normal Power: Black lettering on white background identifying voltage.
  - ii. Emergency Power: Red lettering on white background identifying voltage.
  - iii. UPS Power: Orange lettering on white background identifying voltage.

- iv. Fire Alarm: White letters on red background "FIRE ALARM."
- v. Telecom: Black lettering on white background "TELECOMMUNICATIONS."
- vi. Temperature Control: Black lettering on white background "TEMPERATURE CONTROL.".

## d. Boxes:

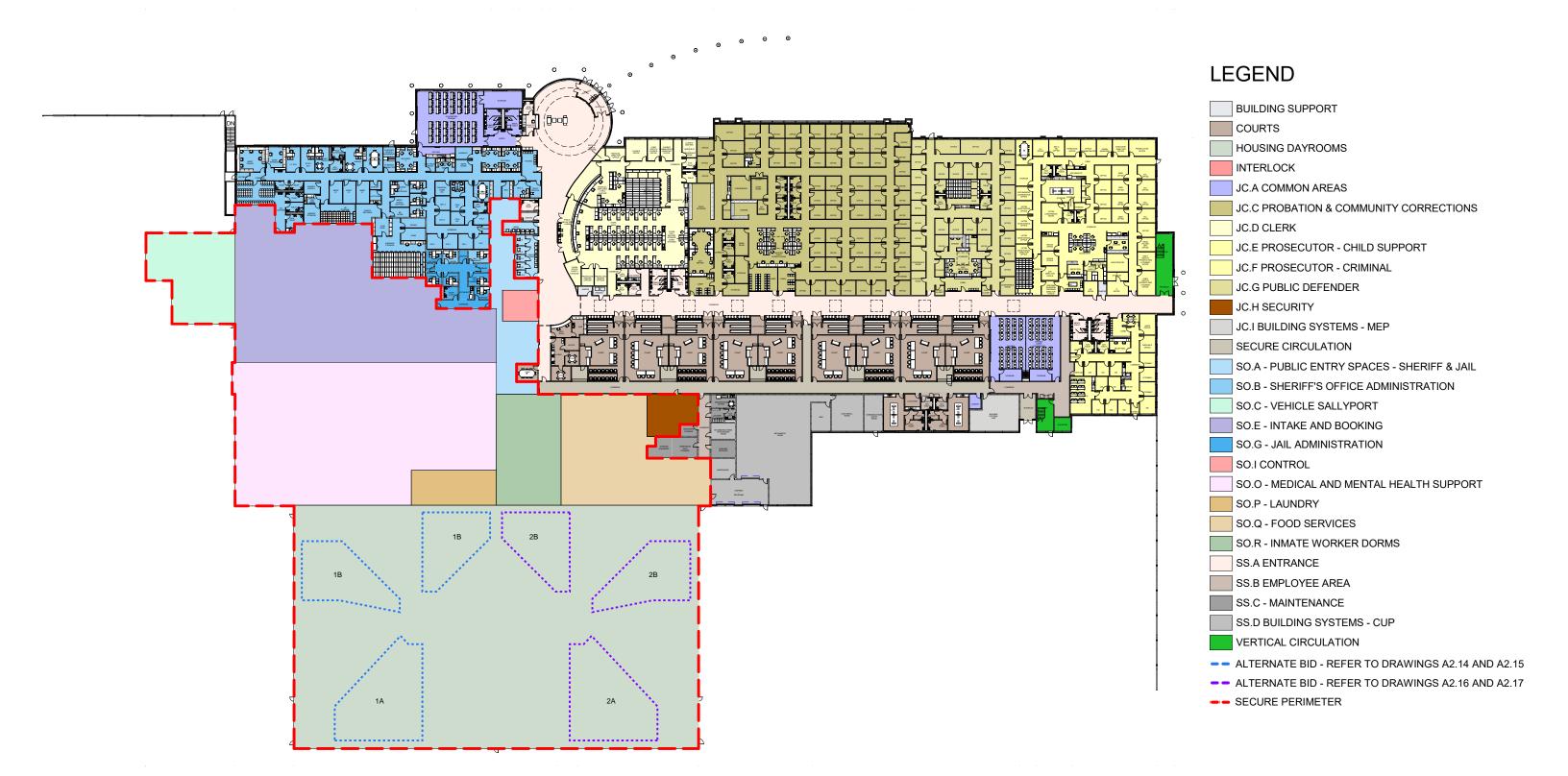
- i. Permanent markers indicating circuit(s) and source panel.
- e. Tape wire and conductor labels.
- f. Painted marker inside device coverplates for receptacles.
- g. Detectable locating/warning tapes for underground direct buried raceways and concrete encased duct banks.
- h. Service equipment shall be labeled by qualified electrical testing laboratory for use as service equipment with one or more service disconnecting or overcurrent protective devices.





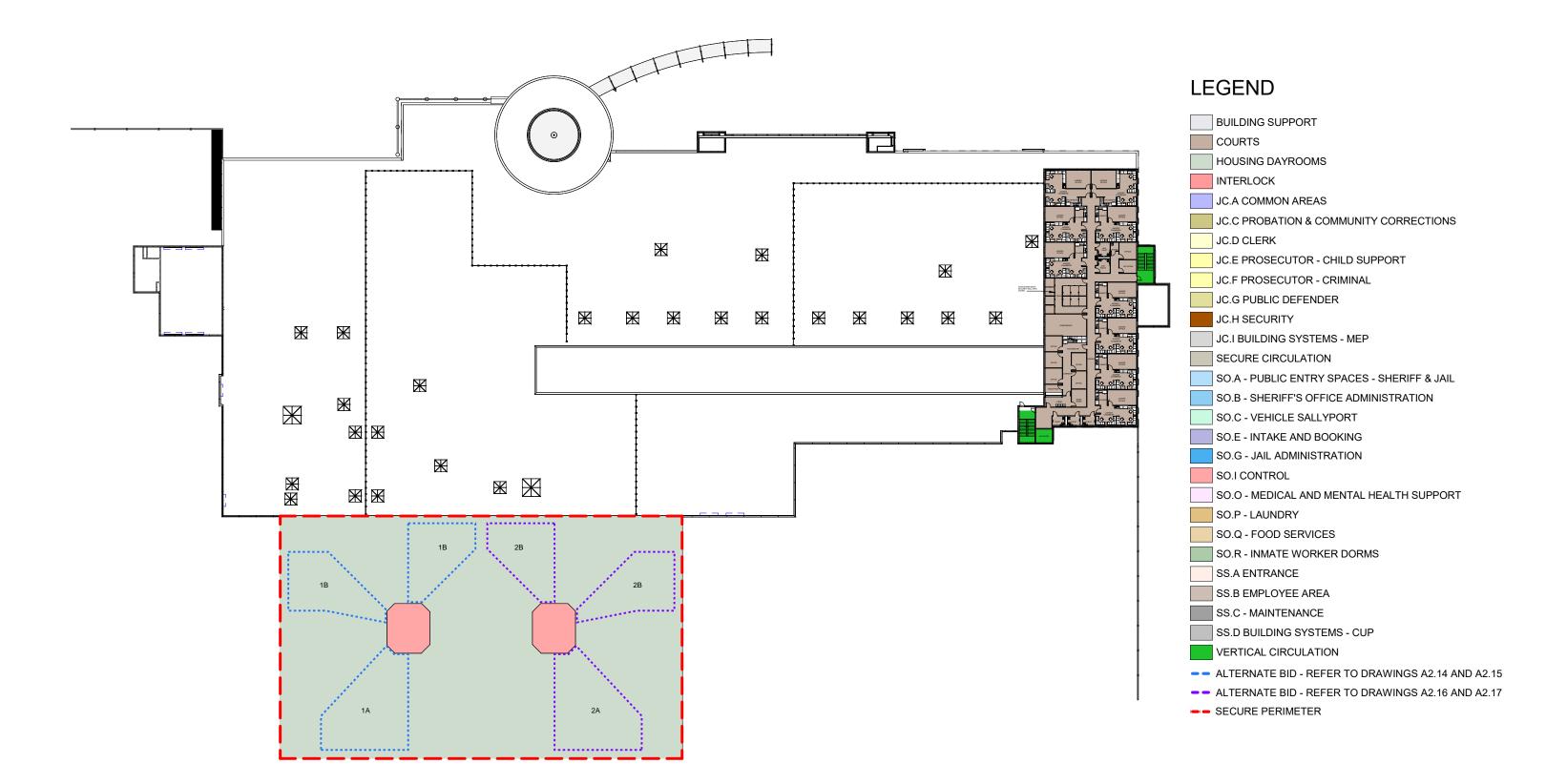












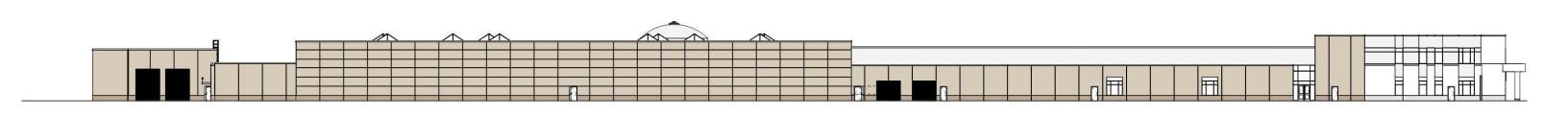








PLAN NORTH ELEVATION - OVERALL



PLAN SOUTH ELEVATION - OVERALL





PLAN EAST ELEVATION - OVERALL



PLAN WEST ELEVATION - OVERALL



















































# SCHEMATIC DESIGN PRICE EXHIBIT

# **SCHEMATIC DESIGN PRICE EXHIBIT**

AS PREPARED BY WGS

### PROJECT COST DEVELOPED BASED ON BASE BID SCHEMATIC DESIGN PACKAGE

- 237,161 SF
- 404 BEDS (SHELL SPACE FOR ADDITIONAL 96 BEDS VIA ADD ALTERNATES BELOW)
- **FULL SHERIFF'S OFFICE AND JAIL**
- **FULL JUSTICE CENTER**

TOTAL CONSTRUCTION COSTS	\$194,090,689
SOFT COSTS	\$30,409,429

TOTAL PROJECT COSTS	\$224,500,118
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### **ADD ALTERNATES:**

ALTERNATE 1 & 1a – Add 48 Beds	\$2,458,805
ALTERNATE 2 & 2a – Add 48 Beds	\$2,458,805
ALTERNATE 3 – Add Inmate Resource Center	\$896,656

NOTE: ALL COSTS ARE BASED ON THE BIDDING PERIOD IDENTIFIED ON THE AUGUST 29, 2025 TIMELINE.

138 N Delaware St, Indianapolis, IN 46204-2524 OFFICE 317.633.4120 ONLINE WWW.DLZ.COM

PCE-1









August 29, 2025

## **Assumptions:**

- 1. DLZ will commence the Conceptual Design and Master Planning work based upon the property included in the Purchase Agreement (November 12, 2024).
- 2. Colocation Sheriff's Office & Jail and the Justice Center both designed, bid and constructed concurrently.
- 3. At least monthly meetings with staff will occur during the project.
- 4. Completion of Predesign is pending successfully completing the Justice Facility Program rectifying the gross square footage with the allowable budget.
  - a. DLZ anticipates three (3) Justice Facility Programming meetings with each Office/Department, with at least two (2) days between the meetings, being required to complete the Justice Facility Program by February 14, 2025. The below Timeline is based on this assumption.
- 5. State Legislation adopts/enacts concession(s) permitting required funding.

### Timeline:

Date:	Activity:
April 17, 2024	Predesign Justice Facility Programming Commenced
July 22, 2024	Predesign Sheriff's Office & Jail Facility Programming Commenced
August 2024	Phase II Environmental completed at North Park site.
	• Completed
September 23, 2024	Tax Hearing notice sent to newspaper for October 15 <sup>th</sup> Public Hearing date.
	• Completed
October 15, 2024	Public Hearing on Tax Increase.
	• Completed
October 31, 2024	Deadline for Corrections Income Tax Increase.
	• Completed
November 12, 2024	Purchase Agreement completed. Assumptions 1 & 2 are triggered.
January 30, 2025	DLZ forwarded Predesign documents (consisting of Programming, Conceptual Design and Master Planning) to WGS for cost estimating. See Assumption 4 above. **

Completed

February 27, 2025	Predesign (consisting of Programming, Conceptual Design and Master Planning) and cost estimate is presented to the County by DLZ/WGS. County Commissioners approve Predesign and authorizes DLZ/WGS to commence the Schematic Design phase.
	• Completed
July 18 – Aug 1, 2025	DLZ forwards Schematic Design documents to WGS for cost estimating. **
	• Completed
August 29, 2025	Schematic Design and cost estimate is presented to the County by DLZ/WGS.
August/Sept 2025	Survey completed at North Park site. DLZ to forward to the County.
September 4, 2025	County Commissioners approve Schematic Design and authorize DLZ/WGS to commence the Design Development phase.
September 16, 2025	Closing on North Park site. Property purchased.
November 18, 2025	DLZ forwards Design Development documents to WGS for cost estimating. **
December 23, 2025	Design Development and cost estimate is presented to the County by DLZ/WGS. County Commissioners approve Design Development and authorize DLZ/WGS to commence the Construction Document phase.
January 2026	Begin Bonding process.
May 19, 2026	DLZ forwards Construction Documents to WGS for cost estimating. **
June 23, 2026	Construction Documents and cost estimate is presented to the County by DLZ/WGS. County Commissioners approve Construction Documents and authorize DLZ/WGS to commence the Bidding phase.
August 2026	Receive Bids
August 2026	Close on Bonds. After closing, issue Notice to Proceed to contractors.
October 2026	Begin Construction
June 2029	Construction Substantially Complete

<sup>\*\*</sup> DLZ continues to work on the subsequent design phase during the four (4) week duration WGS is performing the cost estimate. Any required design revisions will be addressed in the subsequent design phase.

Training, transition and occupancy

2029