NEW HIDALGO COUNTY COURTHOUSE

HIDALGO COUNTY

SCHEMATIC DESIGN PACKAGE

ero architects

HDR

THE COUNTY OF HIDALGO TEXAS


THE COUNTY OF HIDALGO
TEXAS

APPROVAL SHEET

SUBMITTED FOR APPROVAL

The A/E represents that the drawings and descriptions, to the best of the A/E's knowledge and belief, fulfill the Project Scope requirements and that the construction can be completed for the Construction Budget amount, and within the Project Schedule:

6/17/2014

Eli R. Ochoa, PE, AIA
Principal-in-Charge, ERO Architects

Date

APPROVAL ON BEHALF OF HIDALGO COUNTY

Individual signing below has reviewed the information contained within this Schematic Design Submittal:

Ramon Garcia
Hidalgo County Judge

Date

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ACKNOWLEDGMENTS

The principals, associates, and staff of ERO Architectss and HDR Architecture wish to express our sincere appreciation to the County of Hidalgo for allowing our firms the opportunity to be involved in the schematic design of the new proposed Hidalgo County Courthouse. We also extend our utmost gratitude to the County Judge, County Commissioners, City of Edinburg, County staff and County stakeholders who have provided important information during the Schematic Design Phase of this project. Their input and guidance have been most valuable.

COMMISSIONERS' COURT

Ramon Garcia
Hidalgo County Judge

A.C. Cuellar
Precinct 1 County Commissioner

Hector "Tito" Palacios
Precinct 2 County Commissioner

Joe M. Flores
Precinct 3 County Commissioner

Joseph Palacios
Precinct 4 County Commissioner

Valde Guerra
Commissioners' Court
Executive Officer

COUNTY JUDGE'S OFFICE

Yolanda Chapa
Chief Administrator for County
Judge's Office

Michael Leo
Executive Assistant for County
Judge's Office

CITY OF EDINBURG

Richard Garcia
Mayor of Edinburg

Elias Longoria Jr.
Councilmember Place 4
Mayor Pro-Tem

Richard Molina
Councilmember Place 1

J.R. Betancourt
Councilmember Place 2

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Ramiro Garza
City Manager

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Nelda Ramirez
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Halden Tally, AIA
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Phillip Steffy, Assoc. AIA


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PROJECT SUMMARY

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PROJECT SUMMARY

Introduction

The existing Hidalgo County courthouse was built in 1954 to accommodate six courts when the County's population was 168,629. In 2004, the courthouse passed its 50-year mark, designating it a historical structure by the Texas Historical Commission. The County's growth has continued with a population now almost five times that of 1950. Today, the County has 24 courts with many legal, administrative, storage and general government functions located at off-site facilities.

A historical preservation plan was developed in 2012 and in order to make changes to the building, restoration of several significant historic spaces would need to take place. The building would need to be brought up to code and undergo several modifications. This remediation and renovation could take up to three years at a significant cost of over $25 million. The costs to accommodate the county's pressing space needs is far in excess of the cost to renovate the existing courthouse.

With the use of 3D visualizations, ERO Architects has brought to life the vision that was set forth by the Commissioner's Court, the City of Edinburg, end-users, stakeholders and the community.

This package illustrates the schematic design and process for the new Hidalgo County Courthouse. Included are architectural, civil, structural and MEP narratives that describe in length the details of design. A summary of the revised design program is included, which shows the differences from the original master plan program to the most recent design program.

Site plans, floor plans, elevations and outline specifications are provided to demonstrate the design of the courthouse. A list of specialized courthouse house equipment, interior finishes, and area and volume calculations are also included in this schematic design package, as well as architectural renderings.

Probable costs of construction and construction delivery model options are also included.

PROJECT SUMMARY

Existing Courthouse Issues

Replacing the Existing Courthouse Functions with a New Courthouse

Hidalgo County strives to maintain and utilize its existing facility assets to achieve the optimal use and achieve the best value for the public welfare. The common issues that are present in any building are factors that impact the renovation cost as follows:

- Maintenance cost of the existing HVAC, finishes, and systems
- Upgrades to meet life safety and building codes
- Upgrades to meet minimum standards for energy compliance
- Maintenance and replacement of roofing and waterproofing to prevent water and moisture infiltration
- Monitoring of potential foundation or structural deficiencies particularly with regard to building codes affecting seismic requirements for earthquake zones

The maintenance and replacement cost to address the above issues are at a critical stage for the existing courthouse and are documented in the Historical Preservation Plan presented in 2012. The estimated costs ($25,000,000) in the 2012 report have been impacted by construction cost escalation for the future.

Existing Courthouse Functional Deficiencies

When analyzing an existing courthouse the unique issues related to the judicial and detention functions and their potential impact on public safety must be considered. This is the most critical issue influencing the decision to plan and proceed with a new courthouse. The greatest problem that exists when considering modern courthouse planning and design standards is the need to separate the movement of defendants-in-custody and judicial staff. Here's a list of some deficiencies:

- Currently the inmates brought to court from the Hidalgo County Jail pass through the same public corridors as the public and staff. This creates a safety issue exposing the public to potential harm.
- This condition presents liabilities to the County and public safety involving the potential passage of contraband or weapons to inmates from family members or associates in open public corridors
- Pre-trial and post-trial facilities for attorney consultation and documentation are not separated from the public requiring these functions to be performed in open public corridors
- The number of courts and the ability to provide for future growth is not possible in the existing facility

Additional functional criteria necessary for a courthouse addressing 21st century procedures include: proper acoustical treatment of spaces to provide speech privacy and clarity; technology infrastructure to support current and future technological systems that facilitate caseload processing and proceedings; adequate lighting and lighting controls to facilitate proceedings; accessibility accommodations that meet current state and federal guidelines; and adequately design life safety systems for building occupants. The existing courthouse currently suffers in each of these areas and addressing these needs would be costly if the facility is to continue serving the judicial system for Hidalgo County. Here are some examples:

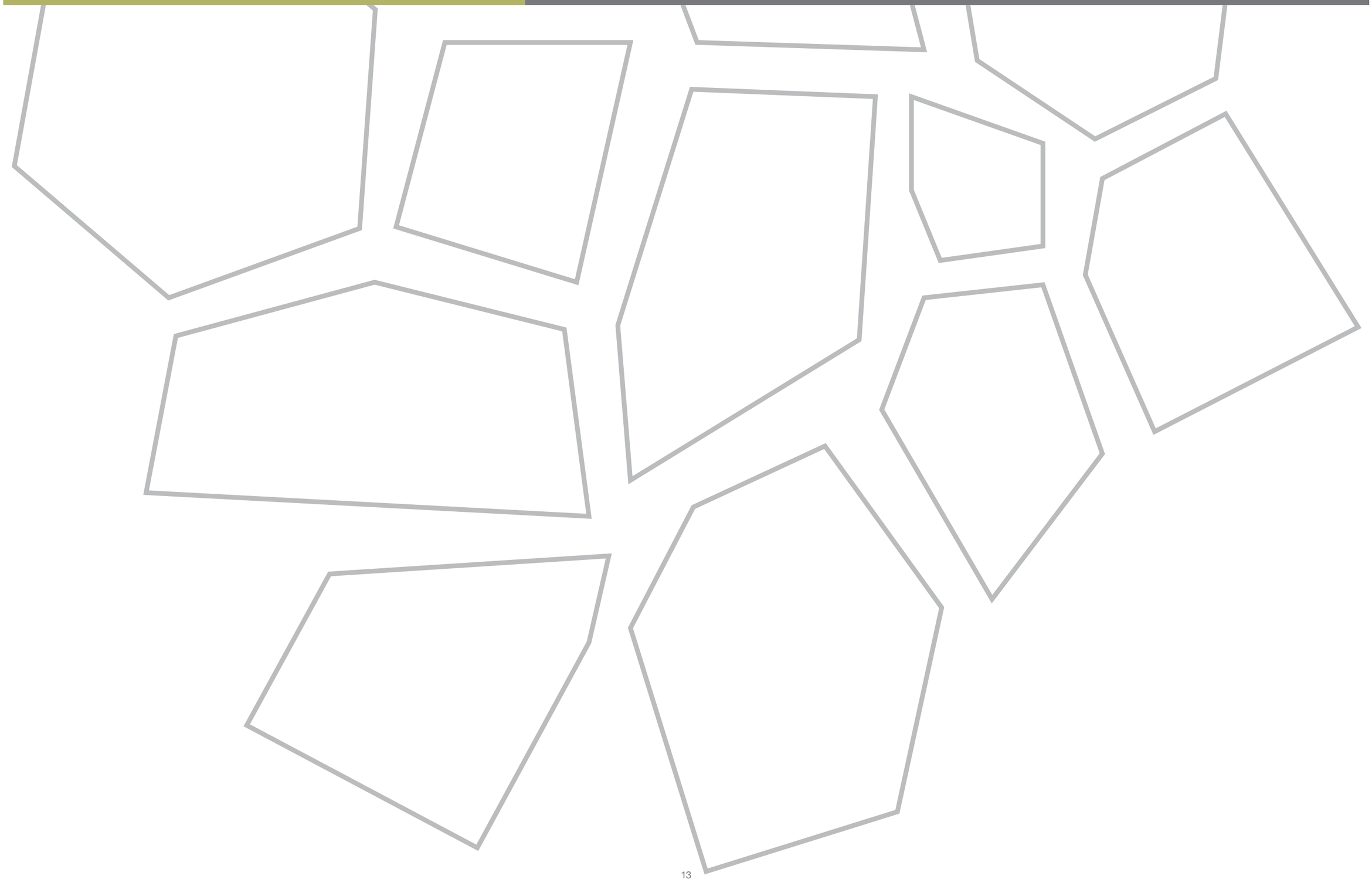
- Currently courtroom acoustics are poor, impacting speech clarity and privacy. Further, exterior noise impacts court proceedings and sound vestibules are not present at each courtroom, allowing discussions from the lobby to filter into the court.
- The existing facility and its subsequent remodels do not contain the technology infrastructure to allow for advances in evidence presentation/display, and witness testimony
- Not all courtrooms have adequate lighting, lighting controls, or access to natural light
- The facility lacks accommodations to the disabled in many of its courtrooms
- Adequate accommodations for impaneled juries are needed for deliberation and sequestering

Addressing these functional layout and space provision deficiencies is beyond what can be addressed in the existing facility due to existing space limitations, the structural grid and the impact of adding elevators and stairways to facilitate separate paths of movement to achieve optimal adjacencies and flow.

Texas Historical Commission Requirements

Preservation and restoration of the existing building to THC requirements requires adherence to standards to maintain and/or restore historical finishes such as natural stone, marble, terrazzo, plaster, and woodwork that are often costly by modern standards. Additionally, THC may require the facility to be deconstructed to its original historic state.

In this case, previous additions could be required to be removed. These facilities have a cultural heritage that the communities strive to restore and preserve, the extent of the Historical Preservation and the degree to which it is applied to the ongoing existing courthouse functions is a budgetary issue that requires further study.



PROJECT SUMMARY

Site Organization

Located in the heart of downtown Edinburg, the new Hidalgo County Courthouse will serve the community by bringing county government to the people with a building that is more secure, accessible and modernized. The 10-story building features a glass facade on the north side that provides an abundance of natural light and views. It will accommodate 470,000 square feet of judicial needs, 24 courts and the space to accommodate six additional courts.

The site plan and new building location responds to the existing Edinburg downtown city grid, Hidalgo County Courts Master Plan, and vehicular approaches to the site on University Drive. This preserves the views to the existing Hidalgo County Courthouse and allocates open space to the north of the building for shared, public/civic space. This also provides for long term expansion available for future development for county office or courts space.

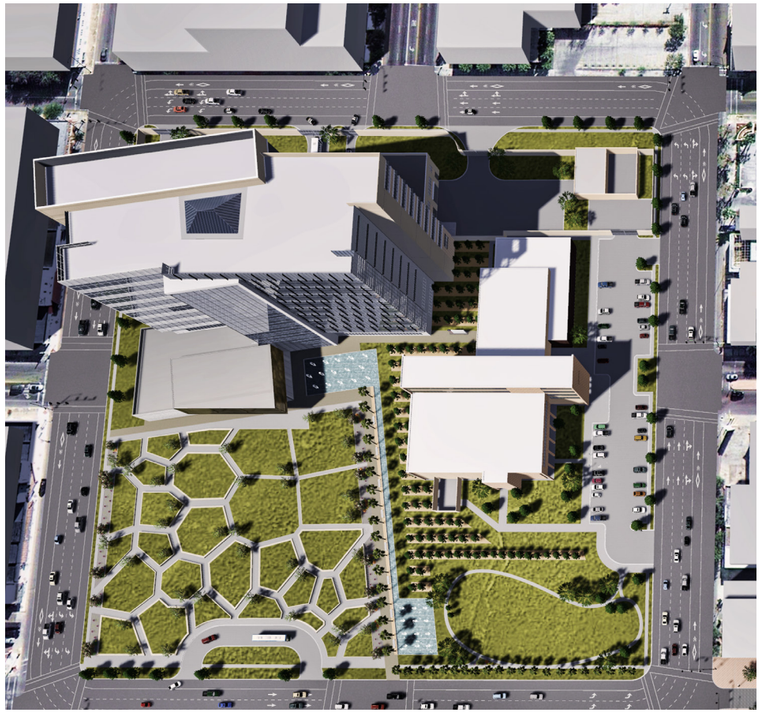
Rigorous attention to safety and security issues are addressed in the design of the new courthouse. Currently, defendants co-mingle with the public on a regular basis in the halls, elevators and other public areas. The new design addresses these security issues by enforcing a clear separation of defendants-in-custody from the public. The careful distribution of hierarchy of spaces into public, semi-public, semi-private and private has provided a functional plan that address the current and future needs of the County.

The new design also introduces a jail component onto each floor which meets established jail and judicial requirements. The courthouse will be equipped with modern security technology and systems.

A recent TxDOT study calls for the new judicial complex layout to close off Business 281, allowing for a safer traffic and pedestrian flow that is common in similar courthouse squares.The utilization of the current shared, open space to the north of the building entrance as space for parking and vehicular drop-off areas can be evaluated in the next design phase in conjunction with a traffic study as the courts and other projects in Downtown Edinburg impact traffic flow and access to the main building entrance.

Leading up to the building is an exciting green space engaging visitors in a central park-setting connecting to City of Edinburg's Downtown Master Plan, the Arts District and University of Texas-Rio Grande Valley.

ERO's own design philosophy of respecting the land, people and history of our region was present in every aspect of the design. ERO took inspiration from the parched earth, the Rio Grande, irrigation canals, palm trees, citrus groves and palm-lined roads, all of which are present in the Rio Grande Valley for design choices that help tie the new Courthouse into our region's landscape and heritage.



The design for the Hidalgo County replacement courthouse responds to the master plan that was completed in 2012, which demonstrated the demand for more space to accommodate the growing needs of the county as well as to provide a safe and secure environment to foster a healthy judicial process. There are also safety and security issues in the current courthouse design that will be mitigated in this concept. The proposed design addresses these needs and will create a building that is a valuable asset for the taxpayers of Hidalgo County. In addition, creating a community connection will move the courthouse past being just a building, but a vital part of the history of Hidalgo County.

CULTURAL CONTEXT

Design that reflects the people, culture and local economy will shape the future as well as respect the heritage of Hidalgo County. Opportunities to reflect on the county's history are present at the graphic wall at the entrance of the building as well as in the cultural plaza and precession walk that leads the public to the entrance. A floating art wall serves as a visual queue to identify the entrance as well as a shading device. It is designed to house an art installation that emotionally connects to the story of Hidalgo County, and will be seen as an asset and cultural icon for the community. A fractal pattern is incorporated into the designed to mirror the cracked and uncultivated or irrigated soil—a condition that was prevalent in the Valley prior to the emergence of irrigation canals. The *Ojo de Agua* represents the water source that transformed the economy through farming in South Texas. Rows of ornamental palm trees act as a coastal hedgerow separating property boundaries while citrus and other crops are incorporated to represent the transformation of Hidalgo County.

LAYOUT AND ORGANIZATION

The courtroom module is the basic building block for the plan organization. In the proposed design, circulation systems for judicial, secured, and the public are intentionally separated, only intersecting in the courtroom itself. This module, which is repeated three times to create a four-court set, also includes space for public waiting, consultation, private offices, and jury support. The building is organized so that public circulation is on one side of the module, private offices and judicial circulation are on the opposite side, and the courtroom is in the middle. Secured holding for inmates is located in between each of the courtroom modules. To support these three horizontal circulation zones, there are three vertical circulation types that align with these separate functional zones.

SAFETY AND SECURITY

Safety and security are paramount to the design and inherent in the core module. Beyond the activity that happens in the courtroom, other access, holding and security conditions happen at the extreme entry conditions for both the public and those in custody. The new building features separate staff circulation as well. Each of these activities is pulled outside the footprint of the tower to increase the functionality of these activities and to remove the potential threat from inside the base building.

PLACEMENT AND ORIENTATION

The first step in the careful consideration of placement and orientation was to identify the vehicular approach to the site and the pedestrian access points from parking, drop-offs, or transit stops. Although there is opportunity to approach the courthouse from all directions, the majority of the traffic flows were east and west. Because the existing courthouse blocks the visual identity to the new building from the west, the team proposed that the east approach be the primary ceremonial and visual access to the site. In addition, there were two areas identified for parking. Public parking would be to the north while unsecured staff parking would be to the south. To respond to this alignment, the building module and overall building plan were oriented with the long faces of the building facing to the north and south. Public access is from the north and secured/private access for the Judiciary is to the south.

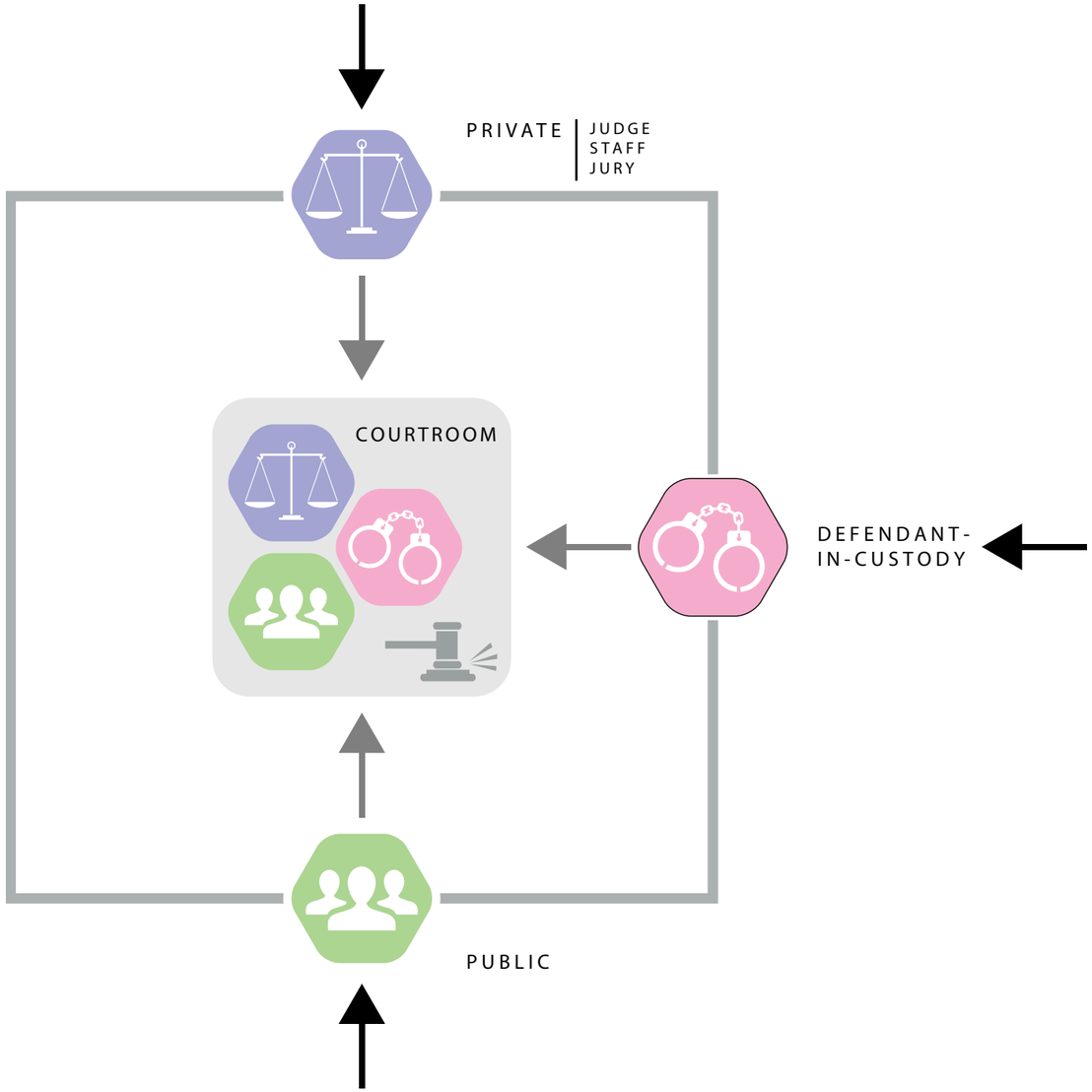
LIGHTING

The sun provides light and is the earth's primary energy source. Beyond the life-giving energy it provides to our plants and crops, the primal connections to daylight help boost our overall health and wellbeing. In an effort to bring that daylight exposure to the internal experience, the four court set is bifurcated to allow a central light core to penetrate the building. This allows borrowed light to access all the courtrooms, is a central organizing element for the building, and aids in wayfinding.

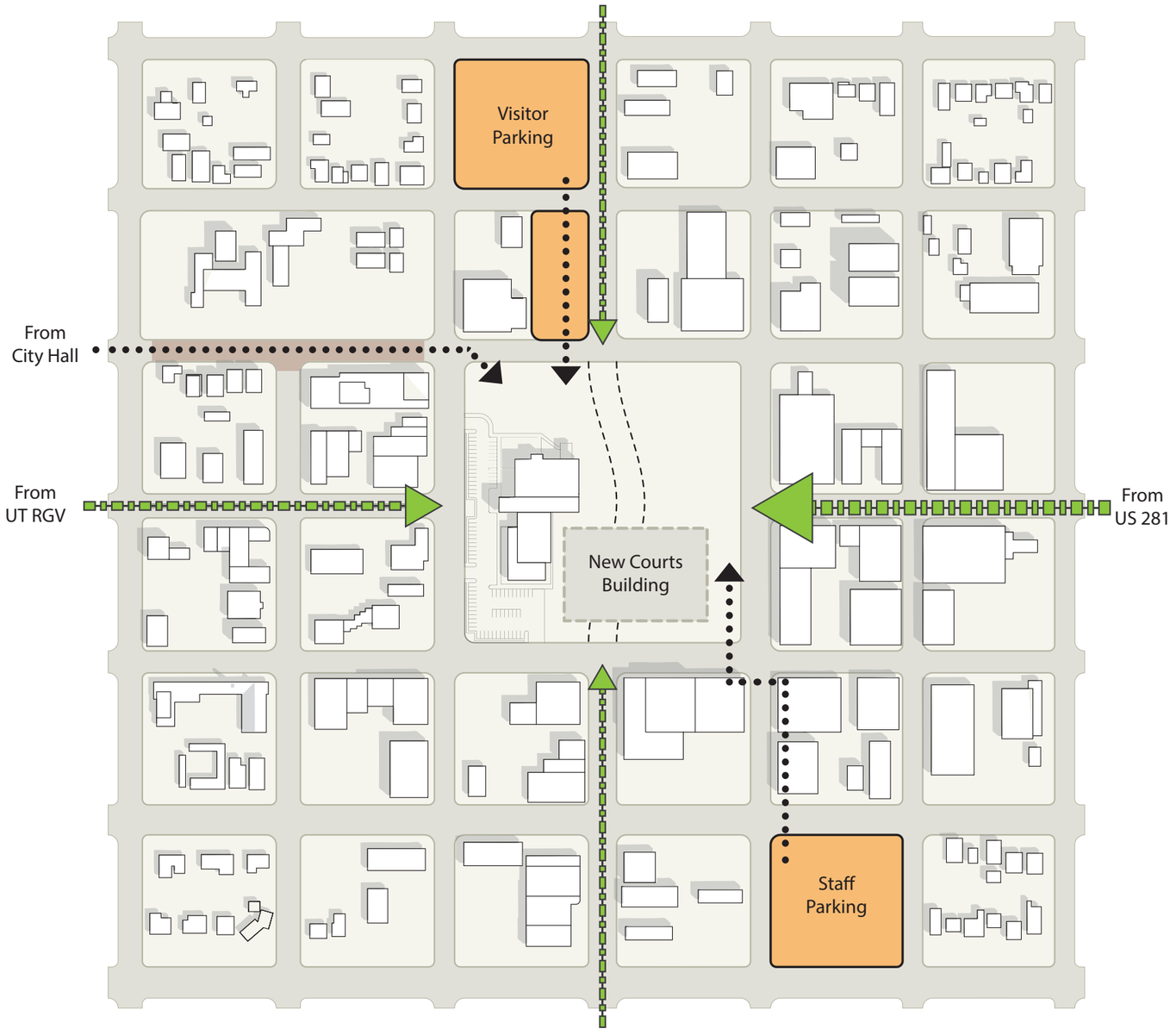
In addition to light, the sun also gives heat that buildings either absorb or reflect. Consideration to this dynamic environmental condition has influenced several moves to the building form and envelope. The building footprint is aligned with the city grid. In reference to the optimal solar orientation, half of the building is fractured and rotates to align with the true north / south polar positions. This portion of the building is then slid back so that the public lobbies can be revealed, acting as a beacon or icon at the end of the axis. The building rotation also shields part of the north façade from the glare in the mornings. Vertical sun shading devices are incorporated into the design to help block the late afternoon sun. In relation to building materials, the public face of the building is oriented to the north and is in the shade for the majority of the day. The public concourse is faced with a curtain wall system and represents the "glassy" façade. Transparency, views to nature, and the appropriate amount of day lighting are all environmental conditions that will create a happier and healthier environment. The north façade is where you would want this level of openness and visibility.

In contrast, the south façade, where the majority of the sun will strike the building, is comprised of ribbon windows with deeper horizontal sunshades. This area of the building is private office and building support, so personal control of the environment is easy to manage (i.e., blinds). The lower scale openings means less heat gain through visual light. All glass is high performing and will allow ample natural light, low heat gain, and energy savings to meet all the restrictive energy conservation codes. In addition, strategically placed sunshade devices will block direct sun, reducing the glare. On the south side, other materials include a large-scale premium masonry unit that has a light, sand-colored range. This allows the building to have materials that will withstand the harsh South Texas climate that can perform against the energy codes, and will be low maintenance and operations.

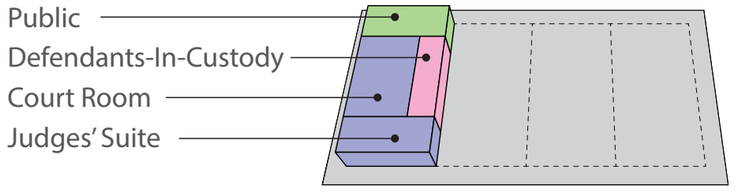
Modern Courthouse Circulation Diagram



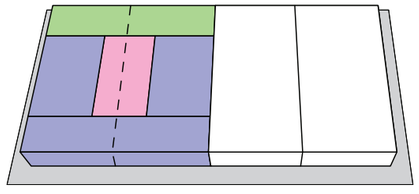
Placement & Orientation



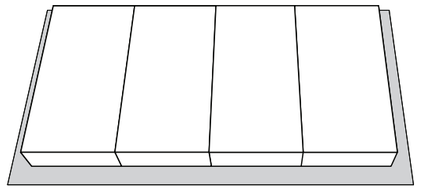
Layout & Organization



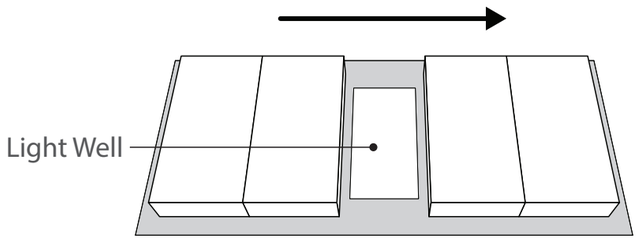
Typical Court Layout



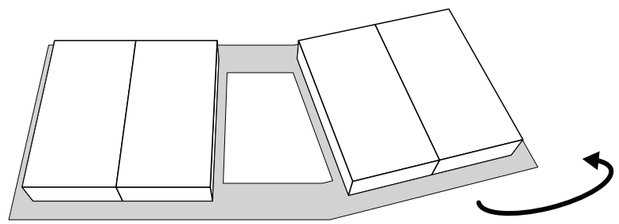
Mirrored Layout To
Share Services



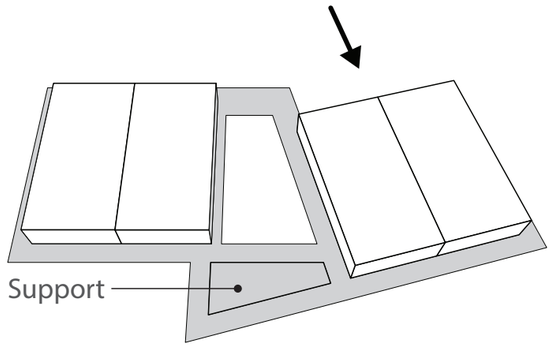
Four Court Set



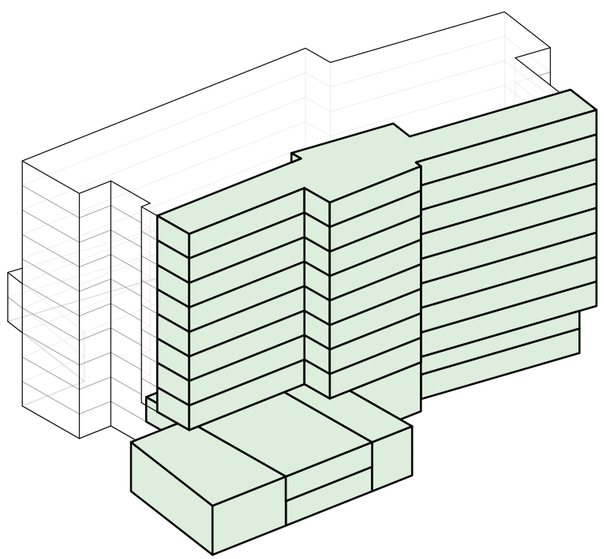
Separation For Natural Daylight
Into All Courtrooms



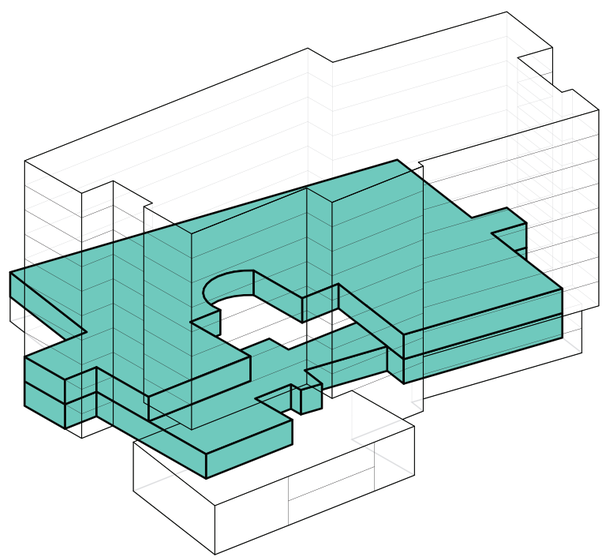
Rotate For Optimal Solar Orientation



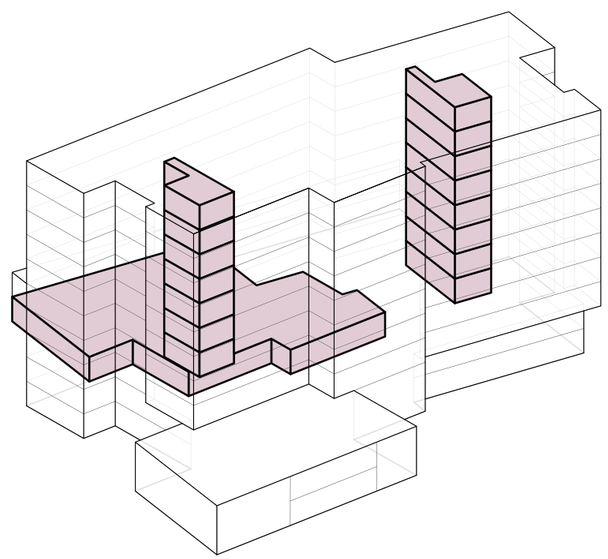
Slide Down For Better Visibility
From Main Vehicular Access



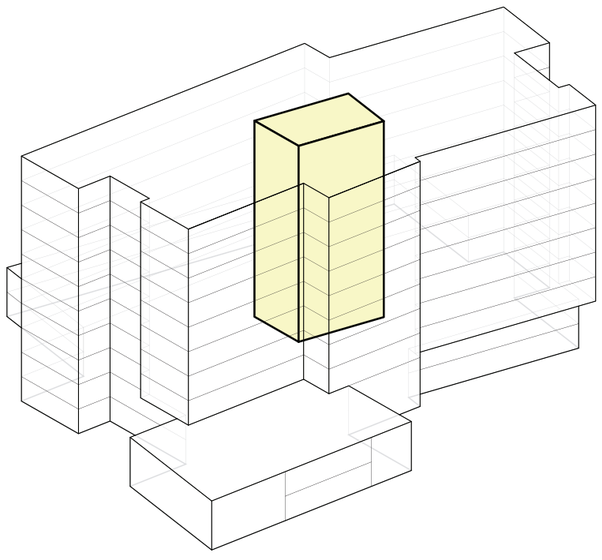
Public Functions



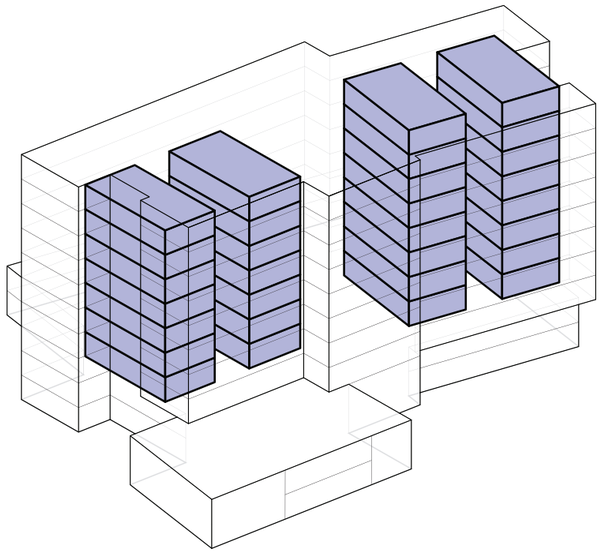
Clerks and Judicial Support



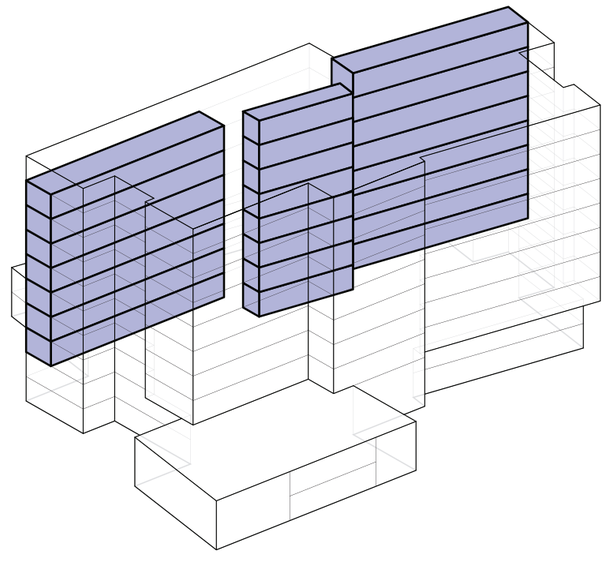
Defendants-In-Custody Holding



Light Well

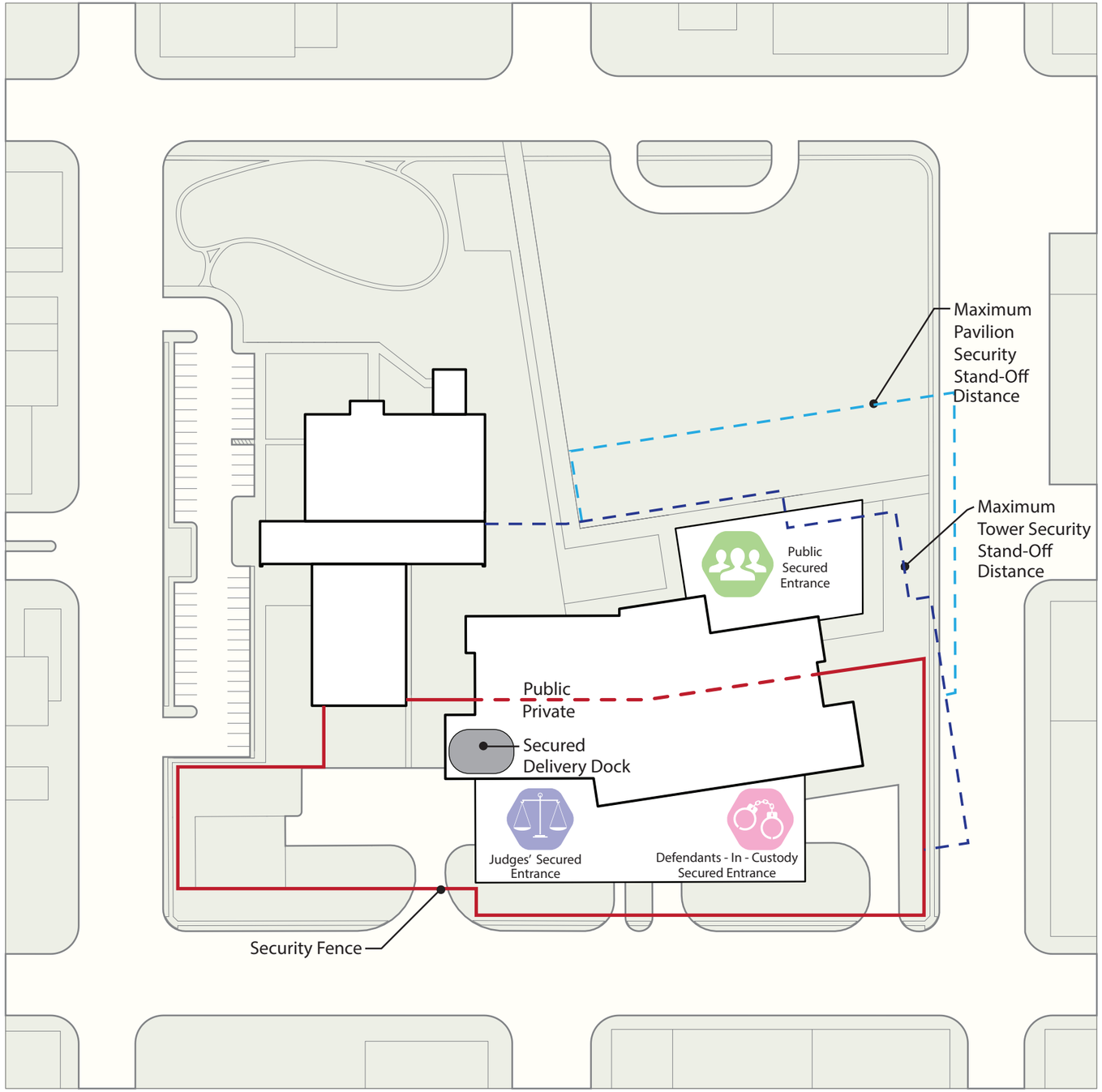


Court Rooms

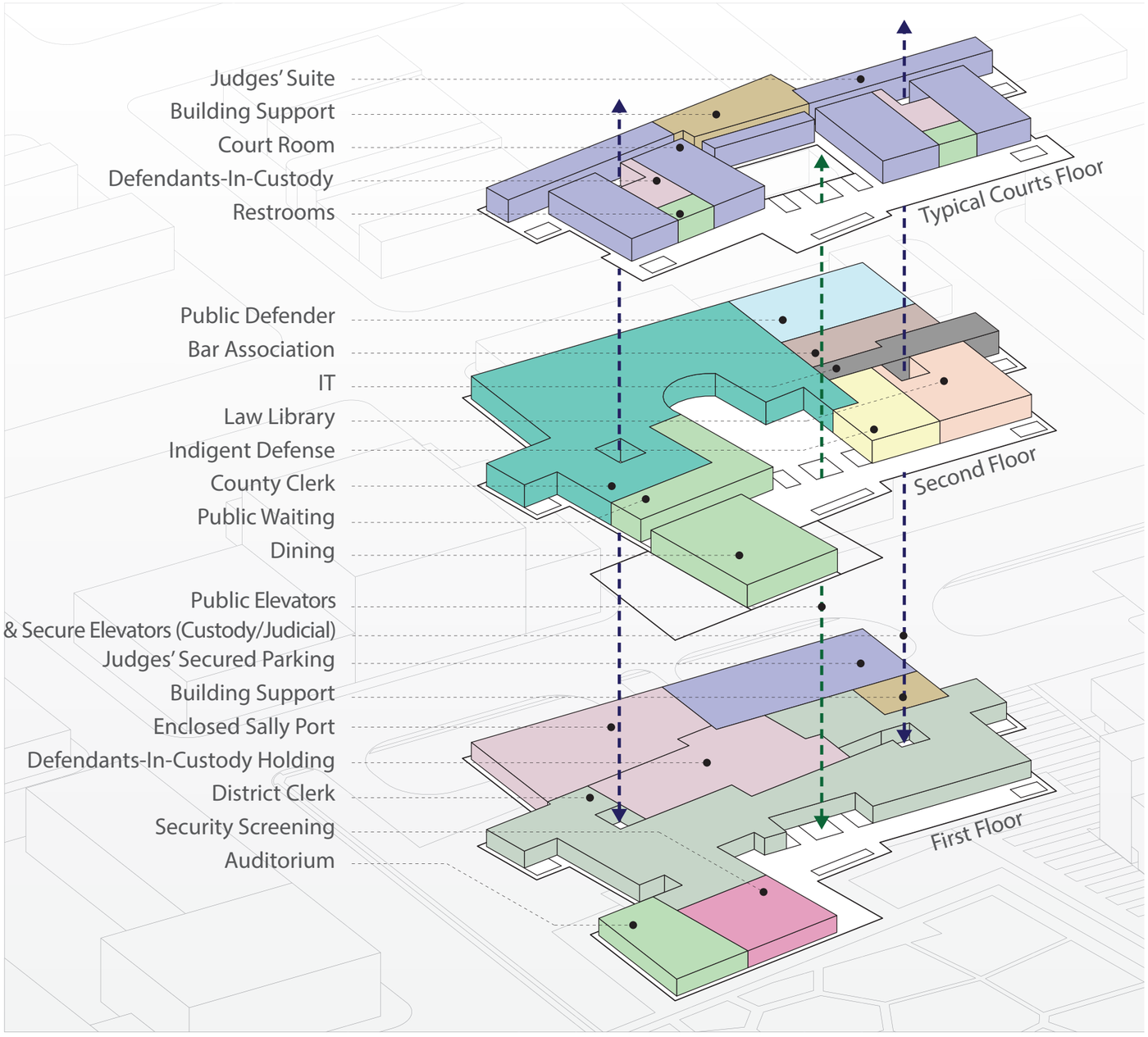


Judges' Suites

Safety & Security



Safety & Security

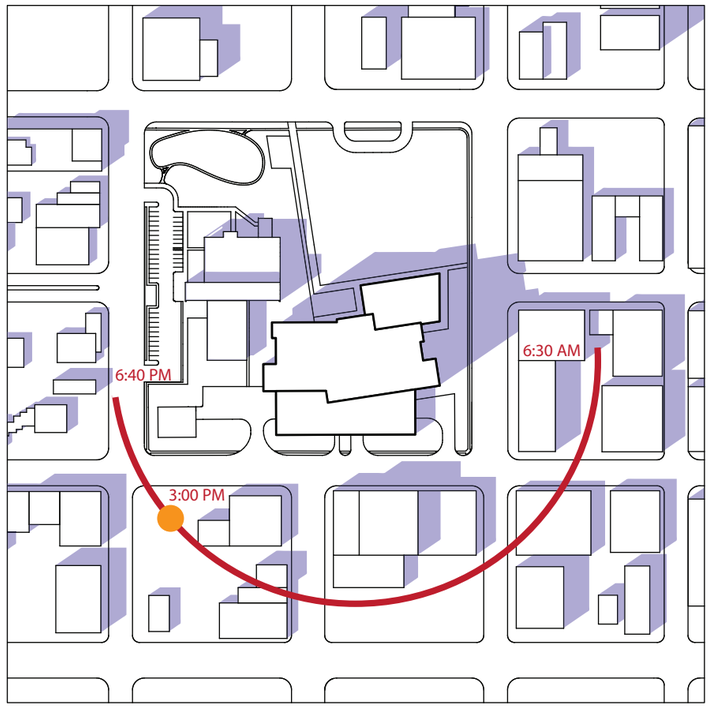


PROJECT SUMMARY

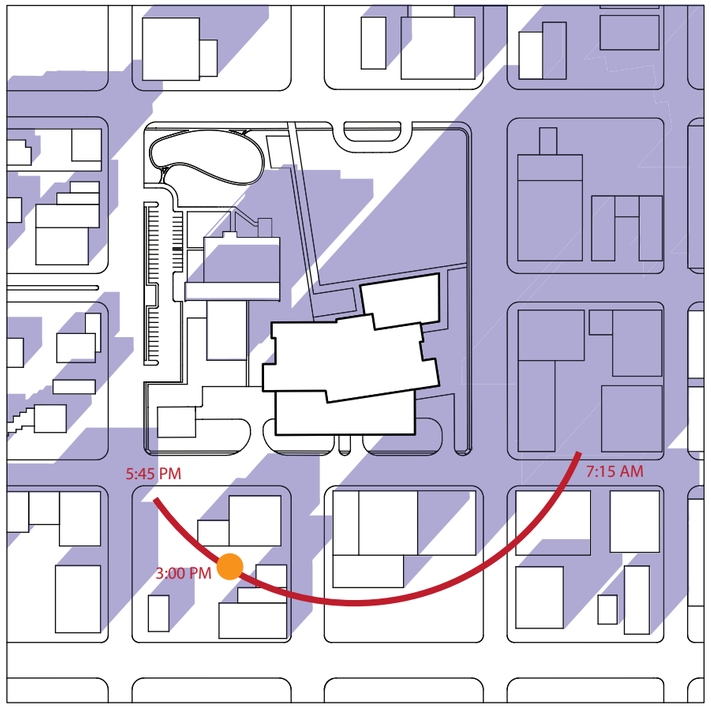
Architectural Narrative

Lighting

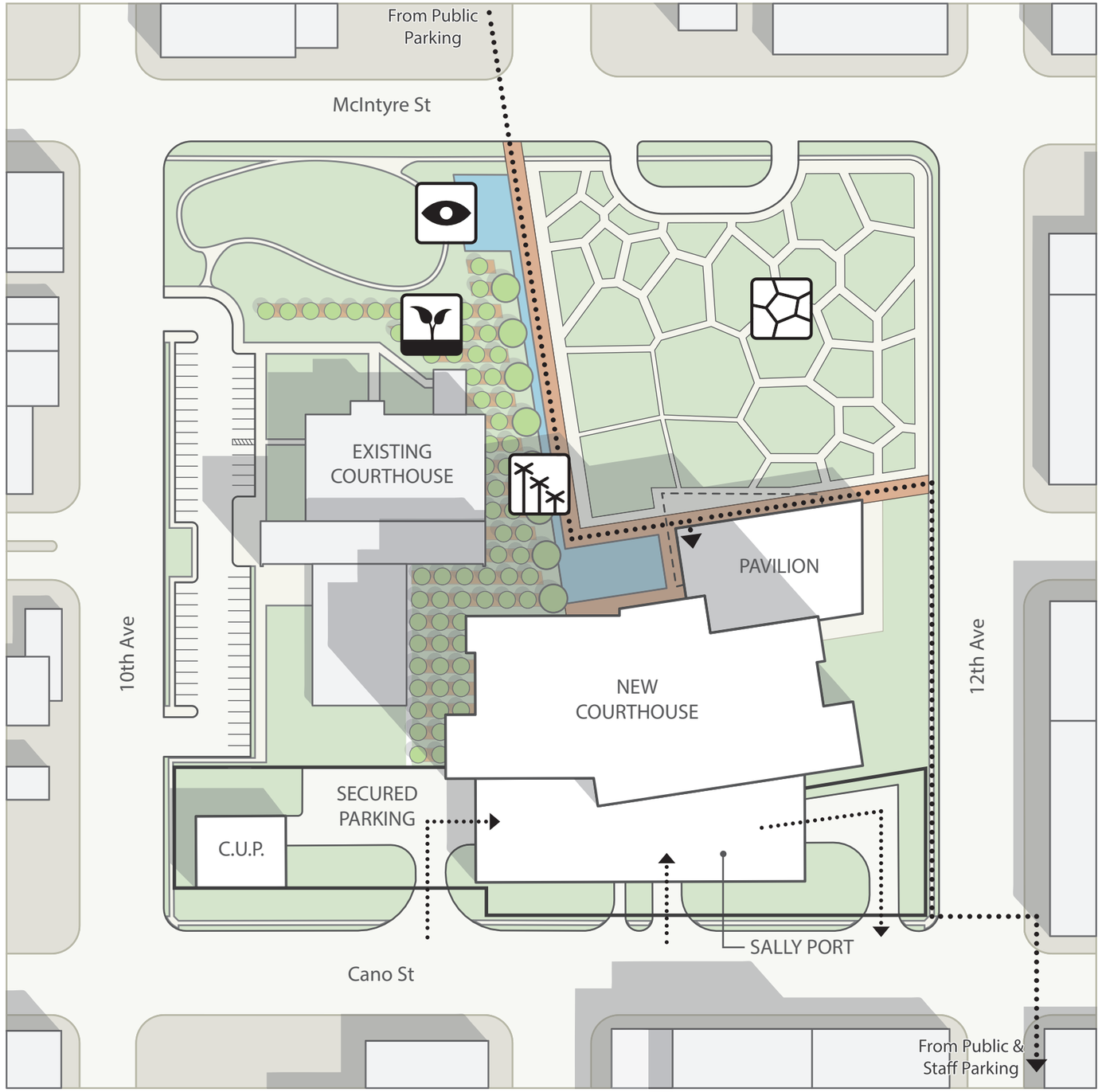
Summer Solstice - June 21



Spring / Fall Equinox - March 21 & September 21



Winter Equinox - December 21



CRACKED EARTH

A fractal pattern is incorporated into the design to mirror the cracked and uncultivated or non-irrigated soil—a condition that was prevalent in the Valley prior to the emergence of irrigation canals.

OJO DE AGUA

The *Ojo de Agua* represents the water source that transformed the economy through farming in south Texas.

PALM ROWS

Rows of ornamental palm trees act as a coastal hedgerow separating property boundaries.

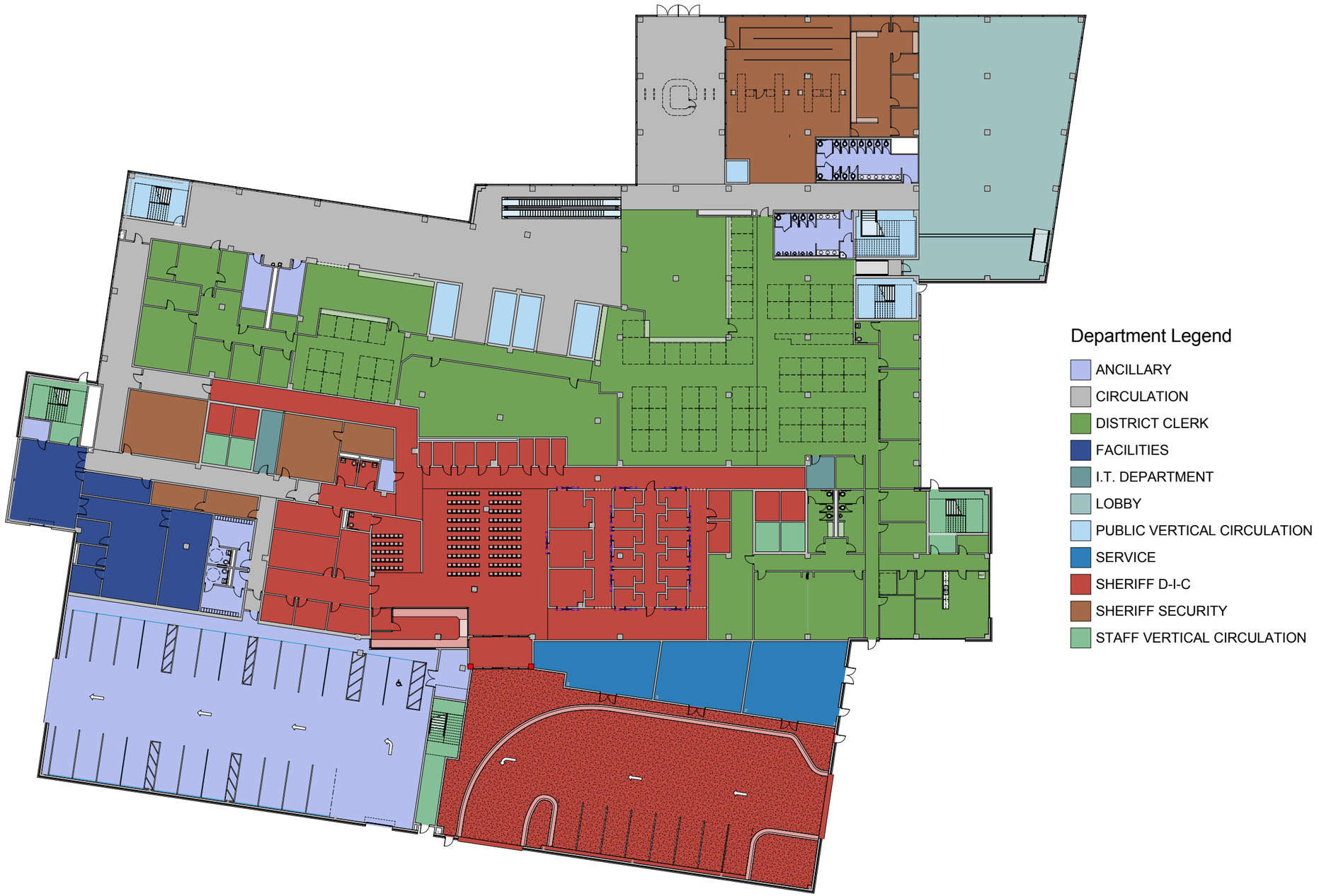
CULTIVATION

The South Texas environment is ideal for citrus trees. The Valley's typical groves will be represented by native plants and shrubs.

PROJECT SUMMARY

Department Color Plan

Ground Floor



Department Legend

- ANCILLARY
- CIRCULATION
- DISTRICT CLERK
- FACILITIES
- I.T. DEPARTMENT
- LOBBY
- PUBLIC VERTICAL CIRCULATION
- SERVICE
- SHERIFF D-I-C
- SHERIFF SECURITY
- STAFF VERTICAL CIRCULATION

2nd Floor

Department Legend

- ANCILLARY
- BAR ASSOCIATION
- CIRCULATION
- COUNTY CLERK
- I.T. DEPARTMENT
- INDIGENT DEFENSE
- LOBBY
- PUBLIC DEFENDER'S
- PUBLIC VERTICAL CIRCULATION
- SERVICE
- SHERIFF D-I-C
- STAFF VERTICAL CIRCULATION

PROJECT SUMMARY

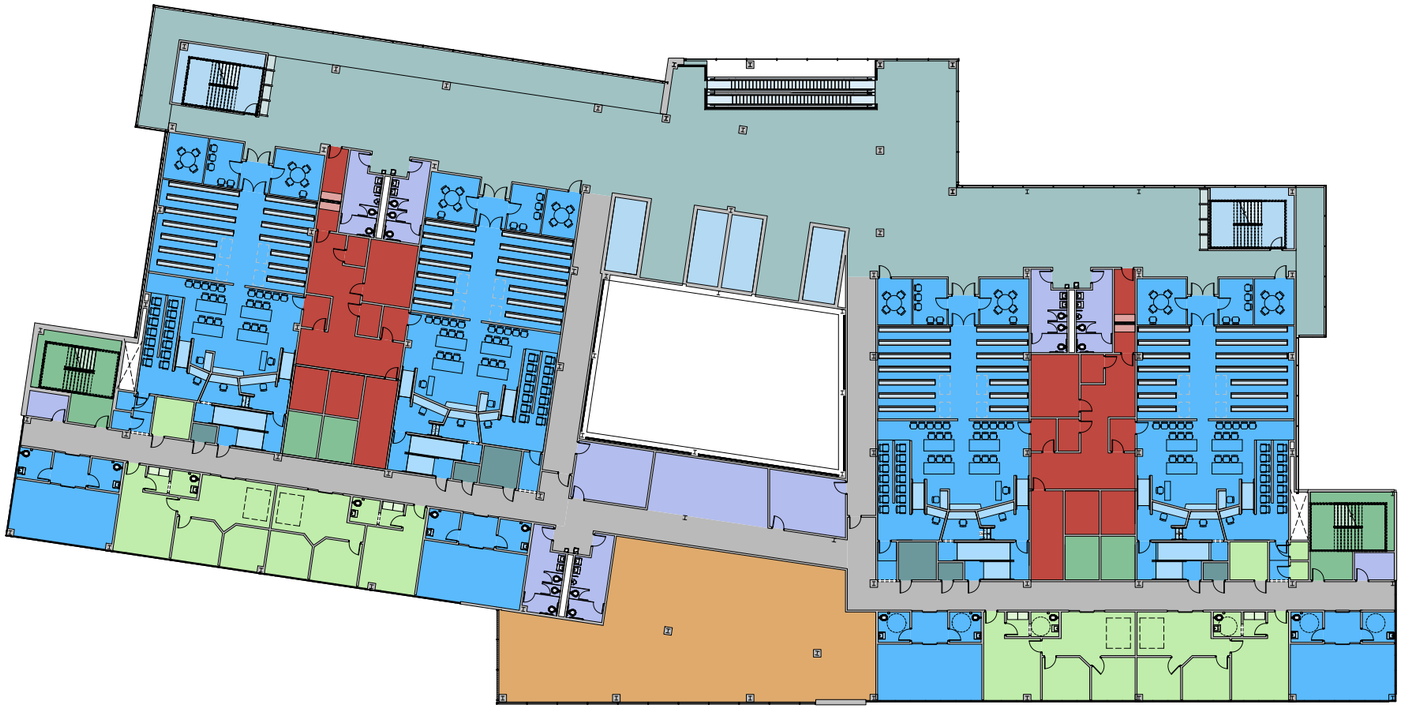
Department Color Plan

3rd, 4th & 6th Floors

Department Legend

- ANCILLARY
- CIRCULATION
- COURTS
- I.T. DEPARTMENT
- JUDICIAL ADMINISTRATION
- LOBBY
- PUBLIC VERTICAL CIRCULATION
- SERVICE
- SHERIFF DIC
- STAFF VERTICAL CIRCULATION

5th Floor



Department Legend

- ANCILLARY
- CIRCULATION
- COURTS
- DISTRICT ATTORNEY
- I.T. DEPARTMENT
- JUDICIAL ADMINISTRATION
- LOBBY
- PUBLIC VERTICAL CIRCULATION
- SHERIFF DIC
- STAFF VERTICAL CIRCULATION

PROJECT SUMMARY

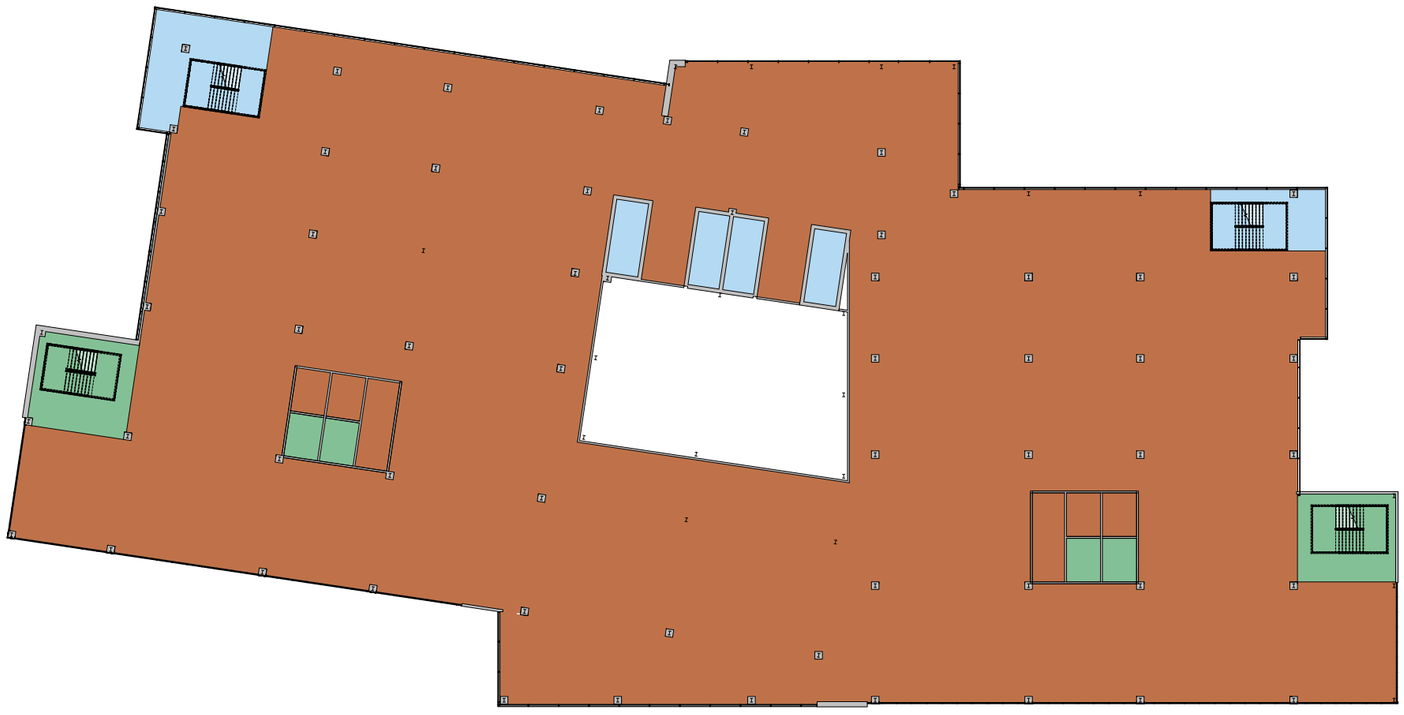
Department Color Plan

7th & 8th Floors

Department Legend

- ANCILLARY
- CIRCULATION
- COURTS
- I.T. DEPARTMENT
- JUDICIAL ADMINISTRATION
- LOBBY
- PUBLIC VERTICAL CIRCULATION
- SERVICE
- SHERIFF DIC
- STAFF VERTICAL CIRCULATION

9th Floor



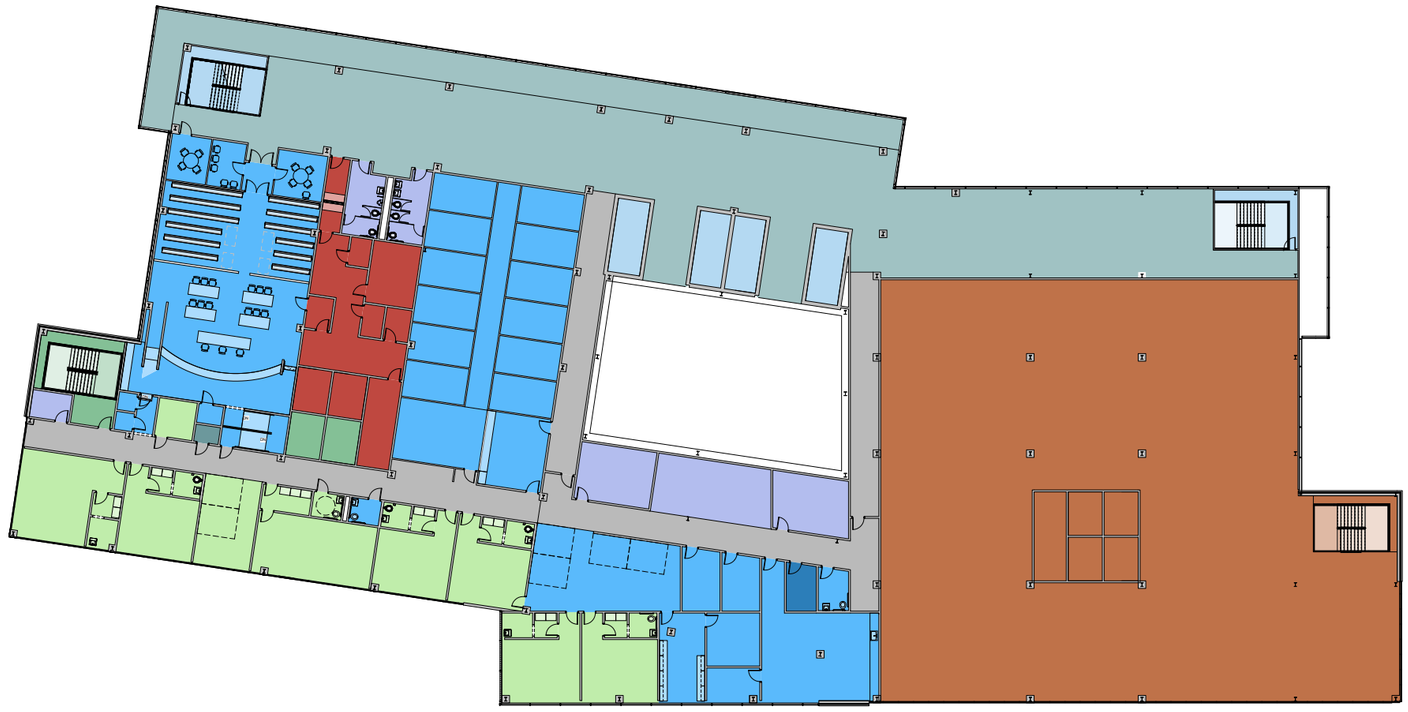
Department Legend

- PUBLIC VERTICAL CIRCULATION
- SHELL
- STAFF VERTICAL CIRCULATION

PROJECT SUMMARY

Department Color Plan

10th Floor



Department Legend

- ANCILLARY
- CIRCULATION
- COURT OF APPEALS
- I.T. DEPARTMENT
- JUDICIAL ADMINISTRATION
- LOBBY
- PUBLIC VERTICAL CIRCULATION
- SERVICE
- SHELL
- SHERIFF DIC
- STAFF VERTICAL CIRCULATION

Egress Composite: Ground Floor Plan

ACCESS TO MEANS OF EGRESS

- CIRCULATION
- HIGH SECURITY EXIT - ONLY AUTHORIZED OCCUPANTS CAN EXIT; NOT COUNTING AS A FIRE EXIT
- INSTITUTIONAL - OCCUPANTS NEED SECURITY TO ESCORT THEM TO THE NEAREST EXIT
- NOT APPLICABLE - CANNOT USE AS AN EXIT IN THE EVENT OF AN EMERGENCY
- PRIVATE - OCCUPANTS HAVE ACCESS TO BOTH PRIVATE AND PUBLIC EXITS
- PRIVATE EXIT
- PUBLIC - OCCUPANTS HAVE LIMITED ACCESS. USERS CAN ONLY USE PUBLIC EXITS
- PUBLIC EXIT

TRAVEL DISTANCE
MAX. ALLOWED FOR SPRINKLED BUILDING: 300' - 0"

MEANS OF EGRESS SUMMARY (IBC CODE 2012)

BLDG. ACCESS	TOTAL OCCUPANCY	TOTAL NUMBER OF EXITS REQ.	TOTAL NUMBER OF ACTUAL EXITS	REQ. MET	OCCUPANTS PER EXIT
ALL ACCESS	1511	4	9	YES	168
PUBLIC	1031	4	5	YES	207

DOOR EGRESS SUMMARY (IBC CODE 2012)

DOOR TYPE	ACTUAL WIDTH	REQ. WIDTH FOR PUBLIC ACCESS (SPRINKLED SYSTEM AND EMERGENCY VOICE SYSTEM)	REQ. MET	REQ. WIDTH FOR PRIVATE ACCESS (SPRINKLED SYSTEM AND EMERGENCY VOICE SYSTEM)	REQ. MET
A	3' - 0"	2' - 8"	YES	2' - 2"	YES
B	3' - 0"	2' - 8"	YES	2' - 2"	YES
C	3' - 0"	2' - 8"	YES	2' - 2"	YES
D	12' - 0"	2' - 8"	YES	2' - 2"	YES
E	6' - 0"	2' - 8"	YES	2' - 2"	YES
F	3' - 0"	2' - 8"	YES	2' - 2"	YES
G	3' - 0"	2' - 8"	YES	2' - 2"	YES
H	6' - 0"	2' - 8"	YES	2' - 2"	YES
J	3' - 0"	2' - 8"	YES	2' - 2"	YES

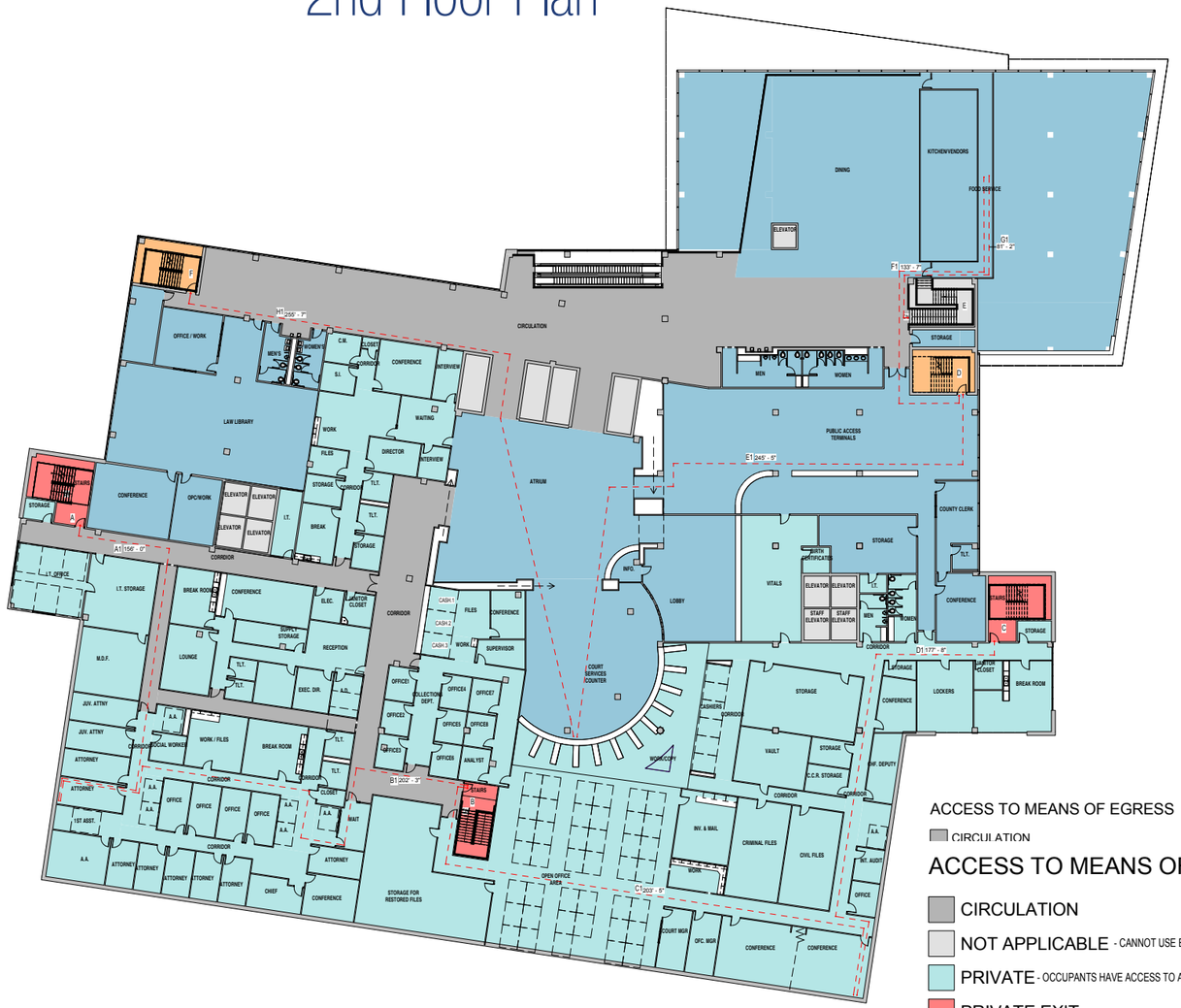
TRAVEL DISTANCES SUMMARY (IBC CODE 2012)

PATH LABEL	MAX. LENGTH OF COMMON PATH OF EGRESS TRAVEL ALLOWED (SPRINKLED BLDG)	ACTUAL LENGTH OF COMMON PATH OF EGRESSTRAVEL	REQ. MET	MAX. EXIT-ACCESS TRAVEL DISTANCE ALLOWED (SPRINKLED BLDG)	ACTUAL LENGTH OF EXIT-ACCESS TRAVEL DISTANCE	REQ. MET
A1	100' - 0"	31' - 0"	YES	300' - 0"	245' - 5"	YES
B1	100' - 0"	31' - 0"	YES	300' - 0"	217' - 5"	YES
C1	100' - 0"	0' - 0"	YES	300' - 0"	254' - 2"	YES
D1	100' - 0"	37' - 9"	YES	300' - 0"	246' - 6"	YES

PROJECT SUMMARY

Code Analysis

Egress Composite: 2nd Floor Plan



ACCESS TO MEANS OF EGRESS

CIRCULATION

ACCESS TO MEANS OF EGRESS

- CIRCULATION
- NOT APPLICABLE - CANNOT USE EXITS IN CASE OF EMERGENCY
- PRIVATE - OCCUPANTS HAVE ACCESS TO ALL FLOOR EXITS
- PRIVATE EXIT
- PUBLIC - OCCUPANTS HAVE LIMITED ACCESS TO PUBLIC EXITS
- PUBLIC EXIT

TRAVEL DISTANCE
MAX. ALLOWED FOR SPRINKLED BUILDING: 300' - 0"

MEANS OF EGRESS SUMMARY (IBC CODE 2012)

BLDG. ACCESS	TOTAL OCCUPANCY	TOTAL NUMBER OF EXITS REQ.	TOTAL NUMBER OF ACTUAL EXITS	REQ. MET	OCCUPANTS PER EXIT
ALL ACCESS	1051	4	6	YES	176
PUBLIC	704	3	3	YES	235

TRAVEL DISTANCES SUMMARY (IBC CODE 2012)

PATH LABEL	MAX. LENGTH OF COMMON PATH OF EGRESS TRAVEL ALLOWED (SPRINKLED BLDG)	ACTUAL LENGTH OF COMMON PATH OF EGRESS TRAVEL	REQ. MET	MAX. EXIT-ACCESS TRAVEL DISTANCE ALLOWED (SPRINKLED BLDG)	ACTUAL LENGTH OF EXIT-ACCESS TRAVEL DISTANCE	REQ. MET
A1	100' - 0"	29' - 8"	YES	300' - 0"	156' - 0"	YES
B1	100' - 0"	29' - 8"	YES	300' - 0"	202' - 3"	YES
C1	100' - 0"	24' - 0"	YES	300' - 0"	203' - 5"	YES
D1	100' - 0"	24' - 0"	YES	300' - 0"	177' - 8"	YES
E1	100' - 0"	0' - 0"	YES	300' - 0"	245' - 5"	YES
F1	100' - 0"	54' - 6"	YES	300' - 0"	133' - 7"	YES
G1	100' - 0"	54' - 6"	YES	300' - 0"	81' - 2"	YES
H1	100' - 0"	0' - 0"	YES	300' - 0"	255' - 7"	YES

STAIR EGRESS SUMMARY (IBC CODE 2012)

STAIR TYPE	ACTUAL WIDTH	REQ. WIDTH FOR PUBLIC ACCESS (SPRINKLED SYSTEM AND EMERGENCY VOICE SYSTEM)	REQ. MET	REQ. WIDTH FOR PRIVATE ACCESS (SPRINKLED SYSTEM AND EMERGENCY VOICE SYSTEM)	REQ. MET
A	5' - 3 1/2"	3' - 11 1/2"	YES	2' - 11 1/2"	YES
B	5' - 0"	3' - 11 1/2"	YES	2' - 11 1/2"	YES
C	5' - 3 1/2"	3' - 11 1/2"	YES	2' - 11 1/2"	YES
D	5' - 3 1/2"	3' - 11 1/2"	YES	2' - 11 1/2"	YES
E	4' - 11 1/2"	3' - 11 1/2"	YES	2' - 11 1/2"	YES
F	5' - 3 1/2"	3' - 11 1/2"	YES	2' - 11 1/2"	YES

DOOR EGRESS SUMMARY (IBC CODE 2012)

DOOR TYPE	ACTUAL WIDTH	REQ. WIDTH FOR PUBLIC ACCESS (SPRINKLED SYSTEM AND EMERGENCY VOICE SYSTEM)	REQ. MET	REQ. WIDTH FOR PRIVATE ACCESS (SPRINKLED SYSTEM AND EMERGENCY VOICE SYSTEM)	REQ. MET
A	3' - 0"	3' - 0"	YES	2' - 3"	YES
B	3' - 0"	3' - 0"	YES	2' - 3"	YES
C	3' - 0"	3' - 0"	YES	2' - 3"	YES
D	3' - 0"	3' - 0"	YES	2' - 3"	YES
E	OPEN	3' - 0"	YES	2' - 3"	YES
F	3' - 0"	3' - 0"	YES	2' - 3"	YES

Egress Composite: 3rd–10th Floor Plan

ACCESS TO MEANS OF EGRESS

- CIRCULATION
- INSTITUTIONAL - OCCUPANTS NEED SECURITY TO ESCORT THEM TO THE NEAREST EXIT
- NOT APPLICABLE - CANNOT USE AS AN EXIT IN THE EVENT OF AN EMERGENCY
- PRIVATE - OCCUPANTS HAVE ACCESS TO BOTH PRIVATE AND PUBLIC EXITS
- PRIVATE EXIT
- PUBLIC - OCCUPANTS HAVE LIMITED ACCESS. USERS CAN ONLY USE PUBLIC EXITS
- PUBLIC EXIT

TRAVEL DISTANCE
MAX. ALLOWED FOR SPRINKLED BUILDING (IBC CODE 2012): 300' - 0"

MEANS OF EGRESS SUMMARY (IBC CODE 2012)

BLDG. ACCESS	TOTAL OCCUPANCY	TOTAL NUMBER OF EXITS REQ.	TOTAL NUMBER OF ACTUAL EXITS	REQ. MET	OCCUPANTS PER EXIT
ALL ACCESS	767	3	4	YES	192
PUBLIC	44	1	2	YES	22

TRAVEL DISTANCES SUMMARY (IBC CODE 2012)

PATH LABEL	MAX. LENGTH OF COMMON PATH OF EGRESS TRAVEL ALLOWED (SPRINKLED BLDG)	ACTUAL LENGTH OF COMMON PATH OF EGRESS TRAVEL	REQ. MET	MAX. EXIT-ACCESS TRAVEL DISTANCE ALLOWED (SPRINKLED BLDG)	ACTUAL LENGTH OF EXIT-ACCESS TRAVEL DISTANCE	REQ. MET
A1	100' - 0"	73' - 6"	YES	300' - 0"	287' - 11"	YES
B1	100' - 0"	73' - 6"	YES	300' - 0"	200' - 3"	YES
C1	100' - 0"	78' - 2"	YES	300' - 0"	271' - 8"	YES
D1	100' - 0"	78' - 2"	YES	300' - 0"	176' - 4"	YES

STAIR EGRESS SUMMARY (IBC CODE 2012)

STAIR TYPE	ACTUAL WIDTH	REQ. WIDTH FOR PUBLIC ACCESS (SPRINKLED SYSTEM AND EMERGENCY VOICE SYSTEM)	REQ. MET	REQ. WIDTH FOR PRIVATE ACCESS (SPRINKLED SYSTEM AND EMERGENCY VOICE SYSTEM)	REQ. MET
A	5' - 3 1/2"	0' - 5"	YES	3' - 3"	YES
B	5' - 8 1/2"	0' - 5"	YES	3' - 3"	YES
C	5' - 6 1/2"	0' - 5"	YES	3' - 3"	YES
D	5' - 5"	0' - 5"	YES	3' - 3"	YES

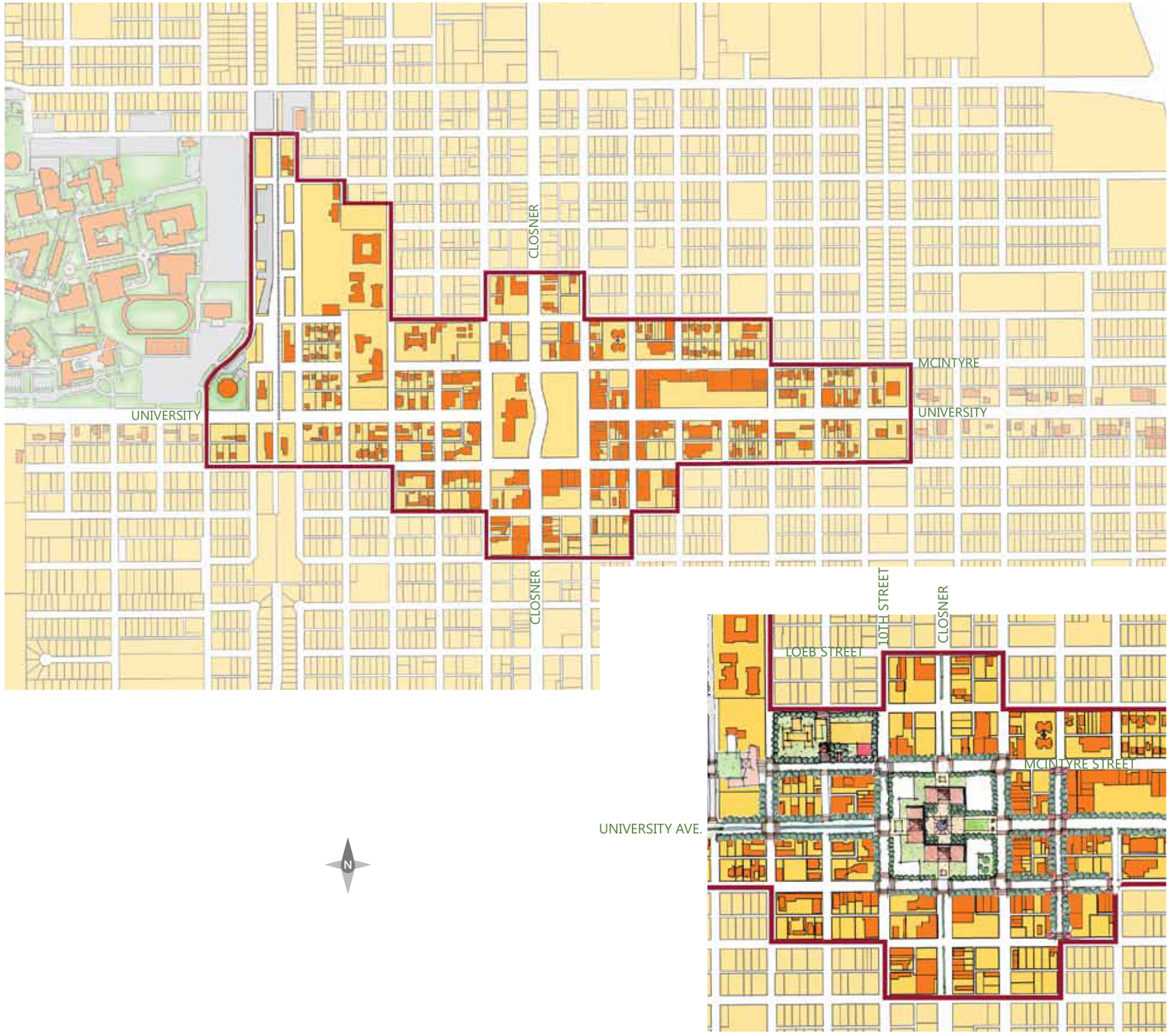
DOOR EGRESS SUMMARY (IBC CODE 2012)

DOOR TYPE	ACTUAL WIDTH	REQ. WIDTH FOR PUBLIC ACCESS (SPRINKLED SYSTEM AND EMERGENCY VOICE SYSTEM)	REQ. MET	REQ. WIDTH FOR PRIVATE ACCESS (SPRINKLED SYSTEM AND EMERGENCY VOICE SYSTEM)	REQ. MET
A	3' - 0"	0' - 5"	YES	2' - 5 1/2"	YES
B	3' - 0"	0' - 5"	YES	2' - 5 1/2"	YES
C	3' - 0"	0' - 5"	YES	2' - 5 1/2"	YES
D	3' - 0"	0' - 5"	YES	2' - 5 1/2"	YES

PROJECT SUMMARY

Civil Narrative

The City of Edinburg has initiated planning efforts in anticipation of the population growth including the adoption of a Downtown Master Plan in 2010. Twelve guideline principles were developed to direct the creation of this plan, which one of the guidelines is the Courthouse Square. Downtown Edinburg is designed around a courthouse square that is accessed via two main thoroughfares, U.S. Business 281 (Closner Boulevard) and State Highway 107 (University Drive). To provide better mobility around the square a traffic study was conducted, and it determined that section of Closner Boulevard between Cano Street and McIntyre Street should be closed for traffic. By implementing the closure of the road it was determined that the square will become a three-lane one-way street with bicycle lanes and reverse angle parking with proposed pedestrian walkway around the courthouse square with proposed amenities (i.e. benches, street lights, etc.). Included with the roadway improvements are water, sanitary sewer, and storm drainage, which the estimated cost is approximately $4 million. The City of Edinburg recently completed $2.8 million for pedestrian and streetscape improvements to McIntyre Street connecting University of Texas Pan-American, Edinburg City Hall and the Hidalgo County Courthouse.



PROJECT SUMMARY

Structural Narrative

The objective of this structural narrative is to explain and describe our design intent for the foundation and framing for the new Hidalgo County Judicial Complex to be located southeast of the existing Hidalgo County Courthouse in Edinburg, Texas.

PROJECT DESCRIPTION

The structure is composed of two sections: a 10-story tower and a 2-story solarium surrounding the tower. The story height throughout the building is 18 ft. The façade of the building is composed primarily of glass curtain wall to the north and brick veneer with punched glass windows to the east, west, and south. The interior of the structure will predominantly be office space with light weight interior partitions. The structure will feature elevators, an escalator; a single-story, ground-supported parking garage, and an atrium extending through the center of the tower.

DESIGN LOAD CRITERIA

All structural elements will be designed for their self-weight plus additional superimposed loads, both gravity and lateral, generated by the latest building code. Gravity loads include dead, live, snow, rain, and ice. Lateral loads include wind, seismic, floods, and lateral earth pressure. Design information is summarized below. (psf = pounds per square foot)

I. Project Building Codes

A) 2012 International Building Code (IBC 2012)
B) ASCE 7-10 (Minimum Design Loads)
C) ACI 318-11 (Concrete)
D) TMS 402-11/ACI 530-11/ASCE 5-11 (Masonry)
E) ANSI/AISC 360-10 (Structural Steel)

II. Building Classification

A) Risk Category III

III. Live Loads

A) Partitions	=	15 psf
B) Roof	=	20 psf
C) Cell blocks	=	40 psf
D) Garages	=	40 psf
E) Offices	=	50 psf
F) Corridors above first floor	=	80 psf
G) First floor corridors	=	100 psf
H) Corridors (penal)	=	100 psf
I) Lobbies	=	100 psf
J) Stairs and exit ways	=	100 psf
K) Mechanical Rooms	=	125 psf
L) Armories and drill rooms	=	150 psf

IV. Snow Load

A) Ground Snow Load, p_g = 0 psf

V. Atmospheric Ice Load

A) Nominal Ice Thickness, t = 0.25 in
B) Concurrent Wind Speed, W_i = 30 mph
C) Ice Importance Factor-Thickness, I_i = 1.25
D) Ice Importance Factor-Wind, I_w = 1.00
E) Height Factor, f_z = 1.185
F) Design Ice Thickness, t_d = 0.74 in
G) Ice Dead Load, D_i = 3.46 psf

VI. Rain Load

A) Rainfall Intensity, i = 4.5 in/hr
B) Without any roof drains, overflow scuppers, or downspouts permanently located, water ponding cannot be accurately calculated; however, we anticipate a water ponding depth on the order of 3 to 4 inches resulting in 15.6 to 20.8 psf, respectively.

VII. Flood Load

A) According to the latest FEMA Flood Hazard Map, the geographic location of the project falls within Zone AH. Zone AH indicates “flood depths of 1 to 3 feet (usually areas of ponding); base flood elevations determined.”
B) According to the latest FEMA Flood Hazard Map, elevation mark RM 12 indicates the project falls under a base flood elevation (BFE) equal to 95.561 ft above mean sea level.
C) Final flood loads are determined once a finish floor elevation (FFE) is determined by the project civil engineer.

VIII. Wind Load

A) The structure is located in a hurricane prone region.
B) The structure is not located in a wind-borne debris region.
C) Protection of glazed openings is not required.
D) Ultimate Wind Speed, V_{ult} = 140 mph
E) Nominal Wind Speed, V_{asd} = 108 mph
F) Exposure C
G) Enclosure Classification: Fully Enclosed
H) Internal Pressure Coefficients, GC_{pi} = ±0.18
I) Directionality Factor, K_d = 0.85
J) Topographic Factor, K_{zt} = 1.0

VIX. Seismic Load

A) Seismic Design Category (SDC) A
B) 0.2 sec Spectral Response Acceleration, S_s = 0.043 g
C) 1.0 sec Spectral Response Acceleration, S_1 = 0.015 g
D) Site Class D (subject to change based on geotechnical report)
E) Design 0.2 Spectral Response Acceleration, S_{DS} = 0.046 g
F) Design 1.0 Spectral Response Acceleration, S_{D1} = 0.024 g
G) Response Modification Coefficient, R = 2
H) System Overstrength Factor, Ω_0 = 2.5
I) Deflection Amplification Factor, C_d =2
J) Seismic Importance Factor, I_e = 1.25
K) Seismic Response Coefficient, C_s = 0.02875

PROJECT SUMMARY

Structural Narrative

ROOF AND FLOOR FRAMING

The floor structural system chosen for both the tower and solarium is composite steel framing supported on steel columns. Composite steel framing will consist of structural steel beams with welded shear studs supporting a 2” corrugated metal form deck with a 5” thick reinforced concrete slab.

Steel columns will extend from the ground floor to the roof level and are anticipated to change in size every two floors. We are anticipating encasing the first two floors’ steel columns with reinforced concrete for blast resistance and protection.

The roof level of the tower portion will consist of composite steel framing with a 5” thick reinforced concrete slab. The roof level of the solarium surrounding the tower will consist of a 1 1/2” metal deck spanning between joists. Anticipated joist spacing is 5 feet.

The elevator and stairwell shafts are anticipated to be formed with fully grouted masonry walls spanning full height.

LATERAL FORCE RESISTING SYSTEM

Resistance to the anticipated lateral loads is achieved by floor and roof reinforced concrete diaphragms transferring lateral loads to vertical lateral-resisting elements which transfer forces into the foundation.

One system of vertical lateral-resisting elements will include the elevator shaft masonry walls acting as shear walls. Furthermore, the atrium opening spanning from the third floor to the roof will be supported by coordinated steel columns with concentrically braced X-frames spanning all around creating a braced frame core.

Together, the masonry shear walls and the atrium steel core will limit story drift, stability, and rotation of the overall building.

FOUNDATION

The project is currently under schematic design and no geotechnical report has been provided up to this point; therefore, all information herein is considered preliminary and subject to change.

The ground floor is anticipated to be a 5” thick reinforced concrete slab on top of a 15 mil vapor barrier support by compacted select fill pending the geotechnical report. Such a design will require removal of existing soils and replaced with properly compacted select fill. Typical excavations depths vary depending on site geology and loading conditions.

Preliminary axial loads from the steel columns range from 600 to 1150 kips; thus, we are anticipating locating reinforced concrete drilled piers with pier caps at each column location. Although a geotechnical report has not been provided, based on surrounding geotechnical history from other projects, the drilled piers are anticipated to be supported by soil end-bearing pressure and skin friction pressure on the order of 9000 psf and 825 psf, respectively. Based on this geotechnical history, anticipated pier depths will range from 50 to 55 ft and pier diameters will range from 3 to 6 1/2 ft. Continuous grade beams will interconnect all column pier caps and designed to span from pier to pier.

Elevator pits typically range from 4 to 6 feet in depth and are formed with reinforced concrete retaining walls. At the bottom the pit, an 8” thick concrete slab is anticipated.

HVAC Narrative

APPLICABLE CODES

- IBC 2012
- IFC 2012
- IPC 2012
- IMC 2012
- IECC 2012
- ASHRAE 90.1-2012
- 2012 National Electric Code

OUTDOOR DESIGN CONDITIONS

- Summer .....98F DB, 78F WB (ASHRAE 1.0%)
- Winter .....38 F DB

INDOOR DESIGN CONDITIONS

- Offices, Conference Rooms .....74F DB, 55% RH – Summer
- Courtrooms .....74F DB, 55% RH – Summer
- Auditorium.....74F DB, 55% RH – Summer
- Public Area.....74F DB, 55% RH - Summer
- All Areas.....70FDB – Winter

OUTSIDE AIR

As per ASHRAE STD. 62.1-2010, Ventilation for Acceptable Indoor Air Quality, Ventilation Rate Procedure.

- Offices .....5 cfm/person, 0.06 cfm/sf
- Courtrooms .....10 cfm/person, 0.12 cfm/sf
- Dining & Lounge Areas .....7.5 cfm/person, 0.18 cfm/sf
- Auditorium.....7.5 cfm/P, 0.06 cfm/sf
- Corridors .....0.06 cfm/sf
- Kitchen.....Sufficient to compensate for hood exhaust

The above procedure shall be used to establish maximum outside air flow rates. Flows shall be modulated through the use of CO2 sensors down to a minimum level as proved through an air-flow monitoring station. Minimum level of outside air shall be established by one of two methods. Method one is the prescribed ventilation on a square foot basis listed in ASHRAE 62.1-2010. Method two is the cumulative building exhaust plus a fractional amount to account for building infiltration. The greater of these two volumes shall be used for outside air minimum flows.

EXHAUST

- Toilets.....75 cfm per urinal and WC
- Locker Rooms .....100% exhausted
- Hold Rooms.....100% Exhausted

POPULATION DENSITY

- Offices will be estimated at one occupant per office
- Courtrooms and auditorium will be estimated at one occupant per workstation or seat
- All other areas will be estimated per ASHRAE guidelines or furniture layouts by architect

LIGHTING LOADS FOR COOLING REQUIREMENTS

- Actual lighting power loads will be used. This value shall not exceed the prescriptive requirements for lighting power densities as listed in ASHRAE 90.1-2007

HEAT GAIN TO SPACE FROM PEOPLE

Heat gain data is as per ASHRAE Fundamentals volume.

	SENSIBLE HEAT	LATENT HEAT
SPACE	(BTUH)	(BTUH)
Offices	255	255
Courtrooms	230	230
Dining Room	275	275
Auditorium	230	230

CHILLED WATER PIPE SIZING CRITERIA

Chilled water flows will be based on 12˚F ΔT (44˚F – 56˚F) for chilled water. The pipes will be sized based upon the required flow. For chilled water pipes 2” diameter and less, the maximum fluid velocity shall be 4 ft/sec. for pipes larger than 2” diameter, a maximum friction pressure loss rate of 4 ft. of water per 100 equivalent feet of piping will be used. Standard pipe of the following sizes shall be incorporated into the design: ¾”, 1”, 1-1/2”, 2”, 2-1/2”, 3”, 4”, 6”, 8”, and 10”.

CHILLED WATER SYSTEMS

Chilled water will be created at a new water-cooled central plant on-site. The plant will be equipped with four chillers and an equivalent number of variable flow chilled water pumps, cooling towers, and condenser pumps. Each chiller will be sized at 33% of the peak diversified load of the facility providing for a total cooling capacity at the chillers of 133%. This will provide complete redundancy of chilled water production capacity. The chilled water pumping system will be variable flow with pump control sequences designed to vary flow to maintain differential pressure at hydraulically remote cooling coil. Flow metering will be provided on the chilled and condenser water pipe serving the plant. All the branches will have isolation valves.

AHU CHW coils will have 2-way control valves. Control valves will be either PICCV or energy valve type. Ball type isolation valves will be provided up to 2 inches and butterfly valves at 3 inches and above (inside the building). A system bypass value will be specified to ensure minimum system flow.

The preliminary estimated diversified load for the facility is 1500 tons.

AIR SIDE SYSTEMS

The basis of design for air systems will be chilled water air handlers. One air handler will be specified per floor. Approximate airflow requirements for each floor are:

- Floor 1 75,000 cfm
- Floor 2 100,000 cfm
- Floor 3–Floor 9 45,000 cfm
- Floor 10 50,000 cfm

Each AHU will be multi-component with features likely to include return fan array, relief air damper, mixed air damper, outside/economizer air damper, pre- and final-filers, chilled water coils, supply fan array, sound attenuators.

Each air handler will be located on the floor it serves except that the second floor unit will reside on the third floor and the third floor unit will reside on the fourth floor.

Outside air will be provided to the AHU’s through intake louvers and ductwork distribution. Relief air will exit the building via louvers with relief volume being controlled through the use of building pressure

sensors and the return fans. Each AHU fan will be equipped with variable frequency drives that will modulate to maintain supply duct static pressures or building pressure. Outside air volume to the space will be controlled through the use of airflow monitoring stations and CO2 sensors.

Electrical rooms will be conditioned using single duct boxes. MDF rooms will be conditioned using in-row APC units served from DX condensing units. IDF rooms will be conditioned with single duct boxes.

HVAC CONTROLS

HVAC controls will be specified to serve the facility. Specific DDC vendors will be determined as the project progresses. DDC specific control sequences will be developed as the project progresses.

ADDITIONAL SYSTEMS REQUIRED

The facility will require specific additional mechanical systems to serve the code requirements or functions of the facility. These include:

1) Smoke evacuation and fire control for the atrium
2) Stair pressurization for the stair towers
3) Kitchen exhaust hoods for cooking areas
4) Negative pressurization for the hold rooms
5) General building exhaust for toilet room, etc.
6) Ventilation for the sallyport and the enclosed parking garage
7) Smoke removal for detention holding spaces per TCJS standards

ELECTRICAL NARRATIVE

Electrical systems shall be designed and constructed in compliance with applicable local, state, and federal codes, standards and ordinances. Material and equipment shall conform to and be in accordance with the latest applicable standards. All systems provided will be complete and operable. The International Building Code (IBC 2009) International Energy Conservation Code (IECC 2009), ASHRAE 90.1 2007 shall be used as a design basis.

SITE ELECTRICAL DISTRIBUTION

The electrical service to the building will be from the local power company distribution system to two new AEP pad mounted transformers. Transformer located outside, adjacent to the new main electrical room/generator room. The secondary shall be extended to two building switchboards. Pull boxes will be provided for primary service where required.

BUILDING ELECTRICAL DISTRIBUTION

Service from the AEP pad mounted transformers will be 480Y/277V, 3 phase, 4 wire to two main service entrance switchboards. The new service entrances will serve two main molded case circuit breakers with ground fault protection and molded case breakers for branch feeders.

The 480Y/277V switchboard will be located in the main electrical room of the new building. Feeders will be routed from the main switchboard to 480-208Y/120V dry type transformers and panel-boards in other electrical rooms to serve the individual lighting and power loads. Surge protection devices will be provided for suppression of transient voltage surges and electrical noise filtering at panel-boards serving computers and similar electronic loads. K-rated transformers with 200 neutrals will be used for linear loads. Copper wire will be used to distribute power.

BUILDING EMERGENCY POWER

A 480Y/277V emergency natural gas generator will be utilized for emergency power located adjacent to the building in the Sallyport area. The generator will provide power for egress lighting, elevators, air evacuation, sump pumps, fire alarm system, communications, security, and other miscellaneous loads as required by the Owner and Texas Commission on Jail Standards. An automatic transfer switch at main distribution switchboard for the emergency system will be located in the main electrical room. A main emergency panel-board, step down transformer will be specified where required for low voltage emergency circuits serving the critical loads. A second automatic transfer switch for the fire pump will be connected to the emergency generator.

LIGHTING

Indoor lighting will be 277V linear fluorescent or Light Emitting Diode (LED). The luminaries will employ T-8 lamps and electronic ballasts or LED drivers. Compact fluorescent, LED and high intensity discharge lighting will be used for parking lot, exterior and certain downlighting applications. Indoor light energy consumption is estimated at 0.9kW per square foot.

Lighting levels will be designed to meet IECC 2009 standards, IES recommendations.

Occupancy sensors will be used in all offices and work areas. Occupancy sensors will be integral switch type sensors or ceiling mounted sensors depending upon room size. Occupancy sensors shall provide readily accessible method to bypass automatic controls in the event of system or sensor failure.

Site and exterior lighting, as well as lighting in public areas such as corridors and lobbies, will be served through lighting contactors or lighting panels with group-mounted relays.

Automatic schedules for lighting contactors and lighting panels will be controlled by the Building Automation and Energy Management system.

Site and exterior lighting will use LED luminaries

Emergency lighting will be circuited to a central emergency panel. This will allow key lighting circuits to be maintained during a power failure and tested periodically. Lighting for detainee areas will be on emergency power.

FIRE ALARM SYSTEM

The fire alarm system will be fully addressable with stand-alone graphics package, and provision for connection to a campus central monitoring system/fire command center.

The fire alarm system will consist of a master control panel, audible and visual notification devices, smoke detectors, flow switches and manual pull stations located at building exits. System nodes will be located on each floor of the building. Annunciator stations and exterior strobes will be located at fire department response points.

Fire alarm system wiring above accessible ceilings shall be exposed plenum-rated cable, except where shown or required to be installed in conduit. Fire alarm system trunk wiring, and wiring above inaccessible ceilings and in walls shall be installed in conduit.

CENTRAL CLOCK SYSTEM

The new building shall include a central clock system.

GROUNDING AND LIGHTNING PROTECTION SYSTEM

The lightning protection system will follow requirements of NFPA 780 and will required UL master label. A ground loop (i.e.: counterpoise system) will be provided around the building. Ground rods will be located next to every other building column and will be interconnected with a No. 4/0 copper conductor. All systems requiring connections to ground will be bonded to the counterpoise.

TECHNOLOGY

Scope of Work

The technology infrastructure for the new high school includes the plans and specifications for the following systems and components:

1) Inter-building overhead and underground telecom conduits to provide pathways for the voice network as defined by the the Hidalgo County Technology Department
2) Outside telecommunication conduits as defined by the the Hidalgo County Technology Department
3) Outside telecom conduits to the new facilities for future growth and expansion as defined by the the Hidalgo County Technology Department
4) Conduit stub up above ceiling and outlet boxes for voice and data communications
5) Horizontal cable plant video distribution system design to extend the CATV and auxiliary services
6) Circuits to telecommunications equipment rooms layouts provided by the the Hidalgo County Technology Department
7) Power to Equipment racks, patch panels and cross-connect designs and layouts provided by the the Hidalgo County Technology Department
8) Architectural design and space requirements for the telecommunications equipment rooms, specialty spaces and common areas
9) Electrical and HVAC design coordination for the technology systems including the voice, data and video network systems designed and provided by the the Hidalgo County Technology Department
10) Cable Tray shall be specified where appropriate

Telecommunications design and layouts shall obtain above information from the the Hidalgo County Technology Department .

EQUIPMENT ROOMS AND SPACES

Main Telecommunication Distribution Equipment Room

A main telecommunication distribution Room (MDR) will be required for the building.

This room will serve as the main equipment room for:

1) The outside facilities for the voice, data, video networks and auxiliary systems are interconnected to the networks for the facility including the local and long distance carriers
2) The network and cable plant equipment racks and telecommunication equipment design and layout are to be provided by the the Hidalgo County Technology Department

Intermediate Distribution Frame Telecommunications Rooms

One Telecommunications Room (IDF/IT) may be required on each floor. The IDF will provide intermediate termination and interconnection points to house telecommunications and technology equipment that requires the installation of equipment in a distributed environment. The IDF will house rack and wall-mounted equipment as defined and specified by the the Hidalgo County Technology Department.

Location and Size of Telecommunications Rooms

1) The MDR should be located on the second floor
2) The IDF rooms should be located to provide a not to exceed distance of 295 ft. from the MDR room for the horizontal workstation cable between termination points
3) The equipment rooms will be provisioned with equipment racks, patch panels, grounding bus bars, overhead ladder rack and ¾” telecom plywood walls. Size and layout of MDF and IDF rooms will be as directed by the the Hidalgo County Technology Department.

Electrical Requirements for Technology Systems

1) The main communications and telecom equipment rooms will be prepared with power outlets rated and located as defined by the the Hidalgo County Technology Department. These outlets shall be typically spaced along the wall. Final design of the electrical system requirements will be done after an estimated listing of equipment is provided by the the Hidalgo County Technology Department for the equipment rooms.
2) The power outlets shall be located according to the design parameters from the the Hidalgo County Technology Department
3) Power outlets shall be recessed and flush mounted in walls
4) A dedicated Transient Voltage Suppression System (TVSS) at the panel is recommended for the telecommunications system
5) The telecommunications rooms shall not house electrical transformers or electrical breaker panels

Grounding Requirements

1) Grounding and bonding requirements shall comply with the NEC and EIA/TIA-607A and Electrical specifications
2) Equipment rooms shall be provisioned with a ground bus bar and with a minimum of #6 AWG stranded grounding conductor connected to the main electrical ground system. A larger grounding conductor may be required.

Back-up Power Requirements

1) Emergency back-up power may be required for the critical telecom equipment components and auxiliary systems.
2) A UPS may be required to provide electrical fail-over protection to critical telecommunications and networking equipment.
3) The back-up system should be sized to provide time to allow the shutdown of networking equipment in the event of a power failure.
4) Emergency lighting will also be supported from the generator.

Fire Suppression Systems

1) The the Hidalgo County Technology Department to confirm the fire suppression system requirements for technology. Typically this will be a dry suppression system.

Cable Pathway Requirements

1) All conduit requirements for technology infrastructure shall be provided by the the Hidalgo County Technology Department and shown on plans
2) The cable pathway may include the installation of cable tray, ladder rack, conduits and inner duct to support the voice, data, video, security and auxiliary low voltage systems
3) Inside conduit plant consisting of conduits and sleeves to and from the equipment rooms and spaces shall be provided with recommended diameters of 4 inches as defined by the the Hidalgo County Technology Department
4) Conduit entrances and sleeves passing through fire rated walls, floors and ceilings shall be fire stopped in accordance with applicable codes
5) All conduits, sleeves and inner-ducts shall be provided with pull strings with pulling tensions as recommended by BICSI standards. Conduit locations will be defined by the Hidalgo County Technology Department.
6) A recommendation of 2–4” conduits shall be provided at each equipment room to allow for future growth
7) Technology outlets shall be provided with a double gang box with 1” EMT conduit stubbed out above ceiling. Locations will be defined by the Hidalgo County Technology Department.

CATV Cable

1) The coaxial cable elements shall be defined by the Hidalgo County Technology Department.
2) The CATV Indoor Drop outlets shall be provided with a double gang box with 1” EMT conduit stubbed out above ceiling and and separate 120Volt outlet or as directed by the Hidalgo County Technology Department

CATV Equipment

The coaxial cable equipment shall be designed by the Hidalgo County Technology Department for inclusion telecom room spaces or audio/visual rooms.

AUDIO-VISUAL SYSTEMS

Considerations

1) A/V system shall be defined by the Hidalgo County Technology Department.
2) Provide fire alarm signal activated system wide audio mute.
3) Provide an all call emergency paging microphone at the Control Desk.

SECURITY AND ACCESS CONTROL

Proposed Security Planning Measures

The Hidalgo County Technology Department to provide design of security, CCTV cameras. Recording equipment and requirements for monitoring.

Access Control and security shall be designed in conjunction with the Hidalgo County Technology Department and Hidalgo County Sheriff’s Office.

Gate controls for sallyport and judge’s parking will be provided and interconnected with the access control system and the fire alarm system.

Site Lighting

An important element of any security program is deterrence and the single most effective security deterrent in lighting. The exterior architectural lighting for this facility will be designed to maintain minimum lighting levels to provide a reasonably safe and secure environment.

PLUMBING DESIGN ANALYSIS

GENERAL

The new building will be supplied with a new domestic water line supplied from the existing City of Edinburg infrastructure. A water meter, pressure gauge, building main shut-off valve, and a reduced pressure backflow preventer will be provided for the building. It is anticipated that the first floor and second floor will be served via site water pressure, and third floor plumbing fixtures will be supplied via domestic water pump. The packaged booster pump shall likely be located in the third floor mechanical room with a domestic water riser extending from this level to the top floor of the building. Each floor shall be provided with a pressure reducing valve to set the appropriate pressure at each floor.

Domestic water will be piped to plumbing fixtures throughout the facility including a hose bibb in each mechanical room. Non-freeze wall hydrants will also be provided around the exterior perimeter of the building. The domestic cold water system will be sized to maintain a maximum velocity of 7 feet per second throughout the piping system.

The building will be supplied with domestic hot water using multiple tank-type and instantaneous water heaters. A bladder tank piped to the domestic cold water will also be provided for the water heater. Hot water will be distributed at 120˚ F to all areas except the kitchen. The kitchen will be served with 140˚ water. To prevent scalding, 110˚ F hot water will be supplied to sinks and lavatories throughout the building. The 110˚ F hot water will be produced by utilizing a thermostatic mixing valve blending domestic cold water and 120˚ F hot water. The 110˚ F hot water will be recirculated back to the water heater, where required by code. The recirculated hot water loops will be designed to maintain the domestic hot water temperature in the piping system to within 10˚ F of the supply temperature. The hot water piping will be sized similar to the domestic cold water system, except the system will be designed with a maximum velocity of 5 feet per second. The hot water supply and return piping will be insulated to minimize heat loss.

Service valves will be provided at each branch line serving two or more plumbing fixtures. All plumbing fixtures and equipment connections will be provided with local stop valves. Additional service valves will be provided, to isolate the system for maximum maintainability.

Access panels will be provided with adequate space to operate the valve(s) in walls and non-accessible ceilings.

A piston type shock arrestor will be provided on all water rough-ins serving multiple plumbing fixtures. Single plumbing fixture rough-ins will be provided with air chambers.

A reduced pressure type backflow preventer will be provided on the make-up water connections to mechanical equipment.

A complete waste and vent system will be provided to collect sanitary waster from all plumbing fixtures, floor drains, and any other equipment, in accordance with the plumbing code, unless indicated otherwise. The drainage piping system will be designed with a minimum slope of ¼ inch per foot for sizes 3-inch and smaller and 1/8-inch per foot for sizes larger than 3-inch. The facility will have at least one 6” sanitary sewer stub-out connected to the campus site sanitary sewer system. Floor and wall cleanouts will be strategically placed to avoid being located in sensitive areas. Floor drains will be provided for each air handling device, equipment requiring drains, toilet rooms with water closets, and mechanical equipment rooms. Floor drains, within the building will be provided with trap primers or polypropylene trap guards. Plumbing fixtures and floor drains will be individually vented and piped to the sanitary sewer

line serving the building. Individual plumbing fixtures will be vented with the vent piping collecting throughout, and eventually terminating up through the roof.

A complete roof drainage system will be provided to remove storm water from the building roof areas, and discharge to the site storm water sewer system. The roof will be provided adjacent to each roof drain. Roof drains and overflow drains, if provided, will be piped to downspouts located throughout the building. The roof drains and overflow drain, if provided, will be separately piped. There will be several building storm drainage stub-outs, which will be connected to the site storm water drainage system. Overflow drains, if provided, will be piped separately from the roof drain, and spill out near grade on the exterior of the building. The roof drainage system will be insulated to prevent condensation from occurring on the exterior of the pipe. Roof drain bodies, overflow drain bodies (if provided), and the horizontal piping from each drain will be insulated, extending to the first vertical drop and any horizontal offsets that occur.

Plumbing fixtures will be provided throughout. ADA compliant fixtures will be provided where necessary. All water closets, urinals and lavatories will be vitreous china. All water closets and urinals will be wall mounted, with a top mounted flush valve. Sinks will be counter mounted stainless steel. Mop sinks will be floor mounted terrazzo units. All faucets will be chrome plated brass.

Non-freeze type wall hydrants will be provided on the exterior walls to provide wash down of entries, loading dock and other exterior areas around the building. All hose bibs and wall hydrants will be equipped with non-removable vacuum breaker.

Elevator sump pumps will be provided. The sump pump will be sized to meet flows of elevator code and an oily water sensing monitoring panel will also be provided to indicate presence of liquid in the elevator pit sump, and relay the signal to the building automation system.

A new fire water line will be provided to the building from the existing site water distribution system. Concrete thrust blocking will be provided on all angular fittings to the building entry. A double check assembly will be provided on the fire line prior to entering the building. Wall post indicators, fire department connection and sprinkler alarm valves will be provided. A wall post indicator and alarm check valve will be provided for each sprinkler zone and/or floor. A fire and jockey pump system will be installed to provide fire water to all floors. The automatic sprinklers will be supplied to each floor from the standpipe system. The building will be protected throughout with an automatic fire sprinkler system. The sprinkler system will be designed in accordance with the latest edition of NFPA 13. The system will be hydraulically calculated to deliver adequate water, based on Light Hazard occupancy in all locations, except in mechanical equipment type rooms, which will be Ordinary Hazard Group 2. Sprinkler system components will be UL listed and FM approved. Sprinkler heads in suspended ceilings will be located in the center of ceiling tiles. Sprinkler heads will be quick response concealed type in all areas with ceilings. Sprinklers located in areas without ceilings will be upright type with a bronze finish. The maximum spacing for sprinklers will be 15 feet. The maximum area per sprinkler system zone will be 52,000 square feet. The sprinkler supply line for each sprinkler zone, on each floor will consist of a control valve, equipped with a supervisory switch, and a flow switch, to activate local and remove alarm signaling devices. An inspector's test connection will also be provided to serve each sprinkler zone. The inspector's test drain will be routed to a floor drain or janitor's sink.

PROJECT SUMMARY

Revised Design Program Summary

Component	REVISED SPACE PROGRAM			ORIGINAL PROGRAM
	Net Square Feet	**Gross Factor**	**Departmental Gross Square Feet**	**Departmental Gross Square Feet**
Courts	97,176	1.25	121,470	111,708
- Judicial Support	26,280	1.35	35,478	50,216
Court of Appeals	2,400	1.20	2,880	3,240
- Judicial Support	7,538	1.35	10,176	9,422
Ancillary Spaces	13,980	1.25	17,475	32,346
Bar Association	2,287	1.30	2,973	3,087
IT	884	1.25	1,105	12,023
Lobby	19,000	1.20	22,800	25,920
Sheriff Security	3,623	1.25	4,529	15,502
Sheriff Holding	8,250	1.35	11,138	
County Clerk	35,647	1.40	49,906	34,968
District Clerk	15,365	1.40	21,511	20,971
Public Defender	5,252	1.35	7,090	7,090
Indigent Defense	2,296	1.35	3,100	3,100
District Attorney	2,300	1.35	3,105	2,300
Facilities	4,204	1.25	5,255	2,030
Mechanical	7200	1.15	8,280	--
Shell Space			84,000	84,000
Sub-Total	**253,682**	**1.29**	**412,270**	**417,923**
Building Gross Factor (corridors, stairs, mech shafts)			1.125	1.125
		TOTAL GSF	463,804	470,163.38

Hidalgo County Courthouse Master Plan
Program of Spatial Allocation

ID	Function/Department	No.	Net S.F.	Changes	Total Net S.F.	Total Off-Site New NSF	Total Off-Site Net S.F.	Remarks:
AC	**Associate Courts**							
AC1.10	***Judicial Administration***							
AC1.11	*Judges Chambers*	3	240	240	720	720		
AC1.12	*Judge Restroom*	3	80	50	240	150		
AC1.13	*Judge Closet*	3	20	10	60	30		
AC1.14	*Judge Small Storage*	3	50	0	150	0		
AC1.15	*Lobby/ Waiting Room*	3	360	120	1,080	360		
AC1.16	*Court Coordinator*	3	180	145	540	435		
AC1.17	*Assistant Coordinator*	3	144	120	432	360		
AC1.18	*Court Reporter*	3	120	120	360	360		
AC1.19	*Bailiff*	3	120	120	360	360		
AC1.20	*Staff Restroom*	2	80	50	240	100		
AC1.21	*Evidence Storage Room*	3	120	40	360	120		
AC1.22	*General Storage Room*	3	120	40	360	120		General Storage Room will be for supplies, paper, etc.
AC2.10	***Courts***							Need to be insulated/ sound proof walls.
AC2.11	*Courtroom*	3	2400	1900	7,200	5,700		
	Mediation Room	3		350		1,050		
	Sound Vestibule	3		80		240		
	IDF	2		100				Intermediate Distribution Frame Rooms. One per 2 courtrooms
AC2.12	*Holding Cell*	3	80	80	240	240		
AC2.13	*Jury Room*	2	392	392	784	784		(28) square feet per person.
AC2.14	*Jury Restroom*	6	80	50	480	300		Men/ Women
AC2.15	*Witness Room*	6	120	80	720	480		Witness Room needs to have security cameras.
AC2.16	*Attorney Consultation Room*	6	120	80	720	480		
AC2.17	*Confessional Room*	3	64	64	192	192		Confessional Room located next to Holding Cell.
AC3.10	***Sub-Total***		4890		15,238	12,581		
AC4.10	***Total Gross Square Footage***				21,101	15,726		Net to Gross Factor = 1.25%
AC5.10	***3 Year Projection***				22,156			Growth Factor = 5% Increase
AC6.10	***13 Year Projection***				24,371			Growth Factor = 10% Increase
AC7.10	***23 Year Projection***				28,027			Growth Factor = 15% Increase

Hidalgo County Courthouse Master Plan
Program of Spatial Allocation

ID	Function/Department	No.	Net S.F.	Total Net S.F.	Total Off-Site Net S.F.	Remarks:
AX	**Auxiliary Courts**					
AX1.10	***Judicial Administration***					
AX1.11	*Judges Chambers*	2	240	240	480	
AX1.12	*Judge Restroom*	2	80	50	160	
AX1.13	*Judge Closet*	2	20	10	40	
AX1.14	*Judge Small Storage*	2	50	0	100	
AX1.15	*Lobby/ Waiting Room*	2	360	120	720	
AX1.16	*Court Coordinator*	2	180	145	360	
AX1.17	*Assistant Coordinator*	2	144	120	288	
AX1.18	*Court Reporter*	2	120	120	240	
AX1.19	*Bailiff*	2	120	120	240	
AX1.20	*Staff Restroom*	2	80	50	160	
AX1.21	*Evidence Storage Room*	2	120	40	240	
AX1.22	*General Storage Room*	2	120	40	240	General Storage Room will be for supplies, paper, etc.
AX2.10	***Courts***					Need to be insulated/ sound proof walls.
AX2.11	*Courtroom*	2	2400	1900	4,800	
	Mediation Room			350		
	Sound Vestibule			80		
AX2.12	*Holding Cell*	2	80	80	160	
AX2.13	*Jury Room*	2	392	392	784	(28) square feet per person.
AX2.14	*Jury Restroom*	4	80	50	320	Men/ Women
AX2.15	*Witness Room*	4	120	80	480	Witness Room needs to have security cameras.
AX2.16	*Attorney Consultation Room*	4	120	80	480	
AX2.17	*Confessional Room*	2	64	64	128	Confessional Room located next to Holding Cell.
AX3.10	***Sub-Total***		4890		10,420	
AX4.10	***Total Gross Square Footage***				14,067	Net to Gross Factor = 1.35%
AX5.10	***3 Year Projection***				14,770	Growth Factor = 5% Increase
AX6.10	***13 Year Projection***				16,247	Growth Factor = 10% Increase
AX7.10	***23 Year Projection***				18,684	Growth Factor = 15% Increase

Hidalgo County Courthouse Master Plan
Program of Spatial Allocation

ID	Function/Department	No.	Net S.F.		Total Net S.F.	Total Off-Site Net S.F.	Remarks:
CC	**County Courts**						
CC1.10	***Judicial Administration***						
CC1.11	*Judges Chambers*	7	240	240	1,680		
CC1.12	*Judge Restroom*	7	80	50	560		
CC1.13	*Judge Closet*	7	20	10	140		
CC1.14	*Judge Small Storage*	7	50	0	350		
CC1.15	*Lobby/ Waiting Room*	7	360	120	2,520		
CC1.16	*Court Coordinator*	7	180	145	1,260		
CC1.17	*Assistant Coordinator*	7	144	120	1,008		
CC1.18	*Court Reporter*	7	120	120	840		
CC1.19	*Bailiff*	7	120	120	840		
CC1.20	*Staff Restroom*	7	80	50	560		
CC1.21	*Evidence Storage Room*	7	120	40	840		
CC1.22	*General Storage Room*	7	120	40	840		General Storage Room will be for supplies, paper, etc.
CC2.10	***Courts***						Need to be insulated/ sound proof walls.
CC2.11	*Courtroom*	7	2400	1900	16,800		
	Mediation Room			350			
	Sound Vestibule			80			
CC2.12	*Holding Cell*	7	80	80	560		
CC2.13	*Jury Room*	7	392	392	2,744		(28) square feet per person.
CC2.14	*Jury Restroom*	14	80	50	1,120		Men/ Women
CC2.15	*Witness Room*	14	120	80	1,680		Witness Room needs to have security cameras.
CC2.16	*Attorney Consultation Room*	14	120	80	1,680		
CC2.17	*Confessional Room*	7	64	64	448		Confessional Room located next to Holding Cell.
CC3.10	***Sub-Total***		4890		36,470		
CC4.10	***Total Gross Square Footage***				49,235		Net to Gross Factor = 1.35%
CC5.10	***3 Year Projection***				51,696		Growth Factor = 5% Increase
CC6.10	***13 Year Projection***				56,866		Growth Factor = 10% Increase
CC7.10	***23 Year Projection***				65,396		Growth Factor = 15% Increase

Hidalgo County Courthouse Master Plan
Program of Spatial Allocation

ID	Function/Department	No.	Net S.F.	Total Net S.F.	Total Off-Site Net S.F.	Remarks:
DC	**District Courts**					
DC1.10	***Judicial Administration***					
DC1.11	*Judges Chambers*	11	240	240	2,640	
DC1.12	*Judge Restroom*	11	80	50	880	
DC1.13	*Judge Closet*	11	20	10	220	
DC1.14	*Judge Small Storage*	11	50	0	550	
DC1.15	*Lobby/ Waiting Room*	11	360	120	3,960	
DC1.16	*Court Coordinator*	11	180	145	1,980	
DC1.17	*Assistant Coordinator*	11	144	120	1,584	
DC1.18	*Court Reporter*	11	120	120	1,320	
DC1.19	*Bailiff*	11	120	120	1,320	
DC1.20	*Staff Restroom*	11	80	50	880	
DC1.21	*Evidence Storage Room*	11	120	40	1,320	
DC1.22	*General Storage Room*	11	120	40	1,320	General Storage Room will be for supplies, paper, etc.
DC2.10	***Courts***					Need to be insulated/ sound proof walls.
DC2.11	*Courtroom*	11	2400	1900	26,400	
	Mediation Room			350		
	Sound Vestibule			80		
DC2.12	*Holding Cell*	11	80	80	880	
DC2.13	*Jury Room*	11	392	392	4,312	(28) square feet per person.
DC2.14	*Jury Restroom*	24	80	50	1,920	Men/ Women
DC2.15	*Witness Room*	24	120	80	2,880	Witness Room needs to have security cameras.
DC2.16	*Attorney Consultation Room*	24	120	80	2,880	
DC2.17	*Confessional Room*	11	64	64	704	Confessional Room located next to Holding Cell.
DC3.10	***Sub-Total***		4890		57,950	
DC4.10	***Total Gross Square Footage***				78,233	Net to Gross Factor = 1.35%
DC5.10	***3 Year Projection***				82,144	Growth Factor = 5% Increase
DC6.10	***13 Year Projection***				90,359	Growth Factor = 10% Increase
DC7.10	***23 Year Projection***				103,912	Growth Factor = 15% Increase

Hidalgo County Courthouse Master Plan
Program of Spatial Allocation

ID	Function/Department	No.	Net S.F.	Total Net S.F.	Total Off-Site Net S.F.	Remarks:
PC	**Probate Court**					
PC1.10	***Judicial Administration***					
PC1.11	*Judges Chambers*	1	240	240	240	
PC1.12	*Judge Restroom*	1	80	50	80	
PC1.13	*Judge Closet*	1	20	10	20	
PC1.14	*Judge Small Storage*	1	50	0	50	
PC1.15	*Lobby/ Waiting Room*	1	360	120	360	
PC1.16	*Court Coordinator*	1	180	145	180	
PC1.17	*Assistant Coordinator*	1	144	120	144	
PC1.18	*Court Reporter*	1	120	120	120	
PC1.19	*Bailiff*	1	120	120	120	
PC1.20	*Staff Restroom*	1	80	50	80	
PC1.21	*Evidence Storage Room*	1	120	40	120	
PC1.22	*General Storage Room*	1	120	40	120	General Storage Room will be for supplies, paper, etc.
PC2.10	***Courts***					Need to be insulated/ sound proof walls.
PC2.11	*Courtroom*	1	2400	1200	2,400	
PC2.12	*Holding Cell*	1	80	0	80	
PC2.13	*Jury Room*	1	392	0	392	(28) square feet per person.
PC2.14	*Jury Restroom*	2	80	0	160	Men/ Women
PC2.15	*Witness Room*	2	120	0	240	Witness Room needs to have security cameras.
PC2.16	*Probate Court Investigator/ Attorney Consultation Room*	2	120	120	240	
PC2.17	*Confessional Room*	1	64	0	64	Confessional Room located next to Holding Cell.
PC3.10	***Sub-Total***		4890		5,210	
PC4.10	***Total Gross Square Footage***				7,034	Net to Gross Factor = 1.35%
PC5.10	***3 Year Projection***				7,385	Growth Factor = 5% Increase
PC6.10	***13 Year Projection***				8,124	Growth Factor = 10% Increase
PC7.10	***23 Year Projection***				9,342	Growth Factor = 15% Increase
			Net	**Total**	**Total Off-Site**	

PROJECT SUMMARY

Revised Design Program

Hidalgo County Courthouse Master Plan
Program of Spatial Allocation

ID	Function/Department	No.	S.F.	Net S.F.	Net S.F.	Remarks:
A	**Ancillary Spaces**					
A1.10	***Ancillary Spaces***					
A1.11	*Public Restrooms*	2	700		1,400	Ground Floor
A1.12	*Public Restrooms*	6	700	440	4,200	(1) Set of Restrooms for every (2) Courtrooms. One per floor. 6 fixtures a
A1.13	*Private Restrooms*	6	700	360	4,200	(1) Set of Restrooms for every (4) Courtrooms. One per floor. 4 fixtures
A1.14	*Conference Room*	12	350	0	4,200	1. (50) square feet + (25) square feet per person. What is the purpose of this? Public or Private? 2. Conference Room will accommodate (12) people. 3. (1) Conference Room for every (2) Courts.
A1.15	*Break Room*	6	410		2,460	1. (60) square feet + (25) square feet per person. 2. Break Room will accommodate (14) people. 3. (1) Break Room for every (4) Courts
A1.16	*Storage*	24	100		2,400	(1) Storage Room for each court.
A1.17	*Janitor's Closet*	9	100		900	(3) + (1) for each (4) Courts.
A2.10	***Sub-Total***		3060		19,760	
A3.10	***Total Gross Square Footage***				32,346	Net to Gross Factor = 1.35%
A4.10	***3 Year Projection***				33,963	Growth Factor = 5% Increase
A5.10	***13 Year Projection***				37,360	Growth Factor = 10% Increase
A6.10	***23 Year Projection***				42,964	Growth Factor = 15% Increase

ID	Function/Department	No.	Net S.F.	Total Net S.F.	Total Off-Site Net S.F.	Remarks:

Hidalgo County Courthouse Master Plan
Program of Spatial Allocation

AP	Adult Probation				Total # of employees: 26
AP1.10	***Support Staff***				
AP1.11	*Reception Desk*	2	102	204	(2) employees
AP1.12	*Waiting Area*	1	400	400	1. (20) plus people in the waiting area at any given time. 2. Secured Space - Employees take payments in this area.
AP1.13	*Secured Room*	1	120	120	This room should be secured and locked at all times.
AP1.14	*Technical Support*	2	102	204	(2) employees with cubicle style spaces
AP2.10	***Pre-Trial Diversion Officers***				
AP2.11	*Office*	4	120	480	Each office needs a window looking out to corridor.
AP3.10	***Assessment Officers***				
AP3.11	*Office*	5	120	600	Each office needs a window looking out to corridor.
AP4.10	***Court Officers***				
AP4.11	*Office*	12	120	1,440	Each office needs a window looking out to corridor.
AP5.10	***Operations Manager***				
AP5.11	*Office*	1	180	180	Office needs a window.
AP6.10	***Assistant Supervisor***				
AP6.11	*Office*	1	180	180	1. This office needs to be close to the reception are. 2. There is a safe in the office.
AP7.10	***Ancillary Space***				
AP7.11	*IDF*	1	96	96	Adult Probation is not connected to the county's I.T. connections.
AP7.12	*Staff Restroom*	1	700	700	
AP7.13	*Offenders Restroom*	2	80	160	1. (1) Female and (1) Male. 2. Used for urine testing. 3. A water fountain is being requested to be placed next to this
AP7.14	*Storage/ Supply Room*	1	100	100	
AP7.15	*Mini-Lab Station*	1	100	100	Mini-Lab Station needs to be near the Offenders Restroom
AP7.16	*Conference Room*	1	350	350	1. (50) square feet + (25) square feet per person. 2. Conference Room will accommodate (12) people.

ID	Function/Department	No.	Net S.F.	Total Net S.F.	Total Off-Site Net S.F.	Remarks:
AP7.17	*Workroom*	1	200	200		

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AP7.18	*Break Room*	1	460	460	1. (60) square feet + (25) square feet per person. 2. Break Room will accommodate (16) people.
AP7.19	*Janitor's Closet*	1	100	100	
AP8.10	***Work Area***				Inside of Courts Building
AP8.11	*Officer Work Area*	12	128	1,536	1. (2) Work spaces per floor. 2. Must be a secured area.
AP8.12	*Sub-Station Interviewing Room*	2	100	200	1. Private information area. 2. Should be located in the Sally Port area.
AP9.10	***Sub-Total***		3858	7,810	
AP10.10	***Total Gross Square Footage***			10,544	Net to Gross Factor = 1.35%
AP11.10	***3 Year Projection***			11,071	Growth Factor = 5% Increase
AP12.10	***13 Year Projection***			12,178	Growth Factor = 10% Increase
AP13.10	***23 Year Projection***			14,004	Growth Factor = 15% Increase

ID	Function/Department	No.	Net S.F.	Total Net S.F.	Total Off-Site Net S.F.	Remarks:
BA	**Bar Association**					Total # of employees: 4
BA1.10	***Executive Director***					

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BA1.11	*Office*	1	180		180	
BA2.10	***Assistant Executive Director***					
BA2.11	*Office*	1	120		120	
BA3.10	***Member Service Coordinator***					
BA3.11	*Open Area*	1	102		102	This space should be adjacent to the receptionist.
BA4.10	***Receptionist***					
BA4.11	*Reception Area*	1	80		80	
BA5.10	***Ancillary Spaces***					
BA5.11	*Restrooms*	2	80	0	160	
BA5.12	*Attorney's Lounge*	1	310		310	1. (60) square feet + (25) square feet per person. 2. Attorney's Lounge will accommodate (10) people.
BA5.13	*Break Room*	1	260		260	1. (60) square feet + (25) square feet per person. 2. Break Room will accommodate (8) people. 3. Break Room and Conference Room should be adjacent to each other.
BA5.14	*Workroom/ Supply Storage*	1	400		400	Shelving would be needed.
BA5.15	*Conference Room*	1	675		675	1. (50) square feet + (25) square feet per person. 2. Conference Room will accommodate (25) people. 3. Bar Association has a total of (20) Board Members. 4. Conference Room and Break Room should be adjacent to each other.
BA6.10	***Sub-Total***		2207		2,287	
BA7.10	***Total Gross Square Footage***				3,087	Net to Gross Factor = 1.35%
BA8.10	***3 Year Projection***				3,242	Growth Factor = 5% Increase
BA9.10	***13 Year Projection***				3,566	Growth Factor = 10% Increase
BA10.10	***23 Year Projection***				4,101	Growth Factor = 15% Increase

ID	Function/Department	No.	Net S.F.	Total Net S.F.	Total Off-Site Net S.F.	Remarks:
IT	**I.T. Department**					Total # of employees: 30
IT1.10	***Executive Management***					Inside Administration Building.
IT1.11	*Chief Information Officer*	1	180	180		
IT1.12	*Offices*	22	120	2,640		

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IT1.13	*Bullpen*	8	80	640	Open Room w/ Modular Furniture.
IT1.14	*Computer Repair*	1	200	200	
IT2.10	***Ancillary Spaces***				Inside Administration Building.
IT2.11	*IDF*	1	96	96	
IT2.12	*Break Room*	1	310	310	1. (60) square feet + (25) square feet per person. 2. Break Room will accommodate (10) people.
IT2.13	*Training Room*	2	800	1,600	1. (50) square feet + (25) square feet per person. 2. Training Room will accommodate (30) people.
IT2.14	*Conference Room*	1	300	300	1. (50) square feet + (25) square feet per person. 2. Conference Room will accommodate (10) people.
IT2.15	*Workroom*	1	200	200	
IT2.16	*Staff Restrooms*	1	700	700	
IT2.17	*Janitor's Closet*	1	100	100	
IT3.10	***Criminal Justice System Staff***				Inside the Courts Building.
IT3.11	*Office Space*	6	64	384	1. Located directly next to MDF Room. 2. Sound Proof.
IT4.10	***Ancillary Spaces***				Inside the Courts Building.
IT4.11	*MDF*	1	500	500	1. MDF Room would be able to accommodate a new Courts Building and Clerks Building. 2. Ideal location for MDF Room would be on the 2nd floor for security reasons, but not absolutely necessary. 3. Sound proof.
IT4.12	*IDF*	8	96	768	Court Building (1 per floor and additional break-out boxes as needed)
IT4.13	*IDF*	3	96	288	Clerks Building (1 per floor and additional break-out boxes as needed)

ID	Function/Department	No.	Net S.F.	Total Net S.F.	Total Off-Site Net S.F.	Remarks:
IT5.10	***Sub-Total***		3842	8,906		
IT6.10	***Total Gross Square Footage***			12,023		Net to Gross Factor = 1.35%
IT7.10	***3 Year Projection***			12,624		Growth Factor = 5% Increase
IT8.10	***13 Year Projection***			13,887		Growth Factor = 10% Increase

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IT9.10	***23 Year Projection***	15,970	Growth Factor = 15% Increase

ID	Function/Department	No.	Net S.F.	Total Net S.F.	Total Off-Site Net S.F.	Remarks:
L	**Lobby**					
L1.10	***Auditorium***					
L1.11	*Jury Pool*	1	5600	5,600		Jury Pool will accommodate (400) seats.
L1.12	*Stage*	1	800	800		
L1.13	*Storage*	2	200	400		
L2.10	***Cafeteria***					

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L2.11	*Kitchen*	1	4400	4,400	
L2.12	*Cafeteria*	1	4000	4,000	Seating for (300) at (13) square feet per person.
L3.10	***Chapel***				
L3.11	*Chapel*	1	300	300	
L4.10	***Law Library***				
L4.11	*Library*	1	3700	3,700	
L5.10	***Sub-Total***		19000	19,200	
L6.10	***Total Gross Square Footage***			25,920	Net to Gross Factor = 1.35%
L7.10	***3 Year Projection***			27,216	Growth Factor = 5% Increase
L8.10	***13 Year Projection***			29,938	Growth Factor = 10% Increase
L9.10	***23 Year Projection***			34,428	Growth Factor = 15% Increase

ID	Function/Department	No.	Net S.F.	Total Net S.F.	Total Off-Site Net S.F.	Remarks:
SD	**Sheriff's Department**					Total # of employees: 40
SD1.10	***Courthouse Security***					
SD1.11	*Security Lobby*	1	1721	1,721		
SD1.12	*Supervisor*	1	120	120		
SD1.13	*Security/Camera Room*	1	200	200		Central Control
SD1.14	*Break Room*	1	310	310		1. (60) square feet + (25) square feet per person. 2. Break Room will accommodate (10) people.
SD1.15	*Restrooms*	2	80	160		

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SD1.16	*Interviewing/Holding Room*	1	102	102	
SD1.17	*Security Equipment Room*	1	200	200	
SD2.10	***Sub-Station Security***				
SD2.11	*Sally Port*	1	1500	1,500	
SD2.12	*Processing*	1	200	200	
SD2.13	*Offices*	3	120	360	
SD2.14	*Security/Camera Room*	1	200	200	
SD2.15	*Break Room*	1	310	310	1. (60) square feet + (25) square feet per person. 2. Break Room will accommodate (10) people.
SD2.16	*Workroom*	1	200	200	
SD2.17	*Restrooms*	2	80	160	
SD2.18	*Conference Room*	1	300	300	1. (50) square feet + (25) square feet per person. 2. Conference Room will accommodate (10) people.
SD2.19	*Interviewing Room*	3	80	240	Interviewing Rooms
SD2.20	*Security Equipment Room*	1	200	200	
SD2.21	*Holding Cell (Large)*	4	1000	4,000	Large Cells
SD2.22	*Holding Cell (Small)*	20	50	1,000	Small Cells

ID	Function/Department	No.	Net S.F.	Total Net S.F.	Total Off-Site Net S.F.	Remarks:
SD3.10	***Sub-Total***		6973	11,483		
SD4.10	***Total Gross Square Footage***			15,502		Net to Gross Factor = 1.35%
SD5.10	***3 Year Projection***			16,277		Growth Factor = 5% Increase
SD6.10	***13 Year Projection***			17,905		Growth Factor = 10% Increase
SD7.10	***23 Year Projection***			20,591		Growth Factor = 15% Increase

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ID	Function/Department	No.	Net S.F.	Total Net S.F.	Total Off-Site Net S.F.	Remarks:
CCL	**County Clerk**					Total # of employees: 78
CCL1.10	***Executive Management***					
CCL1.11	*County Clerk*	1	240	240		
CCL1.12	*County Clerk Restroom*	1	80	80		
CCL1.13	*County Clerk Conference Room*	1	300	300		1. (50) square feet + (25) square feet per person. 2. Conference Room will accommodate (10) people.
CCL1.14	*Chief Deputy*	1	216	216		
CCL1.15	*Chief Deputy Conference Area*	1	200	200		1. (50) square feet + (25) square feet per person. 2. Conference Room will accommodate (6) people.
CCL1.16	*Office Manager*	1	180	180		
CCL1.17	*Office Manager Conference Area*	1	150	150		1. (50) square feet + (25) square feet per person. 2. Conference Room will accommodate (4) people.
CCL1.18	*Assistant*	2	102	204		
CCL1.19	*Storage Space*	1	200	200		County Clerk's Assistant needs Storage Space.

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ID	Function/Department	No.	Net S.F.	Total Net S.F.	Total Off-Site Net S.F.	Remarks:
CCL1.20	*Waiting Area*	1	200	200		
CCL2.10	***Recording Division***					
CCL2.11	*Deputy Clerk*	5	102	510		
CCL2.12	*Copy Station*	1	80	80		
CCL3.10	***Land Records/ Deeds Division***					
CCL3.11	*Deputy Clerk*	2	102	204		
CCL3.12	*Public Restroom*	1	700	700		
CCL3.13	*Public Area*	1	2000	2,000		(20) Computer Work Stations
CCL3.14	*Reception Desk*	1	300	300		
CCL3.15	*Waiting Area*	1	400	400		
CCL4.10	***Services of the Courts***					
CCL4.11	*Courts Manager*	1	120	120		
CCL4.12	***Criminal Division***					
CCL4.13	*Deputy Clerk*	10	102	1,020		(8) Clerks and (2) Support
CCL4.14	*Receptionist*	1	180	180		Needs to be centralized and tied together with records.
CCL4.15	*Copy Station*	1	80	80		
CCL4.16	*Waiting Area*	1	1500	1,500		Waiting Area for Civil/ Criminal/ and Probate Divisions.
CCL4.17	*Criminal File Room*	1	600	600		
CCL4.18	***Civil Division***					
CCL4.19	*Deputy Clerk*	9	102	918		(7) Clerks and (2) Support
CCL4.20	*Scanning/ File Room*	1	600	600		
CCL4.21	*Copy Station*	1	80	80		
CCL4.22	***Probate Division***					
CCL4.23	*Deputy Clerk*	3	102	306		
CCL4.24	*Copy Station*	1	80	80		
CCL4.25	*Scanning Area*	1	200	200		
CCL5.10	***Collections Department***					
CCL5.11	*Collections Supervisor*	1	180	180		
CCL5.12	*Collections Analyst*	1	120	120		
CCL5.13	*Enforcement Officer*	8	120	960		
CCL5.14	*Cashiers*	3	102	306		(2) Full time and (1) Part time
CCL5.15	*Lobby Space*	1	2000	2,000		This space will need to accommodate up to (150) persons.
CCL5.16	Copy Station	1	80	80		

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ID	Function/Department	No.	Net S.F.	Total Net S.F.	Total Off-Site Net S.F.	Remarks:
CCL6.10	***Bookkeeping***					
CCL6.11	*Cashiers*	8	102	816		
CCL6.12	*Internal Auditor*	1	120	120		
CCL6.13	*Vault*	1	500	500		
CCL6.14	*Display Cases*	1	100	100		The display cases will be for public viewing.
CCL7.10	***Vital Statistics***					Combine Vital Statistics and Official Records
CCL7.11	*Lobby Space*	1	2000	2,000		Vitals/Recording Lobby Space
CCL7.12	*Birth Certificates Area*	1	80	80		The Birth Certificate Area should be in a remote location.
CCL7.13	*Deputy Clerk*	6	102	612		
CCL7.14	*Scanning Area*	1	80	80		
CCL8.10	***Inventory Room***					
CCL8.11	*Assistant*	1	102	102		
CCL8.12	*Storage*	1	500	500		Storage room should be centralized and needs shelving.
CCL9.10	***Mail Area***					The Mail Area should be close to Inventory Area.
CCL9.11	*Deputy Clerk*	1	102	102		
CCL9.12	*Mail Boxes*	1	64	64		
CCL10.10	***Commissioners Court Reporter***					
CCL10.11	*Deputy Clerk*	1	102	102		
CCL10.12	*Storage*	1	120	120		
CCL11.10	***Ancillary Spaces***					
CCL11.11	*Restroom*	1	700	700		
CCL11.12	*Break Room*	1	410	410		1. (60) square feet + (25) square feet per person. 2. Break Room will accommodate (14) people.
CCL11.13	*Workroom*	1	400	400		
CCL11.14	*Supply Storage*	1	200	200		
CCL11.15	*Conference Room*	1	300	300		1. (50) square feet + (25) square feet per person. 2. Conference Room will accommodate (10) people.
CCL11.16	*Janitor's Closet*	1	100	100		
CCL11.17	*Time Clock Area*	1	200	200		
CCL11.18	*Locker Storage*	1	300	300		
CCL11.19	*Storage for Restored Book*	1	2500	2,500		
CCL12.10	***Off-site Facilities***					
CCL12.11	*Warehouse*				14,970	Old Robert's Chevrolet Building (9) Deputy Clerks and (1) Supervisor

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CCL12.12	*Warehouse*			10,000	Warehouse is located in San Carlos, Texas.
CCL12.13	*Sub-Station*			306	1. The Sub-Station is currently located in McAllen, Texas. 2. The building is currently being leased by a Title Company. 3. Total of (3) Deputy Clerks.
CCL13.10	***Sub-Total***	21084	25,902	25,276	The County Clerk is projected to be at least (100) employees in the next
CCL14.10	***Total Gross Square Footage***		34,968	34,123	Net to Gross Factor = 1.35%
CCL15.10	***3 Year Projection***		36,716	35,829	Growth Factor = 5% Increase
CCL16.10	***13 Year Projection***		40,388	39,412	Growth Factor = 10% Increase
CCL17.10	***23 Year Projection***		46,446	45,324	Growth Factor = 15% Increase

ID	Function/Department	No.	Net S.F.	Total Net S.F.	Total Off-Site Net S.F.	Remarks:
DCL	**District Clerk**					Total # of employees: 66
DCL1.10	***District Clerk***					
DCL1.11	*Office*	1	240	240		
DCL1.12	*Restroom*	1	80	80		
DCL1.13	*Conference Room*	1	300	300		1. (50) square feet + (25) square feet per person. 2. Conference Room will accommodate (10) people.
DCL2.10	***Chief Deputy***					
DCL2.11	*Office*	1	216	216		
DCL2.12	*Conference Room*	1	150	150		1. (50) square feet + (25) square feet per person. 2. Conference Room will accommodate (4) people.
DCL3.10	***Chief of Administration***					
DCL3.11	*Office*	1	180	180		
DCL4.10	***Internal Auditor***					
DCL4.11	*Office*	1	120	120		
DCL5.10	***Assistant Chief Deputy***					

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ID	Function/Department	No.	Net S.F.	Total Net S.F.	Total Off-Site Net S.F.	Remarks:
DCL5.11	*Office*	1	120	120		
DCL6.10	***Budget & Procurement Officer***					
DCL6.11	*Office*	1	120	120		
DCL7.10	***Jury Division***					
DCL7.11	*Jury Clerk*	3	102	306		
DCL8.10	***Appeals Division***					
DCL8.11	*Chief of Appeals*	1	180	180		
DCL8.12	*Appeals Clerk*	1	102	102		
DCL8.13	*Storage*	1	200	200		
DCL9.10	***Tax Division***					
DCL9.11	*Tax Clerks*	3	102	306		
DCL9.12	*Storage*	1	200	200		
DCL10.10	***Registry & Trust Division***					
DCL10.11	*Registry Clerk*	2	102	204		
DCL10.12	*Bookkeeper*	1	102	102		
DCL10.13	*File Storage*	1	200	200		
DCL11.10	***Accounting Division***					
DCL11.11	*Accountant*	2	102	204		
DCL11.12	*Costing Clerk*	3	102	306		
DCL11.13	*Cashier*	2	102	204		Cashier & Bookkeeper in same space
DCL11.14	*Bookkeeper*	1	102	102		Cashier & Bookkeeper in same space
DCL12.10	***Collections Division***					
DCL12.11	*Collections Specialist*	2	120	240		
DCL13.10	***Public Viewing Area***					
DCL13.11	*Cubicles*	6	64	384		
DCL14.10	***Courts Division***					
DCL14.11	*District Courts-District Clerk*	22	102	2,244		

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DCL14.12	*County Courts-District Clerk*	6	102	612		
DCL14.13	*Master Courts-District Clerk*	6	102	612		
DCL14.14	*Child Welfare-1 Clerk*	1	102	102		
DCL14.15	*Child Welfare-2 Clerk*	1	102	102		
DCL14.16	*Scanning Clerk*	1	102	102		
DCL14.17	*Indictment Clerk*	1	102	102		
DCL14.18	*File Clerk*	1	102	102		
DCL14.19	*Receptionist Clerk*	1	80	80		

ID	Function/Department	No.	Net S.F.	Total Net S.F.	Total Off-Site Net S.F.	Remarks:
DCL15.10	***Ancillary Spaces***					
DCL15.11	*Restrooms*	1	700	700		
DCL15.12	*Break Room*	1	410	410		1. (60) square feet + (25) square feet per person. 2. Break Room will accommodate (14) people.
DCL15.13	*Workroom*	1	400	400		
DCL15.14	*Supply Storage*	1	200	200		
DCL15.15	*Conference Room*	1	300	300		1. (50) square feet + (25) square feet per person. 2. Conference Room will accommodate (10) people.
DCL15.16	*Janitor's Closet*	1	100	100		
DCL15.17	*Loading Dock Area*	1	600	600		
DCL15.19	*File Storage*	1	4,000	4,000		Temporary Holding Files
DCL16.10	***Offsite Facilities***					
DCL16.11	*File Storage*				40,000	Currently lease out 40,000 sq.ft. of space.
DCL17.10	***Sub-Total***		11014	15,534		
DCL18.10	***Total Gross Square Footage***			20,971	40,000	Net to Gross Factor = 1.35%
DCL19.10	***3 Year Projection***			22,019	54,000	Growth Factor = 5% Increase
DCL20.10	***13 Year Projection***			24,221	59,400	Growth Factor = 10% Increase
DCL21.10	***23 Year Projection***			27,855	68,310	Growth Factor = 15% Increase

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ID	Function/Department	No.	Net S.F.	Total Net S.F.	Total Off-Site Net S.F.	Remarks:
FD	**Facilities Department**					Total # of employees: 90
FD1.10	***Maintenance Facilities***					
FD1.11	*Maintenance Room*	1	400	400		(1) Maintenance Room per floor
FD1.12	*Offices*	2	102	204		
FD1.13	*Mailroom*	1	400	400		
FD1.14	*Outside Storage*	1	400	400		
FD1.15	*Equipment Room*	1	100	100		The Equipment Room needs to be on the ground floor and will accommodate big equipment like: Scissor Lift, Carpet Machine, Stripper, Waxer, and Buffer.
FD2.10	***Sub-Total***		1402	1,504		
FD3.10	***Total Gross Square Footage***			2,030		Net to Gross Factor = 1.35%
FD4.10	***3 Year Projection***			2,132		Growth Factor = 5% Increase
FD5.10	***13 Year Projection***			2,345		Growth Factor = 10% Increase
FD6.10	***23 Year Projection***			2,697		Growth Factor = 15% Increase

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ID	Function/Department	No.	Net S.F.	Total Net S.F.	Total Off-Site Net S.F.	Remarks:
ID	**Indigent Defense**					Total # of employees: 7
ID1.10	***Director***					
ID1.11	*Office*	1	180	180		
ID2.10	***Compliance Monitor***					
ID2.11	*Office*	1	120	120		
ID3.10	***Systems Integrator***					
ID3.11	*Office*	1	120	120		
ID4.10	***Coordinator***					
ID4.11	*Open Area*	1	102	102		Interviews the public
ID5.10	***Ancillary Spaces***					
ID5.11	*Restrooms*	2	80	160		
ID5.12	*Break Room*	1	210	210		1. (60) square feet + (25) square feet per person. 2. Break Room will accommodate (6) people.
ID5.13	*Workroom*	1	200	200		
ID5.14	*Supply Storage*	1	200	200		
ID5.15	*File Storage*	1	200	200		
ID5.16	*Conference/ Interview Room*	1	300	300		1. (50) square feet + (25) square feet per person. 2. Conference Room will accommodate (10) people.
ID5.17	*Small Interviewing Room*	2	102	204		Interviewing Rooms need to be sound proof.
ID5.18	*Waiting Area*	1	200	200		
ID5.19	*Janitor's Closet*	1	100	100		

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ID	Function/Department	No.	Net S.F.	Total Net S.F.	Total Off-Site Net S.F.	Remarks:
ID6.10	***Offsite Facilities***					
ID6.11	*County Jail* *(Indigent DefenseCoordinators)*				306	(3) Employees
ID7.10	***Sub-Total***		2114	2,296	306	
ID8.10	***Total Gross Square Footage***			3,100	413	Net to Gross Factor = 1.35%
ID9.10	***3 Year Projection***			3,255	434	Growth Factor = 5% Increase
ID10.10	***13 Year Projection***			3,580	477	Growth Factor = 10% Increase
ID11.10	***23 Year Projection***			4,117	549	Growth Factor = 15% Increase

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ID	Function/Department	No.	Net S.F.	Total Net S.F.	Total Off-Site Net S.F.	Remarks:
PD	**Public Defender's**					Total # of employees: 19
PD1.10	***Public Defender's Department***					
PD1.11	*Chief Public Defender*	1	240	240		
PD1.12	*Administrative Assistant #1*	1	102	102		
PD1.13	*Administrative Assistant #3*	1	216	216		Secured Area.
PD2.10	***Misdemeanor & Felony Department***					
PD2.11	*Attorney*	8	180	1,440		
PD2.12	*1st Assistant Public Defender*	1	102	102		
PD3.10	***Juvenile Department***					Secured Area.
PD3.11	*Attorney*	2	180	360		
PD3.12	*Social Worker*	1	120	120		
PD3.13	*Administration Assistant #1*	1	102	102		
PD4.10	***Investigator Department***					
PD4.11	*Investigator*	2	120	240		
PD5.10	***Ancillary Spaces***					
PD5.11	*Restrooms*	1	700	700		
PD5.12	*Break Room*	1	310	310		1. (60) square feet + (25) square feet per person. 2. Break Room will accommodate (10) people.
PD5.13	*Workroom*	1	200	200		
PD5.14	*File Storage*	1	200	200		
PD5.15	*Supply Storage*	1	200	200		
PD5.16	*Conference Room/Library Area*	1	300	300		1. (50) square feet + (25) square feet per person. 2. Conference will accommodate (10) people.
PD5.17	*Janitor's Closet*	1	100	100		
PD5.18	*Interviewing/Video Conference*	1	120	120		
PD5.19	*Waiting Area*	1	200	200		

Hidalgo County Courthouse Master Plan
Program of Spatial Allocation

ID	Function/Department	No.	Net S.F.	Total Net S.F.	Total Off-Site Net S.F.	Remarks:
PD6.10	***Sub-Total***		3692	5,252		
PD7.10	***Total Gross Square Footage***			7,090		Net to Gross Factor = 1.35%
PD8.10	***3 Year Projection***			7,445		Growth Factor = 5% Increase
PD9.10	***13 Year Projection***			8,189		Growth Factor = 10% Increase
PD10.10	***23 Year Projection***			9,418		Growth Factor = 15% Increase

Hidalgo County Courthouse Master Plan
Program of Spatial Allocation

ID	Function/Department	No.	Net S.F.	Total Net S.F.	Total Off-Site Net S.F.	Remarks:
DA	**District Attorney**					Total # of employees: 106
DA1.10	***Felony Department***					
DA1.11	*District Attorney*	1	240	240		
DA1.12	*District Attorney's Restroom*	1	80	80		
DA1.13	*Assistant District Attorney*	27	180	4,860		
DA1.14	*Conference Room*	1	300	300		1. (50) square feet + (25) square feet per person. 2. Conference Room will accommodate (10) people.
DA1.15	*Secretary*	8	102	816		
DA1.16	*Receptionist*	1	80	80		
DA1.17	*Supporting Staff*	1	102	102		
DA1.18	*Break Room*	1	235	235		1. (60) square feet + (25) square feet per person. 2. Break Room will accommodate (7) people.
DA1.19	*Video Room*	1	80	80		
DA1.20	*File Storage*	1	400	400		Space savor type cabinets on rollers that close.
DA1.21	*Witness Waiting Room*	1	80	80		
DA1.22	*Equipment Room*	1	80	80		
DA1.23	*Waiting Area*	1	200	200		
DA2.10	***Felony Intake Department***					Felony Intake & Misdemeanor Intake will become one department
DA2.11	*Assistant District Attorney*	4	180	720		
DA2.12	*Administrative Assistant*	2	120	240		
DA2.13	*Criminal Investigator*	1	120	120		
DA2.14	*Receptionist*	1	80	80		
DA2.15	*Conference Room*	1	300	300		1. (50) square feet + (25) square feet per person. 2. Conference Room will accommodate (10) people.
DA2.16	*Break Room*	1	235	235		1. (60) square feet + (25) square feet per person. 2. Break Room will accommodate (7) people.
DA2.17	*Criminal History Room*	1	80	80		This room requires a window.
DA3.10	***Misdemeanor Intake Department***					Felony Intake & Misdemeanor Intake will become one department
DA3.11	*Assistant District Attorney*	2	180	360		
DA3.12	*Administrative Assistant*	3	120	360		(1) of them is a part-time employee.
DA3.13	*Criminal Investigator*	1	120	120		
DA3.14	*Criminal Victim Coordinator*	1	120	120		

Hidalgo County Courthouse Master Plan
Program of Spatial Allocation

ID	Function/Department	No.	Net S.F.	Total Net S.F.	Total Off-Site Net S.F.	Remarks:
DA4.10	***Misdemeanor Department***					
DA4.11	*Assistant District Attorney*	11	180	1,980		
DA4.12	*Administrative Assistant*	4	120	480		Open Area
DA4.13	*Supervisors*	2	120	240		
DA4.14	*Receptionist*	1	80	80		
DA4.15	*File Storage*	1	200	200		
DA4.16	*Waiting Area*	1	300	300		
DA4.17	*Restrooms*	1	700	700		
DA4.18	*Break Room*	1	235	235		1. (60) square feet + (25) square feet per person. 2. Break Room will accommodate (7) people.
DA4.19	*Workroom*	1	200	200		
DA4.20	*Supply Storage*	1	200	200		
DA4.21	*Conference Room*	1	300	300		1. (50) square feet + (25) square feet per person. 2. Conference Room will accommodate (10) people.
DA4.22	*Janitor's Closet*	1	100	100		
DA4.23	*Video Room*	1	80	80		
DA5.10	***Civil/Juvenile Department***					
DA5.11	*Assistant District Attorney*	10	180	1,800		
DA5.12	*Administrative Assistant*	4	120	480		
DA5.13	*Receptionist*	1	80	80		
DA5.14	*File Storage*	1	200	200		
DA5.15	*Waiting Area*	1	200	200		
DA5.16	*Secretary Area*	1	200	200		
DA5.17	*Restrooms*	1	700	700		
DA5.18	*Break Room*	1	235	235		1. (60) square feet + (25) square feet per person. 2. Break Room will accommodate (7) people.
DA5.19	*Workroom*	1	400	400		
DA5.20	*Supply Storage*	1	200	200		
DA5.21	*Conference Room*	1	300	300		1. (50) square feet + (25) square feet per person. 2. Conference Room will accommodate (10) people.
DA5.22	*Janitor's Closet*	1	100	100		
			Net	**Total**	**Total Off-Site**	

Hidalgo County Courthouse Master Plan
Program of Spatial Allocation

ID	Function/Department	No.	S.F.	Net S.F.	Net S.F.	Remarks:
DA6.10	***Hot Checks Department***					
DA6.11	*Assistant District Attorney*	2	180	360		
DA6.12	*Administrative Assistant*	5	120	600		Centrally located with cubicles
DA6.13	*Criminal Investigator*	3	120	360		
DA6.14	*Receptionist*	1	80	80		
DA6.15	*Part-time employees*	2	80	160		
DA6.16	*File Storage*	1	200	200		
DA6.17	*Conference Room*	1	300	300		1. (50) square feet + (25) square feet per person. 2. Conference Room will accommodate (10) people.
DA6.18	*Waiting Area*	1	200	200		
DA6.19	*Restrooms*	2	80	160		
DA6.20	*Break Room*	1	235	235		1. (60) square feet + (25) square feet per person. 2. Break Room will accommodate (7) people.
DA6.21	*Workroom*	1	200	200		
DA6.22	*Administration Storage*	1	400	400		
DA7.10	***Administration Department***					
DA7.11	*Human Resources Coordinator*	2	120	240		
DA7.12	*Administrative Assistant*	1	120	120		
DA7.13	*File Storage*	1	200	200		
DA7.14	*Supply Storage*	1	200	200		
DA8.10	***Appellate Section Department***					
DA8.11	*Assistant District Attorney*	4	180	720		
DA8.12	*Administrative Assistant*	1	120	120		
DA8.13	*Accountant*	1	120	120		
DA8.14	*Conference Room*	2	300	600		1. (50) square feet + (25) square feet per person. 2. Conference Room will accommodate (10) people.
DA9.10	***County Affairs Department***					
DA9.11	*Assistant District Attorney*	3	180	540		
DA9.12	*Administrative Assistant*	3	120	360		
DA9.13	*Conference Room*	1	300	300		1. (50) square feet + (25) square feet per person. 2. Conference Room will accommodate (10) people.
DA9.14	*Supply Storage*	1	200	200		

ID	Function/Department	No.	Net S.F.	Total Net S.F.	Total Off-Site Net S.F.	Remarks:

Hidalgo County Courthouse Master Plan
Program of Spatial Allocation

ID	Function/Department	No.	Net S.F.	Total Net S.F.	Total Off-Site Net S.F.	Remarks:
DA10.10	***I.T. Area***					District Attorney's I.T. Department runs seperately from the county, but does connect to the counties servers
DA10.11	*Offices*	2	120	240		
DA10.12	*Reception Area*	1	102	102		
DA10.13	*IDF*	1	96	96		
DA11.10	***Offsite Facilities***					
DA11.11	*Storage Warehouse*				1,860	
DA12.10	***District Attorney***					Inside of Courts Building.
DA12.11	*Office*	2	120	240		
DA12.12	*Office/ Storage for Equipment*	1	200	200		
DA12.13	*Conference Room*	1	300	300		1. (50) square feet + (25) square feet per person. 2. Conference Room will accommodate (10) people.
DA12.14	*Victim Waiting Room*	1	200	200		
DA12.15	*Receptionist Desk*	1	80	80		
DA12.16	*Unisex Restroom*	1	80	80		
DA13.10	***Private Lawyers***					Inside of Courts Building.
DA13.11	*Assistant District Attorney*	3	180	540		1. These offices would provide important office space that could be leased out by the county to Attorney's from out of town. 2. The District Attorney's Department requested that these offices be close to the courts.
DA14.10	***Sub-Total***		15377	29,331	1,860	
DA15.10	***Total Gross Square Footage***			39,597	2,511	Net to Gross Factor = 1.35%
DA16.10	***3 Year Projection***			41,577	2,637	Growth Factor = 5% Increase
DA17.10	***13 Year Projection***			45,734	2,900	Growth Factor = 10% Increase
DA18.10	***23 Year Projection***			52,595	3,335	Growth Factor = 15% Increase

Hidalgo County Courthouse Master Plan
Program of Spatial Allocation

T	Total Square Footage			
T1.10	***Sub-Total***	279,145		
T2.10	***Total Gross Square Footage***	376,845	77,047	Net to Gross Factor = 1.35%
T3.10	***3 Year Projection***	395,687	80,899	Growth Factor = 5% Increase
T4.10	***13 Year Projection***	435,255	88,989	Growth Factor = 10% Increase
T5.10	***23 Year Projection***	500,544	102,337	Growth Factor = 15% Increase


THE COUNTY OF HIDALGO
TEXAS

DRAWINGS

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THE COUNTY OF HIDALGO TEXAS

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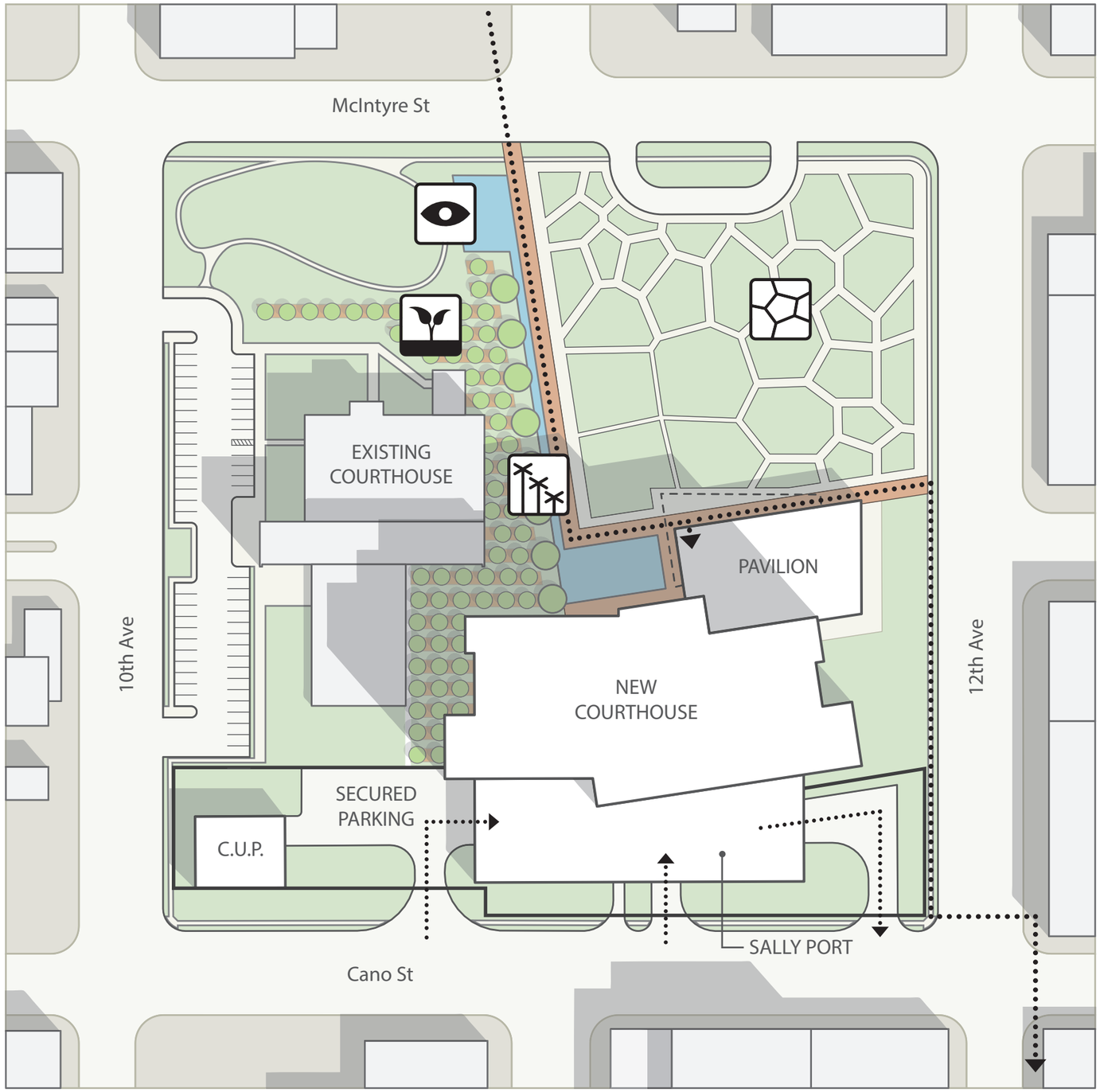


CRACKED EARTH

A fractal pattern is incorporated into the design to mirror the cracked and uncultivated or non-irrigated soil—a condition that was prevalent in the Valley prior to the emergence of irrigation canals.

OJO DE AGUA

The *Ojo de Agua* represents the water source that transformed the economy through farming in south Texas.

PALM ROWS

Rows of ornamental palm trees act as a coastal hedgerow separating property boundaries.

CULTIVATION

The South Texas environment is ideal for citrus trees. The Valley's typical groves will be represented by native plants and shrubs.

DRAWINGS

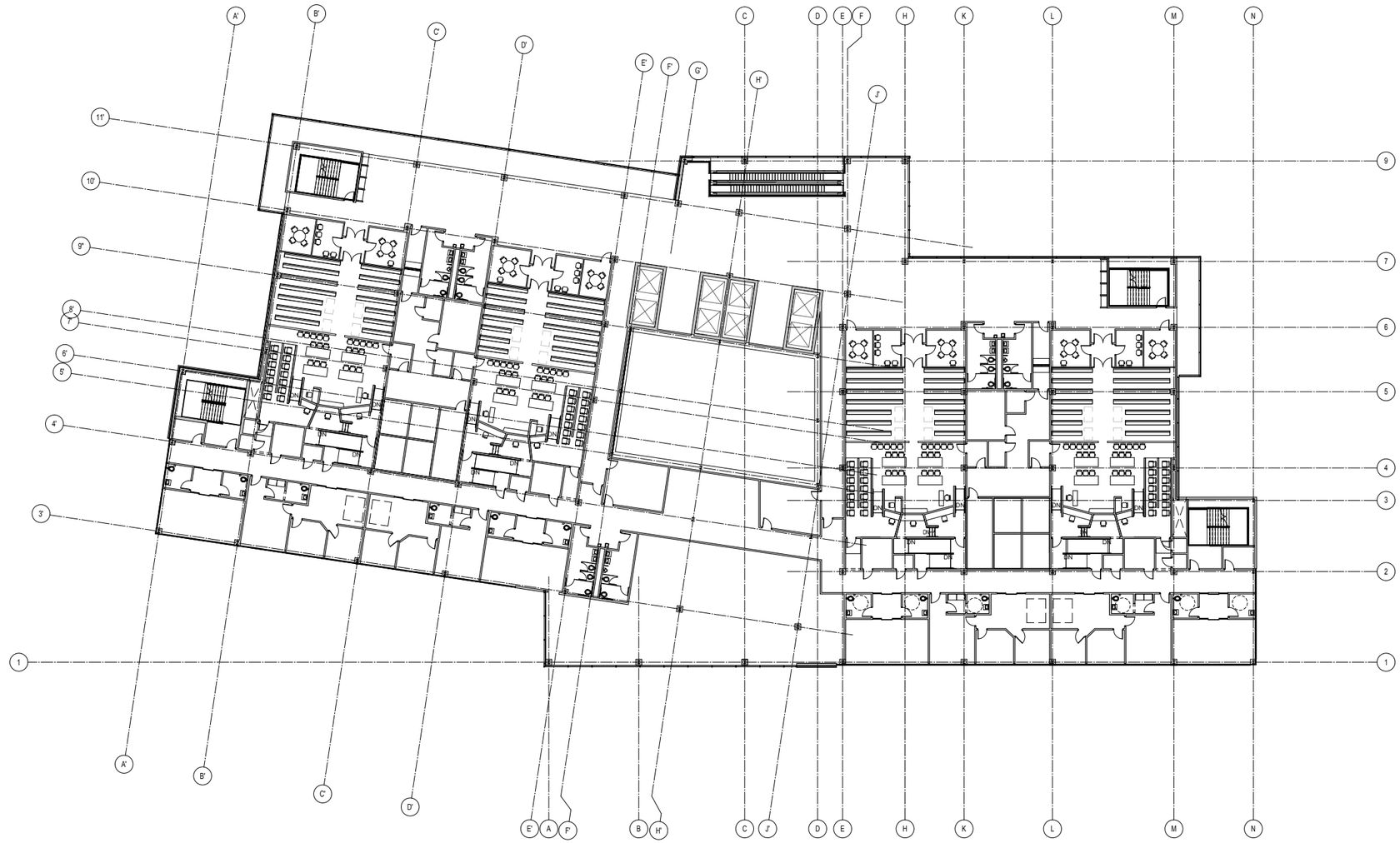
Ground Floor

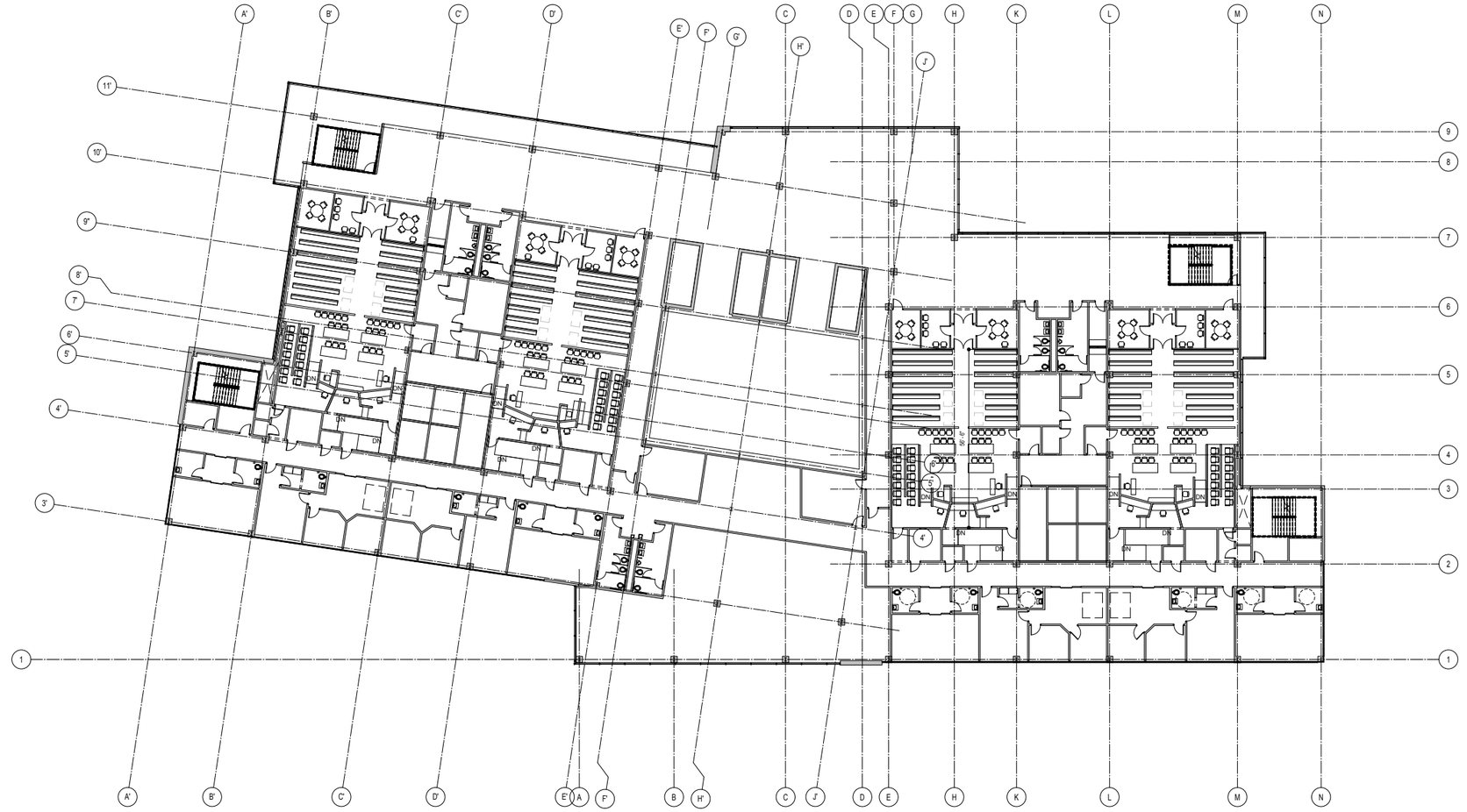
DRAWINGS

2nd Floor

DRAWINGS

3rd–6th Floors

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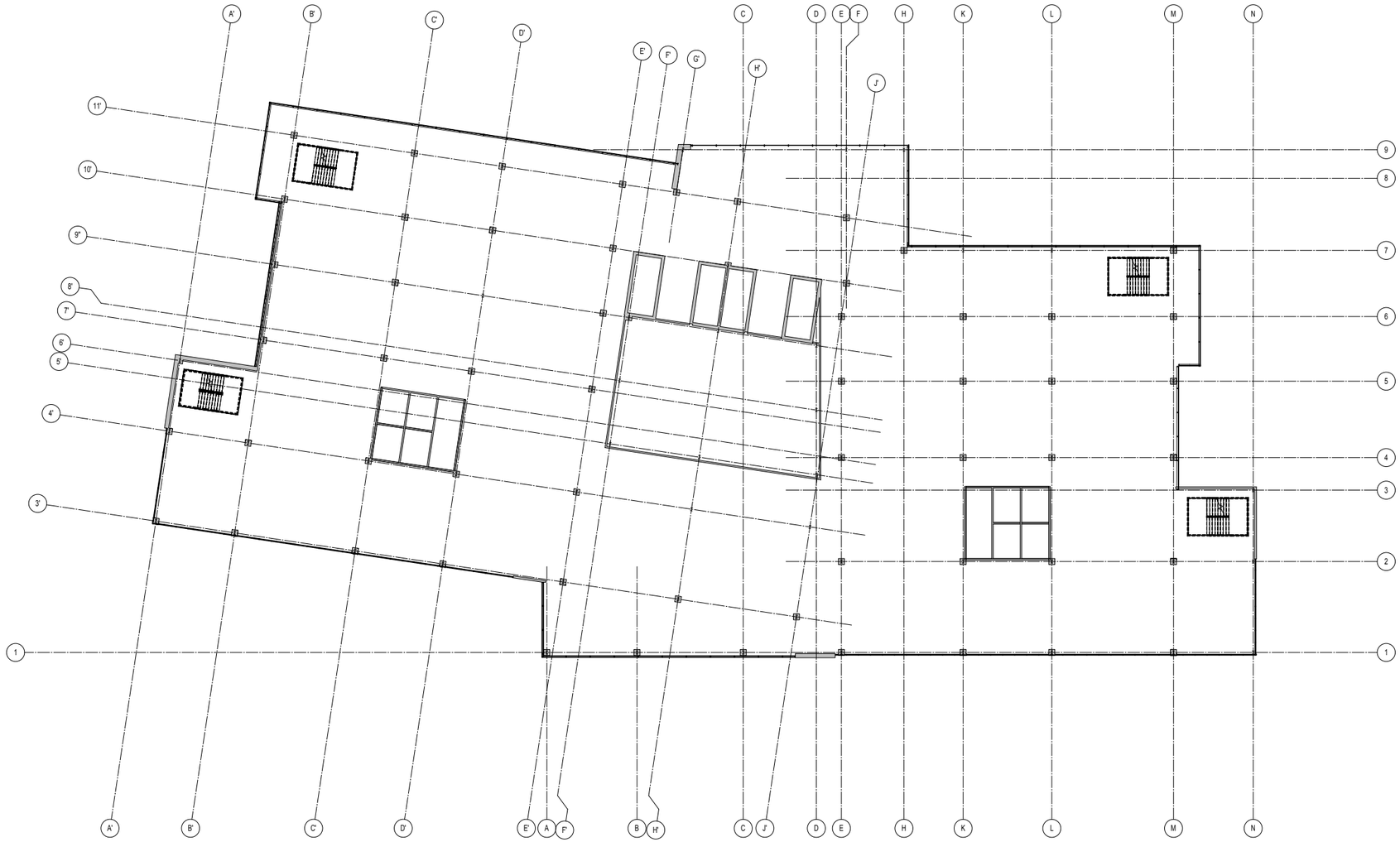
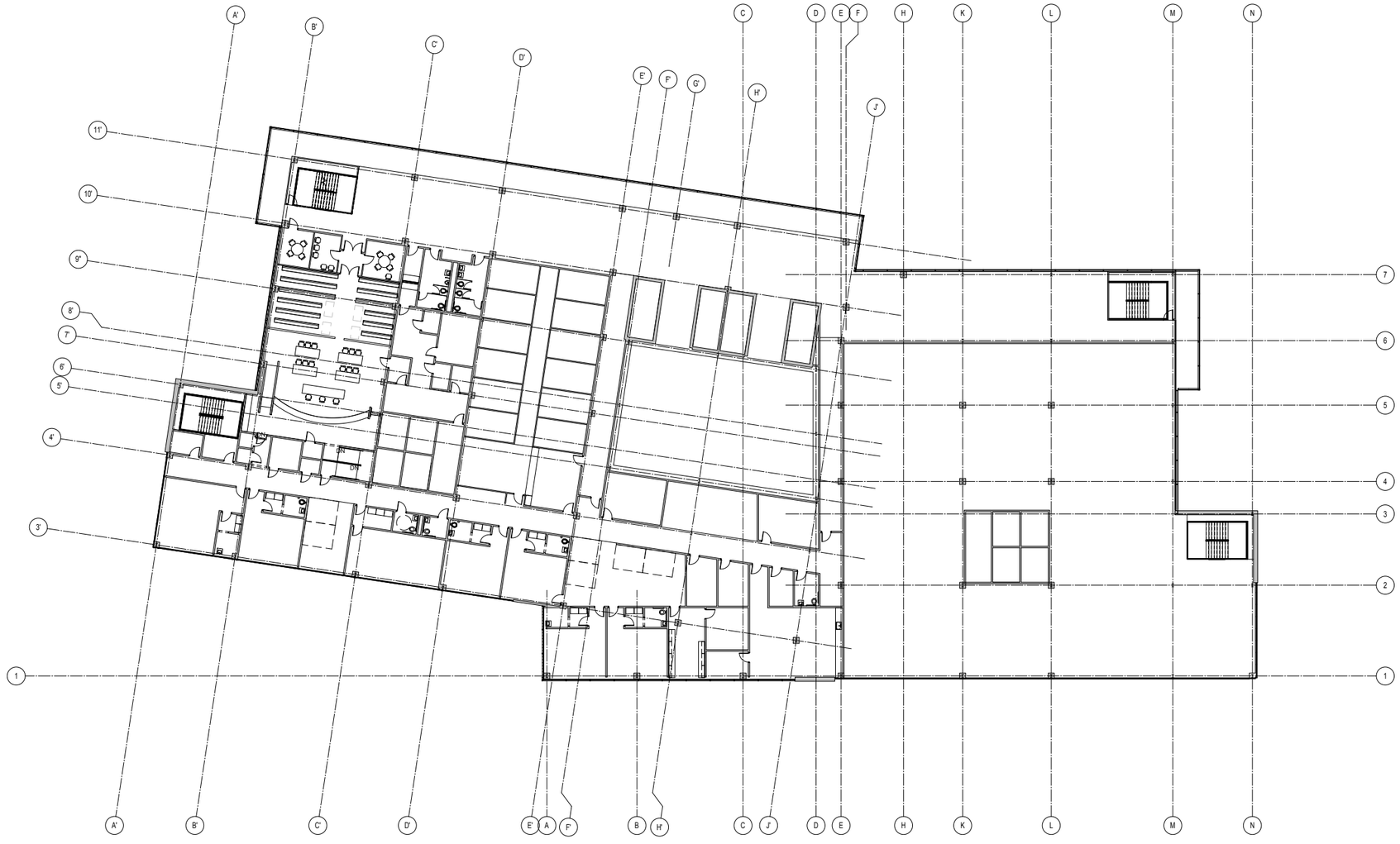
DRAWINGS

9th Floor



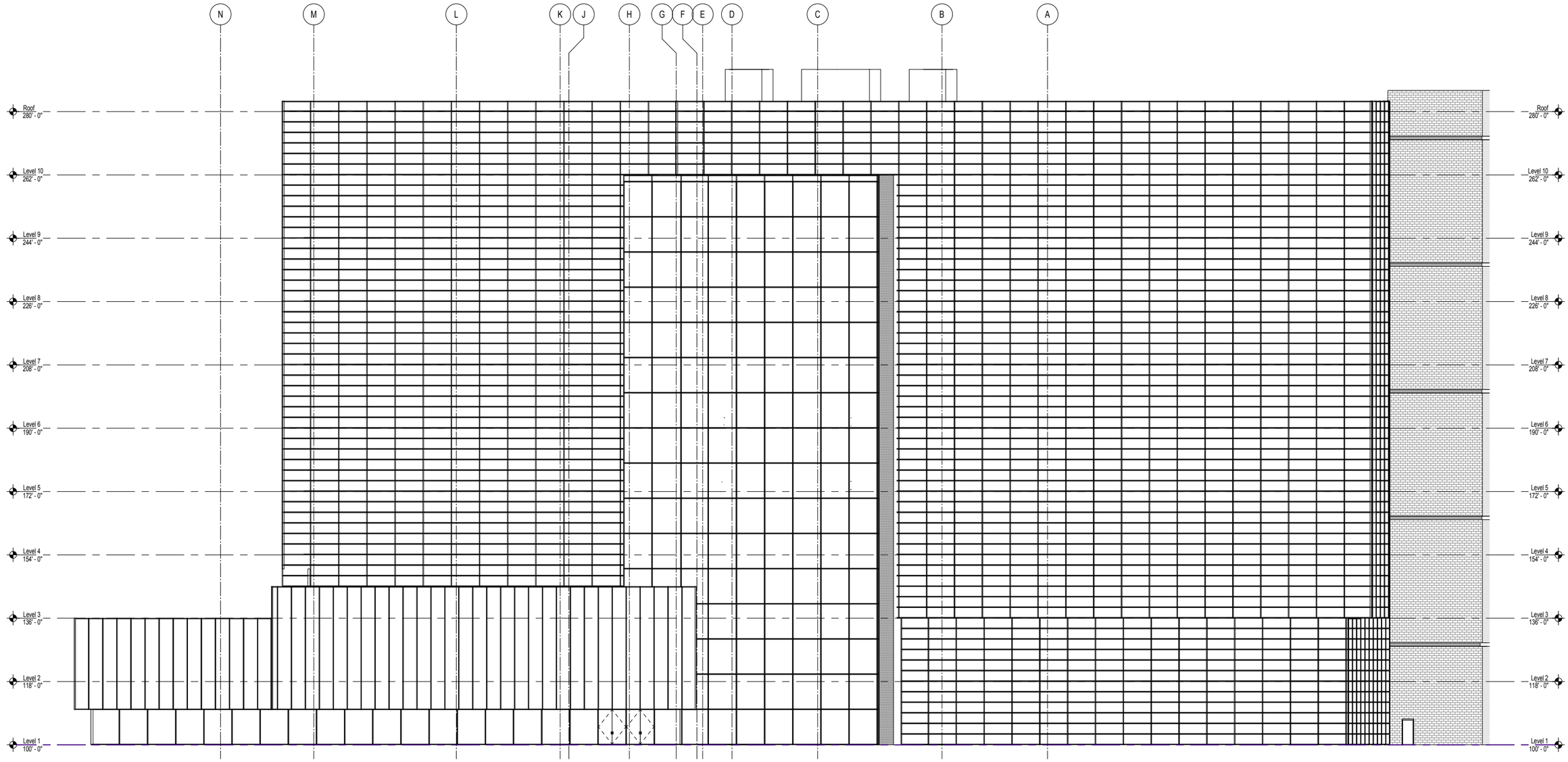
DRAWINGS

10th Floor



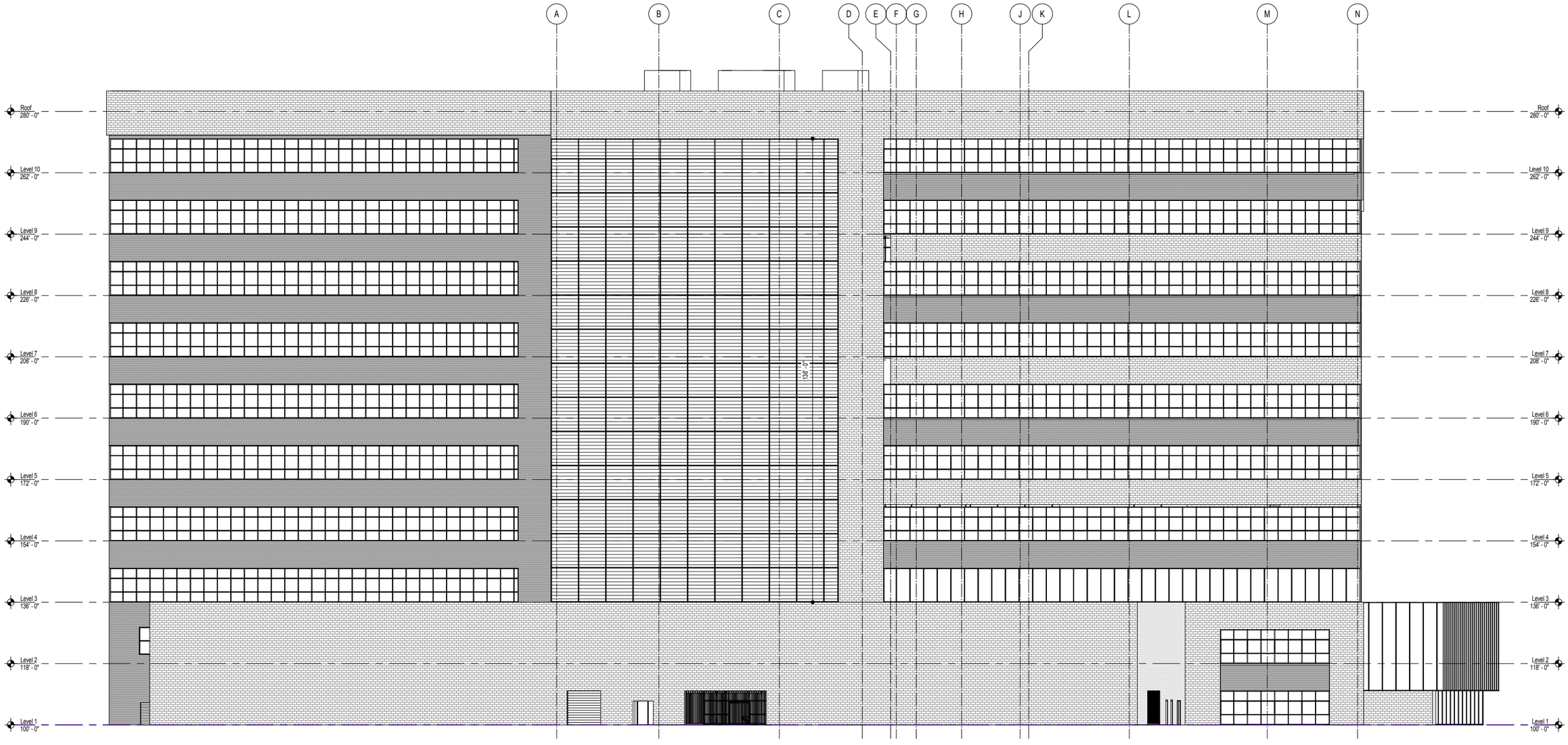
DRAWINGS

North Elevation



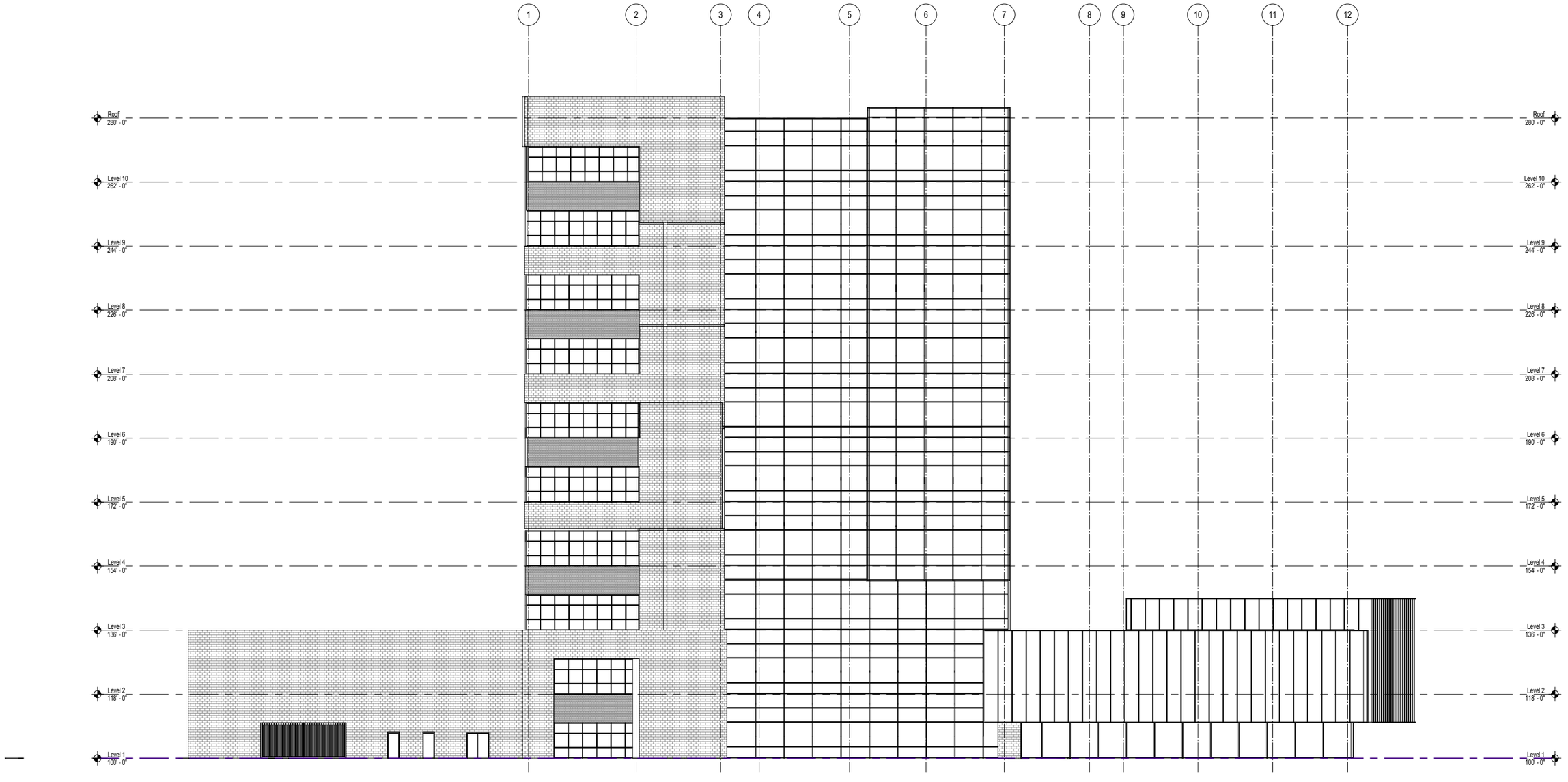
DRAWINGS

South Elevation



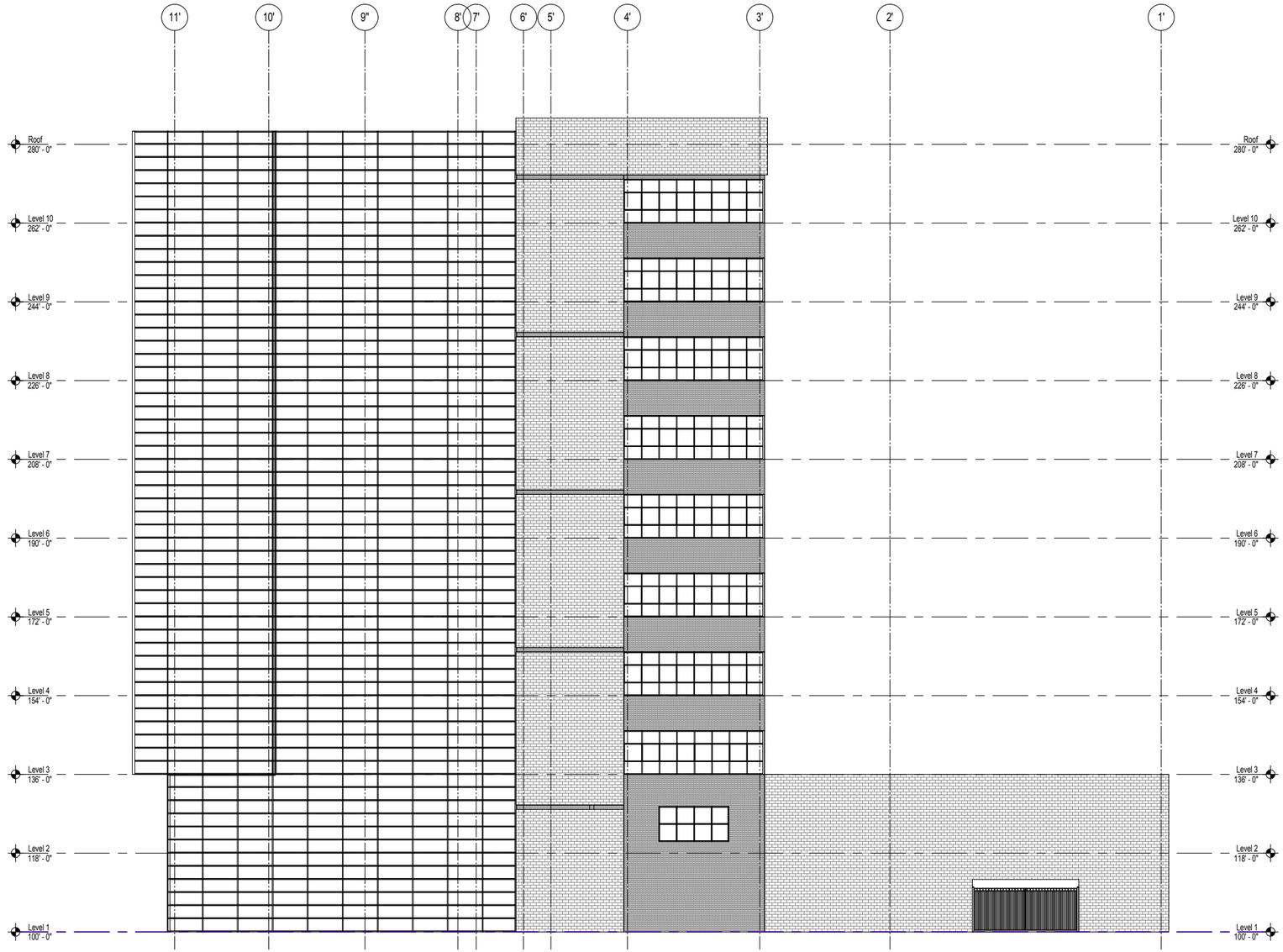
DRAWINGS

East Elevation



DRAWINGS

West Elevation



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00 31 32 GEOTECHNICAL DATA

Part 1 - Scope and Standards

A) A geotechnical report will be provided by owner

B) This report will be reviewed before it is used for design of this project and further investigation may be done to verify existing conditions

- This report was obtained only for use in foundation and paving design and is not a part of the contract documents. The report and log of borings is available for the contractor's information, but is not a warranty of the subsurface conditions. The contractor may use the report at his own risk.
- Make no deviations from the recommendations of the geotechnical investigation report and the requirements of the contract documents without specific and written approval of the owner or architect.

Division 01 - General Requirements

01 10 00 SUMMARY

Part 1 - Scope and Standards

A) Includes:

- Project information
- Work covered by contract documents
- Phased construction
- Work by owner
- Work under separate contracts
- Future work
- Purchase contracts
- owner-furnished products
- Contractor-furnished, owner-installed products
- Access to site
- Coordination with occupants
- Work restrictions
- Specification and drawing conventions
- Miscellaneous provisions

B) Project information:

- Project Identification: Hidalgo County Courthouse
- Project Location: 100 North Closner Edinburg, Tx 78539
- owner: Hidalgo County

C) Project consists of the construction of a 10-story courthouse with approximately 471,000 square feet of floor area for hidalgo county, related site improvements

D) Other buildings near the project site will be used by owner's employees and the public. Do not close or obstruct walkways, exits, drives or other occupied or used facilities without written permission from authorities having jurisdiction. Execute the work so owner's operations will not be disrupted.

E) Maintain existing utility lines adjacent to demolition site serving adjacent facilities

01 21 00 ALLOWANCES

Part 1 - Scope and Standards

A) Includes administrative and procedural requirements governing allowances

B) Contract sum includes allowances indicated

- Allowance shall include cost to contractor of the following:
  - Specific products and materials ordered by owner or selected by architect under allowance
  - Taxes, freight, and delivery to project site
  - Receiving and handling at project site
  - Labor for installation
- Overhead and profit, and similar costs related to products and materials ordered by owner or selected by architect under allowance shall be included as part of the contract sum and not part of the allowance

C) Schedule of allowances: To be determined

01 23 00 ALTERNATES

Part 1 - Scope and Standards

A) Includes administrative and procedural requirements for alternates

B) Alternate: An amount proposed by for certain work defined in the construction documents that may be added to or deducted from the base bid amount if owner decides to accept the specified alternate described in the contract documents.

- The cost or credit for each alternate is the net addition to or deduction from the contract sum to incorporate alternate into the work. No other adjustments are made to the contract sum.

C) Schedule of allowances: To be determined

01 25 00 SUBSTITUTION PROCEDURES

Part 1 - Scope and Standards

A) Includes administrative and procedural requirements for substitutions
B) Substitutions:
- Substitutions for cause: Not later than 15 days prior to time required for submittals.
- Substitutions for convenience: Will be considered under the following conditions:
  - Product substitutions will only be considered when substantial advantage in cost or schedule is offered to the owner.
  - If received within 60 days after the notice to proceed.

01 26 00 CONTRACT MODIFICATION PROCEDURES

Part 1 - Scope and Standards

Includes administrative and procedural requirements for handling and processing contract modifications

01 29 00 PAYMENT PROCEDURES

Part 1 - Scope and Standards

Includes administrative and procedural requirements necessary to prepare and process applications for payment

01 31 00 PROJECT MANAGEMENT AND COORDINATION

Part 1 - Scope and Standards

Includes administrative provisions for coordinating construction operations on project including, but not limited to, the following:
- General coordination procedures
- Coordination drawings
- Requests for information (RFIs)
- Project meetings

01 32 00 CONSTRUCTION PROGRESS DOCUMENTATION

Part 1 - Scope and Standards

Includes administrative and procedural requirements for documenting the progress of construction during performance of the work, including contractor's construction schedule and reports
- Milestones: Notice to proceed, substantial completion, and final completion

01 33 00 SUBMITTAL PROCEDURES

Part 1 - Scope and Standards

A) Includes requirements for the submittal schedule and administrative and procedural requirements for submitting shop drawings, product data, samples, and other submittals.
B) Procedures:
- Electronic copies of cad drawings of the contract documents will be provided by architect for contractor's use
- Submit paper copies to architect
- Submit electronic submittals via email as PDF files

C) Transmittal form: AIA document G810 or comparable form approved by the architect.
D) Submittal procedures:
- Action submittals
- Shop drawings: Submit three paper copies
- Product data: Submit electronically in PDF format
- Informational submittals: Submit electronically in PDF format

01 40 00 QUALITY REQUIREMENTS

Part 1 - Scope and Standards

Includes administrative and procedural requirements for quality assurance and quality control

01 42 00 REFERENCES

Part 1 - Scope and Standards

Includes definitions and abbreviations and acronyms of organizations producing codes, specifications, and standards used in establishing material and execution requirements are available from the architect. Copies of relevant codes, specifications, and standards are available from those organizations.

01 43 39 MOCKUPS

Part 1 - Scope and Standards

A) Includes integrated exterior mockup
B) Construct integrated exterior mockup to confirm product selections made under previous submittals, verify compliance with design intent, and specified requirements, and to confirm that the proposed assembly is capable of providing a complete and water tight facility
C) Mockup size and configuration: to be indicated on drawings

01 50 00 TEMPORARY FACILITIES AND CONTROLS

Part 1 - Scope and Standards

Includes requirements for temporary utilities, support facilities, and security and protection facilities

01 56 39 TEMPORARY TREE AND PLANT PROTECTION

Part 1 - Scope and Standards

Includes general protection and pruning of existing trees and plants that are affected by execution of the work, whether temporary or permanent construction

01 60 00 PRODUCT REQUIREMENTS

Part 1 - Scope and Standards

Includes administrative and procedural requirements for selection of products for use in project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; and comparable products.

01 73 00 EXECUTION

Part 1 - Scope and Standards

Includes general administrative and procedural requirements governing execution of the work including, but not limited to, the following:

- Construction layout
- Field engineering and surveying
- Installation of the work
- Cutting and patching
- Progress cleaning
- Starting and adjusting
- Protection of installed construction

01 74 19 CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

Part 1 - Scope and Standards

A) Includes administrative and procedural requirements for the following:

- Salvaging nonhazardous demolition and construction waste
- Recycling nonhazardous demolition and construction waste
- Disposing of nonhazardous demolition and construction waste

B) Performance requirements:

- End-of-project rates for salvage/recycling: 75 percent

C) Waste management plan:

- Types and quantities of demolition, site-clearing, and construction waste
- Type of waste and whether it will be salvaged, recycled, or disposed of in landfill or incinerator
- Net additional cost or net savings resulting from waste management plan

01 77 00 CLOSEOUT PROCEDURES

Part 1 - Scope and Standards

Includes administrative and procedural requirements for contract closeout.

01 78 23 OPERATION AND MAINTENANCE DATA

Includes administrative and procedural requirements for preparing emergency, operation, and maintenance manuals

01 78 39 PROJECT RECORD DOCUMENTS

Part 1 - Scope and Standards

Includes administrative and procedural requirements for project record documents, including the following:

- Record drawings
- Record product data
- Miscellaneous record submittals

01 79 00 DEMONSTRATION AND TRAINING

Part 1 - Scope and Standards

Includes administrative and procedural requirements for instructing owner's personnel.

01 81 13 SUSTAINABLE DESIGN REQUIREMENTS

Part 1 - Scope and Standards

A) Includes general requirements and procedures for compliance with certain USGbc LEED prerequisites and credits needed for project to obtain LEED certification

B) Project is designed to comply with requirement to earn LEED-Certified certification according to the U.S. Green Building Council's Leadership in Energy & Environmental Design (LEED) rating system for schools, as indicated in the attached LEED checklist

01 91 13 GENERAL COMMISSIONING REQUIREMENTS

Part 1 - Scope and Standards

A) Includes general requirements that apply to implementation of commissioning without regard to specific systems, assemblies, or components

B) Commissioning team:

- Members representing contractor, including project superintendent and subcontractors, installers, suppliers, and specialists
- Members representing owner, including CxA, facility user and operation and maintenance personnel
- Members representing architect, engineering design professionals and other design consultants

C) Owner's responsibilities:

- Provide opr and bod documentation
- Assign operation and maintenance personnel and schedule them for commissioning activities

D) Contractor's responsibilities:

- Assign personnel and schedule them for commissioning activities

E) CxA's responsibilities:

- Organize and lead commissioning team
- Provide commissioning plan
- Convene commissioning team meetings
- Provide project-specific checklists and test procedures
- Verify the execution of commissioning process activities using random sampling
- Prepare and maintain issues log
- Prepare and maintain completed construction checklist log
- Witness systems, assemblies, equipment, and component startup
- Compile test data, inspection reports, and certificates; include them in the systems manual and commissioning process report

Division 02 - Existing Conditions

02 41 16 STRUCTURE DEMOLITION

Part 1 - Scope and Standards

A) Includes:
- Demolition and removal of buildings and site improvements
- Removing below-grade construction
- Disconnecting, capping or sealing, and removing site utilities

B) Quality assurance:
- Quality standards: ANSI/ASSE A10.6 and NFPA 241.

C) Hazardous materials: Remediation specified elsewhere in contract documents

D) Refrigerant: Remove according to 40 CFR 82.
- Utility shut off: Owner

E) Demolition:
- Use of explosives is not permitted
- Existing utilities: Abandon

F) Disposal of demolished material:
- Remove demolished material from project site and dispose of according to Division 01 Section “Construction Waste Management and Disposal”

Division 03 - Concrete

03 30 00 CAST-IN-PLACE CONCRETE

Part 1 - Scope and Standards

A) Includes cast-in-place concrete, reinforcing, and formwork.

B) LEED requirements:
- MR4: Recycled steel content
- MR5: Regional materials for:
  - Cement
  - Aggregate
- ID1.1 and 5.2 Innovation in Design
  - Design mix to include cementitious materials other than Portland cement to reduce amount of Portland cement in mix by 40 percent

C) General: Comply with requirements indicated on structural drawings

03 47 13 TILT-UP CONCRETE

Part 1 - Scope and Standards

A) Includes monolithic load-bearing, tilt-up concrete wall panels, reinforcing, and formwork

B) LEED requirements:
- MR4: Recycled steel content
- MR5: Regional materials for:
  - Cement
  - Aggregate
- ID1.1 and 5.2 Innovation in Design
  - Design mix to include cementitious materials other than Portland cement to reduce amount of Portland cement in mix by 40 percent

C) General: Comply with requirements indicated on structural drawings

03 52 16 LIGHTWEIGHT INSULATING CONCRETE

Part 1 - Scope and Standards

A) Includes cast-in-place cellular lightweight insulating concrete

B) LEED requirements: MR5 regional materials for cement and aggregate

Part 2 - Material and Equipment

A) Materials:
- Cementitious material: Portland cement, ASTM C 150, Type I/II. Supplement with fly ash, ASTM C 618, class c or f.
- Molded-polystyrene insulation board, ASTM C 578, Type I.
- Cellular lightweight insulating concrete compressive strength: 190 psi minimum.

B) Manufacturers: celcore incorporated, elastizell corporation of america, siplast, Inc., or manufacturer of comparable products approved by the architect.

Division 04 - Masonry

04 21 13 BRICK MASONRY

Part 1 - Scope and Standards

A) Includes face brick veneer with the following:
- Galvanized steel masonry reinforcing, ties, and anchors
- Embedded flashing (asphalt coated copper and rubberized asphalt sheet)
- Vents and weeps
- “Mortar net” cavity drainage material

B) Cavity insulation is specified in Division 7 section “thermal insulation”

C) LEED requirements:
- MR4: Recycled steel content
- MR5: Regional materials for:
  - Face brick
  - Mortar aggregate

D) Quality assurance:
- Masonry standard: Comply with ACI 530.1/ASCE 6/TMS 602 unless modified by requirements in the contract documents
- Security walls
- Institutional security perimeter. Perimeter walls surrounding the holding area (both interior and exterior) shall consist of 8” normal weight concrete block with #4 reinforcing bars 8” on center fully grouted with concrete.
- Security perimeter. Security walls surrounding holding cells shall consist of 8” normal weight concrete block with #4 reinforcing bars 16” on center fully grouted with concrete.
- Concrete bunks and benches
- Holding cells shall have built-in concrete bunks

Part 2 - Material and Equipment

A) Face brick: As selected by architect
- Size: Modular

B) Mortar and grout materials:
- Portland cement: ASTM C 150, TYPE I or II, except Type III may be used for cold-weather construction
- Hydrated lime: ASTM C 207, Type S
- Colored cement product: Packaged blend made from portland cement and lime and mortar pigments, all complying with specified requirements, and containing no other ingredients
- Aggregate for mortar: ASTM C 144
- Aggregate for grout: ASTM C 404

C) Mortar mixes: comply with ASTM C 270, proportion specification to provide Type N mortar unless otherwise indicated

04 21 26 GLAZED STRUCTURAL CLAY TILE MASONRY

Part 1 - Scope and Standards

A) Includes glazed structural-clay facing tile.

B) LEED requirements:
- MR4: Recycled steel content
- MR5: Regional materials for:
  - Mortar aggregate

Part 2 - Material and Equipment

A) Description: Comply with ASTM C 126, Grade S (select) solid, to provide multicored, or hollow units, with shape and direction of cores optional unless otherwise indicated.
- Provide special shapes where required for corners, jambs, coved bases, sills, and other special conditions indicated, including applications that cannot be produced by sawing standard units
- Provide bullnose units for outside corners unless otherwise indicated

B) Mortar and grout materials:
- Portland cement: ASTM C 150, TYPE I or II, except Type III may be used for cold-weather construction
- Hydrated lime: ASTM C 207, Type S
- Colored cement product: Packaged blend made from portland cement and lime and mortar pigments, all complying with specified requirements, and containing no other ingredients
- Aggregate for mortar: ASTM C 144
- Aggregate for grout: ASTM C 404

C) Mortar mixes: comply with ASTM C 270, proportion specification to provide Type N mortar unless otherwise indicated

04 22 00 CONCRETE UNIT MASONRY

Part 1 - Scope and Standards

A) Includes:
- Decorative CMU
- Standard CMU
- Steel masonry reinforcing
- Galvanized steel masonry reinforcing, ties, and anchors
- Embedded flashing (asphalt coated copper and rubberized asphalt sheet)
- Vents and weeps
- “Mortar net” cavity drainage material

B) Cavity insulation is specified in Division 7 Section “Thermal insulation”

C) LEED requirements:
- MR4: Recycled steel content
- MR5: regional materials for:
- CMU
- Mortar aggregate

D) Quality assurance:
- Masonry standard: Comply with ACI 530.1/ASCE 6/TMS 602 unless modified by requirements in the contract documents

Part 2 - Material and Equipment

A) Concrete masonry units:
- Size: Manufactured to standard CMU dimensions, but with pre-faced surfaces having 1/16-inch-wide returns of facing
- Standard CMU: ASTM C 90, normal weight
  - Provide units to be installed in exterior walls manufactured with integral water repellant additive

B) Reinforcement:
- Uncoated steel reinforcing bars: ASTM A 615/A 615M or ASTM A 996/A 996M, Grade 60
- Masonry joint reinforcement, general: ASTM A 951/A 951M, hot-dip galvanized, carbon steel

C) Mortar and grout materials:
- Portland cement: ASTM C 150, Type I or II, except Type III may be used for cold-weather construction
- Hydrated lime: ASTM C 207, Type S
- Cement product for mortar: Packaged blend made from portland cement and lime and mortar pigments, all complying with specified requirements, and containing no other ingredients
- Aggregate for mortar: ASTM C 144
- Aggregate for grout: ASTM C 404
- Water-repellent admixture: Liquid water-repellent mortar admixture intended for use with CMUs, containing integral water repellent by same manufacturer used for CMU
- Water: Potable

D) Mortar and grout mixes:
- Mortar: Comply with ASTM C 270, proportion specification to provide Type N mortar unless otherwise indicated
- Grout: Comply with ASTM C 476. Provide grout with a slump of 8 to 11 inches as measured according to ASTM C 143/C 143M.

Part 2 - Material and Equipment

A) Comply with ASTM C 1364 for fabricating units with sharp arris and details accurately reproduced with indicated texture on all exposed surfaces

B) Color and texture: as selected by architect

C) Mortar and grout materials and mixes: Comply with requirements for Division 04 section “brick masonry” unless otherwise indicated

04 72 00 CAST STONE

Part 1 - Scope and Standards

A) Includes cast stone panels and trim.

B) LEED requirements:
- MR4: recycled steel content
- MR5: regional materials for:
  - Cast stone
  - Mortar aggregate

Division 05 - Metals

05 12 00 STRUCTURAL STEEL FRAMING

Part 1 - Scope and Standards

A) By structural consultant
B) Comply with requirements indicated on structural drawings
C) LEED requirements: MR4 for recycled steel content

05 21 00 STEEL JOIST FRAMING

Part 1 - Scope and Standards

A) By structural consultant
B) Comply with requirements indicated on structural drawings
C) LEED requirements: MR4 for recycled steel content

05 31 00 STEEL DECKING

Part 1 - Scope and Standards

A) By structural consultant
B) Comply with requirements indicated on structural drawings
C) LEED requirements: MR4 for recycled steel content

05 40 00 COLD-FORMED METAL FRAMING

Part 1 - Scope and Standards

A) Includes cold-formed metal framing for exterior non-load-bearing wall framing
B) LEED requirements: MR4 for recycled steel content
C) Performance: Design to withstand wind loads required by local codes with maximum deflection of l/600

Part 2 - Material and Equipment

A) AISI specifications and standards: unless more stringent requirements are indicated, comply with AISI S100 and AISI S200
B) Materials:
- General: Provide manufacturers' standard galvanized steel C-shaped studs and U-shaped track
- Fabricate cold-formed metal framing from metallic-coated steel sheet complying with ASTM A 1003, structural grade, Type H:
  - Grade: as required by structural performance
  - Coating: G90 or equivalent

C) Exterior non-load-bearing wall framing:
- General: provide framing members as follows:
  - Minimum base-metal thickness: 0.0329 Inch
  - Minimum flange width: 1-5/8 inches
- Studs: Manufacturer's standard C-shaped steel studs, of web depths indicated, punched, with stiffened flanges
- Track: Manufacturer's standard U-shaped steel track, of web depths indicated, unpunched, with straight flanges, and matching minimum base-metal thickness of steel studs
- Deflection clips and track: Manufacturer's standard products designed to accommodate upward and downward vertical of primary structure

05 50 00 METAL FABRICATIONS

Part 1 - Scope and Standards

A) Includes:
- Miscellaneous framing
- Ladders
- Pipe bollards
- Metal trim
- Cast metal nosing

B) LEED requirements: MR4 for recycled steel content

Part 2 - Material and Equipment

A) Materials:
- Steel shapes, plates, and bars: ASTM A 36
- Steel pipe: ASTM A 53
- Steel tubing: ASTM A 500 (cold formed)
- Cast aluminum: ASTM B 26, Alloy 443.0-F (for nosing)

B) Finish:
- Hot-dip galvanizing (ASTM A 123 or ASTM A 153 as applicable) for items installed outside, in exterior wall or roof assemblies, and as indicated.
- Shop prime interior items for field finish.

05 51 00 METAL STAIRS

Part 1 - Scope and Standards

A) Includes steel framed stairs and railings
B) Performance: Design to comply with performance requirements of local code with maximum deflection of L/360 for stair treads and landings
C) LEED requirements: MR4 for recycled steel content
D) Quality requirements:
- NAAMM stair standard: Comply with "recommended voluntary minimum standards for fixed metal stairs" in NAAMM AMP 510, "metal stairs manual," for class of stair designated, unless more stringent requirements are indicated
  - Preassembled stairs: Commercial class

Part 2 - Material and Equipment

A) Materials:
- Steel plates, shapes, and bars: ASTM A 36
- Steel tubing: ASTM A 500 (cold formed) or ASTM A 513, Type 5 (mandrel drawn)
- Uncoated steel sheet:
  - Hot-rolled steel sheet: ASTM A 1011/A 1011M
  - Cold-rolled steel sheet: ASTM A 1008/A 1008M

B) Fabricate from steel shapes and steel sheet with concrete filled steel treads
C) Finishes: Shop prime

05 52 13 PIPE AND TUBE RAILINGS

Part 1 - Scope and Standards

A) Includes steel pipe railings, welded construction, with vertical picket infill
B) Performance: Design to comply with performance requirements of local code
C) LEED requirements: MR4 for recycled steel content

Part 2 - Material and Equipment

A) Materials:
- Pipe: ASTM A 53, Type F or Type S, Grade A, standard weight (schedule 40), unless another grade and weight are required by structural loads
- Plates, shapes, and bars: ASTM A 36

B) Fabricate and install using welded connections
C) Finish: Hot-dip galvanize after fabrication and field paint

Division 06 - wood, plastics, and composites

06 10 00 ROUGH CARPENTRY

Part 1 - Scope and Standards

A) Includes:
- Dimension lumber for wood blocking, sleepers, and nailers
- Plywood for backboards for electrical and telecommunications panels

B) LEED requirements:
- EQ 4.4 For composite-wood products, documentation indicating that product contains no added urea formaldehyde
- MR7 for chain-of-custody certificates for certified wood

C) Wood treatment:
- Wood preservative treatment for items installed in walls below grade, exterior walls, or with waterproofing or roofing
- Fire retardant treatments for other items as required by code

Part 2 - Material and Equipment

A) Wood treatment:
- Preservative treatment by pressure process: AWPA C2 with chemicals acceptable to authorities having jurisdiction
- Kiln-dry lumber after treatment to a maximum moisture content of 19 percent
- Mark lumber with treatment quality mark of an inspection agency approved by the alsc board of review
- Application: Treat indicated items and items installed in walls below grade, exterior walls, or with waterproofing or roofing
- Fire-retardant-treated materials: Comply with performance requirements in AWPA C20 (lumber) and AWPA C27 (plywood)
  - Use interior Type A, unless otherwise indicated
  - Identify fire-retardant-treated wood with appropriate classification marking of testing and inspecting agency acceptable to authorities having jurisdiction
  - Application: treat items as required by code

B) Wood products, general:
- Lumber: DOC PS 20 and applicable rules of grading agencies indicated. If no grading agency is indicated, provide lumber graded by an agency certified by the alsc board of review to inspect and grade lumber under the rules indicated
  - Factory mark each piece of lumber with grade stamp of grading Agency
  - Provide dressed lumber, S4S, unless otherwise indicated

C) Miscellaneous lumber:
- General: Provide miscellaneous lumber indicated and lumber for support or attachment of other construction, including the following:
  - Blocking
  - Nailers
  - Sleepers
- For items of dimension lumber size, provide standard, stud, or No. 3 Grade lumber with 19 percent maximum moisture content of any species
- For concealed boards, provide SPIB no. 3 Grade, mixed southern pine lumber with 19 percent maximum moisture content

D) Plywood backing panels for telephone and electrical equipment: DOC PS 1, exposure 1, C-D plugged, fire-retardant treated, in thickness indicated or, if not indicated, not less than 1/2-inch nominal thickness
E) Fasteners: Provide fasteners of size and Type Indicated that comply with requirements specified
- Where rough carpentry is exposed to weather, in ground contact, pressure-preservative treated, or in area of high relative humidity, provide fasteners of type 304 stainless steel
- Power-driven fasteners: NES NER-272
- Bolts: Steel bolts complying with ASTM A 307, Grade A; with ASTM A 563 hex nuts and, where indicated, flat washers

06 16 00 SHEATHING

Part 1 - Scope and Standards

A) Includes:
- Plywood wall sheathing
- Gypsum wall sheathing
- Plywood roof sheathing
- Subflooring
- Underlayment

B) LEED requirements:
- EQ 4.4 For composite-wood products, documentation indicating that product contains no added urea formaldehyde
- MR7 for chain-of-custody certificates for certified wood

Part 2 - Material and Equipment

A) Wall sheathing:
- Glass-mat gypsum wall sheathing: ASTM C 1177/1177M; regular, 1/2 inch thick
  - Product: “DensGlass Gold” by GP Gypsum Corporation

B) Roof sheathing:
- Plywood: Comply with DOC PS 1 or DOC PS 2 to provide exterior, Structural I; 16/0, not less than 1/2-inch thickness

C) Subflooring and underlayment:
- Plywood combination subfloor-underlayment: DOC PS 1, exterior, C-C plugged single-floor panels

D) Fasteners: Size and type indicated that comply with requirements specified in this article for material and manufacture
- For roof and wall sheathing, provide fasteners with hot-dip zinc coating complying with ASTM A 153/A 153M

06 41 16 PLASTIC-LAMINATE-FACED ARCHITECTURAL CABINETS

Part 1 - Scope and Standards

A) Includes wall and base cabinets with plastic-laminate face

B) Refer to division 12 sections for countertops installed over plastic- laminate-faced base cabinets

C) LEED requirements
- LEQ4.1: Do not use binders or adhesives that contain urea formaldehyde
- EQ 4.4 For composite-wood products, documentation indicating that product contains no added urea formaldehyde
- MR7 for chain-of-custody certificates for certified wood

D) Quality standard: Comply with the “architectural woodwork standards” for premium grade

Part 2 - Material and Equipment

A) Cabinet type: Flush overlay

B) Panel products: MDF complying with ANSI A208.2, Grade 130, or veneer plywood

C) High-pressure decorative laminate: NEMA LD 3
- Grades: as required by woodwork quality standard
- Color: as selected by architect

D) Glazing: Comply with Division 08 section “glazing” for clear glazing where indicated

E) Do not use binders or adhesives that contain urea formaldehyde

06 41 93 CABINET AND DRAWER HARDWARE

Part 1 - Scope and Standards

Includes cabinet hardware for wall and base cabinets

Part 2 - Material and Equipment

Cabinet hardware: Provide cabinet hardware and accessory materials associated with architectural cabinets.
- Butt hinges: 2-3/4-inch, five-knuckle steel hinges made from 0.095-Inch-thick metal
- Wire pulls: Back mounted, solid metal, 4 inches long, 5/16 inch in diameter
- Catches: Ball friction catches, BHMA A156.9, B03013
- Shelf rests: BHMA A156.9, B04013; metal, two-pin type with shelf hold-down clip
- Drawer slides: BHMA A156.9
  - Grade 1 and Grade 2: side mounted and extending under bottom edge of drawer; full-extension type; epoxy-coated steel with polymer rollers
  - Grade 1HD-100 and Grade 1HD-200: side mounted; full- extension type; zinc-plated-steel ball-bearing slides
  - For drawers not more than 3 inches high and not more than 24 inches wide, provide Grade 1
  - For drawers more than 3 inches high but not more than 6 inches high and not more than 24 inches wide, provide Grade 1HD-100
  - For drawers more than 6 inches high or more than 24 inches wide, provide Grade 1HD-200
- Door locks: BHMA A156.11, E07121
- Drawer locks: BHMA A156.11, E07041
- Exposed hardware finishes: For exposed hardware, provide finish that complies with BHMA A156.18 For BHMA finish number indicated
  - Satin chromium plated: BHMA 626 for brass or bronze base; BHMA 652 for steel base
  - Satin stainless steel: BHMA 630

06 42 16 FLUSH WOOD PANELING

Part 1 - Scope and Standards

A) Includes plastic laminate clad flush wood paneling with reveal joints

B) LEED requirements
- LEQ4.1: Do not use binders or adhesives that contain urea formaldehyde
- EQ 4.4 for composite-wood products, documentation indicating that product contains no added urea formaldehyde
- MR7 for chain-of-custody certificates for certified wood

C) Quality standard: Comply with the “architectural woodwork standards” for premium Grade

06 64 00 PLASTIC PANELING

Part 1 - Scope and Standards

A) Includes fiber-reinforced plastic (FRP) panels as selected by architect, adhesively applied to gypsum wallboard at janitor's closet and other applications as indicated

A) LEED requirements: EQ 4.1 For adhesives and sealants, including printed statement of VOC content and chemical components

Part 2 - Material and Equipment

Manufacturers: Kemlite company Inc.; Marlite; or manufacturer of comparable products approved by the architect

Division 07 - Thermal And Moisture Protection

07 13 26 SELF-ADHERING SHEET WATERPROOFING

Part 1 - Scope and Standards

Includes adhesive-coated HDPE sheet; consisting of HDPE sheet coated with a pressure-sensitive rubber adhesive, a protective adhesive coating. Provide as a system complete with auxiliary materials including composite subsurface drainage panels.

Part 2 - Material and Equipment

Products: Grace Construction Products or manufacturer offering comparable system approved by the architect

- Vertical applications: 32-mil nominal total thickness with 16-mil- thick, HDPE sheet
- Under-slab applications: 46mil nominal total thickness with 30 mil-thick HDPE sheet

07 21 00 THERMAL INSULATION

Part 1 - Scope and Standards

Includes :

- Glass fiber batt insulation
- Plastic foam insulation

Part 2 - Material and Equipment

A) Glass fiber insulation:

- Unfaced glass fiber insulation (ASTM C 665, Type I) for installation at exterior walls with cold-formed metal framing
  - Thickness: As required for indicated R-Value

B) Extruded-polystyrene board insulation: ASTM C 578, with maximum flame-spread and smoke-developed indexes of 75 and 450, respectively, per ASTM E 84.

- Type IV, 25 psi
- Fire propagation characteristics: Passes NFPA 285 testing as part of an approved assembly

07 26 16 UNDER-SLAB VAPOR RETARDER

Part 1 - Scope and Standards

Includes:

- Plastic sheet vapor retarder for installation under concrete slabs on grade at typical conditions
- Composite sheet membrane for installation under concrete slabs on grade to receive wood flooring

Part 2 - Material and Equipment

Materials: comply with ASTM E 1745, Class A, and manufactured specifically for long-term underslab application

- Plastic sheet: Vapor-retarding plastic sheet:
  - Thickness: Not less than 15 mils.
  - Permaence: Not greater than 0.01 Perms (ASTM E 154 ASTM E 2149)
  - Manufacturers: Barrier-Bac; Textured; Insulation Solutions, Inc.; Raven Industries Inc., Stego, or manufacturer of comparable products approved by the architect
- Composite sheet membrane: 21 mil nominal thickness comprised of 16 mil polyolefin film and layers of specially formulated synthetic adhesive layers. The membrane shall form an integral and permanent bond to poured concrete.
  - Product: Florprufe 120 Membrane by Grace Construction Products or comparable product approved by the architect
- Provide complete with seam tape and other auxiliary materials and accessories recommended by the manufacturer for a complete installation

07 27 26 FLUID-APPLIED MEMBRANE AIR BARRIERS

Part 1 - Scope and Standards

Includes vapor retarding and vapor permeable fluid-applied air barriers installed over wall sheathing in exterior wall assemblies

Part 2 - Material and Equipment

A) Fluid-applied, vapor-retarding membrane air barrier: Synthetic polymer membrane with primers and accessories where continuous insulation is not used
- Products: W. R. Grace & Co. Perm-A-Barrier Liquid, Henry Company; Air-Bloc 32; Rubber Polymer Corporation, Inc. Rub-R- Wall Airtight; or comparable products approved by the architect.

B) Fluid-applied,vapor-permeable membrane air barrier: Synthetic polymer membrane with primers and accessories under continuous insulation
- Products: Rub-R- Wall Airtight; Barritech VP; W. R. Grace & Co. Barritech VP; Rubber Polymer Corporation, Inc. Rub-R-Wall Airtight VP; Tremco, Inc. Exoair 230; or comparable products approved by the architect.

C) Accessory materials: As recommended by air-barrier manufacturer to produce a complete air-barrier assembly and compatible with primary air-barrier material

07 42 13.13 FORMED METAL WALL PANELS

Part 1 - Scope and Standards

A) Includes:
- Lap seam metal wall panels with concealed fasteners
- Metal soffit panels

B) LEED requirements: MR4 for recycled steel content.

Part 2 - Material and Equipment

Materials: Metallic-coated steel sheet: restricted flatness steel sheet metallic coated by the hot-dip process and prepainted by the coil-coating process to comply with ASTM A 755/A 755m.
- Zinc-coated (galvanized) steel sheet: ASTM A 653/A 653M, G90 coating designation; structural quality
- Surface: Smooth, flat finish
- Exposed coil-coated finish: 2-coat fluoropolymer complying with AAMA 621 and containing not less than 70 percent PVDF resin by weight in color coat

07 42 13.23 COMPOSITE METAL WALL PANELS

Part 1 - Scope and Standards

A) Includes metal-faced composite wall panels

B) Performance:
- Comply with ASCE 7 to calculate wind load requirements for panel design and connections
- Design system to allow no water penetration when tested according to ASTM E 331 at a test-pressure difference of 15.0 Lb./Sq. Ft.

Part 2 - Material and Equipment

A) Aluminum sheet: coil-coated sheet, ASTM B 209, alloy as standard with manufacturer, with temper as required to suit forming operations and structural performance required.
- Surface: smooth, flat finish.
- Finish:
  - Two-coat fluoropolymer complying with AAMA 620 and containing not less than 70 percent PVDF resin by weight in color coat.

B) Metal-faced composite wall panels: factory-formed aluminum-faced composite wall panels fabricated with 0.020-Inch-thick, coil- coated aluminum sheet facing bonded, using no glues or adhesives, to solid, extruded thermoplastic core; formed into profile for installation method indicated. Include attachment system components and accessories required for weathertight system.
- Manufacturers: Alcan Composites USA Inc.; Alcoa Inc.; Alpolic, Division of Mitsubishi Chemical America, Inc.; or manufacturer offering comparable product approved by the architect.

07 42 13.53 METAL SOFFIT PANELS

Part 1 - Scope and Standards

A) Includes flush-profile metal soffit panel

B) LEED requirements: MR4 for recycled steel content

C) Structural performance: Provide metal panel systems capable of withstanding the effects positive and negative wind pressures determined according to ASCE/SEI 7 using wind speed criteria indicated on structural drawings

Part 2 - Material and Equipment

A) Soffit panels: solid panels formed with vertical panel edges and a flat pan between panel edges; with flush joint between panels.
- Metallic-coated steel sheet: Restricted flatness steel sheet, metallic coated by the hot-dip process and prepainted by the coil- coating process to comply with ASTM A 755
  - Zinc-coated (galvanized) steel sheet: ASTM A 653, G90 coating designation; structural quality
  - Aluminum-zinc alloy-coated steel sheet: ASTM A 792, Class AZ50 coating designation, Grade 40; structural quality
- Nominal thickness: 0.028 Inch
- Finish: Two-coat fluoropolymer complying with AAMA 621, and containing not less than 70 percent PVDF resin by weight in color coat; color as selected by architect
- Manufacturer: Berridge Manufacturing Company; Centria Architectural Systems; Fabral; Firestone Metal Products, LLC; MBCI; A Division of NCI Building Systems, I.P.; or manufacturer of comparable product acceptable to the architect

B) Panel accessories: Provide components required for a complete, system including trim, clips, flashings, sealants, gaskets, fillers, closure strips, and similar items. Match material and finish of metal panels unless otherwise indicated.

07 72 00 ROOF ACCESSORIES

Part 1 - Scope and Standards

A) Includes:
- Roof hatches as required to access the roof and support roof- mounted equipment.
- Prefabricated curbs.
- Equipment supports.

A) LEED requirements: MR4 for recycled steel content.
A) Comply with ASCE 7 to calculate wind load requirements.

Part 2 - Material and Equipment

A) Fabricate from zinc-coated steel sheet
B) Manufacturer: Bilco or comparable product approved by the architect

07 84 13 PENETRATION FIRESTOPPING

Part 1 - Scope and Standards

A) Includes products as required to maintain fire rating of partition being penetrated.
B) LEED requirements: EQ 4.1 For penetration firestopping sealants and sealant primers, including printed statement of VOC content.

Part 2 - Material and Equipment

A) Manufacturers: Grace, W.R. & Co. - Conn.; Hilti, Inc.; Rectorseal Corporation, or manufacturer offering comparable products approved by the architect.
B) Provide penetration firestopping sealants and sealant primers that comply with the following limits for v content when calculated according to 40 CFR 59, Subpart D (EPA method 24).

07 84 46 FIRE-RESISTIVE JOINT SYSTEMS

Part 1 - Scope and Standards

A) Includes products as required to maintain fire rating of the following:
- Partitions.
- Slab edges at curtain wall.

B) LEED requirements: EQ 4.1 For fire-resistive joint system sealants, including printed statement of content.

Part 2 - Material and Equipment

A) Manufacturers: Grace, W.R. & Co. - Conn.; Hilti, Inc.; Rectorseal Corporation, or manufacturer offering comparable products approved by the architect.
B) Provide fire-resistive joint system sealants that comply with the following limits for VOC content when calculated according to 40 CFR 59, Subpart D (EPA method 24).

07 92 00 JOINT SEALANTS

Part 1 - Scope and Standards

A) Includes:
- Silicone sealants.
- Urethane sealants.
- Latex sealants.

B) LEED requirements: EQ 4.1 For interior sealants and sealant primers, including printed statement of VOC content.

Part 2 - Material and Equipment

A) Comply with the following:
- Elastomeric sealants: ASTM C 920
- Latex sealant: ASTM C 834

B) Materials:
- General: Comply with the following:
  - Elastomeric sealants: ASTM C 920
  - Latex sealant: ASTM C 834
- Color for exposed sealants: Color as selected by architect
- Manufacturers:
  - Silicone sealants: Dow Corning, GE, or Tremco, Inc.
  - Urethane sealants: Sika, BASF, or Tremco, Inc.
  - Latex sealants: Pecora, BASF, or Tremco, Inc.

C) Provide interior sealants and sealant primers that comply with the following limits for VOC content when calculated according to 40 CFR 59, Subpart D (EPA method 24)
D) Joint sealant backing: ASTM C 1330, of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance as recommended by the joint sealant manufacturer
E) Joint sealant accessories: primers, cleaners, masking tape as recommended by joint sealant manufacturer for compatibility with joint sealant material and substrate
F) Schedule:
- Typical movement joints on non-traffic surfaces at exterior and interior joints: single-component neutral-cure silicone sealants
- Exterior traffic areas: Two-component pourable urethane sealants
- Interior wet areas: Mildew-resistant silicone
- Interior traffic areas: Single-component urethanes
- Interior non-moving joints: Latex sealants
- Security sealants
  - Epoxy security sealant equal to Sika-dur 23 will be used to caulk all exposed joints at window frames, detention furnishings and equipment, and the security ceiling.

07 95 00 EXPANSION CONTROL

Part 1 - Scope and Standards

Includes metal-framed joint systems for exterior and interior applications as required to control movement caused by building expansion.
- – Where required, provide fire-resistive assemblies.

Part 2 - Material and Equipment

A) Joint systems for walls, floors, and ceilings: as selected by architect
B) Manufacturers: Balco, Inc., Construction Specialties, Inc., Watson Bowman Acme Corp., or manufacturer offering comparable products approved by the architect

Division 08 - Openings

08 11 13 HOLLOW METAL DOORS AND FRAMES

Part 1 - Scope and Standards

A) Includes: Standard hollow metal doors and frames assemblies for exterior and interior applications
B) LEED requirements: MR4 for recycled steel content
C) Quality assurance: Comply with applicable ANSI/SDI standards
D) Performance: Where fire-rated openings are indicated or required, provide doors and frames complying with NFPA 80 that are listed and labeled by a qualified testing agency, for fire-protection ratings indicated, based on testing at positive pressure according to NFPA 252 or UL 10C

Part 2 - Material and Equipment

A) Materials:
- Galvanized steel sheet: ASTM A 653, Commercial Steel (CS), Type B; with minimum G60 metallic coating
- Cold-rolled steel sheet: ASTM A 1008, CS, Type B; suitable for exposed applications
- Hot-rolled steel sheet: ASTM A 1011, CS, Type B

B) Standard hollow metal doors: ANSI/SDI A250.8, Flush panel except as otherwise indicated
- Exterior doors:
  - – Level 43 and physical performance Level A, Model 2
  - – Fabricate from 14 ga. galvanized steel sheet
- Interior doors:
  - – Level 3 and physical performance Level A, Model 2
  - – Fabricate from 16 ga. cold or hot-rolled steel sheet

C) Standard hollow metal frames: ANSI/SDI A250.8
- Exterior frames: Fabricate from 14 ga. galvanized steel sheet with mitered or coped corners, full profile welded
- Interior frames: Fabricate from 16 ga. cold-rolled steel sheet
  - – Fabricate frames as full profile welded unless otherwise indicated

D) Finish: Shop primed for field finish
E) Manufacturers: Amweld Building Products, LLC; Ceco Door Products; or Steelcraft or Manufacturer Offering Comparable Products approved by the architect

08 12 13 HOLLOW METAL FRAMES

Part 1 - Scope and Standards

A) Includes: Standard hollow metal frames for interior openings scheduled to receive flush wood doors
B) LEED requirements: MR4 for recycled steel content
C) Quality assurance: Comply with applicable ANSI/SDI standards
D) Performance: Where fire-rated openings are indicated or required, provide frames complying with NFPA 80 that are listed and labeled by a qualified testing agency, for fire-protection ratings indicated, based on testing at positive pressure according to NFPA 252 or UL 10C

Part 2 - Material and Equipment

A) Materials:
- Galvanized steel sheet: ASTM A 653, Commercial Steel (CS), Type B; with minimum G60 metallic coating
- Cold-rolled steel sheet: ASTM A 1008, CS, Type B; suitable for exposed applications
- Hot-rolled steel sheet: ASTM A 1011, CS, Type B

B) Standard hollow metal frames: ANSI/SDI A250.8
- Interior frames: fabricate from 16 ga. cold-rolled steel sheet
  - – Fabricate frames as full profile welded unless otherwise indicated

C) Finish: Shop primed for field finish

08 12 16 ALUMINUM FRAMES

Part 1 - Scope and Standards

A) Includes interior aluminum frames for doors and glazing installed in gypsum board partitions
B) LEED requirements: MR4 for recycled aluminum content
C) Performance: Where fire-rated openings are indicated or required, provide frames complying with NFPA 80 that are listed and labeled by a qualified testing agency, for fire-protection ratings indicated, based on testing at positive pressure according to NFPA 252 or UL 10C

Part 2 - Material and Equipment

A) Components:
- Aluminum framing: ASTM B 221, Alloy 6063-T5 or alloy and temper required to suit structural and finish requirements, not less than 0.062 Inch thick.
- Door frames: Extruded aluminum, reinforced for hinges, strikes, and closers
- Glazing frames: Extruded aluminum, for glazing thickness indicated

B) Finish: AAMA 611, AA-M12C22A31,Class II, clear anodic finish

C) Manufacturers: RACO Interior Products, Inc.; Versatrac; or manufacturer of comparable products approved by the architect

08 14 16 FLUSH WOOD DOORS

Part 1 - Scope and Standards

A) Includes solid core, five-ply, flush wood doors with:
- Plastic laminate faces
- Wood veneer with factory-applied transparent finish faces

B) LEED requirements:
- Credit MR7: Chain-of-custody certificates certifying that products specified to be made from certified wood comply with forest certification requirements. Include evidence that mill is certified for chain of custody by an fsc-accredited certification body.
- Credit EQ 4.4: For composite-wood products, documentation indicating that product contains no urea formaldehyde

C) Quality assurance: Comply with AWI standards to provide “premium” grade doors

D) Performance: Where fire-rated openings are indicated or required, provide doors complying with NFPA 80 that are listed and labeled by a qualified testing agency, for fire-protection ratings indicated, based on testing at positive pressure according to NFPA 252 or UL 10C

Part 2 - Material and Equipment

A) Materials: Structural composite lumber: WDMA I.S.10

B) Faces:
- Doors for transparent finish: Wood veneer with species and cut as selected by architect
- Plastic laminate: NEMA LD 3, Grade HGS with color and pattern as selected by architect

C) Fabrication:
- Core: Either glued wood stave or structural composite lumber
- Factory fit doors to suit frame-opening sizes indicated. Comply with requirements in NFPA 80 for fire-rated doors.
- Factory machine doors for hardware that is not surface applied
- Openings: Cut and trim openings through doors in factory

D) Finish: Transparent finish as selected by architect

E) Manufacturers: Algoma Hardwoods, Inc., Marshfield Door Systems, Inc., VT Industries Inc. or manufacturer offering comparable products approved by the architect

08 31 13 ACCESS DOORS AND FRAMES

Part 1 - Scope and Standards

A) Includes access doors and frames for walls and ceilings where required to access valves and dampers
- Provide recessed face to receive tile finish at restrooms

B) LEED requirements: MR4 for recycled steel content

C) Quality assurance: Where fire-rated openings are indicated or required, provide units complying with NFPA 80 that are listed and labeled by UL or another testing and inspecting agency acceptable to authorities having jurisdiction.

Part 2 - Material and Equipment

A) Stainless steel access doors and frames for walls and ceilings
- Finish: No. 4 satin finish
- Size: As required to access and operate valve or damper, but not less than 12 inches square

B) Manufacturers: Acudor Products, Inc.; MIFAB, Inc.; Milcor Inc.; Nystrom, Inc. or manufacturer offering comparable product approved by the architect

08 33 13 COILING COUNTER DOORS

Part 1 - Scope and Standards

A) Includes motor-operated overhead coiling counter doors

B) LEED requirements: MR4 for recycled steel content

Part 2 - Material and Equipment

A) Door curtain material: Galvanized steel

B) Electric door operator assembly: Size and capacity recommended and provided by manufacturer for door specified, with electric motor and factory-prewired motor controls, starter, gear-reduction unit, solenoid-operated brake, clutch, remote-control stations, control devices, integral gearing for locking door, and accessories required for proper operation
- Comply with NFPA 70
- Provide control equipment complying with NEMA ICS 1, NEMA ICS 2, and NEMA ICS 6, with NFPA 70 Class 2 control circuit, maximum 24 V, ac or dc.

C) Finish for steel: Shop-applied primer finish

D) Manufacturers: Cookson Company, Cornell Iron Works, Inc., Overhead Door Corporation or manufacturer offering comparable products approved by the architect

08 33 23 OVERHEAD COILING DOORS

Part 1 - Scope and Standards

A) Includes motor-operated overhead coiling doors

B) LEED requirements: MR4 for recycled steel content

C) Performance:
- Provide doors designed to comply with requirements of local code for:
  - Wind load
  - Debris impact resistance
- Where exterior doors are indicated, provide door curtain assembly with R-Value not less than 4.5 Deg F x h x sq. Ft./Btu.

Part 2 - Material and Equipment

A) Door curtain material: Galvanized steel
B) Electric door operator assembly: Size and capacity recommended and provided by manufacturer for door specified, with electric motor and factory-prewired motor controls, starter, gear-reduction unit, solenoid-operated brake, clutch, remote-control stations, control devices, integral gearing for locking door, and accessories required for proper operation.
- Comply with NFPA 70
- Provide control equipment complying with NEMA ICS 1, NEMA ICS 2, and NEMA ICS 6, with NFPA 70 class 2 control circuit, maximum 24 V, AC or DC

C) Finish for steel: Shop-applied primer finish

08 34 73 SOUND CONTROL DOOR ASSEMBLIES

Part 1 - Scope and Standards

A) Includes steel door and frame assemblies where doors are indicated to be installed in walls with STC ratings
B) LEED requirements: MR4 for recycled steel content
C) Performance: Provide assemblies tested according to ASTM E 90 by an independent testing agency, and have minimum certified STC rating according to ASTM E 413 consistent with wall rating

Part 2 - Material and Equipment

A) Manufacturers: Ambico Limited; Overly Door Company; Amweld Building Products, LLC; Ceco Door Products; An ASSA ABLOY Group Company; or Security Acoustics; Div. of Security Metal Products Corp.
B) Finish for steel doors: Match finish requirements for Division 08 “Hollow Metal Doors and frames”

08 41 13 ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS

Part 1 - Scope and Standards

A) Includes:
- Extruded aluminum framing for:
  - Exterior storefronts
  - Punched openings
  - Aluminum doors
- Exterior aluminum doors for installation in storefront and curtain wall framing

B) Performance: Provide doors designed to comply with requirements of local code for:
- Wind loads. Calculate wind load requirements according to ASCE 7 using wind speed criteria indicated on structural drawings.
- Thermal performance

Part 2 - Material and Equipment

A) Manufacturers: EFCO, Kawneer North America, Oldcastle Building Envelope, or manufacturer offering comparable system offered approved by architect
B) Materials:
- Aluminum extrusions: Comply with applicable ASTM specifications for aluminum components in allow and temper recommended by aluminum producer for application indicated
- Fasteners: Stainless steel
- Glazing: Clear tempered glass
- Glazing: Comply with applicable requirements of Division 08 Section “Glazing”

C) Storefront framing: Manufacturer’s extruded- or formed-aluminum framing members of thickness required and reinforced as required to support imposed loads
- Construction: Thermally broken
- Glazing system: Retained mechanically with gaskets on four sides
- Glazing plane: As indicated on drawings
- Fabrication method: Field-fabricated stick system

D) Entrances: 2-inch overall thickness, with minimum 0.125-Inch-thick, extruded-aluminum tubular rail and stile members. Mechanically fasten corners with reinforcing brackets that are deeply penetrated and fillet welded or that incorporate concealed tie rods.
- Door design: Wide stile; 5-1/2-inch nominal width
- Glazing stops and gaskets: Square, snap-on, extruded-aluminum stops and preformed gaskets
  - Provide nonremovable glazing stops on outside of door

E) Finish: AAMA 611, AA-M12C22A41,Class I, clear anodic finish

08 44 13 GLAZED ALUMINUM CURTAIN WALLS

Part 1 - Scope and Standards

A) Includes aluminum-framed systems with glazing fully retained on 4 sides
B) Performance: Provide doors designed to comply with requirements of local code for:
C) Performance:
- Comply with applicable requirements of building code; comply with ASCE 7 to calculate wind load requirements
- Design system to allow no water penetration when tested according to ASTM E 331 at a test-pressure difference of 10.0Lbf/sq. Ft.

Part 2 - Material and Equipment

A) Manufacturers: EFCO, Kawneer North America, Oldcastle Building Envelope, or manufacturer offering comparable system offered approved by architect
B) Materials:
- Aluminum framing: Comply with applicable ASTM specifications for extruded, drawn, and cast aluminum components in allow and temper recommended by aluminum producer for application indicated
- Embeds and anchors: Steel with zinc-rich coating
- Flashing and fasteners: Stainless steel
- Glazing: Comply with applicable requirements of Division 08 Section “Glazing”
- Miscellaneous materials and accessories: As recommended by curtain wall manufacturer/fabricator and approved by architect

C) Finish: AAMA 611, AA-M12C22A41,Class I, clear anodic finish

08 51 13 ALUMINUM WINDOWS

Part 1 - Scope and Standards

A) Includes fixed aluminum-framed windows
B) Performance: Provide window units designed to comply with wind load requirements of local code based on testing units representative of those indicated for project that pass AAMA/WDMA 101/i.S.2/NAFS

Part 2 - Material and Equipment

A) Window:
- Manufacturers: Peerless Products Inc.; Quaker Construction Products, Inc.; Traco; Wausau Window and Wall Systems; Apogee Wausau Group; or other manufacturer offering comparable products approved by architect
- Comply with AAMA/WDMA 101/i.S.2/NAFS
- Performance class and grade: AW-60
- Thermal transmittance: Provide aluminum windows with a whole- window, U-Factor maximum indicated at 15-mph exterior wind velocity and winter condition temperatures when tested according to AAMA 1503
  - U-factor: 0.43 Btu/sq. ft. x h x deg F or less
- Solar heat-gain coefficient: 0.25, according to NFRC 200 procedures

B) Glazing: Comply with applicable requirements of Division 08 Section “Glazing”
C) Finish: AAMA 611, AA-M12C22A41,Class I, clear anodic finish

08 56 54 - SECURITY AND DETENTION WINDOWS

Part 1 - Scope and Standards

Part 2 - Material and Equipment

A) Window:
- All Windows:
  - Design to fit openings indicated on drawings; design to accommodate deviation of actual construction from dimensions shown on drawings
  - Fabricate frames and sash with corners mitered or coped full depth with concealed welded joints
- Exterior Windows: Meeting following performance criteria as well as other criteria specified:
  - Structural Performance: Capable of withstanding wind loads as specified by code without permanent deformation or breakage of components, when tested in accordance with ASTM E330/E330M.
- Security View Windows: Factory-assembled fixed glazing panel reglazable from secure side without disassembly of frame, with non-removable trim and glazing stops on non-secure side (outside); glazing slanted outward at 5 degrees from sill to head
  - Glazing: Laminated type with glass on surface exposed to weather; type as required to achieve performance criteria specified
- Detention Windows: Factory-assembled awning reglazable from exterior without disassembly of ventilator frame; all removable components attached with security fasteners and not removable without the use of appropriate tools
  - Glazing: Laminated type with glass on surface exposed to weather; type as required to achieve performance criteria specified
  - Factory glazed

B) Finishes
- Color Anodized Finish: AAMA 611 Class II, AA-M12C22A32/34, coating 0.010 mm or thicker integrally colored or electrolytically deposited color coating; light bronze; color variations not exceeding one-half of range of approved samples
- Baked Enamel Finish: Cleaned and pretreated; two coat acrylic thermosetting finish, 1.5 to 2 mils (0.04 to 0.05 mm) thick, applied in accordance with paint manufacturer’s recommendations; medium gloss

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08 71 00 DOOR HARDWARE

Part 1 - Scope and Standards

A) Includes door hardware for swinging doors and other applications as indicated
B) Quality:
- Local code requirements for:
  - Fire resistance and exiting
  - Accessibility
- BHMA standards for Grade 1 door hardware

Part 2 - Material and Equipment

A) Types of door hardware required include:
- Mortise locks and latches and cylinders (Sargent or Schlage)
- Cylindrical locks and latches (Best, Sargent, or Schlage)
- Cylinders: Best cormax patented cylinders and cores
- Hinges (Hager, Ives, Stanley, or Mckinney)
- Exit and panic devices (Sargent, Von Duprin or Stanley)
- Automatic flush bolts and dust proof strikes (Hager, Ives, Stanley, or Trimco)
- Floor and wall stops and holders (Mckinney, Rockwood, Hager, Ives, or Trimco)
- Closers (LCN, Norton, Sargent or Stanley)
- Door seals for fire and acoustical performance (Mckinney, NGP, Pemko, or Reese)
- Weatherstripping and thresholds (Mckinney, NGP, Pemko, or Reese)
- Operating trim (Mckinney, Rockwood, Ives, or Trimco)

B) Manufacturers: as indicated.
C) Finish: comply with BHMA A156.18.
  - BHMA 630 (brushed stainless steel finish)
  - BHMA 626 (brushed chrome) where stainless steel finish is not available

08 71 13 AUTOMATIC DOOR OPERATORS

Part 1 - Scope and Standards

Includes low-energy door operators for swinging doors

Part 2 - Material and Equipment

A) Automatic door operators: Provide operators of size recommended by manufacturer for door size, weight, and movement; for condition of exposure;

for long-term, maintenance-free operation under normal traffic load for type of occupancy indicated; and complying with UL 325

- Provide operations designed to operate doors under loads generated by a wind speed of 110 mph
- Operation: Power opening and power-assisted spring closing
- Provide time delay for door to remain open before initiating closing cycle as required by BHMA A156.19. When not in automatic mode, door operator shall function as manual door closer, with or without electrical power.
- Operating system: Electromechanical
- Coordinate operator mechanisms with door operation, hinges, and activation devices

B) Manufacturers: Horton Automatics, LCN Closers, Sargent Manufacturing Company, or manufacturer of comparable products approved by the architect

08 80 00 GLAZING

Part 1 - Scope and Standards

A) Includes:

- Monolithic glazing units
- Insulated glazing units

B) LEED requirements: MR5 for regional materials for glazing unit products and fabrication

C) Warranties:

- 10-Year warranty from fabricator on coated glass and insulated glazing units
- Five-year warranty from fabricator on laminated glazing

D) Performance: comply with local code requirements for:

- Wind loads. Comply with ASCE 7 to calculate wind load requirements according to wind speed criteria indicated on structural drawings
- Energy performance
- Safety glazing products: Comply with testing requirements in 16 CFR 1201

Part 2 - Material and Equipment

A) Materials:

- Annealed glass: ASTM C, 1036 Type I (transparent flat glass), Quality-Q3
- Heat-treated float glass: ASTM C, 1048, Type I (transparent flat glass); Quality-Q3
- Ceramic-coated spandrel glass: ASTM C 1048, Condition B, Type I, Quality-Q3
- Insulated glazing units: ASTM E 774

B) Low-e coatings: ASTM C 1376,

- Sputter-coatings: metallic-oxide or -nitride coating deposited by vacuum deposition process after manufacture
- Monolithic glass units:
  - Clear, float glass, 6mm thickness
  - Clear, tempered glass, 6mm thickness
- Insulating glazing units: 1-inch units as follows:
  - Basis of design for insulated glazing units: Products fabricated by PPG-certified fabricators using PPG Solargray with Solarban 60 (2) for exterior lite. Provide named product or comparable products approved by the architect
  - Exterior lite: Tinted, heat-strengthened glass, 6mm thickness, with low-e sputters coating on 2nd surface
  - Interior lite: Clear glass, 6mm thickness; provide fully tempered units where safety glazing is indicated or required
  - Color: Gray
  - Visible light transmittance: 35 percent minimum
  - Summer U Value: 0.27
  - Solar heat gain coefficient: 0.25
- Spandrel units:
  - Tinted, heat-strengthened or tempered glass, 6mm thickness, with coating on 2nd surface
  - Glass tint: Gray
  - Ceramic frit color: As selected by architect

C) Schedule:

- Exterior glazing: 1-inch insulated glazing units
  - Provide heat-strengthened glass in insulated glazing units except provide tempered glass where safety glazing is required
  - Provide units with ceramic coated inboard lite at spandrel units
- Interior doors, sidelites, and borrowed lites: 6mm clear tempered glass

08 83 00 MIRRORS

Part 1 - scope and standards

A) Includes:

- Unframed annealed mirror units
- Unframed tempered mirror units

B) LEED requirements: MR5 for regional materials for glazing unit products and fabrication

Part 2 - Material and Equipment

A) Performance: comply with local code requirements for:

- Safety glazing products: comply with testing requirements in 16 CFR 1201

B) Mirrors: Clear mirror complying with ASTM C 1503, mirror select

08 90 00 LOUVERS AND VENTS

Part 1 - scope and standards

A) Includes horizontal storm-resistant louver with extruded aluminum frames and vanes

B) LEED requirements: MR4 for recycled aluminum content

Part 2 - Material and Equipment

A) Materials:

- Aluminum extrusions: ASTM B 221, alloy 6063-T5, T-52, or T6
- Aluminum sheet: ASTM B 209, alloy 3003 or 5005 with temper as required for forming, or as otherwise recommended by metal producer for required finish
- Fasteners: Aluminum or 300 series stainless-steel fasteners; use types and sizes to suit unit installation conditions
  - For color-finished louvers, use fasteners with heads that match color of louvers

B) Fabrication:

- Fabricate frames, including integral sills, to fit in openings of sizes indicated, with allowances made for fabrication and installation tolerances, adjoining material tolerances, and perimeter sealant joints
- Join frame members to each other and to fixed louver blades with fillet welds, threaded fasteners, or both, as standard with louver manufacturer

unless otherwise indicated or size of louver assembly makes bolted connections between frame members necessary

C) Finish:
- AAMA 611, AA-M12c22 A41, Class I, clear anodic finish

D) Manufacturers: Construction Specialties, Inc.; Nystrom Building Products; Ruskin Company; Tomkins PLC; or manufacturer offering comparable products approved by the architect

E) Louver screening:
- Bird screening: Aluminum, 1/2-inch- square mesh, 0.063-Inch wire

Division 09 - Finishes

09 21 16.23 GYPSUM BOARD SHAFT WALL ASSEMBLIES

Part 1 - Scope and Standards

A) Includes gypsum board shaft-wall, chase enclosures, horizontal enclosures

B) LEED requirements:
- Credit MR4: recycled steel and gypsum panel content
- Credit MR5: regional materials for gypsum panels

C) Performance:
- For fire-resistance-rated assemblies, provide materials and construction identical to those tested in assembly indicated according to ASTM E 119 by an independent testing agency
- For STC-rated assemblies, provide materials and construction identical to those of assemblies tested according to ASTM E 90 and classified according to ASTM E 413 by a testing and inspecting agency

Part 2 - Material and Equipment

A) Gypsum liner panels: ASTM C 442

B) Framing members: ASTM C 754 for conditions indicated with ASTM A 653, G60, hot-dip galvanized coating

C) Manufacturers: G-P Gypsum; National Gypsum Company; USG Corporation; or manufacturer offering comparable products approved by the architect

09 22 16 NON-STRUCTURAL METAL FRAMING

Part 1 - Scope and Standards

A) Includes galvanized steel studs, tracks, and furring for partitions, ceilings, and soffits

B) LEED requirements: MR4 for recycled steel content

C) Performance:
- For fire-resistance-rated assemblies, provide materials and construction identical to those tested in assembly indicated according to ASTM E 119 by an independent testing agency
- For STC-rated assemblies, provide materials and construction identical to those of assemblies tested according to ASTM E 90 and classified according to ASTM E 413 by a testing and inspecting agency

Part 2 - Material and Equipment

A) Materials:
- Framing members: ASTM C 754 for conditions indicated with ASTM A 653, G60, hot-dip galvanized coating
- Steel studs and runners and hat-shaped, rigid furring channels: ASTM C 645
- Other steel sheet components: ASTM C 645
- Fasteners for metal framing: Of type, material, size, corrosion resistance, holding power, and other properties required to fasten steel members to substrates
- Grid suspension system for ceilings: ASTM C 645, direct-hung system composed of main beams and cross-furring members that interlock
- Manufacturer: Armstrong World Industries, Inc., Chicago Metallic Corporation; USG Corporation; or manufacturer offering comparable products approved by the owner

B) Installation standard: ASTM C 754
- General: ASTM C 841 except ASTM C 754 for installation of items not addressed in ASTM C 841
  - Portland cement plaster assemblies: also comply with requirements in ASTM C 1063 that apply to framing installation
  - Gypsum board assemblies: Also comply with requirements in ASTM C 840 that apply to framing installation
- Install supplementary framing, blocking, and bracing at terminations in plaster assemblies to support fixtures, equipment services, heavy trim, grab bars, toilet accessories, furnishings, or similar construction

09 24 00 PORTLAND CEMENT PLASTERING

Part 1 - Scope and Standards

A) Includes three-coat portland cement/lime plaster with acrylic-based finish coating on galvanized expanded metal lath at exterior wall and soffit surfaces as indicated

B) LEED requirements:
- MR4 for recycled steel content
- MR5 for regional materials for portland cement, lime and aggregate

C) Quality assurance:
- Comply with recommendations of texas lathing and plastering bureau for materials and installation

Part 2 - Material and Equipment

A) Expanded-metal lath:
- General: ASTM C 847
- Diamond-mesh lath: flat

B) Weight: 3.4 Lb./Sq. Yd.

C) Miscellaneous materials:
- Water for mixing: potable and free of substances capable of affecting plaster set or of damaging plaster, lath, or accessories
- Fiber for base coat: alkaline-resistant glass or polypropylene fibers, 1/2 inch long, free of contaminants, manufactured for use in portland cement plaster

D) Plaster materials:
- Portland cement: ASTM C 150, Type I
- Lime: ASTM C 206, Type S; or ASTM C 207, Type S
- Sand aggregate: ASTM C 897
- Acrylic-based finish coatings: Factory-mixed acrylic-emulsion coating systems, formulated with colorfast mineral pigments and fine aggregates; for use over portland cement plaster base coats. Include manufacturer's recommended primers and sealing topcoats for acrylic-based finishes
  - Manufacturers: Dryvit Systems, Inc.; Parex Incorporated; Sto Corp.; or manufacturer offering comparable product approved by the manufacturer.
  - Color: As selected by architect from manufacturer's full range

E) Plaster mixes: ASTM C 926
- Fiber content: Add fiber to base-coat mixes after ingredients have mixed at least two minutes. Comply with fiber manufacturer's written instructions for fiber quantities in mixes, but do not exceed 1 lb. of fiber/cu. ft. of cementitious materials. Reduce aggregate quantities accordingly to maintain workability.
- Portland cement mixes for scratch and brown coats:
  - Cementitious material: Mix 1 part portland cement and 1/4 to 1/2 parts lime:
  - Aggregate: Use 3-1/2 to 4-1/2 parts aggregate per part of cementitious material (sum of separate volumes of each component material)
- Acrylic-based finish coatings, comply with manufacturer's written instructions

09 29 00 GYPSUM BOARD

Part 1 - Scope and Standards

A) Includes gypsum board on metal framing for interior walls and ceilings

B) LEED requirements:
- MR4 for recycled content for gypsum panels
- MR5 for regional materials for gypsum panels

C) Performance:
- For fire-resistance-rated assemblies, provide materials and construction identical to those tested in assembly indicated according to ASTM E 119 by an independent testing agency
- For STC-rated assemblies, provide materials and construction identical to those of assemblies tested according to ASTM E 90 and classified according to ASTM E 413 by a testing and inspecting agency

Part 2 - Material and Equipment

Materials:
- Fire resistive types: ASTM C 1396, Type X, 5/8 inch thick
- Glass-mat faced tile backer board: ASTM C 1178; regular type or Type X; "densshield tile guard" by G-P Gypsum
- Zinc or zinc coated accessories: ASTM C 1047/
- Extruded aluminum accessories: Provide in profiles indicated by fry Reglet Corp.; Gordon, Inc.; or Pittcon Industries
- Sound attenuation batts: ASTM C 665

09 30 00 TILING

Part 1 - Scope and Standards

A) Includes
- Ceramic mosaic tile
- Glazed wall tile
- Quarry tile

B) LEED requirements: EQ 4 forsealants, and grouts, including printed statement of VOC content

Part 2 - Material and Equipment

A) Tile materials: ANSI A137.1

B) Colors, textures, and patterns: As selected by architect

C) Glazed wall tile:
- Module size (nominal): 6 by 6 inches
- Thickness: 5/16 inch
- Face: Plain with modified square edges or cushion edges
- Finish: Bright, opaque glaze
- Trim: Provide trim applicable to installation indicated including cove base and base or wainscot cap

D) Quarry tile:
- Wearing surface: Nonabrasive, textured
- Facial dimensions: 6 by 6 inches
- Thickness: 1/2 inch
- Face: Plain
- Trim: Provide trim applicable to installation indicated including cove base and base or wainscot cap

E) Crack isolation membrane: Manufacturer's standard product that complies with ANSI A118.12 For standard performance

F) Setting materials:
- Latex-portland cement mortar (thin set): ANSI A118.4
- Water-cleanable epoxy grout: ANSI A118.3, Color as selected

09 51 13 ACOUSTICAL PANEL CEILINGS

Part 1 - Scope and Standards

A) Includes suspended acoustical panel ceiling systems

B) LEED requirements:
- MR4 for recycled content for acoustical ceiling panels and suspension system components
- EQ 4.1 For sealants, including printed statement of VOC content

C) Performance:
- Surface-burning characteristics: Provide products with the following surface-burning characteristics complying with ASTM E 1264 for Class A materials as determined by testing identical products per ASTM E 84:

Part 2 - Material and Equipment

A) Ceiling panels: comply with ASTM E 1264 to provide the following types of panels:
- Manufacturers: Provide named product or comparable product manufactured by Certainteed or USG Interiors, Inc., approved by the architect
- Typical panel type: Type III, (mineral base with painted finish), Form 1, Pattern CE
  - Basis of design: Armstrong Fine Fissured
  - Edge: Square
  - Size: As indicated
  - Thickness: 5/8 inch
  - NRC: 0.70
  - LR: 0.86
- Wet area panel type: Type X (scrubbable finish, resistant to heat, moisture, and corrosive fumes), pattern: GI
  - Basis-of-design product: USG Interiors, Inc. Clean Room Clima Plus
  - Edge: Square
  - Size: As indicated
  - Thickness: 5/8 inch
  - LR: Not less than 0.79

B) Suspension systems: Provide wide face, intermediate duty suspension assembly steel suspension assemblies

09 61 56 DECORATIVE CONCRETE FLOOR FINISHING

Part 1 - Scope and Standards

Includes the following types of decorative floor finishes applied to cured cast-in-place concrete floors:
- Stained concrete floors

Part 2 - Material and Equipment

Reactive stain materials: Acidic-based stain with wetting agents and high-grade, UV-stable metallic salts that react with calcium hydroxide in cured concrete to produce permanent, variegated or translucent color effects
- Products: Kemiko; Stone Tone Stains; QC Construction Products; Patina Stain, Scofield, L. M. Company; Lithochrome Chemstain; or comparable products approved by the architect
- Provide sealers recommended by manufacturer for application indicated

09 64 66 WOOD ATHLETIC FLOORING

Part 1 - Scope and Standards

A) Provide robbins “bio-channel” maple floor system with transparent finish or comparable system approved by the architect for flooring at stage in front of proscenium curtain and at dance classroom

B) LEED requirements:
- Credit EQ 4.1: For adhesives, including printed statement of VOC content

Part 2 - Material and Equipment

Provide similar system with tempered hardboard finish for floor at stage (behind proscenium curtain) and black box

09 65 13 RESILIENT BASE AND ACCESSORIES

Part 1 - Scope and Standards

A) Includes resilient base, resilient treads, and transition strips and reducers

B) LEED requirements:
- Credit EQ 4.1: For adhesives, including printed statement of VOC content

Part 2 - Material and Equipment

A) Materials:
- Vulcanized rubber coved wall base complying with ASTM F 1861, Type TS, Group I where indicated
- Vulcanized rubber stair treads complying with ASTM F 2169, Class 2, pattern as selected by architect, in lengths and depths to fit each stair tread in one piece
- Provide transition strips and reducers as required
- Use cove base adhesives with not more than 50 g/L VOC content when calculated according to 40 CFR 59, Subpart D (EPA method 24)
- Colors: As selected by architect

B) Manufacturers: Allstate Rubber Corp.; Stoler Industries; Armstrong World Industries, Inc.; Johnsonite; Nora Rubber Flooring; Freudenberg Building Systems, Inc.; or Roppe Corporation, USA.

09 65 19 RESILIENT TILE FLOORING

Part 1 - Scope and Standards

A) Includes:
- Vinyl composition tile (VCT)
- Vinyl tile (LVT)

B) LEED requirements:
- Credit EQ 4.1: For adhesives, including printed statement of VOC content

Part 2 - Material and Equipment

A) VCT: ASTM F 1066, Class 2, through-pattern tile, smooth finish
- Manufacturers: Armstrong World Industries, Inc.; Congoleum Corporation; Tarkett, Inc.; or manufacturer offering comparable systems approved by the architect
- Size: 12 by 12 by 0.125 inches
- Colors and patterns: As selected by architect

B) Adhesives: VOC content of 60 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA method 24)

09 65 36 STATIC-CONTROL RESILIENT FLOORING

Part 1 - Scope and Standards

A) Includes static-dissipative or static-conductive tile products as selected by architect
B) LEED requirements:
- Credit EQ 4.1: For adhesives, including printed statement of VOC content

Part 2 - Material and Equipment

Adhesives: VOC content of 60 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA method 24)

09 65 66 RESILIENT ATHLETIC FLOORING

Part 1 - Scope and Standards

A) Includes rubber floor tile
B) LEED requirements:
- Credit EQ 4.1: For adhesives, including printed statement of VOC content

Part 2 - Material and Equipment

A) Rubber floor tile with smooth texture
- Size: 39-3/8 inch square by 1/8 inch thick
- Provide products specifically recommended by manufacturer for use in fitness center applications
- Adhesives: VOC content of 60 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA method 24)

B) Manufacturer: Connor Sports Flooring, Inc.; Mondo; Robbins Sports Surfaces; or manufacturer offering comparable systems approved by the architect

SECTION 09 66 23 - RESINOUS MATRIX TERRAZZO FLOORING

Part 1 - Scope and Standards

Part 2 - Material and Equipment

A) EPOXY MATRIX TERRAZZO APPLICATIONS
- Floors:
  - Thickness: 3/8 inch, nominal
  - Color(s): To be selected by Architect
  - Aggregate Type: Marble chips
  - Aggregate Size: No. 2

B) MATERIALS
- Epoxy Matrix Terrazzo Topping: Aggregate and matrix mix applied to substrate, leveled, and ground smooth
- Epoxy Matrix: Two component resin and epoxy hardener with mineral filler and color pigment, non-volatile, thermo-setting
- Aggregate: Type as indicated; sized in accordance with NTMA Aggregate Gradation Standards; color(s) as indicated, uniform in color

09 67 23 RESINOUS FLOORING

Part 1 - Scope and Standards

A) Includes epoxy-resin flooring and 4-inch high base
B) Performance: Provide flooring system in which physical properties of topping including aggregate, when tested in accordance with standards or procedures referenced below
- Compressive strength (ASTM C 579): 9,200 psi
- Tensile strength (ASTM C 307): 1,650 psi
- Modulus of elasticity (ASTM C 790): 4,000 psi
- Hardness (ASTM D 2240/shore d durometer): 85-90
- Bond strength (ASTM D 7234): >400 psi (100% concrete failure)
- Abrasion resistance (ASTM D 1044): 0.0 gr.
- Water absorption (MIL D 3134): 0.3 Percent

Part 2 - Material and Equipment

A) Product: Dex-O-Tex Cheminert “K” or or comparable product approved by architect
- Trowelled installation
- Thickness 1/4 inch

B) Colors and patterns: As selected by architect
C) Materials:
- Epoxy-resin: Manufacturer’s standard recommended for use indicated; provide with primers required for application and conditions indicated
- Aggregates: As recommended by manufacturer for flooring system indicated

09 68 13 TILE CARPETING

Part 1 - Scope and Standards

A) Includes tile carpet for glue-down installation
B) LEED requirements for credit EQ 4.1: For adhesives and sealants, including printed statement of VOC content
C) Comply with applicable cri standards for delivery, handling, and storage

Part 2 - Material and Equipment

A) Tile carpet: Tandus Applause III with ER3 modular or powerbond ER3 Cushion RS Backing
B) Tile size: 25 inches square
C) Provide tile carpet with 12 pile units per inch. The Dynex SD/Nylon should be 50% solution/50% yarn dyed with an ensure soil/stain protection.
D) Colors and patterns: As selected by architect
E) Adhesives for glue-down applications: VOC content of 60 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA method 24)

09 77 23 FABRIC-WRAPPED PANELS

Part 1 - Scope and Standards

A) Includes shop-fabricated, fabric-wrapped wall panels
B) LEED requirements: MR credit 4 for recycled content

Part 2 - Material and Equipment

A) Glass-fiber board: ASTM C 612, Type IA or Types IA and IB unfaced dimensionally stable, molded rigid board 4- to 7-lb/cu. ft. nominal core density

and nominal core thickness as selected by architect to meet acoustical performance
- Panel edge: Resin-hardened, glass-fiber board

B) Facing material: Fabric from same dye lot; color and pattern as selected by architect from manufacturer's full range

C) Mounting devices: Concealed on back of panel, recommended by manufacturer to support weight of panel

09 91 13 EXTERIOR PAINTING

Part 1 - Scope and Standards

A) Exterior paint systems for CMU, exposed concrete, steel, and galvanized steel

B) Quality assurance:
- Comply with MPI standards for paint materials and systems
- Mockups: Apply benchmark samples of each paint system indicated and each color and finish selected to verify preliminary selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution. Final approval of color selections will be based on benchmark samples.

Part 2 - Material and Equipment

A) Materials:
- Manufacturers: Benjamin Moore, Glidden Professional, PPG, Pratt And Lambert, or Sherwin Williams
- Sheens and colors as indicated or as selected by architect
- Provide each finish system with compatible finish and primer/sealer coats from a single source

B) Application:
- Finished surfaces must receive not less than 2 finish coats over primed surface

09 91 23 INTERIOR PAINTING

Part 1 - Scope and Standards

A) Interior paint systems for exposed concrete, steel, galvanized steel, gypsum board

B) LEED requirements for EQ credit 4: For paints and coatings, including printed statement of VOC content

C) Quality assurance:
- Comply with MPI standards for paint materials and systems
- Mockups: Apply benchmark samples of each paint system indicated and each color and finish selected to verify preliminary selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution. Final approval of color selections will be based on benchmark samples.

Part 2 - Material and Equipment

A) Materials:
- General:
  - Manufacturers: Benjamin Moore, Glidden Professional, PPG, Pratt and Lambert, or Sherwin Williams
  - Sheens and colors as indicated or as selected by architect
  - Provide each finish system with compatible finish and primer/sealer coats from a single source
- Provide products that comply with the following limits for VOC content, exclusive of colorants added to a tint base, when calculated according to 40 CFR 59, Subpart D (EPA method 24); these requirements do not apply to paints and coatings that are applied in a fabrication or finishing shop:
  - Flat paints, coatings, and primers: VOC content of not more than 50 g/L
  - Nonflat paints, coatings, and primers: VOC content of not more than 150 g/L
  - Anti-corrosive and anti-rust paints applied to ferrous metals: VOC not more than 250 g/L
  - Floor coatings: VOC not more than 100 g/L

B) Application:
- Finished surfaces must receive not less than 2 finish coats over primed surface

09 96 00 HIGH PERFORMANCE COATINGS

Part 1 - Scope and Standards

A) Polyurethane or epoxy coatings for metal substrates at where indicated

B) LEED requirements for EQ credit 4.2: For paints and coatings, including printed statement of VOC content

C) Quality assurance:
- Comply with MPI standards for paint materials and systems
- Mockups: Apply benchmark samples of each paint system indicated and each color and finish selected to verify preliminary selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution. Final approval of color selections will be based on benchmark samples.

Part 2 - Material and Equipment

A) Materials:
- General:
  - Manufacturers: PPG, Tnemec, or Sherwin Williams
  - Sheens and colors as indicated or as selected by architect
  - Provide each finish system with compatible finish and primer/sealer coats from a single source
- Provide products that comply with the following limits for VOC content, exclusive of colorants added to a tint base, when calculated according to 40 CFR 59, Subpart D (EPA method 24); these requirements do not apply to paints and coatings that are applied in a fabrication or finishing shop:
  - Flat paints, coatings, and primers: VOC content of not more than 50 g/L
  - Nonflat paints, coatings, and primers: VOC content of not more than 150 g/L
  - Anti-corrosive and anti-rust paints applied to ferrous metals: VOC not more than 250 g/L

B) Application:
- Finished surfaces must receive not less than 2 finish coats over primed surface

09 97 24 PENETRATING LIQUID FLOOR TREATMENT

Part 1 - Scope and Standards

Includes concrete sealer hardener in service areas to improve concrete floor performance under service conditions indicated

Part 2 - Material and Equipment

Provide clear, chemically reactive, waterborne solution of inorganic silicate or siliconate materials and proprietary components; odorless; colorless; that penetrates, hardens, and densifies concrete surfaces

- Products: Euclid Chemical Company (The); Euco Diamond Hard; Meadows, W.R., Inc.; Liqui-Hard; Nox-Crete Products Group, Kinsman Corporation; Duranoxl; or comparable product approved by the architect

Division 10 - Specialties

10 11 00 VISUAL DISPLAY SURFACES

Part 1 - Scope and Standards

Includes:

- Tackboards
- Markerboards

Part 2 - Material and Equipment

A) Types of visual display surfaces include:
- Fabric-faced cork tackboards
  - Color: as selected by architect
- Porcelain steel marker boards for instructional areas. At music classrooms, provide marker board units with musical staff markings.

B) Trim: Factory-installed clear anodized aluminum

C) Manufacturers: Claridge or manufacturer offering comparable products approved by the architect

D) Schedule:
- Instructional areas: Tackboards and markerboards
- Areas where notices are posted: Tackboards

10 12 00 DISPLAY CASES

Part 1 - Scope and Standards

Includes illuminated display case with lockable door and plastic impregnated cork tack surface

Part 2 - Material and Equipment

Manufacturers: Poblocki Sign Company, Claridge or manufacturer offering comparable products approved by the architect

10 14 00 SIGNAGE

Part 1 - Scope and Standards

A) Includes signage types as follows:
- Aluminum AST letters for primary exterior building signage
- Wayfinding signage
- Panel sign for each door
- Cast metal dedication plaque

B) Quality requirements: Comply with accessibility requirements

Part 2 - Material and Equipment

A) Panel signs: Provide with tactile characters and pictograms and braille

B) Manufacturers: Provide products by the indicated manufacturer or manufacturer offering comparable products approved by the Architect.
- Cast Plaques: Matthews International Corporation; Bronze Division; Nelson-Harkins Industries; or The Southwell Company.
- Metal Letters: Asi-Modulex, Inc.; Nelson-Harkins Industries; Signature Signs, Incorporated; or The Southwell Company
- Wayfinding Signs: APCO Graphics, Inc.; Asi-Modulex, Inc.; InPro Corporation; or Innerface Sign Systems, Inc.
- Panel Signs: APCO Graphics, Inc.; Asi-Modulex, Inc.; InPro Corporation; or Innerface Sign Systems, Inc.

10 21 13 TOILET COMPARTMENTS

Part 1 - Scope and Standards

A) Includes toilet partitions and urinal screens

B) LEED requirements: MR4 for recycled steel content

C) Quality requirements: Comply with accessibility requirements

Part 2 - Material and Equipment

A) Type: high density polyethylene (HDPE)

B) Style:
- Toilet-partitions: Overhead braced
- Urinal-screen: Wall hung

C) Hardware and fittings: Clear-anodized aluminum or stainless steel hardware and fittings

D) Stainless steel finishes: No. 4 Bright, directional polish

E) Colors: As selected by architect from manufacturer's full range

F) Manufacturers: Accurate Partitions Corporation; Comtec Industries/Capitol Partitions; Santana Products, Inc.; Sanymetal; A Crane Plumbing Company; or manufacturer offering comparable products approved by the architect

10 21 23 CUBICLES

Part 1 - Scope and Standards

A) Includes curtain tracks and curtain carriers

B) Performance requirements: Curtain fabrics are flame resistant and are identical to those that have passed NFPA 701 when tested by a testing and inspecting agency acceptable to authorities having jurisdiction

Part 2 - Material and Equipment

A) Track: Extruded aluminum, 5/8 inch wide by 1/2 inch high; with minimum wall thickness of 0.058 inch
B) Carriers: Nylon rollers and nylon axle with aluminum hook
C) Cubicle curtain fabric: Curtain manufacturer's standard, 100 percent polyester, inherently and permanently flame resistant, stain resistant, and antimicrobial
- Color and pattern: As selected by architect
- Mesh top: No. 40 Nylon mesh

D) Curtain fabrication: Fabricate curtains to comply with the following requirements:
- Width: Equal to track length from which curtain is hung plus 10 percent added fullness, but not less than 12 inches added fullness
- Length: Equal to floor-to-ceiling height, with 20-inch mesh top, and minus 12 inches above the finished floor at bottom

10 22 13 WIRE MESH PARTITIONS

Part 1 - Scope and Standards

A) Includes standard duty steel mesh partition system with swinging doors
B) LEED requirements: MR4 for recycled steel content

Part 2 - Material and Equipment

A) Manufacturers: Acorn Wire & Iron Works, Inc. or manufacturer offering comparable system approved by the architect
B) Finish: Manufacturer's standard finish as selected by architect

10 22 19 DEMOUNTABLE PARTITIONS

Part 1 - Scope and Standards

A) Includes site-assembled demountable partitions
B) LEED requirements: MR4 for recycled content
C) Performance:
- Surface-burning characteristics: Provide products with the following surface-burning characteristics complying with ASTM E 1264 for Class A materials as determined by testing identical products per ASTM E 84:
- Sound-transmission requirements: demountable partitions assemblies tested for laboratory sound-transmission loss performance according to ASTM E 90, determined by ASTM E 413, and rated for not less than the STC indicated

Part 2 - Material and Equipment

A) Site-assembled, demountable-partition assembly and components that are the standard products of manufacturer consisting of partitions with finished surfaces, doors, borrowed lites, panels with marker and tack surfaces, and other features selected by architect
B) Manufacturers: DIRTT Environmental Solutions or manufacturer offering comparable system approved by the architect

10 22 39 FOLDING PANEL PARTITIONS

Part 1 - Scope and Standards

A) Includes manually operated, paired panel partitions
B) LEED requirements: MR4 for recycled steel content
C) Quality requirements: Comply with accessibility requirements
D) Sound-transmission requirements: Operable panel partition assembly tested for laboratory sound-transmission loss performance according to ASTM E 90, determined by ASTM E 413, and rated for not less than the STC indicated

Part 2 - Material and Equipment

A) Operable acoustical panels: Operable acoustical panel partition system, including panels, seals, finish facing, suspension system, operators, and accessories
- Panel operation: Manually operated, paired panels
- STC: Not less than 47
- Hanging weight: Not more than 8 lbs./sf

B) Manufacturers: Modernfold, Inc., Moderco, Inc., Hufcor, or manufactureroffering comparable products approved by the architect

10 26 00 WALL AND DOOR PROTECTION

Part 1 - Scope and Standards

Includes corner guards

Part 2 - Material and Equipment

Corner guards: Surface mounted stainless steel corner guards for exposed corners
- Manufacturers: C/S, Inc., Balco, Pawling, or manufacturer offering comparable products approved by the architect

10 28 00 TOILET, BATH, AND LAUNDRY ACCESSORIES

Part 1 - Scope and Standards

A) Includes stainless steel toilet accessories
B) LEED requirements for MR credits 4: Recycled stainless steel content
C) Quality requirements: Comply with accessibility requirements

Part 2 - Material and Equipment

A) Accessories include:
- Toilet paper dispenser
- Sanitary napkin/tampon disposal
- Combination paper towel dispenser and waste receptacle
- Mirrors
- Grab bar
- Electric hand dryer
- Horizontal diaper changing station
- Mop and broom holder

B) Manufacturers: Bobrick, Bradley, ASI, or manufacturer offering comparable products approved by the architect

10 43 00 EMERGENCY AID SPECIALTIES

Part 1 - Scope and Standards

A) Includes recessed steel cabinets with steel doors and frame ready to receive automated external defibrillator (AED) furnished by owner
B) LEED requirements: MR4 for recycled steel content

Part 2 - Material and Equipment

A) Provide industry standard graphics to mark location
B) Finish: Shop applied primer to receive field applied finish

10 44 13 FIRE EXTINGUISHER CABINETS

Part 1 - Scope and Standards

A) Includes cabinets for portable fire extinguishers
B) LEED requirements: MR4 for recycled steel content

Part 2 - Material and Equipment

Fire extinguisher cabinet: Suitable for fire extinguisher
- Manufacturers: J.L. Industries, Inc., Larsen's Manufacturing Company, Potter Roemer LLC., or manufacturer offering comparable products approved by the architect
- Cabinet construction: Nonrated
- Cabinet type:
  - Semi-recessed with square-edge trim, 1-1/4- to 1-1/2-inch backbend depth
  - Surface mounted

10 44 16 FIRE EXTINGUISHERS

Part 1 - Scope and Standards

A) Includes multi-purpose extinguishers
B) Quality: comply with the following:
- Local fire code requirements
- Applicable NFPA requirements

Part 2 - Material and Equipment

A) Multipurpose dry-chemical Type In steel container: UL-rated 4- A:80-B:C, 10-lb nominal capacity, with monoammonium phosphate-based dry chemical in enameled-steel container
B) Manufacturers: J.L. Industries, Inc., Larsen's Manufacturing Company, Potter Roemer LLC, or manufacturer offering comparable products approved by the architect

10 51 13 METAL LOCKERS

Part 1 - Scope and Standards

A) Includes heavy-duty steel lockers
B) LEED requirements: MR4 for recycled steel content
C) Quality requirements: comply with accessibility requirements

Part 2 - Material and Equipment

A) Manufacturer: Debourgh Mfg. Co.; Lyon Workspace Products; Penco Products, Inc.; or manufacturer offering comparable products approved by the architect
B) Heavy duty lockers:
- Locker arrangement: Double-tier unless otherwise indicated
- Body: Assembled by welding body components together
- Frames: Channel formed; lapped and factory welded at corners; with top and bottom main frames factory welded into vertical main frames
- Door: One piece; formed into channel shape with double bend at vertical edges and with right-angle single bend at horizontal edges
- Finish: Manufacturer's standard baked enamel or powder coating in color selected by architect

C) Locker sizes:
- Lockers: Double-tier, with each locker 12 by 12 by 36 inches high

D) Benches:
- Overall assembled height: 17-1/2 inches
- Bench tops: Manufacturer's standard one-piece hdpe units, with rounded corners and edges
- Size: Minimum 9-1/2 inches wide by 1-1/4 inches thick except provide minimum 20-inch-wide tops where accessible benches are indicated
- Fixed pedestals: Manufacturer's standard stainless steel or aluminum supports, with predrilled fastener holes for attaching bench top and anchoring to floor

10 71 13 EXTERIOR SUN CONTROL DEVICES

Part 1 - Scope and Standards

A) Includes exterior sun control devices fabricated with fixed louvers in metal frames
B) LEED requirements: MR4 for recycled aluminum content
C) Performance: Comply with local code requirements for wind loading

Part 2 - Material and Equipment

A) Aluminum: Alloy and temper recommended by manufacturer for type of use and finish indicated
- Sheet and plate: ASTM B 209
- Extruded bars, rods, shapes, and tubes: ASTM B 221
- Extruded structural pipe and tubes: ASTM B 429

B) High-performance organic finish: 2-coat fluoropolymer finish complying with AAMA 621 and containing not less than 70 percent PVDF resin by weight in color coat

10 73 00 PROTECTIVE COVERS

Part 1 - Scope and Standards

A) Includes the following types of extruded aluminum protective covers:
- Awnings
- Canopies
- Walkway cover systems

B) LEED requirements: MR4 for recycled aluminum content
C) Performance: Comply with local code requirements wind loads

Part 2 - Material and Equipment

A) Manufacturer: AVAdek or manufacturer offering comparable products approved by the architect
B) Materials:
- Aluminum: Alloy and temper recommended by manufacturer for type of use and finish indicated
- Fasteners and accessories: Manufacturer's standard corrosion- resistant, nonstaining, nonbLEEDing fasteners and accessories compatible with adjacent materials

C) Finish:
- Manufacturer's standard 2-coat, thermocured system composed of specially formulated inhibitive primer and fluoropolymer color topcoat containing not less than 70 percent polyvinylidene fluoride resin by weight; complying with AAMA 2605
  - Color: As selected by architect

10 75 00 FLAGPOLES

Part 1 - Scope and Standards

A) Includes ground-mounted aluminum flagpole
B) Structural performance: Provide flagpole assemblies, including anchorages and supports, shall withstand the effects of gravity loads, and the following loads and stresses:
- Wind loads: 110 mph according to SEI/ASCE 7
- Base flagpole design on polyester flags of maximum standard size suitable for use with flagpole

Part 2 - Material and Equipment

A) Aluminum flagpoles: Provide cone-tapered flagpoles fabricated from seamless extruded tubing complying with ASTM B 241/B 241M, Alloy 6063, with a minimum wall thickness of 3/16 inch
- Exposed height: 35 feet, unless otherwise indicated

B) Manufacturers: American Flagpole; Concord Industries, Inc., U.s. Flag & Flagpole Supply, LP, or manufacturer offering comparable products approved by the architect

Division 11 - Equipment

11 13 00 LOADING DOCK EQUIPMENT

Part 1 - Scope and Standards

Includes dock bumpers

Part 2 - Material and Equipment

A) Dock bumpers: Manufacturer's standard laminated-tread dock bumper units
B) Manufacturer: Flexon, Inc.; Rite-Hite Corporation; SPX Dock Products – Kelley; or manufacturer offering comparable products approved by the architect

11 23 26 COMMERCIAL WASHERS AND EXTRACTORS

Part 1 - Scope and Standards

Includes washer-extractors and dryers

Part 2 - Material and Equipment

A) Washer-extractors: Provide units with stainless steel tub and cover panels
- Capacity: 35 lbs. / 5.76 cu. ft.
- Maximum extractor force: 180 G.
- Electrical characteristics: 208/60/3
- Basis of design: UniMac model UWN060T3V

B) Dryers. Natural gas units as follows:
- Capacity: 75 lbs. / 22.40 cu. ft.
- Natural gas supply: 1/2 inch NPT
- Electrical characteristics: 208/60/3
- Basis of design: UniMac model UWN060T3V

11 31 00 RESIDENTIAL APPLIANCES

Part 1 - Scope and Standards

Includes:
- Residential appliances for use by staff including refrigerator and ice maker for school nurse
- Residential appliances for teaching

Part 2 - Material and Equipment

Manufacturers: General Electric Company; Hotpoint; Maytag; Whirlpool Corporation; or manufacturer offering comparable systems approved by the architect

11 40 00 FOODSERVICE EQUIPMENT

Part 1 - Scope and Standards

Includes commercial food service equipment

Part 2 - Material and Equipment

Refer to foodservice drawings for schedule of foodservice equipmen

11 51 23 LIBRARY STACK SYSTEMS

Part 1 - Scope and Standards

Includes shelving units and book truck

Part 2 - Material and Equipment

A) Shelving: Provide system using starter and "adder" units with lower shelving on casters
- General: Provide red oak or red oak veneered units in manufacturer's standard transparent finish
- Vertical uprights: Solid red oak, edge glued
- Shelving: Solid red oak, edged glued. Adjustable.
- Canopies: Red oak veneer
- Manufacturers: Tesco Industries or manufacturer offering comparable systems approved by the architect

B) Book truck: Buckstaff Model No. 9127-000, Descending Platform Book Truck 992, modified to 21 inches

11 52 16.29 VIDEO PROJECTOR MOUNTS

Part 1 - Scope and Standards

Video projector mounts and ceiling plate for mount

Part 2 - Material and Equipment

Manufacturers: Chieftan, Peerless.; or manufacturer offering comparable systems approved by the architect

11 61 23 FOLDING AND PORTABLE STAGES

Part 1 - Scope and Standards

Includes folding and portable stage platforms

Part 2 - Material and Equipment

A) Fabricate platform frame, legs, and braces from cold-rolled galvanized steel, cold-formed steel tubing, steel mechanical tubing, or extruded-aluminum shapes. Fabricate supporting members to fold within platform frame for minimum storage profile.
B) Provide manufacturer's standard platform panel construction, with angle trim of steel or aluminum at perimeter of each unit
C) Manufacturer: Wenger Corporation or manufacturer offering comparable products approved by the architect

Division 12 - Furnishings

12 21 13 HORIZONTAL LOUVER BLINDS

Part 1 - Scope and Standards

Includes manually operated miniblinds with aluminum slats

Part 2 - Material and Equipment

A) Slats: Aluminum; alloy and temper recommended by producer for type of use and finish indicated; with crowned profile and radiused corners
B) Width: 1 inch
C) Color: As selected by architect from manufacturer's standard range

12 24 13 ROLLER WINDOW SHADES

Part 1 - Scope and Standards

Includes roller shades with manual operators and motorized shade operators

Part 2 - Material and Equipment

A) Shade cloth:
- Light filtering fabric: PVC coated polyester
- Light blocking fabric: PVC coated fiberglass or acrylic-coated fiberglass

B) Installations:
- Typical: Single-roll, manually operated units with light filtering fabric
- Room darkening: Dual-roll, motor-operated units with light filtering fabric and light blocking shade cloth
  - Integrate controls for motorized operators into room lighting and av systems at conference rooms and other meeting areas

C) Manufacturer: Mechoshade Systems, Inc. or manufacturer offering comparable products approved by the architect

12 32 16 MANUFACTURED PLASTIC-LAMINATE-FACED CASEWORK

Part 1 - Scope and Standards

A) Includes plastic-laminate-faced wood cabinets of stock design and plastic-laminate countertops for classroom locations
A) LEED requirements:
- EQ 4.1 For adhesives and sealants, including printed statement of VOC content
- EQ 4.4 For composite-wood products, documentation indicating that product contains no urea formaldehyde

A) Quality requirements:
- Quality standard: Unless otherwise indicated, comply with requirements for modular cabinets in AWI's "architectural woodwork quality standards"
- Comply with accessibility standards

Part 2 - Material and Equipment

A) Manufacturer: Fisher Hamilton LLC; LSI Corporation Of America; A Sagas International Company; TMI Systems Design Corporation; or manufacturer offering comparable products approved by the architect

B) Materials, general:
- Softwood plywood: DOC PS 1
- MDF: ANSI A208.2
- Plastic laminate: High-pressure decorative laminate complying with NEMA LD 3
- Plastic-laminate colors, patterns, and finishes: As selected by architect from plastic-laminate manufacturer's full range
- Edgebanding for plastic laminate: Rigid PVC extrusions, through color with satin finish, 3 mm thick at doors and drawer fronts, 1 mm thick elsewhere

C) Cabinet materials:
- Exposed cabinet materials: Plastic laminate, grade HGS
- Semiexposed cabinet materials: Plastic laminate, grade VGS
- Provide plastic laminate for semiexposed surfaces unless otherwise indicated
- Provide plastic laminate for interior faces of doors and drawer fronts

D) Design: provide manufactured wood casework of the following design:
- Flush overlay with wire pulls
- PVC edgebanding color: Casework manufacturer's standard

E) Hardware, General: Unless otherwise indicated, provide manufacturer's standard satin-finish, commercial-quality, heavy-duty hardware
- Butt hinges: Stainless-steel, semiconcealed, 5-knuckle hinges complying with BHMA A156.9, Grade 1, with antifriction bearings and rounded tips
- Pulls: Solid stainless-steel wire pulls
- Door catches: Nylon-roller spring catch
- Drawer slides: BHMA A156.9, Type B05091
- Box drawer slides: Grade 1
- Drawer and hinged door locks: Mortise type, 5-pin tumbler, complying with BHMA A156.11, Grade 1

F) Plastic-laminate countertops: Provide smooth, clean exposed tops and edges in uniform plane free of defects. Provide front and end overhang of 1 inch over base cabinets. Shop bonded plastic laminate sheet to both sides of 3/4-inch plywood or particleboard.
- Plastic laminate for flat tops: Grade HGS
- Provide plastic-laminate edgings of the same material as top on front edge of top, on top edges of backsplashes and end splashes, and on ends of tops and splashes
- Use exterior plywood or exterior glue particleboard for countertops containing sinks

G) Plastic-laminate shelving: Plastic-laminate sheet, grade hgl or HGP, shop bonded to both sides of plywood. Sand surfaces to which plastic laminate is to be bonded.
- Shelf thickness: 3/4 inch
- Edge treatment: Finish both edges with rigid PVC t-molding, through color with satin finish
- Adjustable shelf supports: Powder-coated steel standards and shelf brackets, complying with BHMA A156.9, Types B04102 and B04112, surface mounted

12 36 23.13 PLASTIC-LAMINATE-CLAD COUNTERTOPS

Part 1 - Scope and Standards

A) Include plastic-laminate-clad countertops

B) LEED requirements
- IEQ4.1: Do not use binders or adhesives that contain urea formaldehyde
- Credit EQ 4.1: For adhesives and sealants, including printed statement of VOC content
- Credit EQ 4.4: For composite-wood products, documentation indicating that product contains no added urea formaldehyde
- Credit MR7: Chain-of-custody certificates for certified wood

C) Comply with AWI requirements to provide premium grade work unless otherwise indicated

Part 2 - Material and Equipment

A) Panel products: MDF complying with ANSI A208.2, Grade 130, or veneer plywood

B) High-pressure decorative laminate: NEMA LD 3
- Grades: As required by woodwork quality standard
- Color: As selected by architect

C) Fabrication:
- Edge: Plastic laminate matching surface
- Use MDF core for typical countertops
- Use marine grade veneer plywood for countertops with sinks

D) Do not use binders or adhesives that contain urea formaldehyde

12 36 61 SIMULATED STONE COUNTERTOPS

Part 1 - Scope and Standards

A) Includes quartz agglomerate countertops

B) LEED requirements
- Credit EQ 4.1: For adhesives and sealants, including printed statement of VOC content
- Credit EQ 4.4: For composite-wood products, documentation indicating that product contains no added urea formaldehyde
- Credit MR7: Chain-of-custody certificates for certified wood

Part 2 - Material and Equipment

A) Material: Solid sheets consisting of quartz aggregates bound together with a matrix of filled plastic resin and complying with the “Physical Characteristics of Materials” Article of ANSI SS1
- Color: As selected by architect

B) Manufacturers: Cosentino USA; E. I. du Pont de Nemours and Company; LG Chemical, Ltd.; Samsung Chemical USA, Inc.; or manufacturer offering comparable products approved by the architect

12 48 13 ENTRANCE FLOOR MATS AND FRAMES

Part 1 - Scope and Standards

Roll-up, aluminum-rail hinged mats with extruded-aluminum tread rails sitting on continuous vinyl cushions.

Part 2 - Material and Equipment

A) Aluminum foot grilles: Provide manufacturer’s standard foot grilles with extruded members, top-surfaced tread rails, and as follows:
- Tread rails: Extruded-aluminum tread rails with extruded- aluminum frame
- Tread rail spacing: 1-1/2 inches o.c. with 1/8- to 3/16-inch- wide openings between treads
- Aluminum finish: Mill
- Top surface: Fusion-bonded, level-cut-pile nylon carpet insert; 1/4 inch high, 28 oz./sq. yd.

B) Manufacturer: Balco, Inc.; C/S Group; Matco International; Reese Enterprises, Inc.; or manufacturer offering comparable products approved by the architect

12 61 00 FIXED AUDIENCE SEATING

Part 1 - Scope and Standards

A) Fully upholstered seat and back with plastic back and steel pedestal support
B) Comply with accessibility requirements

Part 2 - Material and Equipment

Manufacturers: Hussey Seating Company, Irwin Telescopic Seating Company, or Manufacturer of comparable products approved by the architect

Division 13 - Special Construction (Not Used)

Division 14 - Conveying Equipment

14 21 00 ELECTRIC TRACTION ELEVATORS

Part 1 - Scope and Standards

A) Includes passenger elevators, traction drive, including machine- room-less type
A) Regulatory requirements:
- Comply with asme A17.1
- Comply with “Texas Accessibility Standards” (TAS)

Part 2 - Material and Equipment

A) Elevators:
- General: Provide manufacturer’s standard electric traction machine room less (MRL) elevator systems, including standard components published by manufacturer as included in standard pre-engineered elevator systems and as required for complete system
- Passenger elevators:
  - Rated capacity: 3500 lb
  - Rated speed: 200 fpm.
  - Hoistway doors and frames: Stainless steel, No. 4 finish
  - Elevator car doors and frames: Stainless steel, No. 4 finish
  - Elevator car swing front: Stainless steel, No. 4 finish
  - Car finishes: Custom cab finishes as indicated and as selected by architect

B) Manufacturers: Otis Elevator Co., Schindler Elevator Corp., or manufacturer offering comparable products approved by architect

14 31 00 - ESCALATORS

Part 1 - Scope and Standards

Part 2 - Material and Equipment

A) Escalator Description
- Escalators:
  - Rated Speed: 90 ft/min.
  - Vertical Rise (nominal): 18 ft.

B) Operation
- Operation: Constant speed under light to heavy load conditions in either direction, transit speed of handrail same as treads
- Switching: Key operated “On/Off” and reversing direction, control and emergency “Stop” buttons located at each end of unit
- Machine and Drive: Direct current motor, transmission, chain sprocket drive, electro-magnetic brake, drive chain tension adjustment

C) Components
- Structural Steel Components: Truss frame and end bearing plates, tracks, attachment brackets, and anchors
- Extruded Aluminum Components: Ribbed moving treads with ribbed risers and comb plate thresholds
- Handrails: Molded neoprene, steel mesh reinforced to minimize stretch

Division 31 - Earthwork

31 10 00 SITE CLEARING

Part 1 - Scope and Standards

Clear site of trees, shrubs, and grasses; strip topsoil and stockpile in location designated by the owner for future use

31 20 00 EARTH MOVING

Part 1 - Scope and Standards

A) Comply with recommendations in owner's geotechnical report unless otherwise directed in writing
B) Clear and excavate site as required for utilities, foundations, pavings and walks, and to bring building slabs and sidewalks to grades indicated
C) Provide select fill or cement stabilized sand for fill and back fill unless otherwise indicated or directed
D) Compact fill and backfill materials to not less than 95 percent of maximum dry unit weight according to ASTM D 698 unless otherwise approved by the architect

31 31 16 TERMITE CONTROL

Part 1 - Scope and Standards

A) Includes termiticide applied to soil under slabs, at penetrations in slab, and at voids in masonry
B) Comply with applicable EPA regulations for products and application

63 29 DRILLED CONCRETE PIERS AND SHAFTS

Part 1 - Scope and Standards

A) LEED requirements:
- Credits MR4.1 and 4.2: Recycled content in steel, cement, and aggregate
- Credits MR5.1 and 5.2 Regional materials: Cement, aggregate, steel reinforcing bar

B) Codes and specifications:
- Comply with applicable requirements of the following specifications:
  - ACI 336.1 "Standard Specification for End Bearing Drilled Piers", as published by the American Concrete Institute
  - "Standards and Specifications for the Foundation Drilling Industry", as published by the Association of Drilled Shaft Contractors
- In addition, comply with applicable building code and local regulations
- In case of conflict, the strictest interpretation shall govern

C) Steel casing: ASTM A 252, Grade 2 or A 36
D) Corrugated steel casing: ASTM A444

Division 32 - Exterior Improvements

32 13 13 CONCRETE PAVING

Part 1 - Scope and Standards

A) Includes reinforced concrete for driveways, parking lots, curbs and gutters, and walks
B) LEED requirements:
- SS Credit 7.1: For unit paving materials, indicating that paving materials comply with solar reflectance index requirement
- Credits MR4.1 and 4.2: Recycled content in steel, cement, and aggregate
- Credits MR5.1 and 5.2 Regional materials: Cement, aggregate, steel reinforcing bar
- Credit ID 1.1: For each concrete mixture containing fly ash as a replacement for portland cement or other portland cement replacements

C) Quality assurance: Comply with ACI 301 unless otherwise indicated

Part 2 - Material and Equipment

A) Steel reinforcement:
- Plain-steel welded wire reinforcement: ASTM A 185/A 185M, fabricated from as-drawn steel wire into flat sheets
- Reinforcing bars: ASTM A 615/A 615M, Grade 60; deformed
- Plain-steel wire: ASTM A 82/A 82M, as drawn

B) Concrete materials:
- Portland cement: ASTM C 150, gray portland cement Type I/II. Use same type, brand, and source throughout project.
- Normal-weight aggregates: ASTM C 33, Class 4M, uniformly graded. Provide aggregates from a single source.
- Water: Potable and complying with ASTM C 94/C 94M

C) Pavement-marking paint: MPI No. 97 Latex traffic marking paint
- Color: White unless otherwise indicated

D) Wheel stops: Precast, air-entrained concrete
- Dowels: Galvanized steel, 3/4 inch in diameter, 10-inch minimum length

E) Concrete mixtures and mixing:
- Prepare design mixtures, proportioned according to ACI 301, to provide concrete with a compressive strength (28 days) of not less than 3000 psi unless otherwise indicated
- Measure, batch, and mix concrete materials and concrete according to ASTM C 94/C 94M. Furnish batch certificates for each batch discharged and used in the work.

32 14 00 UNIT PAVING

Part 1 - Scope and Standards

A) Includes concrete pavers
B) LEED requirements:
- SS Credit 7.1: For unit paving materials, indicating that paving materials comply with solar reflectance index requirement
- Credit MR5.1 and 5.2: Regional materials for concrete unit pavers and aggregate setting materials

Part 2 - Material and Equipment

Materials:

- Concrete pavers: Solid paving units complying with ASTM C 936 made from normal-weight aggregates
  - Thickness: 2-3/8 inches
  - Face size and shape: 3-7/8-by-7-7/8 inch
- Aggregate setting-bed materials:
  - Graded aggregate for base: Sound, crushed stone or gravel complying with ASTM D 448 for size No. 8
  - Sand for leveling course: Sound, sharp, washed, natural sand or crushed stone complying with gradation requirements in ASTM C 33 for fine aggregate
  - Sand for joints: Fine, sharp, washed, natural sand or crushed stone
- Mortar setting-bed materials
  - Portland cement: ASTM C 150, Type I or II
  - Hydrated lime: ASTM C 207, Type S
  - Sand: ASTM C 144
  - Latex additive: Water emulsion, serving as replacement for gaging water, of type specifically recommended by manufacturer for use with field-mixed portland cement mortar bed, and not containing a retarder
  - Water: Potable
- Grout materials
  - Polymer-modified grout: ANSI A118.7, Sanded grout; in color indicated. Provide product type: Two-component mix, containing liquid-latex and prepackaged dry-grout mix.
  - Grout colors: As selected by architect from manufacturer's full range
  - Water: Potable

32 31 13 CHAIN LINK FENCES AND GATES

Part 1 - Scope and Standards

A) Chain-link fence and personnel gate
B) LEED requirements for credits MR4.1 and 4.2: Recycled steel content

Part 2 - Material and Equipment

A) Materials:
- Fence fabric: ASTM A 392, CLFMI CLF 2445
- Fence framing: ASTM F 761 or ASTM F 654
- Fence posts and gates: ASTM F 654
- Privacy slats: PVC, UV-light stabilized, sized to fit mesh indicated

B) Gates:
- Type: Swing

C) Finish: Galvanized steel

32 31 19 DECORATIVE METAL FENCES AND GATES

Part 1 - Scope and Standards

A) Includes welded steel fence and gates
B) LEED requirements for credits MR4.1 and 4.2: Recycled steel content

Part 2 - Material and Equipment

A) Materials:
- Steel shapes, plates, and bars: ASTM A 36
- Steel pipe: ASTM A 53
- Steel tubing: ASTM A 500 (cold formed) or ASTM A 513, Type 5 (mandrel drawn)
- Metal panels: Galvanized metal panel where required for privacy or security

B) Pedestrian gates:
- Size: As indicated
- Operation: Manual

C) Cantilevered sliding vehicular gates:
- Type: As indicated
- Operation: Motor-operated

D) Finish: Hot-dip galvanizing (ASTM A 123 or ASTM A 153 as applicable)

Division 33 - Utilities (Not used)

SPECIFIC FINISHES/EQUIPMENT/ FIXTURES FOR INMATE HOLDING AREAS

Ceiling Finishes

Circulation and Open Waiting Areas	Lay-in acoustical tile.
Administration areas	Lay-in acoustical tile.
Holding cells	Security ceiling equal to TrussDek by Trussbilt. Painted finish.
Inmate toilets	Security ceiling equal to TrussDek by Trussbilt. Painted finish.
Vehicle sallyport	Exposed structure.

Walls

Holding Cells and Inmate Occupied Areas	Painted CMU.
Inmate toilets	Structural glazed CMU.
Administration areas	Gypsum wallboard on steel studs. Painted.
Staff toilets	Gypsum wallboard on steel stud with applied ceramic tile floors.
Circulation and open waiting areas	Sealed concrete. Holding cells. Sealed concrete.
Inmate toilets	Sealed concrete.
Administration areas	Carpet.
Staff toilets	Ceramic tile.

MISCELLANEOUS EQUIPMENT FOR INMATE HOLDING AREAS

Security Furnishings and Equipment

Pistol Lockers	Located in Vehicle Sallyport. Quantity to be determined.
Key Cabinet	Located at staff post.
Open Waiting Seating	Seating shall be equal to Norix Beam seating series with dividing arms.
Mirrors	Security grade stainless steel to be located in inmate toilet rooms and ADA accessible cell.
Toilet Paper Holder	Security grade stainless steel to be located in inmate toilet rooms and ADA accessible cell.
Grab Bars	Ligature resistant security grad stainless steel grab bars to be located in inmate toilet rooms and ADA accessible cell
Visiting Stations	14 gauge stainless steel counter tops with metal bracket supports

Security Hollow Metal Doors And Frames

Frames	All security hollow metal frames for doors and borrowed lites shall be 12-gauge steel. Exterior doors shall be galvanized. Frames shall be fully grouted.
Doors	All security hollow metal doors shall be 12-gauge steel. Exterior doors shall be galvanized.

Security Hardware

Institutional Perimeter	8” Electro-mechanical jamb lock equal to Southern Steel 10120 AM. Door hardware will include security-grade butts, pulls, and flush pulls, and door position switches. Fire rated security doors will also include concealed closers and Mortise latches in lieu of pulls.
Holding Cells	8” Electro-mechanical jamb lock equal to Southern Steel 10120 AM. Door hardware will include security-grade butts, pulls, and flush pulls, and door position switches.

Security Glass

Institutional Perimeter	Doors and borrowed lites shall have security glass equal to 1” Secur-Tem+Poly glass-clad polycarbonate.
Holding Cells	Doors and borrowed lites shall have security glass equal to 3⁄4” Secur-Tem+Poly glass-clad polycarbonate.

Exterior Security Windows

All exterior security windows will provide fixed glazing (non-operable) in a 12 gauge steel or 14 gauge stainless steel split frame design with a maximum clear glazed opening of 5”

PLUMBING

Holding Cells

Stainless steel combination unit equal to Acorn Model #1418. Provide shut- off valve in each pipe chase for local control.

Inmate Toilets And ADA Accessible Holding Cell

Stainless steel combination unit equal to Acorn Model #1435

HVAC

Security Grilles

Provide security vent covers with tamper-proof fasteners in all holding cells and inmate toilets equal to Titus SG-PR. Grilles and diffusers in open waiting and administration areas will be builder’s grade.

ELECTRICAL LIGHTING

Holding cells and inmate toilets. Ceiling or corner-mount maximum security (14 gauge steel) luminaire with 1/4” polycarbonate lens. Fasteners to be torx-head security fasteners. Luminaires in the open waiting and administration areas will be builder’s grade.

End Specification.

DRAWINGS

Area Calculations

GROUND FLOOR AREA & VOLUME SCHEDULE

DEPARTMENT	AREA (SF)	VOLUME (CF)
Ancillary	14,173	150,715.89
Circulation	6,653	116,748.48
District Clerk	17,065	204,779.31
Facilities	2,723	32,680.13
IT Department	306	10,717.17
Lobby	10,389	220,471.47
Public Vertical Circulation	2,167	25,665.60
Service	2,611	26,106.92
Sheriff DIC	21,525	256,027.57
Sheriff Security	4,009	48,111.65
Staff Vertical Circulation	1,687	32,714.18
TOTALS	**83,309**	**1,124,738.36**

SECOND FLOOR AREA & VOLUME SCHEDULE

DEPARTMENT	AREA (SF)	VOLUME (CF)
Ancillary	14,173	150,715.89
Circulation	6,653	116,748.48
District Clerk	17,065	204,779.31
Facilities	2,723	32,680.13
IT Department	306	10,717.17
Lobby	10,389	220,471.47
Public Vertical Circulation	2,167	25,665.60
Service	2,611	26,106.92
Sheriff DIC	21,525	256,027.57
Sheriff Security	4,009	48,111.65
Staff Vertical Circulation	1,687	32,714.18
TOTALS	**83,309**	**1,124,738.36**

THIRD FLOOR AREA & VOLUME SCHEDULE

DEPARTMENT	AREA (SF)	VOLUME (CF)
Ancillary	2,353	28,240.89
Circulation	4,012	48,148.53
Courts	14,137	168,571.67
IT Department	317	3,804.00
Judicial Administration	3,771	45,257.24
Lobby	9,609	115,308.95
Public Vertical Circulation	1,736	17,359.76
Service	3,194	38,323.07
Sheriff DIC	2,906	34,873.00
Staff Vertical Circulation	1,269	13,517.31
TOTALS	**43,305**	**513,404.43**

FIFTH FLOOR AREA & VOLUME SCHEDULE

DEPARTMENT	AREA (SF)	VOLUME (CF)
Ancillary	2,353	27,478.14
Circulation	4,012	48,148.53
Courts	14,137	168,571.67
District Attorney	3,194	38,323.07
IT Department	317	3,804.00
Judicial Administration	3,771	45,257.24
Lobby	9,609	115,308.95
Public Vertical Circulation	1,736	17,359.76
Sheriff DIC	2,906	34,873.00
Staff Vertical Circulation	1,269	13,517.31
TOTALS	**43,305**	**51,2641.68**

SEVENTH FLOOR AREA & VOLUME SCHEDULE

DEPARTMENT	AREA (SF)	VOLUME (CF)
Ancillary	2,359	28,303.64
Circulation	3,961	47,529.34
Courts	14,139	168,642.26
IT Department	317	3,804.00
Judicial Administration	3,771	45,257.24
Lobby	10,203	122,438.59
Public Vertical Circulation	1,335	13,345.12
Service	3,193	3,8314.43
Sheriff DIC	2,906	34,873.00
Staff Vertical Circulation	1,687	13,517.31
TOTALS	**43,453**	**516,024.93**

NINTH FLOOR AREA & VOLUME SCHEDULE

DEPARTMENT	AREA (SF)	VOLUME (CF)
Public Vertical Circulation	1,996	19,956.17
Shell	41,977	421,393.94
Staff Vertical Circulation	1,671	17,542.34
TOTALS	**45,644**	**458,892.45**

TENTH FLOOR AREA & VOLUME SCHEDULE

DEPARTMENT	AREA (SF)	VOLUME (CF)
Ancillary	1,505	18,054.14
Circulation	2,999	31,683.08
Court Of Appeals	8,712	103,908.70
IT Department	29	351.00
Judicial Administration	3,945	46,633.91
Lobby	8,737	87,372.14
Public Vertical Circulation	991	9,914.72
Service	98	1,177.36
Shell	13,574	161,405.46
Sheriff DIC	1,439	17,604.50
Staff Vertical Circulation	633	7,155.36
TOTALS	**43,004**	**488,670.37**

Communications Systems

TELEPHONE AND DATA SYSTEMS:

The facility shall be provided with a complete telephone and data infrastructure to include conduit, cable trays and riser / horizontal cabling for an Owner furnished and installed VOIP telephone and data system.

All riser cabling shall be multimode (MM) fiber optic cable (quantity TBD) provided between each Intermediate Distribution Frame (IDF) Room and the Main Distribution Frame (MDF)/Entrance Facility (EF) Room.

All horizontal cabling shall be plenum rated CAT-6. A minimum of three (3) cables shall be provided to each workstation outlet location. A four port telecom/data faceplate shall be provided at each outlet location with one port covered by a blank cover.

General office locations shall be provided a minimum of two work-station outlets. Printer, fax and other designated locations shall be provided with an outlet of the same configuration. Wall phones shall be provided with a single gang plate and one (1) CAT-6 cable.

Communications Rooms (IDF & MDF):

- Communications rooms shall provide the transition area from building entrance cabling to facility riser cabling; facility riser cabling to horizontal cabling for routing to work stations. Overhead ladder racks shall be provided within each communications room for cable distribution.
- A Telecommunications Main Grounding Busbar (TMGB) shall be installed within each communications room in accordance with ANSI J-Standard 607-A and the NEC
- Communications room shall be provided with a minimum of two dedicated non-switched 120 VAC electrical outlets. In addition convenience outlets shall be provided at 6’ centers around the room.
- A minimum of two walls shall be covered with three quarter inch (¾”) A-C grade fire retardant plywood, painted with two coats of light colored, non conductive fire retardant paint. The plywood shall extend from the floor to eight (8) feet above the finished floor, and shall be mounted with the “A” side exposed.
- A dedicated HVAC system shall be provided to maintain temperature and humidity controls within the communications room

Overhead closed sided cable tray (18” minimum) shall extend from each communications room through main corridor areas for routing of horizontal cabling to workstation outlet locations. A one inch (1”) conduit shall be provided from each work station outlet to above ceiling space for connection to cable tray in corridor.

CABLE ANTENNA TELEVISION SYSTEM (CATV)

The CATV system shall be provided to distribute local television signals to designated locations within the facility. These locations shall include conference rooms, training rooms, waiting/reception areas, staff lounges and dining areas. System shall include all required signal amplifiers, splitters and tap-off outlets to distribute adequate service signal to all required outlets. Facility incoming service source shall be provided by the Owner to the system “head-end” location within facility EF Room.

Electronic Security Systems

DOOR CONTROL AND MONITORING SYSTEM (DCMS)

The facility shall be provided with a complete and functional door control and monitoring system. The system shall provide control and monitoring of all detention area movement and cell doors from Detention Control. The DCMS shall be a Programmable Logic Control (PLC) based control system to provide the interface for monitoring the status of door position switches, system alarm points, duress alarm points and system status points. The PLC system shall control the door/gate control relays, intercom/paging interface relays, access control door release verification and interface to the CCTV matrix switcher to automatically call-up associated cameras when communications to a movement door or acknowledgement of a duress alarm and the touchscreen control workstation have been established.

The facility shall be provided with two (2) touchscreen control workstation locations; “Building Control” and “Detention Control”. Detention control shall have the control/monitoring responsibility for the inmate areas related to court activities and Building Control shall have the control/monitoring responsibility for the building envelope, perimeter areas and interior (non-detention) movement areas. Both workstations shall be redundant of each other to allow for “after hours” building control from one location. Each touchscreen control workstation shall be equipped with an audio system master station and two (2) CCTV monitors.

The facility shall be provided with a duress alarm system for annunciating emergency conditions requiring internal staff attention. The duress alarm pushbutton stations shall be located at designated public/staff locations, courtrooms and judge’s chambers. The duress alarms shall be monitored within Building Control to include alarm location and camera view of area of incident.

INTERCOMMUNICATIONS SYSTEMS

The facility shall be provided with a complete and functional intercommunications system. The system shall provide intercom and paging functions throughout the facility, both interior and exterior, to allow Building Control / Detention Control personnel to have two-way audio communications to remote intercom stations and one-way audio communications to remote paging zones.

The intercom/paging system shall be a relay-based audio switching system that shall interface with the PLC Control System for system connections from control area touchscreen control workstation(s) master station to remote devices. System shall provide interface to CCTV system for pre-programmed camera “call-up” views associated with remote intercom stations.

Remote intercom stations shall be “stainless steel” construction for use within the facility and upgraded to “detention grade” construction for use within the detention area. Exterior stations shall have “gasketed” faceplates to protect from environmental elements.

Non-contact visitation rooms shall have a “detention grade” phone handset communications device to allow single point audio communications between inmate and attorney.

Paging devices shall be commercial grade, flush mounted speaker/baffle assemblies with multiple audio taps for system audio balancing.

CLOSED CIRCUIT TELEVISION SYSTEM (CCTV)

The facility shall be provided with a complete and functional closed circuit television system. The system shall provide video surveillance throughout the facility, both interior and exterior, to allow Building Control personnel to monitor all building control points, general movement corridors, public assembly areas, courtrooms and building exterior. Detention Control personnel shall monitor all detention areas to include vehicular sallyport, detention cell areas, movement corridors/elevators and court holding cell areas.

The CCTV system shall be a fully programmable microprocessor based full matrix switching and control system to include a matrix switch, digital video recorders (DVRs), 20 inch flat panel LCD color monitors w/ system keyboards at operators locations, interior fixed color dome cameras with vari-focal lens and exterior fixed/PTZ, day/night dome cameras with vari-focal/zoom lens and heater/blower unit. Cameras shall be 24VAC. System matrix, DVR’s and camera power supplies shall be located within security electronics equipment room on Level 1.

Building Control and Detention Control shall be capable of viewing all cameras associated with the assigned control parameters of each control location. Building Control shall have capability to view all system cameras when Detention Control is not operational.

All cameras shall be continuously recorded on system DVR’s and be capable of being viewed and/or downloaded at the system viewing station located within Building Control on Level 1.

ACCESS CONTROL SYSTEM

The facility shall be provided with a complete and functional access control system. The system shall provide access control throughout the facility for passage by approved personnel through controlled / monitored doors within identified areas. The access control system shall be a computer server based system consisting of a management/operator workstation with software (located within Building Control on Level 1), controller panels, card readers / keypads, request to exit (REX) devices, door release p/b stations, photo badging equipment and connections to magnetic locks / electric strikes for tie-in to the fire alarm system. The access control system shall interface with the PLC system for all door release requirements.

UNINTERRUPTIBLE POWER SYSTEMS (UPS)

The UPS system shall be installed to provide a continuous power source to all required security electronics “head-end” equipment located within the main security electronics equipment room on Level 1. System shall consist of a floor mounted unit, wall mounted “make-before-break” (MBB) transfer switch and power distribution panel. The UPS equipment shall be sized to allow for 20 minutes of systems “head-end” equipment operation under full load. Full load design shall not be greater than 80% of the UPS rated capacity. The UPS system shall provide notification for “system running” and trouble notifications for “low battery” or if the unit is overheating.

Applicable Codes and Standards:

- NFPA 70 National Electrical Code (NEC) (2010)
- NFPA 101 Life Safety Code (2012)
- NFPA 72 National Fire Alarm and Signaling Code (2010)
- NECA/BICSI 568-2006 Cabling Standard
- TIA/EIA Bulletin TSB67 Transmission Performance Specifications
- ANSI/TIA 598-C-2005; Optical Fiber Cable Color Coding
- ANSI/TIA 526-14-A-1998; Optical Power Loss Measurements of Installed Multimode Fiber Cable Plant
- ANSI/TIA 568-B Series-2001; Commercial Building Telecommunications Cabling Standard
- ANSI/TIA 606-A-2002; Administration Standard for the Telecommunications Infrastructure of Commercial Buildings
- ANSI/J-STD 607-A-2002; Commercial Building Grounding (Earthing) and Bonding Requirements for Telecommunications
- ANSI/TIA 569-B-2004; Commercial Building Standard for Telecommunications Pathways and Spaces

Lobby, Atrium & Main Public Corridors

Floor

Terrazzo 3 color pattern with divider strips of 2 different widths (1/8" and 3/8"); Recessed floor mats at entries similar to C/S Pedigrid

Walls

Architectural materials (masonry, wood paneling, etc.) from exterior building design, base = terrazzo or non-porous masonry

Ceiling

Feature size lay in, similar to Armstrong Optima Open Plan – Large Sizes (4'x4', 2'x6' or 2'x8')

Sunscreen Devices

Perforated shades may be required on west side of building depending on final architecture and plan configuration

Reception desk in lobby

Combination of 3 Form, engineered quartz work surface, wood veneer

Crowd Control Rail at screening

Wood veneer paneling with engineered quartz cap, base matches wall base

Feature Guard Rail (if required)

Metal, wood combination

Signage

TBD

Furniture

TBD

Accessories

TBD

Secondary Public Corridors

Floors

Carpet tile, budget $30/sy materials only

Walls

Painted Gypsum board; department entries (including court rooms) detailed with wood, stone and potentially other feature materials; base = wood

Ceilings

2' x 2' x ¾" tegular lay-in, similar to Armstrong Ultima 1912, NRC 0.70, 9/16" grid

Public Toilet Rooms

Floors

24 x 24 Porcelain Tile

Walls

24 x 24 porcelain tile 6' wainscot height with paint above, 8' on wet wall with paint above; Schluter strips: flat on top cap, coved at wall/floor intersection, bullnose at any outside corners

Ceiling

Painted gypsum board

Partitions

High Pressure Laminate, textured finish to dissuade graffiti, full pattern line to choose from

Counter tops

Integrated with Bradley Verge lavatory system

Miscellaneous

Large, unframed mirror at sink

Offices/Departments

OPEN OFFICES:

Flooring

Carpet tile, budget $30/sy materials only

Walls

Painted, Accent paints in various locations

Ceiling

2 x 2 x 1" tegular, similar to Armstrong Optima Open Plan 3355 with NRC of 0.90, 9/16" grid

Casework:

Verticals: High Pressure Plastic Laminate; pulls to NOT be traditional "c"-shaped – allow extra money for pulls; hinges to be higher grade than typical commercial grade

Counters: High Pressure Plastic Laminate (staff only work counters in office areas),

Engineered Quartz (Public side and staff areas that are seen by the public AND at any staff only counter with a sink)

PRIVATE OFFICES:

Floors

Carpet tile, budget $35/sy materials only

Walls

Painted gypsum board; base = coved 4" thermoset rubber

Ceiling

2' x 2' x ¾" tegular lay-in, similar to Armstrong Ultima 1912, NRC 0.70, 9/16" grid

ELECTED OFFICIAL OFFICES:

Floors

Carpet tile, budget $35/sy materials only

Walls

Painted, one wall with wallcovering (PVC-free similar to Len-Tex Surface IQ); base = wood

Ceiling

2’ x 2’ x ¾” tegular lay-in, similar to Armstrong Ultima 1912, NRC 0.70, 9/16” grid

STAFF TOILETS

Floors

12 x 12 or 12 x 24 porcelain tile

Walls

(12 x 24 or 24 x 24) 6’ wainscot height with paint above on toilet and urinal adjacent walls, full height on wet wall; Schluter strips: flat on top cap, coved at wall/floor intersection, bullnose at any outside corners; paint on other walls; base = tile

Ceiling

Painted gypsum board

Counter tops

Integrated with Bradley Verge lavatory system

Miscellaneous

Unframed mirror at sink inset within tile module

COURT ROOMS

Floors

Carpet tile or broadloom, budget $35/sy materials only

Walls

Front wall to be architectural materials (masonry, wood paneling, etc.) from exterior building design, side walls to be painted, back wall to be painted with wood arch at door; base = wood

Ceiling

Feature size lay in, similar to Armstrong Optima Open Plan – Large Sizes (4’x4’ or 2’x6’) to coordinate with linear diffusers and linear suspended light fixtures

Miscellaneous

Powered window sun screens and black out shades, powered projection screens, microphones, speakers, HVAC controls, panic alarms, evidence display system, plug-in ports in tables and bench locations

Millwork

Bar (divider rail between public seating and well), public seating benches and/or chairs, jury rail, judge’s bench, court reporter station, attorney tables, baliff table, potential evidence table, potential podium, jury seating bolted to floor

SERVICE AREAS

Floors

Sealed concrete

Walls

Painted gypsum board or block as required for construction/fire rating and use

Ceiling

Unfinished exposed structure

Service Corridors & Tertiary Public Corridors

Floors

12 x 12 resilient tile similar to Armstrong Biobased Tile

Walls

Painted gypsum board with wainscot-high wall protection

Ceiling

2’ x 4’ x 5/8” lay-in acoustical tile similar to Armstrong Fine Fissured square profile, 0.55 NRC

Holding

Floors

Sealed concrete

Walls

Painted concrete block, two accent colors budgeted

Ceiling

Tectum acoustical-absorbing panels

Cafeteria

Floors

Large format (12 x 24 and 24 x 24) porcelain tile in a pattern using full tiles

Walls

Painted gypsum wallboard in accent colors, corner and wall protection shall be used where necessary to protect against chairs and in high traffic areas, porcelain tile base

Ceiling

Shall meet NRC of .55 while having a stylish, festive look that incorporates accent ceiling clouds hanging below an open darkened plenum

Kitchen

Floors

Poured flooring similar to Stonhard Stonclad G2 with integral base

Walls

If go with food court concept, provide decorative surrounds designed with specialty tile, specialty laminate, 3 Form while meeting health department requirements.

If go with full kitchen, walls to be FRP board with sealed seams and edges.

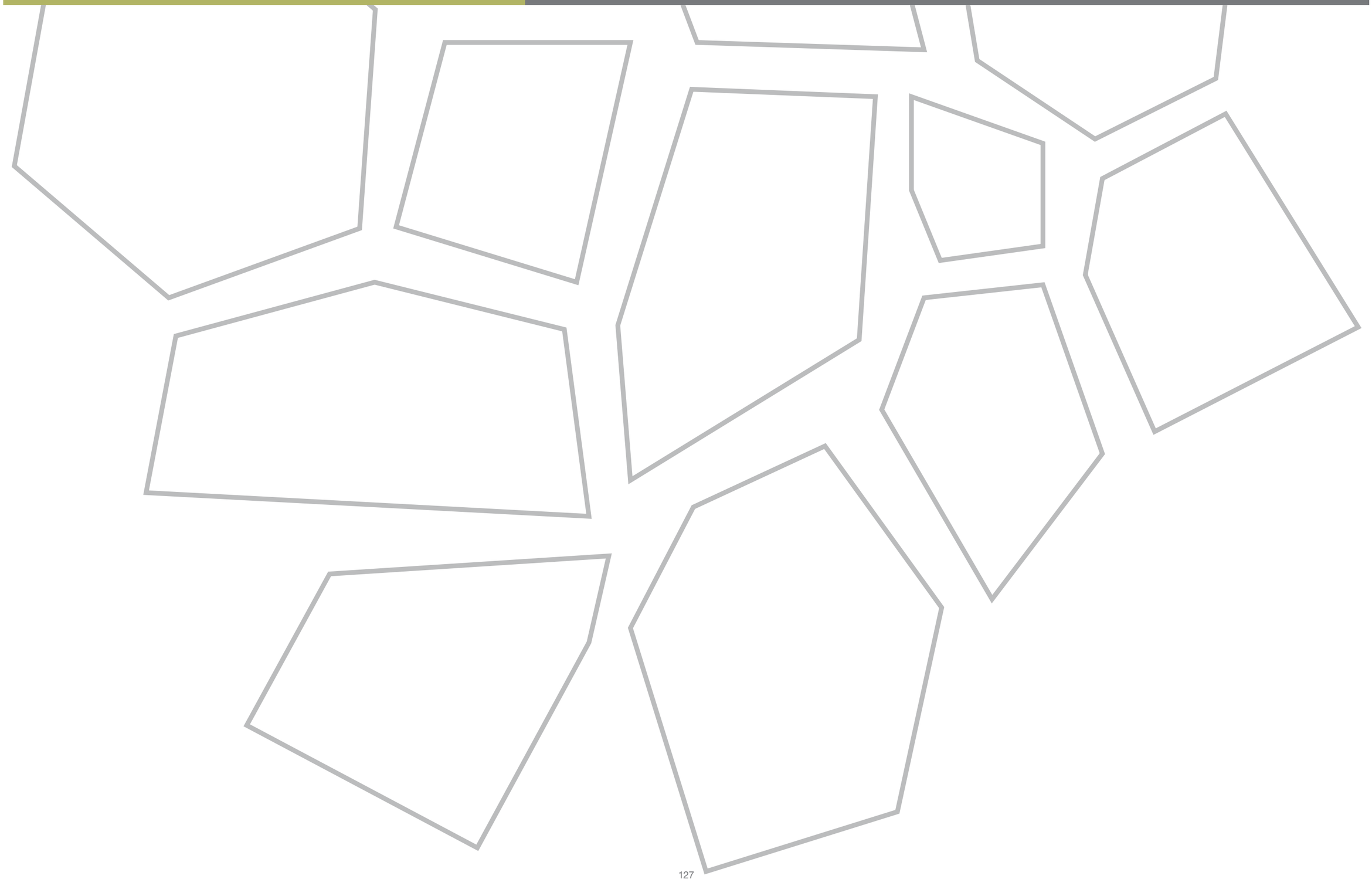
Ceiling

2 x 2 lay-in similar to Armstrong Clean Room VL Unperforated square lay-in 868

Common Throughout

Window Sills

Engineered Quartz




THE COUNTY OF HIDALGO
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COST ESTIMATE

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COST ESTIMATE

Probable Cost of Construction

BACKGROUND

This estimate is an estimate of current market cost for May 2014 based on historical data for Courthouse projects completed by the collaborative design and construction efforts of ERO Architects, HDR Architecture, Inc. and Balfour Beatty Construction for the Hays County, Texas Courthouse in 2011 and Ellis County, Texas Courthouse in 2010. HDR has further back-checked the estimate, by construction trade, with the actual costs of the Mecklenburg County Courthouse in Charlotte, North Carolina completed in 2007 where HDR was the Judicial Consultant.

NOT A TYPICAL OFFICE BUILDING

While Courthouses are often generally categorized as “office” by Construction Occupancy and Classification and occupancy, they have major components that are not found in a business use that have a major impact on cost.

Assembly Use: Courtrooms are an Assembly Occupancy that have a concentration of occupants in fixed seating on multiple floors. This concentration results in a high influx of people at peak times requiring, at a minimum, multiple elevators. The addition of escalators allows optimal movement of the public attending Court and requiring interaction with County and District Clerks.

Institutional/Detention Requirements: A modern Courthouse is designed to maintain separate areas for defendants-in-custody under the supervision of the Hidalgo County Sheriff. These areas are required to meet standards for physical security established by the Texas Commission on Jail Standards. The cost of steel reinforced walls, detention grade doors, frames, and hardware along with electronic security and other appurtenances found in a jail environment make the cost of these areas much higher than what you would find in an office building.

Multiple Occupancies and Security: Separation of the public, court staff and juries, and defendants-in-custody is necessary for bodily safety, upholding the impartiality of the judicial process, and prevention of the passage of potential weapons and contraband. This necessitates triplication of elevators and circulation corridors and the need for access controls, visual surveillance, and audio/visual communication technologies which impact the cost beyond what would be found in general commercial construction.

ESTIMATE OF PROBABLE CONSTRUCTION COST (CCL)

The Estimate of Probable Construction Cost is our best assessment of a fair market value in a competitive bidding situation where there are three or more bids for each trade. The estimate of construction cost is not necessarily the low bidder but takes into consideration the requirements specified and anticipated for the completion of the work. The following probable cost summary items were determined by HDR Architecture and Balfour Beatty Construction utilizing $270 per square foot.

Project Support Costs	$3,613,046
Civil and Landscape	4,110,000
Concrete and Deep Foundations	3,934,424
Masonry	4,943,996
Metals	9,836,861
Carpentry and Millwork	7,961,255
Thermal and Moisture	7,603,619
Doors, Glass, Openings	9,471,750
Drywall and Finishes	14,033,805
Specialties	2,359,460
Electronic Security/Data and Equipment	4,074,822
Elevators and Escalators	8,852,984
Mechanical, Plumbing, Fire Protection	17,669,000
Electrical Power and Lighting	13,575,000
General Conditions	4,860,748
Construction Contingency	6,081,191
Contractor Fee	4,723,046
PROJECTED CCL OF BUILDING	**$127,705,007**

PROJECT SOFT COSTS

A/E Fees and Reimbursements (7%)	$8,939,350
Civil Engineering (8% of site work)	328,800
Security Consultant (.5%)	635,000
Technology/Acoustic Cons. (.5%)	635,000
Specialty Consultants	444,500
Movable Furnishings (3%)	3,831,150
Security Equipment (2%)	2,554,100
Courtroom Technology	2,400,000
Miscellaneous Expenses	1,993,000
Hidalgo Co./Owner Contingency	7,611,252
PROJECT SOFT COSTS TOTAL	**$29,372,152**
TOTAL PROJECT COST (TPC) – 2014	**$157,077,159**
TPC 2017 at 4% Escalation	$176,690,250
TPC 2017 at 6% Escalation	$187,081,210

COST ESCALATION

Establishing a budget requires anticipation of the reasonable anticipated year-to-year cost increase based on market conditions and general inflation present in the marketplace for this kind of construction. A project of this size and the general economic conditions in Texas anticipated for the next few years suggest that this must be considered. While cost in markets like Houston are anticipated to be as high as 10%–12% per year for commercial construction, our estimate is that the Rio Grande Valley market will not exceed 6% per year for the next 3 years. We anticipate 2017 as a mid-point of construction for this project for estimating purposes based on where we are now with Schematic Design.

The impact of escalation can best be understood when put in context of a relatable module of time. For example, the potential cost impact of escalation for a project of this size prolonged is approximately $25,000 per day.

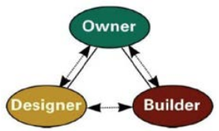
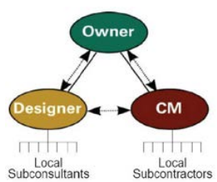
COST ESTIMATE

Possible Cost-Saving Options

POSSIBLE COST SAVING OPTIONS TO REDUCE CCL

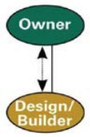
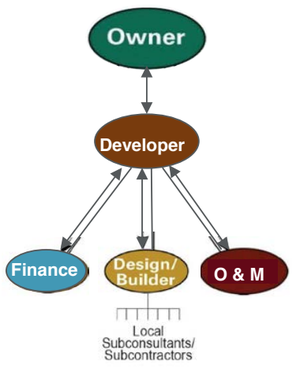
Below you will find items that were discovered to be program requirements by the County which were designed by ERO Architects, along with alternative solutions for the new courthouse that could help reduce the CCL if the County chose to implement them.

HC REQUIRED	ERO DESIGNED	ALTERNATIVE SOLUTION	SAVINGS TO COUNTY (ESTIMATES)
24 Individual court rooms	Designed individual courtrooms for each of the 24 county courts	Construct 12 courtrooms and share on a 16hr/5day court schedule	$36,000,000
24 full service court rooms	Designed 24 full service court rooms	Separation of civil and criminal courts in the same building	4,000,000
Floor space for 8 future courts	Designed two shelled unfinished floors	Eliminate the two unfinished floors and have the court of appeals at another location	15,000,000
Ease of acccess and flow for up to 2,000 people daily	Designed vertical transportation system—6 floors of escalators	Eliminate the vertical escalators	2,755,000
Other requirements	Miscellaneous Items: Landscapping, Curtainwall, Millwork, HVAC and Electrical	Eliminate them	5,900,000
TOTAL			**$63,655,000**

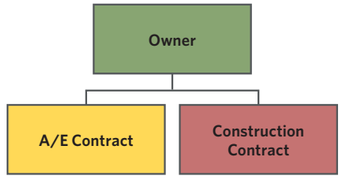
	Delivery Model	Description	Advantages to Owner	Disadvantages to Owner	Utilization by TX Counties	Speed to Market	Total Schedule	Investment by Owner	Bridging Consultant	Retained Risk / Design Control by Owner (Low-High)
Traditional	**Design-Bid-Build (DBB)** 	Traditional process used by all local governmental agencies. Deisgner is selected through a qualifications based process. Designer works with the Owner to define the requirements of the project usinge both prescriptive and performance criteria. Owner retains the risk of the accuracy of the bidding documents that are provided to teh prospective contractors during the competitive bid phase. Example: Hidalgo County PAC	1. Traditional process, expremely well know and used often. 2. Designer seen as Owner's advocate for the project. 3. Designer works closely with the Owner to define project requirements. 4. Pricing is competitively bid.	1. Project is awarded to the low bidder, low bidder may not be the most highly qualified. 2. Owner retains risk for design erros & omissions. 3. Longest procurement process due to linear sequencing. 4. Not able to take advantage of early constructablity input or ealry market pricing.	100%	15 mos.	48 mos.	Moderate	No	Highest
Alternative Delivery	**Progressive Design-Build (PDB)** 	Design-Build team selected through a qualifications based process, similar to traditional methods. Once selected the PDB team collaborates with the Owner on cost/schedule/scope items with the intent of entering into a LS or GMP. Owner has a single contract with both teh Designer and the Contractor. Example:	1. Simple / quick procurement process. 2. Increased participation / low proposal costs. 3. Flexibility to complete work based on available funding. 4.Owner can reject LS or GMP without significant project delays. 5. Better chance of designing to budget because of several costs estimates in the process.	1. Final costs of construction is not known at the time of constract signing. 2. Costs determined through both competitive and negotiated pricing. 3. Public education may be reuired related to construction cost negotiations.	50%	14 mos.	43 mos.	Lowest	No	Low risk and high design control, because detailed project scope is defined later.
	Construction Manager At Risk (CMAR) 	Owner has separate contracts with the Designer and Contractor. Contractor is hired early in the process to take advantage of early market pricing and constructability input. Contract form can be a negotiated fee, LS, or GMP. Example: Smith County Jail	1. Allows Owner control of scope, features, and operational elements of the design. 2. Simple, inexpensive and quick procurement process. 3. Flexibility to complete work based on available funding. 4. Owner can reject LS or GMP without sgnificant delaysi n the project. 5. Better chance of designing to budget due to multiple cost estimates in the process. 6. Potential for increased participation due to lower proposal preparation costs.	1. Loss of single-point of responsibility. 2. Owner retains the risk of design errors & omissions. 3. Cost of construction is not known at the time of initial contract signing. 4. Owner may need to facilitate collaboration between the design and construction firms. 5. Can require significantly more Owner involvement.	75%	14 mos.	43 mos.	Low	No	Risk is still relatively high since Owner holds the designer contract seprately from the construction contract.

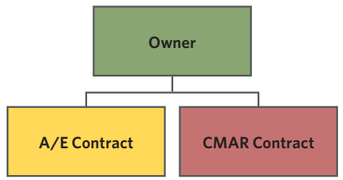
COST ESTIMATE

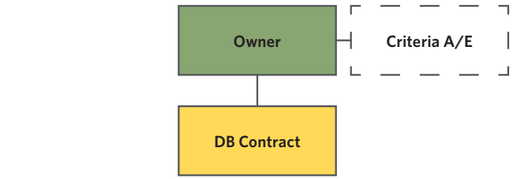
Construction Delivery Options

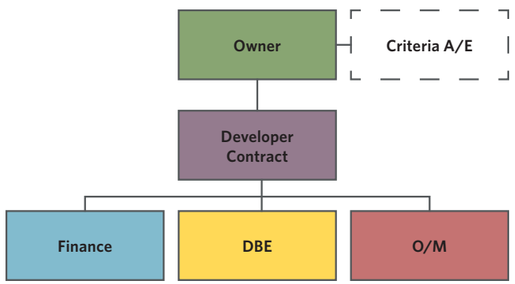
	Delivery Model	Description	Advantages to Owner	Disadvantages to Owner	Utilization by TX Counties	Speed to Market	Total Schedule	Investment by Owner	Bridging Consultant	Ratained Risk / Design Control by Owner (Low-High)
Alternative Delivery	**Lump Sum Design-Build (DB)** 	Owner has a single contract with a Design and Construction entity. The Design / Bilder can provide early constructability and cost estimating input during the design phases. Typically the Onwer has to provide criteria documents to the proposers in order to define the scope, perfromance, and quality requirements of the project. Example: Hays County Courthouse	1. Owner responsibility for design is limited in performance based procurement. 2. Cost of design and construction is known at contract signing. 3. Schedule is fixed at contract signing. 4. Costs are determined through a competitive process. 5. Public acceptance is typically high with a LS award. 6. Suited for Owners who are focused on perfromance rather than design process or construction.	1. Procurement costs are high for all parties since significant design costs are incurred to respond to the proposal. 2. Procurement process takes substantially more time. 3. Owners may need to pay a stipend to unsuccessful teams. 4. Less efficient use of staff time and finds because designs developed during proposal process are often not incorporated. 5. Potential for reduced participation due to high proposal costs. 6. Difficult to guage pricing and escalation/inflation over a multi-year period.	40%	19 mos.	46 mos.	High	Yes	Lower risk since design risk is transferred to the Design Builder.
	Public-Private Partnerships (P3) 	Delevery model where both the Public and Private sectors combine resources as part of the transaction to provide a new facility. The Owner can provide real estate, or a payment guarantee as part of its contribution to the deal structure. Owner has a single contract with a development entity which provides design, construction, private sector financing, and long-term operations and maintenance of the proposed facility. Similar to design build in that is has a single contract, but much more complex in terms of its contract and payment structures to support the financing and O&M elemnts. A new twist in payment structures is the introduction of Perfomance Based Infrastructure (PBI) contracts, where teh monthly payment is enhanced or reduced based on meeting predetermined perfomance metrics. Perfomance metrics are monitored by a third party. Example: Long Beach Courthouse	1. Owner responsibility for design is limited in performance based procurement. 2. Cost of design and construction is known at contract signing. 3. Schedule is fixed at contract signing. 4. Costs are determined through a competitive process. 5. Public acceptance is typically high with a LS award. 6. Suited for Owners who are focused on perfromance rather than design process or construction.	1. Procurement costs are high for all parties since significant design costs are incurred to respond to the proposal. 2. Procurement process takes substantially more time. 3. Owners may need to pay a stipend to unsuccessful teams. 4. Less efficient use of staff time and finds because designs developed during proposal process are often not incorporated. 5. Potential for reduced participation due to high proposal costs. 6. Difficult to guage pricing and escalation/inflation over a multi-year period.	5%	15 mos.	50 mos.	Typically the highest Owner investment due to Bridging Consultant / Criteria Architect costs and the stipends typically paid to unsuccessful firms.	Yes	Typically the lowest retained risk by the Owner due to design and operations risks are transferred to the development team.

Contract Structure



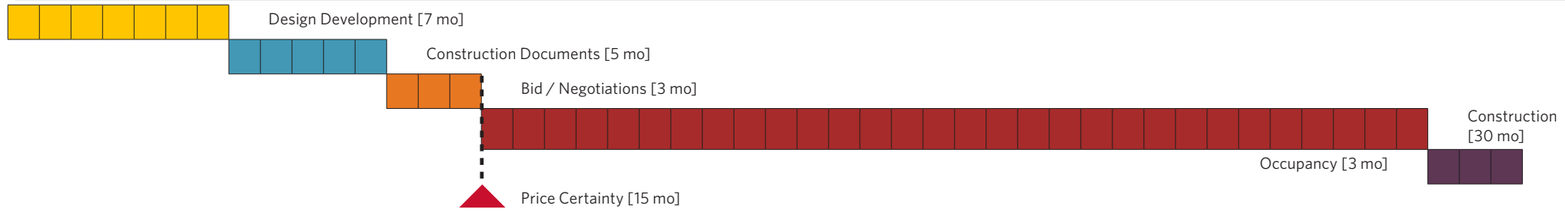




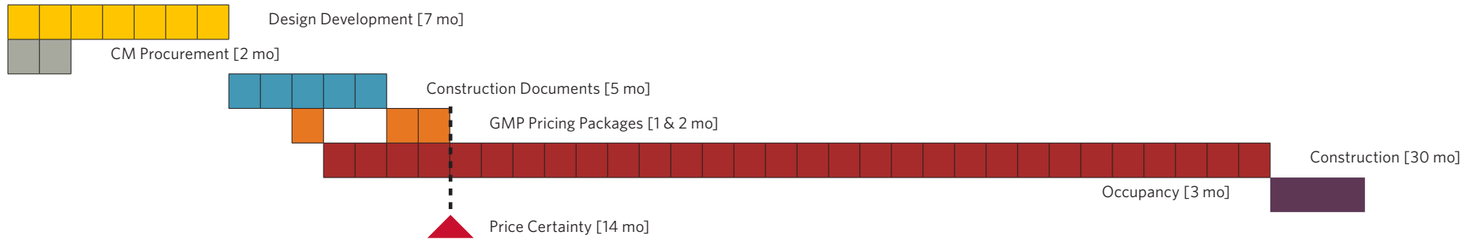


Delivery Models

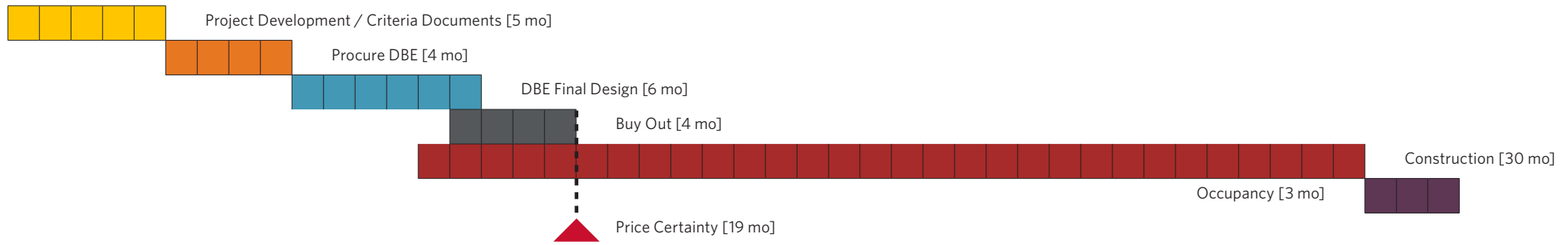
TRADITIONAL DELIVERY [DBB]: 48 MONTHS



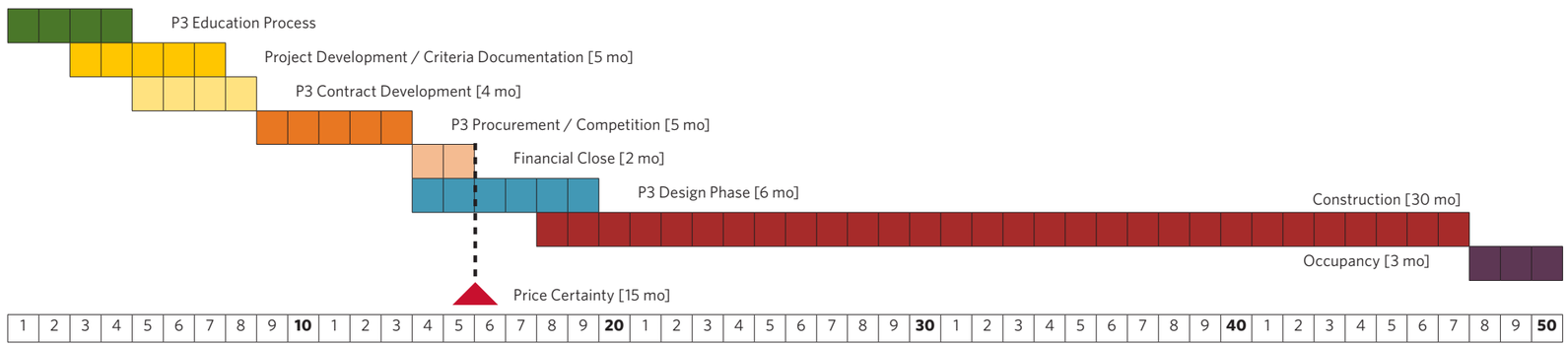
CONSTRUCTION MANAGER AT RISK [CMAR]: 43 MONTHS



DESIGN / BUILD [DB]: 46 MONTHS



PUBLIC PRIVATE PARTNERSHIP [P3]: 50 MONTHS

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NEW HIDALGO COUNTY COURTHOUSE
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300 South 8th Street
McAllen, Texas 78501
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