JOHNSON COUNTY COURTHOUSE

Masterplan Study

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EXECUTIVE SUMMARY

This study assesses current conditions and presents the proposed masterplan renovations of the Johnson County Courthouse. The courthouse has served its original purpose since its construction in 1901. Many renovations have occurred over the years in response to the changing needs of the users, but the historic character has been preserved; the building is a prime example of the Romanesque Revival architectural style and is listed on the National Register of Historic Places.

The assessment included observations of the existing space layouts, structural systems, mechanical, electrical, plumbing and telecommunications (MEPT) systems, security, signage and wayfinding, and site parking and landscaping. A preliminary code analysis was performed and discussed with City officials. Accessibility guidelines were reviewed and compared with the 2018 ADA Audit, and recommendations for historic renovations were reviewed per the Secretary of the Interior's Standards for the Treatment of Historic Properties.

The masterplanning phase commenced by meeting with Johnson County Board of Supervisors and departmental representatives to establish project values and goals. The process continued with a series of meetings, which included stakeholder groups and the design team. The purpose of these meetings was to identify key issues and provide a clear understanding of the space needs and adjacencies confronting each department. A program of spaces was created to catalog the existing and proposed spaces and their respective square footage requirements. The program of spaces informed the development of the conceptual floor plans, which were reviewed and refined at each user group meeting.

The most significant addition to the current program of spaces is a new 1,200sf courtroom, to be located in the southeast corner of the second level. The location of the new courtroom and the relocation of the clerk of courts offices was primarily driven by security concerns; that is, limiting public traffic flow to upper levels of the courthouse. Security will also be enhanced with a deputy's office near the secure entrance and new cameras and card reader door access controls.

Site parking and landscaping plans were developed for review by the Buildings and Grounds stakeholder group. The preferred parking plan increases the site parking capacity from 80 to 95 stalls and incorporates ADA and sheriff's transport vehicle stalls near the west entrance. The symmetrical design of the parking lot complements the courthouse building and provides more efficient parking.

While the proposed plans are specific with the placement of individual spaces, they are diagrammatic and not finished design solutions; it is intended that further stages of schematic design and design development will fine tune and adjust the plans into more thorough and finished plans ready for bidding.

The opinion of probable construction cost presents anticipated costs for each component of the masterplan project. Square footage costs from the two most recent renovation projects have been applied to the total square footages of each phase offering an approximate idea of the economic impact for the project.

Construction phasing is necessary to accomplish the renovations while the building remains occupied. The report describes five phases with a minimum overall construction duration of approximately 2 years.

For the past four months we have had the pleasure of assisting Johnson County with development of conceptual plans for renovations at the Johnson County Courthouse building and grounds. We have worked closely with facilities management and staff, learning about their aspirations and needs. We hope this report provides the information you require to evaluate and implement improvements to the courthouse building and grounds. We commend you for maintaining the historic courthouse as a lasting legacy of Johnson County's architectural and legal heritage.

REPORT OVERVIEW

This Johnson County Courthouse Masterplan Study prepared by the Design Team consists of Four sections. The following is a brief description of the contents within each section:

Section 1 – Overview

Describes the project goals, site location and building history.

Section 2 – Applicable Codes and Standards

Codes and Standards that are currently in effect are identified. Important sections from these documents that inform the recommendations in Section 4 are included.

Section 3 – Facility Analysis

This section analyzes the existing facility and its deficiencies; it includes observations of the existing space layouts, structural systems, mechanical and electrical systems, security, signage and wayfinding, and site parking and landscaping. Floor plan drawings and photos show existing conditions.

Section 4 - Recommendations

Based on the information documented and analyzed, this section provides recommendations for improvements to the Johnson County Courthouse. The identified improvements are considered regarding cost and schedule.

ACKNOWLEDGMENTS

This report was prepared and delivered in August 2021. The participants involved in the completion of this report are as follows.

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Section 1 – Overview

BUILDING HISTORY

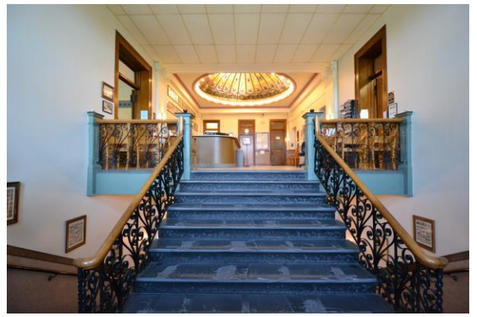
The Johnson County Courthouse is a significant architectural treasure that has been utilized for its originally intended purpose since its construction in 1901. The architect was A. William Rush of Rush, Bowman and Rush from Grand Rapids, Michigan. The architectural style is heavily influenced by the Romanesque Revival style of Henry Hobson Richardson, a prominent 19th century North American architect. The National Register of Historic Places Nomination form, dated July 1, 1974, describes some of the building's most notable features:

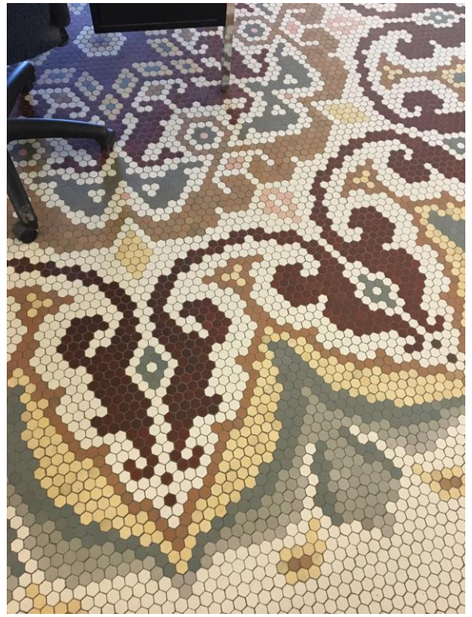
> *The exterior decoration is typical of Romanesque Revival architecture. The exterior surface is finished in rough faced Berea sandstone with large, rusticated lintels above certain windows. Each of the turrets, apses, and dormers is topped with decorative carvings. The tower is richly and finely decorated in carved stone. The exterior entry arch exhibits the most elaborate hand carved stone.*
>
> *Deserving special notice, is the original mosaic tile floor in the halls and public areas of the upper two levels. Also reflecting the Richardsonian influence are the somewhat elaborate plaster capitals found on the same two levels. Early records also speak of frescoes in each room in the courthouse.*

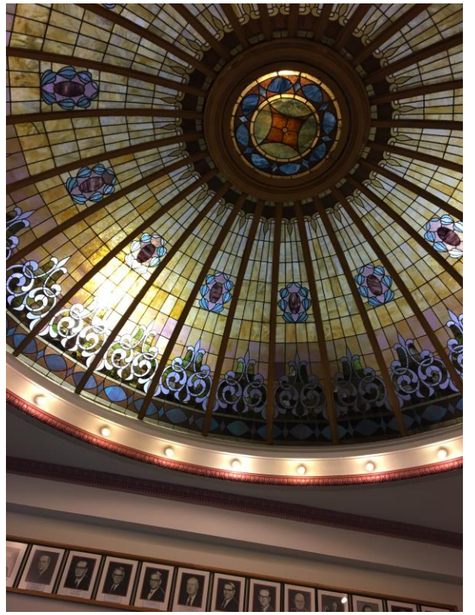
The courthouse interior also features marble wainscoting, decorative glass domed ceilings, and a monumental central stair with slate treads and decorative iron newel posts and railing infill. Windows and doors are trimmed in oak wood and many of the doors feature raised panels with glass transoms above.

Since construction of the building, the surrounding area has experienced significant growth and modification, including new buildings and streets, but the courthouse site has remained largely unchanged. Multiple interior renovation projects over the years have addressed the evolving needs of the users while implementing code requirements related to public health, safety, and welfare. Thankfully, the courthouse building remains relevant to the building users of today, even though overcrowding remains a perpetual issue. The building's legacy was aptly described in an article in the Gazette newspaper on February 1, 2016:

> *At the courthouse's centenary rededication in June 2001. Iowa Supreme Court Chief Justice Louis Lavorato told the crowd in attendance, 'I commend the leaders and citizens of Johnson County for your efforts to preserve this majestic courthouse. By doing so, you have preserved more than an architectural gem; you have preserved a symbol of your legal heritage."*







JOHNSON COUNTY CAMPUS

The Johnson County Courthouse in Iowa City, Iowa is located at 417 S Clinton Street, on the east side of the Iowa River. The site occupies a full city block and is accessed from Clinton St. on the east side of the site. The site includes the courthouse and annex building; the courthouse includes approximately 28,200 square feet of building space and the annex approximately 2,700 square feet. The courthouse is located 1 block from the Johnson County jail and 5 blocks north of the Johnson County government campus, which includes the Administration Building, Department of Human Services, and Ambulance Services. Johnson County Attorney offices currently occupy the fourth floor of the MidWest One office building.

MASTERPLAN GOALS

The goals of the masterplan phase of this project are defined as follows:

- DETERMINE SPACE NEEDS AND ADJACENCIES - how can spaces be relocated or re-designed to create better alignment between their physical environment and programmatic responsibilities
- ACCESSIBILITY – address issues identified in the 2019 Johnson County Courthouse Access Audit
- SECURITY PLAN - develop an overall security plan that addresses key security issues, including security technology, building entry, and separation between the public, staff, and jail inmates
- ENERGY EFFICIENCY – evaluate energy efficiency measures
- AUDIO VISUAL TECHNOLOGY – improve audio-visual technology
- WAYFINDING AND CIRCULATION – improve wayfinding and efficient pedestrian traffic into and within the building
- ANNEX BUILDING – Identify highest and best use
- SITE PARKING STUDY AND LANDSCAPE PLAN
    - relocate handicapped accessible parking to the most appropriate location relative to the accessible building entrance
    - optimize the total number of parking spaces available for Courthouse employees
    - develop a site landscaping plan

Section 2 – Codes and Standards

INTRODUCTION

The following codes and guidelines were referenced for this study. The codes have been adopted by the City of Iowa City and are currently in effect.

- 2018 International Building Code
- 2018 International Existing Building Code
- 2018 International Mechanical Code
- 2018 Uniform Plumbing Code (with State of Iowa amendments)
- 2018 International Fire Code
- 2017 National Electrical Code (with State of Iowa amendments)
- 2012 International Energy Conservation Code (with State of Iowa amendments)
- 2010 ADA Standards for Accessible Design

During the development of concept plans for this enhanced study the design team involved Tim Hennes and Terry Goerdt, from the City of Iowa City Building Inspection Department, to help give guidance and interpretations of applicable codes. This section highlights some of the requirements that are of primary importance to this study. Prior to implementation of any improvements, consultation with the authority having jurisdiction (AHJ) is recommended. It should be noted that the International Codes are typically updated every three years.

INTERNATIONAL BUILDING CODES

Construction Type

The existing building's construction type falls under the definition of type III-B. According to the 2018 IBC commentary:

> *Buildings of type III construction are typically constructed with both combustible and noncombustible materials. The exterior walls are required to be non-combustible with load-bearing exterior walls required to have a minimum 2-hour fire-resistance rating. The elements within the perimeter established by the exterior walls (i.e., floors, roofs, and walls) are permitted to be of combustible materials. An example of a typical building of Type III construction is a structure having its exterior walls constructed of concrete, masonry, or other approved noncombustible materials, but with a wood frame floor, interior walls and roof construction. The structural members of a building of Type III-B construction are not required to have a fire-resistance rating, with the exception of the exterior load-bearing walls.*

The courthouse structure includes masonry exterior bearing walls, wood framed interior walls, and wood roof framing. The types of construction are further subdivided into categories A and B. The designations simply refer to the hourly fire-resistance rating required for the structural elements and are commonly referred to as protected and unprotected. A type A designation will have a higher fire-resistance rating for the structural element then a type B designation.

Occupancy

The IBC defines building occupancy classifications based on the primary purpose of the building and the nature of hazards and risks to occupants. The Courthouse building's occupancy classification includes both Group A (Assembly) and Group B (Business). Assembly occupancies include spaces where large numbers of occupants gather while business occupancies include normal office functions. The occupancies are not changing due to the proposed improvements.

Building Area and Sprinkling

The IBC limits a building's overall size according to the Building Type of Construction and the Building Occupancy Type. Where multiple occupancies are included, the area shall be limited based on the more stringent requirements. Significant increases in allowable square feet are allowed when a building is protected throughout by an automatic sprinkler system. The total allowable area for a non-sprinkled, Type IIIB, A-3 occupancy is 9,500sf, and 14,000sf for Type A. The allowable area increases to 28,500sf for a fully sprinkled building. The three levels of the courthouse include approximately 28,000 gross square feet and would need to be fully sprinkled if the building were constructed today. However, the IEBC allows an exemption when the work area is less than 50% of the overall floor area. The work area is defined as:

> *"that portion or portions of a building consisting of all reconfigured spaces as indicated on the construction documents".*

The total area of planned renovations on all floors of the courthouse building is approximately 11,600sf, or 42% of the overall total building square feet. However, the actual size of each work area will be smaller as the renovations are likely to be constructed in phases.

Communicating Stories

The building code limits the number of stories that can be open to other stories via vertical openings, including stairwells and lobbies. The primary intent is to control smoke airflow stack effect created by stories open to adjacent stories. In new buildings, vertical openings connecting two or more floors shall be enclosed with approved assemblies having a fire-resistance rating of not less than 1 hour with approved opening protectives. All three levels of the existing courthouse are open to each other via the monumental stair on the east side of the building. The west exit stair connects the first and second levels but is enclosed at the third level with a door. Renovation work will need to maintain separation between lobby areas and adjacent spaces on all three levels.

Stair Guards and Handrails

Stairs are essential means of egress in buildings; accordingly, the building code includes provisions for many components of a stairwell, including stair width, stair riser and tread dimensions, and guard and handrail mounting heights, dimensions and extensions. The east and west stairs include numerous components that do not meet the current building code, nor the ADA (See the section below for ADA commentary). However, the existing building code exempts guards and handrails in historic buildings:

> *Stairway railings: grand stairways shall be accepted without complying with the handrail and guard requirements. Existing handrails and guards at all stairways shall be permitted to remain, provided they are not structurally dangerous*

SECRETARY OF THE INTERIOR'S STANDARDS FOR THE TREATMENT OF HISTORIC PROPERTIES

The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings is a key component of the National Historic Preservation Act. The Standards and Guidelines are widely used at the federal, state, and local levels to guide work on historic buildings, and they have been adopted by historic preservation commissions across the nation. The City of Iowa City Historic Preservation Commission Guidelines are based on the National Standards and Guidelines. The purpose of the Standards is to provide guidance to historic building owners and building managers, preservation consultants, architects, contractors, and project reviewers prior to beginning work. The guidelines are intended as an aid in applying the Standards to all types of historic buildings, for both exterior and interior work. They are not meant to give case-specific advice or address exceptions or unusual conditions. The Guidelines include four sections, each focusing on one of the four treatment standards:

Preservation

Is defined as the act or process of applying measures necessary to sustain the form, integrity, and materials of a historic property. Work, including preliminary measures to protect and stabilize the property, generally focuses upon the ongoing maintenance and repair of historic materials and features rather than extensive replacement and new construction. The limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a preservation project.

Rehabilitation

Is defined as the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values. The Rehabilitation Standards acknowledge the need to alter or add to a historic building to meet continuing or new uses while retaining the building's historic character.

Restoration

Is defined as the act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period. The limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a restoration project. The Restoration Standards allow for the depiction of a building at a particular time in its history by preserving materials, features, finishes, and spaces from its period of significance and removing those from other periods.

Reconstruction

Is defined as the act or process of depicting, by means of new construction, the form, features, and detailing of a non-surviving site, landscape, building, structure, or object for the purpose of replicating its appearance at a specific period of time and in its historic location. The Reconstruction Standards establish a limited framework for recreating a vanished or non-surviving building with new materials, primarily for interpretive purposes.

Choosing an Appropriate Treatment for the Historic Building

The Guidelines are intended to promote responsible preservation practices that help protect the nation's irreplaceable cultural resources. For example, they cannot, in and of themselves, be used to make essential decisions about which features of the historic building should be saved and which can be changed. But, once a treatment is selected, the Standards and Guidelines provide a consistent philosophical approach to the work. Choosing the most appropriate treatment for a building requires careful decision making about a building's historical significance, as well as taking into account a number of other considerations:

Level of Significance

National Historic Landmarks, designated for their "exceptional significance in American history", and other properties important for their interpretive value may be candidates for Preservation or Restoration. Rehabilitation, however, is the most commonly used treatment for the majority of historic buildings. Reconstruction has the most limited application because so few resources that are no longer extant can be documented to the degree necessary to accurately recreate the property in a manner that conveys its appearance at a particular point in history.

Physical Condition

Preservation may be appropriate if distinctive materials, features, and spaces are essentially intact and convey the building's historical significance. If the building requires more extensive repair and replacement, or if alterations or a new addition are necessary for a new use, then Rehabilitation is probably the most appropriate treatment.

Proposed Use

Many historic buildings can be adapted for a new use or updated for a continuing use without seriously impacting their historic character. However, it may be very difficult or impossible to convert some special-use properties for new uses without major alterations, resulting in loss of historic character and even integrity.

Code and other Regulations

Regardless of the treatment, regulatory requirements must be addressed. But without a sensitive design approach such work may damage a building's historic materials and negatively impact its character. Therefore, because the ultimate use of the building determines what requirements will have to be met, some potential uses of a historic building may not be appropriate if the necessary modifications would not preserve the building's historic character.

It is the owner's desire that the proposed alterations to the courthouse interior follow the Guidelines and Standards as closely as possible. While significant floor plan modifications are planned for some areas of the building, including code-required accessibility and life safety modifications, the alterations will not radically change, obscure, or destroy character-defining features of the building. Renovated areas will match or complement existing materials and finishes in order to ensure aesthetic continuity and historic integrity.

Photo of Courtroom 3A showing restoration of the space as it is assumed to have appeared in the original building.

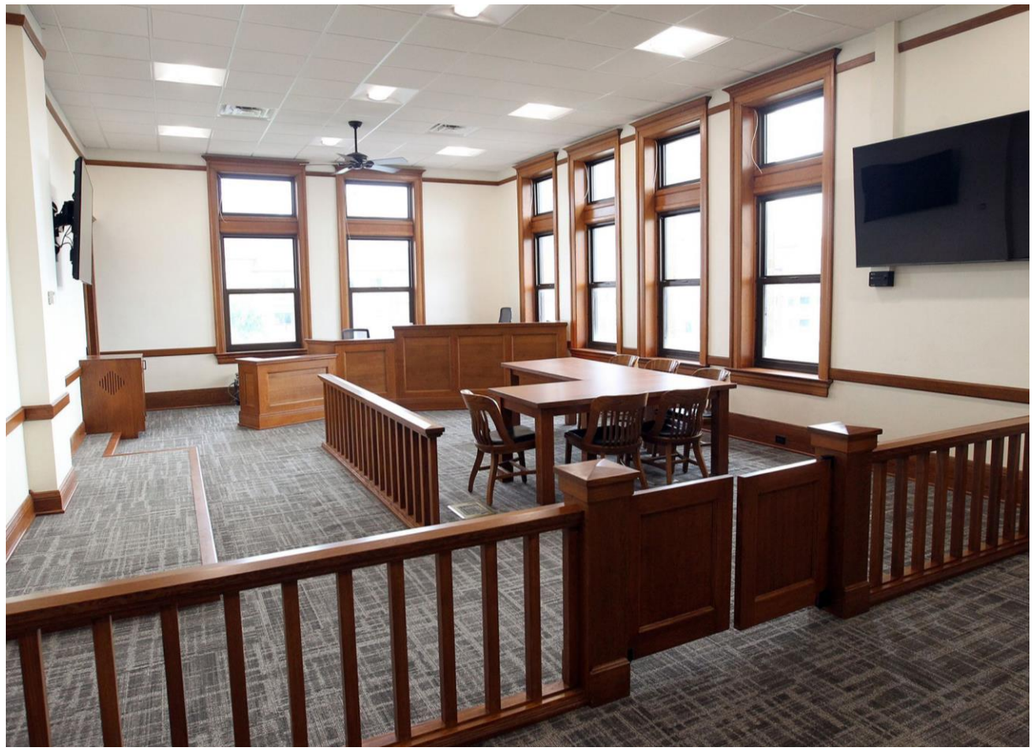


Photo of Courtroom 3B showing rehabilitation of the space with contemporary materials while preserving historic features

2010 ADA STANDARDS FOR ACCESSIBLE DESIGN

The Americans with Disabilities Act (ADA) sets the minimum requirements – both scoping and technical – for newly designed and constructed or altered state and local government facilities, public accommodations, and commercial facilities to be readily accessible to and usable by individuals with disabilities.

The following scoping language from the ADA describes requirements for alterations:

> *Any alteration to a place of public accommodation or a commercial facility, after January 26, 1992, shall be made so as to ensure that, to the maximum extent feasible, the altered portions of the facility are readily accessible to and usable by individuals with disabilities, including individuals who use wheelchairs.*
>
> *Alterations include, but are not limited to, remodeling, renovation, rehabilitation, reconstruction, historic restoration, changes or rearrangement in structural parts or elements, and changes or rearrangement in the plan configuration of walls and full height partitions.*
>
> *The phrase "to the maximum extent feasible", as used in this section, applies to the occasional case where the nature of an existing facility makes it virtually impossible to comply fully with applicable accessibility standards through a planned alteration. In these circumstances, the alteration shall provide the maximum physical accessibility feasible. Any altered features of the facility that can be made accessible shall be made accessible. If providing accessibility in conformance with this section to individuals with certain disabilities (e.g., those who use wheelchairs) would not be feasible, the facility shall be made accessible to persons with other types of disabilities (e.g., those who use crutches, those who have impaired vision or hearing, or those who have other impairments).*

The ADA recognizes that modifications to historic buildings often present significant constraints for accessible compliance. Accordingly, the ADA also includes exceptions when the modification is considered structurally impracticable or when modification costs are deemed disproportionate to the overall alteration costs:

> *If full compliance with this section would be structurally impracticable, compliance with this section is required to the extent that it is not structurally impracticable. In that case, any portion of the facility that can be made accessible shall be made accessible to the extent that it is not structurally impracticable.*
>
> *Alterations made to provide an accessible path of travel to the altered area will be deemed disproportionate to the overall alteration when the cost exceeds 20% of the cost of the alteration to the primary function area.*

The following highlights some of the most pertinent provisions from this document, as they relate to renovations.

§ 35.151 New construction and alterations.

In choosing which accessible elements to provide, priority should be given to those elements that will provide the greatest access, in the following order—

(1) An accessible entrance;

(2) An accessible route to the altered area;

(3) At least one accessible restroom for each sex or a single unisex restroom;

(4) Accessible telephones;

(5) Accessible drinking fountains; and

(6) When possible, additional accessible elements such as parking, storage, and alarms.

The 2010 ADA Standards will guide the proposed renovations. For areas of the building outside of the specific work areas, the 2018 ADA Audit and the Johnson County Transition plan will guide the renovations.

SITE ACCESSIBILITY EVALUATION

Overview

In 2018, a Site Accessibility Evaluation was prepared by the WT Group. The report identifies accessibility barriers throughout the courthouse building, but does not include the annex building. The authors recommended that all barriers identified in the report be removed as soon as possible, according to a phased transition plan; the remaining items are included in the opinion of cost. The WT Group described the phases as follows:

Phase 1:
Should be completed immediately. This category includes findings that have little or no cost, were in violation of the codes at the time of construction or pose an imminent safety threat.

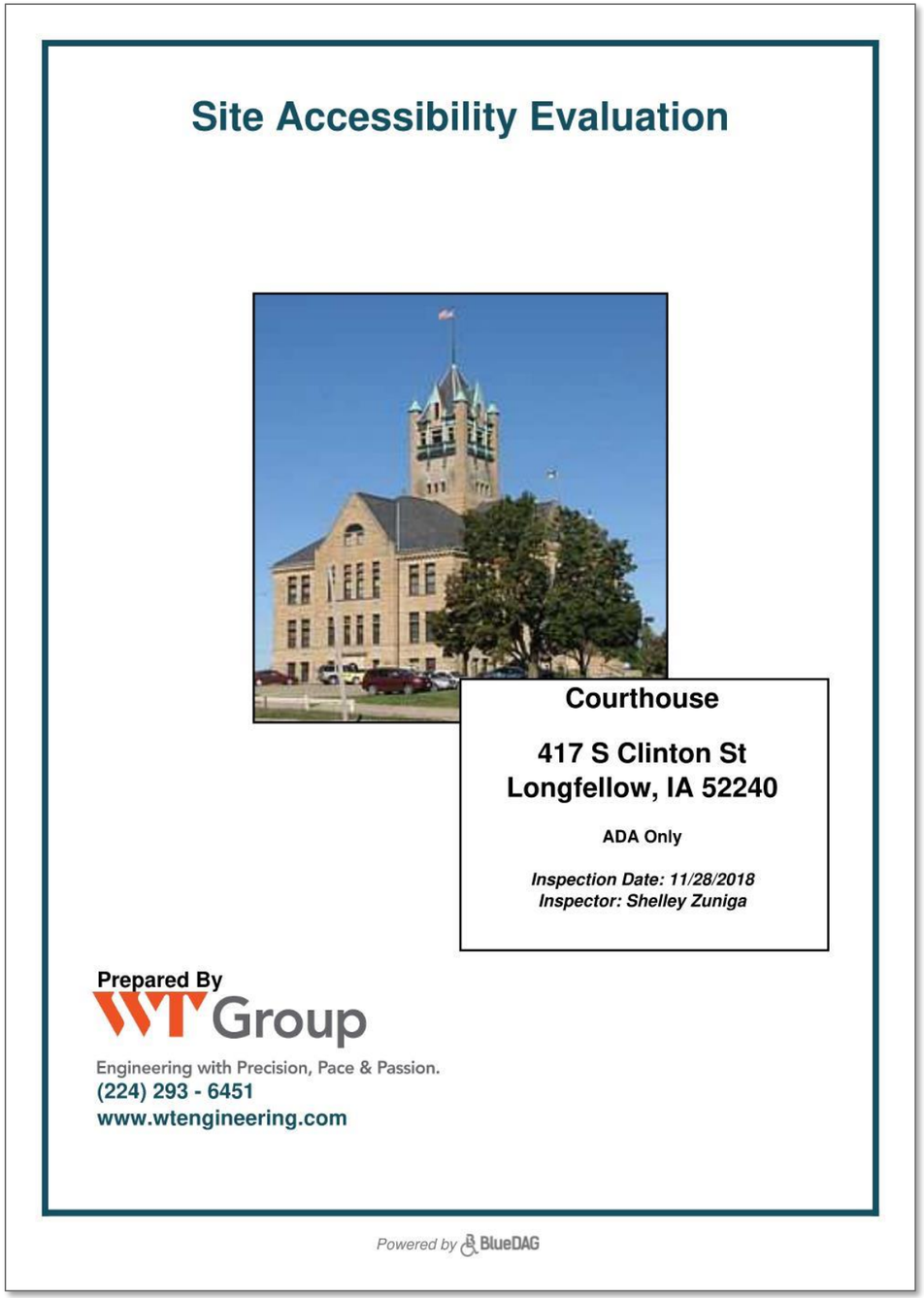
Phase 2:
Should be completed as soon as possible. Includes findings that would remove barriers to the greatest number of people to your services.

Phase 3:
Should be completed as soon as possible, but there may be other items that will provide greater access to persons with disabilities. This category includes findings that have a high financial impact on the entity, are subject to standards not yet final, or involve a partner entity.

Phase 4:
Not necessary to complete, because other sites exist that meet Title II requirements for program access, or retrofit is technically infeasible, or a variance is a construction tolerance.

Phase 5:
(Smart Practice). Should be completed but not necessarily required. This category includes findings and or elements that were in compliance with previous editions of the codes and standards but have since changed. This category also includes techniques or elements that are not a part of the federal or state requirements, but are suggested in advisory language, or have been successfully implemented by other entities. Generally, these items are easily modified to provide the greatest degree of access as well as compliance with the most current codes and standards.

The following pages from the WT Group Site Accessibility Evaluation highlight some of the most common citations from the report. Refer to the 2018 Site Accessibility Evaluation for a thorough description of the findings. We recommend that all accessibility barriers be addressed as soon as possible.



1st Floor IAR

Lat: 41.6560400000, Long: -91.5353200000

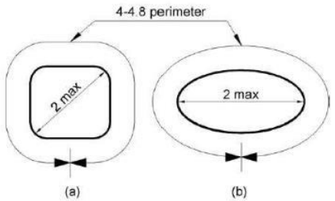
Finding: 17

The handrail gripping diameter is noncompliant.

Handrail gripping surfaces with a circular cross section shall have an outside diameter of 1 1/4 inches minimum and 2 inches maximum. Handrail gripping surfaces with a non-circular cross section shall have a perimeter dimension of 4 inches minimum and 6 1/4 inches maximum, and a cross-section dimension of 2 1/4 inches maximum.

Citation:	As Built:
2010 ADAS Section: 505.7	entry stairway- gripping area too large

Recommendation:
Install handrails on both sides of stairway, mounted 34" to 38" aff with top and bottom extensions and having a 1.25" – 2" in diameter, or a non-circular grip that has a perimeter dimension of 4"- 6.25" max with a min gap of 1.5" between handrail and wall



1st Floor IAR

Lat: 41.6560400000, Long: -91.5353200000

Finding: 19

The inside handrail is not continuous.

Handrails shall be continuous within the full length of each stair flight. Inside handrails on switchback or dogleg stairs shall be continuous between flights.

Citation:	As Built:
2010 ADAS Section: 505.3	front stairway- fail to continue at switchback
1991 ADAS Section: 4.9.4	

Recommendation:
Install handrails on both sides of stairway mounted 34" to 38" aff, with top and bottom extensions. Handrails must be 1.25"-2" in diameter, or a non-circular grip that has a perimeter dimension of 4"-6.25" maximum, with a minimum gap of 1.5" between handrail and wall.

Handrail must be continuous around a switchback.

1st Floor IAR

Lat: 41.6560400000, Long: -91.5353200000

Finding: 22

The stairway only has a handrail on one side.

Stairways must have handrails on both sides.

Handrails and their extensions must be between 34 inches and 38 inches above the stair nosing or ground.
The top handrails shall extend a minimum of 12 inches beyond the top nosing and shall be parallel with the floor or ground surface. At the bottom of a stair flight, handrails shall extend at the slope of the stair flight for a horizontal distance at least equal to one tread depth beyond the last riser nosing. Extension shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent stair flight.

The orientation of at least one handrail, including the extension, shall be in the direction of the run of the stair and perpendicular to the direction of the stair nosing. Handrail gripping surfaces with a circular cross section shall have an outside diameter of 1-1/4 inches minimum and 2 inches maximum. Handrail gripping surfaces with a non-circular cross section shall have a perimeter dimension of 4 inches minimum and 6 1/4 inches maximum, and a cross-section dimension of 2-1/4 inches maximum. The hand grip portion of handrails shall have a smooth surface with no sharp corners. Gripping surfaces (top or sides) shall be uninterrupted by newel posts, other construction elements or obstructions. Any wall or other surface adjacent to the handrail shall be free of sharp or abrasive elements. Handrails projecting from a wall shall have a space of 1-1/2 inches minimum between the wall and the handrail.

Citation:	As Built:
2010 ADAS Section: 505.2	front- lacks on one side only on bottom
1991 ADAS Section: 4.9.4	floor

Recommendation:
Install handrails on both sides of stairway, mounted 34" to 38" aff with top and bottom extensions and having a 1.25" – 2" in diameter, or a non-circular grip that has a perimeter dimension of 4"- 6.25" max

1st Floor County Attorney

Lat: 41.6560900000, Long: -91.5353200000

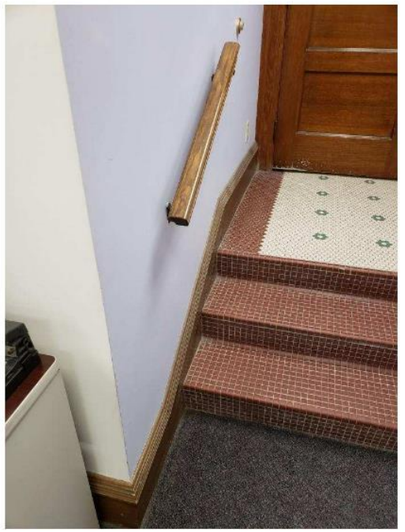
Finding: 29

There is no accessible route between the lobby and the annex

An accessible route of travel must connect all elements and spaces within a building or facility.

Citation:	As Built:
2010 ADAS Section: 206.2.4	county attorney annex- steps into room, inaccessible; steps lack 2nd handrail and no extensions
1991 ADAS Section: 4.1.3	

Recommendation:
No AR to annex level employee area, leave as is, and reassign duties if an employee with disabilities requires access here



1st Floor County Attorney

Lat: 41.6560400000, Long: -91.5353200000

Finding: 57

Hand-activated door opening hardware, handles, pulls, latches, locks, and other operating devices on accessible doors shall have a shape that is easy to grasp with one hand and does not require tight grasping, tight pinching or twisting of the wrist to operate. Hardware shall be 34 inches minimum and 48 inches maximum above the finish floor or ground.

Doors, gates, and side lights adjacent to doors or gates, containing one or more glazing panels that permit viewing through the panels shall have the bottom of at least one glazed panel located 43 inches (1090 mm) maximum above the finish floor.

EXCEPTION: Vision lights with the lowest part more than 66 inches (1675 mm) from the finish floor or ground shall not be required to comply with 404.2.11.

Citation:

2010 ADAS Section: 404.2.3, 404.2.7, 404.2.4, 404.2.11, 404.2.11 Exception

1991 ADAS Section: 4.13.1

As Built:

Double behind reception - knob, 45.75" to window

Recommendation:

Replace hardware with lever hardware or hardware operable without a tight pinch or grasp

For all doors along the public circulation route, replace doors with ones having sidelight viewing windows max 43" aff

1st Floor County Attorney

Lat: 41.6560400000, Long: -91.5353200000

Finding: 69

Minimum maneuvering clearances at doors and gates shall comply with 404.2.4. Maneuvering clearances shall extend the full width of the doorway and the required latch side or hinge side clearance.

Door openings shall provide a clear width of 32 inches (815 mm) minimum. Clear openings of doorways with swinging doors shall be measured between the face of the door and the stop, with the door open 90 degrees. Openings more than 24 inches (610 mm) deep shall provide a clear opening of 36 inches (915 mm) minimum. There shall be no projections into the required clear opening width lower than 34 inches (865 mm) above the finish floor or ground. Projections into the clear opening width between 34 inches (865 mm) and 80 inches (2030 mm) above the finish floor or ground shall not exceed 4 inches (100 mm).

Hand-activated door opening hardware, handles, pulls, latches, locks, and other operating devices on accessible doors shall have a shape that is easy to grasp with one hand and does not require tight grasping, tight pinching or twisting of the wrist to operate. Hardware shall be 34 inches minimum and 48 inches maximum above the finish floor or ground.

Citation:

2010 ADAS Section: 404.2.3, 404.2.7, 404.2.4, 404.2.11, 404.2.11 Exception

1991 ADAS Section: 4.13.1

As Built:

Brittany office - knob, 27" wide, garbage on pull

Recommendation:

For all doors along the public circulation route, provide required maneuvering clearance on push and pull side of doors

For all doors along the public circulation route, replace doors with doors having 80" overhead clearance and 32" clear width

Replace hardware with lever hardware or hardware operable without a tight pinch or grasp

1st Floor

Lat: 41.6560400000, Long: -91.5353200000

Finding: 79

The threshold has a vertical change greater than 1/4 inch high.

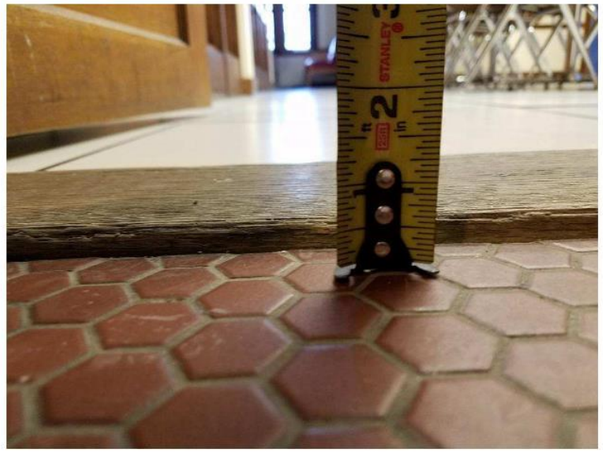
Hand-activated door opening hardware, handles, pulls, latches, locks, and other operating devices on accessible doors shall have a shape that is easy to grasp with one hand and does not require tight grasping, tight pinching or twisting of the wrist to operate. Hardware shall be 34 inches minimum and 48 inches maximum above the finish floor or ground.

Citation:	As Built:
2010 ADAS Section: 404.2.3, 404.2.7, 404.2.4, 404.2.11, 404.2.11 Exception	Lounge - knob, .5" change in level
1991 ADAS Section: 4.13.1	

Recommendation:

For all doors along the public circulation route, repair, bevel, or ramp CILs at door entries to max .25"

For all doors along the public circulation route, replace hardware with lever hardware or hardware operable without a tight pinch or grasp



1st Floor

Lat: 41.6560400000, Long: -91.5353200000

Finding: 80

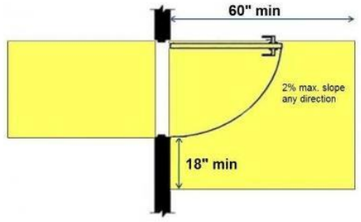
The maneuvering clearance at the door is obstructed.

Maneuvering clearance for interior doors on the pull side with a front approach must be flat (2% max. slope in any direction) for a minimum distance of 60 inches in the direction of travel. The width of the maneuvering clearance must be as wide as the door plus an additional 18 inches on the latch side. This latch side clearance must also be flat (2% max. slope in any direction) and clear of obstructions.

Citation:	As Built:
2010 ADAS Section: 404.2.4.1	Lounge to 1A -storage on pull, table back
1991 ADAS Section: 4.13.6	

Recommendation:

For all doors along the public circulation route, relocate storage, furniture, and other obstacles to create 60" maneuvering space around doors



1st Floor Women's Restroom

Lat: 41.6560400000, Long: -91.5353200000

Finding: 109

Compliant knee space has not been provided under the lavatory.

The knee clearance shall be 11 inches minimum in depth at 9 inches above the floor, and 8 inches minimum in depth at 27 inches above the floor. The top of the lavatory rim may be no higher than 34 inches.

Citation:

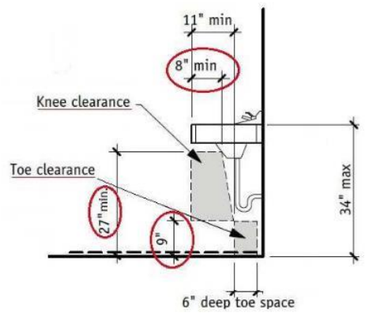
2010 ADAS Section: 306.3.1

1991 ADAS Section: 4.19.2

As Built:

sink apron only 4" deep where it is 27" knee clearance

Recommendation:
Remove under sink apron to provide knee and toe clearances



1st Floor Women's Restroom

Lat: 41.6560400000, Long: -91.5353200000

Finding: 110

The mirror is mounted too high.

Mirrors must have the bottom edge of the reflecting surface a maximum of 40 inches above the floor if above a sink or counter. Mirrors not located above lavatories or countertops shall be installed with the bottom edge of the reflecting surface 35 inches maximum above the finish floor or ground.

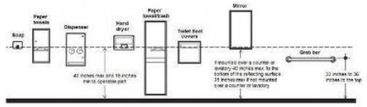
Citation:

2010 ADAS Section: 603.2

As Built:

mirror 42.5", but full length is good

Recommendation:
Leave as is mirror over sink; existing full length available



Courtroom 1A

Lat: 41.6560400000, Long: -91.5353200000

Finding: 125

There is no accessible route to the judges podium.

At least one accessible route shall be provided to accessible facilities, accessible elements, and accessible spaces that are on the same site. The clear width must be a minimum 36 inches.

Citation:

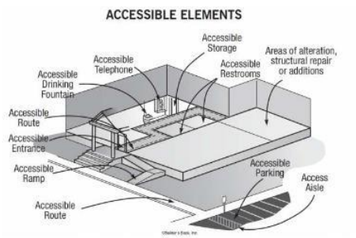
2010 ADAS Section: 206.2.2

1991 ADAS Section: 4.1.3

As Built:

lacks route to judge's stand due to CIL

Recommendation:
Provide a ramp for access to judges podium



2nd Floor IAR

Lat: 41.6560400000, Long: -91.5353200000

Finding: 131

The total number of drinking fountains are not equally divided between those that are accessible to wheelchair users and those that are available to standing persons.

Where more than two are provided, 50 percent of the total number of drinking fountains provided shall be accessible to wheelchair users and 50 percent available to standing persons.

Citation:

2010 ADAS Section: 211.3

As Built:

2nd floor main lobby,
low bowl only

Recommendation:
Replace one fountain to provide 50/50 split between hi and lo bowl fountains

Section 3 – Facility Assessment

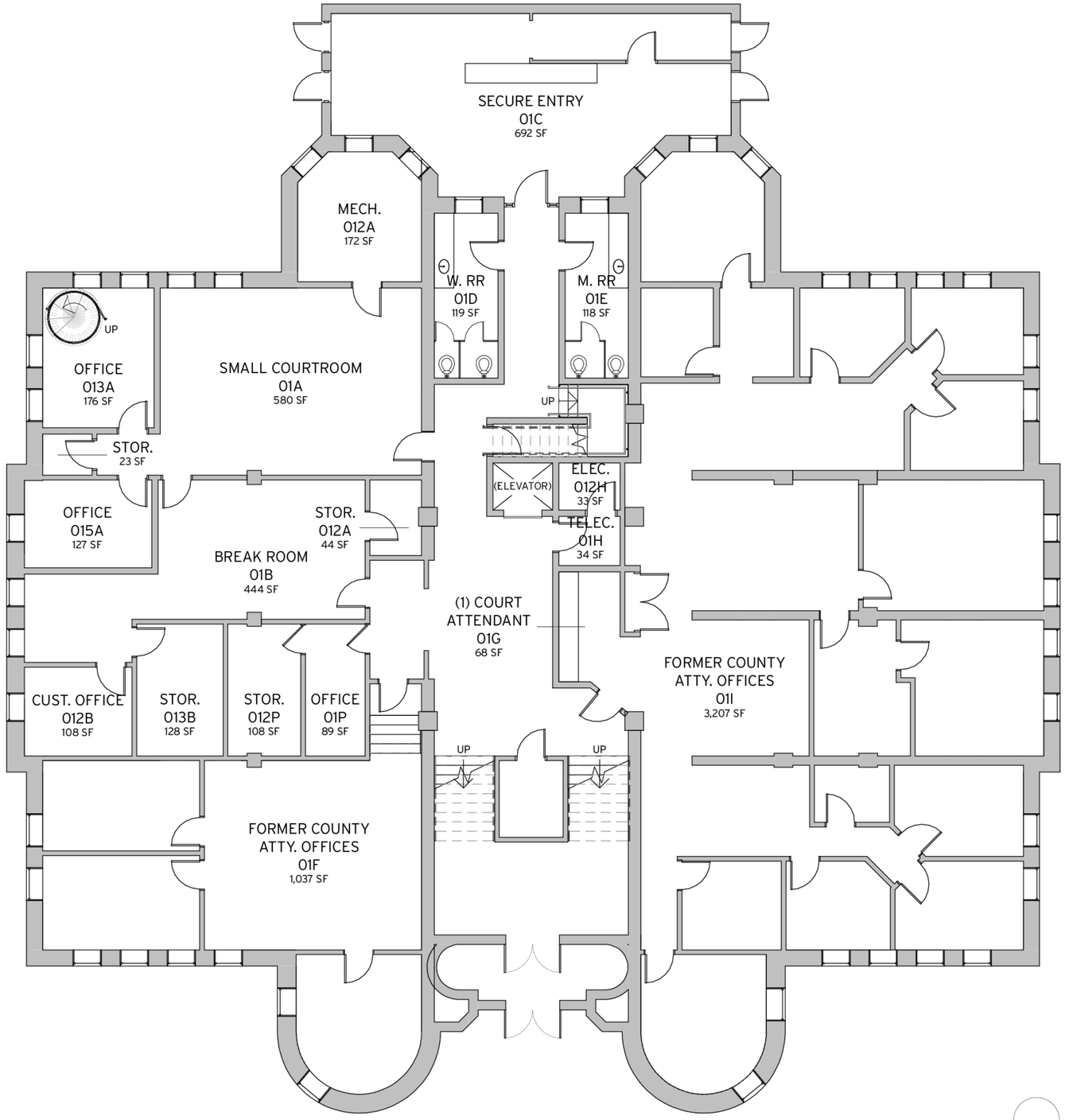
BUILDING OVERVIEW

This section includes observations of the existing space layouts, structural systems, mechanical and electrical systems, security, signage and wayfinding, and site parking and landscaping. Proposed solutions and recommendations follow in Section 4.

LEVEL 1

The building's main security entrance, added in 2015, is located on the west side of the site; all visitors enter through this entrance to be scanned prior to entering the courthouse. The existing programs – which include a small courtroom, break room, as well as office spaces – only occupy the southern portion of this level. An office for the Court Attendant is situated in the lobby, near the main stairs. The northern half of Level 1 currently sits vacant, previously occupied with office for County Attorneys.

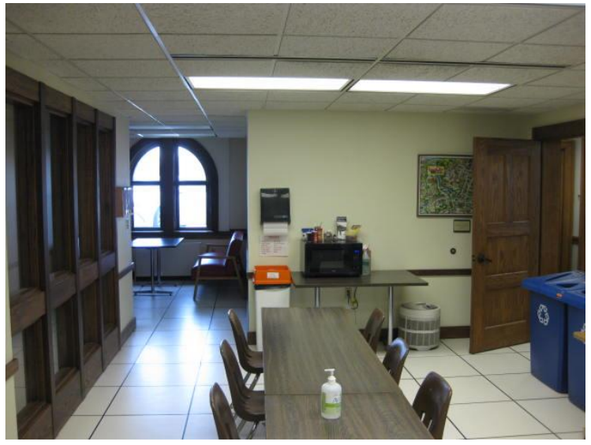
Support spaces for Level 1 include: a mechanical room adjacent to courtroom 1A, custodial office and closet, as well as restrooms. Vertical circulation occurs through the elevator and two stairways, located on the west and east side of the lobby and through a spiral staircase on the southwest corner of the building.



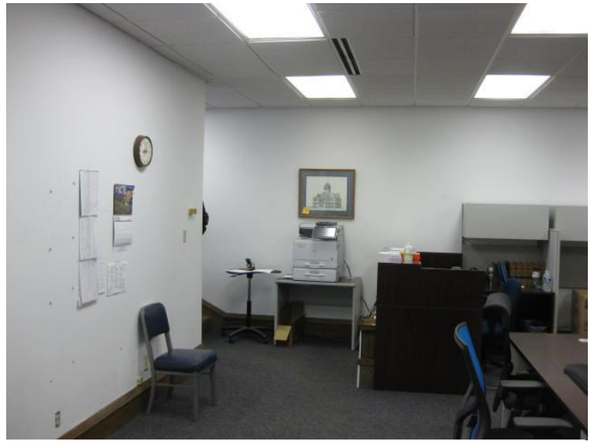
EXISTING FIRST LEVEL FLOOR PLAN

LEVEL 1 IMAGES

Lobby and stairs.



Break room.



Vacant office 01F.

Vacant office suite.

Vacant office suite.

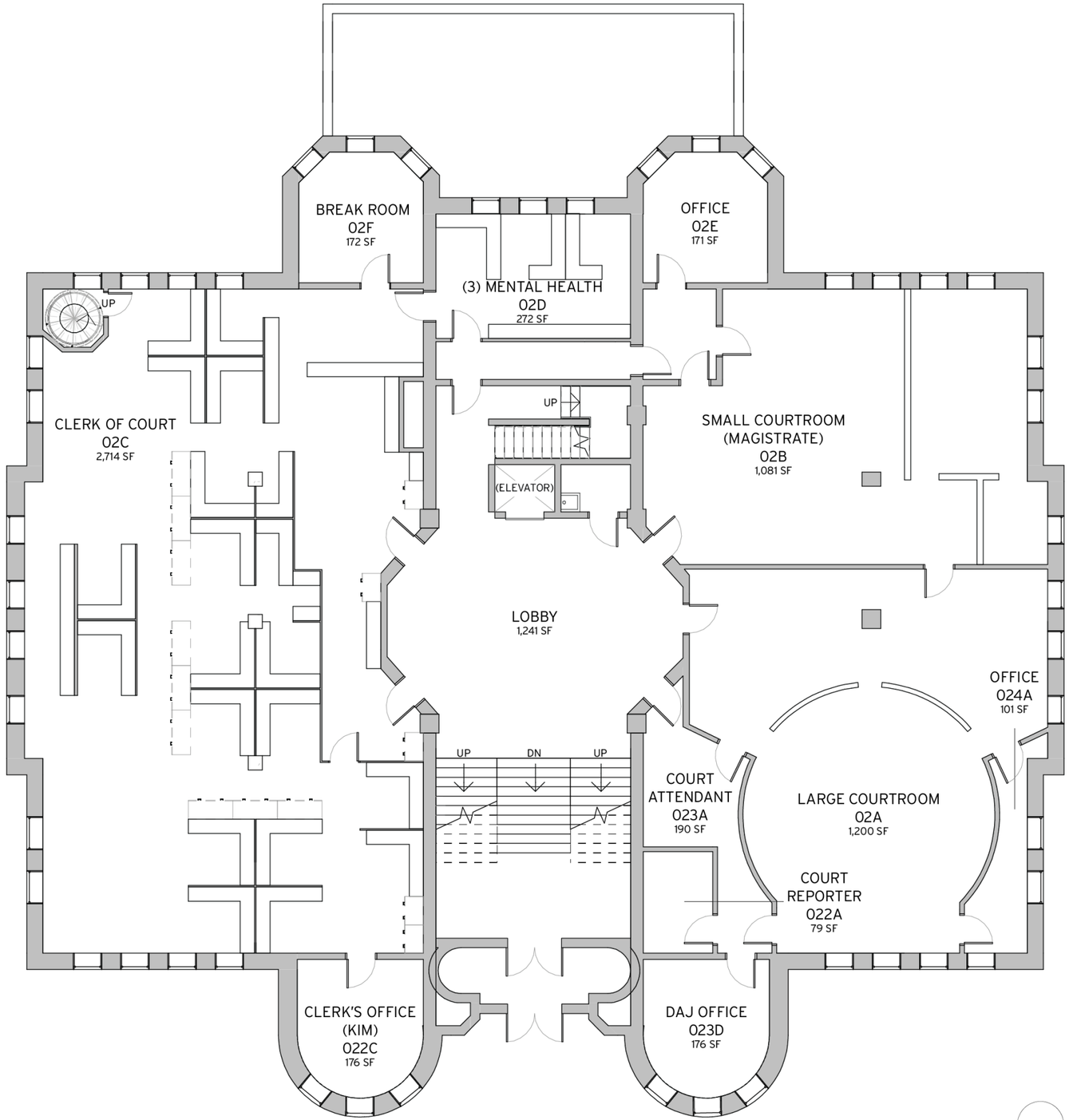
Mech. Rm. 012A

LEVEL 2

The courthouse's second level contains most of the building's primary programs. Located on the southern portion is a 2,700sf open office for the Clerk of Court, accompanied by a private Clerk's office, conference room, and a 270sf space for the Mental Health Department. The northern area includes two courtrooms (2A and 2B), with private offices for Judges, Court Attendants, and Court Reporters.

Similar to Level 1, a custodial closet is located adjacent to the elevator.

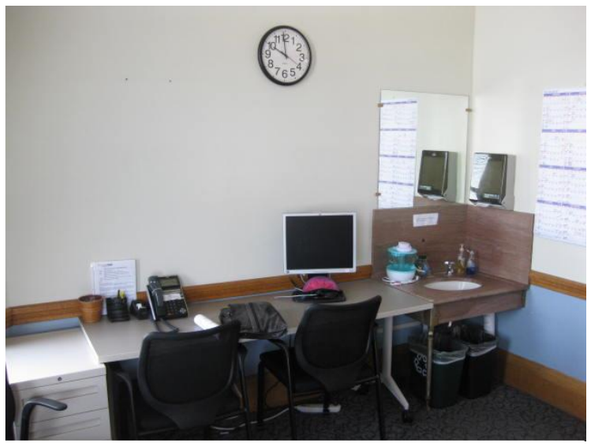
The second level does not currently have restroom facilities.



EXISTING SECOND LEVEL FLOOR PLAN

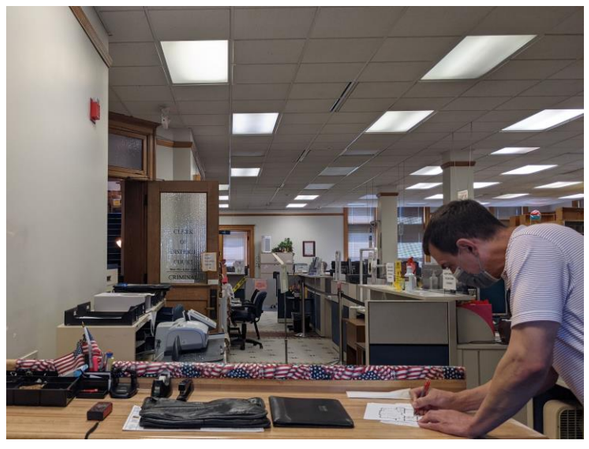
LEVEL 2 IMAGES

Clerk of Courts - SW stair enclosure.



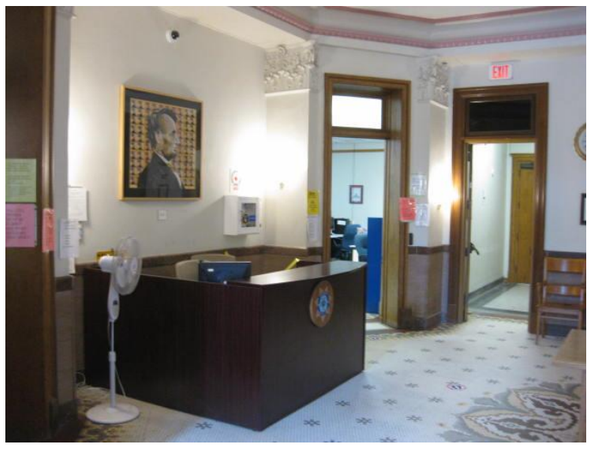
Break / conference room.

Clerk of Courts.



Clerk of Courts.

Lobby.

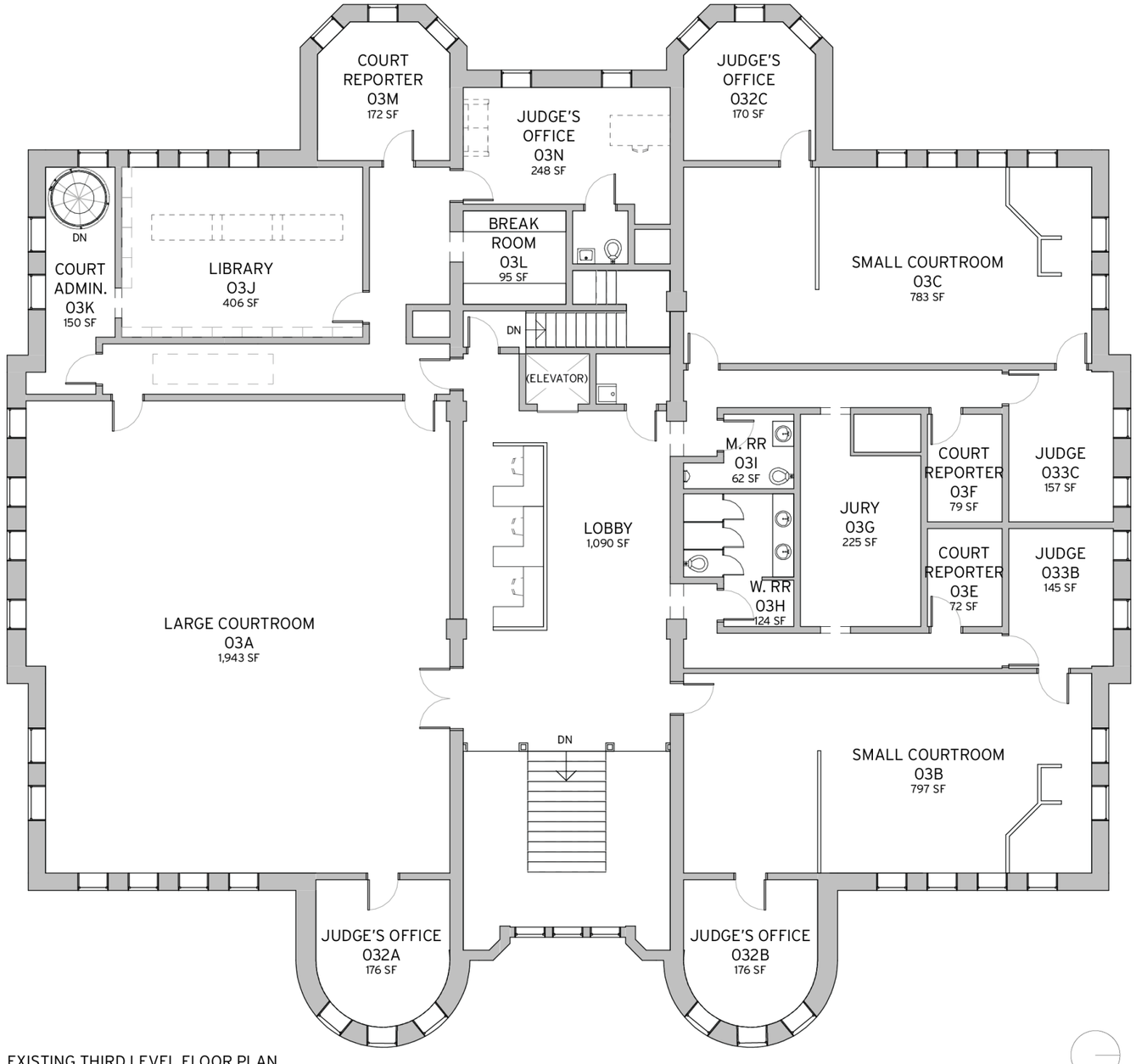


Lobby.

LEVEL 3

Level 3 of the courthouse includes a large courtroom (3A) and two smaller courtrooms (3C and 3B); courtroom 3B was updated and renovated in 2017, and 3C in 2019. Adjacent to the courtrooms are offices for Judges and Court Reporters while three Court Attendants occupy the lobby. The Court Administrator currently occupies the southern office adjacent to the library.

Level 3 also includes a custodial closet, break room, restrooms, and a jury deliberation room.



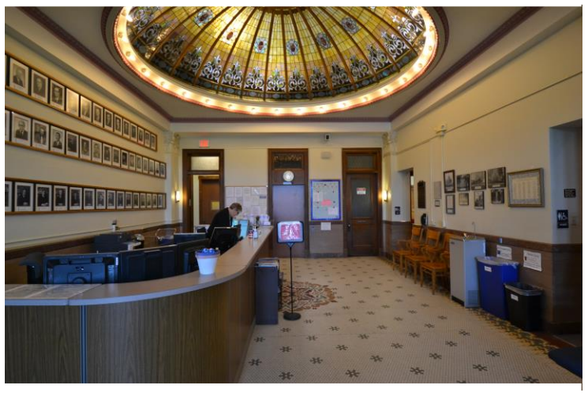
EXISTING THIRD LEVEL FLOOR PLAN

LEVEL 3 IMAGES

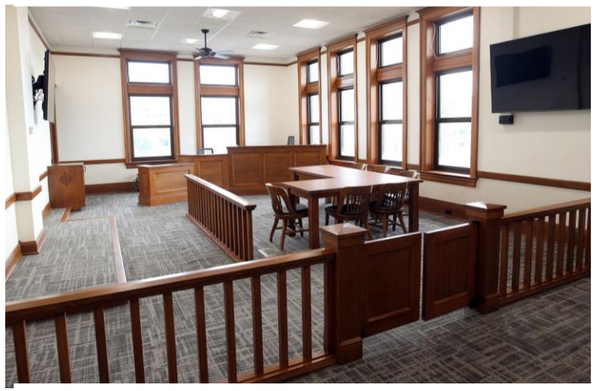
Jury Room.

Courtroom 3C.

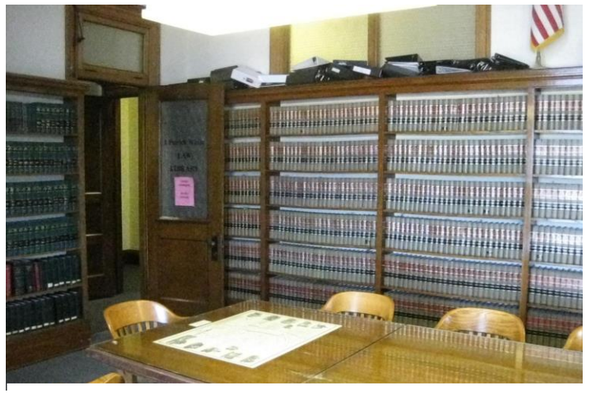
Courtroom 3C.



Lobby.



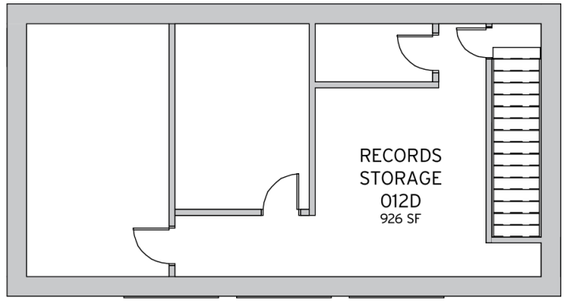
Courtroom 3B.



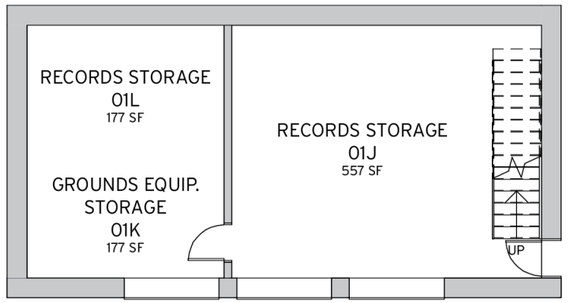
Library.

ANNEX BUILDING

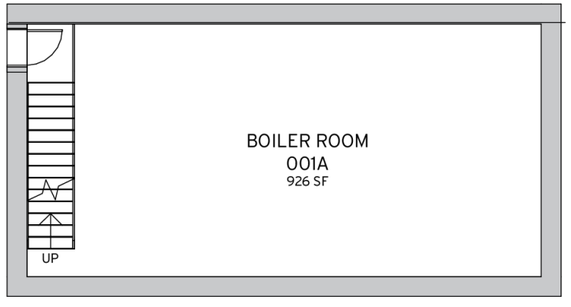
The Annex Building is located on the west side of the Johnson County Courthouse site. Its lower level houses mechanical equipment while the first and second levels are reserved for grounds equipment and record storage.



ANNEX BUILDING - SECOND LEVEL



ANNEX BUILDING - FIRST LEVEL



ANNEX BUILDING - BASEMENT

ANNEX BUILDING IMAGES

Records storage Room 01L.

Second level records storage.

Second level records storage.

Grounds equipment storage Room 01K.

Basement boiler room.

Basement boiler room.

STRUCTURAL

Introduction

Raker Rhodes Engineering observed existing conditions at the Courthouse in June and July 2021. Since structural drawings of the building were not available, the purpose of the preliminary visit was to identify the structural system of the building and to review the feasibility of a renovation to the interior space. Below is a listing of the structural systems that were observed. It should be noted that the building was occupied at the time of the visit and had finishes on most walls and floors. Minimal selective demolition was utilized to gain access to the underside of the 2nd level floor slab.

First Level Load Bearing Walls

It was noted that the 1st floor has a series of brick masonry load-bearing walls. The proposed renovation has locations where existing load-bearing brick masonry walls will be removed to create a more desirable flow-path for employees and the public. Raker Rhodes Engineering is of the opinion that these small door sized openings (4'-0" or less) are possible. It is recommended that a wide flange steel header be provided and bear on the remaining load bearing wall at new opening locations.

Second Level

Floor Structure

The 2nd level floor structure was observed from below. To gain access, acoustic ceiling tile was removed followed by selective demolition of a wire mesh/plaster ceiling. It was observed that the structure appeared to be a series of wide flange shapes encased on all sides except the bottom flange with a lightweight concrete. The encased beams appeared to be spaced approximately 8'-0" to 8'-6" o.c. and were supported by load-bearing brick masonry walls.

The floor structure appears to be a diamond patterned wire mesh supporting approximately 6 inches of concrete, likely cinder concrete. The topmost layer of the concrete, approximately 2 inches thick, appears to be extremely lightweight. Previous renovations of the slab shows the top 2 inches of lightweight concrete being removed by hand. Historically, cinder concrete was commonly used as an economical replacement to stone coarse aggregate; this type of structural system appears to have been used extensively on the east coast around the time that the courthouse was originally constructed.

The diamond shaped wire mesh system acts as a continuous catenary tensile system draped over the floor beams, carrying all loads in tension. The diamond shaped wire mesh was observed from the underside of the 2nd floor and exhibited signs of corrosion. There were locations on the underside of the floor where there was no concrete cover below this diamond mesh.

These findings were confirmed by an April 21, 2017 report from Terracon (Terracon Project No. 06171102) in which Terracon performed a non-destructive exploration of the existing floor composition. In this report, Terracon utilized a ground penetrating radar as well as selective demo to reveal:

- Reinforcing steel was identified with the GPR spanning east-west and spaced every eight feet on-center. Visual observation of the structural system in the floors above as well as direct exploration via hammer drill suggest that the reinforcing is a steel I-beam approximately five inches wide.
- Wood sleepers are visible in the slab spanning north-south at 16 inches on-center. The wood sleepers are nailed into a one-inch-thick wood plank that lies on top of the previously mentioned I-beams.
- Direct exploration confirmed the presence of a diamond mesh reinforcement located at the bottom of the concrete. The concrete slab appears to be approximately 6 inches thick.
- The concrete quality of the floor slab is poor. Hammer drilling exposed a weak material consisting of burned charcoal and a soft powder.

After much research, a 1918 design guide from the North Western Expanded Metal Company (Chicago, IL) was located. This design guide provides loading capacities of similar floor systems utilizing a diamond shape steel mesh. After review, it does not appear that the existing diamond shape steel mesh floor can accommodate the heavier loading of heavy stacks of paper, shelving, or storage. The available capacity is further reduced with the exposed corrosion of the steel mesh.

This building has been load-tested for many years. It is our understanding that the weight on the 2nd floor will likely be reduced with the proposed renovation. Raker Rhodes agrees with this approach and is of the opinion that reducing the weight on the elevated floor slab is recommended. Monitoring the steel mesh for signs of further deterioration as well as any new cracking/distress in the floor covering is recommended. It was noted in the existing clerk of courts space that heavily loaded shelving had been utilized in the past on the south side of the second floor. It was noted that in the southwest corner, the floor is currently sagging over two inches; this is indicative of a slab that is no longer performing as designed and should be further investigated in depth and repaired/replaced as needed. A replacement option could be similar to the May 2017 renovation of the 3rd floor structure described below.

Third Level

Floor Structure
Because of the minor amount of renovation work proposed for the 3rd floor, this structure was not observed but is likely of similar construction to that of the 2nd floor. This is based on the same April 21, 2017 Terracon report where the tested floor was from courtroom 3B on the third floor.
Around May 2017, it is our understanding that a renovation occurred on the third floor and a portion of this floor was replaced. This understanding is based on structural drawings from Select Structural dated 5/4/2017. With this floor replacement, an approximate 40' – 0" x 20' – 6" portion of the existing third floor was modified. Existing girders remained, but the wire mesh supported cast-in-place concrete floor was replaced by a series of 8" steel open web joists at 16" o.c.

Roof Structure

The existing roof is a steeply pitched series of gables framed with a series of wide flange shapes and steel double angle trusses. The double angle trusses appear to consist of 1 / 4" thick equal leg angles that are 2 1 / 2" – 3" long and are supported on bearing walls, columns and beams. Besides supporting the ceiling, these angle trusses also appear to support a few smaller mechanical units.

The proposed renovation has locations where new mechanical units are proposed to be installed in the attic. Raker Rhodes Engineering is of the opinion that small, lightweight units may be added with the existing framing. Large air-handler type of equipment is likely too large to fit into the space and significant framing will need to be added to accommodate the weight of these units.

Conclusion

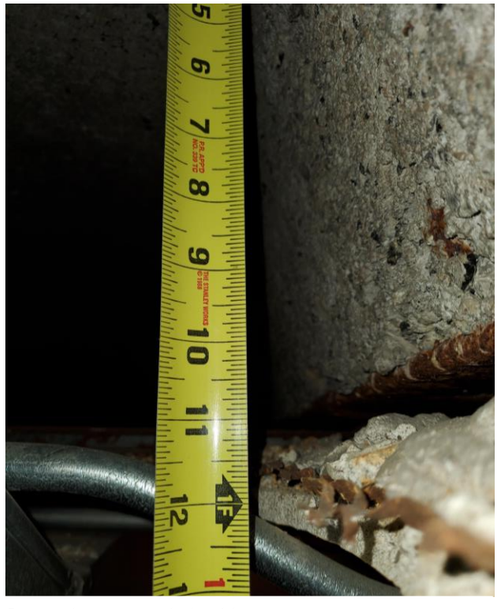
The evaluation of this structure is based on non-destructive observations of the structure. This report does not express or imply any warranty of the structure and only addresses the conditions of that portion which was readily accessible and observable at the time of the review. This report does provide opinions and recommendations based on structural engineering judgment using available information.

STRUCTURAL IMAGES

Wire mesh and plaster ceiling.

Wire mesh and plaster ceiling.

Wire mesh in concrete slab.

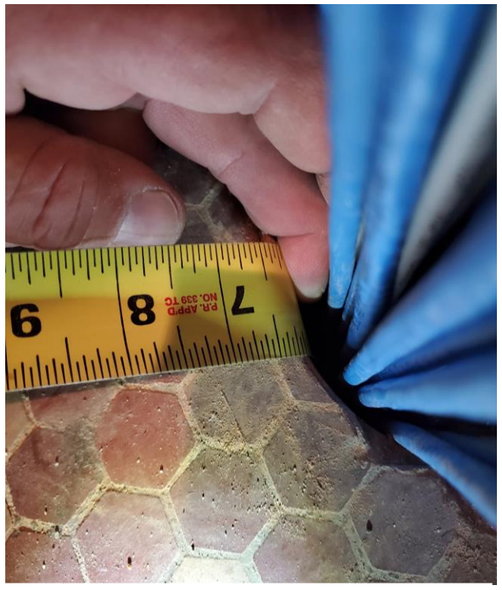


Concrete encased steel beam.

Ceiling plenum space and plaster ceiling.

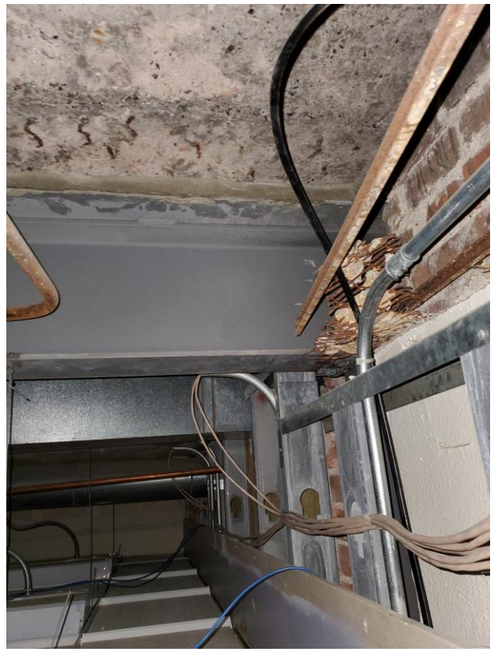
Ductwork penetration through masonry wall.

Steel beam penetration through masonry wall.



Telecom cables through floor.

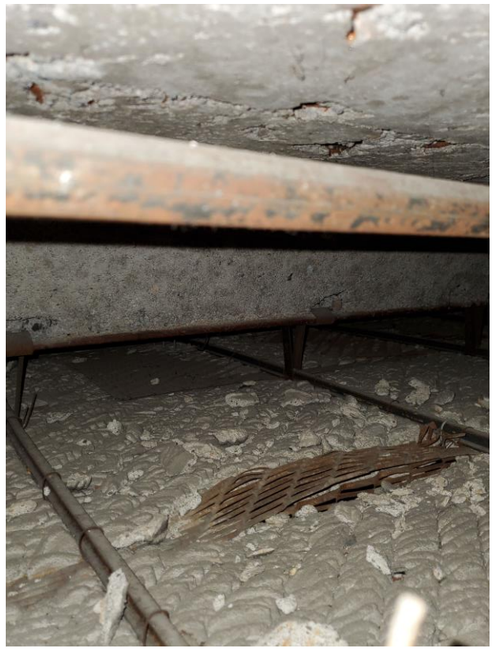
Structural Images



Framing and floor underneath second level.

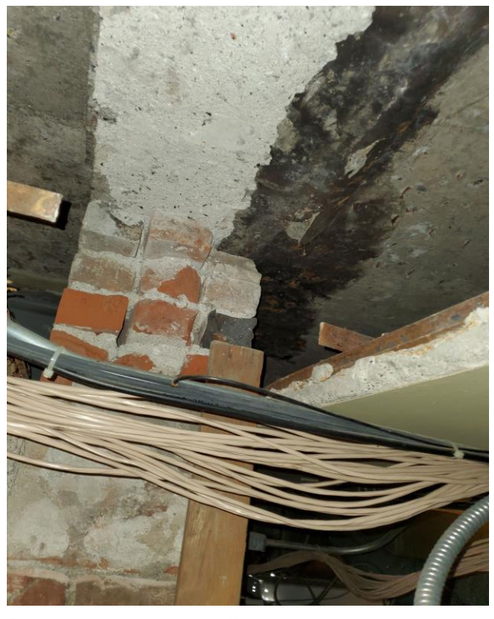
Ceiling plenum underneath second level.

Beam intersecting wall and plaster ceiling.

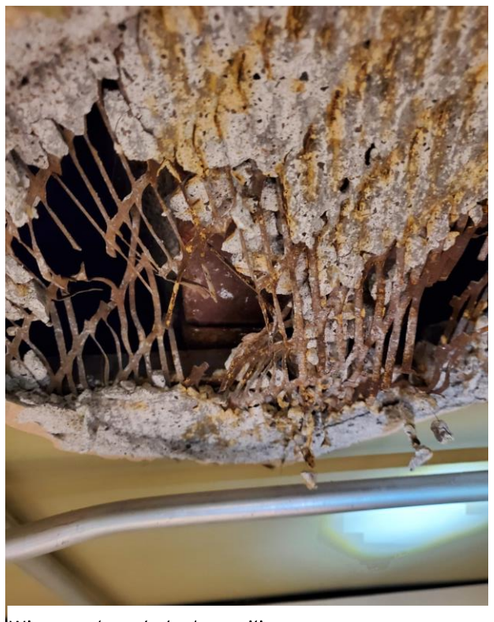


Floor slab above and plaster ceiling below.

Plaster ceiling intersecting masonry wall.



Opening in masonry wall.



Wire mesh and plaster ceiling.

Duct penetration through wall above ceiling.

Structural Images

Glass dome above lobby in attic.

Glass dome enclosure above courtroom 3A.

Ductwork in attic.

Roof framing.

Roof framing.

Ductwork in attic.

MEPT

The purpose of this study is to evaluate the existing mechanical and electrical systems in the Johnson County Courthouse. This information will assist the county with planning for future remodeling and facility upgrades.

Fire Suppression

The building is not currently protected by a fire suppression system.

Plumbing

The existing plumbing piping is cast iron for sanitary and copper for domestic water. The age of the piping is unknown, but due to the age of the building it is assumed not to be original.

The water service entrance is in the annex basement and is 1 inch. Water is delivered to the courthouse to the annex underground, along with HVAC piping.

Observed plumbing fixtures are as follows:

- Tank-type water closets.
- Manual faucets on sinks and lavatories.
- Flush-value urinals.
- A janitor sink on each floor.

One water heater serves all the domestic hot water needs. Per maintenance staff, the water heater is seven gallons and electric. It is located above the first-floor women's restroom.

HVAC

The existing HVAC system is primarily a four-pipe chilled water and hot water system. These systems were mostly installed in the late 1980's based on existing plans.

The system is served by central components located in the annex basement.

- Two hot water boilers, high efficiency, installed in 2014.
- An air-cooled chiller with a remote evaporator, installed in 2019.
- Pumping systems are constant volume.

Indoor systems served by the central plant are as follows:

- Two central air handling units are located in the attic. VAV boxes serve interior spaces.
- Four-pipe coil units (FCUs) are located around the perimeter rooms. The FCUs are currently in the process of being replaced.

In addition to the central plant, some other areas are served with different systems.

- Two small cooling-only air handlers are installed in the attic to serve courtroom 3B and the adjoining judge's chamber and jury room. Cooling is provided by air-cooled condensing units located in the attic.
- The security addition on the west side of the building is served by a gas furnace and condensing unit.

The natural gas service is located in the annex basement to serve the boilers. A separate line was extended to the furnace inside the courthouse.

Temperature controls are primarily a pneumatic control system with the air compressor located in the annex basement. There is one Johnson Controls panel located in a first-floor storage room. This panel serves fan coil units in the area.

There are numerous functionality and space conditioning issues:

- Staff have reported temperature control issues in multiple locations.
- The lobbies on 2nd and 3rd floors are not served by any system.

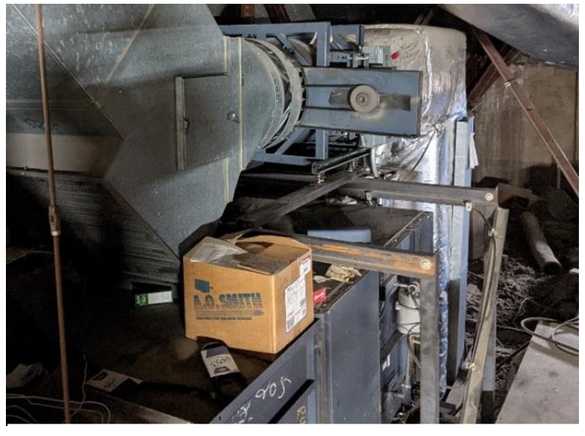
MEPT IMAGES

Existing chiller and annex transformer.

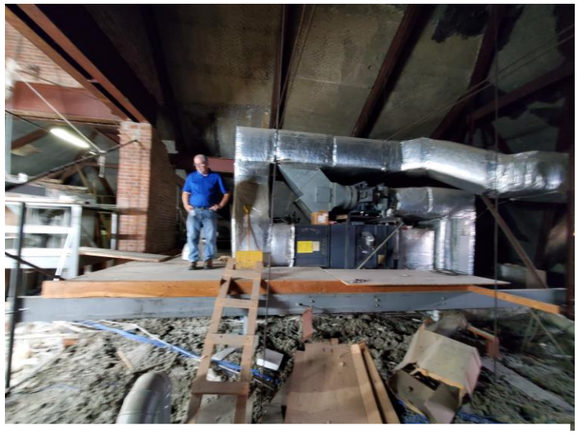
Boilers in annex.

Chilled and heating water pumps.

South air handler in attic.



North air handler in attic.



North air handler and ductwork in attic.

ELECTRICAL

The courthouse and annex are served by separate electrical services. The electrical services appear to have been upgraded during the late 1980's based on existing plans.

Each building has a main distribution panel. The panels appear to be adequately sized but are obsolete. New breakers and components are available.

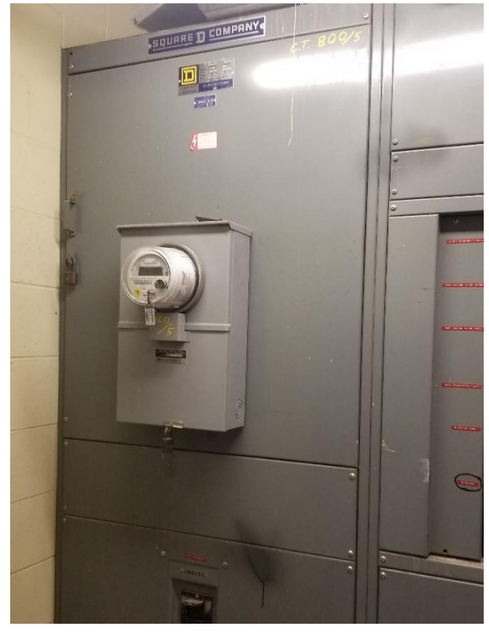
The courthouse electrical distribution system has one or two panels per floor. Most of these panels are full and obsolete. The existing distribution system is inadequate to serve all the electrical needs for the building. Many of the panels do not have the code-required clearances for servicing.

Lighting is almost entirely fluorescent lamps and electronic ballasts. LED fixtures have been installed in courtroom 3B. No lighting control system is installed.

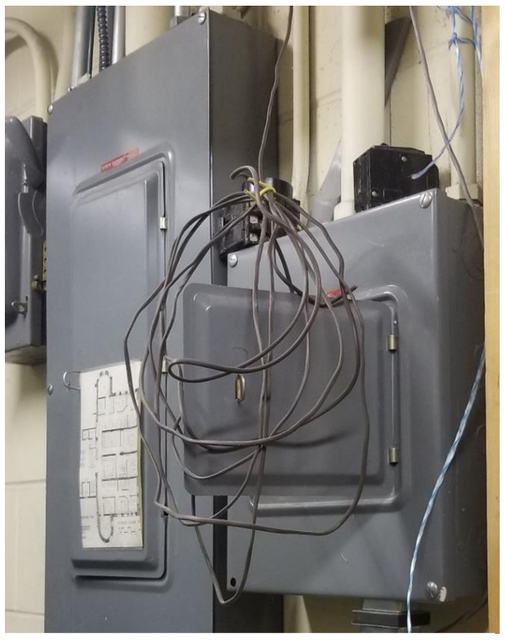
Emergency lighting is provided with batteries located in individual fixtures or with separate emergency fixtures.

Site lighting is provided with a few pole lights around the building and wall-mounted fixtures on the security addition.

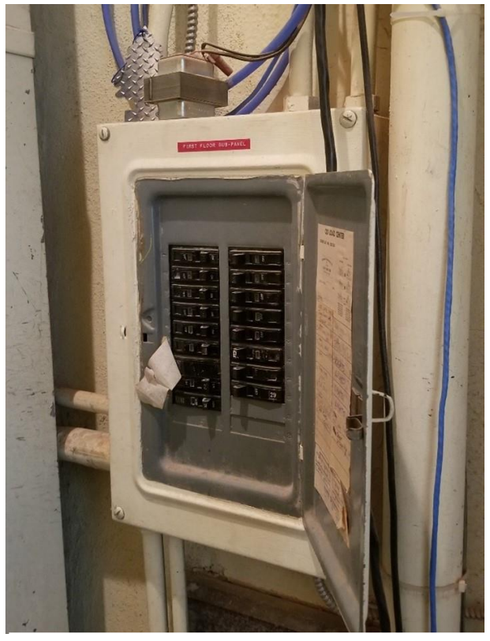
Main distribution panel.



Main distribution panel.



Electrical panel.



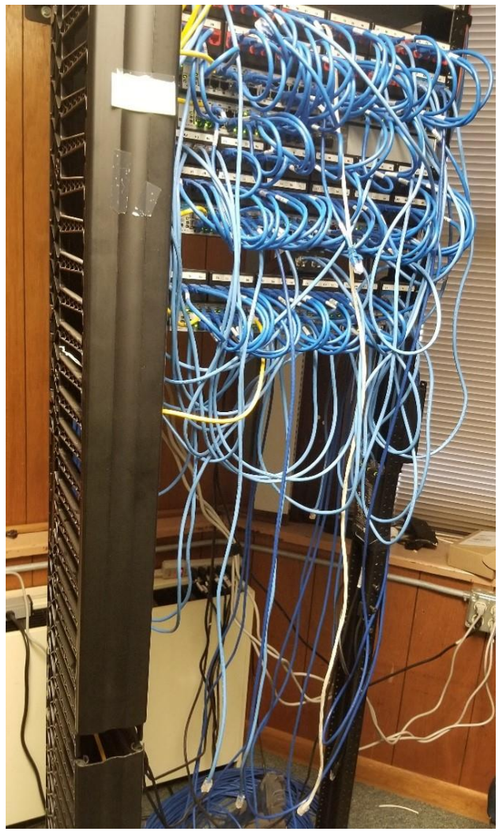
Electrical panel.

TELECOMMUNICATIONS

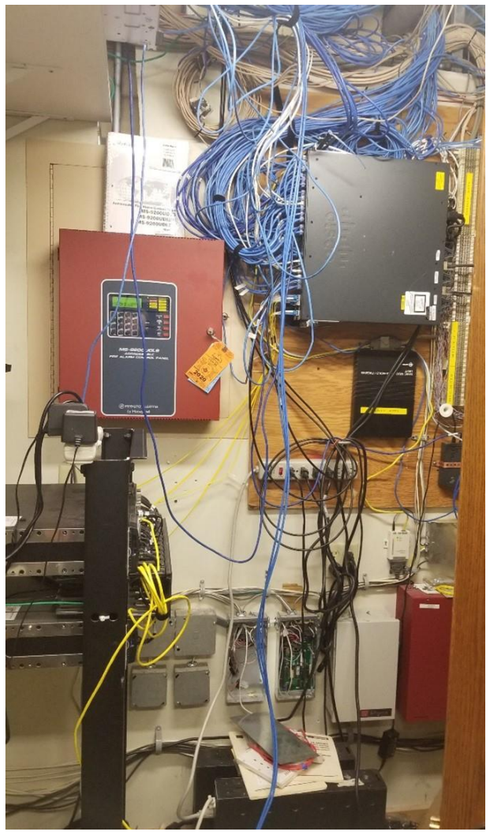
The building has two telecommunication rooms on the first floor. The north room is adjacent to the main electrical room and provides space for the county systems (phone system, service entrances, security system, and the main fire alarm panel). A room adjacent to courtroom 1A has a single rack for the state system. Neither room is adequate for the telecommunications systems.

The fire alarm system is extended throughout the building.

The security system provides access control to some doors and camera coverage inside and outside the courthouse. Overall camera coverage is deficient per the Johnson County Sheriff's Office.



Telecom rack.



Telecom control panels.

SITE

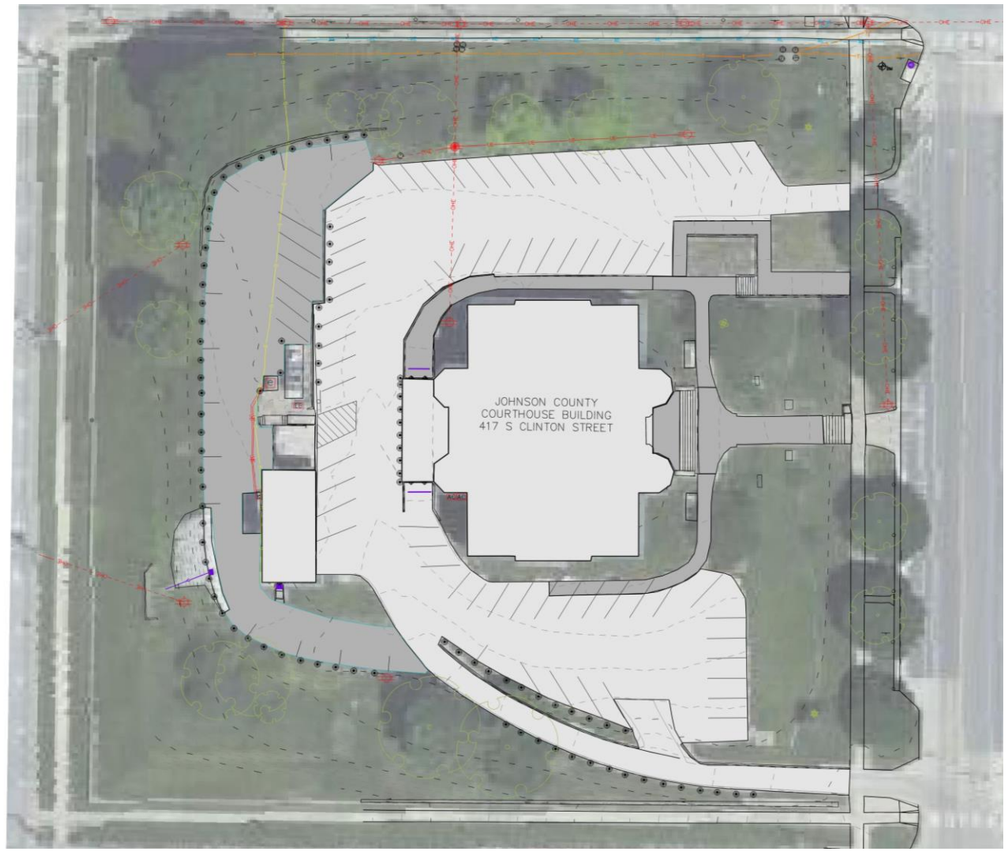
The courthouse site includes the entire block between South Clinton Street and South Capitol Street on the east and west, and Court Street and Harrison Street on the north and south. The site is encompassed on the south and west by retaining walls along the property line / street right-of-way (R.O.W.). There is 38 feet of elevation change from below the retaining wall at the lowest corner of the site to the courthouse building, which sits at the apex of the hill. The extent of the slopes up to the courthouse and accompanying annex building, which houses the mechanical equipment for the courthouse, limit the amount of flat usable space around the courthouse.

Parking for automobiles was created around the courthouse and garage building more than 50 years ago and in its current configuration accommodates 80 parking stalls. A few areas of the parking lot are tight and can be difficult to navigate as they do not meet City parking standards for stall depth and/or aisle width adjacent to the stall. There is not currently a code compliant fire lane to and around the buildings. The majority of the parking stalls are 60-degree angled stalls on concrete paving around the courthouse building. There are also approximately 15 parallel stalls on asphalt paving around the garage building. Traffic flow is one-way through the site from the NE drive off Clinton Street to the exit drive located at the SE corner of the site which connects back to Clinton Street.

An accessible ramp project was completed in 2017 to bring the site into ADA compliance. Although handicap stalls had been painted out on the parking lot near the accessible entrance at the rear of the building there had never been an accessible path to the street sidewalk to provide access to the public, jurors, and other staff that do not park on the courthouse site. The steps and walk, in the original layout, from the east door to the street are in good condition with only minor maintenance issues, but the handrails on the steps at the street need to be modified or replaced to meet ADA standards. There are no other sidewalk connections to the public sidewalks.

The courthouse staff currently has a wait list for available parking spaces at the building. Currently, staff park in the neighboring City-owned parking lot and on the surrounding streets. Only 12 stalls have been shared in the City's gated lot across Harrison Street for courthouse staff. All visitors and jurors are also regulated to on-street parking only. It is currently estimated that an additional 20 to 30 parking stalls on site could be immediately utilized.

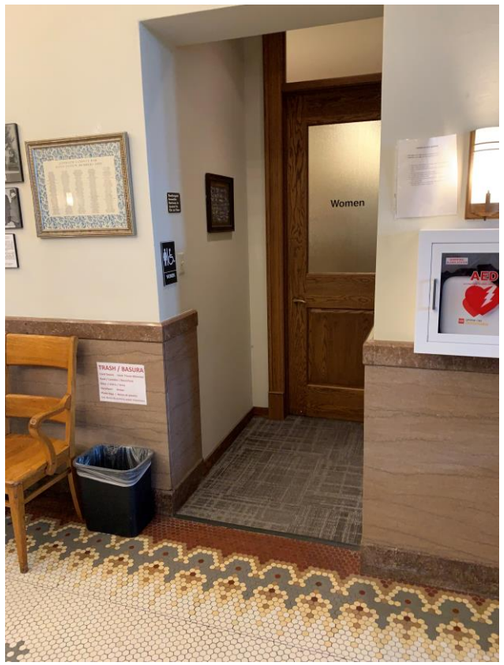
Site landscaping is well maintained around the building and at the front lawn toward Clinton Street, including both perennial shrub beds and annual flower beds. The steep slopes on the north, west and south sides are generally well maintained, however the steepest areas are left unmown.



SIGNAGE AND WAYFINDING

A signage audit of the current Johnson County Courthouse was completed to review the existing conditions as it relates to signage and wayfinding. Below are the observations and photos taken during a site visit with ASI.

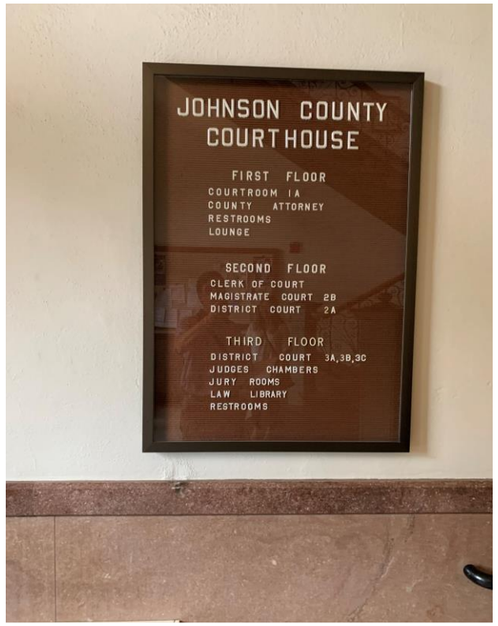
- The current facility has little and/or outdated ADA signage throughout the facility. The ADA signage in place is outdated and inconsistent throughout the facility.
- Wayfinding is very minimal and inconsistent. There is a large poster-sized, directional wall sign once users pass through the secured entrance on the west side, but very limited wayfinding once inside the facility.
- There are many temporary paper signs taped all over the facility. ASI believes this creates visual noise and clutter.
- The east exterior entrance is no longer open to the public due to inaccessibility from an ADA perspective. Additionally, this area only has the original etched lettering above the doors – there is no main ID that identifies the Courthouse.



Restroom signage at lobby.

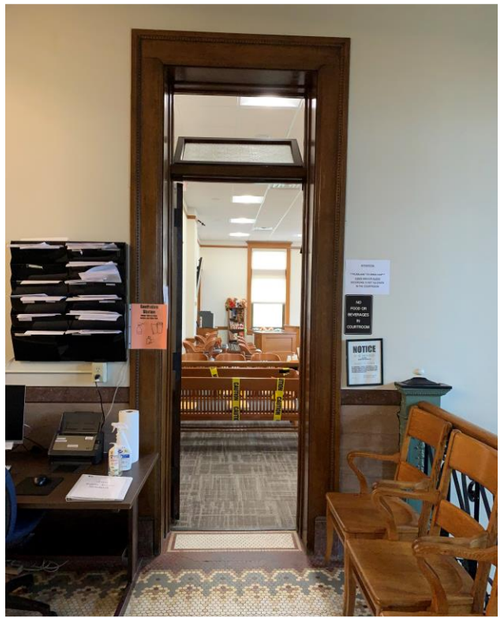
Pedestal sign at former east entry.

Plastic signage on wall.



Directional wall sign.

Paper signage on door at courtroom 1A.



Paper signage at door to courtroom 3B.

Section 4 - Recommendations

SUMMARY

This section includes proposed improvements to the space layouts, mechanical and electrical systems, security, signage and wayfinding, and site parking and landscaping.

The masterplanning process began with a series of meetings with stakeholder groups and design team members: the groups included Courts, with County Attorney and Clerk of Courts, Sheriff and Jail, Facilities, and Buildings and Grounds. The purpose of the meetings was to identify key issues and provide a clear understanding of the space needs and adjacencies confronting each department. A program of spaces (following pages) was created to catalog the existing and proposed spaces and their respective square footage requirements. The program of spaces informed the development of the conceptual floor plans, which were reviewed and refined at each user group meeting. While the proposed plans are specific with the placement of individual spaces, they are not meant as finished design solutions; It is intended that further stages of schematic design and design development will fine tune and adjust the plans into more thorough and finished plans ready for bidding. Similarly, the proposed solutions for mechanical and electrical, security, wayfinding and signage, and site parking and landscaping will be developed in the next phases.

PROGRAM OF SPACES

The following program of spaces lists the existing and proposed spaces for each department within the courthouse. Line items in black text and gray background represent existing spaces, while items in blue text with white background represent requested spaces. Room numbers correspond with the room tags on the existing plans (see Section 3 – Facility Assessment).

1.00 Courts

Room #	Program Area	QTY	NSF	Total NSF	Remarks
	DEPARTMENT ADMINISTRATION			**3,252**	
032A, 032B, 032C	Private Office, District Court Judges	3	175	525	
03N	Shared Office, District Court Judges	1	248	248	
022D, 033B	Private Office, District Associate Judge	2	176	352	currently on 2rd floor east
033C	Shared Office, District Associate Judge	1	157	157	currently on 3rd floor north
02E	Private Office	1	171	171	currently on 3rd floor west
013A	Private Office	1	176	176	used as general office space for courtroom 1A
015A	Private Office	1	127	127	used as general office space for courtroom 1A
022E	Private Office	1	101	101	used as general office space for courtroom 2A
03K	Private Office, Scheduler	1	150	150	prefer a regular sized office
01G	Court Attendant	1	68	68	3 with district court and 1 with DAJ; work directly with the public
023A	Court Attendant	1	190	190	
3rd floor lobby	Court Attendants	1	108	108	Sized for 3 attendants.
022A, 03E, 03F	Court Reporter	3	79	237	
03M	Court Reporter	1	172	172	
	Court Attendant office	1	64	120	adjacent to courtroom 1A
	Private Office, District Court Judge	2	175	350	currently do not have dedicated offices
	COURTROOMS			**7,584**	
01A	Courtroom 1A	1	580	580	
02A	Courtroom 2A	1	1,200	1,200	
02B	Courtroom 2B	1	1,081	1,081	Magistrate
03A	Courtroom 3A	1	1,943	1,943	
03B	Courtroom 3B	1	797	797	
03C	Courtroom 3C	1	783	783	
	Courtroom - additional	1	1,200	1,200	additional courtroom
	CONFERENCING			**1,175**	
03J	Library	1	406	406	Currently used as an office or meeting space, and seldomly as a library. Houses the media when they're on site.
03G	Jury	1	225	225	
	Multi-Purpose / Conference Room	1	950	950	1 large space divided into 4 smaller rooms with dividing walls; sim. to Linn Co.

2.00 Clerk of Courts

ID	Program Area	QTY	NSF	Total NSF	Remarks
	SPACES			**3,618**	
022C	Private Office, Clerk of Court	1	176	176	
	Trial Court Supervisor	2			semi-private workspace; currently within large open room
02C	Judicial Specialists	19	120	2,752	open office workstations
02D	Mental Health	1	272	272	Sized for 3 employees
02F	Conference Room	1	172	172	
	Private Office, Asst. District Court Admin	1	176	176	additional office for new position
	Storage closet	1	70	70	office supply storage

3.00 County Attorney

ID	Program Area	QTY	NSF	Total NSF	Remarks
	SPACES			**675**	
01F	County Attorney Offices	1	1,041	1,041	former offices; current vacant area on 1st floor southeast corner
01I	County Attorney Office Suite	1	3,425	3,425	former offices; current vacant area on 1st floor north
	Private Office	1	175	175	may not be needed depending on the other rooms provided (below)
	Conf Rms / Private spaces for depositions	1	500	500	1 large space divided into smaller rooms with dividing walls; overall size of 1A

4.00 Sheriff

ID	Program Area	QTY	NSF	Total NSF	Remarks
	SPACES			**919**	
01C	Secure Entry	1	699	699	
01P	Office	1	89	89	
	Shared Office	1	140	140	sized for 2 deputies
	Holding Cells	2	40	80	with RR's and one-way window into deputy office

5.00 Facilities

ID	Program Area	QTY	NSF	Total NSF	Remarks
	SPACES			**2,075**	
01J	Records Storage - Annex Lvl 1	1	734	734	
01K	Grounds Equipment - Annex Lvl 1	1	177	177	
02G	Records Storage - Annex Lvl 2	1	775	775	
02I	Custodial Closet	1	37	37	
03O	Custodial Closet	1	37	37	
012B	Custodial Office	1	108	108	Office with a desk, monitor, and mini-fridge. Can be located on any floor.
014B	Custodial Storage	1	44	44	Storage for cleaning equipment and extra supplies.
01R	Custodial Storage	1	55	55	under east stairs
012P	Office	1	108	108	

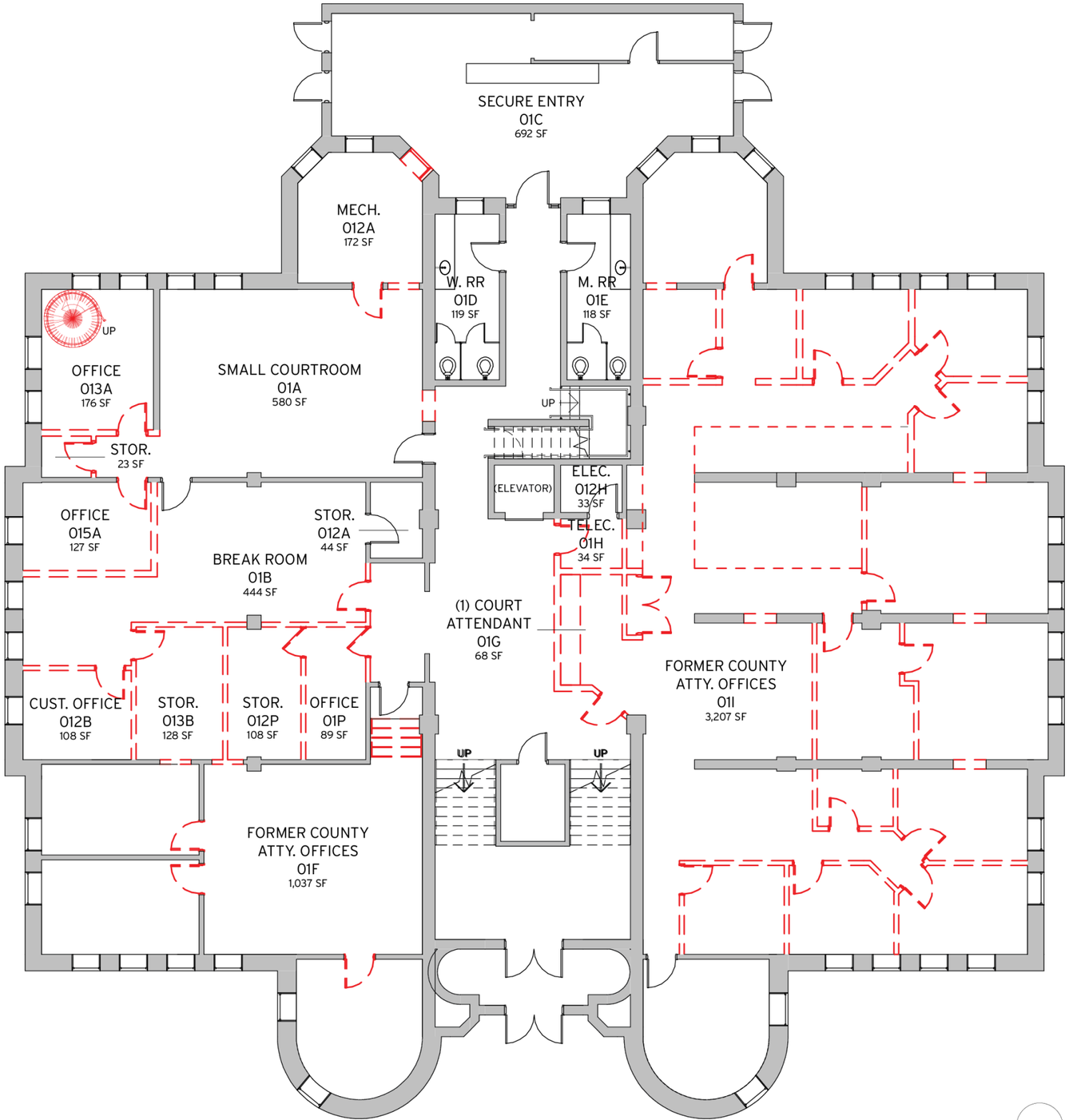
6.00 Support Spaces

ID	Program Area	QTY	NSF	Total NSF	Remarks
	BUILDING SUPPORT SPACES			**1,805**	
01B	Breakroom - Lvl 1	1	442	442	Vending machines, microwave, trash and recylcling, tables and chairs. 2 flr model copiers, need to confirm. Adjacent to 1.01.
02F	Breakroom - Lvl 2	1	-	-	area included in clerk of courts
03L	Breakroom - Lvl 3	1	95	95	Coffee Machine, Microwave, Refrigerators. Counter for potlucks. Reuse existing kitchenette space and equipment.
01H	Telecom	1	34	34	
012H	Electrical	1	33	33	
013B	Storage - Office	1	128	128	
014A	Storage Closet	1	23	23	014A adjacent to Courtroom 1A.
01Q	Storage Closet	1	13	13	currently under stairs
012A	Mechanical	1	172	172	adjacent to Courtroom 1A.
01D	Women's Restroom - Lvl 1	1	119	119	Multi Fixture.
03H	Women's Restroom - Lvl 3	1	124	124	Multi Fixture.
01E	Men's Restroom - Lvl 1	1	117	117	Multi Fixture.
03I	Men's Restroom - Lvl 3	1	62	62	Multi Fixture.
032N	Restroom - Lvl 3	1	29	29	One Fixture.
	Men's Restroom - Lvl 2	1	127	127	Multi Fixture.
	Women's Restroom - Lvl 2	1	127	127	Multi Fixture.
	Multi-Purpose Room Storage - Lvl 1	1	160	160	

DEMOLITION LEVEL 1

As discussed in Section 3 – Facility Analysis, the largest deficiency within Level 1 is the vacant northern portion, which occupies approximately 3,200 SF of the level's gross area. Similarly, the southern area has a number of underutilized private offices.

Level 1 demolition would remove several non-load bearing interior walls, both on the north and south areas. In doing so, many of these spaces can be utilized for programs that require larger areas than what is currently achievable with the current partitions. New openings in load bearing walls will be created to accommodate new corridors and access doors. The existing court attendant's station and telecom room will be removed from the lobby to restore the space more closely to the original layout. The spiral stair in the SW corner will be removed to improve security and allow for construction of the courtroom on the second level.

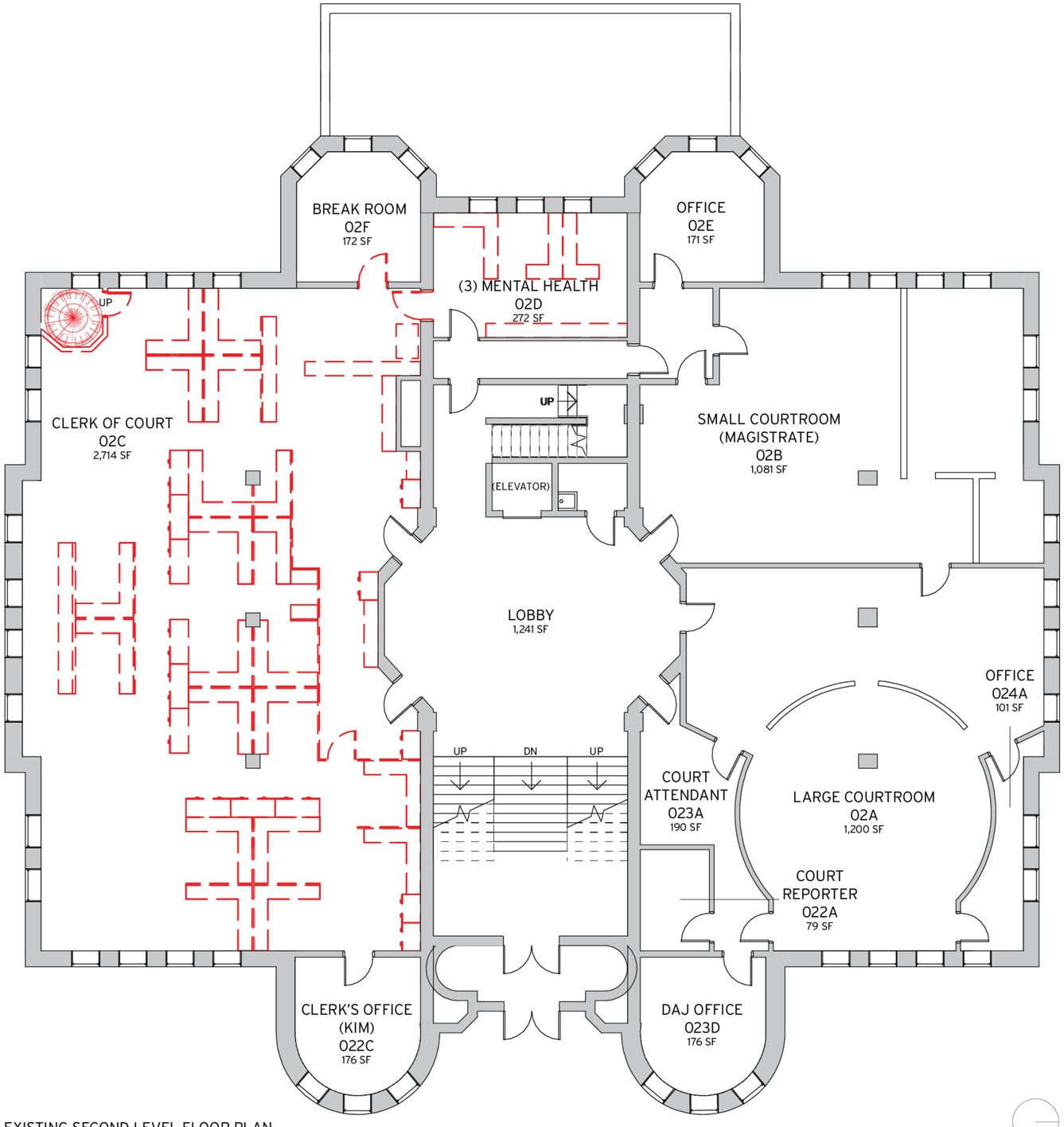


EXISTING FIRST LEVEL FLOOR PLAN

DEMOLITION LEVEL 2

While much of Level 2 is currently occupied, the County's request for additional courtrooms prompted a reorganization of the programs located on this level.

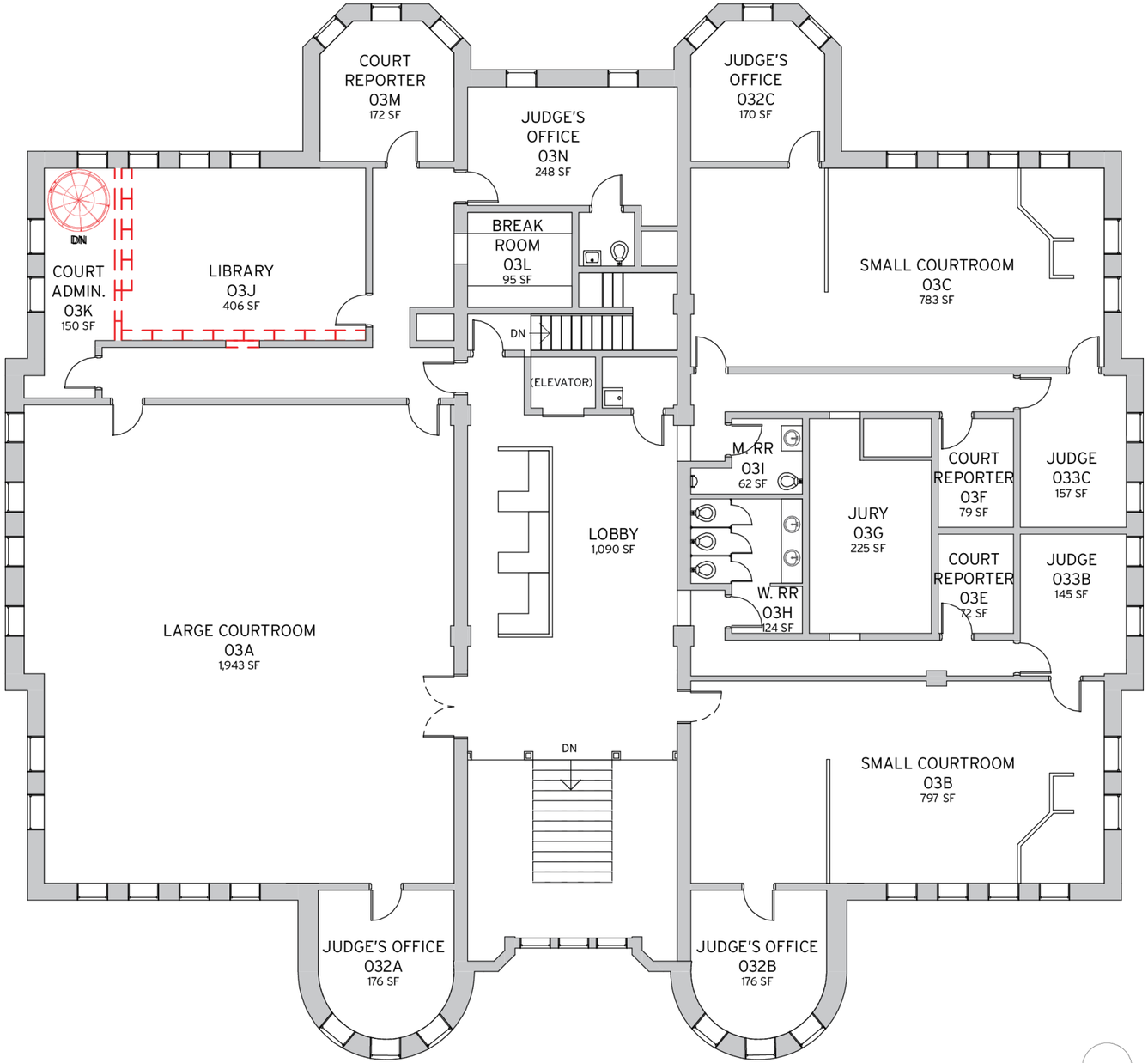
With spatial adjacencies and security in mind, the Clerk of Courts area will be relocated to make space for new courtrooms, offices, and multi-use rooms.



EXISTING SECOND LEVEL FLOOR PLAN

DEMOLITION LEVEL 3

Level 3 requires minimal demolition as most of its spaces are efficiently used. Here, the library and the Court Administrator's office will be reconfigured to allow for more private offices.



EXISTING THIRD LEVEL FLOOR PLAN

PROPOSED LEVEL 1

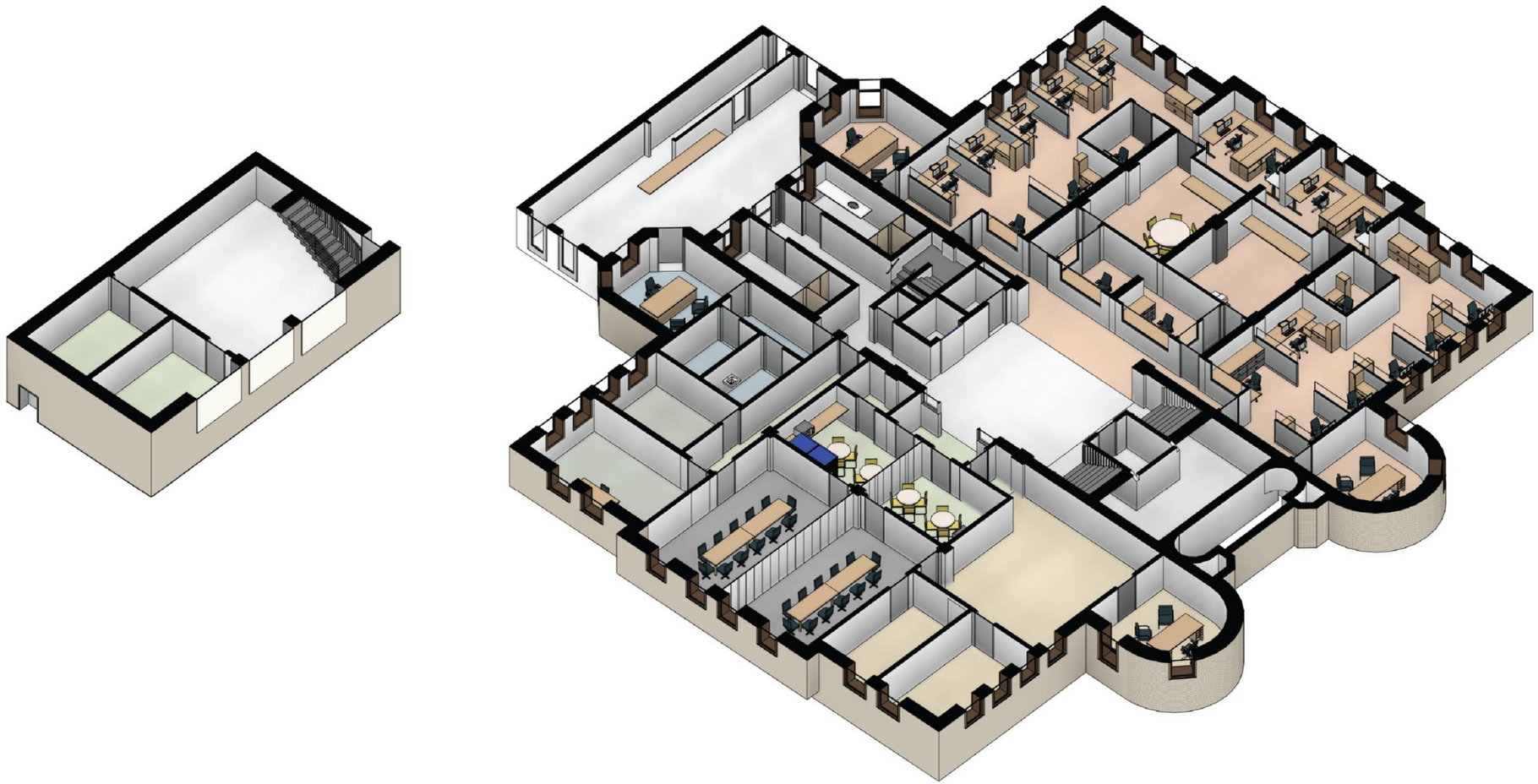
A prominent change for Level 1 is to incorporate Clerk of Courts within the vacant north area, formerly occupied by County Attorney offices. The primary design rationale is security: because the Clerk of Courts serves the public on a daily basis, the relocation was prompted by a desire to minimize public traffic to upper levels. On the southern portion, courtroom 1A would be relocated in order to create space for a custodial office and bulk storage, as well as a relocated electrical and telecom room. A Deputy's office and 2 inmate holding cells are located adjacent to the secure entrance. The holding cells will allow deputies to hold inmates on-site during trials in lieu of transporting them back and forth between the jail. The remainder of the renovations include multi-use spaces for courts training and meeting rooms, public and staff breakrooms and county attorney offices. The area for the county attorney offices in the SE corner is currently at a lower floor level; the renovations will raise the floor level to match the elevation of the surrounding floors.

The adjacent diagram identifies the relocated programs for Level 1.

PROPOSED FIRST LEVEL FLOOR PLAN

Proposed Level 1

LEGEND
- CLERK OF COURTS
- COUNTY ATTORNEY
- MULTI-USE
- FACILITIES/SUPPORT
- SHERIFF

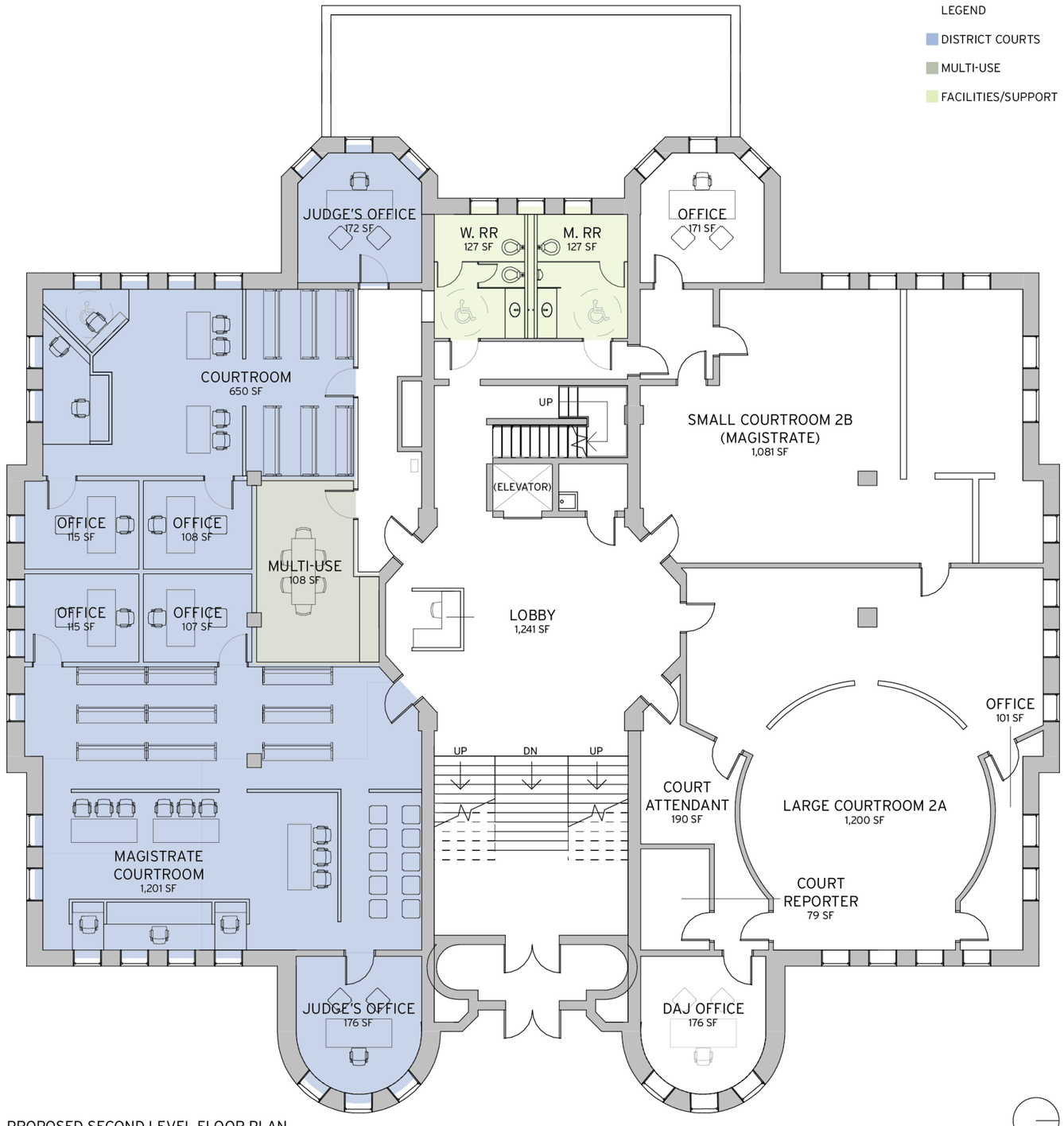


PROPOSED FIRST LEVEL ISOMETRIC

PROPOSED LEVEL 2

With the relocation of the Clerk of Courts office, two new courtrooms will occupy the southern portion of Level 2. To accommodate office needs, four private offices and a multi-use space are located in between the new courtrooms. A court attendant workstation will be added to the lobby to serve the new courtrooms. New accessible restrooms will also be added on the west end of the lobby, a space that previously housed the mental health department.

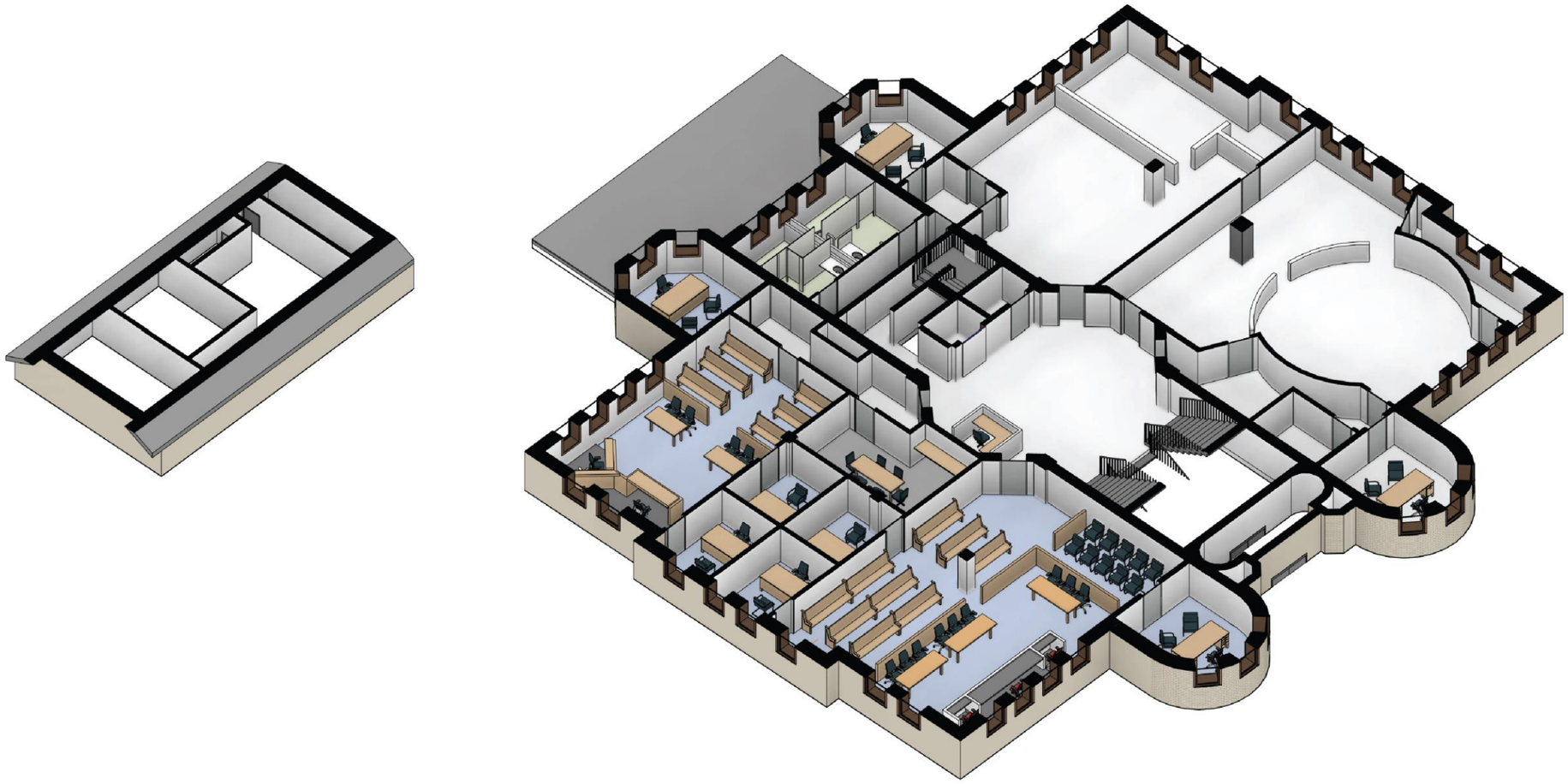
The adjacent diagram identifies the relocated programs for Level 2.



PROPOSED SECOND LEVEL FLOOR PLAN

Proposed Level 2

LEGEND
- DISTRICT COURTS
- MULTI-USE
- FACILITIES/SUPPORT

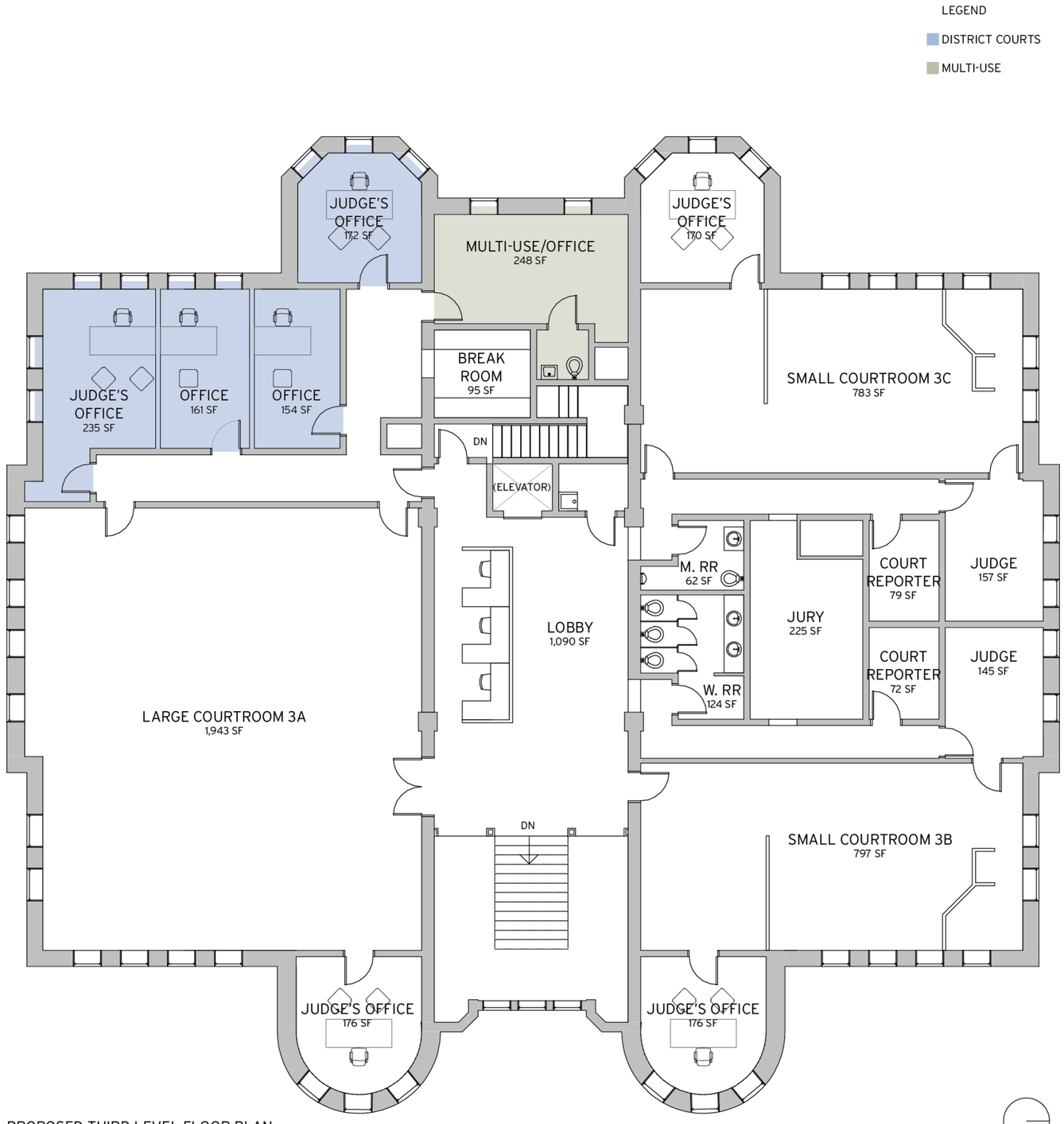


PROPOSED SECOND LEVEL ISOMETRIC

PROPOSED LEVEL 3

Level 3 involves minimal renovation. The existing library and Court Administrator's office will become three separate private offices while a multi-use space takes the place of a previous Judge's office.

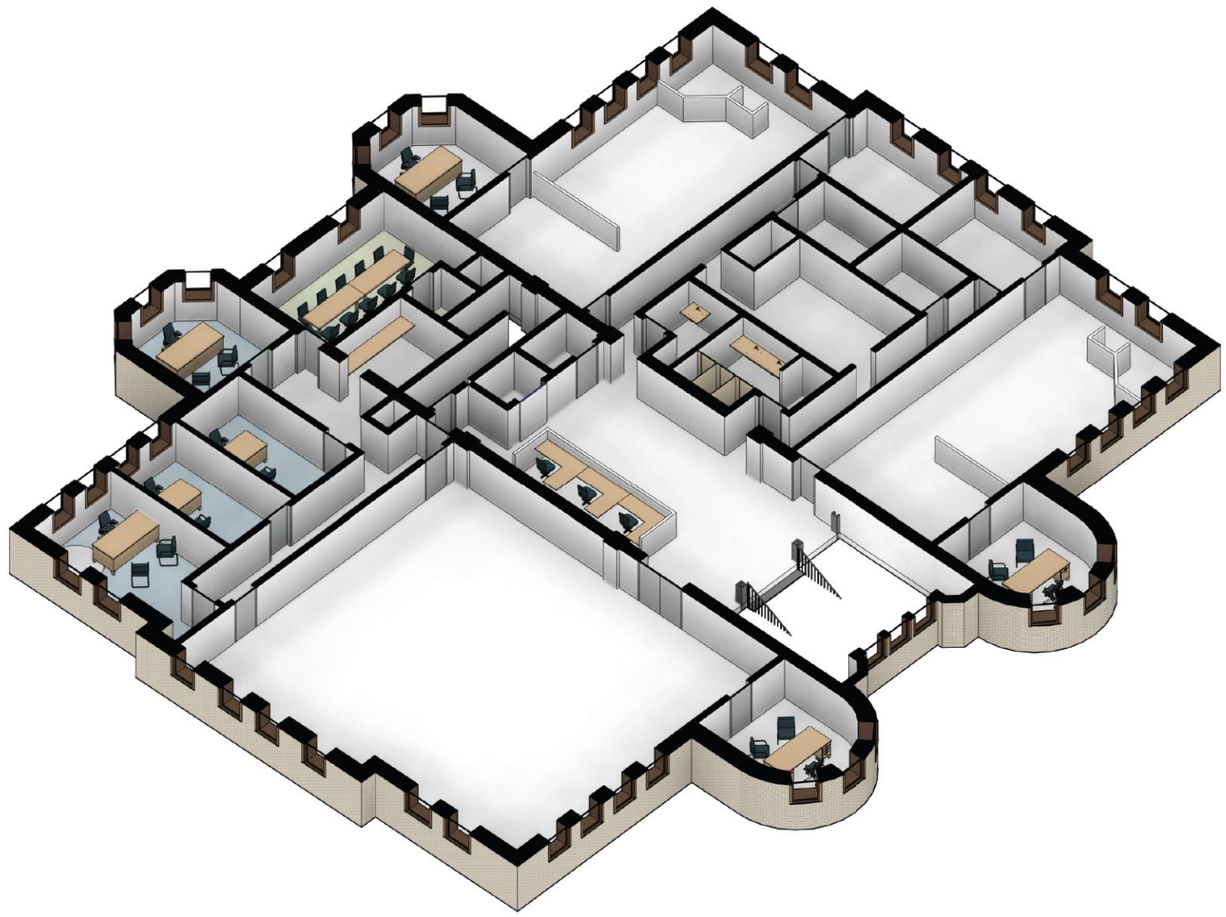
The adjacent diagram identifies the relocated programs for Level 3.



PROPOSED THIRD LEVEL FLOOR PLAN

Proposed Level 3

LEGEND
DISTRICT COURTS
MULTI-USE



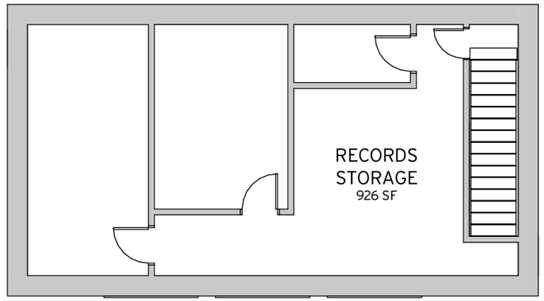
PROPOSED THIRD LEVEL ISOMETRIC

PROPOSED ANNEX BUILDING

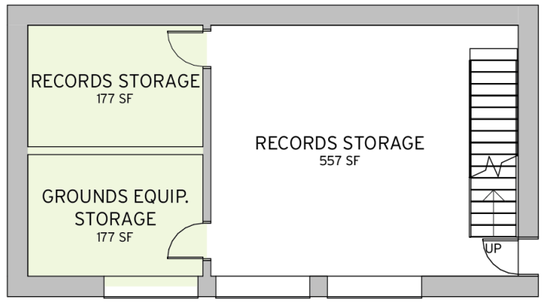
The highest and best use of the annex building is currently for mechanical and storage space. The lower level houses mechanical equipment that serves the annex building and the courthouse building, while the first and second levels are used for grounds maintenance equipment and Clerk of Courts hardcopy record storage. Because the records are accessed on a regular basis, the records should remain at this location or other storage space on site. Currently, some of the paper records are stored in the same room as gas powered grounds maintenance equipment. We recommend separating the rooms with a fire-rated wall and door to minimize the risk of destruction due to fire. Other fireproofing safeguards could be implemented throughout the annex building to reduce the risks and potential losses due to a fire event. Alternatively, digitizing the records could be pursued to mitigate the loss risk and make space available for other storage needs.

LEGEND

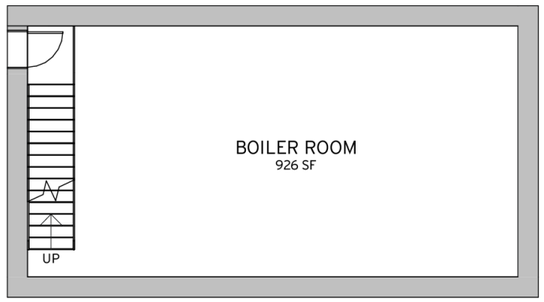
FACILITIES/SUPPORT



ANNEX BUILDING - SECOND LEVEL



ANNEX BUILDING - FIRST LEVEL



ANNEX BUILDING - BASEMENT

MEPT

Fire Suppression

Optional: Install a fire suppression system.

- This will require upgrading the water service in the annex and extending it to the courthouse.
- This is not required. The life safety requirements can be met with the fire alarm system.

Plumbing

Replace existing plumbing fixtures:

- Water closets will be 1.6 gallon per flush (gpf) with battery-powered flush valves.
- Urinals will be 0.5 gpf with battery-powered flush valves.
- Lavatory basins will be dependent on the situation. Faucets will be electronic and powered from a wall outlet.
- Floor drains will be installed in every restroom.
- Sinks requiring manual faucets will be provided as needed.

Replace the existing water heater. The size will be dependent on the final remodel space.

HVAC

Maintain the existing chiller and boilers.

- Due to the age of the equipment, it is not recommended to replace them.
- Additionally, the type of building, available space within the building, and need to maintain the historical appearance of the building does not lend itself to other types of HVAC systems.

Upgrade the piping systems to variable flow.

- This would require replacing the existing chilled and hot water secondary pumps and installing variable frequency drives (VFDs).
- This will improve the energy efficiency of the building.

Replace the existing FCUs and add more as required.

- In particular, add FCUs to the central area not currently served.
- Styles will depend on the architectural and space requirements.

Replace air handlers.

- Due to the age of the air handlers, they have exceeded their useful life expectancy. New AHUs will have insulated wall panels and more efficient fans, which will improve their performance and energy efficiency.
- The new AHUs will be ventilation units to serve fresh air to the spaces below. They would use energy recovery to improve energy efficiency and reduce the total required cooling and heating capacities.

Rework the ductwork to deliver more/adequate air throughout the facility.

Upgrade controls to DDC for improved operation of the facility, troubleshooting, and alarming.

Electrical

Replace the main distribution panel and all distribution panels.

- Due to the age of the equipment, it is suggested to replace them as parts and breakers are becoming less available.
- This will also provide additional expansion capacity for current and future needs.

Provide a new electrical room to get required clearances.

Upgrade all lighting to LED.

- This will improve energy efficiency and overall lighting.

Provide lighting control systems for energy efficiency (occupancy sensors, daylight harvesting, etc) and controllability.

Telecommunications

Provide a new telecom room (or two depending on needs to separate county and state systems).

- The existing locations do not meet current data room standards. A new room would be sized appropriately for the telecommunications needs of the facilities.

Upgrade cabling.

Extend security system (access controls and cameras), interior and exterior.

- Additional access controls and cameras should be installed to properly cover the facility.

Upgrade fire alarm system.

Phasing

Phase 1: Clerk of Court, 1st Floor
Plumbing: N/A

HVAC:

- Replace/rework existing fan coils.
- Install an energy recovery ventilator (ERV) in the attic to serve the north side of the building.
- Replace/rework existing ductwork and chilled and hot water piping.

Electrical:

- Relocate the electrical service and 1st floor electrical panels to the southwest corner of the building.
- Install new power and lighting in the remodeled space.

Telecommunications:

- Relocate the telecommunications racks and services to the southwest corner of the building.
- Install new data cabling in the remodeled space.

Security:

- Relocate the fire alarm panel and security panel to the southwest corner of the building.
- Install new fire alarm and security systems in the remodeled space.

Phase 2: New Courtrooms, 2nd Floor
Plumbing:

- Add plumbing fixtures to the new restrooms.

HVAC:

- Replace/rework existing fan coils.
- Install an energy recovery ventilator (ERV) in the attic to serve the south side of the building.
- Replace/rework existing ductwork and chilled and hot water piping.

Electrical:

- Replace the 2nd floor electrical panels.
- Install new power and lighting in the remodeled space.

Telecommunications:

- Install new data cabling in the new offices.
- Install audio/visual systems in the remodeled space.

Security:

- Install new fire alarm and security systems in the remodeled space.

Phase 3: New Offices, 3rd Floor
Plumbing:

- Replace plumbing fixtures in the remodeled restroom.

HVAC:

- Replace/rework existing fan coils.
- Replace/rework existing ductwork and chilled and hot water piping.

Electrical:

- Install new power and lighting in the remodeled space.

Telecommunications:

- Install new data cabling in the new offices.

Security:

- Install new fire alarm and security systems in the remodeled space.

Phase 4: South Remodel, 1st Floor
Plumbing:

- Install plumbing fixtures in the remodeled space.

HVAC:

- Replace/rework existing fan coils.
- Replace/rework existing ductwork and chilled and hot water piping.

Electrical:

- Install new power and lighting in the remodeled space.

Telecommunications:

- Install new data cabling in the new offices.
- Install audio/visual systems in the remodeled space.

Security:

- Install new fire alarm and security systems in the remodeled space.

Phase 5: Southeast Remodel, 1st Floor
Plumbing: N/A

HVAC:

- Replace/rework existing fan coils.
- Replace/rework existing ductwork and chilled and hot water piping.

Electrical:

- Install new power and lighting in the remodeled space.

Telecommunications:

- Install new data cabling in the new offices.

Security:

- Install new fire alarm and security systems in the remodeled space.

Other Infrastructure
Plumbing:

- Replace existing water heater.
- Replace remaining plumbing fixtures.

HVAC:

- Upgrade chilled and hot water systems for variable flow operation.
- Replace or add remaining fan coil units.
- Replace/rework existing ductwork and chilled and hot water piping.
- Extend DDC system to remaining equipment.

Electrical:

- Replace the electrical panels on 3rd floor.
- Extend or upgrade power systems in remaining spaces.
- Install new power and lighting in the remaining spaces.

Telecommunications: N/A

Security:

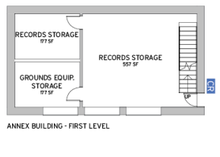
- Replace/rework remaining fire alarm systems.
- Extend access controls and security cameras to the remaining spaces.

SECURITY

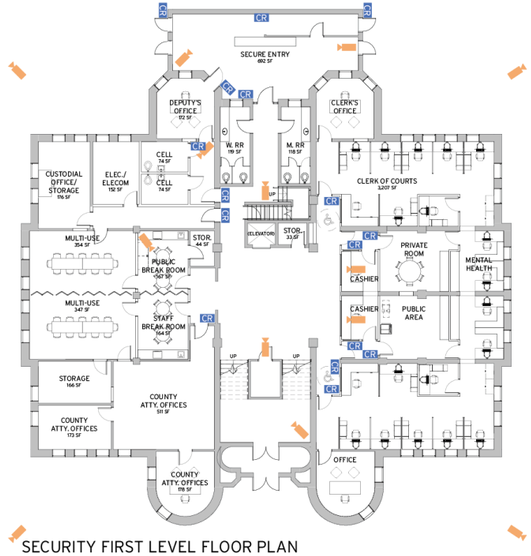
The courthouse masterplan includes an updated security plan that addresses key security issues, including technology, building entry, and spatial separation between the public, staff, and jail inmates. The proposed security plans respond to the following requests from stakeholder groups:

- Provide better camera coverage at the exterior of the courthouse.
- Card access systems for staff areas.
- Separate location for security monitors; current location at the west entrance is vulnerable to public view.

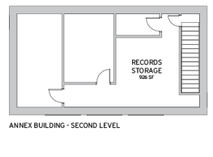
The adjacent diagram identifies proposed locations for security cameras and card readers (door access control). Final locations will be determined during future design development.



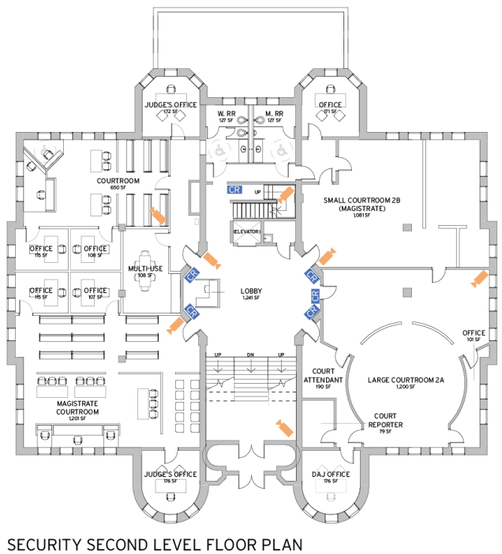
ANNEX BUILDING - FIRST LEVEL



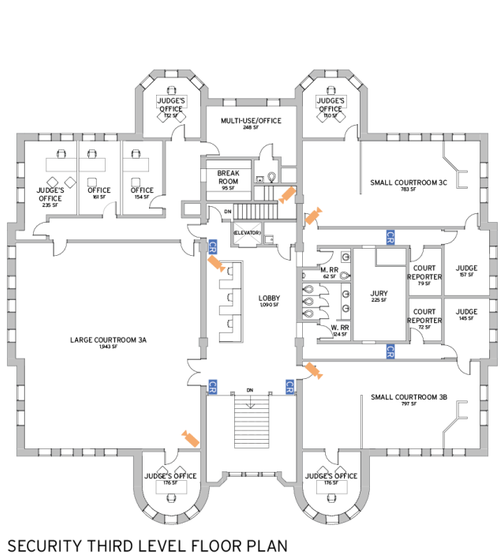
SECURITY FIRST LEVEL FLOOR PLAN



ANNEX BUILDING - SECOND LEVEL



SECURITY SECOND LEVEL FLOOR PLAN



SECURITY THIRD LEVEL FLOOR PLAN

SITE IMPROVEMENTS

Parking

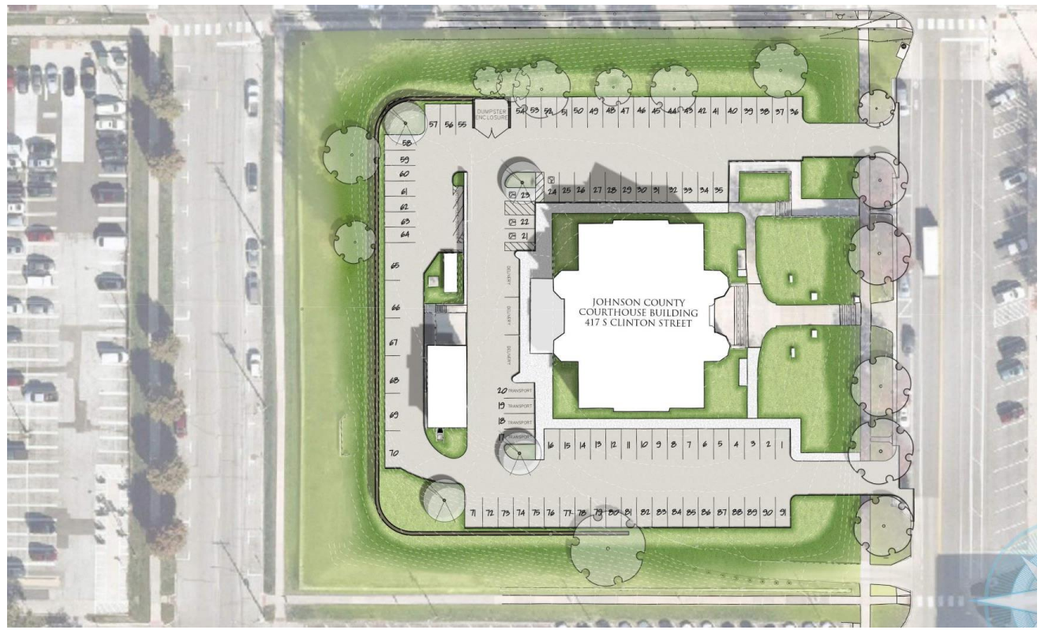
The design directive for site parking was to: "Reconfigure the parking areas and walkways located on the courthouse grounds to relocate handicapped accessible parking to the most appropriate location relative to the accessible building entrance and optimize the total number of parking spaces available for courthouse employees." The first step was to focus on code compliance for ADA parking stalls and accessibility to the building, fire apparatus access to and around the building, and Iowa City parking code compliance. After that, the priority was to maximize the parking stall count.

Starting at the NE entrance driveway, the drive needs to widen to 20 feet to meet the minimum width for fire apparatus vehicle access. The parking aisle in the north lot needs to widen to 26 feet to meet the minimum width for an aerial platform fire apparatus (ladder truck). The work extends the north edge of the parking, but there is adequate grade in this area that the slope created does not require the creation of a retaining wall to achieve the wider parking.

On the west side of the courthouse, the available width between the building and existing retaining wall along the west side of the parking is not adequate for standard perpendicular or 60-degree parking. This area is proposed to be reworked to inverse the drive and parking stalls so that the parking is on the courthouse building side of the drive. This affords the accessible parking stalls to be directly next to the public entrance and the prisoner transport or sheriff's stalls to be directly adjacent to the south entrance door. Although this layout reduces a few parking spaces from this area, it does improve visibility and accessibility and provides for some delivery stalls as well.

The parking bay along the south side of the courthouse is proposed to be reconfigured to a perpendicular arrangement to gain efficiency and stalls. The concept includes the option to realign the exit drive to be straight east of the south parking instead of using the existing exit drive. The north and west parking bays maintain similar stall counts as existing parking while the redesign of the south side allows for many more parking stalls to boost the total number above the existing stall count.

The far west parking area that wraps around the west side of the garage building can be expanded with the addition of a retaining wall along its entire length. Expanding this parking area allows for a 150% increase in parking stalls (8 additional stalls), but at the expense of a large retaining wall. The retaining wall does provide a more important function of safety. The current slope off the edge of paving is a very steep 2:1 slope (2' horizontal distance per 1' of elevation change) for the first +-8 feet of elevation change. At the toe of this steep slope the hillside flattens out to create a narrow terrace before sloping down to the existing retaining wall at the property line adjacent to the South Capital Street sidewalk. The upper slope above the terrace is too steep to mow but adding a retaining wall in place of this slope eliminates the need to mow that portion of the hillside and helps to widen the terrace at the bottom of wall.

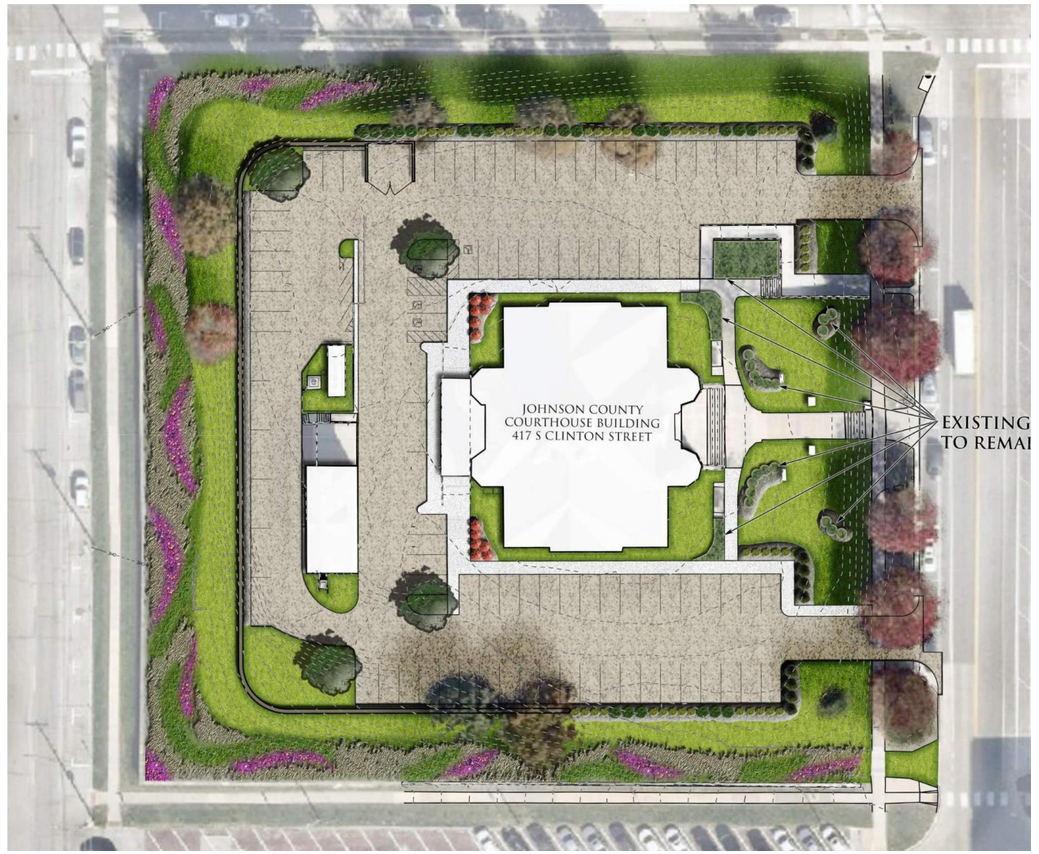


The proposed retaining wall assists with snow removal and snow storage. The current practice for snow removal is to push the snow off the paving in all directions around the site, but some locations see more snow storage including the corners of the parking lot and the west edge of the parking lot. When the snow is pushed off the edge there is little to stop if from cascading all the way down the hillside to the sidewalk and street below. The proposed wall and widening of the terrace below will add space for snow storage and mitigate packed snow and ice boulders from careening to the sidewalk below. Additionally, the wall will provide flat areas at the NW and SW corners of the parking for larger snow piles.

The improved parking lot, after alteration for compliance, and being reconfigured to maximize the total number of stalls, gains 11 stalls. The proposed paving configuration includes a dumpster enclosure as required by City code and improved steps between parking areas on the west side. County staff requested parking stalls for bicycles and motor scooters as they are increasing in popularity. Areas designated for both bicycle parking and motorcycle parking are incorporated into the proposed plan. A new sidewalk is proposed along the new south drive to provide an additional sidewalk connection to Clinton Street; this will serve employees that park south of the site and those that have offices in the MidWestOne building across the street.

Site Landscaping

Site landscaping is updated to incorporate the Johnson County Sustainable Lawn and Landscape Plan while maintaining much of the existing landscaping around the building. The proposed parking configuration creates a couple of tree islands that will be populated with planting beds and ornamental trees. Around the perimeter many of the existing overstory trees will remain with only one expected to be removed for construction. Many of the existing crabapples will be removed due to their condition and/or location in relation to the proposed retaining wall. New overstory trees are planned replacements. The hillside between the terrace and existing retaining wall below is proposed to be planted with native perennials and grasses. Plantings are arranged in masses to created patterns of color and texture everchanging throughout the year. Proposed beds on the west side of the courthouse will mirror the existing planting beds between the sidewalk and the building on the east side. The area between the planting beds and the building will remain mown turf for maintenance and safety reasons. The front lawn will remain the traditional mown turf with symmetrical landscape beds north and south of the main steps and sidewalk. The existing landscape beds are proposed to be reworked and supplemented with perennial and shrub plantings.



Bailey Compact Viburnum

Taunton's Yew

Prairie Blazing Star

Purple Coneflower

Elijah Blue Fescue

New Harmony Elm

Big Bluestem

Prairie Dropseed

SIGNAGE AND WAYFINDING

Following a site walkthrough, the following suggestions were provided by ASI regarding signage and wayfinding within the Johnson County Courthouse.

- ASI recommends updating the facility with ADA signage for all permanent rooms. The current design of the facility may present challenges for placement due to woodwork and available wall space. A separate document details the ADA guidelines and the standards as they are currently written.
- Notices within the paper inserts, particularly present at the entrances of the courtrooms, may be more effective if condensed or combined and located at a single location, with the ability to post temporary notices near these consolidated locations. Additionally, pedestals and floor stands that could offer mobile postings may be of some assistance.
- Strategically placed exterior signage on all entry points to the building and parking lots can flow the traffic to the west security entrance. It will be important to direct users from all sides of the building to the west security entrance as it is the main entrance to the facility.
- There could be a small, but efficient set of exterior signage on the campus that could identify and assist in the exterior wayfinding to the west entrance.

CONSTRUCTION PHASING

The proposed renovations will need to be constructed in phases to allow for continued occupancy of the building during construction. The diagrams in this section illustrate the likely phasing of the renovations. However, the actual phasing will be determined after a contractor is selected for the renovations. An experienced renovation contractor will bring insights that may allow for compression of the schedule.

Phase 1: Duration: 6 months
Phase 1 includes renovation of the lower level north side for the future home of the clerk of courts offices. The space was most recently occupied by the Johnson County Attorney prior to their move to the MidWestOne building; it is currently vacant except for a single employee at the reception desk near the lobby. This phase will necessitate construction of the new electrical and telecom room in the southwest corner of the lower level prior to removal of the existing rooms.

Phase 2: Duration: 6 months
Phase 2 includes renovation of the current clerk of courts area for two new courtrooms and support spaces. This phase will commence after completion of Phase 1.

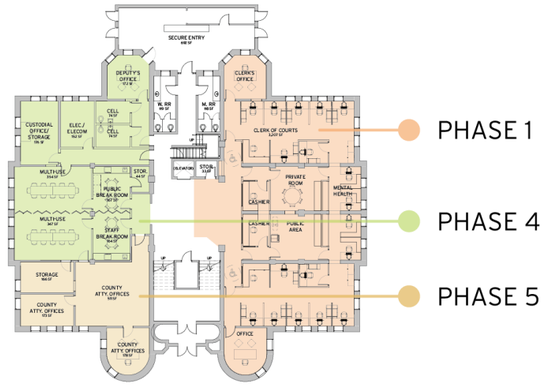
Phase 3: Duration: 4 months
Phase 3 includes office areas in the southwest corner of the third level. The phase is separated into two parts to provide continued occupancy by the judge, scheduler, and court reporter.

Phase 4: Duration: 4 months
Phase 4 includes the areas indicated in the southwest corner of the lower level. This phase will necessitate the temporary relocation of the Deputy's Office, the Custodial Office, the break room area, and County Attorney Office to the spaces in the southeast corner, or other locations.

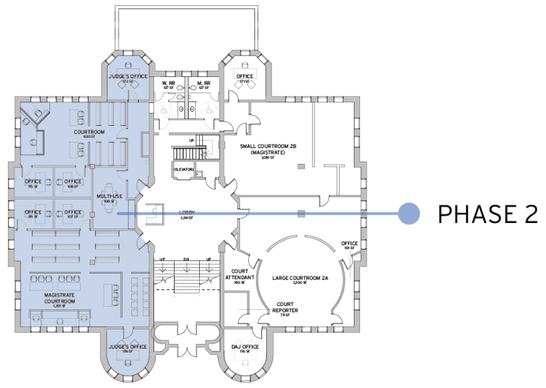
Phase 5: Duration: 3 months
Phase 5 includes renovation of the southeast corner of the lower level for use by the County Attorney. It is anticipated that the County Attorney would temporarily occupy the adjacent multi-use spaces completed in Phase 4 while renovations are underway.

Other work located outside of the phased areas will occur throughout the overall construction duration. This work will include mechanical and electrical upgrades in existing courtrooms and offices, as well as new mechanical components in the attic.

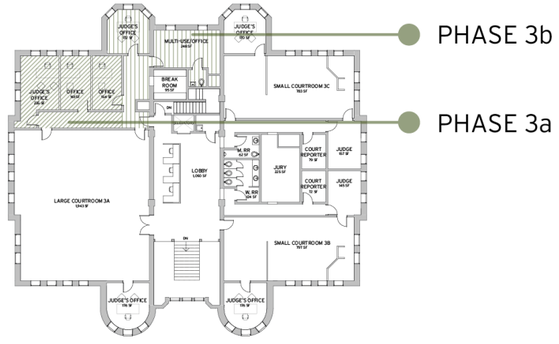
Annex building renovations and site improvements could occur at any time convenient to the owner. However, it may be advantageous to complete site work after vehicular traffic associated with interior renovation is complete.



PHASING FIRST LEVEL FLOOR PLAN



PHASING SECOND LEVEL FLOOR PLAN



PHASING THIRD LEVEL FLOOR PLAN

OPINION OF PROBABLE COST

The opinion of probable cost is based on costs from recent renovations to the courthouse, including courtroom 3B and 3C. The general contractor of those projects has also been consulted for his insight. Costs for building interior renovation work is itemized per phase as described on the previous page and costs for work in other areas not in the five phases is also included. A phasing/occupancy cost premium has been added to cover additional contractor costs related to constructing the projects in individual phases while the building is occupied. During the writing of this report, construction costs have fluctuated widely due to the pandemic and volatile material prices and lead times. It is not known how long the industry will be affected by the pandemic. Annual escalation/inflation costs should be added for work starting in 2023.

Scope Item		Cost
Phase 1	$	977,550
Phase 2	$	895,000
Floor structure replacement[1]	$	196,900
Phase 3	$	300,000
Phase 4	$	550,000
Phase 5	$	210,000
MEPT upgrades (unphased areas)		
Replace remaining plumbing fixtures and water heater	$	54,000
Add fan coils to 2nd and 3rd floor lobby, and courtroom 3B and 3C	$	110,000
Replace pumps in the boiler room and upgrade controls to DDC for boiler/chiller plant	$	140,000
(2) new electrical panels on each of 2nd and 3rd floors	$	45,000
New LED lighting throughout the remaining facility	$	207,000
Upgrade remaining fire alarm	$	41,000
Remaining access control locations and interior/exterior cameras	$	88,000
Structural upgrades[2]	$	45,000
Annex[3]	$	10,000
ADA[4]	$	140,025
Civil (parking and landscaping)	$	1,150,000
Wayfinding	$	30,000
Subtotal	**$**	**5,189,475**
Phasing / Occupancy Premium - 15%	$	778,421
Contingency - 20%	$	1,037,895
Total Construction Cost[5]	**$**	**7,005,791**

Notes:
1. New framing and concrete slab
2. Includes new wall openings and HVAC unit support
3. Includes new wall and door at Equipment Storage Room
4. Includes remaining items from ADA transition plan
5. Add 3%/yr escalation