



DODGE COUNTY MASTER PLAN

VENTURE ARCHITECTS
DODGE COUNTY, WISCONSIN
MARCH 2026

DRAFT

VENTURE

EXECUTIVE SUMMARY

OVERVIEW

Dodge County has an excess of half a million square feet of facilities of varying ages and useful life, spread across and serving an area of 907 square miles. Recognizing the varying life cycles and efficiencies of the various facilities, Dodge County has determined that now is the time to assess conditions and have the tools to better prioritize and wisely spend tax dollars to meet the evolving needs of its constituents. The intent of this Master Plan is to provide Dodge County with the information needed to formulate a strategy that best modernizes the County campus regarding best practices, building standards and codes, technology, evolving services, and the needs of the citizens. To achieve this, architectural, mechanical, plumbing, and electrical assessments of each building were performed, department heads and key staff were interviewed, and previous plans studied. The result of these efforts is the following assessment of the overall conditions of the County campus of buildings, options to remedy any deficiencies found, and cost estimates for each potential remedy.

Although care was taken to be as thorough as possible, no invasive investigations were undertaken to assess structural or mechanical conditions concealed in walls or between ceilings and floors.

The intent of this Master Plan is to compile all relevant data to provide the County Board with the tools to better understand the full scope of anticipated work to better prioritize projects and move forward with a single, unified plan of its choosing.

HISTORY

Dodge County is home to 5 cities (plus portions of 4 others), 25 towns, 10 villages (and part of 1 other), 35 unincorporated communities, and 1 ghost town. Dodge County recorded 89,396 residents as of the 2020 census. According to projections provided by Dodge County, research indicates a steady population decline to approximately 72,000 by 2050. The departments discussed in this report are generally located in Juneau, with four satellite Highway Department facilities in Mayville, Neosho, Reeseville and Trenton.

As is common with many Counties, several of the existing buildings have been repurposed for County use and departmental locations have been modified and relocated over the years. Repurposing and modifications address immediate needs, however; repurposing does not necessarily lend itself to the most efficient use of space in the long term. Many departments have storage scattered across multiple locations and multiple floors, while one specific department has office space on two sides of a hall and a third location in a different building. Ideally a single location is optimal. In addition to spatial inefficiencies, many of the mechanical systems are near or beyond life expectancy. In one case, parts can no longer be found through normal vendors and must be purchased on eBay as they can be found.

Project No. 250027.00
Dodge County, WI Master Plan

GOALS

The main goal of the master plan is to provide options and associated costs to give the County the necessary information to make their own long-range plan based on internal priorities and political realities. To achieve this, all department leaders and key staff were interviewed. Special attention was given to departments in the following buildings: County Administration, Clearview (and the associated female and male group homes), Henry Dodge, Highway Department (and satellite locations around the County), Jail, Judicial Building, Sheriff, and Vehicular Evidence Storage. We have not assessed any of the County park structures.

ACKNOWLEDGEMENTS

This study, formally titled the Dodge County Master Plan, was an undertaking that required significant assistance and cooperation to complete. The study included numerous meetings, interviews, site visits, walk-throughs, emails and phone calls, and would not have been possible without the passion, knowledge and enthusiasm of the Dodge County staff. On behalf of Venture Architects, we thank all of those who contributed to the completion of the study. Some contributors of special note include but are not limited to:

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EXISTING DODGE COUNTY FACILITIES



TABLE OF CONTENTS

EXECUTIVE SUMMARY.....	2
OVERVIEW.....	2
HISTORY	2
GOALS.....	3
ACKNOWLEDGEMENTS	3
EXISTING DODGE COUNTY FACILITIES	4
EXISTING FACILITIES.....	7
Dodge County Administration Building.....	7
Clearview Care Facility	8
Female Group Home.....	9
Henry Dodge Building.....	9
Male Group Home.....	11
Highway Department.....	11
Jail	12
Justice Center.....	13
Sheriff	14
Sheriff's Vehicle Storage	15
Dodge County Office Building	20
OPTIONS.....	21
OVERVIEW.....	21
AT A GLANCE	23
OPTION 1 – New Dodge w/Admin Renovation While Occupied by Admin	23
OPTION 2 New Dodge w/Admin Renovation & Temp Relocation of Admin.....	24
OPTION 3 Buy Back DCOB, Renovation & Double Relocation	24
OPTION 4 New Admin/w Admin Renovation & Relocate Dodge to Admin.....	25
OPTION 5 New Building Consolidating All Departments	25

COST ESTIMATES.....	26
OVERVIEW.....	26
OPTION SUMMARY COST ESTIMATES – SAMUELS GROUP MAY 2026.....	27
Option 1 & 2 Cost Summary	27
Option 3 & 4 Cost Summary	28
Option 5 Cost Summary	29
FACILITIES ASSESMENT – RING & DuCHATEAU	30

DRAFT

EXISTING FACILITIES

Tours and assessments of each County owned building were undertaken. Because the Highway Department has stated that its biggest needs are already accounted for in future budgets, maximum attention was given to the Administration, Clearview, Evidence Storage, Group Homes, Henry Dodge, Jail, Justice, Old Jail (J-Pod), and Sheriff buildings. These buildings have exceedingly significant issues related to operational efficiency, spatial needs, adjacencies to closely associated departments, mechanical operations and ADA requirements.

Dodge County Administration Building



The Administration Building was built in two different phases. The original construction began in 1937 with the addition being built in 1995. The addition more than doubled the building footprint to its current size of 85,100 sf. In general, the departmental office spaces are oversized and the storage for most departments is scattered throughout the building. For some departments, related storage is on multiple floors. Large storage rooms are used by multiple departments and often there is nothing preventing one department from accessing the files of another. Digitizing files could alleviate a significant portion of the storage issues. Also, there is a need for conference rooms with proper technology for sharing information on screen, conducting virtual meetings, and for having private conversations with the public. Restrooms in the original portion of the building do not meet current accessibility requirements. There are several vacant spaces, many of which appear to have become holding centers for equipment and furniture that “could be used for something, some day.” The building is generally under-utilized. The building is in good condition but renovation for current needs would make it much more efficient and cost effective.

The most significant issue with the Administration Building revolves around security. There is no security screening for anyone entering the building, and, in general, no significant separation between the public and staff at most departmental reception desks. Upset constituents have easy access to all staff. With a single, central corridor for all users, there is no separation between staff and public. A related safety concern is that everyone in the building uses the same public restrooms. It is possible that someone could lay in wait in a

Project No. 250027.00
Dodge County, WI Master Plan

restroom and have access to someone who they perceive to have wronged them. An optimal layout would have secured entries with separate staff and public corridors and restrooms.

The Administration Building is currently home to the following departments: Maintenance, County Administrator, County Clerk, County Treasurer, Purchasing, UW Extension, Information Technology, Land & Water Conservation, Land Resources & Parks, Register of Deeds, Survey & Description, Corporation Counsel, Finance, Human Resources, Medical Examiner, and the County Board Room.

The mechanical equipment was replaced as part of building expansion and renovation in 1995. The equipment appears to be unchanged but well maintained since then. The electrical system is generally in good condition and could have another 10-20 years of useful life based on component availability. The emergency generator is approximately 30 years old and proprietary replacement parts are no longer manufactured; and therefore, it is considered obsolete.

For an extensive summary of mechanical equipment, see the Mechanical & Electrical Building Assessment attached at the end of this plan report.

Plumbing fixtures are generally in poor to fair condition and are neither a water conserving type nor ADA compliant. The domestic hot water circulating systems do not comply with current codes. The basement is the only floor with an automatic fire suppression system. For a complete summary of these issues see the Facility Assessment attached at the end of this plan report.

Clearview Care Facility



Clearview is a relatively new building and is in good working order with many years of life remaining. Its most significant drawback is that it is under-utilized with some vacant floors. Because of the young age and use of the building, a full assessment was not part of the scope of the master plan.

Project No. 250027.00
Dodge County, WI Master Plan

Female Group Home



This building was heavily damaged in the 2025 tornado. In addition to the necessary repairs to the exterior building envelope, the interior was gutted and rebuilt. The building is essentially new and not included in the scope of the master plan.

Henry Dodge Building



The Henry Dodge Building appears to be structurally sound, but the mechanical systems have been a known problem for maintenance for at least the last dozen years. Much of the equipment is so obsolete that the only way certain replacement parts can be purchased is when they appear on eBay.

As far as building operations are concerned, departments have adapted to the space available to them. Portions of the building are vacant and are being used for storage of an assortment of items that are no longer in use but in passable condition if the need arises. Like the Administration Building, there is no security screening for anyone entering the building. This has led to instances where certain staff have felt uneasy in the presence of upset building users.

The 152,250 sf Henry Dodge Building is currently home to the following departments: Public Health, W.I.C., Adult Protective Services, Economic Support, Juvenile Justice Services, Long Term Support, Services for Children with Disabilities, Aging & Disability Resource Center, Veteran Services, Clinical Services, and offices for court ordered substance abuse monitoring.

Project No. 250027.00
Dodge County, WI Master Plan

The Medical Examiner department is the most prominent example of a Dodge County department adapting to available space no matter how inefficient. The Medical Examiner department has two office spaces across the hall from each other in the Administration Building and two additional areas in the Henry Dodge Building. The area where decedents are examined at Henry Dodge is a small storage area separated from a larger corridor using movable office partitions and an unstable door, spanning from a cooler to a wall. There is a second cooler that is only accessible from the main lower-level corridor, which dictates movement of decedents is limited to after hours to prevent contact with the public or other staff. The Medical Examiner processes approximately 100 decedents for autopsies each year. The logistical challenges combined with volume make these conditions far below acceptable standards.



Medical Examiner: Cooler & Exam Area



Medical Examiner: Exam Area/Storage Room

The mechanical equipment and controls of the Henry Dodge Building are generally beyond life expectancy, inefficient, and in some instances, degrading and causing leaks around the building. The electrical system is generally in better shape than mechanical, though it does have some obsolete panels. The generator is approximately 35 years old and considered obsolete.

For an extensive summary of mechanical equipment, see the Mechanical & Electrical Building Assessment attached at the end of this plan report.

Plumbing fixtures are generally in good condition and are ADA compliant. Water heaters and softeners are in fair to great condition. Code required hose thread vacuum breakers at mop basins and service sink faucets are missing. Some cast iron sanitary drainpipes are rusting and show signs of leaking and failure. Underground piping is assumed to be the same condition. Facility is fully protected by an automatic fire suppression system.

For a complete summary of the facilities, see the Facility Assessment attached at the end of this master plan.

The building is structurally sound but major portions of the MEP systems need to be replaced at substantial cost and potential downtime. With the extent of the replacement needed and the potential building modifications required to accommodate the work, it would be difficult to realize a return on investment. Maintaining the existing Henry Dodge Building systems is costly in the short term and not viable in the long term.

Project No. 250027.00
Dodge County, WI Master Plan

Male Group Home



The Male Group Home, located at the top of a small hill to the north of the Henry Dodge Building, currently houses four men. A ramp has been constructed to create an accessible approach, but the interior spaces and doors create challenges for wheelchair-bound residents as they are not ADA compliant. The door frames have significant damage from wheelchairs. The size of the rooms do not lend themselves well to modification to achieve ADA compliance. Because of code concerns, the existing building is not the best long-term solution. Extensive renovation or a new building is recommended.

Highway Department



Other than lingering tornado damage to a salt storage structure and a nearby canopy, the Highway Department buildings are in good shape and have few needs. One of the buildings at the Neosho satellite shop is an aged structure that is too small to house equipment, so it is used only for cold storage. It is important to pay attention to the structure as any new cracking may be indications that the building is near

Project No. 250027.00
Dodge County, WI Master Plan

the end of its useful life. Additionally, the Mayville shop has a vacant two-story office space that currently has no practical use.

Jail



The Dodge County Jail is a 358 bed facility that has agreements with state and federal agencies to house inmates beyond those from Dodge County. The building was constructed in 1999 and is in good condition. Functionally, however, being disconnected from the sheriff's office isn't optimal, and the medical unit—which was probably appropriate when built—is undersized for current use. The in-person visitation rooms are rarely used because of issues that have been discovered regarding the passing of contraband. Additionally, locker vents have also been found to be a location for the passing of contraband.

Individual housing pods have unique concerns. H-Pod's Multi-Purpose room is too small. C and D-Pods do not have an appropriately secure corrections officer station, creating vulnerability from behind the C.O. station. Neither C nor D pods can communicate with inmates in cells from the C.O. station. C pod has privacy concerns that cause inmates to cover the window when using the toilet.

Intake booths are too close together which could cause privacy / PRIA concerns. There are also sightline concerns from cell to cell which are problematic when women or juveniles are brought in. In general, Intake is too small and the layout is problematic regarding flow, sightlines and routine daily activities.

Project No. 250027.00
Dodge County, WI Master Plan

Justice Center



The 114,450 sf courthouse building was constructed in 1999 and had a partial 3rd floor buildout in 2006 for Child Support and the District Attorney. There is still available space that was intended for additional courtroom and support spaces to be built out. Functionally the building works and departmental spatial needs are met or exceeded. The entrance has security screening; however, there are safety concerns related to the staff needing to use public restrooms similarly as described for the Administration Building. Additionally, because of the sensitive nature of the departments and the likelihood of encountering agitated users, several departments have requested bullet resistant glass at their lobby areas.

The Justice Center currently is home to the following departments: Child Support, Clerk of Courts, Courts, District Attorney, Family Court Counseling and Register In Probate.

Mechanically, the equipment is well maintained but some are nearing the end of their useful life expectancy. Select items have already been replaced. All elements of the electrical system are generally in good condition. It is recommended that the obsolete analog controls of the generator be replaced with digital controls. For an extensive summary of mechanical equipment, see the Mechanical & Electrical Building Assessment attached at the end of this plan report.

Plumbing fixtures are generally in fair to good condition and are ADA compliant. Water heater and softener are in good condition. Code required hose thread vacuum breakers are missing on mop basins and service sinks. Facility is fully protected by an automatic fire suppression system.

For a complete summary of the facilities, see the Facility Assessment attached at the end of this master plan.

Project No. 250027.00
Dodge County, WI Master Plan

Sheriff



The Sheriff's staff is making do with the space available but generally appears to have outgrown the approximate 33,400 sf of the facility. There is a shared EOC/Training/Conference/Multipurpose room that is regularly double booked. Additional training space is badly needed. The EOC is used by Emergency Management at least four times each month. For redundancy, there is a backup radio room, but it has no climate control. It should also be noted that the roof needs replacing but it has been temporarily put on hold awaiting results of this master plan. A complete list of the needs, wants, and concerns of the Sheriff's department is attached to the end of this master plan. Many of these needs require additional space that isn't easily addressable in the current location.

Functionally, the Sheriff's Department should be adjacent to the jail so that the staff isn't divided across multiple buildings and the two functions separated by a city block as they are now. While there appears to be ample space adjacent to the jail for the new sheriff's office, it would require space currently in use for parking and / or area being used as part of the stormwater detention. Adding depth to the stormwater to allow shrinking the pond area can be investigated, but a limiting factor will be the depth of the stormwater sewer under the street. It is likely that the current configuration of the stormwater detention is because of a relatively shallow stormwater main under the street.

Off-site from the Sheriff's, at the Highway Department Yard, is the Impound lot and Evidence Storage Building. After sustaining damage in the 2025 tornado, the Evidence Storage building was emptied and fully repaired. Pending that final decision, the roof was repaired, and the building was made watertight. The building lacks running water, sewer and fire suppression. The adjacent Impound area does not have sufficient space to store semi-trucks. An area roughly twice the current size is needed and has been requested.

At the Sheriff's Department, the pneumatic controls system, hot water piping system, and unitary equipment are aging and should be replaced or upgraded to increase occupant comfort and decrease operating costs.

Project No. 250027.00
Dodge County, WI Master Plan

Electrically, the transformer is in reasonable condition. The switchboard is considered obsolete and replacement should be considered if significant renovations are undertaken. The UPS has been in use for 20 years and should be considered for replacement. For an extensive summary of mechanical equipment, see the Mechanical & Electrical Building Assessment attached at the end of this plan report.

Plumbing fixtures, water heater and water softener are generally in good condition. Domestic hot water circulating systems do not appear to meet current codes. The building is fully covered by an automatic fire suppression system.

For a complete summary of the facilities, see the Facility Assessment attached at the end of this master plan.

Sheriff's Vehicle Storage



The Sheriff's Vehicle Storage is located at the lower level of the old jail facility. The storage area is acceptable for how it is being used but insufficiently sized to accommodate all of the vehicles in need of storage. The largest of the department's vehicles are currently being stored at the Highway Department. The vacated upper floor of the building (J-Pod) is periodically used as a tactical training area. While the training is critical, maintaining these buildings may not be the most cost effective for Dodge County.

SHERIFF DEPARTMENT - COMPREHENSIVE LIST OF NEEDS

The following three pages are a comprehensive list of needs compiled by the Sheriff's Department's staff. The list has been broken down into the following categories: Overall building, Garage areas, Impound area, Support, Communications, Evidence, CID/DTF, Patrol, Jail, Emergency Management, Medical Examiner and IT Department.

Because the list is wide-ranging, there is a need to assess and prioritize each item relative to operations and overall financial considerations. How many of the issues can be addressed in current circumstances and how many need more extensive renovations or new construction? The totality of the list indicates a need for extensive renovations or a new building, but the County must decide how to prioritize that relative to other building needs.

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Focus Group - DOSO Building Design

Overall Building	Training Spaces: • DAAT / Use of Force Room with Padding • Computer classroom training room • Indoor Range (6 to 8 lanes, 50 yard range to allow for indoor rifle state qualifications) • SWAT training/classroom area near range/armory location • Shoothouse style training area (non-live fire, no ballistic protection) for K9 and SWAT training • Firearm simulator • EOC (but a separate area from training areas). EOC could be used as training if needed. EOC would not be modifiable for wall configuration, but would be one space with separate spaces adjacent. ◦ Smaller rooms adjacent to EOC (phone calls, side bar meetings) • Community accessible training/meeting room near the lobby (ability to make it secured or to keep it open for community/media visitors)	Conference Rooms: • 1 Large conference room (at least 20 people) • Minimum of 4 smaller conference rooms (10-15 people) • Small conference room near range area for SWAT briefings (10-15 people) • Sheriff sale area (weekly; can be few attendees, can be a lot)	Evidence: • Ventilation and generator needs (coolers/freezer) (share this resource with ME) • Property release area room (similar to options available currently) • Ballistics test chute for pistol and rifle (NIBIN submissions) Medical Examiner: • Ventilation and generator needs (share this resource with evidence storage area) • Easy access for public ◦ Family rooms	K9: • Storage area for gear, training equipment • Secured area to store training narcotics • Kennel area • Dog wash station	Storage: • PLI closet • IT Closets (at least 1 per floor, centrally located on each floor) • Radio storage room (radios/tango tango/etc. all in one storage location) • Crash Investigation storage areas (in office and at impound) • Explosive ammo storage separate from regular armory and needs to be under 24/7 surveillance • SWAT equipment room and operator locker room	• Photo booth / social media room • Gym/fitness room/employee wellness (accessible by any other county employee) (Wish list: sauna/tanning bed/hot tub/ice bath) ◦ Temporary style locker room (put your stuff in, remove key to lock, come back and empty locker, then leave key back in locker) • Chaplain workspace or information near family gathering area • Cadet workspace • Crisis co-responder office (public facing/non-secured area) • Kitchen/shared breakroom space for multiple divisions or per floor • IT workspace for IT analyst • Maintenance areas (will depend on layouts) • Phlebotomist Room (with blood draw chair equipment, biohazard disposal containres, recorded?) Near interview rooms off of the garage / near corridor to take to jail?	• Unified employee entrance and exit separate from public entrance • Indoor corridor to courthouse • ADA compliant building • Fenced / covered employee parking • Have display cases in public lobby area for memorabilia displays • Lobby area for K9 photos or staff photos • Panic buttons for reception windows • Decompression room/sleeping room	
Garage Areas	General: • Equipment Room (6X bigger than current equipment storage) • Storage nearby to load/unload vehicles with equipment/supplies while protected from weather/outside elements. • Car wash area (or secure an area that Huber inmates can clean vehicles) • Attached near range/armory (FDL CO SO as a sample) • K9 kennel area/dog wash station • Decontamination area: ◦ Showers (minimal distance from an entrance point to reduce contamination spread through the building) ◦ Laundry area for contaminated uniforms ◦ Wash station for contaminated equipment (ME) • Trickle charge areas for squads (inside garage parking spaces to charge inside and avoid battery dying) ◦ Future expansion/configuration for EV squads in the future.		Evidence: • Evidence equipment and supply area near the garage IN ADDITION to in the processing room (load squads, evidence tech. vehicle, etc.) • Evidence processing area in the garage (garbage picks, vehicle inventory, search warrants) • Large evidence storage nearby (marijuana plant storage)		Medical Examiner: • At least two parking spots. • Equipment storage nearby (body bags, tags, etc. to fill ME vans) • Coolers/Racking/Lifts/tables need to be accessible to ME from garage area • Decontamination station for staff with access to locker rooms near outside of building • Wash station near decontamination station (for equipment)		Equipment to Store: • MRAP • MOBILE COMMAND UNIT • REC VEHICLES (total area needed 29'X37' to accommodate 10'x10' storage plus 2' walk around of equipment) ◦ Boat + trailer ◦ ATV + trailer ◦ UTV + trailer ◦ Future expansion for dive team equipment area • SWAT trailer/vehicle for equipment and gear • HAZMAT truck storage	
Impound Area	Evidence: • Secured and ventilated area for large evidence storage (marijuana grow plants and equipment) • Vehicle Storage away from weather/outside elements		• Crash Investigation storage areas (in office and at impound) • Electric Vehicle storage (explosion proof) • Floor scale (or at garage)		Computer workspace (individual machine or dock with additional display)		• 1 non-secured area for vehicle inspections with lift (provides a revenue source) • Bathroom area	

Support	Workspaces for current staff, plus room for expansion: • 2 supervisors • 1 jail reception window (2 workspaces) • 1 civil process window • 2 open records workspaces • 6 other workspaces	Office equipment and office supply storage nearby printers Printer room with scanners, Shredit area (jail reception needs theirs close by for work done at night)	Record storage (receipts, forms, holiday supplies)	Tablet repair area
Communications	General: • Safe area from weather (continuity of operations) • Near to EOC in the event of critical incidents • Centrally located in the building - accessible by admin./patrol/CID/DTF • Nearby kitchen and bathroom for dispatchers (reduce time away from desk) • Security Measures from 24/7 public access (dispatch are non-sworn, unarmed, and may be the only ones in the center overnight)	• 8 dispatch stations MINIMUM (include room for future expansion) • One dispatch station in a separate room/area for training new dispatchers, but can be modified for a supervisor or part time assignment • Move warrant office to an outer wall so they can interact with other staff without staff having to come into the secured area. • 1 lieutenant workspace; separate workspace for shift sergeants (shared amongst sergeants, but separate from LT)	IT Considerations: • Cabinets for cables instead of under desks. • Avoid 150' runs of cable. • Consider where ethernetets are placed • Video interactive doorbell for after hours public inquiries • IT closet upstairs near dispatch so that if things have to be reset, dispatchers don't have to run downstairs to reset things.	
Evidence	Keep Accreditation standards for processing area, intake, and storage locations.	• Processing room and temporary storage room could be one larger room with more storage, more lockers, one large table in the middle for packaging, two computers for multiple users to be processing at the same time. • Secured intake area room size is sufficient, but needs a larger workspace/desk for evidence custodian to process intake.	• More/larger drying rooms (need to be able to be secured while items are drying). • Improved range hood and ventilation for drug testing and also for smells from long term storage items. • Walk in freezer or additional freezer space. SAK need to be retained for 50 years. • Walk in cooler or more cooler space	• Additional layer of securing guns/drugs within the secured vault (locked rolling gun cages, etc.) for accreditation standard improvement. We currently have a safe for currency. • Storage area for evidence technician supplies that isn't within secured intake area and is accessible to all evidence technicians.
CID/DTF	• Minimum 15 detective offices and DTF investigators (not including DFU or CAU expansion) • Plus include extra work areas for DTF or CID part time assignments • Wall screen or multiple large screens with designated computer set up for case collaboration/operational briefings	• Secured Digital Forensics work area (at least two LARGE STORAGE CAPACITY, HIGH RAM computers that are NOT connected to the local network (due to CSAM) - 1 for Cellebrite downloads, 1 for Cellebrite analysis). Each computer should have at least two monitors. • Whole room should be secured so that if Cellebrite operator walks away from the desk as the phone is downloading, that evidence is still considered secured and there is no question of if it has been altered. • Secured room for temporary evidence (phones for download/analysis) • Crime analyst workspace nearby (near CID/DTF is best for collaboration and case sharing). Also include a mini RTOC area for CID/DTF operations to companion with crime analyst	• Secured surveillance equipment storage room (for maintaining streaming devices and storage of other surveillance equipment). • Secured area for storage of DTF buy funds • Storage space for specialized equipment (ex: arson investigator)	Interview rooms: • Secured corridor with interview rooms accessible from the jail (deter walking inmate through main office areas) and also nearby an elevator up from the garage (suspect is detained in a squad and is quickly transported up to an interview room). Then easy path to jail intake (suspect is arrested after interview and taken right to jail intake). • 1 soft juvenile interview room with family room area • 2 hard interview rooms to secure people and monitor them remotely ◦ secured conference room nearby to watch interviews in real time. ◦ 2 adult interview rooms - larger (small conference room) to accommodate multiple agencies during interview • Secured corridor with interview rooms accessible from the jail (deter walking inmate through main office areas) and also nearby an elevator up from the garage (suspect is detained in a squad and is quickly transported up to an interview room). Then easy path to jail intake (suspect is arrested after interview and taken right to jail intake).

Patrol	- Shared office space for DNR/WI State Patrol to have near general patrol area (improved interagency communication) - FTO Workspace - Patrol “ready room” for gearing up before going to squad (body cam docks with good speed) - Armory area	No cubicles like current layout. Communal workspaces with docking stations, multiple screens (Lomira example), and walls to be able to assign to individual deputies to allow for personalization, supplies, court notices, cheat sheets, etc. But still have at least four more secluded rooms/cubicles for focused work nearby the communal workspace. This needs to be customizable to allow room for expansion/shift adjustmentss.	Admin. team should be closer together (similar to a jail pod setup): 101/102 then 103/104 are nearby, then LTs and sergeants are in a close are together, but still nearby to 101, 102, 103, and 104. The admin. team area should also be nearby the patrol and jail area.
Jail	- Printer storage room needs to stay near reception. - Improved loading dock - Maintain 2 sally port entrances - Add 5 medical cells to current medical area (similar to infirmary type cells). Access the inmate from inside medical and also access the inmate from hallway. - Area to house a juvenile (sight and sound separation) - Larger maintenance area - More video court rooms (at least 4) with enough room for an attorney and a client and a correctional officer (in person or by video monitoring). Put this in a location with a connection between video court rooms and the main jail for ease of movement of inmate(s). - Locker room for staff - Relocate jail admin team to be with other admin team; relocate jail support team to be with other support team. - Outdoor/three seasons breakroom on the roof, rooftop garden/greenhouse.		- Body scanner and locker rooms for Huber inmates - clean and dirty two door rooms based on results of the body scan 24-7 Inmate arrival/departure area - separate from general public entrance for DOSO - More storage area for operating supplies - Secured storage areas - CERT Storage and training equipment (needs to be one centralized location)
Emergency Management	Need at least three offices (existing staff)	Need radio room and storage area for forms/pamphlets/hand outs and additional items for mobile command unit (larger than a closet). RADIO ROOM PROJECT: In line with upgrading radio towers and radio equipment, there is likely value in having one cut over from the old system to a new system/new build in the new building (we should avoid upgrading the radio equipment in the current building, then get a new building and have to reinstall all the new radio equipment in a new building. We want to keep the radio project in line with the building project for cost savings and installation efficiencies.)	Area for ID cards and photos.
Medical Examiner	Equipment: - Cooler near garage - Need >20 body capacity (ask for 25/30) to account for growth in the future - Racking and lifts - Bariatric tables - Floor scale (in garage or at impound) - Fume hoods - Industrial dishwasher - Sink with garbage disposal - Surgical lights - Lifts	- Negative Pressure Room - Floor drains - Needs to have ground floor access - Need natural light, but has to have windows that can't be viewed in from the outside - External exit to morgue for donation agencies at night without coming through the lobby - Smell proof - location that is close to needs, but separated for smells	8 offices - Family room - Conference/consultation room “Mother’s room”/sleep room - Access to a recorded interview room Technology: - Cameras from morgue that feed to a family room/conference room in ME office - TVs and monitors in the morgue and other rooms
IT Department	Training Spaces: - Lots of outlets - Wifi - Video conferencing - Overhead speakers - Microphone - Cameras - LOTS of TV/displays (no projectors)	EOC/Media Relations Room: - Similar to current EOC set up - Lots of outlets - Wifi - Video conferencing - Overhead speakers - Microphone - Cameras - LOTS of TV/displays (no projectors) - Press area/Media Relations Room configuration	- Good connection for body cam docks and squad uploading in garage - Larger screens for security monitors - VIGILANT AI style surveillance system for court security improvement - Pipe radio channel audio into rooms instead of relying on portable radios (need to be able to choose radio channel and turn off if needed) - Improved cellphone signal throughout the building - Improved WIFI coverage throughout the building - CAD active call screen has a 24/7 monitor in the patrol/Admin./CID/etc. gathering areas 1 Office space for DOSO IT System Analyst - With potential radio tower improvement project, we may also need to consider updated frequency equipment and a relocated radio tower with the new building plans. Dispatch IT Considerations: - Cabinets for cables instead of under desks. - Avoid 150' runs of cable. - Consider where ethernets are placed - Video interactive doorbell for after hours public inquiries - Climate controlled IT closet upstairs near dispatch so that if things have to be reset, dispatchers don't have to run downstairs to reset things.

Project No. 250027.00
Dodge County, WI Master Plan

Dodge County Office Building



Because the discussions regarding how best to remedy a multitude of issues across the campus of buildings often required a space to relocate departments during renovations, the idea of assessing the Dodge County Office Building for potential re-purchase by Dodge County and renovating for re-use was explored. Currently the different floors of the building are in varying stages of demolition by the current owner. The bulk of the interior walls are concrete masonry units. The top floor has been gutted as demolition is proceeding from the top down. The floor structure is precast concrete plank and is supported by precast concrete columns. Precast concrete plank floors can be penetrated at new locations for plumbing, electrical and mechanical needs, but there are significant limitations. The windows may be original to the building and should be replaced with energy efficient windows. The HVAC and electrical systems should be replaced. The plumbing will likely need to be relocated for most efficient layout to meet Dodge County needs. The existing elevator is undersized for an emergency rescue gurney to fit inside.

The building is of an adequate size to accommodate the departments that could be relocated, but there is limited expansion potential, and the most efficient adjacencies won't be optimally accommodated. In general, repurchasing, renovating and re-using this building could have short-term benefits but it is not viewed as a viable long-term solution. It is unlikely that using this building as a short-term solution would provide acceptable return on investment.

OPTIONS

OVERVIEW

The goal of this master plan is to provide Dodge County with multiple options to remedy their spatial needs for the multitude of departments spread across several buildings on the county campus. These solutions will have varying costs and operational complexities during implementation. Additionally, the options presented will not be the only options available, but we believe the general schemes represent the most viable options. To achieve viability, the options should allow for construction and renovations to occur in phases. It is assumed that Dodge County will not attempt to complete all phases at one time as that would be cost prohibitive. Because of this phasing, it is possible that Dodge County may ultimately choose to pick portions of certain options to be combined into the final approved plan. The final plan will be decided by Dodge County, based on their priorities and limiting factors.

It should be noted that in the past, Dodge County has investigated other construction and renovation projects that were intended to resolve one or two important issues at that point in time. The intent of the options listed is to provide long-term solutions that improve the entire campus in an orderly and implementable fashion. Additionally, the goal is to consolidate the campus as much as possible while eliminating sprawl as much as is practical.

There are a few factors that could be assumed to be an element of each option unless noted otherwise in the specific option. These factors include:

- The Henry Dodge Building has outlived its useful life. The most important, and probably the most critical, element of each of the options concerns the replacement and complete abandonment of the Henry Dodge Building.
- The Medical Examiner's department is the department with the biggest spatial need. Due to the nature of the Medical Examiner's function, it may be preferable to locate them in their own building or adjacent to the Sheriff's Department, versus reestablishing them with the other departments currently in the Henry Dodge Building. Optimally, a new Medical Examiner building would be constructed adjacent to or very near the Sheriff's Department. The old largely abandoned jail buildings could serve as a suitable location.
- The old jail (J-Pod) attached to the Sheriff's Department has been mostly abandoned and is underutilized. It is not economically viable to renovate the space to create a usable space for other functions. The best option might be to demolish it and free up the land for new government buildings, such as a new construction building dedicated to the Medical Examiner.
- With the proposed demolition of J-Pod, the Sheriff's Department will need a new building to store their equipment currently stored there, such as UTVs and boats. Larger equipment such as the Haz-Mat vehicle and Mobile Command Post are currently housed in the Highway Department. In conjunction with this new building, it may be more efficient and economical to include a new Evidence Storage with proper

Project No. 250027.00
Dodge County, WI Master Plan

utilities and vehicle storage. As a bonus, relocating Evidence Storage would free up additional space at its current location for the Highway Department to use.

- The Justice Center has vacant space dedicated to the buildout of future courtrooms. A portion of the vacant space can be built out to house the 2,863 sf needed to relocate Corporation Counsel across from the District Attorney. At the same time, there is a storage / break room in the District Attorney space that could be modified to accommodate a break room and restroom area to be shared by District Attorney and Child Support Services. This would give the staff the added security of not needing to share public restroom facilities.
- The Men's Group Home located north of Henry Dodge needs replacement because it is not ADA compliant, has had significant unintentional damage to door frames by wheelchairs, and is generally infeasible to modify appropriately. A new, ADA compliant group home to house at least four men should be considered. There is room east of the Female Group Home where it could be constructed. This is not a high priority relative to other needs but would make daily life for the users much easier.
- A previous master plan noted a need for a daycare center. Because daycare center spatial needs are based in part on requirements and codes related to age and enrollment, if there is an interest in pursuing this option, further in-depth study would be required. In general, there is space to accommodate a daycare of some size at the Henry Dodge site.
- The Sheriff's Department has significant spatial and equipment needs. In addition to upgrades to dispatch, the sheriff has no DAAT room, is short on conference rooms, computer training room, K-9 storage, evidence storage and needs larger workout space. Additionally, being connected to the Jail would increase efficiency and lower annual operational costs. The existing location is approximately a block away from the Jail and undersized by roughly 80%. The existing facility has an area of 52,887 sf, including Emergency Management but excluding the old J-Pod training area, and the programming efforts undertaken indicate a need for 10,188 sf of additional area to meet their needs and operate as efficiently as possible.

To construct an addition at the Jail for an appropriately sized Sheriff's Department without reducing the amount of available parking, the most obvious solution would be to locate it in the existing stormwater retention location. This would require significant investigation and design efforts by a civil engineer to make sure that an appropriate amount of stormwater capacity can be accommodated. A similar approach, but with the same stormwater complications, would be to construct an addition to the west of the Huber center and relocate any lost parking. If the displaced parking is to be moved into the stormwater retention area, further investigation by a civil engineer would need to be undertaken.

- The Jail has need for renovation to increase safety for the corrections officers in C and D pods. Currently those pods are being supervised under a direct supervision concept, which as designed leaves the officers vulnerable to attack from behind. To increase officer safety and provide better line of sight to all of the cells, a secured corrections officer's station should be constructed.

Project No. 250027.00
Dodge County, WI Master Plan

Additionally, the medical unit is undersized and needs to be expanded to better accommodate the number of inmates they serve and the records that they need to maintain.

AT A GLANCE

Options 1 and 2 include constructing a new building to house all the departments of Henry Dodge while offering various solutions relating to the departments in the Administration building.

Option 3 is based on the purchase of the former Dodge County Office Building, renovating it for the relocation of most departments in the Administration Building, then renovating the mostly vacant Administration Building to accommodate the departments currently in the Henry Dodge Building.

Option 4 describes constructing a new building to house all but two departments related to the Administration building, renovating the existing Administration building and relocating departments of Henry Dodge to the renovated space.

Option 5 details constructing a new building to accommodate all the departments from both buildings.

OPTION 1 – New Dodge w/Admin Renovation While Occupied by Admin

Construct a new building to house all the Henry Dodge functions, except for the Medical Examiner.

- This new building could be constructed immediately west of Henry Dodge or in the County owned field to the north.
- The residents of the existing CBRF would move to a vacant wing of Clearview. The CBRF currently has 20 rooms and the vacant wing at Clearview only has 16 rooms. Because of fluctuating needs for CBRF housing, it is believed that eliminating four rooms to avoid constructing an addition for Clearview would be acceptable.
- Because a new building to replace Henry Dodge would best fit to the west of the current building, creating greater distance between it and the existing garage / storage building, consideration should be given to constructing a new garage for the transport vans, closer to the new building.
- The existing storage building could either be repurposed, relocated or demolished to make room for another use at that same location.

In conjunction with the needs of Henry Dodge, the existing Administration Building needs renovation to right-size the offices and relocate storage areas to be more accessible to the departments. The Administration Building can be renovated while it is being occupied, but it will come with hardships and inconvenience for the staff and residents who use the building.

- The first step would be to modify the old printing room in the basement to create temporary office space.
- The staff of one or more departments would then be relocated to the temporary office and the space they vacated would be renovated.
- The renovated space would then be reoccupied and the next space renovated, with movements in and out of the temporary office as needed. This can be a complex procedure and significant coordination between the contractor and County regarding staff movements is required. This

Project No. 250027.00
Dodge County, WI Master Plan

process will require staff and building users to work and do business inside a loud and dirty construction zone for an extended period. Additionally, this process will lengthen the duration of the renovation beyond what it would be if the building was temporarily vacated.

OPTION 2 New Dodge w/Admin Renovation & Temp Relocation of Admin

Option 2 also starts with a new building for Henry Dodge as described in Option 1.

- Once complete, the staff from the Henry Dodge Building would relocate to the new building.
- The staff currently located in the Administration Building would temporarily relocate into the now vacant Henry Dodge Building.
- The Administration Building would be renovated, the staff would move back.
- The Henry Dodge Building could then be abandoned and demolished. The obvious downside to this is that the abandonment of Henry Dodge is prolonged by its repurpose for temporary use of the departments in the Administration Building, necessitating the need to spend money to maintain the building that is the most difficult and least cost effective.

OPTION 3 Buy Back DCOB, Renovation & Double Relocation

Option 3 begins with the County purchasing the former Dodge County Office Building (DCOB) next to the Highway Department.

- The office building would be renovated to accommodate all the existing departments in the Administration Building except for Corporate Counsel (would go to Courts Building), Medical Examiner (would get new stand-alone building), Maintenance (remain in Admin) and the County Board Room (remain in Admin).
- With those exceptions, it is possible for the remaining departments to fit into the renovated Dodge County Office Building but there would be limited expandability, the agencies may not be optimal to fit each department on a single floor, and it would be moving back into an aging building.
- This option would accommodate the needs of current Henry Dodge occupants but prolong the abandonment of the Henry Dodge Building until both the DCOB and the existing Administration Buildings are renovated. Additionally, the Administrative Departments will be moved into areas constrained by available space and structural elements, and not necessarily the most efficient way for them to operate. This goes against the goal of creating the most efficient and flexible space to accommodate future needs and expansion.
- **In short, because of the age and physical limitations of the DCOB, Venture Architects does not believe this is a viable, long-term, cost-effective solution for the extensive reasons noted above in the description in the Dodge County Office building and is only presented here because it was investigated for viability.**

OPTION 4 New Admin/w Admin Renovation & Relocate Dodge to Admin

Option 4 would consist of the construction of a new building to house all the departments currently located in the Administration Building, except for Maintenance.

- This new building would fit on the Henry Dodge site.
- Once the Administration Building is vacant, it could be renovated to accommodate all the departments located in Henry Dodge. This option again prolongs the abandonment of the Henry Dodge Building until a new building is constructed and the existing Administration Building is renovated.

OPTION 5 New Building Consolidating All Departments

Option 5 would consist of the construction of a new building to house all the departments currently housed in both Henry Dodge and the Administration Building. This building would fit on the Henry Dodge site.

- This option would have the greatest up-front cost but would be the best long-term solution as it would create a single building with better departmental adjacencies for staff and building users.
- Travel relating to maintenance would be reduced by combining two buildings into one.
- Dodge County would have a single building designed for the next 50+ years, versus two buildings of varying ages and associated maintenance difficulties.
- It is possible that the building could be phased to first allow for the Henry Dodge Building to be vacated, then an addition could be built for the departments of the Administration Building to move in later. This would require thoughtful planning in the first phase but would abandon the Henry Dodge Building earlier, minimizing maintenance costs.

COST ESTIMATES

OVERVIEW

Below are cost estimates for each of the five major options listed above. In addition to those, cost estimates have been included for the demolition of the old jail (J-Pod) and the construction of a new Medical Examiner building which could be phased into any option as well as the buildout of a white box area in the Justice Center for the relocated Corporation Counsel.

The following department sizes have been used for calculating the cost estimates. In addition to room sizes, a grossing factor and square footage has been added to account for shared corridors, mechanical rooms, restrooms and meeting rooms. These areas are programmatic and would be further refined in schematic design and design development as projects move forward.

RENOVATED / NEW ADMINISTRATION BUILDING:

County Administrator:	850 sf
County Clerk:	2,000 sf
County Board:	3,974 sf
County Treasurer:	1,700 sf
Finance & Purchasing	1,463 sf
Human Resources:	2,250 sf
UW Extension:	3,748 sf
Information Tech:	2,375 sf
Land & Water Conservation:	1,688 sf
Land Resource & Parks:	1,220 sf
Maintenance:	9,654 sf
Register of Deeds:	2,996 sf
Survey & Description:	2,404 sf
Receiving	795 sf
Break Room	888 sf

NEW HENRY DODGE BUILDING:

ADRC:	4,006 sf
Adult Protective Services:	1,925 sf
Children with Disabilities:	2,399 sf
Clinical Services:	9,813 sf
Economic Support:	6,763 sf
Public Health:	2,761 sf
Veteran Services:	1,225 sf
WIC:	19,993 sf

RENOVATED JUSTICE CENTER:

Corporation Counsel:	2,863 sf
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As part of the process of determining a path forward, in addition to prioritizing the building needs described above, Dodge County must assess these cost estimates with the appropriate financial staff and consultants to determine mill rates and the best way to proceed with a thoughtful, long-term plan to minimize impact and fluctuations on property taxes. It is common for counties to see only the cost estimate and abandon projects without determining the impact of the mill rate. When the analysis is completed, it is often less impactful than anticipated when only looking at the overall cost.

OPTION SUMMARY COST ESTIMATES – SAMUELS GROUP MAY 2026
Option 1 & 2 Cost Summary

	Option 1		Option 2	
	New Building to Replace Henry Dodge / Renovation of Admin Building While Occupied		New Building to Replace Henry Dodge / Renovation of Admin Building with Temp Relocation of staff	
Building Age	1 New / Reuse of 1G37 - 1GG5 Admin		1 New / Reuse of 1G37 - 1GG5 Admin	
	Phase 1	Phase 2	Phase 1	Phase 2
Construction	\$37,117,984	\$32,500,000	\$36,977,984	\$29,937,643
Soft Costs	\$5,567,698	\$4,875,000	\$5,546,698	\$5,987,529
Sub Total	\$42,685,682	\$37,375,000	\$42,524,682	\$35,925,172
Contingency	\$4,268,568	\$3,737,500	\$4,252,468	\$3,592,517
Sub Total	\$46,954,250	\$41,112,500	\$46,777,150	\$39,517,689
Inflation 2028	\$7,043,137	\$6,166,875	\$7,016,572	\$5,927,653
Total	\$53,GG7,387	\$47,27G,375	\$53,7G3,722	\$45,445,342
New Vehicle Storage Building	\$2,950,000		\$2,950,000	
Corp Counsel Buildout @ Justice Center	\$1,150,000		\$1,150,000	
Combined Phase Total	\$105,376,762		\$103,33G,064	

Option 3 & 4 Cost Summary

	Option 3		Option 4	
	Purchase old DCOB Building and Renovate for Admin staff. Renovate existing Admin for Henry Dodge Staff and Demo existing Henry Dodge Building		New Building to House Admin staff / Renovate old Admin Building to House Henry Dodge Staff	
Building Age	Purchase / Renovate 1G68 DCOB and Reuse of 1G37 -1GG5 Admin		1 New / Reuse of 1G37 - 1GG5 Admin	
	Phase 1	Phase 2	Phase 1	Phase 2
Construction	\$17,850,970	\$29,937,643	\$30,580,611	\$29,937,643
Soft Costs	\$4,462,743	\$5,987,529	\$4,587,092	\$5,987,529
Sub Total	\$22,313,713	\$35,925,172	\$35,167,703	\$35,925,172
Contingency	\$2,231,371	\$3,592,517	\$3,516,770	\$3,592,517
Sub Total	\$24,545,084	\$39,517,689	\$38,684,473	\$39,517,689
Inflation 2028	\$3,681,763	\$5,927,653	\$5,802,671	\$5,927,653
Total	\$28,226,846	\$45,445,342	\$44,487,144	\$45,445,342
New Vehicle Storage Building	\$2,950,000		\$2,950,000	
Corp Counsel Buildout @ Justice Center	\$1,150,000		\$1,150,000	
Combined Phase Total	\$77,772,188		\$64,032,486	

Option 5 Cost Summary

	Option 5	
	New Building to House all staff from Administration and Henry Dodge Buildings	
Building Age	1 New Building	
	Phase 1	Phase 2
Construction	\$50,983,618	
Soft Costs	\$7,647,543	\$0
Sub Total	\$58,631,161	\$0
Contingency	\$5,863,116	\$0
Sub Total	\$64,494,277	\$0
Inflation 2028	\$9,674,142	\$0
Total	\$74,168,418	\$0
New Vehicle Storage Building	\$2,950,000	
Corp Counsel Buildout @ Justice Center	\$1,150,000	
Combined Phase Total	\$78,268,418	

FACILITIES ASSESMENT – RING & DuCHATEAU

FACILITIES ASSESMENT – RING & DuCHATEAU

General

The overall mechanical and electrical scope was to analyze the existing mechanical and electrical infrastructure associated with the Dodge County Administration, sheriff's department, the Courthouse, and Henery Dodge buildings. The report below identifies the age and general condition of pieces of infrastructure that was reviewed.

Sheriff's Office Building

Mechanical

The building's air system is served by two indoor air handling units (AHU) and a Rooftop unit (RTU). There is a heating hot water gas boiler system that provides heating water to the air handling unit and a limited amount of terminal equipment around the building. The natural gas service to the building is distributed to each piece of equipment at 2 PSI and then regulated down to usable pressure.

Equipment/Aging Infrastructure:

Apart from the recently replaced RTU-1 and AHU-1, the pneumatic controls system, hot water piping system, and unitary equipment (i.e.: FCUs, room air conditioners) serving the building are aging and should be considered for replacements or for future upgrades.

Controls:

The existing controls utilize pneumatic controls to control the building's temperature. These controls don't have an automatic means of alerting the maintenance staff of issues in the system and are otherwise reliant of the occupants to inform the maintenance staff of hot or cold areas of the building. Upgrading to a digital building automation system, while challenging in an existing building, can have major benefits such as increased occupant comfort, decreased operating costs, 24/7 monitoring and alerts.

Energy efficiency:

Most of the systems are constant volume, including fans and pumps. Variable frequency drives are installed on some fans, however they appear to be utilized for monitoring and balancing and not to vary the flow in the system unless manually adjusted.

Equipment summary:

ATTRIBUTE: RTU-1	EXISTING/CURRENT STATUS
System Description:	• MFR.: AAON • Model: RN • Cooling: Direct Expansion • Heating: Natural gas.

Project No. 250027.00
Dodge County, WI Master Plan

Existing Conditions:	Controls: Digital, Packaged.
Area Served:	Exact rooms unknown, Upper level.
Date of Installation:	2019
Estimated Remaining Life Span:	Based on ASHRAE Life Expectancy publication, there are approximately 10 years of useful life remaining on this unit. This may be extended with regular maintenance and availability of replacement parts.
Location:	Roof

ATTRIBUTE: AHU-2	EXISTING/CURRENT STATUS
System Description:	MFR.: YORK Model: Solution XT Cooling: Direct Expansion Heating: Zone Hot water heat duct coils. Associated Equipment CF-2 (AHU-2) Trane Cabinet return fan. Single constant volume fan. Exceeded life expectancy. Air Cooled Condensing unit. Trane RAUJ 4 compressors, 2 refrigerant circuits Roof top exhaust fan Utility set fan Age: Unknown. Life Expectancy: The fan appears to be near average mid-life expectancy.
Existing Conditions:	Controls: Digital, Packaged. Equipped with EC fan motors.
Area Served:	Exact rooms unknown, lower and Upper levels.
Date of Installation:	2019
Estimated Remaining Life Span:	Based on ASHRAE Life Expectancy publication, there are approximately 15 years of useful life remaining on the indoor AHU and approximately 10 years on the ACCU. This may be extended with regular maintenance and availability of replacement parts.
Location:	Lower-level mechanical room.

ATTRIBUTE: HOT WATER SYSTEM	EXISTING/CURRENT STATUS
System Description:	MFR.: (3) Burnham Boilers Model: Unknown Burner type: Natural gas. System Configuration: Primary/secondary Associated Equipment Boiler pumps – canister inline pumps Inline Taco Pump – Secondary pump
Existing Conditions:	Piping System Piping system is original to the building and is approaching end of service life expectancy. Modifications to the piping for renovations may require a larger scope
Area Served:	Heating/reheat coils
Date of Installation:	Original equipment.

Project No. 250027.00
Dodge County, WI Master Plan

Estimated Remaining Life Span:	Based on ASHRAE Life Expectancy publication, this equipment has exceeded it's average life expectancy. It is recommended to replace in the near future as replacement parts are becoming obsolete.
Location:	Lower level mechanical room.

ATTRIBUTE: AC/FURNACE	EXISTING/CURRENT STATUS
System Description:	MFR.: Unknown (possibly Carrier) Model: Unknown Heat type: Unknown (assumed electric or served by hot water duct coils) Cooling: DX (R22 refrigerant)
Area Served:	Fitness room.
Date of Installation:	Undetermined
Estimated Remaining Life Span:	Since exact MFR data is unknown it is hard to determine exact age, however, the use of R-22 Refrigerant dates this unit more than 15 years old. Based on appearance and the phase out of R-22, this equipment has exceeded its average life expectancy. It is recommended to replace it in the near future as replacement parts are becoming obsolete, and the refrigerant can no longer be used after being reclaimed.
Location:	Lower-level Fitness room.

ATTRIBUTE: LIEBERT RACU	EXISTING/CURRENT STATUS
System Description:	MFR.: Liebert Model: PDX Cooling DX (R410A Refrigerant)
Area Served:	Communications room.
Date of Installation:	2016 MFR date.
Estimated Remaining Life Span:	Based on ASHRAE Life Expectancy publication, this equipment is approximately 9 years old and falls within the mid-life range of this type of equipment, there is no need to replace this unit at this time.
Location:	Lower-level communications room.

Electrical

Normal Power

This building is served from a secondary service provided by the Utility. This is a 200kVA Utility owned transformer that is in reasonable condition with light surface rust developing. This service enters the building underground and terminates in panel MDP which is installed in the lower-level mechanical room.

Panel MDP is a 208Y/120, 3-phase, 4-wire 1000 ampere, 5-section fusible switchboard. This switchboard consists of a termination section, a main fused disconnect with Utility CT metering section, and three fusible distribution sections. There is space available to mount additional fused disconnects if required. However, this switchboard is a General Electric AV line switchboard which is considered obsolete, with no support or replacement products available. All fusible disconnects and maintenance parts will be refurbished equipment if available. Replacement of this equipment is not essential, but it should be considered if any major renovations were to occur within the building.

There are branch panels distributed throughout the lower and first level of the building. There are two types of branch panels installed, General Electric NLAB and Eaton PRL1A.

The PRL1A branch panels are manufactured by Eaton and are currently supported. These panels have been installed between 1997 and 2005 based on the observed manufacturing date of the equipment. A typical life span for a branch panel range between 25-30 years, with 40 years possible with preventive maintenance. These panels appear to be in good physical condition and have been installed for 20-28 years at this point. There is no reason to replace these panels at this point.

The GE NLAB style branch panels have been discontinued by ABB, with only third party or refurbished circuit breakers and repair parts available. While these panels appear to be in good condition, consideration should be given to replacement if there are any renovations within the building.

Generator

An exterior 150kW/187.5kVA 208Y/120V, 3-phase, 4-wire diesel generator is located on the west side of the building along West St. This unit is protected by concrete bollards. Based on the installation dates listed on the distribution equipment within the building, this generator was installed in 2024 and has been in service for 2 years. The generator is in very good condition, exhibiting no signs of wear. This is fully supported by the factory and will be for years to come. A generator's life span will range from 20-30 years, with a longer life span attainable with routine maintenance and the continued manufacturer's maintenance parts support. Expect another 30 years of service from this generator.

Emergency Power

There are two transfer switches installed, both manufactured by Kohler. These transfer switches create the Essential Emergency system (NEC 700) and the Non Essential optional standby system (NEC 702). Both transfer switches use the Kohler Decision Maker MPAC controllers and are currently supported. These transfer switches were installed with the generator in 2024 and should provide another 20 years of service or longer if the controls are able to be upgraded at their end of life. The Essential Emergency system consists of a 208Y/120V, 100 ampere, single Eaton PRL1A branch panel which supports the emergency exit and egress lighting, and the fire alarm system. This panel is in similar condition to all other branch panels within the building and has been in service for 20 years.

The Non-Essential Emergency system consists of a 208Y/120V, 400 ampere, 2-section Eaton Pow-r-Line C PRL4 panelboard which supports selected HVAC equipment, the UPS system, the generator system, and various receptacles and lighting throughout the building. This panel is in good condition and is still supported by Eaton. This panel also has an expected life span of 25-30 years with 40 years being possible with good maintenance and continued parts support.

UPS

A 40kVA 208Y/120V Liebert NPower UPS system is installed adjacent to the server room in the lower level. This unit consists of three sections: a battery section, the UPS section, and a distribution section. This unit is no longer supported by the manufacturer. Some commodity items like capacitors, batteries, and fans can be replaced, but any manufacturer specific parts will not be available. If the factory specific components fail, refurbished parts will be the only repair option. A typical life span for a UPS system is about 10-15 years, with 20 years possible with good maintenance and the availability of parts. This unit has been in use for 20 years at this time and should be considered for replacement.

Project No. 250027.00
Dodge County, WI Master Plan

The UPS power is distributed through a 2-section Eaton PRL1A panel rated at 208Y/120V and 150A. This panel is in similar condition to the other PRL1A panels. The loads served include various receptacles throughout the building but concentrated on the data center and other IT related loads.

Fire Alarm

The fire alarm system was not observed during the walkthrough, however the Dodge County Facilities team indicated that this system is original to the building which was constructed in 1984. A typical life span for fire alarm control panels is between 15-20 years, with the field devices ranging between 10-15 years. This system has been in service for 42 years and is obsolete. Parts are not readily available. Strong consideration should be given to replacing this system.

Henry Dodge Building

Mechanical

The building's air system is served by multiple indoor air handling units (AHU) and five (5) additional Rooftop units (RTU) that serve specific spaces like the Gym, offices and entry areas, and resident rooms. The indoor air handling units serve mostly ventilation air only and not to heat or cool the rooms. Room air conditioning units are in most perimeter rooms that were not modified to be served from RTU-1 or RTU-2 that were added in 2013. The central energy plant is equipped with natural gas steam boilers, steam to hot water shell and tube steam to hot water converters, and an air-cooled chiller. The chilled water system is equipped with a plate and frame heat exchanger that decouples the primary from the secondary loops, the primary loop that serves the chiller is mixed with glycol to maintain operation longer without freeze concerns. There is a reheat coiler hot water system that serves heating coils in the ductwork and, there is also a 2-pipe changeover system that provide heating water and chilled water to fan coil units (FCUs) in offices and resident rooms. In 2013, gas fired hot water boilers were added to supply hot water to reheat VAV boxes that serve resident rooms. The natural gas service to the building is distributed to each piece of equipment at 2 PSI and then regulated down to usable pressure.

Equipment/Aging Infrastructure:

The pneumatic controls system, hot water piping system, and unitary equipment (i.e.: FCUs, room air conditioners) serving the building are aging and should be considered for replacements or for future upgrades.

Controls:

The existing controls utilize pneumatic controls to control the building's temperature. These controls don't have an automatic means of alerting the maintenance staff of issues in the system and are otherwise reliant of the occupants to inform the maintenance staff of hot or cold areas of the building. Upgrading to a digital building automation system, while challenging in an existing building, can have major benefits such as increased occupant comfort, decreased operating costs, 24/7 monitoring and alerts. The controls system components are obsolete, and OEM parts can no longer be found, 3rd party components are being purchased to keep the system operational.

Energy efficiency:

Project No. 250027.00
Dodge County, WI Master Plan

Most of the systems are constant volume, including fans and pumps. Variable frequency drives are installed on some fans, however they appear to be utilized for monitoring and balancing and not to vary the flow in the system unless manually adjusted.

Equipment summary:

ATTRIBUTE: RTU-1	EXISTING/CURRENT STATUS
System Description:	- Carrier Weathermaster Packaged rooftop unit. - Constant volume single zone system - Electric booster coil installed for Ext. Office. - DX cooling/Nat. Gas heat.
Area Served:	Medical Records
Date of Installation:	1993
Estimated Remaining Life Span:	None, this unit has surpassed its life expectancy. (32 yo from date of installation) Based on the condition of this unit it is recommended to be replaced when capital can be allocated.
Location:	Lower roof

ATTRIBUTE: RTU-2	EXISTING/CURRENT STATUS
System Description:	NOT IN USE - Carrier Weathermaster Packaged rooftop unit. - Constant volume single zone system - DX cooling/Nat. Gas heat.
Area Served:	Kitchen
Date of Installation:	1993
Estimated Remaining Life Span:	None, this unit has surpassed its life expectancy. (32 yo from date of installation) Based on the condition of this unit it is recommended to be replaced when capital can be allocated.
Location:	Lower roof

ATTRIBUTE: RTU-3&4	EXISTING/CURRENT STATUS
System Description:	- Johnson Controls Model: RN Cooling: Direct Expansion Heating: Natural gas.
Existing Conditions:	Controls: Digital, Packaged.
Area Served:	CBRF
Date of Installation:	2013
Estimated Remaining Life Span:	Based on ASHRAE Life Expectancy publication, there are approximately 10 years of useful life remaining on this unit. This may be extended with regular maintenance and availability of replacement parts.
Location:	Roof

ATTRIBUTE: AHU-1 THRU 7	EXISTING/CURRENT STATUS
System Description:	- Constant air volume - Chilled water coil - Steam heating wing F&B coil - Single Supply fan - Return/relief fan external to the unit. - Pneumatic Controls

Project No. 250027.00
Dodge County, WI Master Plan

Existing Conditions:	- All units are identical in age and condition - Units have been maintained to continue to operate. - Internal insulation is deteriorating and not providing proper insulation from the ambient air around the unit affecting efficiency. - Fans are currently driven and constant volume. - Cooling coils appear to be in working condition. - Steam Wing coil appears to be in working condition.
Area Served:	See plans
Date of Installation:	1969, Original Unit
Estimated Remaining Life Span:	None, these units have surpassed there life expectancy and based on the condition of internal insulation they are recommended to be replaced when capital can be allocated.
Location:	Penthouse.

ATTRIBUTE: OUTDOOR AHU-8 (GYM)	EXISTING/CURRENT STATUS
System Description:	- Roof top Air Conditioner. - Supply fan only - Cooling only - Heating coil in ductwork (HW) - Constant Volume - Pneumatic controls

Existing Conditions:	Unit casing is showing signs of deterioration, Surface rust is forming and starting to compromise the integrity of the unit.
Area Served:	Fitness/Gym
Date of Installation:	1993
Estimated Remaining Life Span:	None, this unit has surpassed its life expectancy. (32 yo from date of installation) Based on the condition of this unit it is recommended to be replaced when capital can be allocated.
Location:	Wellness/Fitness Roof

ATTRIBUTE: EXHAUST FANS	EXISTING/CURRENT STATUS
System Description:	Individual exhaust fan systems that serve various parts of the building.
Existing Conditions:	Exhaust fans appear to be original to the building and are functional.
Area Served:	See plans
Date of Installation:	1969
Estimated Remaining Life Span:	None, these units have surpassed there life expectancy and based on the condition of internal insulation they are recommended to be replaced when capital can be allocated.
Location:	Penthouse.

ATTRIBUTE: STEAM SYSTEM	EXISTING/CURRENT STATUS
System Description:	Existing steam boiler system is an original entity to the building and with regular maintenance it has remained operational. The system consists of two (2) Kewanee natural gas Steam boilers. This boiler are deteriorating and parts are becoming obsolete and harder to find.
Existing Conditions:	This system is original to the building, and the piping is slowly degrading and producing leaks around the facility. Chemical composition of the boilers is checked 2 times a week to ensure the system remains stable and doesn't impact the operation of the system.
Area Served:	AHUs and converters
Date of Installation:	1969
Estimated Remaining Life Span:	- Boilers: These boilers have exceeded their life expectancy and should be replaced as soon as funds are available. - Components: Most components have exceeded their life expectancy and should be replaced as soon as funds are available. - Piping: The piping has exceeded its life expectancy and that is noticed by random leaks around the facility.

Project No. 250027.00
Dodge County, WI Master Plan

Location:	Mechanical equipment room and piping throughout the building.
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ATTRIBUTE: FCU HOT WATER SYSTEM	EXISTING/CURRENT STATUS
System Description:	2-pipe change over system provides mixed temperature water to room fan coil units around the facility in offices, resident rooms and other exterior spaces. - Hot water is generated by pumping water through the steam converters (also original).
Existing Conditions:	This system is original to the building, and the piping is slowly degrading and producing leaks around the facility.
Area Served:	Building
Date of Installation:	1969
Estimated Remaining Life Span:	- The pumps have been periodically replaced and appear to be in good working order, actual age is unknown, however, they appear to be of an age that may require replacement in the near future. - The piping has exceeded its life expectancy and that is noticed by random leaks around the facility.
Location:	Mechanical equipment room and piping throughout the building.
ATTRIBUTE: BOOSTER COIL HOT WATER SYSTEM	EXISTING/CURRENT STATUS
System Description:	2-pipe heating system provides hot water to duct mounted booster coils. - Hot water is generated by pumping water through the steam converters (also original).
Existing Conditions:	This system is original to the building, and the piping is slowly degrading and producing leaks around the facility.
Area Served:	Building
Date of Installation:	1969
Estimated Remaining Life Span:	- The pumps have been periodically replaced and appear to be in good working order, actual age is unknown, however, they appear to be of an age that may require replacement in the near future. - The piping has exceeded its life expectancy and that is noticed by random leaks around the facility.
Location:	Mechanical equipment room and piping throughout the building.

ATTRIBUTE: PK HOT WATER BOILERS	EXISTING/CURRENT STATUS
System Description:	Hot water condensing boilers that serve as a reheat system to the CBRF. System is complete with primary and secondary pumps.
Existing Conditions:	PK Boilers were installed in place of a removed steam boiler. Building load is indicated to be decreasing so reheat load has also been decreasing.
Area Served:	CBRF and connected into the main building system.
Date of Installation:	2013
Estimated Remaining Life Span:	The boilers have approximately 12-18 years remaining of the published 30 year life expectancy.
Location:	Mechanical equipment room.

ATTRIBUTE: CHILLED WATER COIL	EXISTING/CURRENT STATUS
System Description:	The chilled water system consists of one (1) air cooled chiller, a single primary pump, P&F heat exchanger and two secondary pumps.
Existing Conditions:	The air cooled chiller was replaced in 2015 and the associated primary pump and P&F heat exchanger as well.
Area Served:	Building
Date of Installation:	2015
Estimated Remaining Life Span:	- The chiller has approximately 10 years left of the average published life expectancy but could surpass that with routine maintenance. - The pumps have been periodically replaced and appear to be in good working order, actual age is unknown, however, they appear to be of an age that may require replacement in the near future. - The piping has exceeded its life expectancy and that is noticed by random leaks around the facility.

Project No. 250027.00
Dodge County, WI Master Plan

Location:	• Mechanical equipment room and piping throughout the building.
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Electrical

Normal Power

This building is served from a secondary service provided by the Utility. This is a Utility owned transformer that is in good condition. The service may have been replaced as part of a 2013 renovation, as the main service entrance equipment is newer than much of the existing distribution equipment installed elsewhere in the building. This service is centrally located on the north side of the building, enters the building underground, and terminates in panel MD which is installed in a shallow room or closet on the Ground floor.

Panel MD is a 480Y/277, 3-phase, 4-wire 2000 ampere, 2-section fusible switchboard. This switchboard consists of a termination/main circuit breaker section and a single double row circuit breaker distribution section and is in good condition. There is space available to mount additional circuit breakers if required. This switchboard is a Square-D QED Series 2-S switchboard which is considered a legacy switchboard, but it is still actively supported by the factory. A typical lifespan for power panels ranges between 25-35 years. This switchboard was installed in 2012 based on the markings on the switchboard nameplates, which means that that this panel can remain in service for the next 12 to 22 years or longer based on the availability of replacement components. This equipment appears to be a replacement service installed as a part of a 2012 addition. As a part of this addition, the original distribution equipment was then re-fed from the new service.

There are power panels and branch panels distributed throughout the building, and they consist of various manufacturers and install dates. Most of the distribution equipment installed is original to the building but is in fair to good condition with only minor signs of rust or corrosion noticeable. All equipment is installed within conditioned spaces. Below is a synopsis of the panel types installed and the maintainability of each panel type.

Obsolete panels. Any panel listed as obsolete is no longer supported by the manufacturer. No new panels, interiors, maintenance components or circuit breakers are manufactured. This means that repairs to this series of equipment will rely on refurbished components. Replacement of these panels is recommended when renovations or equipment upgrades affect these panels.

- Power Panel Square-D NH1B series
- Power Panel Square-D Power Style series.
- Branch Panel Square-D NQOB series.
- Branch Panel Cutler Hammer PH series.

Legacy panels. Any panel listed as legacy is no longer in production, but new circuit breakers are available by the manufacturer (or the manufacturer that absorbed the original manufacturer).

- Load Center Cutler Hammer CH series.

Supported panels. Any panel listed as supported is currently in production and fully supported by the manufacturer for replacement components and circuit breakers.

- Load Center Square-D Load Center series.

Project No. 250027.00
Dodge County, WI Master Plan

Generator

An interior 500kW/625kVA 480Y/277V, 3-phase, 4-wire Kohler diesel generator is located within a room adjacent to the northeast Boiler room on the ground floor. Based on the vintage of this equipment, it is estimated that this generator was installed in the late 1990's. This generator is largely considered obsolete by the factory, with many of the main components no longer manufactured. The majority of the alternator and engine parts are still supported, but the electronics controlling this generator will be to be repaired with refurbished components if available. Generally, a generator's life span will range from 20-30 years, with a longer life span attainable with routine maintenance and the continued manufacturer's maintenance parts support. This unit has been in service for an estimated 35+ years.

Emergency Power

There are two transfer switches installed within the generator room. One is original to the generator installation, and one is a newer unit that is believed to be installed as part of the 2012 renovation and addition. The loads served by each transfer switch appear to be mixed between.

The first transfer switch is a Kohler transfer switch with an MPAC 500 Controller and is considered fully obsolete. If mechanical or controller failures occur, a replacement transfer switch will be required if refurbished components cannot be sourced. The normal source of power originates from the normal service panel MD and the original circuit breaker installed within the generator set. The main distribution panel that this transfer switch serves is panel DPE. Panel DPE also serves panels DP5, PP2, PP3, LPED, and the emergency panel in the penthouse. The loads fed from this combined riser include; generator accessory loads, general shed loads, emergency lights, washers, outlets, elevators, pumps, unit heaters, fan coils, boilers, exhaust fans, air compressors, and other miscellaneous mechanical loads. This is a mix of loads that spans the emergency system (NEC 700), legally required standby (NEC 701), and optional standby (NEC 702) loads. By today's codes, each load type should be segregated to the proper branch served by its own transfer switch.

The second transfer switch is a newer Kohler transfer switch with an MPAC 1500 Controller and is considered a legacy switch. If mechanical components within this transfer switch fail, support parts are available, but if the controller fails a controller upgrade will be required. The normal source of power originates from the normal service panel MD and a newer enclosed circuit breaker field installed on the generator set utilizing spare lugs or a tapped bus. The panel that this transfer switch serves was not observed during the walkthrough of this building. Further investigation is required.

UPS

The telephone room that is centrally located on the ground floor of the building has a UPS system installed to support the equipment within the telephone and data room as well as nurse call and security panels. There are two UPS units that were installed in 2013, both are Eaton/Ferrups 4.3kVA, single-phase, three-wire units with an integral transformer. These units then feed a local 25 ampere, two- pole enclosed circuit breaker, which then feed 208/120V, single-phase, three-wire branch panels. The branch panels were installed along with the UPS units and a manufactured by Square-D. A typical UPS unit's life span is 15-20 years, but these are equipped with output transformers which help extend the life of the unit. Eaton/Ferrups consider these a Legacy item, but they are still actively supported for maintenance parts. These units have been in service for approximately 12 years, but With continued maintenance, and additional 10-12 years could be expected.

Project No. 250027.00
Dodge County, WI Master Plan

Fire Alarm

The installed fire alarm system is a GE/Edwards EST3 system. This is an addressable system with manual pull stations, ceiling mounted smoke detectors, horn/strobe devices, and interfaces to the elevator, HVAC, and fire protection systems. The head end of this system is considered obsolete, with no replacement components available from the manufacturer. This system has exceeded its typical life span. Consideration should be given to replacing this panel. The field devices (pull stations, smoke detectors, notification devices, and monitor and control modules) are all still supported and could be served by a new fire alarm control panel without the need to replace all of these devices and wiring.

Courthouse Building

Mechanical

The courthouse was built in 1999 and a partial third floor buildout was completed in 2006. The building mechanical system consists of four (4) variable volume indoor air handling units, secondary heating water pumps, and a chilled water system including two (2) outdoor air-cooled chillers. The three (3) original AHUs are new to the building in 1999 and air-cooled chiller WC_1 was recently replaced in 2024 while WC-2 is nearly 19 years old and is planned to be replaced soon. Additionally, unitary throughout the building such as unit heaters, convectors, and cabinet unit heaters are expected to be original to the building in 1999 but were not specifically reviewed.

The heating water system is provided to the courthouse from the jail facility boilers and pumps. This system consists of three (3) 250 HP Hurst water boilers. The piping configuration consists of a primary/secondary pumping configuration with dedicated secondary pumps, two for the courthouse and two for the jail.

Equipment/Infrastructure:

Most of the air handling equipment, boilers, chillers, and pumps appear to be well maintained, however, are nearing the end of the average life span of the types of units. Some of this is already realized having some equipment replaced a few years ago.

Controls:

This building has the most up to date controls system that was updated in 2022.

Energy efficiency:

This building operates variable volume systems on both the air and water side. The building operates efficiently aside from having high temperature reheat water distributed throughout the building, but changing to a low temperature system would require major infrastructure upgrades. It is not recommended to revise the system to a low temperature system.

Equipment summary:

ATTRIBUTE: AC1-1	EXISTING/CURRENT STATUS
System Description:	- Variable volume - Hot and chilled water coils. - GPS
Area Served:	Partial first and second floor

Project No. 250027.00
Dodge County, WI Master Plan

Date of Installation:	• 1999
Estimated Remaining Life Span:	• This unit has approximately 5-10 years left of the average life expectancy and that could be extended by maintaining a regulation maintenance program.
Location:	• Mechanical room.

ATTRIBUTE: AC1-2	EXISTING/CURRENT STATUS
System Description:	• Variable volume • Hot and chilled water coils. • GPS
Area Served:	• Partial first and second floor
Date of Installation:	• 1999
Estimated Remaining Life Span:	• This unit has approximately 5-10 years left of the average life expectancy and that could be extended by maintaining a regulation maintenance program.
Location:	• Mechanical room.

ATTRIBUTE: AC1-3	EXISTING/CURRENT STATUS
System Description:	• <u>Constant volume</u> • <u>Hot and chilled water coils.</u> • <u>GPS</u>
Area Served:	• <u>High density Storage</u>
Date of Installation:	• <u>1999</u>
Estimated Remaining Life Span:	• <u>This unit has approximately 5-10 years left of the average life expectancy and that could be extended by maintaining a regulation maintenance program.</u>
Location:	• <u>Mechanical room.</u>

ATTRIBUTE: AC1-4	EXISTING/CURRENT STATUS
System Description:	• Variable volume • Hot and chilled water coils. • GPS
Area Served:	• Partial 3 rd floor
Date of Installation:	• 2006
Estimated Remaining Life Span:	• This unit has approximately 10-15 years left of the average life expectancy and that could be extended by maintaining a regulation maintenance program.
Location:	• 3 rd floor Mechanical room.

ATTRIBUTE: WC1-1	EXISTING/CURRENT STATUS
System Description:	• Air-cooled chiller. • Primary/secondary pump system.
Area Served:	• First and second floor AHUs.
Date of Installation:	• 2024
Estimated Remaining Life Span:	• This unit has approximately 15-20 years left of the average life expectancy and that could be extended by maintaining a regulation maintenance program.
Location:	• Roof.

ATTRIBUTE: WC1-2	EXISTING/CURRENT STATUS
System Description:	• Air-cooled chiller. • Primary/secondary pump system.
Area Served:	• Third floor AHU
Date of Installation:	• 2006
Estimated Remaining Life Span:	• Is nearing the end of average life expectancy and is scheduled to be replaced.
Location:	• Roof

Electrical

Normal Power

This building is served from a secondary service provided by the Utility. This is a Utility owned transformer that is in good condition, located on grade near the northwest corner of the building. The service was

Project No. 250027.00
Dodge County, WI Master Plan

installed in 1999 at the time of the building's construction. This service enters the building underground, and terminates in switchboard MD which is installed in an electrical room adjacent to the loading dock on the first floor of the building.

Panel MD is a 480Y/277V, 3-phase, 4-wire 4000 ampere, 4-section circuit breaker based switchboard. This switchboard consists of a termination/main circuit breaker section, an individually fixed circuit breaker section serving panel MDA, and two distribution sections. This equipment is in good condition. There is limited space available to mount additional circuit breakers if required. Switchboard MD primarily serves the jail occupancy, with panel MDA serving the courthouse. This switchboard is a Square-D QED Series 2-S switchboard which is considered a legacy switchboard, but it is still actively supported by the factory. A typical lifespan for a switchboards range between 30-40 years. While this switchboard has been in service for about 25 years, it could be expected that this equipment can serve this building for the next 20-25 years based on the availability of components.

Panel MDA is a 480Y/277V, 3phase, 4-wire 2000 ampere, 2-section circuit breaker based switchboard. This switchboard consists of a main/distribution section and an additional distribution section. This equipment is installed in a clean, conditioned room and is in good condition. Circuit breaker space to allow additional circuit breakers to be installed is limited. Switchboard MDA serve the Courthouse portion of this facility and is served from the main service equipment, MD, located in the jail occupancy. Similar to panel MD, this equipment should be able to serve this building for the next 20-25 years.

There are Square-D power panels and branch panels distributed throughout the building. The power panels are I-Line series panels, and the branch panels consist of NF, NQ, and NQOD series panels. All of this equipment is currently supported by the manufacturer and all of the equipment is installed in conditioned spaces. The typical lifespan for a panelboard is in the 25–35-year range, and based on the condition of the installed equipment, the equipment should be able to support this building for an additional 10-20 years.

Generator

An interior 600kW/750kVA 480Y/277V, 3-phase, 4-wire Kohler diesel generator with a sub-base fuel tank is located within a room adjacent to the main electrical room on the first floor. This generator appears to be original to the building and installed in 1999. The ROZD series of generators are still supported by Kohler from an engine, alternator, and mechanical component standpoint. However, the controller installed on this unit is an obsolete analog controller. If service is required for the generator controller, it is recommended that the controller be replaced with a modern digital controller. The overall condition of this unit is in good condition, as it is installed within the building. Two main circuit breakers are provided on the generator, one serving ATS-1 (800 amperes) and the second serving ATS-2 (400 amperes). The generator serves both the Jail and Courthouse sections of the building. This unit has been in service for 25 years. As long as the manufacturer is providing maintenance components for this unit, an additional 10-15 years of life can be expected.

Emergency Power

There are two transfer switches installed within the receiving area adjacent to the generator room. These transfer switches are replacements for the originally installed transfer switches. Both are Kohler transfer switches with bypass isolation mechanisms and Decision Maker MPAC1500V2 controllers. The mechanical components of these transfer switches is still supported by Kohler, including the bypass/isolation switches,

Project No. 250027.00
Dodge County, WI Master Plan

mechanical interlocks, power contactors, switch mechanisms, and spare parts. However, the MPAC1500V2 controllers are approaching the end of their life cycle. Newer controllers can be retrofitted into these transfer switches if a controller fails. It is unknown when these switches were installed but based on the observed condition and the availability of replacement components, an additional 20-25 years of service could be expected from these transfer switches.

The first transfer switch is rated at 480Y/277V and 800 amperes. This switch provides the NEC 702 Optional Standby branch of power for the facility. Typical loads connected to this branch include freezers, coolers, selected receptacles and lighting, elevators, boilers, exhaust fans, and other mechanical equipment. The distribution equipment associated with this branch is like the normal power equipment, utilizing Square-D I-Line, NF, NQ, and NQOD panelboards. This equipment is in good condition and well labeled. An Additional 10-20 years of service can be expected from this branch.

The second transfer switch is rated at 480Y/277V and 400 amperes. This switch provides the NEC 700 Emergency branch of power to the facility. Typical loads connected to this branch includes exit and egress lighting, fire alarm control panels, elevator cab lighting, phone equipment, and some miscellaneous receptacles that should have been connected to the NEC 702 system (AV equipment, receptacles in various offices, etc.)

UPS

There are three UPS units installed throughout this facility. UPS-1 and UPS-2 are located in the AIM B010 room in the basement of the Courthouse building, and UPS-B is located in a constructed room within Receiving D117

UPS-1. This unit is an Eaton 9355 unit of unknown capacity and was installed ("turned up") in 2019 based on markings written on the unit. This equipment was discontinued in 2015 by Eaton, but replacement parts are available on a limited basis and are becoming hard to find. This UPS may have been relocated to this site and installed in 2019. Consideration should be given to replacing this unit in the next 3-5 years. The panel associated with this UPS had its panel directory updated in 2007 and indicates that it serves IT loads for the equipment located in the same room as the UPS (B010).

UPS-2. This unit is a Liebert eXM unit of unknown capacity. This equipment is still current and is supported by Liebert/Vertiv. Based on the panel associated with this UPS, this unit was installed in 2015. If the recommended preventative maintenance is performed on this unit, an additional 5-10 year of service can be expected. This UPS is providing power to equipment within the same room as the UPS (B010) as well as security systems throughout the Courthouse.

UPS-B. This unit is a Liebert APM unit of unknown capacity. This equipment is still current and is supported by Liebert/Vertiv. Based on the panel associated with this UPS, this unit was installed in 2015. If the recommended preventative maintenance is performed on this unit, an additional 5-10 year of service can be expected. This UPS is providing power to equipment within the same room as the UPS (jail loading dock) as well as security systems throughout the jail.

Fire Alarm

The installed fire alarm system is a Simplex/JCI 4100ES system. This is an addressable system with manual pull stations, ceiling mounted smoke detectors, horn/strobe devices, and interfaces to the elevator, HVAC,

Project No. 250027.00
Dodge County, WI Master Plan

and fire protection systems. This system is still in active production, with replacement part readily available, including software and programming services. This system should be capable of supporting this facility for the next 10-15 years.

Administrative Building

Mechanical

The original building was built in 1937 and went through a major addition and renovation in 1995. This additional/renovation project replaced all HVAC infrastructure in the building. It appears that there has been motor replacements and routine maintenance, but most major equipment does not appear to have been replaced since it was installed.

Equipment/Infrastructure:

The system is comprised of 5 air handling units, two in the basement, while the other 3 are in the penthouse. These units are served with chilled water and hot water systems for heating and cooling the building. AC- 1 is the only unit that is equipped with a heat recovery module to recover otherwise waste energy. There is a single air-cooled chiller mounted on roof that serves each of the air handling units, while the 3 boilers are located in the basement mechanical room adjacent to AC-1 and serves all air handling units and also provides water to the zone booster coils and VAV boxes.

Controls:

The existing controls utilize pneumatic valves, thermostats, and dampers to control the system. There is a controls project in progress that is converting the pneumatics into a DDC system provided by Johnson controls this will be completed over the next few years.

Energy efficiency:

This building operates variable volume systems on both the air and water size and has a small heat recovery module for the basement air handling unit. The building operates efficiently aside from having high temperature reheat water distributed throughout the building, but changing to a low temperature system would require major infrastructure upgrades. It is not recommended to revise the system to a low temperature system.

Equipment summary:

ATTRIBUTE: AC-1	EXISTING/CURRENT STATUS
System Description:	• Constant volume • Hot and chilled water coils. • Heat recovery coil (HRU-1 is in the same room as AC-1) • GPS • Pneumatic controls • Supply and return fans.
Existing Conditions	• Air handling unit interior insulation is starting to deteriorate and cool coil drain pan is also deteriorating and may need to be replaced.
Area Served:	• Basement shops and storage
Date of Installation:	• 1995

Project No. 250027.00
Dodge County, WI Master Plan

Estimated Remaining Life Span:	This unit has approximately 0-5 years left of the average life expectancy but that could be extended by maintaining a regulation maintenance program.
Location:	Basement mechanical room.

ATTRIBUTE: AC-2	EXISTING/CURRENT STATUS
System Description:	- Variable volume - Hot water coil. - DX cooling coil (ACCU on grade) - GPS - Pneumatic controls - Supply and return fans
Existing Conditions	- Air handling unit interior insulation is starting to deteriorate and cool coil drain pan is also deteriorating and may need to be replaced. - ACCU-2 was replaced around 2015.
Area Served:	1st floor meeting rooms
Date of Installation:	1995
Estimated Remaining Life Span:	- This unit has approximately 0-5 years left of the average life expectancy but that could be extended by maintaining a regulation maintenance program. - The ACCU has approximately 5-10 years left of its published average life expectancy. This could be extended with regular routine maintenance.
Location:	Basement mechanical room.

ATTRIBUTE: AC-3	EXISTING/CURRENT STATUS
System Description:	- Variable volume - Hot and chilled water coils. - GPS - Pneumatic controls - Supply and return fans
Existing Conditions	Air handling unit interior insulation is starting to deteriorate and cool coil drain pan is also deteriorating and may need to be replaced.
Area Served:	Partial Fourth Floor (original building)
Date of Installation:	1995
Estimated Remaining Life Span:	This unit has approximately 0-5 years left of the average life expectancy but that could be extended by maintaining a regulation maintenance program.
Location:	Penthouse

ATTRIBUTE: AC-4	EXISTING/CURRENT STATUS
System Description:	- Variable volume - Hot and chilled water coils. - GPS - Pneumatic controls - Supply and return fans
Existing Conditions	Air handling unit interior insulation is starting to deteriorate and cool coil drain pan is also deteriorating and may need to be replaced.
Area Served:	Partial 1st, 2nd, 3rd floor (original building)
Date of Installation:	1995
Estimated Remaining Life Span:	This unit has approximately 0-5 years left of the average life expectancy but that could be extended by maintaining a regulation maintenance program.
Location:	Penthouse

ATTRIBUTE: AC-5	EXISTING/CURRENT STATUS
System Description:	- Variable volume - Hot and chilled water coils. - GPS - Pneumatic controls - Supply and return fans
Existing Conditions	Air handling unit interior insulation is starting to deteriorate and cool coil drain pan is also deteriorating and may need to be replaced.

Project No. 250027.00
Dodge County, WI Master Plan

Area Served:	• 1 st , 2 nd , 3 rd , and 4 th floors (1995 Addition)
Date of Installation:	• 1995
Estimated Remaining Life Span:	• This unit has approximately 0-5 years left of the average life expectancy but that could be extended by maintaining a regulation maintenance program.
Location:	• Penthouse

ATTRIBUTE: ACCH-1	• EXISTING/CURRENT STATUS
System Description:	• Daikin Air cooled chiller.
Existing Conditions	• Recently replaced, approximately 5 years old.
Area Served:	• Chilled water system
Date of Installation:	• ~2020
Estimated Remaining Life Span:	• This unit has approximately 10-15 years left of the average life expectancy but that could be extended by maintaining a regulation maintenance program.
Location:	• Penthouse

ATTRIBUTE: ACCU-1	• EXISTING/CURRENT STATUS
System Description:	• Johnson Controls Air cooled chiller.
Existing Conditions	• Recently replaced, approximately 5-10 years old.
Area Served:	• AC-2
Date of Installation:	• ~2015
Estimated Remaining Life Span:	• This unit has approximately 10-15 years left of the average life expectancy but that could be extended by maintaining a regulation maintenance program.
Location:	• Grade

ATTRIBUTE: BOILERS	• EXISTING/CURRENT STATUS
System Description:	• Cleaver Brooks ProFire water tube boilers • B&G Pumps
Existing Conditions	• Boilers are original to the 1995 addition project.
Area Served:	• Hot water system
Date of Installation:	• ~1995
Estimated Remaining Life Span:	• This unit has approximately 5-10 years left of the average life expectancy but that could be extended by maintaining a regulation maintenance program.
Location:	• Basement Mechanical room

Electrical

Normal Power

This building is served from a secondary service provided by the Utility. This is a Utility owned transformer that is in good condition, located on grade near the southeast corner of the building. The service was installed in 1995 at the time of the addition to the existing 1937 building. This service enters the building underground and terminates in switchboard MDP which is installed in an electrical room centrally located in the basement of the addition.

Panel MDP is a 480Y/277V, 3-phase, 4-wire 1600 ampere, 3-section circuit breaker-based switchboard. This switchboard consists of a termination section, main circuit breaker section, and a single distribution section. This equipment was installed in 1995 and is in good condition. There is limited space available to mount additional circuit breakers if required. Switchboard MDP serves both the Administration building's addition as well as the original 1937 portion of the building. This switchboard is an Eaton/Cutler-Hammer Pow-R-LineC switchboard which is considered a legacy switchboard, but it is still actively supported by the factory. A typical lifespan for a switchboard range between 30-40 years.

While this switchboard has been in service for about 30 years, it could be expected that this equipment can serve this building for the next 10-20 years based on the availability of components.

Project No. 250027.00
Dodge County, WI Master Plan

Panel MDP2 is a 480Y/277V, 3-phase, 4-wire 1000 ampere, 2-section circuit breaker-based switchboard. This switchboard consists of two distribution sections. This equipment was installed in 1995 and is located in a clean, conditioned room and in good physical condition. There is ample room for additional circuit breakers to be installed within this panel. Switchboard MDP2 serves the mechanical equipment located in the penthouse and is served by panel MDP. This is an Eaton/Cutler-Hammer Pow-R-Line C PRL4 panelboard. Similar to panel MDP, this equipment should be able to serve this building for the next 10-20 years. There are Eaton/Cutler-Hammer power panels and branch panels distributed throughout the building. The power panels are PRL3 or PRL4 series panels, and the branch panels consist of PRL1 and PRL2 series panels. This equipment is currently supported by the manufacturer, and the equipment is installed in conditioned spaces. The typical lifespan for panelboards is in the 25-35 year range, and based on the condition of the installed equipment, the equipment should be able to support this building for an additional 10-15 years.

Generator

An interior 480Y/277V, 3-phase, 4-wire Kohler natural gas generator is located within a room adjacent to the main electrical room in the basement. There are no exterior nameplates that indicate the model number or capacity of this generator. Based on the 175-ampere main circuit breaker, the capacity of this generator is approximately a 100kW/125kVA unit. This generator appears to be original to the building, so the presumption is that this unit was installed in 1995. At 30 years old, this generator can be considered obsolete. The proprietary replacement parts for the Fast Response series of generators are no longer manufactured by Kohler. All replacement components would be refurbished parts supplied by third party vendors. If this building is significantly renovated, consideration should be given to replacing this generator.

Emergency Power

There is only one transfer switch installed within the receiving area adjacent to the generator room. This transfer switch appears to be original to the building and installed in 1995, similar to the generator. However, the controller for this unit has been replaced in 2023 with the newer Kohler Power Systems MPAC1500V2 controller. This is a 225 ampere, 480 volt, 3-phase transfer switch that is in good condition. The mechanical components within this switch are still supported by Kohler, and with the upgraded controller, this transfer switch should be able to remain in service for the next 10-15 years.

This transfer switch serves panel HE which serves as the primary distribution point for all emergency power. This panel is a 480Y/277V, 225 ampere Eaton/Cutler-Hammer PRL2 panelboard, and it also contains circuit breakers that serve other 480Y/277V and 208Y/120V panels within the facility. The loads served by these panels include exit and egress lighting, general receptacles and lighting, sump pumps, control panels, fire alarm panels, boilers, card access systems, and door controllers. Per today's codes there must be a segregation between the NEC 700 Emergency loads (exit and egress lighting and other life safety equipment) and the NEC 702 Optional Standby loads (loads not considered Emergency). If any significant renovation occurs to this building, the emergency systems will require an additional NEC 702 transfer switch along with distribution panels to meet today's codes. As noted above, the existing branch panels distributing the emergency power are current and supported by the manufacturer, with an additional 10-15 years of service expected.

Project No. 250027.00
Dodge County, WI Master Plan

UPS

The main electrical room located in the basement of the building has two UPS systems installed to support the IT equipment throughout the building. Each UPS has a manual bypass switch associated with it that will allow power to bypass the input and output of the UPS to allow for UPS maintenance or replacement without the downstream loads losing power. It is unknown when this equipment was installed, but it appears that it may have been installed in 2009 based on the date of the IT panel serving the bypass switches. Both of the UPS units are Eaton/Ferrups single-phase, three-wire units with an integral transformer. These units then are routed through a manual bypass units which then feed a small 8-circuit load center. One load center is located on the first floor, and one is located on the third floor.

These load centers are not well marked, and there are no spaces available for additional circuit breakers. A typical UPS unit's life span is 15-20 years, but these are equipped with output transformers which help extend the life of the unit. Eaton/Ferrups consider these a Legacy item, but they are still actively supported for maintenance parts. These units have been in service for approximately 16 years, but With continued maintenance, and additional 3-5 years could be expected.

Fire Alarm

The installed fire alarm system is a Honeywell/Gamewell-FCI series S3 fire alarm system. This is an addressable system with manual pull stations, code minimum ceiling mounted smoke detectors, horn/strobe devices, and interfaces to the elevator, HVAC, and fire protection systems. This system is still in active production, with replacement part readily available, including software and programming services. The amount of notification devices (horn-strobes) appears less than what current codes would require. If a significant renovation would occur at this location, additional devices would be required. The additional devices may also require more NAC panels installed on each floor. This system should be capable of supporting this facility for the next 10-15 years.