

Kansas Department of Corrections
Wichita Work Release Facility
June 2022



#### ASSESSMENT OVERVIEW

#### INTRODUCTION

# CGL FACILITY MANAGEMENT CONDUCTED AN EQUIPMENT AND FACILITY CONDITION ASSESSMENT OF THE SITE, SITE IMPROVEMENTS, AND RELATED FEATURES CONTAINED AT:

Wichita Work Release Facility

#### **PURPOSE**

The primary purpose of the Facility Condition Assessment is to identify visually apparent deficiencies in the building/s and develop a cost basis for repair, upgrade, or replacement.

The key issues addressed in the Facility Condition Assessments include:

- Perform a visual assessment of the interior, exterior, and site components
- A detailed description of the equipment and conditions found during the site visit
- Strategy to resolve key issues
- Recommendations for all systems

#### **METHODOLOGY**

This Facility assessment was conducted by the following experts that have extensive hands-on experience with government, correctional, commercial, and industrial buildings, and facility maintenance.

- Phil Loftin, Electrical Engineer
- Alex Campbell, Facility Specialist
- TJ Kelley, Systems Specialist
- Russ Rieske, Mechanical Engineer
- Ted Perry, LEAD AP & OM
- Mike Lynch, Architect

CGL's Assessment Team conducted a field survey of the buildings' envelope and equipment that could readily be observed. The team did not attempt to uncover hidden conditions, move fixed equipment, or otherwise discover deficiencies that could not be immediately detected. The analysis included interviews with building management and maintenance personnel and a review of any documents made available at the time of the visit.

The team collected data on the condition and life cycle of major systems. All conditions were documented by digital photographs.

CGL analyzed the information collected during the Facilities Condition Assessment and developed recommendations for upgrades and replacements.

A general scoring matrix used in analysis of major group elements, group elements, and individual elements is included below:

< 5%	Good	Infrastructure & systems are new or rehabilitated with few elements showing normal wear that requires routine maintenance				
5% - 10%	Fair	Infrastructure & systems show some signs that require attention with a few elements needing immediate repair				
11% - 15%	Poor	Infrastructure & systems are mostly below standard with some elements reaching the end of useful life and requiring replacement				
16% -25%	Severe	Infrastructure & systems are in unacceptable condition with widespread signs of deterioration				
26% - 50%	Critical	Infrastructure & systems require replacement to restore function. Systems could be unsafe to operate in the current condition				
> 50%	Replace	Infrastructure or systems need to be replaced immediately for safety, security, and/or serviceability				



#### **MAJOR SYSTEMS ASSESSED**

- Substructure: CGL observed the structures for visible signs of distress.
- Shell: CGL visually observed the exterior wall system, window, and door systems for visible evidence of deficiencies, continuity of seals, and other types of distress. CGL reviewed available flashing and connection details for drainage design and observed the condition and placement of expansion joints. CGL visual observations were based on those conditions that can be observed from roof and ground level. CGL visually evaluated the condition of accessible roof systems and discussed any existing/remaining roof warranties.
- Interiors: CGL visually observed the interior areas of the property and reported their general condition.
- Services: CGL observed the age and condition of the Mechanical, HVAC, Electrical, Plumbing, and Fire Protection (MEPFP) Systems and related building equipment and have commented on their condition and visible deficiencies.
- Site-work: CGL visually observed the exterior areas of the property and reported their general condition.
- Accessibility: CGL reviewed the property for conformance with applicable accessibility requirements and reported CGL findings.

The scope of services under which the Facility Condition Assessment was completed was visual in nature and not intended to be destructive to the property to gain access to hidden conditions. CGL did not perform any destructive testing, uncover, or expose any system members. CGL has documented the type and extent of visually apparent defects in the systems to develop the condition assessment.

The scope of services under which the Facility Condition Assessment was completed includes only those items indicated. The evaluation does not include any environmental services such as sampling, testing, or evaluation of asbestos, lead-based paint, lead-in-water, indoor air quality, PCBs, radon, mold, or any other potentially hazardous materials or issues not outlined.



#### **BUILDING DESCRIPTION**

# WICHITA WORK RELEASE FACILITY PROPERTY EXECUTIVE SUMMARY

The Wichita Work Release Facility (WWRF) is in downtown Wichita, Kansas. The facility consists of one building with a total square footage of approximately 52,510. The construction date of the building is 1952. The structure consists of steel frame construction with a brick and masonry façade.

The WWRF is an all-male, minimum-custody state facility located in downtown Wichita in south-central Kansas. The capacity is 254 minimum-custody male residents with a current population of 154.

#### **HVAC SYSTEMS**

The HVAC systems at the facility are a mix of different systems that include one water-cooled chiller and cooling tower, four air handling units, one rooftop unit that is reported to have been out of service for over ten years two split systems, and one heating boiler. The HVAC equipment is of all different ages; some have had various types of repairs within the last decade or are in need of repair now. These aged-out systems should be considered for replacement. HVAC systems play a huge role in indoor air quality, and systems being out of service or not functioning as designed can greatly affect building conditions. In addition, CGL would recommend a comprehensive preventative maintenance plan to maintain the equipment and extend the life of the assets.

#### **ELECTRICAL**

Upgrades to the electrical components have occurred over the past few years. All interior lighting, including emergency, was upgraded to LED in the past two years. Also, a new natural gas emergency generator was installed in the past five years. CGL recommends installing energy-efficient LED lighting on the exterior of building and parking lots and performing annual thermal scanning of all the main electrical distribution and sub-panels to predict premature equipment failures.

#### **PLUMBING**

The plumbing infrastructure throughout the site is in poor shape. The facility also consists of two domestic boilers which were manufactured in 2008, and two water softeners. The water softeners are not currently in use and are valved off. There are issues with the showers in both dormitories from water penetrating the epoxy coated surfaces and leaking out onto the VCT flooring in the dorm or on the ceilings of the floors below. The showers also lack proper ventilation.

The sewage and drainage systems are cast iron. Cast iron pipe deteriorates from the inside. Due to the age of the cast iron piping, CGL recommends that an engineering study be conducted to determine the condition of drain piping. Any original piping or insulation should be further evaluated for hazardous material.

#### **NOTE**

FCIs allow you to understand how your buildings are operating and how to prepare for the future. These scores provide a valuable look into your portfolio of facilities, and they help you plan and prioritize projects over both the short- and long-term. The more accurate your FCI scores, the better you can prioritize maintenance repairs, forecast upcoming costs, and make data-driven decisions around capital planning.



#### PROJECT DETAIL

ITEMS	DESCRIPTION
Project Name	Wichita Work Release Facility
Property Type	Detention Facility
Address	Wichita, Kansas
Year Built	1952
Number of Levels	2
Gross Building Area (GSF)	52,510
*Current Replacement Value	\$18,378,500
CRV/GSF (\$/SF)	\$350

<sup>\*</sup> The CRV was based on industry experience and best practices and should be considered only for determining a replacement value for the current buildings that were assessed in this report. Moreover, The CRV does not include any cost for professional services such architectural, engineering or project management fees, environmental services such as sampling, testing, or evaluation of asbestos, lead-based paint, lead-in-water, indoor air quality, PCBs, radon, mold, or any other potentially hazardous materials, or issues not outlined. The CRV does not include cost for land acquisition, demolition, abatement, remediation, or other site improvements that may be required for construction of a replacement building. The CRV was based on current cost estimates and does not include any upgrades to the existing facility or an escalation factor for future construction.



#### **SUMMARY OF FINDINGS**

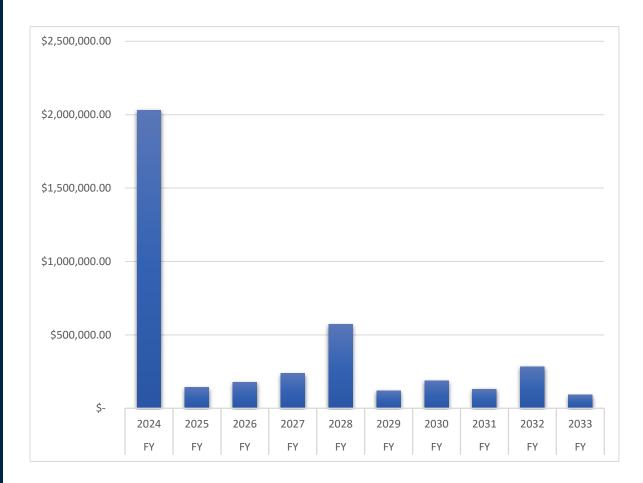
This report represents summary-level findings for the Property Condition Assessment. The deficiencies identified in this assessment can be combined with potential new construction requirements to develop an overall Long Term Capital Needs Plan that can be the basis for a facility-wide capital improvement funding strategy. Key findings from the assessment include:

KEY FINDINGS	METRIC				
10-Year Facility Condition Needs Index (FCNI)	22%				
Immediate Capital Needs (Year 1)	\$2,031,106				
Future Capital Needs (Year 2 to Year 10)	\$1,946,854				

The building expenditure summary section provides an executive overview of the findings from the assessment. The chart below provides a summary of anticipated yearly expenditures over the study period for the Wichita Work Release Facility. Further details of these expenditures are included within each respective report section and within the expenditure forecast in Appendix A of this report. The results illustrate a total anticipated expenditure over the study period of approximately:

\$3,977,960

VEV FINIDINGS





#### **FACILITY CONDITION NEEDS INDEX**

In this report, we have calculated the Facility Condition Needs Index (FCNI), which is used in Facilities Management to provide a benchmark to compare the relative condition of a group of facilities. The FCNI is primarily used to support asset management initiatives of federal, state, and local government facilities organizations.

The FCNI is the ratio of accumulated Total Cost (TC) (Deferred Maintenance, Capital Renewal, and Plant Adaptation) to the Current Replacement Value (CRV) for a constructed asset calculated by dividing the TC by the CRV. The range is from zero for a newly built asset to one for a constructed asset with a TC value equal to its CRV. Acceptable ranges vary by "Asset Type', but as a general guideline, the FCNI scoring system is as follows:

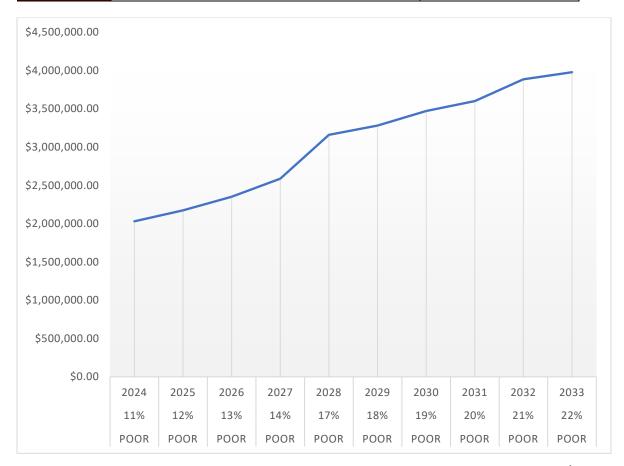
FCNI =

Deferred Maintenance + Capital Renewal + Plant Adaptation (TC)

Current Replacement Value of the Facility(s) (CRV)

If the FCNI rating is 60% or greater, then the replacement of the asset/building should be considered instead of renewal.

CONDITION	DEFINITION	PERCENTAGE VALUE
GOOD	In a new or well-maintained condition, with no visual evidence of wear, soiling, or other deficiencies.	0% to 5%
FAIR	Subject to wear and soiling but is still in a serviceable and functioning condition.	5% to 10%
POOR	Subjected to hard or long-term wear. Nearing the end of its useful or serviceable life.	Greater than 10%
V-POOR	It is subjected to hard or long-term wear. Has reached the end of its useful or serviceable life. Renewal is now necessary.	Greater than 60%





#### DISTRIBUTION OF NEEDS BY PRIORITY

CGL Facility Management has prioritized the identified work in order to assist with analyzing the deficiencies found during the assessment. The baseline prioritization model is not just based on replacement year or criticality but uses four key data attributes to build an overall importance metric for every recommendation: System type, the cause or nature of the issue, timing, and building mission incorporated into the model with relative weighting to provide an overall priority score. Priority categories are shown below:

**Priority 1** Systems requiring immediate action that have failed, compromises staff or public **Currently Critical:** safety, or required to be upgraded to comply with current codes and accessibility

**Priority 2** A system or component is nearing the end of useful life, if not addressed, will cause **Potentially Critical:** additional deterioration and added repair costs

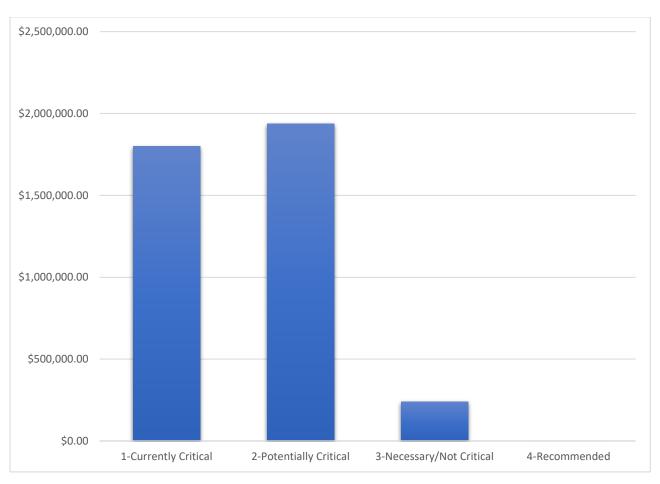
**Priority 3**Lifecycle replacements necessary but not critical or mid-term future replacements **Necessary / Not Critical:** to maintain the integrity of the facility or component

Priority 4

Recommended:

Items under this classification are not required for normal function and operation of the facility but would improve the efficiency and functionality of the facility or reduce long-term maintenance.

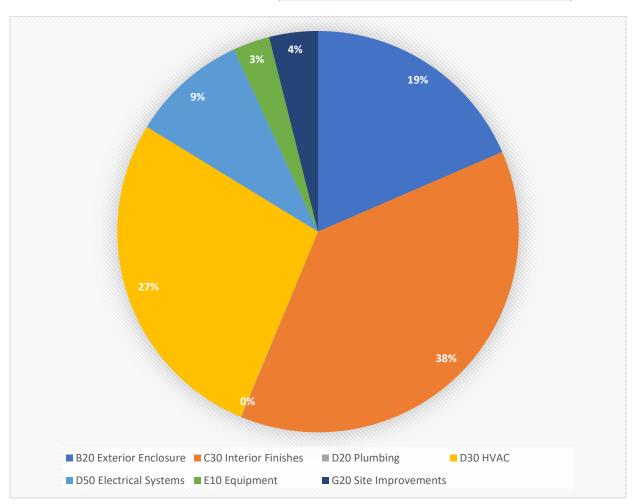
The chart below illustrates the breakdown of expenditure according to the priority coding providing an opportunity to strategically plan and effectively direct funding to the highest priority.





# DISTRIBUTION OF IMMEDIATE NEEDS (YEAR 1) BY BUILDING SYSTEM

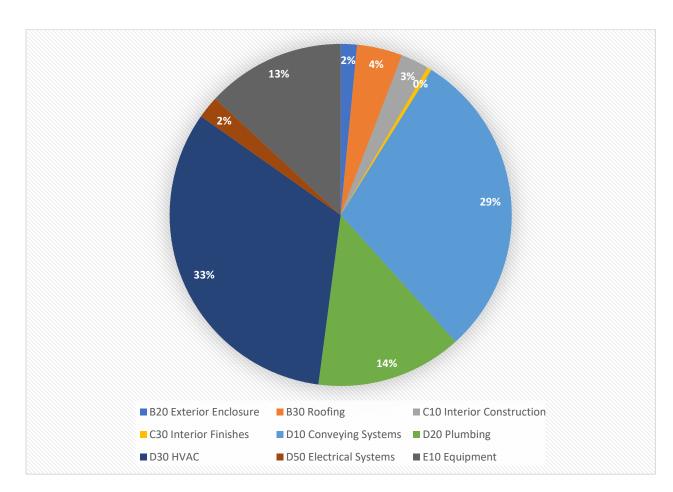
Building System	Estimated Cost	Percent of Total Cost
B20 Exterior Enclosure	\$375,686	18.50%
C30 Interior Finishes	\$766,600	37.74%
D20 Plumbing	\$860	0.04%
D30 HVAC	\$557,744	27.46%
D50 Electrical Systems	\$190,277	9.37%
E10 Equipment	\$60,219	2.96%
G20 Site Improvements	\$79,720	3.92%





# DISTRIBUTION OF FUTURE NEEDS (YEAR 2 TO YEAR 10) BY BUILDING SYSTEM

Building System	Estimated Cost	Percent of Total Cost		
<b>B20</b> Exterior Enclosure	\$29,832.98	1.53%		
B30 Roofing	\$83,700.00	4.30%		
C10 Interior Construction	\$51,647.40	2.65%		
C30 Interior Finishes	\$7,800.00	0.40%		
D10 Conveying Systems	\$572,621.00	29.41%		
D20 Plumbing	\$268,470.12	13.79%		
D30 HVAC	\$636,552.82	32.70%		
D50 Electrical Systems	\$41,185.80	2.12%		
E10 Equipment	\$255,043.92	13.10%		





#### DISTRIBUTION OF NEEDS BY PLAN TYPE

#### PLAN TYPE 1 LIFECYCLE REPLACEMENT:

Indicates the need for replacement or major refurbishment of an asset, typically based on age and use but required in the future within a reasonable planning horizon.

#### PLAN TYPE 2 MAJOR REPAIR:

Any component or system in which future major repair is anticipated but not a replacement of the entire component.

#### PLAN TYPE 3 LIFE-SAFETY / CODE COMPLIANCE:

Any action to correct a deficiency related to life safety or code violation.

#### PLAN TYPE 4 ENGINEERING STUDY:

Includes recommendations for further investigation into appropriate repair/replacement action.

#### PLAN TYPE 5 MODERNIZATION / IMPROVEMENTS:

Actions that are considered upgrading or improving beyond a standard life cycle replacement. These actions are often considered optional.

#### PLAN TYPE 6 ENERGY:

When the repair or replacement of equipment or systems are recommended to improve energy and sustainability performance.

#### PLAN TYPE 7 ADA:

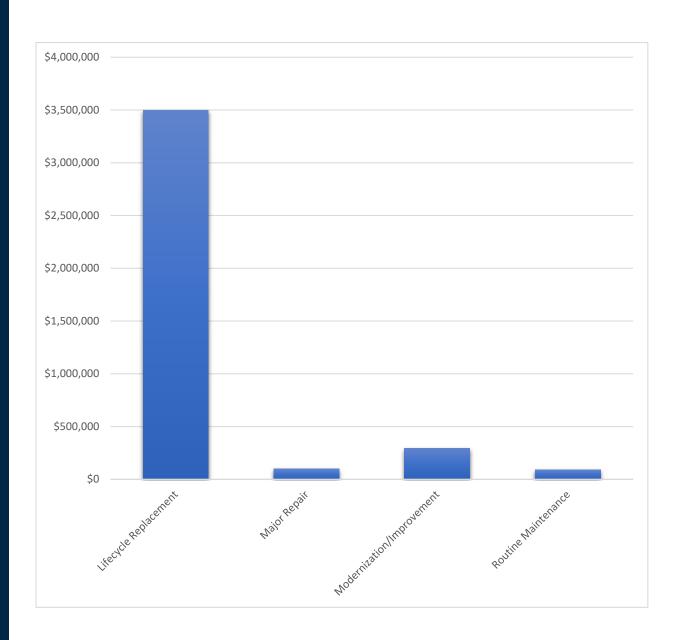
When the repair or replacement of equipment or system is recommended to comply with ADA.

#### PLAN TYPE 8 ROUTINE MAINTENANCE:

Any component or system in which routine maintenance or repairs is anticipated but not a replacement of the entire component.



PLAN TYPE	TOTAL COST
Lifecycle Replacement	\$3,496,037
Major Repair	\$98,070
Modernization/Improvement	\$293,866
Routine Maintenance	\$89,987





#### **ASSETS OBSERVED**

All assets observed are provided in this section sorted by the Uniformat II coding, indexed is as follows:

#### A - SUBSTRUCTURE

- A10 Foundations
- A20 Basement Construction

#### **B-SHELL**

- B10 Superstructure
- B20 Exterior Enclosure
- B30 Roofing

#### **C-INTERIORS**

- C10 Interior Construction
- C20 Stairs
- C30 Interior Finishes

#### **D - SERVICES**

- D10 Conveying Systems
- D20 Plumbing
- D30 HVAC
- D40 Fire Protection Systems
- D50 Electrical Systems

#### **E - EQUIPMENT & FURNISHING**

- E10 Equipment
- E20 Furnishings

#### F - SPECIAL CONSTRUCTION AND DEMOLITION

- F10 Special Construction
- F20 Selective Demolition

#### **G - BUILDING SITE WORK**

- G10 Site Preparation
- G20 Site Improvements
- G30 Site Civil/Mechanical Utilities
- G40 Site Electrical Utilities
- G90 Other Site Construction



# APENDIX A – EXPENDITURE FORECAST

Survey Section	Unif. L3	Display Name	Quantity	Unit of Measure	Unit Cost	Total Expense	Residual Life	Category	Priority
Main Building	B2010	Exterior Façade	500.00	L.F.	\$34.98	\$17,490	0	Major Repair	1-Currently Critical
Main Building	B2020	Exterior Windows	95.00	Ea.	\$3,770.48	\$358,196	0	Lifecycle Replacement	1-Currently Critical
Main Building	C3020	VCT Flooring	2000.00	S.Y.	\$174.02	\$348,040	0	Lifecycle Replacement	1-Currently Critical
Main Building	C3030	Acoustic Ceiling	200.00	C.S.F.	\$1,255.04	\$251,008	0	Lifecycle Replacement	1-Currently Critical
Main Building	D3040	AHU's	5.00	Ea.	\$101,220.20	\$506,101	0	Lifecycle Replacement	1-Currently Critical
Main Building	D5020	Exterior Lighting	6.00	Ea.	\$2,742.80	\$16,457	0	Lifecycle Replacement	1-Currently Critical
Main Building	D5030	Security Cameras	54.00	Ea.	\$1,578.62	\$85,245	0	Lifecycle Replacement	1-Currently Critical
Main Building	D2020	Water Softeners	2.00	Ea.	\$3,836.04	\$7,672	3	Lifecycle Replacement	1-Currently Critical
Main Building	D3050	RTU	1.00	Ea.	\$208,498.00	\$208,498	3	Lifecycle Replacement	1-Currently Critical
Main Building	C3020	Quarry Tile in Kitchen and Entry Foyer	3000.00	S.F.	\$38.80	\$116,400	0	Lifecycle Replacement	2-Potentially Critical
Main Building	D2010	Water Coolers	6.00	Ea.	\$143.30	\$860	0	Major Repair	2-Potentially Critical
Main Building	D3040	Diffusers and Grilles	120.00	Ea.	\$306.32	\$36,758	0	Lifecycle Replacement	2-Potentially Critical
Main Building	D3040	Exhaust Fans	7.00	Ea.	\$2,126.36	\$14,885	0	Lifecycle Replacement	2-Potentially Critical
Main Building	D5020	Electrical Panels	17.00	Ea.	\$3,109.60	\$52,863	0	Lifecycle Replacement	2-Potentially Critical
Main Building	E1090	Exit Signs	21.00	Ea.	\$1,472.58	\$30,924	0	Lifecycle Replacement	2-Potentially Critical
Main Building	E1090	Dishwasher	1.00	Ea.	\$13,010.32	\$13,010	0	Lifecycle Replacement	2-Potentially Critical





#### **Kansas Department of Corrections**

Main Building	E1090	Ovens	2.00	Ea.	\$8,142.46	\$16,285	0	Lifecycle Replacement	2-Potentially Critical
Main Building	D3050	Unit Heaters	5.00	Ea.	\$1,488.90	\$7,445	1	Lifecycle Replacement	2-Potentially Critical
Main Building	E1090	Walk-Ins Refrigerator/Freezer	3.00	Ea.	\$42,732.76	\$128,198	1	Lifecycle Replacement	2-Potentially Critical
Main Building	D3020	Heating Boiler	1.00	Ea.	\$90,491.60	\$90,492	2	Lifecycle Replacement	2-Potentially Critical
Main Building	D3020	Domestic Boilers	2.00	Ea.	\$43,702.16	\$87,404	2	Lifecycle Replacement	2-Potentially Critical
Main Building	B2030	Storefront Doors	4.00	Ea.	\$5,355.22	\$21,421	3	Lifecycle Replacement	2-Potentially Critical
Main Building	D1010	Freight Elevator	1.00	Ea.	\$572,621.00	\$572,621	4	Lifecycle Replacement	2-Potentially Critical
Main Building	E1090	Cooling Tower	1.00	Ea.	\$120,558.60	\$120,559	5	Lifecycle Replacement	2-Potentially Critical
Main Building	D2010	Urinal Fixtures	15.00	Ea.	\$2,579.10	\$38,687	6	Lifecycle Replacement	2-Potentially Critical
Main Building	D2010	Sinks	40.00	Ea.	\$2,899.02	\$115,961	6	Lifecycle Replacement	2-Potentially Critical
Main Building	C3010	Showers	3000.00	S.F.	\$2.60	\$7,800	6	Lifecycle Replacement	2-Potentially Critical
Main Building	C1020	Interior Doors	45.00	Ea.	\$1,147.72	\$51,647	7	Lifecycle Replacement	2-Potentially Critical
Main Building	D2010	Toilet Fixtures	26.00	Ea.	\$3,067.84	\$79,764	7	Lifecycle Replacement	2-Potentially Critical
Main Building	D3030	Chiller	1.00	Ea.	\$242,714.40	\$242,714	8	Modernization/Improvement	2-Potentially Critical
Main Building	B2030	Exterior Doors	5.00	Ea.	\$1,682.42	\$8,412	9	Lifecycle Replacement	2-Potentially Critical
Main Building	B3010	Roof	22500.00	S.F.	\$3.72	\$83,700	9	Routine Maintenance	2-Potentially Critical
Main Building	C3020	Carpet	400.00	S.Y.	\$127.88	\$51,152	0	Modernization/Improvement	3-Necessary/Not Critical
Main Building	D5020	Interior Lighting	600.00	Ea.	\$59.52	\$35,712	0	Lifecycle Replacement	3-Necessary/Not Critical
Main Building	G2030	Site Paving	1000.00	L.F.	\$79.72	\$79,720	0	Major Repair	3-Necessary/Not Critical



#### **ASSESSMENT**

#### **Kansas Department of Corrections**

Main Building	E1090	Kitchen Hood	1.00	Ea.	\$6,287.04	\$6,287	1	Routine Maintenance	3-Necessary/Not Critical
Main Building	D2010	Shower Head	5.00	Ea.	\$5,277.38	\$26,387	6	Lifecycle Replacement	3-Necessary/Not Critical
Main Building	D5090	Emergency Lighting	30.00	Ea.	\$1,372.86	\$41,186	8	Lifecycle Replacement	3-Necessary/Not Critical



#### **MAIN BUILDING - EXTERIOR**





#### **MAIN BUILDING - EXTERIOR**







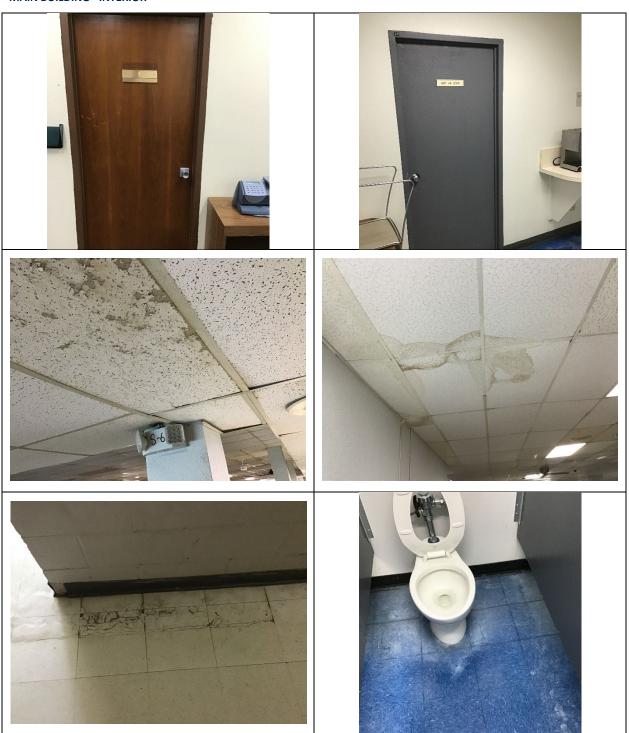








#### **MAIN BUILDING - INTERIOR**





#### **MAIN BUILDING - EXTERIOR**









#### **MAIN BUILDING – LIFE SAFETY**

































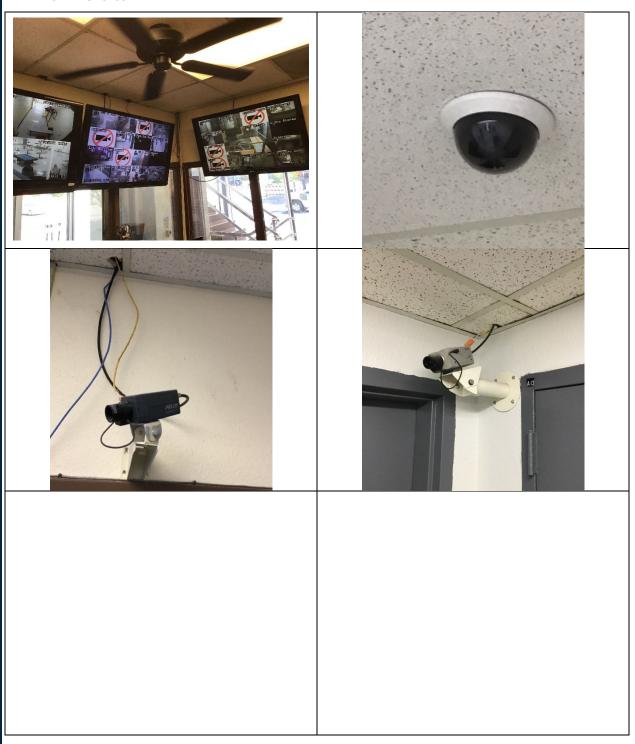








#### **MAIN BUILDING - SECURITY**







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