Fiscal Year 2021-22 Capital Construction Request

Corrections

Steam Condensate Line Replacement, Sterling Correctional Facility (Capital Renewal)

PROGRAM PLAN STATUS

2020-009

Approved Program Plan | **Date Approved:**

PRIORITY NUMBERS

Prioritized By	Priority	
DOC	1 of 10	
OSPB	4 of 53	Recommended for funding.

PRIOR APPROPRIATIONS AND REQUEST INFORMATION

Fund Source	Prior Approp.	FY 2021-22	FY 2022-23	Future Requests	Total Costs
CCF	$0	$8,487,496	$0	$0	$8,487,496
Total	$0	$8,487,496	$0	$0	$8,487,496

ITEMIZED COST INFORMATION

Cost Item	Prior Approp.	FY 2021-22	FY 2022-23	Future Requests	Total Cost
Land Acquisition	$0	$0	$0	$0	$0
Professional Services	$0	$917,751	$0	$0	$917,751
Construction	$0	$6,798,154	$0	$0	$6,798,154
Equipment	$0	$0	$0	$0	$0
Miscellaneous	$0	$0	$0	$0	$0
Contingency	$0	$771,591	$0	$0	$771,591
Total	$0	$8,487,496	$0	$0	$8,487,496

PROJECT STATUS

This is the third request for funding. The project was first requested for funding in FY 2019-20. In 2020, the Capital Development Committee recommended this project for funding, but it was not included in the long bill due to the economic downturn.

Prepared by Legislative Council Staff

Fiscal Year 2021-22 Capital Construction Request

Corrections

Steam Condensate Line Replacement, Sterling Correctional Facility (Capital Renewal)

PROJECT DESCRIPTION / SCOPE OF WORK

The Department of Corrections (DOC) is requesting state funds to replace 10,020 linear feet of condensate piping for the steam system that provides heating at the Sterling Correctional Facility, along with associated infrastructure. This is a capital renewal project. The capital renewal approach focuses on upgrading building systems, infrastructure, and the basic building components within existing buildings on a building-by-building basis, rather than project by project.

Since 2015, the steam piping system has experienced multiple large-scale leaks in random locations due to chemical corrosion, requiring the department to take the system offline for repairs, thus impacting not only building temperatures but also essential services such as food service, laundry, and clinical services.

The heating system at the Sterling facility consists of a central boiler plant; underground steam supply lines, mostly in vaults, running from the central plant to the facility's various buildings; and steam condensate lines that deliver the water to a deaeration tank and back to the boiler. In response to a pattern of leaks in the system and subsequent losses of high volumes of water, the department contracted with an engineering consultant to evaluate the system's condition and make recommendations for mitigating the situation. The firm's findings, which were released in June 2018 and form the basis for this project, recommend complete replacement of system components, including:

- replacing 10,020 linear feet of pumped condensate piping with insulation and jacketing to prevent leaks and ensure a long service life, and 230 associated isolation valves between the steam condensate pumps and deaerator tank;
- replacing 27 steam-powered condensate pumps and 46 associated isolation valves;
- constructing six maintenance-accessible concrete vaults with louvers, hatches, and ladders for steam branches that currently do not have vaults;
- replacing bucket traps, which discharge condensate, in vaults and at locations where steam piping enters each building; and
- replacing a punctured portion of steam line.

Cost assumption. The cost assumption was determined in the study conducted by the engineering consultant, and based upon previous experience with similar projects. The project accounts for inflation. As a capital renewal request, it is exempt from the Art in Public Places and High Performance Certification Program requirements.

PROJECT JUSTIFICATION

The department says that the steam condensate piping system has experienced breaks since October 2015. The source of these breaks is corroded lines and associated components from the inside, causing perimeter lines to fail in multiple locations simultaneously. While the leaking takes place, the facility loses up to 700 gallons of potable city water per hour, and the department struggles to keep the heating system operational. Each leak or break takes up to six weeks to repair due to weather conditions, difficulties locating the trouble spot, and conducting excavations of nearly 12 feet in depth and 20 feet in width. The department estimates that up to 600,000 gallons of water is lost per leak, and over 4,000,000 gallons of water have been lost to date.

To make repairs, facilities personnel must shut down the entire heating system to allow for the removal of the failed piping and replacement with new compression fittings and piping. These system shut-downs must be strategically timed based on the weather to minimize the impacts of heat loss; the department explains that the Sterling facility heavily utilizes the heating system eight months per year, and the area winter weather conditions are some of the most severe in the state. The department estimates that about 4,900 personnel-hours have been spent on leak repairs to date.

The department says completing the project in a single phase will result in savings based on limited cost escalation and reduced overhead. If the project is not undertaken, the DOC anticipates that the steam heating system will fail, potentially resulting in the facility being uninhabitable. The state will also likely incur future emergency costs if the project does not go forward.

PROGRAM INFORMATION

Built in 1999, the Sterling Correctional Facility is the largest prison in DOC's system, housing 2,564 offenders. The facility houses all five of the male offender custody levels. DOC says most of the facility's systems date to its construction.

Fiscal Year 2021-22 Capital Construction Request

Corrections

Steam Condensate Line Replacement, Sterling Correctional Facility (Capital Renewal)

PROJECT SCHEDULE

	Start Date	Completion Date
Design	July 2021	March 2023
Construction	April 2023	June 2024
Equipment		
Occupancy	July 2024	

SOURCE OF CASH FUNDS

This project is not funded from cash sources.

OPERATING BUDGET

The department expects the project to reduce maintenance costs and staff overtime, and allow for more routine physical plant maintenance to occur.

STAFF QUESTIONS AND ISSUES

None.

Prepared by Legislative Council Staff

Fiscal Year 2021-22 Capital Construction Request

Corrections

Water Tank Repair and Replacement, East Canon City Prison Complex (Capital Renewal)

PROGRAM PLAN STATUS

2022-005

Approved Program Plan No **Date Approved:**

PRIORITY NUMBERS

Prioritized By	Priority	
DOC	2 of 10	
OSPB	9 of 53	Recommended for funding.

PRIOR APPROPRIATIONS AND REQUEST INFORMATION

Fund Source	Prior Approp.	FY 2021-22	FY 2022-23	Future Requests	Total Costs
CCF	$0	$4,729,279	$0	$0	$4,729,279
Total	$0	$4,729,279	$0	$0	$4,729,279

ITEMIZED COST INFORMATION

Cost Item	Prior Approp.	FY 2021-22	FY 2022-23	Future Requests	Total Cost
Land Acquisition	$0	$0	$0	$0	$0
Professional Services	$0	$560,784	$0	$0	$560,784
Construction	$0	$3,738,561	$0	$0	$3,738,561
Equipment	$0	$0	$0	$0	$0
Miscellaneous	$0	$0	$0	$0	$0
Contingency	$0	$429,934	$0	$0	$429,934
Total	$0	$4,729,279	$0	$0	$4,729,279

PROJECT STATUS

This is a new, never-before-requested project.

Prepared by Legislative Council Staff

Fiscal Year 2021-22 Capital Construction Request

Corrections

Water Tank Repair and Replacement, East Canon City Prison Complex (Capital Renewal)

PROJECT DESCRIPTION / SCOPE OF WORK

The Department of Corrections (DOC) is requesting state funds to increase potable water storage capacity at the East Canon City Prison Complex (ECCPC). This is a capital renewal project. The capital renewal approach focuses on upgrading building systems, infrastructure, and the basic building components within existing academic buildings on a building-by-building basis, rather than project by project.

The project will bring total water storage capacity to fire code while maintaining adequate supply to meet average daily demand. It will replace an existing, 0.15 million gallon water tank with a new, 1.63 million gallon water tank; refurbish another existing 1.60 million gallon water tank, and install a hydraulic system to allow the two tanks to act as one system.

Finally, in the future, the department intends to repurpose the existing 0.15 million gallon tank for nonpotable water use at the complex, though that is also not part of this project's scope.

Cost assumption. Project cost estimates are based on an independent engineering study completed in April 2020. The project accounts for inflation, and, as a capital renewal project, is exempt from Art in Public Places and High Performance Certification Program requirements.

PROJECT JUSTIFICATION

Water needs for ECCPC include average daily demand and fire storage requirements. With a 5,024 offender capacity at the complex, the average daily demand is estimated at 907 gallons per minute. Based on the International Fire Code, which determines flow rate based on building type, size, occupancy, and materials, the required flow rate and duration for ECCPC is 8,000 gallons per minute for four hours. Therefore, the total water storage capacity for ECCPC is 3.23 million gallons per day. Replacing the 0.15 million gallon tank with a 1.63 million gallon tank gives ECCPC the water storage capacity to meet its daily demand while storing sufficient water for a fire event.

The existing 1.60 million gallon, bolted steel tank was installed in 1992, making it 28 years old. Maintenance is recommended for bolted steel tanks every 25 years. The project will be inspected, cleaned, blasted, and recoated only after the new tank is operational.

Project alternatives. The department also considered a welded steel tank for the replacement, but decided to use another bolted steel tank as the latter has a lower initial cost, a lower lifecycle cost, and similar maintenance schedule.

PROGRAM INFORMATION

ECCPC is a 5,400 acre site with 244 buildings including:

- Colorado State Penitentiary;
- Centennial Correctional Facility;
- Arrowhead Correctional Center;
- Skyline Correctional Center;
- Fremont Correctional Facility;
- Four Mile Correctional Facility;
- multiple corrections support facilities;
- multiple Colorado Correctional Industries facilities; and
- the International Correctional Management Training Center.

These facilities range from Level I to Level V and house 5,024 male offenders. Potable water usage impacts all of the complex's facilities.

ECCPC gets water from Canon City. The department is replacing the existing, 6-inch water connection pipe with a 12-inch pipe, which will allow the new tank to be filled in 24 hours. This ongoing work is not part of this project's scope, comes from the department's operating budget, and will be completed in Summer 2021.

Fiscal Year 2021-22 Capital Construction Request

Corrections

Water Tank Repair and Replacement, East Canon City Prison Complex (Capital Renewal)

PROJECT SCHEDULE

	Start Date	Completion Date
Design	July 2021	November 2022
Construction	January 2023	June 2024
Equipment		
Occupancy	July 2024	

SOURCE OF CASH FUNDS

This project is not funded from cash sources.

OPERATING BUDGET

The project has no projected impact on state operating costs. The project will not require correctional housing units to be vacated during construction.

STAFF QUESTIONS AND ISSUES

None.

Prepared by Legislative Council Staff

Fiscal Year 2021-22 Capital Construction Request

Corrections

Kitchen Renovation, Sterling Correctional Facility (Capital Renewal)

PROGRAM PLAN STATUS

2017-067

Approved Program Plan | **Date Approved:**

PRIORITY NUMBERS

Prioritized By	Priority	
DOC	3 of 10	
OSPB	16 of 53	Not recommended for funding.

PRIOR APPROPRIATIONS AND REQUEST INFORMATION

Fund Source	Prior Approp.	FY 2021-22	FY 2022-23	Future Requests	Total Costs
CCF	$0	$41,152,591	$0	$0	$41,152,591
Total	$0	$41,152,591	$0	$0	$41,152,591

ITEMIZED COST INFORMATION

Cost Item	Prior Approp.	FY 2021-22	FY 2022-23	Future Requests	Total Cost
Land Acquisition	$0	$0	$0	$0	$0
Professional Services	$0	$6,549,273	$0	$0	$6,549,273
Construction	$0	$17,935,240	$0	$0	$17,935,240
Equipment	$0	$2,018,750	$0	$0	$2,018,750
Miscellaneous	$0	$11,091,706	$0	$0	$11,091,706
Contingency	$0	$3,557,622	$0	$0	$3,557,622
Total	$0	$41,152,591	$0	$0	$41,152,591

PROJECT STATUS

This is the third request for funding. The project was first requested for funding in FY 2019-20.

Prepared by Legislative Council Staff

Fiscal Year 2021-22 Capital Construction Request

Corrections

Kitchen Renovation, Sterling Correctional Facility (Capital Renewal)

PROJECT DESCRIPTION / SCOPE OF WORK

The Department of Corrections (DOC) is requesting state funds for a project to fully renovate the 31,440-GSF kitchen at the Sterling Correctional Facility. This is a capital renewal project. The capital renewal approach focuses on upgrading building systems, infrastructure, and the basic building components within existing buildings on a building-by-building basis, rather than project by project. The department says the project will revitalize a poorly functioning kitchen that presents hazards due to slips and falls, unsanitary conditions, and assaults facilitated by the kitchen's layout.

The project replaces systems, including:

- the roof;
- security systems;
- plumbing systems, including sanitary waste piping, which will be accompanied by trench drains and floor sinks to reduce moisture on the floor;
- the mechanical and climate-control systems, including air-handling units, automated energy recovery, electronic motors, grease hoods, dishwasher exhaust fans, and heating coils; and
- all electrical systems, including lighting.

Food service equipment will be removed, refurbished, and reinstalled, or replaced with new equipment based on condition. A new kitchen layout directs flow to limit cross traffic, and outgoing trash and the flow of food products is segregated to avoid contamination. The layout includes security and visibility features such as raised offices, shorter food carts, and serving room configurations that reduce the number of carts required for daily service. During construction, a temporary kitchen will be assembled for uninterrupted food service. Dining areas will be used for construction staging, and offenders who normally eat in the dining areas will be served in the gymnasiums.

Cost assumption. The cost assumption was determined by a study conducted by an independent consultant. The project accounts for inflation. The project meets the High Performance Certification Program requirements and, as a capital renewal request, the project is exempt from the Art in Public Places Program.

PROJECT JUSTIFICATION

The department says the current kitchen condition is an unhealthy and unsafe environment due to wear and layout, creating injury hazards, opportunities for assault, and unsanitary conditions. The worn and exposed concrete subfloor has resulted in a high staff and offender injury rate due to slipping and tripping, and the uneven surface creates polluted and stagnant areas that cannot be properly disinfected. The department says the cleanliness of the kitchen is constantly compromised due to cramped spaces and cross traffic between "clean" and "dirty" functions. For instance, soiled food trays and garbage are transported through the cooking areas to reach the dishwashing area and corridor leading to the dumpsters. In addition, DOC says the kitchen lacks sufficient air exhaust and heating, and has no air conditioning, which creates unsafe working and unsanitary food preparation conditions. The department notes that the kosher and other special diet rooms are too small to accommodate demand, resulting in cross-contamination of special meals, thus compromising offender health. Humidity has caused ceilings to collapse, injuring officers and offenders. The humidity also damages surfaces and systems, and further exacerbates kitchen temperature extremes. These conditions have led to numerous Department of Public Health and Environment citations, and could ultimately lead to a shutdown of operations. If this were to happen, DOC says it would need to prepare meals at another location or bring in a large-scale mobile kitchen, either of which would be costly.

The layout of the facility lacks openness, creating opportunities for security breaches. Due to blind corners, poor sight lines, narrow hallways, and a lack of glass, the department says the kitchen is the site of frequent offender and staff assaults and many Prison Rape Elimination Act incidents.

PROGRAM INFORMATION

Built in 1999, the Sterling Correctional Facility is the largest prison in DOC's system, with a capacity of 2,564 offenders. The facility houses all five of the male offender custody levels, and hosts the state's death row inmates. The department says most of the facility's systems date to its construction. The kitchen produces about 2.8 million meals annually, including 40 special dietary needs trays for 158 offenders. About 54 million meals have been served in the kitchen since its opening.

Prepared by Legislative Council Staff

Fiscal Year 2021-22 Capital Construction Request

Corrections

Kitchen Renovation, Sterling Correctional Facility (Capital Renewal)

PROJECT SCHEDULE

	Start Date	Completion Date
Design	July 2021	Sept 2022
Construction	October 2022	June 2024
Equipment	May 2024	June 2024
Occupancy	July 2024	

SOURCE OF CASH FUNDS

This project is not funded from cash sources.

OPERATING BUDGET

According to the department, the renovations will reduce service calls for repairs, staff and offender injuries, staff overtime, and fines associated with health code and religious violations.

STAFF QUESTIONS AND ISSUES

None.

Prepared by Legislative Council Staff

Fiscal Year 2021-22 Capital Construction Request

Corrections

Sanitary Sewer Line Replacement, Buena Vista Correctional Facility (Capital Renewal)

PROGRAM PLAN STATUS

2022-006

Approved Program Plan | **Date Approved:**

PRIORITY NUMBERS

Prioritized By	Priority	
DOC	4 of 10	
OSPB	14 of 53	Not recommended for funding.

PRIOR APPROPRIATIONS AND REQUEST INFORMATION

Fund Source	Prior Approp.	FY 2021-22	FY 2022-23	Future Requests	Total Costs
CCF	$0	$2,144,180	$0	$0	$2,144,180
Total	$0	$2,144,180	$0	$0	$2,144,180

ITEMIZED COST INFORMATION

Cost Item	Prior Approp.	FY 2021-22	FY 2022-23	Future Requests	Total Cost
Land Acquisition	$0	$0	$0	$0	$0
Professional Services	$0	$340,428	$0	$0	$340,428
Construction	$0	$1,608,827	$0	$0	$1,608,827
Equipment	$0	$0	$0	$0	$0
Miscellaneous	$0	$0	$0	$0	$0
Contingency	$0	$194,925	$0	$0	$194,925
Total	$0	$2,144,180	$0	$0	$2,144,180

PROJECT STATUS

This is a new, never-before-requested project.

Prepared by Legislative Council Staff

Fiscal Year 2021-22 Capital Construction Request

Corrections

Sanitary Sewer Line Replacement, Buena Vista Correctional Facility (Capital Renewal)

PROJECT DESCRIPTION / SCOPE OF WORK

The Department of Corrections (DOC) is requesting state funds for a capital renewal project to repair and replace failing sanitary sewer lines serving the Buena Vista Correctional Facility. The capital renewal approach focuses on upgrading building systems, infrastructure, and the basic components within existing buildings on a building-by-building basis, rather than the project-by-project approach used for controlled maintenance. The department explains that portions of the line are negatively sloped, which inhibits wastewater flow, and are blocked by grease, deteriorating, and exhibiting signs of intrusion from outside elements.

The scope of the project includes replacing sections of the pipeline with insufficient sloping, along with those that are beyond repair, including a section exiting the kitchen's grease interceptor. For sections that remain viable, the project installs an internal liner without excavating the pipe. The project also rehabilitates manholes to address deficiencies. Prior to commencing with the upgrades, the project will connect a parallel sewer line to the sewer system to handle wastewater discharge during the project's construction. This parallel line was installed in 2008 but has not been used.

Cost assumption. The cost assumption was determined through an evaluation of the sanitary sewer system conducted by an independent engineering firm in 2018. The request accounts for inflation at a rate of 5.8 percent. The project is exempt from Art in Public Places and High Performance Certification Program requirements.

PROJECT JUSTIFICATION

DOC says sections of insufficiently sloped pipeline do not allow for proper wastewater flow, and build-up of grease from the kitchen cannot be jetted from the line due to the overall deterioration of the line. Groundwater seeps into the pipeline, and the facility is charged for this additional water discharge by the Buena Vista Sanitation District when the flow reaches its wastewater treatment plant. Grit and gravel is routinely removed from the line, indicating a break in the sewer. The 2018 study indicates that 20 percent of the line's manholes are in poor condition, with an additional 33 percent rated as fair in condition. The department says failure to address the sanitary sewer line will result in continued high maintenance and sewage discharge costs, and a non-functioning sewer line will result in loss of use of the facility.

PROGRAM INFORMATION

The Buena Vista Correctional Complex is a Level III (medium security) men's facility with a capacity of about 1,200 offenders. The complex also houses a minimum-restrictive unit. DOC says the sanitary sewer line impacts all of the complex's medium-security functions and programs, including offender housing, food service and laundry, clinical services, recreation, security, administration, and support services.

PROJECT SCHEDULE

	Start Date	Completion Date
Design	July 2021	March 2023
Construction	April 2023	June 2024
Equipment		
Occupancy	July 2024	July 2024

SOURCE OF CASH FUNDS

This project is not funded from cash sources.

OPERATING BUDGET

The department expects the project to result in reduced operating expenses due to lower utility costs and reduced service calls and material costs for repairs.

Prepared by Legislative Council Staff

Fiscal Year 2021-22 Capital Construction Request

Corrections

Sanitary Sewer Line Replacement, Buena Vista Correctional Facility (Capital Renewal)

STAFF QUESTIONS AND ISSUES

1. Why has the secondary sewer line installed in 2008 never been used?

As noted in the FY21-22 Capital Renewal Project Request, a polyvinyl chloride (PVC) pipe sanitary sewer line, that was installed on the Buena Vista Correctional Complex (BVCC) between 2005 and 2008, was never connected.

In 2004, the Buena Vista Sanitation District initiated legal action against the Department of Corrections concerning wastewater effluent and sanitary sewer charges. During the period of legal action, CDOC initiated efforts to improve BVCC's sanitary sewer infrastructure, but did not connect the PVC line in an effort to maintain existing conditions. Legal action continued until 2015.

After the conclusion of the legal action period, Tetra Tech, an engineering consulting firm, performed a sanitary sewer facility inspection and evaluation of the BVCC sanitary sewer infrastructure between 2018 and 2019. Based on Tetra Tech's hydraulic analysis, the PVC parallel sewer line that was installed on the east side of the facility does not match the capacity of the existing line, currently in use.

The newer, parallel sewer line is undersized for current sewer flow conditions, and will not be sufficient to carry the entire sanitary sewer flow for that section of the facility. Since this PVC pipe does not have sufficient capacity, a refurbished or replacement sewer line is required, even if the newer PVC line can be connected to accommodate a portion of the sewer flow. The parameters used in 2004 to size the newer, parallel PVC line are not available.

Since the old sewer line has failed, a sewer line must be properly sized and designed, either in conjunction with the PVC pipe or as a stand-alone system, to provide the necessary conveyance for the present and anticipated sewer flow levels.

Fiscal Year 2021-22 Capital Construction Request

Corrections

Utility Water Lines Replacement, Arkansas Valley Correctional Facility (Capital Renewal)

PROGRAM PLAN STATUS

2017-068

Approved Program Plan No **Date Approved:**

PRIORITY NUMBERS

Prioritized By	Priority	
DOC	5 of 10	
OSPB	12 of 53	Not recommended for funding.

PRIOR APPROPRIATIONS AND REQUEST INFORMATION

Fund Source	Prior Approp.	FY 2021-22	FY 2022-23	Future Requests	Total Costs
CCF	$0	$8,817,987	$0	$0	$8,817,987
Total	$0	$8,817,987	$0	$0	$8,817,987

ITEMIZED COST INFORMATION

Cost Item	Prior Approp.	FY 2021-22	FY 2022-23	Future Requests	Total Cost
Land Acquisition	$0	$0	$0	$0	$0
Professional Services	$0	$1,363,114	$0	$0	$1,363,114
Construction	$0	$6,653,238	$0	$0	$6,653,238
Equipment	$0	$0	$0	$0	$0
Miscellaneous	$0	$0	$0	$0	$0
Contingency	$0	$801,635	$0	$0	$801,635
Total	$0	$8,817,987	$0	$0	$8,817,987

PROJECT STATUS

This project was first requested for funding in FY 2019-20. This is its third request for funding.

Prepared by Legislative Council Staff

Fiscal Year 2021-22 Capital Construction Request

Corrections

Utility Water Lines Replacement, Arkansas Valley Correctional Facility (Capital Renewal)

PROJECT DESCRIPTION / SCOPE OF WORK

The Department of Corrections (DOC) is requesting state funds for a capital renewal project to replace the pipes that provide hot and cold water to the Arkansas Valley Correctional Facility. The capital renewal approach focuses on upgrading building systems, infrastructure, and the basic components within existing buildings on a building-by-building basis, rather than the project-by-project approach used for controlled maintenance. The department explains that frequent leaks require it to shut down the hot water system for repairs, which interrupts the supply of heating and hot water to the facility.

A central heating and cooling plant located outside the facility perimeter provides utility service to the facility through direct-bury, pre-insulated steel piping. In 2018, in response to repeated leaks within the hot water system, the DOC hired an engineering consultant to evaluate the system and make recommendations for repair or replacement of the water lines. The consultant recommended the following repairs, which will be included in the project:

- replace the exterior hot-water piping with direct-bury piping featuring a polyethylene insulation jacket and pressure testable joint closures;
- replace the interior hot water piping systems, including replacing grooved pipe clamp couplings with welded joints;
- replace the interior cold water piping systems;
- replace the water softener system; and
- replace all fittings, valves, hangers, and insulation associated with these systems.

The consultant further recommended completing the project in a single phase to reduce the disruption of services and systems, and to reduce costs.

Cost assumption. The cost assumption was determined in the study conducted by the engineering consultant, and based upon previous department experience with similar projects. The project accounts for inflation, and is exempt from the Art in Public Places and High Performance Certification program requirements.

PROJECT JUSTIFICATION

The department explains that the hot water piping system experiences recurring leaks at the joints when there is a significant change in hot water temperature, particularly when the boilers are shut down and restarted. When a leak occurs, the system must be shut down to make repairs, resulting in the loss of hot water service to the entire facility. Personnel must also repair ceilings, walls, and equipment such as fire alarm and security door control panels once a leak is repaired. Furthermore, failures to the direct-bury piping that delivers hot water from the central plant to the facility have been occurring with increasing frequency, requiring additional repairs and disruption of services.

The department says that if the project is not funded, failure of the hot water and direct-bury piping systems will continue to take place, requiring piecemeal repairs at a substantial cost to the department and prompting additional service disruptions. Loss of the lines would discontinue heat, laundry, and food service, and could result in facility closure, thus requiring the department to relocate the offender population and seek emergency funding for systems replacement.

PROGRAM INFORMATION

Arkansas Valley Correctional Facility is a Level III prison in Ordway, Crowley County, that houses up to 1,056 male offenders. The facility opened in 1987.

Fiscal Year 2021-22 Capital Construction Request

Corrections

Utility Water Lines Replacement, Arkansas Valley Correctional Facility (Capital Renewal)

PROJECT SCHEDULE

	Start Date	Completion Date
Design	July 2021	Sept 2022
Construction	October 2022	June 2024
Equipment		
Occupancy	July 2024	

SOURCE OF CASH FUNDS

This project is not funded from cash sources.

OPERATING BUDGET

The department expects the project to result in reduced service calls, and savings from a reduction in the cost to replace equipment that fails prematurely.

STAFF QUESTIONS AND ISSUES

None.

Prepared by Legislative Council Staff

Fiscal Year 2021-22 Capital Construction Request

Corrections

Critical Living Unit Shower Drain Replacement, Arkansas Valley Correctional Facility (Capital Renewal)

PROGRAM PLAN STATUS

2021-023

Approved Program Plan No **Date Approved:**

PRIORITY NUMBERS

Prioritized By	Priority	
DOC	6 of 10	
OSPB	18 of 53	Not recommended for funding.

PRIOR APPROPRIATIONS AND REQUEST INFORMATION

Fund Source	Prior Approp.	FY 2021-22	FY 2022-23	Future Requests	Total Costs
CCF	$0	$11,430,262	$0	$0	$11,430,262
Total	$0	$11,430,262	$0	$0	$11,430,262

ITEMIZED COST INFORMATION

Cost Item	Prior Approp.	FY 2021-22	FY 2022-23	Future Requests	Total Cost
Land Acquisition	$0	$0	$0	$0	$0
Professional Services	$0	$1,728,201	$0	$0	$1,728,201
Construction	$0	$8,455,910	$0	$0	$8,455,910
Equipment	$0	$0	$0	$0	$0
Miscellaneous	$0	$207,036	$0	$0	$207,036
Contingency	$0	$1,039,115	$0	$0	$1,039,115
Total	$0	$11,430,262	$0	$0	$11,430,262

PROJECT STATUS

This is the second request for funding; the project was first requested for funding in FY 2020-21.

Prepared by Legislative Council Staff

Fiscal Year 2021-22 Capital Construction Request

Corrections

Critical Living Unit Shower Drain Replacement, Arkansas Valley Correctional Facility (Capital Renewal)

PROJECT DESCRIPTION / SCOPE OF WORK

The Department of Corrections (DOC) is requesting state funds to upgrade all plumbing fixtures in the living units at the Arkansas Valley Correctional Facility (AVCF) near Ordway under the capital renewal approach. The capital renewal approach focuses on upgrading building systems, infrastructure, and the basic components within existing state-owned buildings on a building-by-building basis, rather than the project-by-project basis used for controlled maintenance.

The project will replace the entirety of the drain and plumbing lines within the living units. These cells are "dry," meaning they do not contain washroom facilities, and they will remain so. As a result, inmates at the facility use communal sinks, toilets, and showers. The project brings these areas into compliance with minimum fixture and shower drainage requirements and includes:

- converting cells adjacent to current washroom areas to shower and toilet space to meet minimum area requirements;
- converting single-bunk cells to double bunks to maintain current capacity upon loss of adjacent cells;
- installing a programmable controller system to prevent over-usage or improper usage of sinks, toilets, and showers; and
- upgrading toilet and shower exhaust systems to remedy lack of ventilation.

A previously funded controlled-maintenance project updated and replaced AVCF's electrical infrastructure. Currently, the showers in the living units drain above the electrical room and, due to deterioration of the system, leak into the newly installed electrical equipment. This project will renovate the current facilities to relocate the shower water supplies so they no longer pose a risk to the electrical system.

Cost assumption. The cost assumption was determined through recommendations from an engineering firm and an architecture firm, who evaluated the cost to repair and/or replace the utility water lines at AVCF. The project accounts for inflation using the four-year average of inflation from the Engineering News Record, Building Cost Index. As a capital renewal request, the project is exempt from the Art in Public Places and High Performance Certification Program requirements.

PROJECT JUSTIFICATION

According to the department, significant degradation and the increasing difficulty in locating and patching leaks in the system warrant a complete replacement over continued piecemeal repairs. Maintenance staff report a need for continuous grout repair, and as many as three to five shower blockages daily, as a result of excess humidity and intentional offender over-use. The shower and toilet areas have not been renovated since the facility opened in 1987, and the current ratio of fixtures to offenders does not meet the standards set out by the State of Colorado Penal Code, the Colorado Department of Public Health and Environment, or the International Building and Plumbing Code. Moreover, the department says that not funding the request will result in the premature failure of the newly installed electrical system in the facility.

DOC reports that the project was submitted as a single-phase capital renewal request, rather than as multiple controlled maintenance requests, because renovations to each living unit need to be completed at one time, and the cost to renovate a single unit is more than the amount allowed for controlled maintenance. In addition, if phased by unit, the project would consist of six phases, which is more than is permitted for controlled maintenance.

PROGRAM INFORMATION

The Arkansas Valley Correctional Facility is located about 50 miles east of Pueblo, and was constructed in 1987 as the first major adult facility built outside of the Canon City area. The medium security, Level III facility has a capacity of 1,089 beds, and hosts a number of educational and vocational programs. The facility also hosts several programs conducted by Colorado Correctional Industries.

Fiscal Year 2021-22 Capital Construction Request

Corrections

Critical Living Unit Shower Drain Replacement, Arkansas Valley Correctional Facility (Capital Renewal)

PROJECT SCHEDULE

	Start Date	Completion Date
Design	July 2021	Sept 2022
Construction	October 2022	June 2024
Equipment		
Occupancy	July 2024	

SOURCE OF CASH FUNDS

This project is not funded from cash sources.

OPERATING BUDGET

According to the department, this project will result in reduced service calls needed for repairs, as well as savings from premature electrical equipment replacement due to water damage.

STAFF QUESTIONS AND ISSUES

None.

Prepared by Legislative Council Staff

Fiscal Year 2021-22 Capital Construction Request

Corrections

Electronic Security System Replacement, Colorado State Penitentiary (Capital Renewal)

2021-004

PROGRAM PLAN STATUS

Approved Program Plan | **Date Approved:**

PRIORITY NUMBERS

Prioritized By	Priority	
DOC	7 of 10	
OSPB	17 of 53	Not recommended for funding.

PRIOR APPROPRIATIONS AND REQUEST INFORMATION

Fund Source	Prior Approp.	FY 2021-22	FY 2022-23	Future Requests	Total Costs
CCF	$0	$4,406,356	$0	$0	$4,406,356
Total	$0	$4,406,356	$0	$0	$4,406,356

ITEMIZED COST INFORMATION

Cost Item	Prior Approp.	FY 2021-22	FY 2022-23	Future Requests	Total Cost
Land Acquisition	$0	$0	$0	$0	$0
Professional Services	$0	$653,214	$0	$0	$653,214
Construction	$0	$3,227,109	$0	$0	$3,227,109
Equipment	$0	$0	$0	$0	$0
Miscellaneous	$0	$125,455	$0	$0	$125,455
Contingency	$0	$400,578	$0	$0	$400,578
Total	$0	$4,406,356	$0	$0	$4,406,356

PROJECT STATUS

This is the second request for funding for the project. The project was first requested for funding for FY 2020-21.

Prepared by Legislative Council Staff

Fiscal Year 2021-22 Capital Construction Request

Corrections

Electronic Security System Replacement, Colorado State Penitentiary (Capital Renewal)

PROJECT DESCRIPTION / SCOPE OF WORK

The Department of Corrections (DOC) is requesting state funds for a capital renewal project to upgrade the electronic security control system and the man-down system at the Colorado State Penitentiary in Canon City. The capital renewal approach focuses on upgrading building systems, infrastructure, and the basic components within existing buildings on a building-by-building basis, rather than the project-by-project approach used for controlled maintenance. These systems control and restrict movement, monitor and maintain secure conditions, observe and prevent incidents, and provide communication throughout the facility. A man-down system detects distress incidents and sends an alert to a monitoring center. Upgrading the electronic security control system involves:

- updating the security workstations, software, power supplies, communication modules, and cabling;
- replacing security monitors;
- updating the redundant server system, intercom and paging system, and event logger; and
- updating the interface between the security system and the video system.

The man-down system no longer works at all. Returning the system to functionality requires:

- providing a radio frequency man-down system, including locating devices and repeaters, that will work in all areas throughout the facility;
- zoning areas of the facility that do not currently have provisions for man-down signaling, and incorporating alarms in new classroom areas;
- updating the interface between the security system and the video system; and
- providing transmitters for use by staff and visitors.

Cost assumption. The cost assumption was determined through a contract between DOC facility management services and a security engineering firm, which resulted in a May 2019 study. The project accounts for inflation using the four-year average of inflation from the Engineering News Record, Building Cost Index. The project is exempt from the Art in Public Places and High Performance Certification Program requirements.

PROJECT JUSTIFICATION

DOC explains that the existing systems are old, outdated and, in the case of the man-down system, completely non-functional. A majority of the replacement parts for the systems are no longer available; production of one component of the security system ceased in the mid-1990s. If the systems are not replaced, maintenance will be expensive. According to the department, unreliability in the current systems may hamper emergency control, delay alarming and annunciation of violent incidents, and delay response time to areas with direct staff and offender contact.

DOC also argues that the change of facility mission from administrative segregation to more open offender movement and increased rehabilitation efforts has led to increased direct contact between offenders and staff. This increased contact has raised safety and security concerns in managing the facility's population, and the reliability of the security systems is a critical life safety issue.

Project alternatives. The department explains that, due to the age and increasing difficulty in obtaining parts and service for the existing systems, a complete replacement is warranted over continued piecemeal repairs.

PROGRAM INFORMATION

Colorado State Penitentiary is a 458,906-GSF, Level V (high custody) prison located on the East Canon City Prison Complex in Canon City, Fremont County. The facility opened in 1993 and has a capacity of 756 single-bunked cells for male offenders.

Fiscal Year 2021-22 Capital Construction Request

Corrections

Electronic Security System Replacement, Colorado State Penitentiary (Capital Renewal)

PROJECT SCHEDULE

	Start Date	Completion Date
Design	July 2021	May 2022
Construction	October 2022	June 2024
Equipment		
Occupancy	July 2024	

SOURCE OF CASH FUNDS

This project is not funded from cash sources.

OPERATING BUDGET

The department expects the project to reduce service calls needed for system repairs, as well as to reduce the number of additional staff required to be on duty to cover for the failing systems.

STAFF QUESTIONS AND ISSUES

1. For last year's request, the department indicated that there had been 123 documented electronic security system failures at Colorado State Penitentiary since August 2018. Could you please update this figure?

Since July of 2019 (the date of the previously mentioned submittal) to November 20, 2020, there have been an additional 117 separate instances of documented malfunctions and failures involving the door control system at CSP. This includes issues with the door control personal computers (PC's), monitor replacements, power supplies, etc. The majority of these malfunctions involved the control PC not responding, requiring a reboot.

Many of these failures happen during normal business hours so department staff are able to respond quickly. Staff do respond after hours approximately once a month which lengthens the duration of the outage.

Two of the failures were major failures which affected the entire system and caused a facility-wide outage of the door controls. This does not include individual door failures which happen on a regular basis, although some of those failures are attributed to the communication process with the door control PC due to malfunctioning components. The continued failures have a serious impact on the facility's level V security and our operations.

Fiscal Year 2021-22 Capital Construction Request

Corrections

Electronic Security System Replacement, Arkansas Valley Correctional Facility (Capital Renewal)

PROGRAM PLAN STATUS

2020-010

Approved Program Plan No **Date Approved:**

PRIORITY NUMBERS

Prioritized By	Priority	
DOC	8 of 10	
OSPB	13 of 53	Not recommended for funding.

PRIOR APPROPRIATIONS AND REQUEST INFORMATION

Fund Source	Prior Approp.	FY 2021-22	FY 2022-23	Future Requests	Total Costs
CCF	$0	$3,410,433	$0	$0	$3,410,433
Total	$0	$3,410,433	$0	$0	$3,410,433

ITEMIZED COST INFORMATION

Cost Item	Prior Approp.	FY 2021-22	FY 2022-23	Future Requests	Total Cost
Land Acquisition	$0	$0	$0	$0	$0
Professional Services	$0	$508,704	$0	$0	$508,704
Construction	$0	$2,417,588	$0	$0	$2,417,588
Equipment	$0	$0	$0	$0	$0
Miscellaneous	$0	$174,102	$0	$0	$174,102
Contingency	$0	$310,039	$0	$0	$310,039
Total	$0	$3,410,433	$0	$0	$3,410,433

PROJECT STATUS

This is the project's third request for funding. It was first requested for funding in FY 2019-20.

Prepared by Legislative Council Staff

Fiscal Year 2021-22 Capital Construction Request

Corrections

Electronic Security System Replacement, Arkansas Valley Correctional Facility (Capital Renewal)

PROJECT DESCRIPTION / SCOPE OF WORK

The Department of Corrections (DOC) is requesting state funds for a capital renewal project to upgrade the door control and intercom systems at the Arkansas Valley Correctional Facility in Ordway. The capital renewal approach focuses on upgrading building systems, infrastructure, and the basic components within existing buildings on a building-by-building basis, rather than the project-by-project approach used for controlled maintenance. The department says failures and outages in these systems create security and life-safety risks for offenders, staff, and the public. The scope of the project includes:

- replacing the intercom, paging system and associated hardware with a new, digital system featuring modern interfaces and controls for improved communication among staff and between staff and offenders;
- replacing the paging horns for improved offender signaling in the yards;
- updating touchscreen door control systems and associated hardware and software to improve network speed, connectivity between buildings, and long-term reliability;
- installing new uninterruptable power systems for each security equipment room; and
- installing electronic locks or motors at select gates and doors.

Cost assumption. The cost assumption was determined through a contract between DOC facility management services and a security engineering firm, which resulted in a February 2018 study that recommends systems replacement. The cost assumption also relies on previous experience with controlled maintenance projects similar to the Arkansas Valley project. The project cost assumes an inflation rate of 2.7 percent. As a capital renewal project, the project is exempt from the Art in Public Places and High Performance Certification Program requirements.

PROJECT JUSTIFICATION

DOC explains that the existing communications and door control systems are outdated and need to be replaced, and operation and maintenance of these systems is becoming increasingly difficult. In the last two years, the facility has averaged five door malfunctions per week, where status lights do not indicate if the doors are locked or open. Staff must visually inspect the door each time to verify if the door is properly functioning. Visual inspection of the doors has shown that the doors were not secure appropriately 70 percent of the time. The intercom systems have daily issues and operation is very inconsistent. System failure has the potential to endanger the lives of staff, offenders, and the public while putting the facility at risk of closure, since these systems are responsible for controlling and restricting movement, monitoring and maintaining secure conditions, observing and preventing incidents, and providing communication throughout the facility.

According to the department, a significant portion of the communications and door control systems are over 30 years old and original to the facility. In response to system failures, many system components have been removed, replaced, or relocated, leaving the systems in an unreliable condition. As service and repair requests have mounted, the DOC contracted with a security engineering firm to assess the security systems. The resulting report recommends systems replacement based on age, poor conditions, and lack of availability of replacement parts. Sourcing parts has been difficult and time-consuming for the department, and failure to do so in a timely manner creates the potential for taking these critical systems out of service until the parts can be acquired.

PROGRAM INFORMATION

Arkansas Valley Correctional Facility is a Level III prison in Ordway, Crowley County, that houses up to 1,056 male offenders. The facility opened in 1987.

Fiscal Year 2021-22 Capital Construction Request

Corrections

Electronic Security System Replacement, Arkansas Valley Correctional Facility (Capital Renewal)

PROJECT SCHEDULE

	Start Date	Completion Date
Design	July 2021	Sept 2022
Construction	October 2022	June 2024
Equipment		
Occupancy	July 2024	

SOURCE OF CASH FUNDS

This project is not funded from cash sources.

OPERATING BUDGET

The department expects the project to reduce service calls needed for system repairs. In addition, construction will require space to be temporarily vacated, which may affect external capacity funding. If necessary, additional operating funding will be requested through the normal budget process.

STAFF QUESTIONS AND ISSUES

None.

Fiscal Year 2021-22 Capital Construction Request

Corrections

Support Building Roof Replacement, Denver Women's Correctional Facility Capital Renewal)

PROGRAM PLAN STATUS *2022-007*

Approved Program Plan **Date Approved:**

PRIORITY NUMBERS

Prioritized By	Priority	
DOC	9 of 10	
OSPB	23 of 53	Not recommended for funding.

PRIOR APPROPRIATIONS AND REQUEST INFORMATION

Fund Source	Prior Approp.	FY 2021-22	FY 2022-23	Future Requests	Total Costs
CCF	$0	$2,026,199	$0	$0	$2,026,199
Total	$0	$2,026,199	$0	$0	$2,026,199

ITEMIZED COST INFORMATION

Cost Item	Prior Approp.	FY 2021-22	FY 2022-23	Future Requests	Total Cost
Land Acquisition	$0	$0	$0	$0	$0
Professional Services	$0	$226,210	$0	$0	$226,210
Construction	$0	$1,425,085	$0	$0	$1,425,085
Equipment	$0	$0	$0	$0	$0
Miscellaneous	$0	$190,704	$0	$0	$190,704
Contingency	$0	$184,200	$0	$0	$184,200
Total	$0	$2,026,199	$0	$0	$2,026,199

PROJECT STATUS

This is a new, never-before-requested project.

Prepared by Legislative Council Staff

Fiscal Year 2021-22 Capital Construction Request

Corrections

Support Building Roof Replacement, Denver Women's Correctional Facility Capital Renewal)

PROJECT DESCRIPTION / SCOPE OF WORK

The Department of Corrections (DOC) is requesting state funds for a capital renewal project to replace the roof on the Support Building at the Denver Women's Correctional Facility. The capital renewal approach focuses on upgrading building systems, infrastructure, and the basic building components within existing buildings on a building-by-building basis, rather than project by project. The roof is at the end of its useful life and has developed leaks resulting in damage to finishes and equipment and disruption of programming, including the kitchen, according to the department.

The project replaces the existing EPDM roof membrane with a built-up roof system, and alters the existing roof drainage system to mitigate leaking, ponding, and other water-related issues. The new roof will meet building code and wind-resistance requirements, and insulation value will be increased.

Cost assumption. The cost assumption was determined through an evaluation of the roof conducted by an independent engineering firm in May 2019. The request accounts for inflation at a rate of 5.8 percent. The project is exempt from Art in Public Places and High Performance Certification Program requirements.

PROJECT JUSTIFICATION

DOC says the existing roof, which is original to the 22-year-old building, is at the end of its useful life and requires replacement, as leaks have developed, causing damage to finishes and equipment and disruption of operations and programming. According to the department, maintenance staff must use operating funds to repair the building's interior when leaks occur, and failure to replace the roof may result in loss of use of the facility. Issues identified in the May 2019 assessment include open seams, membrane tenting and punctures, brittle flashings, ponding, and evidence of water intrusion. The resulting report says that a full roof replacement is recommended, and that partial repairs such as recovering the roof with a new membrane will not remedy the situation and likely do not meet building code requirements. DOC also says roof replacement is needed to maintain American Correctional Association accreditation.

PROGRAM INFORMATION

The Denver Women's Correctional Facility is a 432,292-GSF, Level V (maximum security) facility with a capacity of 1,048 female offenders. The Support Building contains basic physical plant infrastructure, including water, heat, electricity, sewage treatment, and building maintenance systems. It also houses education and job training programs, food service, laundry, and support services.

PROJECT SCHEDULE

	Start Date	Completion Date
Design	July 2020	June 2021
Construction	April 2022	June 2023
Equipment		
Occupancy	July 2023	July 2023

SOURCE OF CASH FUNDS

This project is not funded from cash sources.

OPERATING BUDGET

The department expects the project to result in reduced operating costs based on a reduction in repairs and premature equipment replacement due to water damage.

Prepared by Legislative Council Staff

Fiscal Year 2021-22 Capital Construction Request

Corrections

Support Building Roof Replacement, Denver Women's Correctional Facility Capital Renewal)

STAFF QUESTIONS AND ISSUES

1. Since the request materials indicate that roof repair efforts show signs of poor craftsmanship, is the department confident that the complete roof replacement will be a lasting solution?

Yes, the department is confident that the selected replacement material will result in a long-lasting roof. The proposed conventional Built-Up Roof (BUR) is a multi-ply asphalt membrane system with a granular rock surface, with a useful service life of approximately 25 to 30 years. The BUR system is relatively easy to repair and maintain up to 50 years, with superior resistance against wind and hail damage.

The existing EPDM rubber membrane roofing, with river-rock ballast over loose laid membrane and insulation board, is a conventional roofing system. For the most part, the existing roof was properly installed, with the exception of some limited areas where the membrane was adhered to the insulation without any ballast. The existing roof system is nearing the end of its useful service life of approximately 20 years, and is inherently difficult to patch, repair, or replace.

Fiscal Year 2021-22 Capital Construction Request

Corrections

Electrical Distribution Infrastructure Replacement, East Canon City Prison Complex (Capital Renewal)

PROGRAM PLAN STATUS

2022-004

Approved Program Plan No **Date Approved:**

PRIORITY NUMBERS

Prioritized By	Priority	
DOC	10 of 10	
OSPB	15 of 53	Not recommended for funding.

PRIOR APPROPRIATIONS AND REQUEST INFORMATION

Fund Source	Prior Approp.	FY 2021-22	FY 2022-23	Future Requests	Total Costs
CCF	$0	$13,522,053	$0	$0	$13,522,053
Total	$0	$13,522,053	$0	$0	$13,522,053

ITEMIZED COST INFORMATION

Cost Item	Prior Approp.	FY 2021-22	FY 2022-23	Future Requests	Total Cost
Land Acquisition	$0	$0	$0	$0	$0
Professional Services	$0	$2,103,542	$0	$0	$2,103,542
Construction	$0	$9,715,304	$0	$0	$9,715,304
Equipment	$0	$0	$0	$0	$0
Miscellaneous	$0	$473,929	$0	$0	$473,929
Contingency	$0	$1,229,278	$0	$0	$1,229,278
Total	$0	$13,522,053	$0	$0	$13,522,053

PROJECT STATUS

This is a new, never-before-requested project.

Prepared by Legislative Council Staff

Fiscal Year 2021-22 Capital Construction Request

Corrections

Electrical Distribution Infrastructure Replacement, East Canon City Prison Complex (Capital Renewal)

PROJECT DESCRIPTION / SCOPE OF WORK

The Department of Corrections (DOC) is requesting state funds to replace the East Canon City Prison Complex's (ECCPC) electricity distribution infrastructure. This is a capital renewal project. The capital renewal approach focuses on upgrading building systems, infrastructure, and the basic building components within existing academic buildings on a building-by-building basis, rather than project by project.

The project will replace an aging and outdated electricity distribution system. The existing system has a single point supply with overhead distribution. The proposed replacement system will have two power supply points that distribute electricity via an underground loop network, serving all critical facilities and offender housing units. The project further reconfigures the existing standby generators at the Centennial Correctional Facility to support the entire complex in the event of power loss at a primary supply point.

Cost assumption. Cost estimates are based on an independent study conducted in 2019. The project accounts for inflation, and, as a capital renewal project, is exempt from Art in Public Places and Higher Performance Certification Program requirements.

PROJECT JUSTIFICATION

The department says that the existing systems are old and outdated. The overhead distribution system is in average-to-below-average condition and will likely require repairs in coming years including to poles, transformers, fuses, lightning arrester, and overhead switches. The main transmission lines are close to full capacity. The complex is vulnerable to power outages: the entire complex is currently served from one power source, and many facilities lack emergency power.

Adding a second power source will protect the complex from power outages, and the underground loop network will eliminate the overhead lines' vulnerability to strong winds, ice, and lightning. If the systems are not replaced, the department expects to incur additional maintenance costs as the systems continue to age.

PROGRAM INFORMATION

ECCPC is a 5,400 acre site with 244 buildings including:

- Colorado State Penitentiary;
- Centennial Correctional Facility;
- Arrowhead Correctional Center;
- Skyline Correctional Center;
- Fremont Correctional Facility;
- Four Mile Correctional Facility;
- multiple corrections support facilities;
- multiple Colorado Correctional Industries facilities; and
- the International Correctional Management Training Center.

These facilities range from Level I to Level V and house 5,024 male offenders. Electricity infrastructure impacts all components of the complex's functions, including offender housing, offender programs and jobs, food service, laundry, clinical services, recreation, security, administration, and support services.

Fiscal Year 2021-22 Capital Construction Request

Corrections

Electrical Distribution Infrastructure Replacement, East Canon City Prison Complex (Capital Renewal)

PROJECT SCHEDULE

	Start Date	Completion Date
Design	July 2021	August 2022
Construction	Sept 2022	June 2024
Equipment	June 2024	
Occupancy	July 2024	October 2024

SOURCE OF CASH FUNDS

This project is not funded from cash sources.

OPERATING BUDGET

The department says that the project will result in fewer service calls and mitigate repairs on the degrading system. The project will not require correctional housing units to be vacated during construction.

STAFF QUESTIONS AND ISSUES

1. The request says that the existing systems are "old, outdated, and in need of replacement." How old are some of the main system components? For example, the overhead distribution lines and the power supply?

The electrical systems in the ECCPC date back to the mid-1950's with a 1956 date on a power pole. Issues that continue to plague the aging system include:

- power pole insulator faults resulting in arcing;
- transformer wiring not meeting industry standards unprotected by avian damage;
- main power supply is a single point source;
- repairs throughout over sixty-five year span only address the issue at that specific time of repair; and
- power pole rot due to age and contact with soil.

2. Have any of the facilities in the ECCPC experienced significant power outages or disruptions in service related to power outages in recent years?

The entire complex is served power from one source and is subject to prolonged outages if damages to the source occur. Three impactful power outages occurred in 2020.