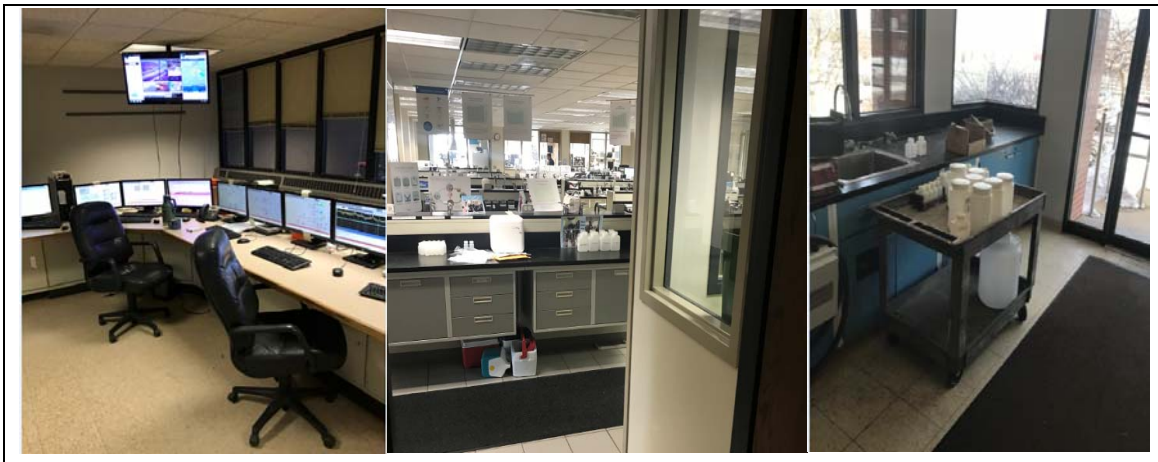
Operations Building First Floor Remodel



Project Purpose:

The purpose of this project is to evaluate, design, and build site improvements within the Operations Building that will provide a safer and more efficient use of space for operations and ecosystem services staff (see Appendix A for location map). Improvements will allow for safer educational opportunities (tours) along with safer work conditions. The area includes the operator's control room and lab, operator supervisor office, first aid room, entrance and refrigeration area, laboratory storage room, and a portion of the laboratory including office space and library/break area (see Appendix B for floor plan).

A portion of this project was identified in the space needs study completed by Bray Architects in 2013. Specifically stated in section 1f-Operations, an improvement of personal storage and need for better efficiency is indicated for the operators control room. Also highlighted in Section 3 of Future Needs, hygiene and safety is referenced as follows: "As noted in numerous spaces, concerns have been raised about the overlap of break spaces with functional work space." This statement would apply to the current space overlap of the open laboratory and library/break area.

Project Proposer/Champion: Eric Dundee

Department: Engineering (lead), Operations & Ecosystems Services

Project Involvement:

The Engineering Department will provide overall management for the project, including planning, design, and construction administration. Since this is specialized work, especially determining space needs, consultant services will be required. This will include a significant amount of architectural expertise, as any final building recommendations will likely be more

"light-construction" rather than the typical "heavy construction" associated with treatment plants. The Engineering Department will lead the overall process of retaining the services of an outside consultant.

Operations and ecosystem services staff will be heavily involved with the project as an architectural services consultant will be contracted to complete a review of the existing space, survey staff for use needs, and develop conceptual alternatives for renovation. They will need to provide input concerning their work area requirements, adjacencies to other departments, features they would like to see in proposed new facilities, etc. They will also need to review building plans and specifications to ensure proposed spaces meet their needs. O&M staff will also need to provide input concerning project schedule and any impacts to plant operations and laboratory work.

Project History and Status:

The operator's control room, operator supervisor office, first aid room, entrance and refrigeration area, laboratory storage room, and laboratory including office space and library/break area are out dated and do not meet the needs of staff activities. These spaces also present safety hazards in regards to clean environments for eating meals and conducting day to day activities that do not include lab work. An additional issue is the entrance and exit of tours into the control room and laboratory space without meeting possible safety requirements. There may also be opportunities to improve energy efficiency. A space needs study for "non-process" areas was completed in 2013 but currently no work has been completed on this project location.

The project area for the business case in the 2019 Capital Improvements Plan contained all of the laboratory space and a total area of approximately 11,000 square feet. After further consideration, it has been determined that only a portion of the laboratory needs to be remodeled. This reduces the total project area to approximately 5,000 square feet. This is the project area that will be considered for inclusion in the 2020 Capital Improvements Plan.

Options:

a. Description:

This project has two phases: the development and preparation of programming and conceptual plans, schematic space designs and cost estimates for budgeting purposes; and design development, construction documents, construction management and warranty phase administration. The project area encompasses the operations and ecosystem services space on the first floor of the operations building.

b. Alternatives

Alternative 0 (null alternative):

The existing space could be left as existing.

Alternative 1: Completing a space needs study and implementation

The existing space could be studied for safety and efficiency to develop a better working environment for staff and general public (tour) experience.

c. Key Risks and Issues

Specific location risks and issues are detailed below:

- The operator's control room and operator's laboratory are outdated and underutilized spaces. The space is a sensitive area which currently allows tours to congregate in the control room while operators are performing work. The lab space is currently an area that is used for testing, a storage area for operator's personal protective equipment and reference material, and documenting station for plant performance.

- The operator supervisor office is a 122 square foot office space that currently has two staff sharing the space. This is in comparison to a typical district office where one staff person occupies a space this size.

- The upper parking lot entrance (designated as handicap entrance) is a multi-use entrance. It receives all traffic related to operator activities, samples handling and general public including tours. The entrance has the refrigeration area and wash station directly inside the door and also acts as a samples storage area in the hallway. This multi-use area is a risk to employees and general public being exposed to wastewater without proper protection. The entrance also leads to two sensitive areas (operator's lab and district lab) without a security entrance. Note: the upper parking lot entrance is a high traffic area that has had two vehicle incidents in the past four years.

- The laboratory, including office space and library/break area, presents risks to staff for ingress/egress in the event of an emergency and introduces the laboratory environment (wastewater and testing materials) into an eating area. Separating office space from laboratory space will reduce exposure.

- The first aid room and laboratory storage room are underutilized and possible areas for improvement to create better working conditions for staff and safer general public interaction per the above.

The key risks for not completing this project are staff and general public safety along with space needs. Hygiene risks are introduced by preparing water and solids samples in areas where tours are conducted. Safety risks are present for those staff who have office space in the lab but do not work in the lab. These staff must pass routinely through active lab areas for ingress and egress to their office. Finally, the operator's control room is currently an unrestricted area and is unattended at times. This condition presents a serious safety concern for all plant processes that communicate through the process control system.

d. Economic Analysis

The anticipated costs for this project are as follows:

	Phase 1	Phase 2
Space study & conceptual design	$28,000	-
Construction design	-	$247,000
Construction	-	$1,375,000
Total	$28,000	$1,622,000

Additional details are included in the financial summary.

Recommended Option

It is recommended to choose alternate 1: completing a space needs study and implementation. The project will identify key areas of improvement needed to these working spaces. After the study is complete, implementation of the plan will be a balance of meeting the needs of the staff for work functions and meeting hygiene and safety needs.

Project Schedule:

	Start	Completion
Study/Concept Design	March 2019	September 2019
Design	October 2019	April 2020
Bid Date	June 2020	July 2020
Construction	October 2020	October 2021

Financial Summary (2019 $):

Total Construction Cost	
Construction ($250/SF)	$1,250,000
Misc./Contingencies	$125,000
Total Construction Cost	$1,375,000

Total Engineering Cost	
Planning: District Staff (0.5%)	$7,000
Planning: Consultant (1.5%)	$21,000
Design: District Staff (3.0%)	$41,000
Design: Consultant (7.0%)	$96,000
Construction: District Staff (5.0%)	$69,000
Construction: Consultant (3.0%)	$41,000
Total Engineering Cost	$275,000

Total Project Cost	
Total Construction Cost	$1,375,000
Total Engineering Cost	$275,000
Total Project Cost	$1,650,000

Fiscal Year Allocation (2019 $):

	2019 (S/D)	2020 (D/C)	2021 (C)
District staff	$21,000	$50,000	$46,000
Consultant	$53,000	$78,000	$28,000
Construction	-	$454,000	$921,000
Total	$74,000	$582,000	$995,000

Fiscal Year Allocation (actual dollars):

	2019 (S/D)	2020 (D/C)	2021 (C)
District staff	$21,000	$52,000	$49,000
Consultant	$53,000	$80,000	$29,000
Construction	-	$467,000	$977,000
Total	$74,000	$599,000	$1,055,000