Portland Public Schools

Annual Bond Performance Audit-Fiscal Year 2021/2022



February 2023 - Final Report





February 15, 2023

Portland Public Schools Marina Cresswell, Senior Director Office of School Modernization 510 N. Dixon Street Portland, OR 97227

Dear Ms. Cresswell,

Sjoberg Evashenk Consulting is pleased to submit our report for the Portland Public Schools (PPS) *Annual Bond Performance Audit – Fiscal Year 2021/2022*. We assessed performance of the bond program as implemented by PPS' Office of School Modernization (OSM) with focus on the delivery status of the 2017 Bond projects including contractor workforce equity protocols and project performance in addition to a high-level review and risk assessment of the 2020 bond framework. We also evaluated progress made towards implementing recommendations from prior 2017 Bond performance audits.

Our report concludes that, for the areas we reviewed, OSM has a strong framework in place to make consistent progress delivering capital improvement projects as planned and is performing well for project budget, schedule, and safety in addition to generally meeting its workforce equity requirements. Additionally, our review of the new 2020 Bond revealed many strong strategies, policies, and protocols in place to guide successful implementation—although the Center for Black Student Excellence (CBSE), carried greater delivery risk and will require more focus from PPS over the next few months.

We provided several recommendations related to enhancing written closeout protocols, workforce equity considerations, and performance metrics reporting related to the 2017 Bond projects. Further, we offered recommendations related to establishing a formal framework, creating project management plan, and implementation schedule for the higher-risk Center for Black Student Excellence features funded by the 2020 Bond.

We appreciate the professionalism, cooperation, and dedication of PPS and OSM staff who assisted us throughout the audit, and look forward to continuing our collaboration during the next audit cycle.

Respectfully Submitted,

Catherine Brady, Partner

Sjoberg Evashenk Consulting, Inc.

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Executive Summary

With five years elapsed since Portland voters passed the 2017 School Improvement Bond (Bond), the Portland Public Schools District (PPS) and its Office of School Modernization (OSM) have put a strong framework in place to make consistent progress delivering capital improvement projects as planned. Performance data suggested that the Bond is performing well for budget, schedule, and safety, and PPS generally met its workforce equity requirements and goals with practices that aligned with industry.

Specifically, two of the four major capital school improvements projects—Kellogg Middle School and McDaniel High School (formerly Madison High School)—were completed, and the modernization of Lincoln High School and the Benson High School Campus were progressing on-schedule. Health and Safety (H&S) capital improvements also progressed well with the majority of designated bond funds already spent towards addressing H&S needs. On these projects, PPS employed leading industry practices related to workforce equity and generally adhered to requirements and goals set. Further, PPS' delivery and management practices helped keep projects progressing within budget and focused on safety practices.

Performance data is regularly captured, analyzed, and communicated to advisory and oversight groups. Moreover, OSM continued to diligently address prior audit recommendations. ¹ To enhance PPS' bond program, we offer recommendations for additional strategies that PPS could consider to further bolster its equity program on PPS Bond construction projects and supplement its public performance reporting to further strengthen accountability.

Additionally, our initial assessment of the new 2020 Bond revealed many strong strategies, policies, and protocols in place to guide successful implementation of the 2020 Bond. One area, the Center for Black Student Excellence (CBSE), carried greater delivery risk and will require more focus from PPS over the next few months to ensure the 2020 Bond's intent behind CBSE is fully realized.

Audit fieldwork generally covered the period between April 1, 2021 and March 31, 2022, although we incorporated any significant events after the end of fieldwork into this report. Key results and recommendations are summarized in the sections that follow.

¹ Refer to Appendix A for status of prior audit recommendations and PPS website at https://www.pps.net/Page/15137 for all Independent Bond Performance Audit reports.

2017 Bond Program Is Well Underway, and 2020 Bond Funds are Available to Complete the Benson High School Project

With only Lincoln High School and Benson High School remaining to be completed and most H&S projects anticipated to finish by the end of December 2022, OSM was on track to deliver the 2017 Bond projects. In addition to other OSM cost containment efforts that have been applied, 2020 Bond Program contingency funds are available to cover increased costs for completing the Benson High School campus due to material and equipment pricing escalation and delivery delays,

KEY RESULTS:

- Lincoln High School, including the athletic field, is on-schedule to complete construction by fall 2023.
- Benson High School was in construction and on-schedule to open for the 2024-2025 school year. While costs have increased to \$410.2 million, OSM cost containment efforts and 2020 Bond program contingency funds indicate there are sufficient resources to pay for the project completion.
- The H&S program completed more improvements than were initially envisioned by the 2017 Bond with some funding remaining to complete additional work.
- OSM has employed closeout practices at Kellogg Middle School and McDaniel High School that align with industry, but not all have been formalized.

RECOMMENDATIONS:

To enhance the closeout of OSM-led capital construction projects and ensure that lessons learned from closing out Bond projects are retained and consistently applied to future Bond-funded projects, OSM should:

 Complete development of and memorialize policies, procedures, and e-Builder processes related to construction closeout as well as train project staff on new closeout protocols before the remaining 2017 Bond projects are completed.



Contractor Workforce Equity at PPS Generally Followed Industry Practices, Although Additional Strategies Could be Considered to Focus on Intended Goals

PPS workforce equity efforts aligned with local peers with requirements and goals met for apprentices and minorities—although not for female workers. While PPS cannot directly influence outcomes, there are additional strategies and tools available for PPS to consider implementing in its workforce equity program.

KEY RESULTS:

- PPS has joined other local public owners to further workforce equity outcomes in the region and has adopted many of the recommended industry practices.
- Workforce equity requirements have generally been met for apprentices and has been trending upward for minority workers; however, female workforce participation remained low.
- Although similar in goals, programs, and outcomes with peer local public entities, PPS goal-setting data was stale and could be revisited.

RECOMMENDATIONS:

As PPS moves forward with its School Improvement Bond programs and investing in the local construction workforce through PPS' Workforce Equity Administrative Directive, PPS could consider:

- 2. Developing protocols for regularly identifying, reviewing, and assessing workforce equity strategies on a designated timeline to discuss costs, benefits, and feasibility for a particular review period as warranted—including reconsidering known strategies that were not possible in prior periods but could be reconsidered based on changing environments. This could include:
 - Evaluating the feasibility of obtaining updated market data to ensure that workforce equity requirements and goals are supported or assessing the option of jointly contributing toward the cost of an updated market study on an agreed-upon timeline with Construction Careers Pathway Project (C2P2) partners.

KEY RESULTS (CONTINUED):

- PPS does not have direct control over workforce hiring, and, thus, is challenged to influence outcomes.
- Additional strategies could be considered and employed to enhance desired outcomes and fulfill PPS directives.
- For the apprenticeship requirement, PPS' administrative directive lacks clarity to interpret whether outcomes should be measured and reported in aggregate or by "each apprenticeable" trade.

RECOMMENDATIONS (CONTINUED):

- Clarifying its Workforce Equity Administrative Directive protocols for whether workforce equity outcomes and progress should be measured and reported in aggregate or disaggregated by each apprenticeable trade.
- Conducting a review of workforce equity program specifications and analyzing whether existing rules could be enhanced to benefit intended target audiences.



Bond Program Generally Performed Well, and Opportunities Exist to Track Other Indicators

Key performance indicators tracked and analyzed by OSM aligned with certain leading practices and performance is regularly communicated to oversight bodies and the public. There are other indicators available for PPS to consider that—if provided to the public, PPS Board of Education (Board), and Bond Accountability Committee (BAC)—could further enhance visibility into the Bond program and help demonstrate how well PPS is managing key performance such as schedule, budget, safety, or owner response time to contractor questions.

KEY RESULTS:

- Performance results suggest the Bond program is performing well with budget and schedule:
 - Cost performance tracked closely with revised budgets except for Benson High School.
 - Schedule performance showed projects were generally on-schedule.
 - Performance related to processing time for project requests for information during construction had varied results amongst modernization projects.
- Project safety performance, where available, was better than the national average, except for Lincoln High School.
- Completed modernization projects reviewed had reasonable volume of work orders requiring attention after the schools were built.
- Key performance data was reported and aligned with some leading practices, although opportunities exist to enhance PPS' performance measurement.

RECOMMENDATIONS:

To enhance its performance measurement practices, guide individual project team activities, and enhance accountability to the Board, BAC, and the public, OSM should consider:

- Continuing in-progress efforts to revisit the types of key
 performance indictors it should track and report on that best
 align with PPS overall objectives and Bond project objectives.
 Considerations could include:
 - Using specific indicators that can be compared against a goal or target and evaluated over time for patterns or trends.
 - b. Providing needed context when reporting to the Board, BAC, or public.
 - c. Highlighting bond project performance results on the PPS website with summary graphics or simplified data that are easier for the public to find and understand.
- Requiring general contractors to consistently report specific safety performance data to OSM so that project managers can summarize and share reportable incident rates, how the rates compare with goals or averages, what period is being reported, and context on the results as needed.



2020 Bond Management Framework was Sound, although Certain Areas Carry Greater Risk and Need Closer Focus

Many solid strategies, policies, and protocols were established by PPS and OSM to guide successful delivery of its newest and largest 2020 Bond. However, the Center for Black Student Excellence (CBSE) has higher risks that need prompt action.

KEY RESULTS:

- 2020 Bond budgets were developed using leading practices.
- Review of bond expenditures and process for determining Bond compensability appeared robust.
- Solid tools existed to monitor schedule and progress.
- High-level risk assessment revealed PPS employed many activities that minimize risk, although some areas should be closely watched.
- While modernization projects remain at higher risk due to their size and significance to the overall Bond program, OSM is monitoring progress to stay on-schedule and budget as well as mitigate risks.
- Even though no 2020 Bond funds have been spent on CBSE to-date, it has greater risk surrounding delivery on Bond plans because concepts and goals are still in development, leaving planned bond-funded activities unclear.
- Staffing roles and responsibilities for CBSE had not been defined and limited project management existed at the time of our audit.

RECOMMENDATIONS:

While PPS has many practices and controls in place to manage risk areas related to the 2020 Bond Program, PPS should immediately implement the following related to the higher risk CBSE:

- Establishing a formal framework for CBSE management and staffing with clear roles and responsibilities with defined authority and accountability for and between the key PPS departments assigned to the successful delivery of the CBSE.
- Updating existing CBSE implementation schedule with realistic dates, interim milestones or progress targets, general tasks and activities, and plans to get CBSE back on track.
- Working with key PPS departments to put a general CBSE implementation plan in place and ensure a quick start for capital purchases or capital building as soon as CBSE concepts and goals are solidified.
- Creating CBSE project management plans and structure to identify general tasks and monitoring mechanisms to set, track, and report on baseline and revised schedules, original and revised budgets, and progress toward meeting delivery goals.

Introduction and Background

As the largest K-12 public school district in Oregon with more than 45,000 students and nearly 100 schools, Portland Public Schools' (PPS) Office of School Modernization (OSM) has been tasked with modernizing aging facilities and upgrading the learning environment. To date, Multnomah County voters have passed three major bond programs to fund these school improvements in 2012, 2017, and 2020. Combined, these three bonds authorized over \$2.4 billion in funding through a levy against assessed property values for modernizing school facilities and improving learning experiences.

Bond Program Capital Projects and Bond Audits

Modernizing aging school facilities is a complex endeavor with several defined phases and a variety of internal PPS and OSM stakeholders, external consultants and contractors, a citizen accountability committee, and an elected oversight board that work together on project delivery. For the first major capital bond in 2012, school improvement efforts were primarily focused at Grant, Franklin, and Roosevelt High Schools and Faubion Middle School; while the 2017 school improvement projects largely focused on Lincoln, McDaniel, and Benson High Schools in addition to Kellogg Middle School. Both bonds also set aside significant funds for a series of health and safety improvements at other schools within the PPS district as well as planning for specific future school modernizations. With the passage of a third bond in 2020, the district expanded improvement scopes to include not only traditional capital improvements and modernization of physical school buildings, but also funding for educational curriculum and information technology related infrastructure improvements as well as a Center for Black Student Excellence.

All bonds require annual performance audits of bond activities as part of PPS' commitment to transparency and accountability to taxpayers. Beginning with the 2017 Bond, annual performance audit scopes of work generally focused on those bond-funded activities that could pose a risk to the overall delivery of the program and specific projects, or addressed concerns brought forward by OSM or the Bond Accountability Committee (BAC). ² Audit scope decisions were also informed by the status or phase of the school capital improvement projects—such as timing audit scope with assessing cost estimate practices when projects are in master planning, reviewing construction management when projects are in or nearing the construction phase, or evaluating project closeout practices when modernization projects are completed.

Past performance audits for both the 2012 and 2017 bonds focused on specific capital construction phase activities and operational aspects of the bond programs. Because half of the pledged 2017 Bond schools were completed during the current 2022 audit scope period, we focused on the overall bond delivery status and closeout of these schools, key performance indicators, and status of prior audit recommendations. ³ In addition, since Bond funds pay significant amounts to the local contracting community through construction projects, we examined PPS' workforce equity in purchasing and contracting goals. Specifically, we assessed goal-setting, equity performance to date, and current protocols in place to meet PPS' equity goals. Our audit also included a high-level risk assessment and review of the framework of the 2020 Bond

² The establishment of the BAC was a requirement of the Bond measure—it is a taxpayer oversight body consisting of private citizens that advise the Board and OSM on all Bond matters as defined by its charter.

³ Refer to Appendix A for status of prior audit recommendations.

to identify whether a solid foundation is in place for delivery of the 2020 Bond components and to inform future audit topics.

Workforce Equity in Public Purchasing & Contracting (EPPC) at PPS

Bond capital improvement programs rely heavily on the local contracting workforce to deliver the planned projects. This workforce primarily consists of general contractors and trade laborers such as mechanical engineers and electricians, plumbers and welders, and painters to name a few. With significant bond funds spent on these services, promoting and ensuring equity in contracting is a critical tenet of PPS and its Board of Education (Board).

In June 2011, the Board adopted the Portland Public Schools Racial Educational Equity Policy, 2.10.010 that affirmed the intent of the district to address and overcome educational barriers that resulted in a persistent achievement gap for students of color. The Board noted that these barriers and inequities were due to complex society and historical factors. A year later, they formally recognized that the impact of these inequities extended further to PPS' business partners and the broader community. To build upon the racial equity policy, the Board adopted its Equity in Public Purchasing and Contracting Policy (EPPC) in July 2012, stating that "modeling equity in District business practices will further enhance achievement of goals established in its Racial Educational Equity Policy." ⁴

EPPC Has Three Main Areas

The EPPC has three main areas: Business Equity, Contractor Workforce Equity, and Career Learning Equity. While PPS operationalized each area into its own Administrative Directive (AD) that details the steps PPS will take in its pursuit to meet goals, the scope of this audit solely focused on the Contractor Workforce Equity AD.⁵ The PPS Superintendent signed the current Workforce Equity AD in September 2013 that focused on promoting apprenticeship and construction employment opportunities for people of color and women. In September 2019, PPS revised the AD to explicitly add aspirational goals for minority and female workforce participation.⁶

To measure progress toward equity, PPS established a mandatory requirement to have 20 percent of PPS' labor hours in each trade performed by state-registered apprentices. PPS also established two additional aspirational, non-mandatory goals to have minorities perform 25 percent of hours worked on each eligible project and females perform 14 percent of hours on projects as shown in Exhibit 1. ⁷ The requirement and goals apply to all public improvement prime contracts above \$200,000 and subcontracts greater than \$100,000. ⁸ PPS contracts that meet this threshold are primarily Bond projects.

⁴ Board Materials from July 16, 2012 note that PPS had been actively drafting the EPPC since 2009.

⁵ An Administrative Directive (AD) is a procedural plan to implement a policy passed by a Board vote. At PPS, the AD provides direction for staff to operationalize the Board's vision.

⁶ Descriptions of race, ethnicity, and gender categories are included in PPS' Administrative Directive.

⁷ While each of the three goals are separate and discrete, when measuring and reporting progress against the goals, PPS counts outcomes across the three goal categories. For instance, hours worked by a minority female apprentice are each counted toward the apprentice goal, minority goal, and the female-hours goal.

⁸ Public improvement contracts do not include emergency work, minor alterations, or ordinary repair or maintenance contracts.

EXHIBIT 1. WORKFORCE EQUITY ADMINISTRATIVE DIRECTIVE EVOLUTION. OBJECTIVES, AND GOALS



Source: Auditor-generated from PPS library of policies and administrative directives at https://www.pps.net/policies. Note*: Aspirational goals were adopted in 2019.

PPS engaged the City of Portland to administer its workforce equity program as it had its own equity program in place prior to PPS, and has experience and expertise administering equity programs on behalf of other school districts and public sector entities. As part of its administration, the City of Portland provides program specifications including roles and responsibilities of prime contractors and subcontractors, required compliance steps, required documentation, and consequences for noncompliance.⁹

⁹ The City of Portland's pre-existing workforce equity program includes more specific program rules that align with, but are more detailed than, PPS' Workforce Equity AD. These rules are provided to contractors and become a part of the contract between PPS and its contractors.

Scope and Objectives

The Portland Public School District (PPS) hired Sjoberg Evashenk Consulting, Inc. in October 2018 to conduct annual performance audits of the 2012 and 2017 School Improvement Bonds over a four-year period. Each year, auditors assess performance and focus on different Bond program and project areas. For this performance audit cycle, we reviewed Bond program activities for the period between April 1, 2021 and March 31, 2022. Our objectives were as follows:

1. 2017 Bond Status

Identify the delivery status for the 2017 Bond projects as of March 31, 2022 in terms of cost and schedule, and assess project closeout practices for the completed modernization projects.

2. Workforce Equity

Assess whether current protocols in place to promote construction employment opportunities aligned with PPS' Contractor Workforce Equity Administrative Directive 8.50.097-AD for the Bond's construction contracts.

3. Bond Program Performance Measurement

Evaluate how Office of School Modernization (OSM) is using key performance measures to demonstrate accountability towards successfully delivering the Bond program.

4. 2020 Bond High-Level Audit Risk Assessment

Identify risks surrounding the 2020 Bond that could impact the delivery of the Bond program, and assess whether mitigating factors and controls were in place to minimize risk factors.

5. 2020 Bond Framework & Management

Evaluate how well the framework to manage the 2020 was set-up and whether strategies, policies, and protocols put in place were sufficient to guide the delivery of the 2020 Bond components.

6. Prior Audit Recommendations

Determine whether PPS and OSM sufficiently addressed prior audit recommendations related to Bond activities and implemented appropriate corrective action.

To fulfill these objectives, Sjoberg Evashenk Consulting performed a variety of detailed audit tasks involving interviews of PPS executive leadership and external stakeholders, inquiries of departmental management and operational staff, data mining and analysis, documentary examinations, project file review and testing, industry best practice research, peer comparisons, and source data verification. Appendix B provides the detailed methodology employed on our audit.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Section 1: 2017 Bond Program is Well Underway, and 2020 Bond Funds are Available to Complete the Benson High School Project

The Office of School Modernization (OSM) continued to deliver on projects Multnomah County voters approved under the 2017 School Improvement Bond. With Kellogg Middle School and McDaniel High School (formerly Madison High School) completed and opened on-schedule for the 2021-2022 school year. In addition to the health and safety program improvements coming to a close, the Portland Public School District (PPS) marked the completion of more than half of the pledged work for the 2017 Bond during this audit cycle.

Two of the Four School Modernization Projects Opened On-Schedule and On-Budget with Remaining 2017 Bond Projects on Target to Complete as Planned

As of March 2022, two of the four school modernization projects planned were opened on-schedule and on-budget for the 2021 school year as illustrated in Exhibit 2. Specifically, Kellogg Middle School and McDaniel High School were completed with final touches of closing out each project in progress. Lincoln High School was in construction, on-budget, and on-schedule to open to students in the fall of 2022. ¹⁰ While the fourth improvement project at Benson High School was also in construction and on-schedule to open fall 2024 as planned, costs have increased as discussed later in this section. ¹¹

The 2017 Bond Health and Safety (H&S) projects were nearing completion during our audit, with OSM delivering more improvement work than initially envisioned with the \$150 million budget set aside by the Bond—partially due to additional State of Oregon grant funding the district was able to secure for roofing and seismic improvements. ¹² Although all 2017 Bond H&S projects should be completed as envisioned by summer 2024, there were some minor delays with the water quality program caused by pandemic-related supply chain and labor issues that delayed completion of some projects by a few months during the summer of 2022.

Overall, the 2017 Bond program estimate at completion as of March 2022 was \$1.063 billion—which is less than the \$1.098 billion at the time of our last audit in March 2021. The \$1.063 billion estimate excludes the cost of Benson's Multiple Pathways to Graduation (MPG) building.¹³ Program contingency from the 2017 Bond and earmarked funds from the 2020 Bond are currently sufficient to cover the cost to complete the remaining Benson MPG building that are in addition to the \$1.063 billion estimate.

¹⁰ The Lincoln High School project is being completed in two phases—Phase I, the high school itself, and Phase II, the track and field stadium, which will finish construction in summer 2023.

¹¹ The Benson Polytechnic High School project (Benson High School) consists of several sub-projects. As of March 31, 2022, their status was as follows: Multiple Pathways to Graduation (MPG) building the 80 percent construction documents. Benson Main campus building had 23 percent of construction completed. All swing sites were completed and in-use.

¹² As described in the Bond Performance Audit issued in 2019, H&S needs districtwide greatly exceed the bond amount. Refer to PPS Bond Performance Audits website for full reports https://www.pps.net/Page/15137. PPS prioritized improvements needed based on available bond funds and added more projects as other funding became available. As of May 2022, some completed H&S categories were delivered under budget and PPS was determining how to reallocate funds to other in-progress H&S categories.

¹³ When the PPS Board of Education approved the addition of the MPG building in 2019, it expected to pay for these changes with a future bond campaign in 2020, which passed in November 2020.

EXHIBIT 2. 2017 BOND STATUS & ESTIMATE AT COMPLETION, AS OF MARCH 2022 (IN MILLIONS)





2017 BOND

As of March 2022, 2017 Bond projects were estimated to cost \$1.063 Billion when complete.

For the Benson High School modernization, swing sites were completed, the Multiple Pathways to Graduation (MPG) building is in ready for construction, and the Benson Main High School building started construction.

Lincoln High School is in construction and will open fall 2022 for students.

Program Management was estimated to cost \$55.7 Million at completion.

Program Contingency was earmarked for COVID-related project cost increases, potential tax liabilities and the Benson project. As of March 2022, all funds will be utilized by the end of the Bond.

Benson In Construction **High School** Opening Fall 2024



Kellogg

Middle School

\$410.2M Completion

Open

Fall 2021

\$57.8M

Lincoln

High School

\$240M Completion

In Construction

Opening Fall 2022

McDaniel High School

Open Fall 2021





Health & Safety originally had \$150 million to spend down but was supplemented by grants secured for roofing and seismic improvements. Fire alarm/sprinkler projects and radon mitigation efforts were completed. For the remaining H&S projects, most of work planned will be completed by the end of 2022, with additional activities continuing through 2024. In many instances, work occurred at more schools than initially planned by the Bond.



ADA / Accessibility

16 of 9 Sites with funding left to continue to Summer 2024.



Asbestos

22 of 48 Sites with work continuing through 2024.



Fire Alarm / Sprinklers

29 of 16 Sites



88 of 88 Sites with funding left to continue to Summer 2024.





Roof / Seismic Retrofit

19 of 14 Sites by December 2022.



Security Systems

88 of 11 Sites by Summer 2022.



Water Quality

90 of 90 Sites by December 2022.

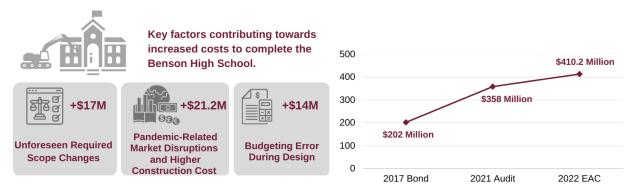
Source: Unaudited Bond Accountability Committee March 14, 2022 meeting materials and Board Facilities & Operations Committee May 17, 2022 meeting materials.

Note: The Benson High School project budget of \$410.2 million includes improvements of Benson High School Main Campus (Benson Main), Multiple Pathways to Graduation (MPG) building, and swing sites. While the project total for Benson High School includes these elements, the bond grand total calculation of \$1.063 billion excludes the \$76 million cost of MPG because it will be paid by 2020 Bond funds, as noted in the March 2022 Bond Accountability Committee Meeting Materials. Lincoln High School's main campus will open fall 2022 to students; the entire project including the Phase II athletic field will be completed fall 2023.

Costs Have Increased, but 2020 Bond Funds Are Currently Sufficient to Complete the **Benson High School Campus**

As of March 2022, the estimated forecast to complete the entire Benson High School project was \$410.2 million—\$52.2 million higher than the \$358 million identified in March 2021 at the time of the prior performance audit as shown in Exhibit 3. Specifically, the Benson High School modernization consisted of the Benson High School Main campus (Benson Main), the MPG building, and the Marshall and Kenton Swing sites.

EXHIBIT 3. BENSON HIGH SCHOOL BUDGET OVERVIEW AND ESTIMATE AT COMPLETION, AS OF MARCH 2022 (IN MILLIONS)



Source: Auditor-generated from OSM Presentation to the BAC on November 17, 2021.

Severe pandemic-related market disruptions causing extreme escalation and pricing volatility added \$21.2 million to the total project cost estimate for both Benson Main and the MPG building combined. For instance, during a one-year period between April 2020 and April 2021 when the Benson Main project progressed from design documents to construction documents, there was a 5.71 percent increase in cost escalation in the Portland area. ¹⁴ With construction material pricing higher than the national average, estimating actual construction costs became increasingly more difficult for the Benson Main project team. For instance, steel products alone increased 127 percent between December 2020 when the project was in design and December 2021 when the project was getting ready for construction. ¹⁵

The second largest cost increase factor—\$17 million—was the result of scope changes after the PPS Board of Education (Board) approved the Benson High School Master Plan in December 2018. Specifically, scope additions were caused by unforeseen, yet reasonable, circumstances for building code changes and district required updates including unisex restrooms, permitting constraints, and differing building conditions discovered during demolition—among other items. These scope changes increased the budgets for both Benson Main and the MPG building.

Finally, another \$14 million increase was caused by a budgeting error that went unnoticed by the project team during the Benson Main project's schematic design phase causing the project team to design to a \$224 million project rather than a \$212 million project. Using a higher target value had a cascading effect on subsequent efforts to contain costs during the design phase since the project team had developed designs targeting a \$224 million budget. While the project team could not pinpoint the exact underlying cause of this error, they attributed it to the complexities surrounding the splitting of the original Benson High School project into many sizable subprojects with separate budgets and differently-paced schedules as key drivers for the budgeting error. The project team ultimately discovered and corrected the budget error during the late design development phase in spring 2020. The While budget changes on capital improvement

¹⁴ Percent estimated in Rider Levett Bucknall (RLB) Q2 2021 Construction Report.

¹⁵ Association of General Contractors 2021 Inflation Report.

¹⁶ This cascading effect can also be described as opportunity loss over time. The design of a capital construction project progresses over time with larger changes able to be made in the beginning of design when plans are less finalized. As design progresses and more time passes, it becomes more challenging to make larger changes given that the foundational decisions have already been made.

¹⁷ Our audit scope did not include a deep dive into the cause and circumstances of the budgeting error. Between the time of the Year 1 Phase II audit report in 2019 and Year 2 audit report in 2020 when auditors reported on project status, the budgeting error had already been corrected.

projects can occur regardless of controls in place and the level of expertise by project owners, architects, and contractors, OSM was transparent about the discrepancy in public presentations to the Board and Bond Accountability Committee (BAC).

Despite these challenges, PPS has a plan to pay for the cost increases. According to OSM, any future shortfall will be covered by 2020 Bond program contingency which had \$122.9 million available as of March 2022. ¹⁸ However, even with a sizeable program contingency budget, if costs continue to grow for Benson Main and the MPG building during a volatile construction market, the risk that funding may not be sufficient towards the end of the program to complete other projects remains. To mitigate those risks and contain further additional costs, OSM has been proactively working on cost containment as discussed in the next section.

OSM Employed Cost Containment Practices to Mitigate Cost Escalation on Benson High School

With the construction phase typically consuming the majority of a capital project's budget, there are many factors that can adversely impact an on-budget delivery. Especially during times of unprecedented escalation of building materials and shortage of skilled labor as the industry has experienced in recent years, public owners of large capital improvements face challenges that often are beyond their control. Since most construction work is typically subcontracted, delays in securing subcontractor agreements for labor and material can significantly impact construction costs given existing market conditions.

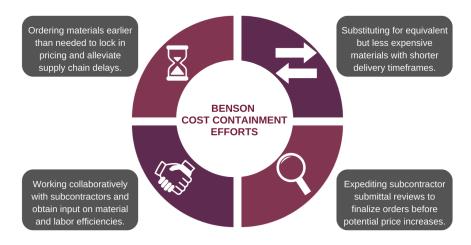
Nonetheless, at PPS, we found the Benson High School project delivery team employed pro-active project management practices to alleviate some of the constraints imposed by the current economy by securing subcontractor agreements for services, pricing, and product delivery early in the process. OSM employed this leading practice, known as "buyout," that mitigated market risk by securing advanced contracts with subcontractors to minimize future price fluctuations and changes in subcontractor commitment on the Benson Main project. As of March 2022, OSM had secured \$199 million in subcontractor agreements of the \$226 million in project costs related to construction labor and materials. ¹⁹ We tested subcontractor agreements totaling more than \$110 million and confirmed price and delivery terms were set and secured in advance of construction start.

Moreover, as detailed in Exhibit 4, the Benson High School project team employed other strategies where possible to potentially minimize the negative effect of existing market conditions. For instance, in early 2022, a subcontractor alerted the project team of a potential six percent price increase for air handling systems expected within the upcoming month and suggested expediting the procurement of the equipment prior to the price increase going into effect. By processing the purchase request quickly, the project team avoided the expected \$144,000 price increase to minimize the impacts of current market disruptions.

¹⁸ The 2020 Bond Program Contingency set-aside was \$93.3 million. The initial bond sale generated \$29.6 million in premium that was added to program contingency for a new total of \$122.9 million available to off-set Benson High School cost increases and cover any future unforeseen costs.

¹⁹ With a total estimate to complete of \$321 million for the Benson High School Main campus project and \$48 million spent to date, remaining costs total approximately \$273 million. The construction guaranteed maximum price (GMP) contract amendment in the amount of \$337.6 million was approved by the Board on February 20, 2022. The estimated cost of construction work portion of the GMP was approximately \$226 million.

EXHIBIT 4. EXAMPLES OF TECHNIQUES AND TOOLS EMPLOYED TO CONTAIN COST FOR THE BENSON MAIN PROJECT



Source: Auditor-generated from Benson High School project team correspondence and e-Builder records.

In another example, while the project team was finalizing the final construction cost in late 2021, the general contractor notified OSM that lead times for roofing materials had escalated upwards of six months due to various supply chain challenges including availability of building materials and limited shipping options. While the Benson Main project had not yet started construction at that time, a potential half-year or longer delay for roofing materials would have critically impacted the delivery schedule and likely jeopardized the Benson High School opening date of 2024. To alleviate the supply chain issues and minimize the project delay, OSM decided to order the \$285,000 in roofing materials earlier than planned and ensure materials would be available when needed.

While the current unpredictable market factors affecting construction can still adversely affect and further increase costs, the budget risk for the Benson Main project is minimized since most construction prices have already been set as part of contract agreements and the project team has advanced procurements to account for global supply chain delays in the local construction market.

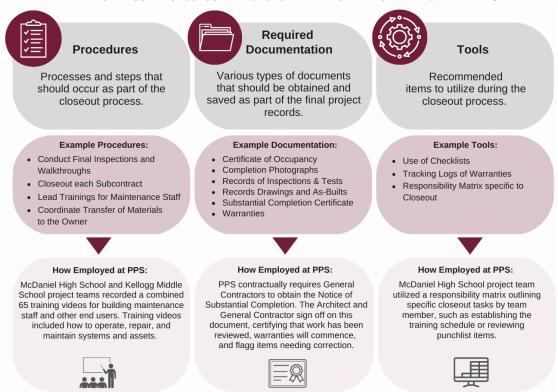
Closeout Practices for the Capital Modernization Projects Generally Aligned with Industry Leading Practices

With two of the four school capital construction projects in the 2017 Bond program completed and open for school instruction during the audit period, OSM began its closeout stage for those projects. Project closeout marks the end of capital construction where the deliverable is substantially complete and project teams confirm all contractual requirements are met before the project is formally closed. Industry leading practices provide a myriad of closeout protocols that can be employed, but note that closeout efforts should be tailored to align with project variations in size, scope, and complexity. OSM's practices generally aligned with leading practices for the closeout of McDaniel High School and Kellogg Middle School, although staff were still in process of formalizing and memorializing those protocols.

OSM Employed Closeout Practices That Aligned with Industry Practices, But Was Still Memorializing Efforts into Formal Protocols

OSM employed nearly every closeout practice that industry leaders identified as commonly used and recommended. As shown in Exhibit 5, these practices included requiring and collecting a combination of documents, ensuring specific procedures take place, and implementing tools to manage efforts.

EXHIBIT 5. INDUSTRY CLOSEOUT PRACTICES EXAMPLES AND HOW EMPLOYED BY PPS



Source: Auditor-generated based on practices noted by the Construction Management Association of America (CMAA), Associated General Contractors of America (AGC), and the Washington State Office of Superintendent of Public Instruction, PPS files in e-Builder, and files provided by PPS project team staff.

Following leading practices, OSM project teams required and collected documentation of items such as inspection and test reports, permits, warranties, completion photographs, and other types of closeout documentation. They held team meetings discussing needed action items such as commissioning, scheduling walkthroughs, and trainings. Additionally, they employed robust efforts during closeout through management of punch lists that can often contain hundreds or thousands of individual items depending on the type of punch list used. According to OSM's Senior Project Managers, the sophistication of punch list management is often commensurate with the size and complexity of a project. Led by OSM Senior Project Managers, project teams collaborated to address outstanding repairs, fixes, and finishes using punch lists toward completion of the final deliverables. ²⁰ In fact, PPS contract documents required general contractors to complete these closeout tasks.

²⁰ Punch list is a term used in construction to identify items the contractor needs to correct after a project is substantially complete, but before the contractor fully turns over the project to the owner.

PPS project teams also utilized electronic programs with many advanced, user-friendly functions to track and address project repairs as needed. For instance, the McDaniel High School project team used an automated software known as "Fieldlens," which had useful functionality such as plotting punch items on record drawings of the building, using icons to distinguish between resolved versus in-progress items, and assigning items to different players with notes, photo attachments, and due dates. Granular details were available of what types of repairs were needed such as fixes to damaged ceiling tiles and installation of missing flooring, as well as smaller outstanding items such as paint touch ups needed behind doors. Fieldlens users could group similar punch list issues together to help address the item by type or by area.

While there were a few specific industry-suggested closeout practices that OSM did not utilize, but those did not pose a concern as they were related to enhancements such as celebrating or awarding the contractor at project end or were employed through different but similar approaches. For instance, one leading closeout practice suggested having a specific post-project lessons learned meeting. While OSM did not conduct this discrete meeting for McDaniel High School and Kellogg Middle School, it implemented other tools to capture lessons learned such as tracking in e-Builder, using a PPS Lessons Learned Google Library, and discussing lessons learned at regular project meetings.

Though OSM employed many solid closeout practices, it still needs to memorialized its protocols as guidance for staff and to ensure continued consistency in practice as discussed in the following section.

Formal Protocols and Guidelines Were Being Developed

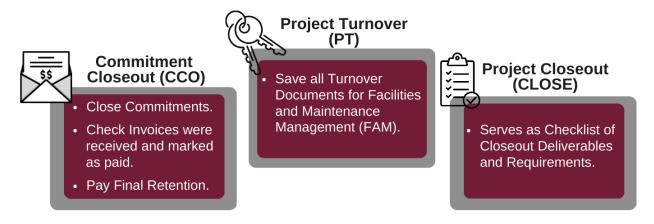
While commonly used and recommended industry practices for closeout exist, leading practices do not dictate specific methods for implementing practices. Rather, owners like PPS should establish and memorialize their preferred approach including specifications such as specific roles and responsibilities of involved players, designated systems of record, and implementation timeframes to name a few.

As of June 2022, OSM was still in process of developing formal policies and procedures in addition to piloting new e-Builder processes to guide closeout—although OSM should have established these protocols before the 2017 Bond projects began the closeout phase to ensure that staff were consistently employing efforts across Bond projects. ²¹ No other guidance existed in OSM's Program Management Plan or in individual Project Team Management Plans. Some closeout topics were in draft form and others were still being discussed among staff for inclusion in future formal policies and procedures. Topics included closeout documentation, final accounting, and transfer of operations to operations and maintenance staff. However, no drafts were available for us to review.

Several e-Builder processes were also being developed to standardize and strengthen the closeout process for Bond projects as shown in Exhibit 6. OSM staff noted that these processes already existed for smaller Facilities & Asset Management improvement and maintenance projects, but OSM was working to tailor them toward larger capital construction projects.

²¹ Though many closeout requirements have been included in contract documents between PPS and its contractor since the 2012 Bond, such requirements alone do not suffice to specifically guide how closeout should be planned and implemented.

EXHIBIT 6. PILOT E-BUILDER PROCESSES FOR BOND PROJECT CLOSEOUT



Source: Auditor-generated based on piloted e-Builder processes for McDaniel High School and Kellogg Middle School projects in addition to interviews with OSM management and project team staff.

These processes were piloted for the closeout of McDaniel High School and Kellogg Middle School and appear to be promising tools for future Bond projects that will enter the closeout phase. Yet, with half of the 2017 Bond projects already closed out, PPS needs to immediately complete these policies, procedures, and e-Builder processes before the remaining 2017 Bond projects are finished.

Closeout Process to Transfer Completed Projects to Operation and Maintenance Staff Has Improved Since the 2012 Bond

Once a Bond capital improvement project is completed, OSM staff formally transfer the school building to PPS Facilities & Asset Management (FAM) staff as part of the closeout process for future operation and maintenance of the building.

Various PPS staff provided anecdotal examples and perspectives on challenges with turnover at the closeout stage of the 2012 Bond projects. Examples of reported challenges included buildings not being in 'turnkey' condition and requiring significant repairs such as major floor and bathroom replacements, poor communication, limited collaboration between the transfer parties, and inconsistent or incomplete training on use of building systems and features.

Since the 2012 Bond, OSM made several improvements to the closeout process that addressed these anecdotal challenges and were implemented including the following:

- Improved coordination, collaboration, and communication.
 - FAM staff reported being invited to project meetings discussing closeout and turnover.
 - Where possible, FAM was consulted on value engineering decisions that could impact maintenance implementation. ²²

²² Value Engineering (VE) meetings and discussions occur earlier on in the project rather than at project-end when the bulk of closeout typically occurs. But as it relates to turnover coordination, auditors consider involvement of FAM in VE discussions a turnover practice.

More consistent training.

- There was evidence that trainings occurred, were attended by FAM staff, were recorded, and were saved into databases for maintenance staff to access as needed.
- Fifty training videos were available for McDaniel High School and 15 training videos were available for Kellogg Middle School. Auditors watched a sample video and found the training to be thorough and well-recorded.

Less project team turnover.

 While there was turnover of key project team members at Franklin High School and Roosevelt High School which made the handover process more challenging for FAM at the time, these struggles did not occur for the 2017 projects.

We reviewed data from the FAM work order system as well as project development requests for the 2017 Bond projects at McDaniel High School and Kellogg Middle School to evaluate the number or degree of repairs needed after closeout and turnover. We found no notable issues. ²³ However, OSM should formalize its transfer processes into policies, procedures, or guides for future turnover efforts.

Recommendations

To strengthen the closeout of OSM-led capital construction projects and ensure that lessons learned from closing out Bond projects are retained and consistently applied to future Bond-funded projects, OSM should:

1. Complete development of and memorialize policies, procedures, and e-Builder processes related to construction closeout as well as train project staff on new closeout protocols before the remaining 2017 Bond projects are completed.

²³ Work orders and Project Development Requests (PDR) are two data sources where post-occupancy issues may be documented and flagged for repair and maintenance. Work orders are generated post-occupancy when an existing facility requests maintenance or repairs. PDRs are for larger requested changes when maintenance needs are above the ability of maintenance staff and get escalated to a PDR for review. If the request is substantiated, PDRs may become a small capital project.

Section 2: Contractor Workforce Equity at PPS Generally Followed Industry Practices, Although Additional Strategies Could be Considered to Focus on Intended Goals

With the booming demand of the construction industry contrasted with the short supply of workers in the Portland area, public owners are challenged to close the labor gap and deliver capital construction projects in the region. As part of assigning roles on the project team, there is an opportunity to fill those spots with historically underrepresented people who may also benefit from joining these construction-centered career pathways. However, there are underlying hardships and impediments preventing large numbers of minorities and women from entering the construction trades and related strong diversity outcomes for public workforce equity programs. ²⁴ Some of those difficulties in Portland include reported historical and systemic hurdles, an overall labor shortage in the market, and a lack of general diversity in Portland's demographics.

Compared to entities we reviewed that also had workforce equity programs and goals, the Portland Public Schools (PPS)' workforce equity program and outcomes aligned with those local peers experiencing the most success in meeting requirements and goals for state-registered apprentices and minority workers—but not female workers. When compared to other entities, PPS' proactive efforts to adopt a workforce equity program stands out since some others do not have a program at all. While PPS has not exhausted all strategies and approaches available to increase the numbers of minorities and women in the construction trades, no one approach is guaranteed to achieve desired equity outcomes and the limited existing strategies used in industry each have associated benefits, challenges, and risks.

As PPS continues its pursuit to achieve or exceed workforce equity requirements and goals, it could consider revisiting the current program and establish protocols for assessing new strategies, approaches, and methods as both the industry and PPS' progress in the workforce equity arena matures and evolves. Moreover, more consideration could be given to re-evaluate program rules and maximize opportunities to reach intended outcomes as discussed throughout this section of the report. ²⁵

Workforce Equity Challenges and Practices in Capital Construction Contracting

Both locally in the Portland area and nationally, the demand for construction work has been thriving in recent years. However, a 2018 market study done of the Portland area construction workforce noted that the supply of workers is not sufficient to meet demand. ²⁶ The study further estimated that between 2016 and 2026, 17 percent of the workforce in Portland would be at or near retirement age—a forecast that further constricts an already compressed workforce environment. Coinciding with this, the University of

²⁴ The construction trades include a variety of skilled or specialized construction work including, but not limited to, trades such as iron workers, painters, plumbers, electricians, bricklayers, tile setters, and welders.

²⁵ The program rules are the specifications as detailed in the City of Portland's (City) pre-existing workforce equity program. The City's program aligns with PPS' Workforce Equity AD, but has more detail and specificity. By hiring the City as their program administrator, public owners like PPS have the option to customize how the City administers the program on their behalf. PPS did not elect to make any changes for operational steps and adopted in the City's program rules as is—except for PPS' aspirational goals where it increased the workforce participation for minority and female workers to higher percentages than the City.

²⁶ Worksystems, Inc. commissioned by Metro and City of Portland: Portland Metro Region Construction Workforce Market Study, published 2018.

Oregon Labor Education and Research Center reported that the construction industry will be the third fastest growing industry in the state of Oregon between 2019 and 2029. ²⁷

With demand high, supply low, and the potential financial benefits for those pursuing construction careers, some public entities have viewed this labor gap as an opportunity to pursue equity in the construction industry by establishing workforce equity programs while filling needed construction roles. While such programs are not new, we found limited established, defined, or best practices available to guide the industry and provide causal results. The primary components of equity programs generally include developing goals or targets and monitoring compliance against goals. Yet, our research of industry-wide practices did not identify specific strategies to meet goals that had decisive data-backed results. Our research also revealed several challenges for why workforce equity programs and strategies generally struggled to achieve desired equity outcomes including, but not limited to, the following:

- Factors outside public entity control such as limited influence over hiring decisions at the tradesperson level.
- Legal risks to public entities for employing certain strategies or policies that hinge on affirmative action.
- Overcoming reported barriers for targeted workers to enter the industry included implicit bias, unwelcoming environments, discrimination, and negative workplace culture.
- Changing market conditions such as industrywide labor shortages that may impact supply of workers and influence workforce equity programs' successes and outcomes.

PPS Joined with Other Local Public Owners to Promote Workforce Equity Outcomes and Adopted Many Recommended Industry Practices

Some public entities like PPS established a formal workforce equity program based off recommendations from the Construction Career Pathways Project (C2P2), a regional framework tied with a public owner workgroup led by Portland Metro. ²⁸ C2P2 strives to build a comprehensive policy framework for creating career pathways for women and people of color and was recognized in February 2022 by the U.S. Department of Labor as a "real world example of successful policies" in this field. Its framework incorporated nearly every leading equity practice and more practices than three other organizations reviewed as shown in Exhibit 7. ²⁹

²⁷ University of Oregon Labor Education and Research Center, Constructing a Diverse Workforce: Examining Union and Non-Union Construction Apprenticeship Programs and Their Outcomes for Women and Workers of Color, Published 2021.

²⁸ Metro is the regional government and metropolitical planning organization of the Portland metropolitan area with 16 public member entities including the City of Beaverton, Beaverton School District, State of Oregon Bureau of Labor and Industries, Home Forward, Metro, Multnomah County, North Clackamas School District, Oregon Department of Transportation, Oregon Health Sciences University, Port of Portland, City of Portland, Portland Community College, Portland Public Schools, Portland State University, Prosper Portland, and TriMet.

²⁹ Organizations reviewed included UCLA Labor Center, PolicyLink, the National Taskforce on Tradeswomen's Issues. UCLA Labor Center is a multidisciplinary research center dedicated to labor issues. The National Taskforce on Tradeswomen's Issues is a coalition of organizations that promotes public policy and advocacy initiatives for tradeswomen in the construction industry. There are 31 members and partners such as Institute for Women's Policy Research, Oregon Tradeswomen, and Apprenticeship and Nontraditional Employment for Women. PolicyLink is a national research and action non-profit institute focused on advancing racial and economic equity. These organizations were reviewed because they were among the limited entities that had publicly published best practices available on workforce equity.

EXHIBIT 7. INDUSTRY WORKFORCE EQUITY PRACTICES CITED IN STUDIES REVIEWED

	Industry Practice	C2P2	UCLA Labor Center	National Task Force on Tradeswomen's Issues	PolicyLink
	Align Career Technical Education (CTE) curriculum to future workforce needs.				
	Develop alliances and collaborate among stakeholders.				
\bigcirc	Establish / require adherence to anti-harassment strategies and respectful workplace culture.				
\$ 2	Impose consequences for non-compliance.				
	Develop contract provisions to include target hire criteria.				
S	Dedicate funding / invest into workforce development.				
Q	Establish a framework for oversight and monitoring for compliance.				
	Partner with others for outreach and recruitment.				
	Recognize high performing contractors.				
	Set workforce equity goals.				
	Establish Workforce Agreements.				

Source: Construction Career Pathways Regional Framework (C2P2) and Toolkit; Exploring Targeted Hire: An Assessment of Best Practices in the Construction Industry from the UCLA Labor Center; Strategies for Addressing Equity in Infrastructure and Public Works by PolicyLink; and Current Best Practices Supporting Equal Opportunity in Construction by the National Taskforce on Tradeswomen's Issues.

By adopting the C2P2 framework in 2020 and having established a workforce equity program with goals since 2013, PPS demonstrated strong initiative and commitment in pursuing workforce equity—an undertaking that few public entities in Oregon have pursued. In fact, while 16 public entities were involved in the C2P2 Public Owners Group, not all the entities have formally adopted the framework nor had publicly available documents demonstrating implementation of C2P2-recommended efforts. Yet, PPS specifically incorporated various C2P2 recommended practices into its program such as making program rules part of applicable contract provisions, establishing a system for monitoring and compliance, and levying consequences for non-compliance.

There were several practices that PPS has not implemented such as establishing a workforce agreement, recognizing high performing contractors, or directly investing funds toward workforce development. Though PPS and its leadership have not done a formal assessment of such strategies, staff stated that informal discussions have occurred to not employ these efforts in the past due to limited resources, lack of in-house expertise, and potential compensability challenges using bond funds to implement specific strategies. However, pursuit of workforce equity goals can be difficult because public entities do not have control over the direct hire of trade workers and are limited in how they can influence outcomes. Many different key stakeholders, each with their own limitations, are involved in the implementation and pursuit of workforce equity that add to the intricacy of such efforts. Other considerations such as potential legal challenges, alleged higher project costs, and program rules adding complexity to contract terms add possible risks to successful project delivery for the public owner.

PPS Generally Met its Workforce Equity Requirements, Except for Gender-Targeted Outcome Goals

As discussed in the Introduction and Background section of this report, PPS has a mandatory requirement of 20 percent of project hours worked by state-registered apprentices, one non-mandatory aspirational goal of 25 percent of project hours worked by minorities, and a non-mandatory 14 percent aspirational goal of project hours worked by female workers. Available data for the last three fiscal years showed that PPS cumulatively met its mandatory apprentice requirement and aspirational minority goal, but did not meet its female hour goal as shown in Exhibit 8. 30

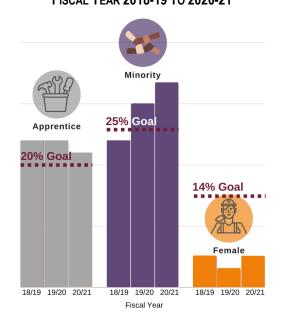


EXHIBIT 8. THREE-YEAR TREND OF PPS WORKFORCE EQUITY GOALS AND OUTCOMES, FISCAL YEAR 2018-19 TO 2020-21

Source: Equity in Public Purchasing & Contracting (EPPC) Memos to the PPS Board of Education, Fiscal Year 2018-19 to Fiscal Year 2020-21.

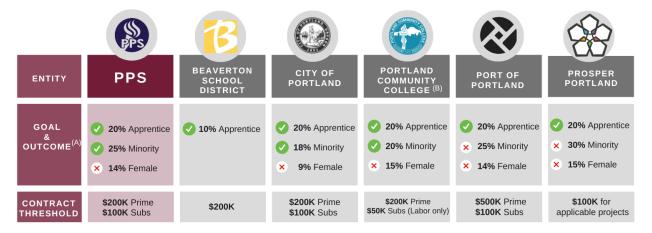
³⁰ The aspirational goals for women and minorities were not adopted by PPS until October 2019, which is the middle of Fiscal Year 2019-20. However, data was available before this point as the contract with the City of Portland to capture PPS data was in place since 2013.

While PPS' Program Goals and Outcomes Aligned with Other Public Entities Reviewed, Data used to Set Goals is Stale

Other entities in the Portland area with workforce equity programs and publicly available reported outcomes had both similar program elements and outcomes as PPS. This commonality between the entities in the region interested in workforce equity could stem from their shared participation in the C2P2 Public Owners Group, and subsequent adoption of similar program components per recommendations that arose from shared discussions. Reviewed public entities set both mandatory and aspirational goals in addition to thresholds for contracts that would be subject to workforce equity requirements—as did PPS. Additionally, because the available workforce is region-specific and the same individual workers may be employed on several capital construction projects across different public owners throughout the Portland region, it is reasonable that entities broadly achieved similar results as they likely competed in the same labor pool.

However, some small variances across peer entities' programs existed such as varied dollar amounts for contract thresholds that require workforce equity compliance, differing levels of granularity for goals, various time periods for measuring outcomes, and differences in how outcomes were reported. For instance, Prosper Portland differentiated outcomes by completed projects versus those under construction and the Port of Portland detailed utilization by trade while other entities did not. ³¹ In terms of outcomes, even if viewed across different time periods, most entities generally had success meeting apprentice and minority hour goals—but not female hour goals as shown in Exhibit 9.

EXHIBIT 9. PPS WORKFORCE EQUITY GOALS, OUTCOMES, AND THRESHOLDS COMPARED TO OTHER ENTITIES REVIEWED



Source: Publicly available documents from each entity's website—including board materials, policies, presentations, and webpages dedicated to workforce equity—and interviews with equity staff at City of Portland, Metro, and Portland Community College.

Note: (A) Auditors compared these five entities' programs and outcomes to PPS' because each was also part of the C2P2 Public Owner's Group and had publicly available data available for comparison. Auditors included outcomes publicly reported by each entity for the latest available period at the time of our fieldwork. PPS was Fiscal Year 2018-19 to Fiscal Year 2020-21, Beaverton School District was cumulative through December 2021, City of Portland was Fiscal Year 2019-21, Portland Community College was cumulative through April 15, 2022, Port of Portland was Federal Fiscal Year 2021, and Prosper Portland was as of September 2021. (B) Portland Community College (PCC) adopted updated workforce equity goals that went into effect February 2022. Because available reported data included cumulative data through April 2022, auditors included PCC's prior rules for reference.

³¹ Prosper Portland is the economic and urban development agency for the City of Portland.

PPS regularly meeting two out of its three workforce equity requirements and goals is a notable feat. However, the underlying market study that PPS and other peer entities relied on to set and adopt goals was based on employment data from 2016. At the time of this report, that data was over six-years old and considered stale given that employment data at the workforce level can significantly fluctuate over time. Given the unprecedent market changes triggered by the COVID-19 pandemic, using 2016 data as the basis for current workforce expectations may not reflect present-day conditions.

Program Procedures Lack Clarity on Outcome Measurement and Reporting

As the roadmap guiding operationalization of the PPS Board of Education's (Board) Equity in Public Purchasing & Contracting (EPPC), PPS' workforce equity Administrative Directive (AD) states that contractors will "ensure that a minimum of 20 percent labor hours in each apprenticeable trade are performed by state-registered apprentices." PPS staff interpreted the AD, measured outcomes, and reported on progress toward its workforce equity requirement based on projects and contractor data in aggregate across all apprenticeable trades. Further, PPS staff noted that that AD language was intended to differentiate between apprenticeable and non-apprenticeable trades—rather than considering compliance at a trade-by-trade level. Staff calculated outcomes by dividing the total number of hours worked by state-registered apprentices with the total number of applicable hours worked to report on whether PPS met its apprenticeship requirement in total.

Yet, for those outside the PPS organization, the AD could have an alternate interpretation that the 20 percent requirement applies to each apprenticeable trade with outcomes that should be individually measured and reported by apprenticeable trade. The ambiguity could lead to confusion or misinterpretation by the Board, Bond Accountability Committee (BAC), and public of what the results entail.

Based on our interpretation of the AD requirement, we reviewed apprentice-level data on individual trades captured by PPS to assess percent of hours by each trade category as of February 2022. ³² We found that more than half, or 31, of the 54 identified trade categories did not meet the 20 percent requirement when disaggregating the results—with outcomes ranging from zero (0) percent to 19 percent. Many reasons may account for why some trades have been able to meet the requirement and others have not met the requirement such as certain trades' safety requirements, resulting in less apprentices hired for specific projects because more experienced workers are needed. Purchasing & Contracting staff and PPS' program administrator at the City of Portland anecdotally informed auditors that certain trades are more challenged to meet goals given the specialty nature of their work.

While PPS staff disagreed with our auditor interpretation of the apprenticeship program requirement language, it could clarify how to measure and report on progress against its 20 percent requirement or disclose that data reported is in aggregate to better ensure there is no misinterpretation of the outcomes.

³² This data represents a point-in-time count of workforce equity outcomes that include 2012 Bond, 2017 Bond, and some Facilities & Asset Management (FAM) projects. Available data was not distinguished by both trade and 2017 Bond project-level, some trade categorizations overlapped, and numbers can change monthly.

Workforce Equity Outcomes are Primarily Driven by Factors Outside of PPS' Control

While having a workforce equity program in place demonstrates PPS' commitment to pursue equity, PPS' ability to take direct action to influence outcomes is limited since only private sector stakeholders have ultimately authority to hire tradespeople to perform work on capital projects.

PPS Does Not Have Direct Control Over Workforce Hiring and Outcomes

Key stakeholders typically involved in various aspects of workforce hiring are public owners, contractors and subcontractors, labor unions and associated union halls, and non-union organizations such as trade schools that provide apprenticeship training and certification. Specific to PPS, there is also C2P2 led by Metro as the de facto regional leader on workforce equity and the City of Portland providing service as PPS' contracted program administrator. Some stakeholders have a greater ability to influence outcomes than others, but all are subject to market conditions and bound by rules and regulations set by local and state entities as well as by their own institutions.

As the public owner of capital projects, PPS sets the program rules and specifications—with recommendations and guidance from Metro's C2P2 regional framework—and relies on the City of Portland to administer the program and manage compliance. Yet, none of these entities can make hiring decisions at the tradesperson level. Only private stakeholders such as contractors, labor unions, and to some extent trade schools have primary control over hiring decisions. As shown in Exhibit 10, PPS is considerably removed from the direct hiring of the actual workforce and has limited control over such decision-making.

No Direct Control No Direct Conne No Direct Control **Public Owner** Create program rules 🔯 Metro Manage City contract Regional Leader Program Administrator Lead C2P2 Manage compliance Set regional framework Assess penalties Report to PPS **Prime Contractors** Spanies Control Directly hire Labor Unions & tradespeople for Other Organizations self-performed work Provide workers Request workers if available, to from unions and entities other organizations Subcontractors Directly hire tradespeople Request workers from unions and other organizations Some Direct Control

EXHIBIT 10. KEY STAKEHOLDERS, RESPONSIBILITIES, AND LEVEL OF CONTROL OVER HIRING TRADE WORKERS

Source: Auditor-generated based on interviews with PPS staff, prime contractors, subcontractors, and Metro.

To help affect progress and change, PPS' workforce equity program primarily requires and directs its prime contractors to implement workforce equity through its PPS contractual obligations. Yet, unless prime contractors conduct the project work themselves and would be responsible for hiring tradespeople, they too do not have direct influence over who is hired. Prime contractors typically hire subcontractors who are responsible for finding and hiring direct trade workers. Depending on whether these subcontractors are signatory to a union, they may also have limited control in deciding who is hired because they are contractually tied to their respective union's rules and rely on union hiring halls to provide workers. ³³ While both unions and non-union organizations that provide trade workers have some control over the individual workers made available to contractors, each trade union or organization has their own procedural process for identifying, prioritizing, and making individual assignments to specific projects. Ultimately, these entities also are limited by and subject to market conditions of availability of workers who join these organizations.

Additional Strategies Could be Considered to Enhance Desired Outcomes

The basis for PPS' workforce equity program is the EPPC policy. That policy asserts that the objectives of the workforce equity program are to "increase the numbers of women and minorities in the construction trades through apprenticeship opportunities" and "ensure apprenticeship opportunities in the construction trades". ³⁴ While no one strategy is guaranteed to produce specific results, there are additional strategies identified by C2P2 and other organizations that could potentially help advance workforce equity that PPS has not yet employed. According to PPS staff, there have been informal discussions on why some strategies may not be feasible for PPS.

For example, one strategy not employed involves setting aside money into a separate fund designated to directly infuse cash into programs that develop the local workforce. Staff noted that this strategy may not be conceivable for PPS as bond monies are constrained to deliver tangible capital improvement projects and, while important, a direct investment into workforce equity may not be bond compensable. Limited other resources exist to fund addition strategies; for instance, general fund dollars may also not be feasible given budgetary pressures faced by PPS and emphasis to fund K-12 grade education needs.

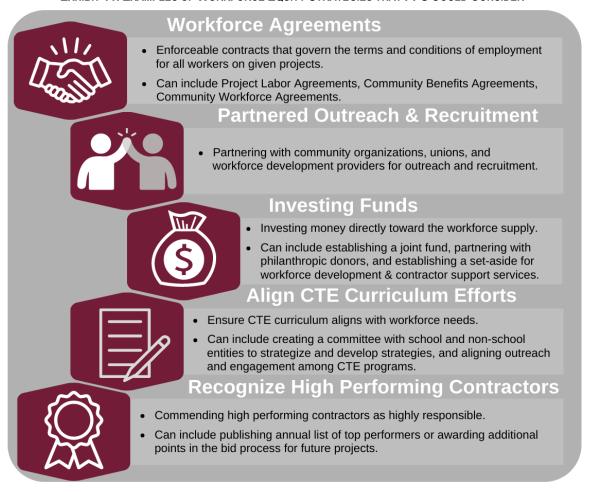
Another strategy PPS could contemplate is assuming full administration of the compliance management piece of its equity program using in-house PPS staff and focus the City of Portland solely on data tracking as part of its contract—a strategy other local public entities have exercised. Full administration includes day-to-day management and monitoring such as, but not limited to, collecting and reviewing proposed workforce plans and documentation of good faith efforts to determine if contractors are making sufficient effort toward recruiting and hiring target workers, following-up with contractors on compliance, and using judgement to determine when exemptions or penalties should be assessed. According to PPS, it does employ certain aspects of compliance management—such as requesting project managers to monitor contractors with prior violations—although it has not assumed the full spectrum of compliance management activities. If PPS wants to consider assuming full administration, it would require staff with equity expertise

³³ According to interviews with industry members, a contractor that is a signatory to a union is a member bound to the rules and policies set by each respective union. Policies vary by union of what rights members are entitled to and what rules they are subject to—including what workers and contractors may receive when requests are made to the union. Typically, unions are affiliated with a hiring hall, which are separate organizations that operate under the auspices of the union. Hiring halls recruit and provide workers to affiliated unions.

³⁴ Refer to the "Introduction and Background" section of this report for more description of the EPPC policy.

and additional resources. Yet, even if PPS did assume full compliance administration, it would still not have direct control over hiring decisions as previously described. Other strategies for PPS to consider or revisit in the future are highlighted in Exhibit 11.

EXHIBIT 11. EXAMPLES OF WORKFORCE EQUITY STRATEGIES THAT PPS COULD CONSIDER



Source: Interviews with PPS Purchasing and Contracting staff; Construction Career Pathways (C2P2) Toolkit; Strategies for Addressing Equity in Infrastructure and Public Works by PolicyLink; Pros and Cons of Using Project Labor Agreements by the Office of Legislative Research of the Connecticut General Assembly; and Exploring Targeted Hire: An Assessment of Best Practices in the Construction Industry from the UCLA Labor Center.

No other public entities in the Portland area appear to have implemented these additional enhanced strategies either—including other school districts. In fact, PPS has demonstrated initiative by adopting C2P2's framework when not all local public entities—let alone school districts—have taken such steps. PPS may face limitations on the equity strategies it can implement given its educational charge compared to more general and broadly-focused government agencies that may have wider-ranging authorities and responsibilities.

Nonetheless, PPS may want to consider implementing protocols to regularly revisit its program and assess potential adjustments to strategies, goals, or the overall framework as needed that could help progress toward the stated objectives of the EPPC. As part of revisiting its program, PPS could consider

implementing protocols for contemplating and reviewing various workforce equity strategies where costs, benefits, and feasibility are discussed. Because workforce equity programs are relatively new, there are limited examples of existing programs and full details of other program rules. Nonetheless, our research shows there are conversations starting about what other elements could be considered into such programs as the industry matures. As best practices related to workforce equity are still evolving for the industry and equity strategies and standards are fluid, new approaches may arise as the industry matures its understanding of equity or existing approaches may become refined as other entities pilot known strategies. PPS could benefit from staying informed of these evolving practices.

Finally, another program feature that PPS may want to consider is more clearly defining the breadth of its program by tracking and including non-trade workers and professional service providers in addition to the "apprenticeable" trades. Endeavoring to have an all-around more diverse workforce of workers and professional services providers on construction projects—in addition to "apprenticeable" trade workers—may assist in encouraging and hiring diverse workers and developing equity. As such, PPS could consider separately identifying and tracking equity progress for other non-trade workers on construction projects such as estimators, foreman, supervisors, engineers, and architects into PPS' program target groups and count against workforce equity outcomes. Doing so would require revisions to how the program collects data, measures progress against requirements, and reports outcomes—activities which would require additional resources. Further, this opportunity is also dependent on changes to PPS current workforce equity requirements and directives.

Recommendations

As PPS moves forward with its School Improvement Bond programs and investing in the local construction workforce through PPS' Workforce Equity Administrative Directive, PPS could consider:

- 2. Developing protocols for regularly identifying, reviewing, and assessing workforce equity strategies on a designated timeline to discuss costs, benefits, and feasibility for a particular review period as warranted—including reconsidering known strategies that were not possible in prior periods, but could be reconsidered based on changing environments. This could include:
 - a. Evaluating the feasibility of obtaining updated market data to ensure that workforce equity requirements and goals are supported, or assessing the option of jointly contributing toward the cost of an updated market study on an agreed-upon timeline with C2P2 partners.
- Clarifying its Workforce Equity Administrative Directive protocols for whether workforce equity
 outcomes and progress should be measured and reported in aggregate or disaggregated by each
 apprenticeable trade.
- 4. Conducting a review of workforce equity program specifications and analyzing whether existing rules could be enhanced to benefit intended target audiences.

Section 3: Bond Program Generally Performed Well, and Opportunities Exist to Track Other Indicators

With the size, complexity, and high-dollar value of capital projects, tracking key performance indicators gives additional insight and transparency into how a project is progressing toward goals and allows for root cause analysis to help decision-makers in modifying plans as needed. Key performance indicators are quantifiable measures used to help entities understand if they are headed in the right direction. While a comprehensive performance measurement can be a time-consuming activity, public sector organizations have an implied responsibility to publicly communicate results as part of demonstrating accountability and promoting transparency to its public stakeholders.

We found that the Office of School Modernization (OSM) was tracking and reporting on several performance indicators that generally aligned with industry practices, and the Bond Program is performing well based on-budget, schedule, safety, and quality indicators. Nonetheless, we offer recommendations for enhancement to performance measurement practices.

Results Suggest the Bond Program is Performing Well with Budget and Schedule

With typically limited funds and available time, cost and schedule control are critical for any capital improvement project.

Cost Performance Tracked Closely with Revised Budgets except for Benson High School

When measuring budget performance of the 2017 Bond modernization projects in terms of percent change between baseline budgets and final costs, we found that actual costs are closely aligned with revised budgets.

As shown in Exhibit 12, we compared actual costs as of March 2022 for each of the 2017 Bond modernization projects to both their original baseline ballot budget as well as to the revised design budget. Overall, there were minimal variances between actual cost and revised budgets with two projects coming in slightly under budget. Another project, Benson High School, is currently experiencing larger variances at 14 percent. ³⁵ Factors behind those variances—including scope increases, market escalation, and budget design errors—are discussed in Section 1 of this report.

³⁵ All figures and dates used for the Benson High School represent the Benson Main project only. Refer to Section 1 of this report for a list of all Benson High School subprojects.

EXHIBIT 12. COMPARISON OF BASELINE, REVISED BUDGETS, AND CURRENT EXPENDITURES ESTIMATED AT COMPLETION FOR SCHOOL MODERNIZATIONS PROJECTS, AS OF MARCH 2022

	2017 Ballot Original Budget	Revised Baseline Budget	Estimate at Completion as of March 2022	Percent Variance Original to Revised	Percent Variance Revised to Current	
Completed Projects						
Kellogg Middle School	\$45 M	\$60M	\$58M	33%	-3%	
McDaniel High School	\$146 M	\$199M	\$201M	36%	2%	
In-Progress Projects						
Benson High School	\$202 M	\$282M	\$321M	40%	14%	
Lincoln High School	\$187 M	\$243M	\$240M	30%	-1%	

Source: 2017 Bond Ballot language, Design Development Documents, and e-Builder data as of March 31, 2022. Amounts rounded.

Note: Revised budgets are those figures reported at the 100 percent design document stage where project details are sufficiently developed to identify initial specifications, floor plans with detailed dimensions, comprehensive building sections, and definitions of systems needed. Industry best practices from the University of California suggest setting a baseline budget after the design development phase and before the construction document phase.

When looking at differences between original ballot budgets and revised design budgets, variances were more significant. This was largely impacted by flawed cost estimates used for the ballot that were discussed in a prior bond audit report. ³⁶ Since that time, PPS revised its cost estimation methods that now align with leading practices and are reasonable.

Data Showed Projects were Generally On-Schedule

When measuring schedule performance of the 2017 Bond modernization projects in terms of variance between planned completion dates and actual completion, we found that school projects were generally completed on-time or were on-schedule.

As shown in Exhibit 13, we compared actual completion for each of the 2017 Bond modernization projects to planned completion from OSM's master schedule to assess variances. We found the two completed schools as of March 2022 finished generally on-schedule with slight delays that did not appear to impact schools from opening as planned. Specifically, McDaniel High School finished only two months behind schedule and Kellogg High School finished one month after planned—both minimal delays even though there were revisions to designs, COVID-19 interruptions, and changes to the permitting process.

EXHIBIT 13. COMPARISON OF ACTUAL COMPLETION OR CURRENT SCHEDULE FOR SCHOOL MODERNIZATION PROJECTS

AGAINST PLANNED COMPLETION TIMELINES, AS OF MARCH 2022

Project	Planned Substantial Completion	Actual Substantial Completion	Months Variance with Schedule	Comments
Completed Projects				
Kellogg Middle School	December 2020	January 2021	1 months	Completed late, but minimal delay.
McDaniel High School	May 2021	July 2021	2 months	Completed late, but minimal delay.

³⁶ Refer to Portland Public Schools 2017 Bond Performance Audit – Fiscal Year 201819 Phase I Report: Bond Cost Estimates, April 2019. https://www.pps.net/Page/15137

Project	Planned Substantial Completion	Actual Substantial Completion	Months Variance with Schedule	Comments	
In-Progress Projects					
Benson High School	December 2024	March 2024 Estimated (A)	-9 months	Ahead of schedule.	
Lincoln High School	July 2023	October 2023 Estimated (A)	3 months	Behind schedule.	

Source: Planned substantial completion date is from the master schedule in place at the time the bond was passed. Substantial completion is defined as the point in construction when the project is considered sufficiently complete and only minor, corrective, or warranty work remains.

Dates were extracted from PPS' e-Builder system data as of March 30, 2022.

Note: (A) Substantial completion data as of March 2022. For the Lincoln High School Project, the estimated substantial completed date used is for Phase II of the project (track and field stadium); estimated completion for the high school itself is June 2022.

Another Schedule Performance Indicator Revealed Processing Time of Critical Documents Varied

One measure used in industry to track schedule performance is the processing time for Requests for Information (RFIs)—key project documents that can impact schedule if not addressed timely. RFIs are used during projects by contractors to ask clarifying questions to owners and design professionals concerning perceived unclear design specifications and contract document requirements. The number of RFIs on projects vary, but large capital projects can have a substantial number of RFIs on a single project. In some cases, RFIs are time sensitive and require more immediate responses such as if a contractor believes they cannot continue work until an RFI has been addressed which can delay the overall schedule and add cost to a project. Other RFIs are less urgent and require longer calendar time to finalize with no impact to schedule. By measuring RFI processing time, an owner has another tool available to gauge project delivery, discuss process and project nuances, and make adjustments as needed.

For the 2017 Bond modernization and rebuild projects, we reviewed processing times from the date the contractor submitted an RFI for review to the date PPS addressed the RFI. As shown in Exhibit 14, there was variation in processing time within the projects—although three of the four projects experienced average RFI processing times at or less than 30 calendar days.

EXHIBIT 14. RFI PROCESSING TIMES FOR FOUR MODERNIZATION PROJECTS

		Calendar Days			
	Number of RFIs	Average # of Days	Maximum # of Days		
Completed Projects					
Kellogg Middle School	598	87	571		
McDaniel High School	1,310	26	267		
In-Progress Projects					
Benson High School	519	27	153		
Lincoln High School	2,204	19	217		

Source: e-Builder data accessed February 20, 2022.

Nonetheless, higher durations between receipt of RFIs and responses does not necessarily indicate a performance issue. Each project can have its unique set of circumstances and characteristics impacting processing times.

One project—Kellogg Middle School—was an outlier with average RFI processing times at 87 calendar days. While Kellogg Middle School was a smaller project in terms of scale and cost, it is reasonable that it had higher RFI processing times because of the project delivery method used (design-bid-build) where contractors are not involved in the project until the scope has been fully designed as compared to other projects using a different delivery method (construction manager/general contractor) where the contractor has insight and can ask questions during the design phase. Additionally, two RFIs took over 500 calendar days to complete because of significant cost considerations that needed deeper analysis and distorted the project average processing times. Despite Kellogg having a higher number of RFIs, it did not affect the schedule.

These times were higher than one benchmark reported by the Construction Management Association of America suggesting typical turnaround times at 10 calendar days, on average, although realizing that the unique circumstances of individual projects may cause variances from those average days.³⁷ OSM confirmed that the RFI process can vary by contractor with some informally asking questions in the field or during site walks to allow for early discussions—eliminating some of the back-and-forth and reducing turnaround times—that are "confirmed" in a documented RFI later. Although OSM does not externally report on RFI processing time, OSM informed us they review and discuss RFI data at weekly and monthly project team meetings.

Project Safety Performance, where Available, Was Better Than National Average Except for Lincoln High School

Ensuring the safety of construction sites is important with the use of large machinery, potentially hazardous materials, and a variety of tools. Not only can increased safety incidents lead to lost labor hours increasing budget and schedule of a project, but it is also an owner's responsibility to ensure a safe working environment for employees and contracted workers. The federal Occupational Safety and Health Administration (OSHA) has strict requirements for recordable injuries and illnesses that must be tracked by entities such as PPS. ³⁸ For the three school modernizations where data was available, we found that two of the schools had recordable incident rates below the 2020 average national incident rate.

We compared OSM's 2017 Bond modernization projects' safety performance to figures collected by the National Safety Council, a leading nonprofit safety advocate that compiles data from the North American Industry Classification System to serve as a benchmarking tool. Specifically, as shown in Exhibit 15, both completed McDaniel High School and Kellogg Middle School projects had recordable incident rates below

³⁷ RFI processing time benchmark is from the Construction Management Association of America (CMAA) and Navigant Construction Forum research paper "Impact & Control of RFIs on Construction Project."

³⁸ OSHA defines a recordable injury or illness as (a) any work-related fatality; (b) any work-related injury or illness that results in loss of consciousness, days away from work, restricted work, or transfer to another job; (c) any work-related injury or illness requiring medical treatment beyond first aid; or (d) any work-related diagnosed case of cancer, chronic irreversible diseases, fractured or cracked bones or teeth, and punctured eardrums.

the 1.8 national average—with Kellogg Middle School reporting zero recordable incidents—based on information we gathered from data OSM provided to the BAC. One school project that is still in progress—Lincoln High School—was almost double the national average. No factors or reasons for the higher incident rates were provided to auditors.

EXHIBIT 15. COMPARISON OF RECORDABLE SAFETY INCIDENT RATES FOR 2017 BOND PROJECTS TO NATIONAL RATES

	PPS Recordable Incident Rate	2020 National Average Recordable Incident Rate
Completed Projects		
Kellogg Middle School	0 (A)	
McDaniel High School	1.52 (B)	1.8
In-Progress Projects		
Lincoln High School	3.37 ^(C)	

Source: National Safety Council and data from the North American Industry Classification System.

Notes: Recordable incident rate is defined as the number of employees per 100 full-time employee/s that have been involved in a recordable injury or illness. Benson High School not included because of its early phases of construction at the time of audit fieldwork.

(A) As of March 14, 2022. (B) As of July 27, 2021. (C) As of January 30, 2022.

Completed Modernization Projects Reviewed Had Reasonable Volume of Work Orders Post Construction

One way that construction quality can be considered is through the amount of work orders that are filed after a project is turned over to the owner for operation and occupancy—although construction labor and materials are under warranty for a year or more depending on the specific type of material used. As part of our work in reviewing the closeout and turnover process between OSM and Facilities & Asset Management (FAM), we reviewed work order logs maintained for each school to capture potential rework needed post-construction through maintenance work orders on the newly built schools.

Specifically, we reviewed 122 work orders submitted for the completed Kellogg Middle School and McDaniel High School buildings and found no significant issues related to quality. FAM staff agreed with these results and believed that work orders on these schools were not particularly noteworthy or out of the ordinary. Rather, work orders reviewed often related to student-damaged property, lock or key issues, and fire alarm problems.

Key Performance Data was Reported and Aligned with Some Leading Practices, Although Opportunities Exist to Enhance Performance Measurement

Establishing a comprehensive performance measurement system to track, measure, and report on progress and to guide project decisions can be time-consuming and challenging to communicate technical and detailed information to decision makers, advisory bodies, stakeholders, and the public. Nonetheless, performance measurement is important and a vital approach for public sector organizations to demonstrate accountability and promote transparency to the public and bond taxpayers. It should involve goal and target setting, key performance indicators to evaluate the overall Bond program or specific project, and consistent methodology to track and report on performance. Some measurement is geared internally to help teams

function more productively, while other measures are reported externally for increased transparency and accountability. Common performance indicators we reviewed were from five primary categories—(1) budget, (2) schedule, (3) safety, (4) quality control, and (5) stakeholder satisfaction. ³⁹

We found OSM actively tracks and reports on a variety of performance indicators that align with some leading practices. Specifically, for the 2017 Bond Program, OSM generally tracked and reported on-budget, schedule, and safety performance for the larger school modernizations and replacement projects and health and safety project activities.⁴⁰ These practices aligned or were more comprehensive than other peer school districts that reported or had limited performance information available—although, we do offer a few recommendations to consider enhancing its performance reporting practices.

Project Performance was Regularly Reported

OSM regularly reported on the 2012, 2017, and 2020 Bond Program budget, schedule, and equity performance. For instance, OSM reported on performance as part of regularly scheduled meetings with the Bond Accountability Committee (BAC) showing overall Bond program health and individual project level details and photos showing status on-budget, schedule, and equity. Individual project status updates provided additional information on finances, schedule progress, and discussions and comments from the project team. ⁴¹ OSM also reported on safety performance—for instance, in April 2019, OSM provided a "safety update" for Grant High School detailing recordable and reportable incidents, manhours, incident rate, and specifics regarding certain incidents.

Although there was added performance details tracking used internally by OSM to guide the individual project decisions such as weekly reports on-schedule and internal budget analyses, a significant volume of budget and schedule performance information was made available to bond stakeholders including the Board, BAC, and public. Further, OSM's reporting aligned with the performance reporting of other school districts with bond programs where presentations included the status of bond funds and reserves, narrative on-budget and schedule, and certain performance analysis. For instance, Beaverton School District used a scorecard for their bond performance, looking at overall budget performance and schedule performance. None of the other school districts we reviewed reported on specific key performance indicators (KPIs).

Other Performance Indicators are Available for OSM to Consider

While OSM actively tracks and diligently reports on Bond performance, there are other performance indicators used in industry to track performance that OSM does not capture as shown in Exhibit 16. These examples refer to data statistics that re specific, could be compared against a goal or target, and can be evaluated over time for patterns or trends. Further, summarizing these types of metrics can often be useful for public reporting and are easy to digest by the public.

³⁹ Construction key performance indicators were compiled from a variety of sources, including Vancouver Regional Construction Association, Project Management Institute - Construction Extension, 29th World Congress International Project Management Association, Project Management Software, Journal of Construction Engineering and Management.

⁴⁰ Safety performance is not reported for the smaller, individual health and safety projects because of the shorter project length typically completed in two months or less.

⁴¹ OSM previously used a balanced scorecard to report on Bond Program budget and schedule performance using performance indicators tied to strategic objectives and defined performance targets aligning activity with baselines and estimates to completed results rated as "good," "concerns," or "trouble." Starting in 2021, OSM 's reporting focused on a higher-level graphic showing baseline budget, schedule, and equity and whether the different project phases were on-target "as planned," "caution," or "impact."

EXHIBIT 16. EXAMPLES OF OTHER INDUSTRY PERFORMANCE INDICATORS NOT CURRENTLY TRACKED BY OSM

KPI Category	Indicator
	Percent that a project is over or under budget
Budget	For a program, percent of all projects that are "on-budget" upon substantial completion
	Number and/or value of change orders compared to initial and revised contract totals
	Number of weeks from planned substantial completion to actual substantial completion
Schedule	Number of adjustments made to the schedule
	Numbers of RFIs and the average duration to review and respond to RFIs
Cofoty	Incident rate (A)
Safety	Lost hours
	Rework cost
Quality Control	Number and percent of non-compliance records compared to inspections conducted
	Hours spent to fix defects
Stakeholder Satisfaction	Number of non-emergencies and/or construction-related complaints
Stakenoluer Satisfaction	Percent of occupants that are satisfied with the building post-occupancy

Source: Vancouver Regional Construction Association; Project Management Institute (PMI) - Construction Extension, 29th World Congress International Project Management Association; Project Management Software; and Journal of Construction Engineering and Management.

Note: (A) OSM currently measures incident rates. However, as discussed later in this report section, there are some improvements to consistency and data availability that OSM could incorporate into its existing safety reporting.

For instance, quality control performance indicators suggested for use in industry include the cost of rework, number of non-compliance records, hours spent to fix defects, or number of work orders post-construction. Some of these—such as cost of rework or the number and percentage of non-compliance inspections compared to total inspections—are performance metrics that are captured as projects are inprogress. These metrics can help gauge status and guide project decisions such as whether OSM needs to adjust its inspection frequency or monitoring of its contractor if results indicate higher numbers or percentages of noncompliance issues than expected. OSM currently tracks non-compliance inspection data in its e-Builder project management system, although it does not report on the data.

Although using performance metrics for stakeholder satisfaction can be subjective, another performance tool used in industry is to measure results through a stakeholder survey. OSM administered surveys in the past, although it stopped the practice in 2019. Back in 2013, OSM sent surveys to project Design Advisory Groups (DAG), education staff, and maintenance staff throughout the master planning, design, and construction phases to garner stakeholder perspective and measure stakeholder satisfaction. ⁴² Questions were asked for Master Planning and Design Phases in addition to the Construction Phase. For instance, the survey asked respondents to rate their level of agreement with a variety of statements such as "the project design implements the scope of work and supports the community's needs" and "the finished project delivered the approved scope and meets long-term educational needs."

⁴² OSM established the Design Advisory Group (DAG) for school modernization projects to provide stakeholder representatives from the school community the opportunity to participate in the planning and design of school improvements. They are not a decision-making body, but function in an advisory capacity.

Per PPS and OSM leadership, these surveys were discontinued because results did not provide sufficient insight and benefit to PPS given the extensive time and effort required to administer the surveys. Beginning in January 2019, OSM stated the electronic surveys had become increasingly less valuable and PPS began moving towards a more qualitative approach of gathering in-person feedback. OSM reported that it planned to focus future inquiries on capturing stakeholder sentiments regarding the design and construction processes, rather than the finished building.

While not every measure needs to be incorporated and tracked as part of a performance system, public sector entities should regularly consider and refine metrics to help with project delivery analysis and accountability. During the audit period, OSM was working with PPS Leadership to revisit the types of performance indicators it should track and how identified indicators could best align with PPS overall objectives that were in progress of being restructured.

Safety Metrics were Tracked, Although Consistency and Reporting Could be Boosted

As previously mentioned, OSM also tracked and reported on project safety performance in alignment with its core value in OSM's Project Management Plan. For instance, at an October 2019 BAC meeting, OSM shared information on 12 recordable incidents and zero reportable incidents for Grant Hight School. While it is a good practice to track and make those results available, OSM could enhance the reporting by specifying what period was being reported (current period or cumulative), providing the distinction between recordable and reportable, and providing context or calculating a reportable incident rate that could be compared with a target or regional average to help the BAC and public better understand whether the number of incidents reported are minor or significant.

Additionally, safety reporting could be enhanced by requiring general contractors to consistently report specific safety data that OSM could summarize and report. According to OSM, its hired general contractors were responsible for tracking and reporting safety accidents and incidents, although the methods and frequency of that reporting varied between contractors. One contractor provided monthly safety statistics, but did not offer data showing the cumulative statistics over the entire project duration. Another contractor provided both monthly and cumulative statistics during weekly project meetings with details on recordable events, near misses, first aid administered, lost time, notifications only, and medical personnel involved.

Recommendations

To enhance its performance measurement practices, guide individual project team activities, and boost accountability to the Board, BAC, and public, OSM should consider:

- 5. Continuing in-progress efforts to revisit the types of key performance indictors it should track and report on that best align with PPS overall objectives and Bond project objectives. Considerations could include:
 - a. Using specific indicators that can be compared against a goal or target and evaluated over time for patterns or trends.
 - b. Providing needed context when reporting to the Board, BAC, or public.
 - c. Highlighting bond project performance results on the PPS website with summary graphics or simplified data that are easier for the public to find and understand.
- 6. Requiring prime general contractors to consistently report specific safety performance data to OSM so that project managers can summarize and share reportable incident rates, how the rates compare with goals or averages, what period is being reported, and context on the results as needed.

Section 4: 2020 Bond Management Framework was Sound, However, Certain Areas Carry Greater Risk and Need Closer Focus

With more than \$1.2 billion in 2020 School Improvement Bond funds, Portland Public Schools (PPS) and the Office of School Modernization (OSM)'s practices are critical inputs to deliver against expected outcomes. We found that PPS and OSM have established many strong strategies, policies, and protocols to successfully guide the delivery for most of the 2020 Bond Program components. One area that remains higher risk needing prompt action and close monitoring is the Center for Black Student Excellence (CBSE).

2020 Bond Program Components were Broader than Previous Bonds

While the 2012 and 2017 School Improvement Bonds were heavily focused on construction, improvement, and maintenance of school facilities, the \$1.2 billion 2020 School Improvement Bond expanded its breadth and scope of proposed improvements. In addition to school modernizations and other health and safety improvements, the 2020 Bond included funds for education infrastructure improvements related to curriculum, technology, and special education needs as well as a new concept Center for Black Student Excellence (CBSE) as shown in Exhibit 17.

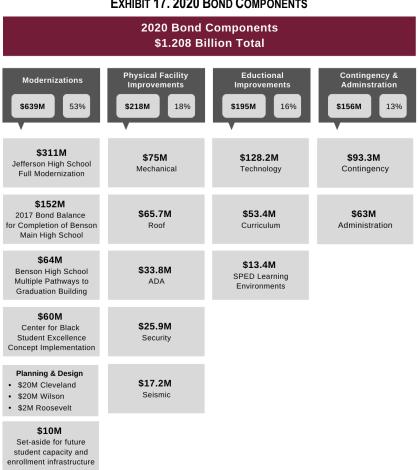


EXHIBIT 17. 2020 BOND COMPONENTS

Source: Auditor-Generated from PPS 2020 School Improvement Bond Website https://www.pps.net/Page/17502

Like previous voter-passed bonds in 2012 and 2017, the majority of the 2020 Bond funds were set aside for capital construction projects to modernize certain schools, master planning of design of other schools, program management and contingency, and a variety of health and safety capital improvement projects to upgrade, replace, or address school site roofs, mechanical systems, security, compliance issues with Americans with Disabilities Act, and seismic features.⁴³ In fact, more than 71 percent—or \$857 million—of the \$1.2 billion 2020 Bond was allocated to these types of improvement activities.

The 2020 Bond components also included \$195 million related to several new improvement areas. One of the new areas focused \$53.4 million on comprehensive, accessible, current, and culturally relevant curriculum to meet Oregon State educational standards. Another area planned expenditures of \$128.2 million for upgraded core technology infrastructure to provide equitable access, including assistive technology and replacement of tablets or laptops for students. Approximately \$13.4 million was designated for special education programming for items such as flexible, portable furniture and equipment, adaptive classroom configurations with visual and acoustic mitigation, and portable room partitions and mobile storage units.

Further, the 2020 Bond Program planned another \$60 million related to the CBSE. Plans included funds for capital improvements related to the CBSE concept which, according to PPS, "does not necessarily refer to a singular physical campus or facility, but rather envisions a broader definition referring to a geographical community as well as an overall culturally-affirming approach and set of community-developed strategies" to promote Black student excellence from cradle to career.

Robust Framework was Generally in Place to Manage 2020 Bond Program, Although Certain Areas Need Additional Focus

We assessed the general framework employed over the 2020 Bond Program focusing on-budget development, spending, schedule and progress monitoring, and project management. Based on that review, we found that a solid framework was mostly in place to help ensure school improvements would be successfully completed on-time, on-schedule, and as planned as part of the voter-approved Bond. This framework included solid budget estimates, strong bond compensability guidelines, schedule tools, and general management. Yet, the CBSE improvement area needs additional focus and monitoring.

Bond Budgets Developed Using Leading Practices

PPS developed the bond budgets using estimates from a combination of historical data available from similar expenses on completed project costs, the Facilities Condition Assessment, and professional cost estimators. While the bond budget was being developed over the course of 2020, OSM consulted with three separate professional cost estimators to update forecasted construction escalation rates given the extreme inflation occurring in 2020—costs that have continued to rise into 2022. The 2020 Bond also set aside a healthy program contingency to help pay for any potential cost increases resulting from changing market conditions, new building code or permit requirements, or unforeseen conditions during construction.

⁴³ Plans included the repair or replacement of leaking or deteriorating roofs at up to 12 sites, repair or replacement of 15 highest priority mechanical systems to heat and cool buildings as well as smaller mechanical projects, upgrades or replacements of classroom door locks and intrusion alarm systems, install of additional security camera systems, and seismic retrofits at up to three schools for unreinforced masonry.

For other 2020 Bond Program areas such as educational improvements, PPS departments responsible over those areas—Office of Teaching and Learning (OTL) for curriculum and Office of Technology & Information Services (OTIS)—developed budgets using data from cost estimates from vendor solicitations, historical annual costs, average costs per student, and prior vendor quotes.

However, while the Bond amount for the CBSE area consisted of line items typical for a capital construction project such as conceptual design, master planning, community engagement, construction, and project management, it is unclear how that budget will translate into projects—as discussed later in the risk assessment section. Since we were only tasked with conducting a high-level review, this area should have additional focus as part of future bond audits.

Expenditures Tested and Process for Determining Bond Compensability Appears Robust

As required by the PPS Bond Compensability Guidance, 2020 Bond expenditures must be spent on capital costs for capital assets—meaning tangible and intangible property that are reusable over a long period of time and have substantial value. 44

With 2020 Bond investments in new areas such as in curriculum and technology, OSM implemented several controls to ensure bond expenditures are compliant and would be compensable under the 2020 Bond. One control was the creation of a Bond Compensability Committee (BCC) in January 2021 that was comprised from a cross-section of PPS staff in Finance, Procurement & Contracting, OSM, and other relevant program representatives. Approvals are required by the BCC before a bond project purchase can be made and related expenditures are reimbursed using a standard form following set protocols within OSM's e-Builder project management system. BCC approval decisions are memorialized in meeting minutes and inventoried for future reference as needed.

Other parameters guiding the newer 2020 Bond areas includes a Bond Compensability Guidance Document with general criteria based on provisions of the Oregon constitution and revised statues, Generally Accepted Accounting Principles over capitalizable assets, and Governmental Accounting Standards Board pronouncements. The guide was last updated in May 2021 and shared with decision makers to educate and ensure consistency. An accompanying Compensability Checklist is used to help streamline BCC deliberations and decisions.

To determine whether the newer types of 2020 Bond funded expenses related to curriculum and technology followed protocols and were compensable, we reviewed approximately \$8 million of the \$60.7 million spent to date and found all expenditures tested followed PPS procurement rules and Bond Compensability Guidelines.

⁴⁴ According to the PPS Bond Compensability Guidance (developed to align with Generally Accepted Accounting Principles), tangible assets are those that have physical substance, including buildings, equipment, vehicles, land and computers. Capital equipment and/or furnishings are movable or fixed assets that must be non-expendable and are tangible property with an expected lifespan of more than one year. A tangible asset needs to retain its original shape and appearance with use and represent a substantial investment of money. Intangible assets are those items without physical substance that also have an initial useful life of over one year. Common examples include computer software, easements, licenses, and websites.

Management and Oversight is Generally Solid to Help Bond Activities Achieve Expected Outcomes, with Some Areas Needing Additional Review in Future Audits

Various PPS departments provide project management and oversight of the individual 2020 Bond Program components. For the typical capital construction projects—such as modernizations, physical improvements, capacity, and master planning and design—OSM was responsible for management. As found in prior audits, OSM employs strong management practices for the Bond program overall and individual capital project components that aligned with leading practices to help ensure on-time and on-budget delivery. For the educational and technology improvements in the 2020 Bond, OTL and OTIS were charged with management of budget, adherence to schedule, and successful completion. Efforts are guided by PPS' Forward Together strategic plan for the 2021-2025 period that aimed to "disrupt racial inequities by applying the PPS racial equity and social justice lens to analyze and interrogate high-leverage system change opportunities, including policies, processes, and resource allocations."

As part of curriculum improvements, OTL has a four-step plan for "defining, selecting, implementing, and evaluating" the improvements through 2025 to bring PPS into compliance with Oregon Department of Education standards. The state department is working closely with OTL to help develop the instruction materials that will be purchased as part of implementation. For technology improvements, OTIS is overseeing activities to provide each student with technology tools appropriate for their grade level as well as the required supporting infrastructure. ⁴⁵ While reported progress of curriculum and technology projects generally aligned with the planned "baseline" timeline and budgets, we did not explore whether OTL and OTIS have sufficient management tools and staffing expertise in place to monitor and ensure planned projects stay on-schedule and budget as part of the current audit scope. Thus, these areas need additional review as part of future bond audits.

For the CBSE bond component area, PPS has not yet established management protocols and monitoring practices to define planned scope, track activities and schedule, or ensure spending is progressing as described later in this report section.

Sound Tools Exist to Monitor Schedule and Progress

For the more traditional capital projects such as the modernizations and physical improvements, OSM uses several tools to closely monitor schedule. Not only do OSM project managers and contractors review schedule weekly, but milestones are also tracked and monitored by OSM management. OSM also used an external scheduling expert to focus on critical path activities and provide weekly schedule updates to project teams to guide decision making. Schedule progress is communicated to by the BAC at each of their meetings. Moreover, past bond projects under the 2012 and 2017 bonds have generally been delivered on-schedule. For the new curriculum and technology bond areas, day-to-day schedule and progress is managed by PPS departments responsible for delivery. According to PPS, OTIS uses an outside expert to track schedule (and budget) progress that is discussed on a weekly basis. Schedule information presented to the Board and BAC contained sufficient information to assess progress against high-level baseline dates and phases in addition to the identification of any risks that could delay implementation.

⁴⁵ Technology includes items such as laptops, screens, projectors, Chromebooks, wi-fi access, cybersecurity, firewalls, switches, phone systems, and servers.

High-Level Assessment Revealed PPS Employed Many Practices that Minimize Risk, Although Certain Bond Areas Should be Closely Watched

Risks are inherently present in all operations and capital improvement projects—thus, organizations like PPS must determine how they will manage risk and how much risk they are willing to accept. Given the significance of a \$1.2 billion investment in the 2020 Bond Program and its importance to school community stakeholders, we conducted a high-level risk assessment. Risk assessments are integral to capital programs to raise awareness of challenges to project success, assist with decision-making, and provide information to develop strategies to address risk. They help determine the likelihood and impact of possible future risk incidents or events that could adversely affect the Bond's intent. Overall, we identified several risk categories and found PPS implemented many strategies and controls to minimize risk—although certain areas should be closely watched.

Bond Risks and Potential Consequences Identified

To assess risk of the 2020 Bond Program, we conducted a high-level qualitative risk assessment based on those risks typically associated with capital improvement programs as shown in Exhibit 18. We categorized those risks found in industry into risk driver categories for discussion purposes and summarized possible risk impacts capturing the potential negative consequence if a risk were to materialize.

EXHIBIT 18. TYPICAL RISK DRIVERS, RISK IDENTIFICATION, AND POTENTIAL RISK IMPACTS FOR CAPITAL IMPROVEMENT PROJECTS

	Risk Driver Category	Typical Risks of School Capital Improvement Projects	Potential Risk Impacts	
1	Schedule & Work Execution	Project will not be completed on the planned schedule.	Project may not be completed as planned in time for students to use facilities and resources.	
2	Funding & Expenditures	Funds will not be sufficient to complete projects as planned and designed.	Completed bond work could cost taxpayers more than initially planned, or scope may have to be reduced to meet available funding.	
3	Scope, Design, Construction	Design and construction may be incomplete or not implemented.	Projects may not be built as designed and expected.	
4	Workforce Skill and Expertise	Sufficient resources are not available or project team does not possess requisite skill and expertise to implement complex projects	Availability of labor and lack of expertise could negatively affect quality of project construction.	
5	Program and Project Management	Inadequate management is employed.	Lack of sufficient project management could result in projects not built or implemented on-time, on-budget, and as designed.	
6	External Forces	Economic events will place additional and unplanned strain on-budget and schedule.	Program may not be delivered as designed or planned due to resulting financial issues and project delays.	
7	Stakeholders and Public Community	Bond practices, activities, and performance are viewed as mishandled, unaccountable, or not transparent.	Confidence and trust of taxpayers could be diminished, and any future bond measures needed might fail to pass by voters.	
8	Legal Exposure	Program or project activities are not compliant with bond requirements or contractual requirements.	Noncompliant activities could result in litigation that could reduce available funding or plans for future bond projects.	

Source: Auditor-generated based on industry risk management and guidance from Construction Management Association of America (CMAA),

Project Management Institute, and National Association of Construction Auditors, among others.

Note: Risks are the possibility of a future event that will impact the achievement of the bond's intent or objective to improve the health, safety, and learning of PPS students through repairing and modernizing schools in addition to replacing curriculum and technology infrastructure.

2020 Bond Program Risk is Relatively Low, Although Certain Areas Have Higher Risk

As part of our high-level risk assessment, we considered and identified the likelihood of an adverse event or threat (risk) occurring based on existing PPS activities and controls and the impact of such an event on the bond program overall and for each of the bond components—modernizations, planning and design, physical improvements, educational improvements, and the CBSE. We used a low, medium, and high rating method using evidence gathered and auditor judgement. 46

Specifically, for each potential risk, we analyzed PPS practices and controls in place to manage or mitigate risks. This included considering protocols for managing schedules and milestones, controlling costs and keeping projects on-budget, managing project delivery and overseeing external contractors, communicating with and training internal team members, addressing market forces and disruption, external reporting and transparency, and ensuring compliance with laws and Bond provisions. Consideration was also given to prior performance audit results and other external construction audits conducted on Bond projects. Based on those practices and controls in place, we assigned each risk a low, medium, or high likelihood rating.

Similarly, we assigned each risk a low, medium, or high impact rating based on the level of significance or magnitude of severity of a particular potential consequence looking at risks globally across the entire 2020 Bond program as well as individually for the Bond areas (e.g., modernizations, CBSE, etc.). While any one risk has potential to cause a major setback or impact for successful delivery of a capital program, typical higher impact capital improvement risks relate to schedule, funding, and external market events. Additionally, we considered the dollar value allocated for a particular planned Bond improvement, current stage in development of the improvement, and current external environment. Impact ratings were combined with likelihood ratings to result in an overall risk assessment rating.

Based on those results, we created a risk heat map commonly used in industry to help communicate and visualize an organization's specific risks. For graphic purposes, we used risk driver categories from Exhibit 18 and presented results in low, medium, and high overall risk ratings by color to allow for a ranking or prioritization of risks as shown in Exhibit 19.

- Low risk is represented in green. For these lower risk areas in terms of potential likelihood and impact of the risk, there is no PPS action needed.
- Medium risk is represented in yellow. With medium levels of potential risks occurring, PPS should continue monitoring these areas to design and implement new risk strategies as warranted.
- High risk is represented in red. Given the higher levels of potential risk, PPS should continue
 closely monitoring these areas and determine whether additional activities need to be employed to
 minimize or mitigate risk.

⁴⁶ As discussed in the Institute of Internal Auditors' "Internal Audit Guide to Risk Assessments," qualitative risk assessments involve considerable judgement, and can be nuanced for the individual circumstances of the organization or operations being assessed.

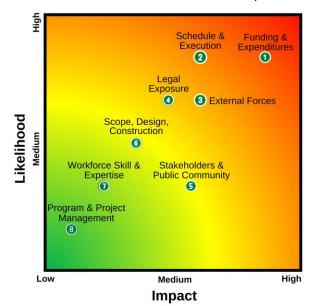


EXHIBIT 19. RISK HEAT MAP FOR OVERALL 2020 BOND PROGRAM, BY RISK DRIVER CATEGORY

Source: Auditor-generated based on analysis of numerous public and internal documents such as prior Bond performance and construction audits; interviews with members of the Board, BAC, PPS executive team, and PPS staff; news articles; Board and BAC meeting minutes; Board resolution; Bond webpages; contract documents; Primavera 6 schedules; e-Builder reports; job postings; organizational charts; and more. Numbers on heat map relate to the risk driver categories presented and numbered in Exhibit 18.

As shown in Exhibit 19, the potential likelihood and impact of most typical capital project risks reviewed for the 2020 Bond Program overall were considered low given PPS' controls and activities in place. These controls included standard operating procedures, implementation plans, experienced project team members, budget to actual cost monitoring, using master schedules and external scheduling experts, automated project management systems, and solid reporting and communication protocols—all designed to help reduce the likelihood of a risk's occurrence. The low-risk rating applies to risk drivers such as scope and construction, work force and expertise, program and project management, and stakeholders and public community where auditors have previously reviewed the controls and activities as part of prior audits and found them to be sufficient to help minimize risks.

Though overall risks for the 2020 Bond are relatively low, certain risks inherently carry higher potential impacts and likelihood of occurrence including those related to funding and expenditures, schedule and work execution, external forces, and legal exposure. Funding risk holds the potential to have high negative impact on any public capital construction program given that cost overruns could jeopardize successful delivery of improvements, public trust from the taxpayer, and subsequent passage of future bonds. Schedule risks could also add the potential for delays that could impact students starting the school year, which is a mission-critical function of a school district. Hand in hand with these two risk driver categories, the impact of external forces and legal exposure having a profound effect on-schedule, budget, and scope remains more possible given current inflation, supply chain issues, and other events such as wildfires that occurred and touched the 2017 Bond projects.

These bond risks and potential consequences are more prevalent in certain areas of the 2020 Bond Program than in others. For instance, four of the Bond areas—with funding set aside for planning and

design, program administration, physical improvement, and education improvements—have a generally lower likelihood of potential risks occurring given strong existing PPS practices or could have a less significant impact to the overall success of the Bond program. Yet, the large investment in the school modernization projects and the still evolving practices of the CBSE make those areas higher risk as described in the sections that follow.

While Modernization Projects Remain at Higher Risk, OSM is Closely Monitoring Progress to Stay On-Schedule and Budget

Encompassing approximately 44 percent, or \$527 million, of the \$1.2 billion 2020 Bond Program, the investment in modernization capital projects at Benson and Jefferson High Schools are inherently higher risk given their cost and impact of any potential cost overruns on available funding for other projects. Additionally, these projects are higher risk because any delays with the larger complex project scopes could impact student school schedules in addition to the start and completion of subsequent school projects. However, OSM is closely monitoring schedule and budget to deliver projects as planned.

For instance, OSM employs several controls and leading practices to manage risk including use of external professional cost estimators to set reasonable budgets, continual monitoring of budget to actual costs, contingency analysis, and identification and pursuit of additional funding sources outside the bond. Its automated e-Builder management system has built-in cost approval controls and OSM uses an external construction auditor to review contractor labor, equipment, materials, indirect costs, and compliance with PPS contract provisions.

In recent years, external market forces placed additional layers of financial risk on the modernization projects' successful completion with significant cost escalation and supply chain issues. As discussed in Section 1 of this report, OSM has been proactive in trying to alleviate constraints of the current economy by locking-in set prices and rates through contracts with contractors and suppliers for most of Benson High School's remaining construction costs. These actions greatly minimize risk of budget overruns.

While OSM is exercising similar robust management practices and controls over the other modernization project at Jefferson High School, the planning phase is already experiencing a 4-month delay. Since the project just hired an Architect in May 2022 to complete the comprehensive plan including community and stakeholder input by the end of 2022, there were no formal revised schedules for final project completion yet available. However, the Jefferson High School 2020 Bond website Q&A document noted that construction was still anticipated to start in 2024 which aligned with the 2020 Bond Conceptual Master Schedule.

Further, while Jefferson High School had not yet expended any Bond funds and was considered still "onbudget," the current 2022 inflation and supply chain issues could outpace the budgeted cost estimates since construction was not scheduled to start until mid-2024. OSM planned to closely monitor costs and had \$123 million bond program contingency available as of March 2022 that could be used to cover any cost increases.

CBSE Has Greater Risk Surrounding Delivery on Bond Plans

Referred to as both a physically-built environment as well as a set of conceptual goals, CBSE plans describe that it does not necessarily refer to a singular campus or facility, but rather "envisions a broader definition referring to a geographical community as well as an overall culturally-affirming approach and set of community-developed strategies" aimed at a lifelong and holistic approach to promoting the excellence of Black students. While the 2020 Bond Program's conceptual planning documents intended a 54-month implementation schedule, the CBSE is significantly behind schedule with limited activity taking place as of June 2022. Combined with unclear staff roles and responsibilities and limited project management tools employed, CBSE is higher risk for not delivering as planned and should be more closely reviewed as part of future audits. However, according to PPS, there has been an PPS Executive Sponsor in place to support the CBSE staff and make progress that occurred after the end of our audit fieldwork.

Concepts and Goals are Still in Development Leaving Planned Bond Activities Unclear

When proposed as part of the 2020 Bond Program, the scope was separated into four stages as shown in Exhibit 20.

Conceptual Design	Master Design	Community Engagement and Project Management	Construction and Implementation
Working in concert with Black elders, youth, families, and community members to define vision and goals surrounding CBSE.	At a minimum, design would incorporate interconnected early learning to 8th grade campuses in congruence with Jefferson High School rebuild.	Rely on a dedicated team and resources to project manage and realize the goals of the CBSE through specific strategies, outreach, and engagement plans.	Implement the early learning to 8th grade campuses in congruence with Jefferson High School master plan and potential enhancements.

EXHIBIT 20. CBSE 2020 BOND SCOPE STAGES

Source: Auditor-generated based on 2020 Bond Budget Summary document dated July 13, 2020 to the Board of Education from PPS.

As of June 2022, PPS and the CBSE target community were developing the vision and design of CBSE including a comprehensive plan for curriculum and instruction in addition to determining what CBSE facilities will be needed to align with the developed vision. According to PPS, the goal is to complete scoping by February 2023 and then begin the implementation phase. At this time, it is unclear what the scope of these bond activities will be or when they will be implemented.

Staffing Roles and Responsibilities have Not been Defined and Limited Project Management Exists

Efforts working with the community and stakeholders to establish the CBSE vision are overseen by the Manager of the PPS Innovation Studio who joined the project in early May 2022—although PPS was also actively recruiting for a Director to co-lead the CBSE alongside the Manager of the Innovation Studio at that time. PPS has been looking for this CBSE Director since April 2022 that will serve as the centralized liaison for PPS' efforts to improve student success for every Black student. In addition, the recruited Director is expected to serve as the liaison with other PPS departments as well as with internal and external stakeholders to plan the actual implementation. Specifically, the Director is expected to facilitate the community engagement planning process, internal academic planning, and collaboration with the OSM's bond planning process to ensure it aligns with the community and academic components of CBSE. However, as of June 2022, PPS has not yet defined the roles and responsibilities between the two positions and the Director position remains unfilled.

Although the CBSE concept is built on and prioritizes consistent communication and feedback between design teams, communities, and PPS leadership, there is no current designated project manager position or tools used for tracking and managing schedule, budget, and progress toward completion of CBSE. Without these features, there is greater risk of not fulfilling bond plans.

CBSE is Behind Schedule, but PPS is Making Progress

According to the 2020 Bond Program conceptual schedule, CBSE had a 54-month timeline from planning start in December 2020 to completing implementation by summer 2025. Yet, as of June 2022, PPS is approximately 20-months into the schedule with 37 percent of the original timeframe elapsed and is significantly behind schedule showing limited progress— mostly attributed to the COVID-19 pandemic.

Initially, PPS planned to launch a yearlong racial equity design and planning process with heavy community involvement that would inform educational needs and physical designs and implementation of CBSE goals based on what the community wanted in schools and facilities in the heart of the historic Albina neighborhood around Jefferson High School. A CBSE timeline established a "planning and community engagement phase" to start in fall 2021 and culminate with recommendations in spring 2022. However, that timeline conflicts with the 2020 Bond conceptual schedule that had planning and development ending by fall 2021 and implementation starting at that time. In addition to the CBSE concept and planning stage not yet completed, there are no schedule updates or progress tracking toward completion.

While an updated timeline is not yet available, PPS is actively engaged in weekly meetings with stakeholders to define the vision and reach consensus with the community about desired components of CBSE. PPS also noted that CBSE is directly tied to separate, but related, projects moving forward, such as modernizations to Jefferson High School and discussions on relocation of Harriet Tubman Middle School. Ultimately, current leadership is planning for the design process to be completed by February 2023. That would compress the implementation schedule nearly in half and increase risk will not be delivered on-schedule or as intended.

No 2020 Bonds Funds have Been Spent on CBSE to Date

Of the \$60 million set-aside for the CBSE, PPS had not yet spent any Bond funds as of June 2022 since the 2020 Bond only intended to pay for activities after the vision and implementation plans for the CBSE concept are finalized as now planned for February 2023. Once those CBSE goals and capital activities are identified, PPS and OSM have a robust bond compensability in process to ensure costs are eligible. However, with the delayed start in implementing the CBSE, there is elevated risk that current construction cost inflation and supply chain issues may consume more funds than planned and reduce resources otherwise available for CBSE goals. Further, given the schedule delays and no updated or revised schedule established at this time, PPS may be challenged in the future to spend funds in a compressed schedule and deliver capital improvements once they are determined.

Recommendations

To strengthen practices and controls in place to manage risk associated with CBSE, PPS should immediately implement the following:

- Establishing a formal framework for CBSE management and staffing with clear roles and
 responsibilities with defined authority and accountability for and between the key PPS departments
 assigned to the successful delivery of the CBSE.
- 8. Updating existing CBSE implementation schedule with realistic dates, interim milestones or progress targets, general tasks and activities, and plans to get CBSE back on track.
- Working with key PPS departments to put a general CBSE implementation plan in place and ensure a quick start for capital purchase or capital building as soon as CBSE concepts and goals are solidified.
- 10. Creating CBSE project management plans and structure to identify general tasks and monitoring mechanisms to set, track, and report on baseline and revised schedules, original and revised budgets, and progress toward meeting delivery goals.

Appendix A: Status of Prior Performance Audit Recommendations

The Office of School Modernization (OSM) continued its commitment towards addressing and resolving prior Bond audit recommendations. As of March 2022, all 96 recommendations from the 2012 Bond had been addressed. ⁴⁷ Also, over half the recommendations from prior 2017 Bond performance audits have been implemented, as shown in Exhibit 21.

EXHIBIT 21. SUMMARY STATUS OF ALL 2017 BOND PERFORMANCE AUDIT RECOMMENDATIONS, AS OF MARCH 2022



Source: Auditor-Generated based on review of underlying documentation supporting the implementation progress. Note: All prior audit reports are available on the PPS website at https://www.pps.net/Page/15137.

The one outstanding recommendation from the Year 1 "Phase II" audit related to OSM providing written guidance on OSM's decision-making hierarchy and training on standard practice for value engineering and design deviations on future projects. While these items were still under review by the OSM Audit Implementation Team, the recommended actions will not be critical until future capital construction projects begin the design phase.

For the Year 2 audit, two out of the seven outstanding recommendations cannot be addressed until all the 2017 projects are closed out and when the next projects commence using the Construction Manager-General Contractor (CMGC) delivery and contracting approach. The remaining five outstanding recommendations related to improvements needed such as being more consistent on documenting costs for change orders, evaluating payment terms and conditions on contracts, and adjusting contract language to prohibit contractors from starting work before formally authorized

For the Year 3 audit, staff have addressed one recommendation related to providing contextual information about business equity tracking data in presentations to the Portland Public Schools Board of Education and Bond Accountability Committee. More time is needed to address the remaining recommendations since limited time has passed since the prior audit report was finalized. ⁴⁸ Additionally, many recommendations need guidance by the PPS Board and budgeted positions as staff prepare to take subsequent steps.

⁴⁷ 2017 Bond Performance Audits were conducted by our firm, Sjoberg Evashenk Consulting, Inc, in 2019, 2020, and 2021. As separate independent auditor conducted the 2012 Bond Performance Audits between 2014 and 2017.

⁴⁸ The Year 3 Bond Performance Audit was presented to the Board School Improvement Bond Committee on November 17, 2021.

Appendix B: Audit Methodology

The Portland Public School District (PPS) hired Sjoberg Evashenk Consulting, Inc. in October 2018 to conduct annual performance audits of the 2012 and 2017 School Improvement Bonds over a four-year period. Each year, auditors assess performance and focus on different Bond program and project areas. For this performance audit cycle, we reviewed Bond program activities for the period between April 1, 2021 and March 31, 2022 in the following areas:

- 1. 2017 Bond Status
- 2. Workforce Equity
- 3. Bond Program Performance Management
- 4. 2020 Bond High-Level Assessment
- 5. 2020 Bond Framework & Management
- 6. Prior Audit Recommendations

Sjoberg Evashenk Consulting performed a variety of detailed audit tasks including, but not limited to, the following fieldwork steps.

To assess policies, practices, progress, and tools in place for delivering the Bond program, we:

- Conducted multiple interviews with PPS staff including the Director of Purchasing and Contracting, Solicitations Manager, Senior Contract Analyst, Manager of Instructional Resources Adoption, Chief Financial Officer, Senior Manager of Business Operations, Senior Accountant, Director of Finance, Chief Technology Officer, Director of Construction, Director of Facilities Operations & Warehouse, Facilities Operations Managers, Senior Project Managers, Assistant Director of Career and Technical Education, Innovation Studio Manager, Construction Manager, and others.
- Met with PPS Board of Education (Board) members and Bond Accountability Committee (BAC).
- Interviewed industry members related to equity and contracting.
- Reviewed a multitude of documents such as project budgets, schedules, policies, plans, e-Builder data, contracted labor hours, status reports, work orders, and more.

To determine the overall bond status and closeout of applicable 2017 schools, we:

- Analyzed the schedule delivery status and budget status overall for the 2017 Bond projects as of March 2022 by reviewing cost and schedule estimate at completion reports from the e-Builder system, materials presented to the Bond Accountability Committee in March 2022, and reported project schedule progress from OSM master schedules generated from the P6 Primavera system.
- Investigated variances in budget and schedule and assessed reasonability of challenges if any issues were identified and plans for remediation if available.

- Identified what formal closeout protocols were outlined in existing policies and procedures, the Program Management Plan, individual Project Team Management Plans, or other sources of procedural criteria.
- Reviewed closeout practices employed by PPS project teams for Kellogg Middle School and McDaniel High School and compared against industry practices noted by entities such as the Construction Management Association of America, Associated General Contractors of America, and the Washington State Office of Superintendent of Public Instruction.
- Assessed whether lessons learned from closeout of the 2012 Bond were applied to the 2017 Bond, and identify if any improvements were made in the process.
- Reviewed sample closeout documents and evidence of closeout practices occurring for Kellogg
 Middle School and McDaniel High School to determine if practices appeared in-line with industry.
- Examined data from PPS' work order database and project development request records to test for notable maintenance or repair issues post-occupancy that might indicate issues that results from the closeout of Kellogg Middle School and McDaniel High School.

To evaluate the effectiveness of the workforce equity program and existing protocols:

- Interviewed contractors, subcontractors, the City of Portland, Metro, and Portland Community
 College to understand how workforce equity works and its impact on different key players, and
 understand application of the Construction Career Pathway Project (C2P2) Framework.
- Assessed the Equity in Public Purchasing & Contracting (EPPC) Board Policy, workforce equity
 Administrative Directive, City of Portland program specifications, and intergovernmental agreement
 with the City of Portland to understand the history of how the program was developed, what
 changes have been made over time, and how the program is specifically implemented through
 program specifications.
- Researched industry practices related to workforce equity from entities such as the University of California at Los Angeles Labor Center, PolicyLink, and the National Taskforce on Tradeswomen's Issues and compared against C2P2 recommended practices.
- Researched publicly available sample union and union hiring hall policies and procedures from entities in the Portland area.
- Examined workforce equity data from PPS' internal tracking spreadsheet to identify trends, outcomes, analyze underlying make-up of reported numbers, and understand how data is managed. Reviewed related reports provided to the public and the Board and BAC.
- Analyzed program compliance documentation from the City of Portland including sample monthly
 compliance reports submitted to PPS, exemption requests, email correspondence between the City
 and contractors, and sample penalty letters to assess how compliance is determined and
 consequences issued to non-compliant contractors.
- Researched workforce equity programs and outcomes for peer public entities in the Portland area and compared program rules and results to PPS.

To assess the bond program's performance measurement system, we:

- Identified all existing key Bond performance indicators used and reported on by PPS to the public and decision-makers by looking in PPS' e-Builder system, project files, interviewing PPS staff, and reviewing data reported to the Board and Bond Accountability Committee (BAC).
- Researched capital construction performance indicators recommended by industry leaders such as the Vancouver Regional Construction Association, Project Management Institute, 29th World Congress International Project Management Association, and Journal of Construction Engineering and Management.
- Compared indicators used in industry against those PPS currently tracks and reports on, and considered other indicators available to PPS staff.
- Where data was available, calculated the performance outcomes for budget, schedule, and safety to assess bond performance.

To evaluate the framework of the 2020 Bond and identify risk areas within the new bond, we:

- Studied planning documents presented to the BAC and Board leading up to the passage of the 2020 Bond to understand how each bond area's budget, schedule, and scope were determined. Assessed whether methodologies and reasoning appeared appropriate and sound.
- Reviewed policies and procedures related to determining compensability to assess whether the
 process of determining compensability of technology and curriculum purchases appeared
 appropriate and sound.
- Examined a sample of 16 invoices to evaluate whether the 2020 Bond funded expenses for the curriculum and information technology categories were Bond compensable and procured following PPS procurement rules.
- Identified likelihood and impact of risks for the 2020 Bond areas including schedule, funding and
 expenditures, scope design, project team expertise, management, external forces, stakeholders
 and public community, and legal exposure. Scored each bond area as high, medium, or low risk
 based on review of practices, controls, prior audits, industry experience, and market conditions.
- Reviewed prior construction audits and Bond performance audits from the 2012 Bond and 2017
 Bond to determine what risks had been previously identified and addressed.
- Conducted high-level literature research of public perception of the 2020 Bond and identify issues and concerns noted in published public comment, Board meetings, and BAC meeting minutes.
- Reviewed publicly available documents related to the development and planning for CBSE such as the PPS Strategic Plan, 2020 Bond Conceptual Schedule, PPS 2020 Bond Facts, PPS Resolution 6150, the partnership between Albina Vision and PPS, and the 2020 Bond Budget Summary.
- Evaluated other documentation to assess the magnitude of risk and likelihood of the risk actualizing for the 2020 Bond such as eBuilder processes and reports, Bond webpages, contract documents, Primavera 6 schedules, job postings, organizational charts, email correspondence, and project files.

To determine the status of prior audit recommendations, we:

- Followed-up on the status of prior 2012 and 2017 Bond performance audit recommendations focusing on those recommendations categorized as open.
- Where applicable, verified auditee responses through fieldwork analyses, observations, and documentary review. Implementation status of areas not within the scope of this year's audit will be reviewed during future performance audits.
- Assessed corrective action on prior external construction audit recommendations were not included in our performance audit since that external auditor is reviewing corrective actions and implementation status as part of current construction audits.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Appendix C: Auditee Response



PORTLAND PUBLIC SCHOOLS

501 North Dixon Street / Portland, OR 97227 Telephone: (503) 916-2222/ Fax: (503) 916-3253 Mailing Address: P. O. Box 3107 / 97208-3107

Date: February 13, 2022

To: Cathy Brady, Principal

Sjoberg, Evashenk Consulting Inc

From: Marina Cresswell, Senior Director Office of School Modernization

Subject: Performance Audit – Fiscal year 2021/2022

Staff Response

Portland Public Schools (PPS) and the Office of School Modernization (OSM) have received and reviewed Sjoberg, Evashenk Consulting (SEC) 2021/2022 November 2022 Draft Audit Report titled "Annual Bond Performance Audit: Performance Audit – Fiscal Year 2021/2022" (the Draft Report).

PPS appreciates SEC's work this year in reviewing workforce equity, key performance indicators and a high-level review of the program framework for 2020 Bond-related projects. Similar to prior audits, SEC has provided thoughtful recommendations that focus on documenting and training staff on processes to improve consistency; developing a systematic process for analyzing existing methodologies, determining whether they are beneficial, and reviewing benefits and constraints of proposed new methodologies; and ensuring that program frameworks are both thorough and intended to mitigate risk. PPS is committed to continuous quality improvement and providing Bond-funded improvements in an environment of quality, accountability and transparency.

Based on our review of the Draft Report, PPS has prepared responses to each of your 10 recommendations. Each response contains one of the following statements:

- Concur Goal is to implement the recommendation by December 30, 2023
- Concur with Comment Goal is to implement the recommendation by December 30,
 2023 with qualifying comments
- Nonconcur Recommendation may not be implemented with comments to explain
- Completed Recommendation has been implemented

The following table presents a tabulated summary of PPS's responses.

#	Abbreviated Recommendation	Dept	Response
1	Complete development of and memorialize policies, procedures, and e-Builder processes related to construction closeout as well as train project staff on new closeout protocols before the remaining 2017 Bond projects are ready for closeout.	OSM	Concur with comment
2	Develop protocols for regularly identifying, reviewing and assessing workforce equity strategies on a designated timeline.	Business & Operations	Concur
3	Clarify the Workforce Equity Administrative Directive protocols for whether workforce equity outcomes and progress should be measured and reported in aggregate or disaggregated by each apprenticeable trade.	Business & Operations	Concur
4	Conduct a review of workforce equity program specifications and analyze whether existing rules could be enhanced to benefit intended target audiences.	Business & Operations	Concur
5	Continue in-progress efforts to revisit the types of key performance indicators it should track and report on that best align with PPS overall objectives and Bond project objectives.	Operations	Concur
6	Require general contractors to consistently report specific safety performance data to OSM.	OSM	Concur
7	Establish a formal framework for CBSE management and staffing with clear roles and responsibilities with defined authority and accountability.	PPS	Concur
8	Update existing CBSE implementation schedule with realistic dates, interim milestones or progress targets, general tasks and activities, and plans to get CBSE back on track.	PPS	Concur with comment
9	Work with key PPS departments to put a general CBSE implementation plan in place and ensure a quick start for capital purchases or capital building as soon as CBSE concepts and goals are solidified.	PPS	Concur
10	Create CBSE project management plans and structure to identify general tasks and monitoring mechanisms to set, track, and report on baseline and revised schedules, original and revised budgets, and progress toward meeting delivery goals.	PPS	Concur with comment

Attached is our specific response to each of your recommendations. Please contact me if you have any questions or comments. Thank you again for your hard work and efforts to identify areas for improvement.

Recommendation 1

Complete development of and memorialize policies, procedures, and e-Builder processes related to construction closeout as well as train project staff on new closeout protocols before the remaining 2017 Bond projects are ready for closeout.

Staff Response: Concur with comment

Staff concur with this recommendation on continuing to develop and memorialize closeout policies and procedures, while noting that project staff training is already in place and plays a significant role in the refinement of the policies and procedures.

Recommendation 2

Develop protocols for regularly identifying, reviewing and assessing workforce equity strategies on a designated timeline.

Staff Response: Concur

Staff agree that an annual review of workforce equity strategies, and plan of changed or new strategies for the upcoming year, would allow for a more structured framework in which to identify potential changes or new strategies, develop cost-benefit analyses, and collect and analyze outcome data.

Recommendation 3

Clarify the Workforce Equity Administrative Directive protocols for whether workforce equity outcomes and progress should be measured and reported in aggregate or disaggregated by each apprenticeable trade.

Staff Response: Concur

Recommendation 4

Conduct a review of workforce equity program specifications and analyze whether existing rules could be enhanced to benefit intended target audiences.

Staff Response: Concur

Recommendation 5

Continue in-progress efforts to revisit the types of key performance indicators it should track and report on that best align with PPS overall objectives and Bond project objectives.

Staff Response: Concur

Recommendation 6

Require general contractors to consistently report specific safety performance data to OSM.

Staff Response: Concur

Recommendation 7

Establish a formal framework for CBSE management and staffing with clear roles and responsibilities with defined authority and accountability.

Staff Response: Concur

Recommendation 8

Update existing CBSE implementation schedule with realistic dates, interim milestones or progress targets, general tasks and activities, and plans to get CBSE back on track.

Staff Response: Concur with Comment

Staff is working to include additional detail in the CBSE implementation schedule. It is important to note, however, that the determination of specific capital improvements to be implemented is dependent on community feedback. PPS is choosing to prioritize the appropriate amount of time for that community feedback, even if it means the timeline of capital improvement work does not follow the conceptual schedule proposed when the bond first passed.

Recommendation 9

Work with key PPS departments to put a general CBSE implementation plan in place and ensure a quick start for capital purchases or capital building as soon as CBSE concepts and goals are solidified.

Staff Response: Concur

An implementation plan is one of the key deliverables that the CBSE is already working to put together, but, as noted in the recommendation, it is dependent on first finalizing a community co-created CBSE Vision and CBSE Comprehensive Plan.

Recommendation 10

Create CBSE project management plans and structure to identify general tasks and monitoring mechanisms to set, track, and report on baseline and revised schedules, original and revised budgets, and progress toward meeting delivery goals.

Staff Response: Concur with comment

Project management plans, baseline schedules and budgets will be developed for the Bond-funded capital improvements of CBSE once the specific improvements have been defined.