		2016 Bond Performance Audit Recommendations		
Bond Year	#	Abbreviated Recommendation	Response	Status
2012	1	Update monthly project budget projections in timely way and include ROM estimates of potential changes.	Concur	Complete
2012	2a	CM/GC contracts to require proactive participation of CM/GC with architect.	Nonconcur	Complete
2012	2b	Ensure GMPs are executed at contractually proscribed point in design.	Concur with comment	Complete
2012	3	Ensure GMP amendments are consistent with applicable law and policy.	Completed	Complete
2012	4	Consider increases for general conditions work for change orders only when time is extended.	Concur	Complete
2012	5a	Provide a format in e-Builder for processing CM/GC contract changes quickly.	Completed	Complete
2012	5b	Ensure that CM/GC change orders and draw downs receive appropriate approvals.	Completed	Complete
2012	6	Provide more information to evaluation committee to help in scoring proposals.	Completed	Complete
2012	7	Complete any VE, scope reductions, budget increases, etc by end of SD.	Completed	Complete
2012	8a	Modify SOPs to add more specific project contingency ranges at different design stages.	Nonconcur	Complete
2012	8b	Modify SOPs to add more specificity on how program provides project budget oversight.	Nonconcur	Complete
2012	8c	Develop comprehensive and detailed PTMP templates for renovation projects, new construction projects, and IP work.	Concur with comment	Complete
2012	8d	Hold PMs accountable for creating PTMP prior to beginning SD phase (at latest).	Concur with comment	Working
2012	8e	Develop and record lessons learned from completed projects.	Completed	Complete
2012	9	Modify SOPs to add specific guidelines for line item budgeting for master planning.	Nonconcur	Complete
2012	10a	Assess reasons for IP projects bidding over budgets.	Completed	Complete
2012	10b	Start design of IP projects earlier and issue ITB earlier.	Completed	Complete
2012	10c	Add minimum quals for designated systems into bid specs.	Concur	Complete
2012	11a	Provide greater oversight of program during transition period.	Completed	Complete
2012	11b	Update the PMP/SOP, and train/require staff to use it.	Concur with comment	Working
2012	12	Evaluate effectiveness of CM/GC and consider other delivery models.	Completed	Complete
2012	13	Procure CM/GC by beginning or mid-point of schematic design.	Completed	Complete
2012	14	Complete Ed Specs sufficiently ahead of master planning for projects.	Completed	Complete
2012	15	Allow CM/GC to procure subcontractors by competitive quote up to defined dollar limit without prior approval of district.	Completed	Complete

Audit Year 2016		Summary of Recommendations 24 Recommendations, 22 completed	Percent Completed 92% Completed
2016	8d	Status Notes on Recommendations Not Completed Final PTMPs have been completed for Kellogg, Madison, Lincoln and Benson. OSM has Procedure that requires completion of a PTMP before projects can proceed into SD Pha ensure compliance.	
2016	11b	The PMP/SOPs are reviewed and updated on an annual basis (please see 2017 audit fin updates). Comprehensive trainings were last provided in 2015. OSM is currently workin training staff as part of the update process. OSM will be requiring staff to acknowledge SOPs as published and on no less than an annual basis.	ng on an updated PMP and SOPs, and

2017 Bond Performance Audit Recommendations				
Bond Year	#	Abbreviated Recommendation	Response	Status
2012	1	Utilities for unoccupied sites should be paid for by the contractor.	Concur with comment	Complete
2012	2	Provide contingency in bond program budget for unforeseen scope changes.	Concur with comment	Complete
2012	3a	Do outreach to contractors.	Concur with comment	Complete
2012	3b	Research why contractors don't want to bid on PPS projects.	Concur with comment	Complete
2012	4	Develop a BIM model that works for both OSM and FAM.	Completed	Complete
2012	5	P&C and legal counsel to review all proposed contract changes.	Concur with comment	Complete
2012	6	Reduce profit and overhead percentages for change orders.	Concur with comment	Complete
2012	7a	Additional GMP contingency only allowed for scope increases.	Concur	Complete
2012	7b	Notify contractors of personnel's limits of authority.	Concur	Complete
2012	8	Start projects earlier and allow more time contingency in project schedules.	Concur with comment	Complete
2012	9	Hold CM/GC accountable for GMP. Identify what changes must be covered in the GMP.	Concur with comment	Complete
2012	10	At time of GMP amendment, identify alternates that could be added back later at the same price.	Concur	Complete
2012	11	Audit FHS and RHS CM/GC monthly billings. For GHS, evaluate benefit of monthly audit of billings against a schedule of values vs billings of actual costs.	Concur with comment	Complete
2012	12	Amend Heery contract to reflect levels of financial authority for Heery personnel.	Concur	Complete
2012	13a	Reduce employee turnover.	Concur with comment	Complete
2012	13b	Provide promotional opportunities when vacancies occur.	Concur with comment	Complete
2012	14a	P&C should stop scoring cost of work in CM/GC proposals and only score proposed fees.	Concur	Complete
2012	14b	Review and negotiate profit and overhead rates to ensure they are industry-standard.	Concur	Complete
2012	15	Update the PMP/SOP, and add a template for the PTMP.	Concur	Working

Audit Year	Summary of Recommendations	Percent Completed
2017	19 Recommendations, 18 completed	95% Completed

Status Notes on Recommendations Not Completed

Preliminary draft of the October 2019 PMP update has been distributed to operational staff for review. A template for the
PTMP was previously provided as part of the PMP; it has now been revised to better address project needs. SOPs are being developed on prioritized basis and rolled out bi-weekly at PM/CM dept meeting.

	2018: FHS/RHS Construction Audits Controls Recommendations			
Bond Year	#	Abbreviated Recommendation	Response	Status
2012	1	Require documented review and approval of all agreed upon self-performed work cost and pricing. Where insufficient competitive bidding is available for establishment of self-performed subcontract price: a) obtain independent cost analysis to support self-performed work pricing and negotiate a fair and reasonable price and/or b) price lump-sum work on a not-to-exceed cost reimbursable basis on future projects. Obtain self-performed work subcontracts to better establish self-performed work scope, pricing and payment terms. [FHS #12]	Completed	Complete
2012	2	Require visibility and reconciliation of project management systems and accounting systems of record utilized for project cost accounting and subcontractor payments. [FHS #13]	Concur with comment	Complete
2012	3a	Perform quarterly review of project change order files for application of expected cost analysis and related approval requirements. [FHS #14]	Concur with comment	Working
2012	3b	Add approval controls designed to prevent proceeding with work prior to full vetting of project design along with related budget. Verify architect progress against key milestones to help ensure timely and complete project work scope inclusion in plans. To prevent untimely and expensive owner-directed changes, require further approval controls for work scope modification. [FHS #14]	Completed	Complete
2012	4	To strengthen existing District controls over system information integrity and consistent with good payment application approval control practices, prior to each payment require eBuilder to include monthly secondary review of the reconciliation between District electronic records to Contractor cumulative payment application contract totals, commitments and costs incurred. [FHS #15, RHS #12]	Concur	Complete
2012	5	Require consistent and compliant application of contract rates to deduct change orders. [FHS #16]	Concur	Working
2012	6	On future projects, require contractors to identify and account for changes by contract line item and in compliance with contract requirements. Require maintenance of an allowance log that specifies budget as included under the GMP schedule of values, cost support for proposed uses of allowance amounts, approved allowance amounts used along with approval documentation by project allowance item. [FHS #17, RHS #13]	Concur	Complete
2012	7	Verify application of the contractual requirement for fixed fee calculation. [FHS #18]	Concur	Working
2012	8	For future projects, add approval controls designed to prevent proceeding with work prior to full vetting of project design, along with related budget and to reduce owner-directed changes, where possible. [RHS #10]	Completed	Complete
2012	9	Implement construction program oversight controls to document verification of independent cost analysis performed on self-performed work procurements, when District competitive bidding procedures are not applied. [RHS #11]	Completed	Complete
2012	10	District project management personnel should require visibility, timely access and sign- off on work cost application applied by the Contractor. [RHS #14]	Concur with comment	Complete

Audit Year 2018		Summary of Recommendations 11 Recommendations, 8 completed	Percent Completed 73% Completed
2018	3a	Status Notes on Recommendations Not Completed OSM is developing a Standard Operating Procedure for internal audits of change order	er files.
2018	5	This audit observation noted change order mark-ups had not been applied consistent reviewing the Standard Operating Procedure for change requests to ensure that this review of change orders.	,

Status Notes on Recommendations Not Completed

The audit observed the potential for fee calculations to become inaccurate over time as change orders are processed. OSM is working on modifying template contract language to require updated fee calculations based upon final cost of the work.

Recommendations Marked as Complete Since Last Reporting

2018 6 Allowance-tracking systems implemented in eBuilder after this audit finding address the concerns noted in the report.

2019 Phase 1 Bond Performance Audit Recommendations				
Bond Year	#	Abbreviated Recommendation	Response	Status
2017	1	Develop and consistently apply a formal cost estimation methodology across projects regardless if developed in-house or by external consultants, including documentation of the reasons for any deviations from the established methodology.	Concur	Complete
2017	2	Compare and analyze cost estimate assumptions and factors with historic practices and other comparable bonds or districts to determine whether adjustments to estimation methodology seem warranted.	Concur	Working
2017	3	Establish a central location to retain final estimates at each project phase (master planning, schematic design, design document, construction documents), including any supporting documentation used to develop each estimate.	Concur	Complete
2017	4	Discuss comparison of cost estimation methodology used with past PPS experiences, current market conditions, and estimates developed by peer districts when presenting cost estimates to the Board and public stakeholders.	Concur	Working
2017	5	Categorize the reasons for variances in project costs, and aggregate those changes to the program-level to provide information on why costs varied from original bond, as well as report this information to the Board and public stakeholders.	Concur	Complete
2017	6	Conduct an analysis to determine to what degree various factors, especially scope changes and changes in construction costs, caused an increase in construction costs for the 2017 Bond projects. This could include comparing assumptions used across various project milestone reports and/or reconciling line items amounts to subcontractor bids.	Concur	Complete
2017	7	Analyze results of variances to make adjustments to future estimation models and methodology as well as to analyze whether changes are needed in the delivery of projects to ensure stronger cost containment.	Concur	Complete
2017	8	Ensure project milestone reports use consistent data across all projects and clearly	Concur	Complete

<u>Audit Year</u>	<u>Summary of Recommendations</u>	Percent Completed
2019 Ph I	8 Recommendations, 8 completed	100% Completed

Recommendations Marked as Complete Since Last Reporting

2020 Bond planning efforts for modernization projects (as seen in the 2020 Conceptual Master Plan projects for Jefferson HS, Wilson HS and Cleveland HS) utilized professional cost estimators for hard costs. These professional cost estimators also provided recommendations for escalation and soft costs. Soft costs were reviewed against the cost estimating methodology already established by OSM, and were reviewed against historic performance. Escalation and soft cost assumptions were reviewed with the Bond Accountability Committee per their revised charter, prior to use for bond planning.

Regular discussion of cost estimation methodology using past PPS experiences, current market conditions and professional cost estimators took place with the Bond Accountability Committee and Board members as part of 2020 Bond planning efforts.

	2019 Phase 2 Bond Performance Audit Recommendations				
Bond Year	#	Abbreviated Recommendation	Response	Status	
2017	1	Develop a written plan for establishing and prioritizing corrective actions needed to address project delivery issues related to change orders, contractor invoices, and other recommendation noted in prior audits of 2012 Bond projects.	Concur	Complete	
2017	2	Develop a written plan or strategy for identifying and incorporating additional funding options if future bond funds are not available and regularly communicate and discuss progress with the Board and Bond Accountability Committee	Complete	Complete	
2017	3	Ensure cost estimates are fully documented with underlying support and rationale used for soft costs and FF&E - in addition to other cost components - including variations or deviations from stated methodology.	Concur	Working	
2017	4	Implement the new cash flow planning process as intended at the start of the Fiscal Year 2019-2020, and update cash flows regularly.	Concur w/ comment	Complete	
2017	5	Immediately allocate and concentrate efforts on completing the overdue Fiscal Year 2018-2019 reconciliations between e-Builder construction management system and the PeopleSoft financial system, as well as ensure future reconciliations are regularly performed in a timely manner	Concur	Complete	
2017	6	Update and re-issue the PMP, in addition to individual school PTMPs, as well as consider developing quick tools, guides, and checklists to help project teams implement the protocols identified in the PMP and PTMPs.	Concur	Working	
2017	7	Formally communicate, clarify and train OSM project teams and individuals involved with project delivery on existing document management protocols including requirements and expectations for usage.	Concur	Working	
2017	8	Standardize design deviation logs by identifying consistent information to be maintained for each project and ensure approvals are documented	Concur w/ comment	Complete	
2017	9	Establish a tracking mechanism to store proposed changes to Ed Specs and Design Standards in an accessible location	Concur w/ comment	Working	
2017	10	Supplement the "Decision Making Hierarchy" process with written guidance on what decisions to bring forward and elevate beyond the project team as well as train project teams on standard practice for value engineering deviations - as well as Ed Spec and Design Standard deviations	Concur w/ comment	Working	
2017	11	Better document lessons learned by: categorizing lessons learned log items into separate subcategory section allowing project managers to more easily identify relevant items; and summarizing lessons learned and regularly distribute or discuss items with project teams.	Concur	Working	

Audit Year 2019 Ph 2		Summary of Recommendations 11 Recommendations, 5 completed	Percent Completed 45% Completed
2019 Ph 2	3	Status Notes on Recommendations Not Completed OSM is working on revising its Standard Operating Procedure (SOP) on cost educumentation supporting cost estimates, in addition to continuing to direct	project management staff in best practices. Once
2019 Ph 2	6	the SOP has been finalized, this recommendation will be marked as complete Preliminary draft of the October 2019 PMP update has been distributed to o the PMP has been finalized, this recommendation will be marked as complet for staff will continue on an ongoing basis.	perational staff for review. Once this issuance of
2019 Ph 2	7	OSM has ordered and distributed PPS computer equipment for all non-PPS si performed on PPS equipment utilizing PPS document management systems. management was convened to develop revised file naming and document m convention is currently being tested prior to final implementation. Documen	A working group of staff and program anagement systems. A draft file naming
2019 Ph 2	9	Discussions are underway with the PPS teams that manage the Education Sp	ecifications and Design Guidelines.
2019 Ph 2	10	This recommendation is under review by the AIT. OSM is developing decisio identify inconsistencies or questions that will need to be addressed by the gu	
2019 Ph 2	11	A working group of staff and program management developed a new collect filtering and reporting. Project staff are currently testing the system before	

Recommendations Marked as Complete Since Last Reporting

- OSM has completed implementation of a standardized, monthly, project cash flow planning process using eBuilder, for both the large capital projects as well as the Health & Safety projects. Due to the minimal changes that occur in a month's span, program management cash flow planning has historically been performed on a quarterly basis, and will remain on that timeline.
- 2019 Ph 2 5 OSM hired an additional financial analyst in 2019. Reconciliations are now consistently completed within 30 days of prior month closing. Outliers found through these reconciliations are addressed in a timely manner.

2020 Bond Performance Audit Recommendations				
Bond Year	#	Abbreviated Recommendation	Response	Status
2017	1	Provide the Board an analysis discussing implications if voters do not approve the November 2020 Bond on the Benson High School Project, in particular, as well as other 2017 Bond projects, as appropriate. At the minimum, this analysis should provide cash flow projections for the Benson High School project, and deliberate on the effects of a full faith and credit loan option to ensure the Board can make informed decisions going forward.	Nonconcur	Complete
2017	2	Implement plans to ensure project team members have needed access to e-Builder and that key non-PPS employees in critical project roles have computers to access project information.	Completed	Complete
2017	3	Revisit systems and tools used on a go-forward basis for capturing H&S project expenditure and status data to be able to more efficiently generate reliable data to address H&S project status reporting needs to oversight bodies and the public.	Concur with Comment	Working
2017	4	Complete the development of the interactive map tool and ensure the map is supplemented with summary information about the H&S program. At the minimum, the public information should provide common data from each H&S category in a standardized format that provides easy tracking of current budget, schedule, status, and delivery plans in relation to initial Bond plans.	Concur	Working
2017	5	Require and maintain more consistent documentation associated with the review of price proposals or quotes from construction contractors related to change orders through means such as incorporating project team notes, uploading negotiations in email correspondence, or marked-up price proposals, into the e-Builder system to provide evidence of OSM's due diligence in reviewing contractor change order prices.	Concur	Working
2017	6	Prohibit contractors to perform any work for the district until a fully executed contract is in place or a formal written authorization is provided to allow for pre-contract execution work to start.	Concur with Comment	Working
2017	7	Conduct a post-project completion analysis for the Madison and Lincoln High School projects to evaluate benefits and challenges of the CM/GC delivery method overall, as well as specific aspects such as timing of Guarantee Maximum Price (GMP) contract amendments, and make process changes as warranted. The evaluation should consider components suggested by ORS279.103 and provide a comparison of actual project cost against original project estimates, change order number, value and type, as well as descriptions of success and failures during design and construction.	Concur with Comment	Working
2017	8	Memorialize and discuss underlying rationale and decisions related to the timing of GMP negotiations with the Bond Accountability Committee, and present to the Board for future CM/GC GMP contract amendments as appropriate.	Concur with Comment	Working
2017	9	Clarify and incorporate language in CM/GC contracts, as appropriate, related to contractor financial records in accordance with generally accepted accounting principles.	Concur	Working
2017	10	Address inconsistencies between the contract for architect/engineer services and the CM/GC contract for construction services related to the timing of reconciled cost estimates for future projects by ensuring that the same deliverable milestones are included in both contracts.	Concur	Working
2017	11	Evaluate payment terms and conditions for all H&S low-bid lump-sum contracts to ensure consistency between procurement documents, contract language, and actual payment process practices.	Concur	Working

Audit Year 2020		Summary of Recommendations Percent Completed 11 Recommendations, 2 completed 18% Completed
		Status Notes on Recommendations Not Completed
2020	3	This recommendation is under review by the AIT.
2020	4	An interactive map tool has been developed and added to the Bond website. Staff are working on updating existing program information on Bond web pages to ensure that the program status data available to the public for each H&S category is standardized and easily accessible.
2020	5	This recommendation is under review by the AIT.

		Status Notes on Recommendations Not Completed
2020	6	This recommendation is under review by the AIT.
2020	7	Post-project analysis of the Madison and Lincoln High School CM/GC contracts is already required by Portland Public Schools Public Contracting Rules for contracts procured through an alternative delivery method, following the requirements of ORS 279C. However, this analysis cannot be completed until after the later of the date of final payment or the date of final completion. As such, this recommendation will not be able to be resolved until 2022 at the earliest for the Madison project and 2024 at the earliest for the Lincoln project.
2020	8	This recommendation is under review by the AIT. GMP timing has already been set for all of the current 2017 Bond CM/GC projects, so this recommendation will not be able to be resolved until a new CM/GC project is undertaken.
2020	9	This recommendation is under review by the AIT.
2020	10	This recommendation is under review by the AIT.
2020	11	This recommendation is under review by the AIT.
2020	1	Recommendations Marked as Complete Since Last Reporting The Board has already made the decision, noted in Board Resolution 5780, that if the November 2020 Bond does not pass, a full faith and credit bond will be used to fund the remainder of the Benson High School project. Cash flow projections for the project were developed and used in discussions with the Board regarding future bond funding and timing needs. If the November 2020 Bond does not pass, these cash flow projections will be used to determine the amount, timing, and repayment plans of a full faith and credit bond.
2020	2	Previously, project consultants and contractors were limited by OSM in how many accounts they could have to access eBuilder. OSM has moved to an unlimited license model with eBuilder and is now allowing consultants, contractors and their subcontractors unlimited account access. OSM has also purchased PPS computers for all full-time, contracted staff to allow for easier access to PPS network drives.