



2014 Bond Program Cost Management and Control Plan

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Bond Program Cost Management and Control Plan

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Attachments

- A. Bond Program Budget Management Work Process
- B. 2014 Bond Financial Summary – Overall Program Cost Forecast and Available Funding

References

- (a) Beaverton School District Facility Plan 2010
<https://www.beaverton.k12.or.us/depts/facilities/development/Documents/Final%20Document%20Full.pdf>
- (b) Beaverton School District 2014 Bond Program
<https://www.beaverton.k12.or.us/depts/facilities/Pages/2014-Bond-Program-Project-List.aspx>
- (c) Beaverton School District Educational Specifications
<https://www.beaverton.k12.or.us/depts/facilities/development/Pages/Educational-Specifications.aspx>
- (d) Beaverton School District Technical Standards
<https://www.beaverton.k12.or.us/depts/facilities/development/Pages/default.aspx>
- (e) Deviation from Standards Process (DSR Process in eBuilder, documented in DSR Standard Operating Procedure)

Bond Program Cost Management and Control Plan

Section 1, Purpose

It is essential that the 2014 Bond Program be fully delivered meeting the pledge the Beaverton School District made to voters when they supported the Bond Measure. Management of Program costs and scope are recognized to be critically important to this effort. It is also essential that reporting tools be used to support communication with the community and District staff which create transparency and credibility.

This Plan documents the strategy and procedures used by Beaverton School District to manage and control costs associated with the implementation of the 2014 Bond Program. It contains information about the foundational development of the Program projects and establishes cost management procedures to be used, authorities delegated to staff, and reporting requirements. The Plan covers all elements of the Bond Program including the non-construction components such as *Critical Equipment Purchases* and *Learning Technology*.

Section 2, Program Scope Definition

Scope-~~creep control~~ is always ~~a significant risk factor to an~~ important consideration in managing capital program budgets. It is critically important to clearly define the scope of the work upon which budgets are created, especially with a Program such as the 2014 Bond, which is very large with ~~many~~-many projects, spanning an 8-year period. Project scopes are based upon the original 2014 Bond project documentation and include work that is necessary or required to deliver the intended scope. Code standards, jurisdictional requirements, and differing site conditions are not scope changes. Similarly, bidding market conditions, weather impacts, design refinements, and contractor claims are not scope increases. Scope changes include discretionary and significant modifications to the functional purpose of the project, or discretionary and significant space additions/deletions. Several complementary elements are in place to provide tools for scope containment on this Program.

Beaverton School District Facility Plan 2010, Reference (a). Large school districts in Oregon are required to develop a long range Facility Plan forecasting needs 10 years into the future. Beaverton School District updated its Plan in 2010 and chose to look 15 years (2025) into the future in order to establish a more solid basis for projecting school needs. The District's 2010 Facility Plan considered:

1. Projected enrollment
2. Existing school capacity
3. Existing schools' condition and improvement needs
4. Site characteristics (size) and features (number and type of fields, etc.)
5. Recommendations for capital investments for repairs, for new schools to address capacity needs, and for additional school sites to be acquired

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This Facility Plan was the guidance document underpinning requirements developed for the 2014 Bond Program.

Bond Program project definitions. The Bond Program project content was developed and refined in 2013. ~~Line-item~~Project budget estimates were also established at that time. Based upon the work of a senior-level District Steering Committee supported by technical studies conducted by staff and consultants including architects, engineers, and cost estimators, a candidate list of projects was reviewed and processed by a Bond Citizen Involvement Committee (BCIC) in the fall of 2013. Documents provided to the BCIC included ~~project-level~~ descriptions of the scope and cost estimates for all of the ~~Program line-items~~projects. The BCIC processed this information and recommended a Bond Program package to the Superintendent, which was ultimately approved by the School Board with a resolution to submit the Program to the voters at the election in May 2014. The ~~project-level~~ documents, with their scope definitions, provided the foundation of the information provided to voters about what the Bond Program would deliver and they remain valid. These approved scope and budget documents are provided to District Bond Program Project Managers assigned to execute projects, District principals and other staff who are the beneficiaries of the completed projects, and to design teams of architects and engineers who provide the detailed designs for construction projects. The overall Bond Program and project documents compiled in Reference (b).

Section 3, Design Standards

Design Standards also provide a key element of project scope definition at a more detailed and technical level. Three different types of standards have been developed for the 2014 Bond Program: Educational Specifications, Technical Design Standards, and Security Standards. There is also a formal deviation process to consider individual design features that may need to differ from the Standards due to specific circumstances relevant to a particular project or to embrace new technical information.

Educational Specifications Reference (c). In 2013, Beaverton School District embarked on a process of development of new Educational Specifications (Ed Specs) for the planning and design of school projects in the 2014 Bond Program. An Educational Specification is a document facility planners, architects and engineers use to develop, plan and design new schools or modernize existing ones. Ed Specs describe the facility vision, spaces, relationships between spaces and specific physical characteristics of each space in a new or modernized school.

The basis of the Ed Spec is the educational program. Educational programs require space which needs to be configured with certain physical attributes and characteristics. In essence, the shape and nature of place supports educational programs. Without a place to teach and careful consideration of a school's educational needs, learning is impacted.

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Effective school facility planning is characterized by extensive input, research-based analysis of educational trends and conditions, and documentation of building user needs. The development of Beaverton School District's Educational Specifications required a multi-faceted 13-month process involving nearly 150 representatives from a wide variety of district programs and schools. A three-step methodology was utilized to assess BSD's current and future educational programs, develop planning and design characteristics for District schools, and translate building user needs into specific space requirements.

These Ed Specs, over 1,000 pages in length, define the architectural program for new schools at all levels: elementary school buildings, middle school buildings, and high school buildings. They were finalized and approved in May 2014 and are provided to architectural firms as the basis of design for new schools. In some respects, however, they are an aspirational vision of the ideal school building and provide guidance for new school designs. They are not minimum standards. The art of the design work is to balance constraints of the site, project budget, and scope promised to the voters, while achieving an outcome as close to the Ed Specs vision as is practical.

Technical Design Standards, Reference (d). The Technical Standards provide uniform and consistent quality standards for design and construction of all District facilities. They outline the minimum acceptable standards for products, materials and systems used in all facility improvements, including new construction, renovation, remodeling and maintenance. The numbering for the Technical Standards loosely follow current Construction Specifications Institute Master Format, 2010 edition.

Beaverton School District seeks to procure products and materials through open, competitive bidding to the greatest degree possible. However, in order to control costs and ensure long-term maintainability, the District prefers known or proven products and materials to unknown or experimental items. In accordance with ORS 279C.345, the School Board has, from time to time, approved a list of brand name products that will be used for construction projects. When a product specification is followed by "or equal," it is being used as the Basis of Design, an alternate product requires District approval.

Security Standards. Because of the changing environment in which we live, it was deemed important to develop a set of new standards that would guide the design of building and site features that would better protect students and staff from active threats. The Security Standards are provided to the District's design firms to ensure their uniform application in new school designs and to guide the Bond Program line-item *Security Upgrades* to existing schools. Some of the details of these features are not public, however in general, active threat security design standards for buildings and sites are defined as those physical features that significantly contribute to one or more of these:

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1. Attack prevention or deterrence (barriers)
2. Impede (slow down) the attacker's effectiveness
3. Notification to first responders about an active threat

Physical features in the Security Standard address:

1. Building access control
2. Site access control
3. Communications systems
4. Visual screening
5. Locks for interior building doors

Deviations from Standards Process, Reference (e). There is a formal process for requesting a deviation from any of the three types of Design Standards. Deviation requests are typically initiated by our consultants early in the design process or by project stakeholders as the designs progress. Drivers can be circumstances relevant to a particular project or to embrace new technical information.

The Deviations to Standards Process (DSR) in eBuilder (the Bond Program Management Software platform) can be initiated by project team members. Required process inputs include rough order of magnitude costs or savings, schedule impacts or benefits, supporting documentation, and a classification of whether or not the item is outside of the scope of the original intent, i.e., a want. The process moves through various stakeholder reviews including consideration of budget, maintenance impacts, life-cycle cost analysis, district-wide implications, etc. Changes to the Ed Specs require approval by a Deputy Superintendent. Changes to the Technical Standards require approval by the Executive Administrator for Facilities. Changes to the Security Standards are under the purview of the District Safety Committee.

Section 4, Project Budget Management Work Process

Project managers operate in a highly dynamic environment where good judgement and rapid decision-making are essential. In order to provide budget management guidance and delegation of appropriate levels of authority to project managers and senior staff, the District created the *Bond Program Budget Management Work Process* in 2014. This Work Process was recently updated to reflect the School Board's adoption of a recommendation from the Citizen Bond Accountability Committee. This document provides the project teams with policy and guidance in these areas:

1. Guiding principles
2. Delegation of authority levels
3. Initial project budgets

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4. Changes to project budgets
5. New projects
6. Monitoring and reporting

The details are found in the *Project Budget Management Work Process* document, Attachment (A). [The original document \(dated 10/2/2014\) has been updated to be consistent with the Bond Program Cost Management and Control Plan.](#)

Section 5, Project Management Techniques

The project management team uses a wide array of tools and approaches to control project scope, cost, and schedule during the design and construction phases of projects. Some of the key techniques are included below.

Bidding construction projects early in the season. The construction market in the Portland area is saturated with work. Demand for quality contractors and workers is very high and straining the supply of these resources. Market conditions, coupled with the fact that many School District construction projects must be fitted into the narrow summer break period, are both negatively impacting costs. These realities make it doubly important to bid projects early, preferable in January, in order to secure contractor capacity while it is still available and to allow early ordering of long-lead equipment items in order to get the best pricing possible. In addition, to generate more interest in bidding our work, staff will conduct a contractor trade show in the fall in order to share information about projects in the pipeline for the following summer.

Early Initiation of Land-Use Process. Permitting jurisdictions normally allow applicants to utilize a pre-application process in order to shorten the overall time required to obtain land-use permits. This approach should be used for all large projects.

Architect & Engineer (A&E) Selection Process. Cost management of design work must be approached differently than for construction contractors. State law requires use of a qualifications-based competition for A&E services [on publicly funded projects](#). Price cannot be a consideration. Design fees are negotiated after the most highly qualified firm is selected. The School District must carefully negotiate reasonable fees based upon the size and complexity of the project. Oregon has no fee guidelines, thus the School District has adopted fee guidelines set by the state of Washington and included this stipulation in our A&E solicitation documents.

Construction Manager/General Contractor (CM/GC) vs. Hard Bid for construction contracting. The School District has used both approaches depending upon the circumstances. It is

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important to consider the advantages of each method recognizing that one approach is not the best in every situation.

CM/GC benefits include:

- The contractor's construction manager staff is part of the owner/designer/builder team early before the design is completed providing opportunities for timely cost-saving constructability reviews, discovery of design errors, and value engineering input.
- The contractor is more of a full partner with the owner and designer often resulting in better collaboration, problem-solving, and flexibility to accommodate school schedules.
- The contractor is selected using a qualifications based process rather than low bid.
- The work, especially site work, can be initiated before the design is 100% complete which shortens the overall project schedule since some construction work can be concurrent with the design activities. In addition, the lengthy procurement process following final design needed in order to hard-bid a construction contract is avoided.

Hard-bid benefits include:

- This method avoids the cost of construction manager services and the CM/GC fee.
- The initial construction price may be less, but could be offset by change orders that may not arise under the CM/GC model.

The School District ~~will be~~ is concurrently constructing two new K-5 schools (Vose and the North Bethany K-5 at Kaiser Rd) using a site adapted prototype building design. Because of the need to start site work early at Kaiser Rd, CM/GC is being used for that project. For Vose, which ~~cannot~~ could not start until school ended ~~in~~ in June 2016, a modified version of hard-bid ~~is being~~ was employed. In this case, the District ~~has~~ chosen to hard-bid the construction from a pool of prequalified contractors. This will be an ~~great~~ opportunity to compare the actual benefits of each approach since we will be ~~are~~ the District is constructing the same building at the same time in the same market. Analysis of the results will be conducted after the projects are completed to better understand the pros and cons of the two methods.

Timing of setting Guaranteed Maximum Price (GMP) on Construction Manager/General Contractor (CM/GC) contracts. Due to schedule constraints imposed on the high school project that required constant restructuring of the work sequencing, the GMP was set after the construction documents were about 80% complete. That is not ideal from an owner's-risk perspective. Going forward, the goal will be to negotiate the GMP at the 100% Design Development stage, before the start of the construction document phase of design. That approach has already been applied for the new K-5 at Kaiser Rd.

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[Change orders to construction contracts. Change orders are common and expected during construction contracts. Each change order will be classified as to the cause of the change in order to develop a consolidated record of change order drivers and costs. As part of an on-going lessons-learned effort, the Bond team will annually review this data and submit a report to the Citizen Bond Accountability Committee for review.](#)

Section 6, Additional Sources of Funding

Several additional sources of funding to support the capital program are available to augment the \$680 million Bond approved by voters.

Bond Sale Premium. The District received a premium of about \$63 million from the first Bond sale. Bond counsel has advised that this funding is fully available to the District to apply to capital projects. This funding may not be used for operational expenses. Future Bond sales may, or may not, also produce a premium, but none has been assumed to be available at this time.

Bond Interest Earnings. The proceeds from the first Bond sale have been invested in low-risk financial instruments being drawn down as the cash-flow needs of the Program require. These investments are estimated to earn about \$5 million. This funding may not be used for operational expenses. Future Bond sale proceeds will be similarly invested, but interest earnings have been assumed to be available at this time.

Construction Excise Tax Revenue. The District receives Construction Excise Tax Revenue (CET) as new construction permits are issued for projects within the Beaverton School District service area. By State law, these funds may only be used for capital expenditures. The District has already committed a significant amount of this revenue to support debt service for a Full Faith and Credit Bond which funded capital projects completed several years ago. Beyond existing commitments, there is additional revenue that can be applied to the current capital program. CET funding in the amount of \$1 million has already been applied to fund scope increases to the Capital Center Renovation project for relocation of the Bridges Academy program and remodeling of staff professional development spaces. Beyond that amount, a conservative estimate of future CET revenue indicates about \$56.4 million through 2021 is available to the capital program.

State Facilities Grant. State funding is available to support capital projects that create new capacity for students. The current statutory authority and funding will expire at the end of the current biennium (July 1, 2015 – June 30, 2017) unless renewed and funded by the Legislature in the next biennium. During the current eligibility period, the District will complete one major project that increases capacity (new middle school) and one small expansion at Raleigh Hills K-8. It is estimated that the District will receive about \$2.5 million from the State Facilities Grant

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(SFG) for these projects. If the Legislature reauthorizes this grant program for the next biennium, significant additional SFG funding will be available to the District for the new high school and new K-5 school, but will be assumed to be forthcoming pending action by the next legislative assembly.

2006 Bond Fund Balance. The projects in the 2006 Bond Program were completed under budget. About \$576,000 was available and has been used to supplement 2014 Bond funding.

Other Funding. Additional grants and reimbursements are available from several sources. They include: Capital Center Building rent revenue, Tualatin Hills Park and Recreation District contributions to partially fund turf field replacements at high schools, energy conservation reimbursements from the SB 1149 program and from the Energy Trust of Oregon, and State seismic retrofit grants.

The total available funding is managed as a consolidated pool of funding eligible to be used as needed within the overall Bond Program, except for projects listed in Section ~~7~~⁶, items 1-7, which are being managed ~~as with fixed-cost budget line items~~^{as with}. The priority for use of the ~~additional funding available~~^{Program Reserve, which represents funding available} to the Bond program ~~but not yet allocated to any project budget~~^{but not yet allocated to any project budget}, will be to ensure that all projects promised to the voters will be executed. If ~~Program Reserve~~^{Program Reserve} funding ~~remains~~^{remains} available ~~near the end of the Bond program in 2021 or 2022~~^{near the end of the Bond program in 2021 or 2022}, an investment strategy for these resources ~~that considers adding new projects~~^{that considers adding new projects} will be developed for School Board consideration. A report has been developed to account for all the funding sources available to the District for this capital program along with the cost estimates of the projects. These data are presented on the *2014 Bond Financial Summary Overall Program Cost Forecast and Available Funding* spreadsheet. Attachment (B) [is the December 2016 edition of this spreadsheet](#).

Section 7, Project Cost Estimates Updating Strategy

The 2014 Bond Program contains a variety of investments with several different cost control mechanisms. In addition, cost forecasting for the construction projects inherently has a variable level of precision depending upon the status of the work on individual projects. The closer to completion a project becomes, the costs are more certain. Conversely, for construction projects that will not start for several years, cost estimating and forecasting is more problematic. This is especially true before architectural and engineering designs commence. It is imperative to make a fresh evaluation of the forecasted costs of the total program matched up with the total amount of funding available.

A number of items in the Bond Program will be managed to the original budgets while meeting the commitments made to voters. These total about one-third of the budgets for the original Program line-items (excluding the Program Contingency and Program Inflation budgets).

1. District-Wide ADA Compliance Improvements (\$2 million)
2. District-Wide Facility Repairs (\$98 million)

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3. District-Wide HVAC Controls (\$800,000)
4. Green Energy Technology (\$5 million)
5. Security Upgrades (\$10 million)
6. Learning Technology (\$56 million)
7. Equipment Purchases (\$24 million)

As construction projects progress through their execution cycle, updated cost estimates are being continually developed. The milestones selected for updated cost estimates depend upon the size and complexity of the project. For large projects, updated estimates are important at three key design milestones:

- Completion of Schematic Design
- Completion of Design Development
- Completion of Construction Documents

Estimates are developed at these milestones for large projects by both the design team (or, in the case of a CM/GC procurement, the construction manager) and an independent cost estimating firm working directly for the School District.

Except for four key projects, all other major construction projects have progressed to the point where updated cost estimates are available based upon actual design work or construction in progress or completed. Estimates for the on-going projects have been independently reviewed and validated by the national construction cost estimating firm of *Rider Levett Bucknall* (RLB). The four projects yet to be started are: ACMA Replacement, Five Oaks Middle School Renovation and Expansion, Maintenance Facility Improvements, and Raleigh Hills K-8 Improvements. Although some of these are not scheduled to be started for some period of time, in order to develop a high confidence level in the forecasted cost estimates, the District ~~contracted with~~ ~~has released a request for proposals from~~ consultants ~~to begin pre-design~~ who have now completed schematic design work and ~~develop~~ ed more precise cost estimates, ~~which will be required from these firms using their own cost estimating consultants.~~ These estimates ~~will be reviewed~~ have been validated for the District by RLB. Because of the construction market volatility experienced during this Bond program, each of these project budgets includes a 20% contingency. ~~In the meantime, the District is using RLB construction cost inflation factors forecasted several years into the future to update estimates for these four projects.~~

~~Work on~~ the replacement projects for William Walker K-5 and Hazeldale K-5 ~~has not started. However, since the District is using~~ are based upon a prototype design for the buildings, which was completed for the new K-5 in North Bethany and Vose K-5 replacement, Site development planning has also been completed. ~~The costs~~ budgets for these ~~buildings projects have~~ can now be forecasted with fairly high confidence, ~~which is important as that represents the major portion of the costs. However, site development and off-site improvements are unique to every project and these costs remain less certain although they have much less impact on overall project costs.~~

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Section 8, Reporting

Monthly Bond Financial and Status Reports. Monthly reporting of the financial status of the 2014 Bond Program has been on-going since 2014. These reports have been augmented with the *2014 Bond Financial Summary Overall Program Cost Forecast and Available Funding* spreadsheet. Attachment (B) is the ~~March 2016~~ December 2016 edition. This spreadsheet provides the best information available about current forecasted costs of the total program matched up with the current total amount of funding available ~~and shows thus providing a balance sheet presentation of the financial status for the entire Program~~ the amount of the Bond Program Reserve which represents funding available to the Bond program but not yet allocated to any project budget. The combination of Program Reserve and Project Contingencies is also reported to provide a key perspective of the financial status of the overall Bond program.

Commitments to the Community. A 2014 Bond ~~Ballot Measure Mailer~~ was published by the School District as an informational document explaining to voters what the proposed Bond program would deliver. It contains a list of specific projects and improvements for each school. Progress toward completing all the items on this Mailer will be tracked and periodically reported to the Citizen Bond Accountability Committee.

Bond Program Budget Management Work Process

Background

This work process addresses the major elements for conducting effective budget management of Beaverton School District's 2014 Bond projects. BSD will use two cost systems to record and manage information about project costs, IFAS and e-Builder. IFAS provides the official accounting records for all BSD expenditures, while e-Builder provides real-time cost and budget management information for Project Managers and other District staff. The coordination of data between these two cost systems will be led by the BSD Facilities Budget Specialist with support from bond accounting staff, however, Project Managers are responsible for budget planning, cost data entry, invoice approval, and cost management through e-Builder.

Budget Management Guiding Principles

- A. Project quality, maintainability, and life cycle cost considerations are more important than the first cost to construct.
- B. The project management team will deliver the intended scope as described in the original bond program documents. Project budget surpluses will be placed in the Program Contingency Reserve rather than be used to expand the scope of the project.
- C. If a planned project is no longer valid, the funding for that project will be placed in the Program Contingency Reserve, except for the Major Repairs District-wide Facility Repairs component of the Bond, which is addressed in paragraph 4 below.
- D. Value Engineering may be used to help control project costs, but will be applied in a manner that does not significantly impact the project scope or quality.
- E. Project-level budget adjustments will be made subject to the Construction-2014 Bond Program Budget Management Controls matrix at Exhibit A.
- ~~E.F.~~ Project scopes are based upon the original 2014 Bond project documentation and include work that is necessary or required to deliver the intended scope. Code standards, jurisdictional requirements, and differing site conditions are not scope changes. Similarly, bidding market conditions, weather impacts, design refinements, and contractor claims are not scope increases. Scope changes include discretionary and significant modifications to the functional purpose of the project, or discretionary and significant space additions/deletions.

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1) Establishment of Project Budgets

- a) **Original Budget.** The total amount of the Original Budget in e-Builder must match the amount in the Bond program for the project as of May 2014. Project budget breakdowns are established by the Project Manager (PM), approved by the Administrator for Facilities Development (AFD), and then entered into e-Builder by the PM during project setup (also see Project Setup Work Process). The standard budget breakdown template located in e-Builder will be used, however PMs may select the line-items to apply based upon relevance to the specific project. At the summary level, the standard budget elements will include:
- i) Professional Services
(i.e., A/E design services, specialty consultants, and pre-construction services from CM/GC contractors.)
 - ii) Construction
(i.e., all construction work, which might include multiple contracts.)
 - iii) Owner Costs
(i.e., permitting, special inspections, in-house work, monitors, and FF&E.)
 - iv) Project Contingency
The target initial project contingency is 10% of total project budget for most projects. Exceptions must be approved by the Administrator for Facilities Development. Project contingencies are carried internal to the project budget.
- b) **Original Budget Record.** The Original Budget record, including all line-item budget components used, will be retained unchanged in e-Builder as a reference point through the life of the Bond program.

2) Changes to Original Project Budgets

- a) **Increases.** The total amount of a project budget may be increased only in accordance with the Guiding Principles and the ~~Construction 2014~~ Bond Program Budget Management Controls matrix, ~~at~~ [Table 1](#).
- b) **Project Contingency.** ~~The project contingency is part of a project's budget. PMs will manage allocation of the project contingency budgets. Targets for standard projects are established in the table below. Before allocating contingency resources that will reduce the remaining~~

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~~percentage below the target, the PM will consult with the AFD.~~ Targets for non-standard projects will be approved by AFD. Use of project contingencies will be as defined in 2014 Bond Program Budget Management Controls, [Table 1](#).

Standard Project Contingency Targets	
Original Budget	≥ 10%
Foundations and Underground Work Completed	≥ 7%
50% Work-in-Place	≥ 5%
100% Work-in-Place	≥ 2%
Substantial Completion with no Significant Claims Pending	≥ 0%

- c) **Program Reserve.** [Program Reserve is funding available to the Bond program but not yet allocated to any project budget. Funding from Program Reserve may be added to project budgets in accordance with Table 1.](#)
- d) **Reductions.** Project budgets will be reduced by the AFD or Executive Administrator for Facilities (EAF) based upon forecasted cost savings when deemed appropriate considering factors including the PM’s estimated cost at completion and the remaining cost-related risk to the project. Savings taken from a project will be posted as additional resources in the Program ~~Contingency Reserve~~ in the monthly [2014 Bond Financial Summary Overall Program Cost Forecast and Available Funding](#)~~Bond Financial Summary Report.~~ [report.](#)
- 3) **New Projects.** Projects not specifically included in the original Bond program may be added with the approval of the School Board.
- 4) **~~Major R~~District-wide Facility Repairs.** The Bond program includes a budget of \$98 million for District-wide ~~major-facility~~ repair and improvement work as documented in Maintenance Department records. The total budget estimate for this work is supported by rough cost estimates of hundreds of individual ~~repairline-~~ items reflecting both the backlog of needed repairs in 2013 plus a forecast of probable requirements over the course of the 8-year Bond program. Consequently, actual costs of individual items are expected to vary considerably and the ~~line-item content of the repair program~~[individual repair items themselves](#) will evolve depending upon actual needs. This ~~subcomponent of the overall Bond program~~[Bond project](#) will be managed within the original \$98 million budget unless additional funding becomes available. [In Some cases, repair items together with their associated budgets will be moved into other major projects for efficiency of executing the](#)

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[work.](#)

- 5) **Security Projects.** Security projects identified by applying the District Security Standards to existing buildings will be approved by the District Safety Committee within the Bond program original budget for security upgrades.
- 6) **Other Improvement Projects.** Project groupings including Kitchen Improvements, ADA Compliance, Fire Protection, Green Energy Technology, and Seismic Upgrades will be managed in the same manner as ~~Major District-wide Facility~~ Repairs.
- 7) **Equipment and Learning Technology.** The Critical Equipment Purchases and Learning Technology budget components of the Bond program are separate from this document and are managed by the Deputy Superintendent for Teaching and Learning, Chief Information Officer, and Chief Financial Officer.
- 8) **Monitoring & Reporting**
 - a) **Current Budget.** The Current Budget in e-Builder will be used by the PM to reflect approved changes to the original project budgets. PMs may move funding between budget line-items, including allocation of the project contingency when needed, provided that these adjustments are in accordance with the Guiding Principles. Increases in total project budgets are subject to review and approval specified in the ~~Construction 2014~~ Bond Program Budget Management Controls matrix, Table 1.
 - b) **Estimate at Completion and Contingency Estimate.** PMs will update the [project Contingency Estimate at Completion](#) in e-Builder when significant changes occur, but not less often than at the end of each calendar month. ~~The Estimate at Completion is defined to represent the PM's best forecast of the total final project cost projected forward to the completion of the project. It is expected that this number will change, up and down, during the execution of a project, and should not be artificially constrained by the approved project budget amount.~~ Comparing this ~~forecast estimate~~ with the [project budget contingency targets](#) will be a key management tool for identifying budget problems early when the most flexibly exists to address them. [The Estimate at Completion is the forecasted final cost of a project and is updated in concert with Table 1 when the project contingency estimate is insufficient.](#)
 - c) **Financial Reports.** Bond program financial reporting will be provided to the District Business Office by the AFD and EAF. A monthly overall Bond Financial Summary Report will reflect the

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budget status of each ~~major~~ project in the program reconciled to the total funding in the program. This report will also be posted on the District webpage and provided to the Bond Accountability Committee at its regular meetings.

- d) **Balanced Scorecard Report.** A monthly Bond Program Balanced Scorecard Report will include budget status information for construction projects and be posted on the District webpage and provided to the Bond Accountability Committee.

~~9) **Work Process Changes.** Minor changes to this Work Process may be approved by the EAF or the AFD and must be documented in published revisions to this document. Significant changes are subject to Deputy Superintendent approval.~~

Table 1
2014 Bond Program Budget Management Controls

10/2/2014
Rev 4/28/2016
Rev 1/xx/2017

Bond Project Budget Change Category	Responsibilities											Reporting
	PM	AFD	AMS	EAF	CFO	Deputy Sup	Cabinet	Sup	BAC	Board		
Added Projects		P/R		P/R	P/R	P/R	R	R	R	A		SB-R and BFR
Use of Budgeted Project Contingencies												
Contingency Amount < \$50K for each change	P	A										eB and BFR
Contingency Amount > \$50K for each change	P	R		A								eB and BFR
Increases to Project* Budgets from Program Reserve												
≤ \$500K or ≤10% for each change, whichever is less	P/R	P/R		A								eB and BFR
> \$500K up to \$1M or ≤ 20% for each change, whichever is less	P/R	P/R	P/R	P/R		A						eB and BFR
> \$1M or > 20% for each change, whichever is less	P/R	P/R	P/R	P/R	R	R	R	R	R	A		SB-R and BFR
District-Wide Facility Repairs												
Budget and Repair Item Changes	P/R	P/R	P/R	A								eB
Definitions												
Roles						Responsibilities						
PM	Construction Project Manager					A	Approval					
AFD	Administrator for Facilities Development					P	Propose or Initiate					
AMS	Administrator for Maintenance Services					R	Review and Forward with a Recommendation					
EAF	Executive Administrator for Facilities											
CFO	Chief Financial Officer											
Dep Sup	Deputy Superintendent for Operations and Support Services											
Cabinet	District Senior Leadership Team											
Sup	Superintendent											
BAC	Citizen Bond Accountability Committee											
Board	Beaverton School District Board of Directors											
							Reporting Tools					
							SB-R School Board Resolution					
							BFR Monthly Bond Financial Reports from Bond Team					
							eB e-Builder Project Management Information System					
2014 Bond Project List												
Modernization: Replacement Projects				Modernization: Regulatory Compliance				Technology				
* Arts and Communication Magnet Academy				District-wide ADA Compliance				HVAC Control System Upgrade				
* Hazeldale K-5				Domestic and Fire Protection Separation				IT Data Center at Capital Center				
* Vose K-5				Green Energy Technology				Unified Communication System				
* William Walker K-5				* Title IX Compliance; Sunset & Aloha HS				Learning Technology: Classroom Systems				
				McKay K-5 ADA Upgrades								
				Security Upgrades								
				Seismic Upgrades				* Bond Implementation/Management Cost				
Modernization: Renovation Projects				New Capacity								
Capital Center Building Improvements				* New Elementary School Site, Land Acquisition								
Critical Equipment Purchases				* New High School								
* Five Oaks Middle School				* New K-5 in North Bethany								
* Maintenance Facility Improvements				New Middle School on Timberland Site								
District-wide Facility Repairs												
* Raleigh Hills K-8												
School Kitchen Improvements												
Springville K-8												
<div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>* Note: Only these projects are eligible for budget increases. The others are managed on a fixed-budget basis (see Section 7 of the <i>Bond Program Cost Magement and Control Plan</i>), or as of January 2017 have been completed.</p> </div>												

2014 Bond
Financial Summary
Overall Program Cost Forecast and Available Funding

Jan 2017

Project List	Original Funding Allocations	Funding Increases Available to Bond Program	Construction Cost Updates & Escalated for Inflation	
ACMA Replacement	\$ 28,300,000		\$ 39,048,849	(RLB 1/16 + soft costs)
AHS Title IX Compliance	\$ 2,000,000		\$ 2,406,800	
Capital Center Improvements & Data Center	\$ 5,000,000		\$ 12,965,135	(eB 12/31/16 EAC)
District-Wide ADA Compliance	\$ 2,000,000		\$ 2,000,000	
District-Wide Communication System	\$ 7,200,000		\$ 5,435,200	(eB 12/31/16 EAC)
District-Wide Facility Repairs	\$ 98,000,000		\$ 95,675,142	
District-Wide HVAC Controls	\$ 800,000		\$ 800,000	
Domestic / Fire Line Separation	\$ 800,000		\$ 977,120	
Five Oaks MS Renovation & Expansion	\$ 21,100,000		\$ 32,401,576	(RLB 1/16 + soft costs)
Green Energy Technology	\$ 5,000,000		\$ 1,177,712	(eB 12/31/16 EAC)
Hazeldale K-5 Replacement	\$ 24,600,000		\$ 35,364,698	(Vose estimate + inflation)
IT Data Center @ Capital Center	\$ 2,900,000		(Costs Moved to CC Project)	
Kitchen Improvements	\$ 800,000		\$ 977,120	
Land for new K-5 @ So. Cooper Mountain	\$ 3,000,000		\$ 5,500,000	School Board Approved 8/1/16
Maintenance Facility Improvements	\$ 10,000,000		\$ 12,383,615	(RLB 1/16 + soft costs + \$675K property + \$ parking lot work)
McKay ADA Improvements	\$ 400,000		\$ 692,000	(eB 12/31/16 EAC)
New HS @ South Cooper Mountain	\$ 109,000,000		\$ 184,735,294	(eB 12/31/16 EAC)
New K-5 @ North Bethany	\$ 25,000,000		\$ 38,075,000	(eB 12/31/16 EAC)
New MS @ Timberland	\$ 51,600,000		\$ 61,371,096	(eB 12/31/16 EAC)
Raleigh Hills K-8 Improvements	\$ 9,700,000		\$ 12,295,720	
Security Upgrades	\$ 10,000,000		\$ 10,000,000	
Seismic Upgrades	\$ 4,200,000		\$ 5,206,740	
SHS Title IX Compliance	\$ 2,000,000		\$ 4,324,288	(eB 12/31/16 EAC)
Springville K-8 Improvements	\$ 2,000,000		\$ 510,016	Completed

Update Pending

Color Key

Final Cost Estimate	
Fixed Cost	
Estimate Update	(Based upon on-going work)
Inflation Projection	(Prior to work starting)

Abbreviations:

RLB = Rider Levett Bucknall
eB = eBuilder proj. mgmt info system
EAC = \$ Estimate at proj. completion

\$ 29,239,019

\$ 11,249,152

\$ 13,241,243



2014 Bond Financial Summary

Overall Program Cost Forecast and Available Funding

Project List	Original Funding Allocations	Funding Increases Available to Bond Program	Construction Cost Updates & Escalated for Inflation	
Vose K-5 Replacement	\$ 24,800,000		\$ 33,977,390	(eB 12/31/16 EAC)
William Walker K-5 Replacement	\$ 24,600,000		\$ 35,457,354	(Vose estimate + inflation)
Added Projects	\$ -		\$ 2,005,736	
Program Contingency	\$ 45,400,000		Funding available (not a cost)	
Program Inflation	\$ 52,800,000			
Pre-Bond Expenditure Reimbursements	\$ 1,000,000		\$ 998,828	
Bond Management Costs	\$ 20,000,000		\$ 28,000,000	
Bond Issuance Costs	\$ 6,000,000		\$ 6,000,000	
Construction	\$ 600,000,000		\$ 670,762,429	
Learning Technology	\$ 56,000,000		\$ 56,000,000	
Critical Equipment	\$ 24,000,000		\$ 24,000,000	
Tech & Equip Subtotal	\$ 80,000,000		\$ 80,000,000	
Total Original Funding	\$ 680,000,000			
Total Cost Projection			\$ 750,762,429	
2006 Bond Remaining Balance		\$ 576,615		
Capital Center Rent Revenue		\$ 433,385		
Construction Excise Tax Revenue		\$ 1,130,655		
Interest Earnings 1st Bond Sale		\$ 5,135,000		
Bond Premium 1st Bond Sale		\$ 63,295,961		
Construction Excise Tax Rev Thru 2021		\$ 6,462,036		
Other (estimated) *		\$ 5,000,000		
Total Funding Available		\$ 762,033,652		
Total Cost Updates			\$ 750,762,429	
Funding Balance Vs. Cost Updates				\$ 11,271,223

(Handwritten: + \$ 3.35 M)

(Handwritten: + \$ 3.35 M)

* Potential other revenues		
THPRD reimb.	\$449,783	Actual
SB 1149 reimb.	\$2,352,000	Actual + Estimates
ETO reimb.	\$181,954	Actual + Estimates
Facility grants	\$2,500,000	Estimate
Seismic grants	\$1,000,000	Estimate
	\$6,483,737	