

School Board Work Session April 13, 2015 Strategic Plan Report Summary

Title: Facilities and Maintenance Departments Report

Objective: The objective of this document is to report the state of facilities readiness to

support Beaverton School District's strategic plan.

Introduction:

There are many studies supporting a conclusion that the quality of buildings and facilities available to students and teachers has a valuable connection with performance (*Center for Innovative School Facilities*, et al.). Indeed, the Beaverton School District Educational Specifications, which were developed to guide the design of new school buildings in the 2014 Bond program notes: "... the shape and nature of place supports education programs. Without a place to teach and careful consideration of a school's educational needs, learning is impacted." (*Educational Specifications, Beaverton School District, DOWA – IBI Group Architects, Inc. & WHPacific, Inc., May 2014*).

Furthermore, creation of quality teaching spaces is the foundation, but only the beginning, of a school's life cycle. New schools can be expected to serve the community for many, many decades. Without proper building maintenance coupled with daily cleaning and upkeep, new facilities fall into disrepair and will become unsatisfactory learning spaces. It is generally accepted that 80% of a building's life-cycle cost is from maintenance and operations. It is not difficult to conclude that neglecting M&O investments impacts student achievement in the long run.

Linking the important work accomplished by these departments with student achievement is challenging. Specific metrics relating our daily tasks with student performance are not available. To overcome the lack of metrics directly linked to student achievement, Facilities has analyzed funding and staffing trends contrasted with the increase in building space in Beaverton. In addition, we reviewed the resources budgeted by Beaverton School District using several performance indicators for our departments compared with data from many similar districts across the nation. We have found that our budgets and resources are among the lowest measured in several categories including cost per student and percent of the districts' overall general fund operational budgets. Conversely, cleaning space per custodian is among the highest.

Charts on the following pages provide BSD resource trends and the data comparing Beaverton with school districts of like size. The cost data have been normalized to account for regional cost differences. This data maintains the confidentiality of each participating school district, therefore the tables in this report display districts by an anonymous numbering designation. Beaverton School District is number 127 on all the charts.

MAINTENANCE DEPARTMENT

Title: Provide a Superior Learning Environment for Students

Objective: Provide Adequate Resources for School Buildings

Maintenance and Repairs

Data Sources: (1) District Budget Documents

(2) Data from Comparable School Districts

Measurement	2011/12	2012/13	2013/14	2014/15 Goal	2015/16 Goal
Staff APU	48	48	50	53	56
Non-Labor Budget	\$2.10 M	\$2.16 M	\$2.12 M	\$2.34 M	\$2.56 M

Analysis

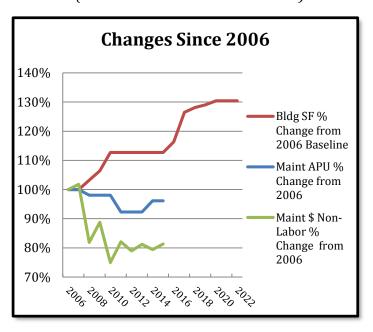
The Maintenance Department is responsible for district-wide buildings and grounds maintenance and repair work covering five million square feet of building space and 800 acres of property. This work is accomplished through a combination of in-house staff and contracted services. As the school district's infrastructure has expanded over the past several years, neither staffing nor funding for materials, parts, and contracts have kept pace. The department only has one locksmith, one plumber, one carpenter, one roofer, and one glazer (glass/windows). Other critical areas such as HVAC mechanics and grounds maintenance crews are also understaffed.

Between 2006 and 2015:

- Over 500,000 square feet (+13%) of new building space was added
- Staffing was reduced
- Non-labor funding has been cut 20% while inflation has increased the costs of materials and contracted work about 2% to 3% per year

Maintenance Resources vs. District-wide Building Space Increases

(includes 2014 Bond construction)



Successes

1. Staffing has recovered to 96% of the 2006 baseline year, the pre-recession funding level that also preceded new building space added in the 2006 Bond. While still inadequate, the staffing level has moved in a positive direction.

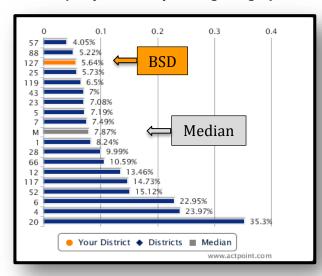
Issues

- 1. The 2014 Bond will increase building space to 30% above what existed in 2006.
- 2. Staffing must increase significantly to support the building space already added in the 2006 Bond and planned from the 2014 Bond.
- 3. Non-labor funding (materials, parts, supplies, contracts) has remained 20% below the 2006 baseline in actual dollars; much lower considering the impact of inflation.

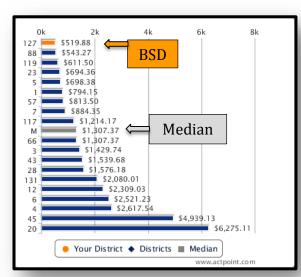
Another indication of the magnitude of the underfunding of maintenance can be found in the data analyzing maintenance and operations (M&O) annual funding per student for comparable districts. Beaverton School District invests \$520 per student, while the median funding level is 2.5 times that amount at \$1,307 per student.

Similarly, the comparable data shows that Beaverton's M&O costs are 5.22% of the General Fund, and the median funding level is 50% more at 7.87%.

Maintenance & Operations Budgets (% of district operating budget)



Maintenance & Operations Budgets (cost per student)



While the proposed 2014 Bond program will provide significant investments in major repairs (\$98 million) and will replace four old school buildings, it will also add three new schools that cannot be adequately supported with current staffing and funding levels. The existing shortfall should begin to be addressed as soon as possible. Continued increases will be needed to keep pace with the new capacity constructed in the 2014 Bond program.

CUSTODIAL SERVICES

Title: Provide Healthy Learning Environment for Students

Objective: Provide Adequate Resources for Cleaning School Buildings

Data Sources: (1) District Budget Documents

(2) Data from Comparable School Districts

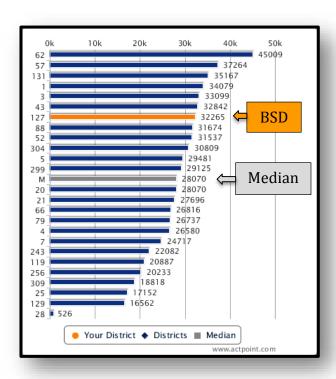
Measurement	2011/12	2012/13	2013/14	2014/15 Goal	2015/16 Goal
Custodial APU	168	170	170	172	178
Cleaning Supplies Equipment &	\$859,000	\$881,000	\$881,000	\$972,000	\$1,064,000

Analysis

Custodial Services was restructured into a centralized management model in 2011-12 in order to achieve cost savings and improve effectiveness. Following a transition period, both of these goals have been realized. The 2014-15 budget fine-tuned the new model by increasing all of the 42, 185-day contract positions to 210-day contracts which had a nominal 2% impact on district-wide custodial labor costs. These extra contract days provided better custodial coverage in schools during the three weeks prior to school opening in the fall, plus one week after school ends in June, and on non-student days throughout the To further augment school year. resources, an additional 6.0 APU are proposed for 2015-16.

One measure of the efficiency of the new custodial model is data that examines custodial workload. Beaverton School District custodians, on average, are

Custodial Workload (square feet per custodian)



responsible for 32,265 square feet of building space, 15% more than the median of about 28,000 square feet for 26 comparable school districts.

As new school buildings in the 2014 Bond come on-line, staff will need to be added for those schools beginning in the 2017-18 budget.

Additionally, cleaning supplies and equipment represent about 6% of the total custodial program budget and have not been adjusted for inflationary costs for several years. The next budget year should remedy this shortfall by recognizing the inflation impact on this portion of the custodial budget. Additional funding for supplies will also be needed to support the new schools in the 2014 Bond.

Successes

- 1. Custodial staffing has improved with the increase in contract days from 185 to 210 for 42 staff.
- 2. Staffing will be further augmented with the addition of 6 positions in the requested budget for 2015-16.

Issues

1. Cleaning supplies and equipment must be significantly augmented to address the existing shortfall and to support the new schools beginning in 2017-18.

FACILITIES DEVELOPMENT DEPARTMENT

Title: Provide Adequate Capacity and Renovations to Support a

Quality Learning Environment

Objective: Execute 2014 Bond Construction Program Delivering Quality

Facilities, on Time, and within Program Budget

Data Sources: (1) Reports to the Bond Accountability Committee

(2) 2014 Bond Construction Program Scorecard; February

2015 Report Attached

Measurement	2011/12	2012/13	2013/14	2014/15 Goal	2015/16 Goal
Bond Program Staff	2	3	4	20	25
Completed Projects	1	-	-	4	13

Analysis

The 2014 Bond program was approved by the voters less than 12 months ago. The Facilities Development Department has rapidly moved forward to begin the implementation of this 8-year construction program.

Successes

Since July 2014, the department has expanded from three project managers to a total staff of 20 while simultaneously accomplishing a significant amount of work including:

- Reroofed Sunset HS
- Replaced turf field at Aloha HS
- Replaced chiller at Sunset HS
- Replaced chiller at Five Oaks MS
- New high school design is nearly completed with construction starting in July
- New middle school design nearly completed with construction starting in June

Issues

1. Construction cost indices indicate that inflationary pressures on Portland metro-area construction costs are higher than anticipated during development of the bond budget.

Action Plan

This year

- Design work is on track for 13 major projects to be executed in summer 2015:
 - Capital Center Building Improvements
 - o IT Data Center at Capital Center
 - o Conestoga MS roof replacement
 - o Conestoga MS HVAC system & controls
 - o Sunset HS Title IX Improvements
 - o Fire alarm replacement at Jacob Wismer ES
 - Fire alarm replacement Sexton Mountain ES
 - McKay ES new elevator & other ADA improvements
 - o Raleigh Hills K-8 classroom addition
 - o School security upgrades, Phase I
 - o Sunset HS turf field replacement
 - o Springville K-8 covered play expansion
 - o Title IX Projects, Group II
- Design contracts will be awarded by June for the new K-5 in North Bethany and the Vose K-5 replacement projects

The department also executed the donor-funded multifunctional field project at Sunset HS and supported the IT Department's work installing the new telephone system.

Long-term

- 1. Collaborate with Washington County, City of Beaverton, and the Metro Regional Government to develop a 50-year look forward with respect to Beaverton School District's enrollment projection and new school and real estate requirements.
- 2. Establish a School Board appointed commercial real estate agent of record to assist in identifying suitable future school sites and to participate in negotiating real estate purchase agreements.
- 3. Develop a budget for strategic real estate investments.



2014 Bond Construction Program

Budget Perspective February 2015 Report

Narrative Comments: Color Key 1. High School: Budget reconciliation based upon schematic design and value No Data engineering cost reductions being processed. On Track **Budget Perspective** Watch List 2. Middle School: Budget reconciliation completed. Full inflation reserve allocated and 64% of program contingency for MS allocated. Project contingency at 7%, which is below target but does not warrant further action at this point. Next budget assessment will be at completion of design development. **Bond Projects in Progress** 3. Sunset HS Stadium Turf Replacement project contingency is 8%. 4. Sunset HS Title IX & Improvements: Budget review at schematic design resulted in adding \$285,000 to the project budget from inflation reserve + program Repairs Sexton Mountain ES Fire Alarm Sys. Replacement Jacob Wismer ES Fire Alarm Sys. Replacement contingency bringing project contingency to 6%. District-wide Communication System Sunset HS Stadium Turf Sunset HS Title IX & Building Improvements K-5 North Bethany Vose ES Replacement Conestoga MS Roof Replacement & HVAC McKay ADA Upgrade Springville K-8 Site Improvements Middle School 5. Capital Center: Budget review at schematic design completed. Full Program Westview HS Roof Capital Center Improvements & F New High School Inflation Reserve (\$231,000) for Capital Center Improvements project added to budget. Project contingency is now at 8%. Strategic Performance Measures Performance Targets Objectives Project Contingency > 10% Objective A Project Initial Cost Estimate of Approved Scope Budget and Scope 2 Planning & Design Costs Within Budgeted Amount Planning & Design Costs within Budge 3 Construction Cost @ Contract Award or GMP Objective C Project Contingency > 10% Construction Costs 4 Construction Cost Current Estimate Per Schedule within Budget Objective D Project 5 Total Project Costs Within Budgeted Amount Per Schedule within Budget



2014 Bond Construction Program

Schedule Perspective February 2015 Report

Narrative Comments: 1. High school: Schematic design review completed; proceeding into design development No Data Land use permits on track for submission on schedule. On Track **Schedule Perspective** 2. Middle school: Schematic design review completed; proceeding into design development. Land use permits being processed by City. 3. New K-5 and the Vose replacement projects: Design RFP process will begin in April. **Bond Projects in Progress** 4. Conestoga reroofing and HVAC improvements project behind schedule due to late award of design contract. Current assessment is that schedule for development of contract documents can be compressed to regain some of the lost time and allow accomplishment of the summer 2015 construction plan. Monitoring schedule closely. Sexton Mountain ES Fire Alarm Sys. Replacement Jacob Wismer ES Fire Alarm Sys. Replacement Capital Center Improvements & Repairs System Sunset HS Stadium Turf K-5 North Bethany Sunset HS Title IX & Building Improvements Vose ES Replacement Conestoga MS Roof Replacement & HVAC 5. SHS Title IX & Improvements: Design is behind schedule; working to resolve. McKay ADA Upgrade Springville K-8 Site Improvements Middle School Westview HS Roof Replacement New High School District-wide Communication S Strategic Performance Measures Performance Targets Objectives Occupancy / Completion Goal Established Green = Approved Objective A Project Execution Strategy Developed schedule Yellow = 0 - 4 weeks behind Detailed Project Schedule Approved Target & Strategy Red > 4 weeks behind Project Programming / Scope Completed Design Contract Awarded Schematic Design Completed NA NA Objective B Design Development Completed NA Planning Same as Objective A Land Use Permit Approved NA Permitting & NA NA Design Phases o Construction Contract Documents Completed Building Permit Approved 11 Prime Contract Notice to Proceed Objective C Construction Started Same as Objective A Construction or Certificate of Occupancy Received NA 14 FF&E Ordered NA NA NA NA NA NA NA Same as Objective A 15 FF&E Delivered and Installed NA NA NA NA NA NA Objective D Meet Occupancy Completion Schedule Target Occupancy / Completion on Schedule Same as Objective A Projected Occupancy / Completion Dates (month & year) 8-2016 8-2017 8-2017 8-2015 8-2016 8-2015 8-2015 8-2015 8-2015 8-2015 7-2015 10-2015 7-2015

RESOURCES & ENERGY CONSERVATION

Title: Energy Conservation Program

Objective: Meet Electricity and Natural Gas Consumption Targets

Data Sources: Energy Performance Scorecard; *January 2015 Report Attached*

Measurement	2011/12	2012/13	2013/14	2014/15 Goal	2015/16 Goal
Electricity (kWh x 1,000)	29,597	29,405	30,276	30,168	tbd
Natural Gas (Therms x 1,000)	1,279	1,169	1,293	1,282	tbd
Solar PV Production (kWh x 1,000)	160	303	313	300	300

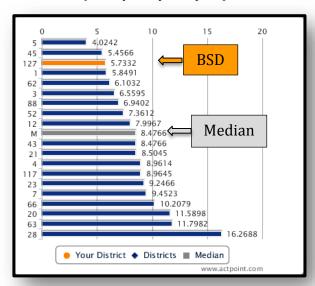
Analysis

The energy and resource conservation program continues to perform well. The District has 31 EPA-recognized Energy Star schools, more than any other school district in Oregon, and 23 certified Oregon Green Schools. Since 2007/08, which was before the 2006 Bond program new facilities came on-line, District-wide electricity consumption has decreased 8%; similarly natural gas usage has decreased 30% even though building space increased by 13%.

Successes

1. Data shows Beaverton School
District's electricity usage per square
foot of building space to be at 67% of
the median for 20 comparable
districts; similarly, heating fuel usage
per square foot is 69% of the median.

Electricity Usage (kWh per square foot)



2. We are now into year 4 of a 15-year agreement with PGE and a private investor group for BSD's solar PV installations at the Capital Center, Springville K-8, and Elmonica K-5. These systems were rated to produce 300,000 kWh of electricity per year and continue to perform well, having saved the District at total of \$62,000 in electricity costs through the March 2015 billing data.

Action Plan

This year

- 1. Meet energy consumption targets for 2014-15
- 2. Set energy targets for 2015-16 after analyzing the 2014-15 results
- 3. Finalize plan for meeting State-required investment in green energy technology in 2014 Bond Program

Long-term

1. Design and construct new school buildings to meet LEED energy efficiency performance standards (but do not seek LEED certifications due to the costs of the documentation and certification requirements).



Beaverton School District 2014-2015 Energy Performance Scorecard



Reporting Period: January 2015

