LONG-RANGE FACILITY PLAN

BEAVERTON SCHOOL DISTRICT | BEAVERTON, OREGON

26 MAY 2021

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BEAVERTON
SCHOOL DISTRICT

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The planning team would like to thank everyone who gave their time, energy, and ideas to develop this Long-Range Facility Plan.

The contributions of many diverse individuals from across the community, including District leadership, parents, business owners, and other community members, helped create a plan that reflects the needs and aspirations of the Beaverton School District and its community.

SECTION 01

EXECUTIVE SUMMARY

PURPOSE & PROCESS

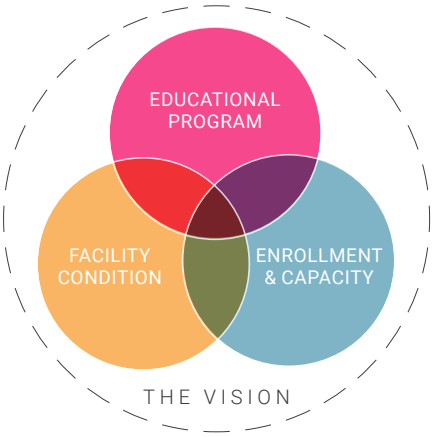
In July of 2020, the Beaverton School District (the District) undertook an effort to develop an updated Long-Range Facility Plan (LRFP). The combined team of Mahlum and Angelo Planning Group was selected to facilitate this process and assist with preparation of the plan.

The core planning process included two groups, a District Leadership Team and a community Focus Group. Information developed with these groups was later shared with the broader community through a variety of outreach methods. In addition, periodic updates were presented to the Board of Directors during Board meetings throughout the planning process. This document represents the collaborative effort of the District Leadership Team, Focus Group, Board of Directors, and the planning team.

The primary purpose of the LRFP is to evaluate the adequacy of existing educational facilities within the context of current educational objectives, plan for future capital improvements for those facilities as needed, and address how student populations will be accommodated over the next 10 years. The Plan provides a strategic framework for management of Beaverton School District's facilities over time, such that they continually support the ongoing success of District students, staff, and community.

The Long-Range Facility Plan results from a synthesis of three primary considerations: educational program (evaluating the adequacy of existing educational facilities within the context of current educational objectives), enrollment and capacity (understanding how student populations will be accommodated over the next 10 years), and facility condition (considering deferred maintenance, modernization, and replacement of existing buildings and sites).

Plan proposals that address these primary considerations are guided by a strategic vision established by the District and informed by input from the broader District community.



REGULATORY CONTEXT

The plan also addresses the requirements of OAR 581-027-0040, Long-Range Facility Plan Requirements, and Section 5 of ORS 195.110, School Facility Plan for Large School Districts. In doing so, bond plan options are proposed for a 10-year capital improvement plan that addresses prioritized need, reflects community values, and targets alignment with community capital support. These requirements and other regulatory information is discussed in Section 03 — Regulatory Context.

VISION & GOALS

The vision for the Long-Range Facility Plan is rooted in the District's goal of empowering all students to achieve post-high school success and aligns with the District Strategic Plan and Equity Guides.

GUIDING PRINCIPLES

The following guiding principles were developed by the District Leadership Team to establish goals for the planning process and outcome. They are organized around the four pillars of the District's Strategic Plan.

WE Expect Excellence

> Strategically plan for the maintenance, modernization and replacement of facilities.

> Plan for facility needs to meet all state regulatory requirements.

> Maintain investment in current facilities by addressing unfunded maintenance needs.

> Where significant investment is required to renovate and upgrade existing facilities (greater than 75% replacement cost) consider the cost / benefits of replacement.

> Address all addition and expansion needs in existing facilities throughout the District.

WE Innovate

> Update educational specifications to reflect the evolving needs of pedagogical practices.

> Provide flexible school facilities that foster creativity in teaching and support the evolution of high-quality education.

> Incorporate sustainability, energy efficiency and maintenance into the facility planning process.

WE Embrace Equity

> Consider facility planning decisions through an equity lens.

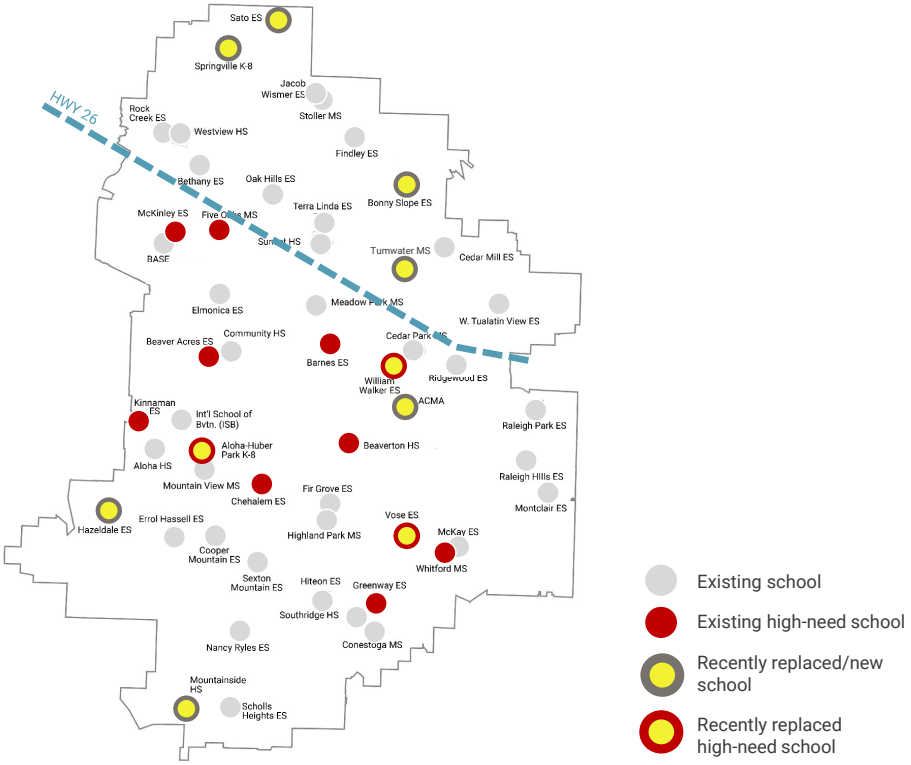
> Create greater parity across facilities.

> Plan for upgrades / improvements.

WE Collaborate

> Collaboratively plan for future facility needs driven by community, demographic and pedagogical change.

DIAGRAM:
Equity Mapping of School Replacement Projects Since 2000



> Provide community amenities and support partnerships with other local agencies and service providers.

LRFP GOALS & IMPLEMENTATION ACTIONS

Six LRFP goals were developed by the District in alignment with the Strategic Plan and Guiding Principles. Each goal has specific actions for implementation that are described in Section 04 — Vision and Goals.

Goal 1: Utilize the 2020 Facility Condition Assessment (FCA) to prioritize building investments and decrease deferred maintenance.

Goal 2: Invest in seismic improvements such that all schools meet collapse prevention performance on or before December 2032 and as directed by Oregon Revised Statute (ORS) 455.400.

Goal 3: Implement security improvements on or before December 2028. These projects include but are not limited to fencing, camera, key card installations, isolation rooms, and vestibules.

Goal 4: Maintain high standards for design and construction of new and renovated facilities and aligned to the Educational Specifications.

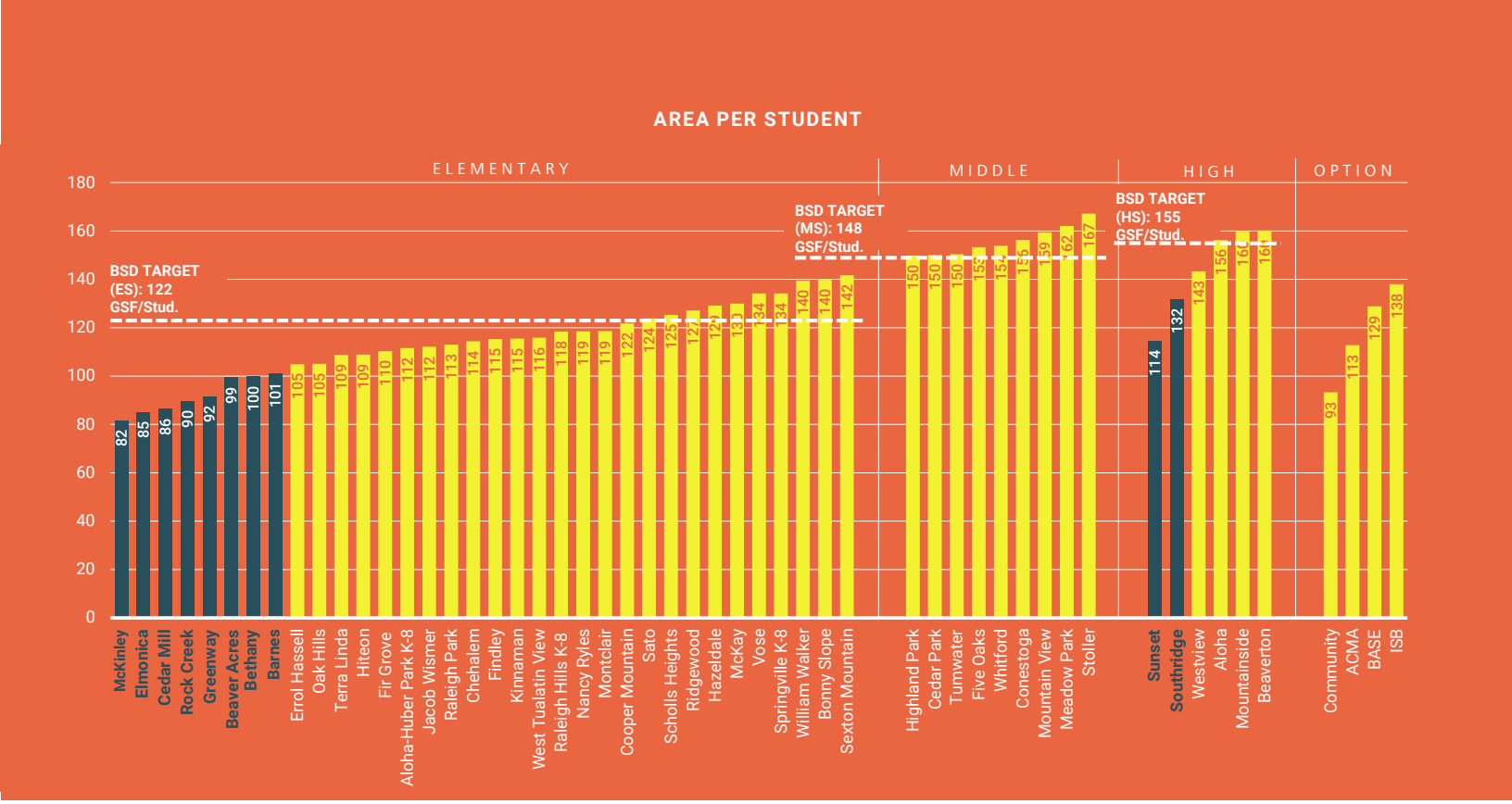
Goal 5: Invest in new energy efficient building system and technology to ensure long-term operational performance and utility savings specifically evaluated on true life-cycle cost analysis versus first-cost of construction.

Goal 6: Balance school capacity with current and projected enrollment levels.

EQUITY LENS

In order to break the predictive link between student demographics and student success, the District applies the principle of equity to all aspects of their schools and programs.

The planning team evaluated specific equity metrics to inform the planning process. Using District data for individual schools, the team looked at socio-economic equity, racial equity, and language equity, providing metrics that were used to inform planning decisions throughout the process.



Additional information regarding LRFP vision and goals can be found in Section 04 — Vision and Goals.

EDUCATIONAL PROGRAM

Ensuring that the District builds modern, student-centered learning environments to accommodate the variety of ways that students learn is essential to fulfilling the Long-Range Facility Plan's purpose. The Plan addresses changing needs for educational program delivery and how facilities can support these requirements.

EDUCATIONAL ADEQUACY

Gross square footage per student (GSF/student) is one metric that can be used to compare educational adequacy in school facilities. The District's area per student targets are 122 GSF/per student for elementary schools, 148 GSF/student for middle schools, and 155 GSF/student for high schools, based on the current Educational Specifications and evaluation of recently completed school facilities.

Of the District's 34 elementary schools, eight schools fall more than 20 GSF/student below the District target, as shown in the chart above. Ranging from 80 to 101 GSF/student, these schools are typically older facilities that are not configured for modern learning. These schools are identified as having a potential opportunity to improve the learning environment if replaced or added onto. In addition, two of the District's six comprehensive high schools are more than 20 GSF/student below the District target.

SPECIFIC PROGRAM NEEDS

The following list summarizes goals for specific District educational programs that could require and/or benefit from modification of existing facilities within the 10-year time frame of the Long-Range Facility Plan. Educational goals and needs for the LRFP have been defined for those programs that have clarity regarding facility support needs.

> Provide one prekindergarten classroom at every elementary school with Title I status.

> Provide adequate and equitable special education facilities at all schools (classrooms and support).

> Provide a new stand-alone special education school to serve approximately 120 to 130 students for whom the District cannot currently accommodate their educational needs.

> Provide space to meet State PE requirements at all District facilities (elementary and middle schools).

> Provide adequate administrative support space to accommodate the District's educational programs and goals.

Additional information regarding educational program need can be found in Section 05 — Educational Program.

FACILITY CONDITION

The District owns and operates over 5.7 million square feet of facility space on over 800 acres of land. This includes 34 elementary schools, nine middle schools, six high schools, and five option/alternative schools, as well as several administrative and support facilities.

FACILITY AGE

District educational facilities vary significantly in age, with original construction dates as early as 1915 and as recent as 2021. Although facility age does not solely determine building condition, it is a significant factor that should be considered. The District has five facilities that are more than 75 years old, including:

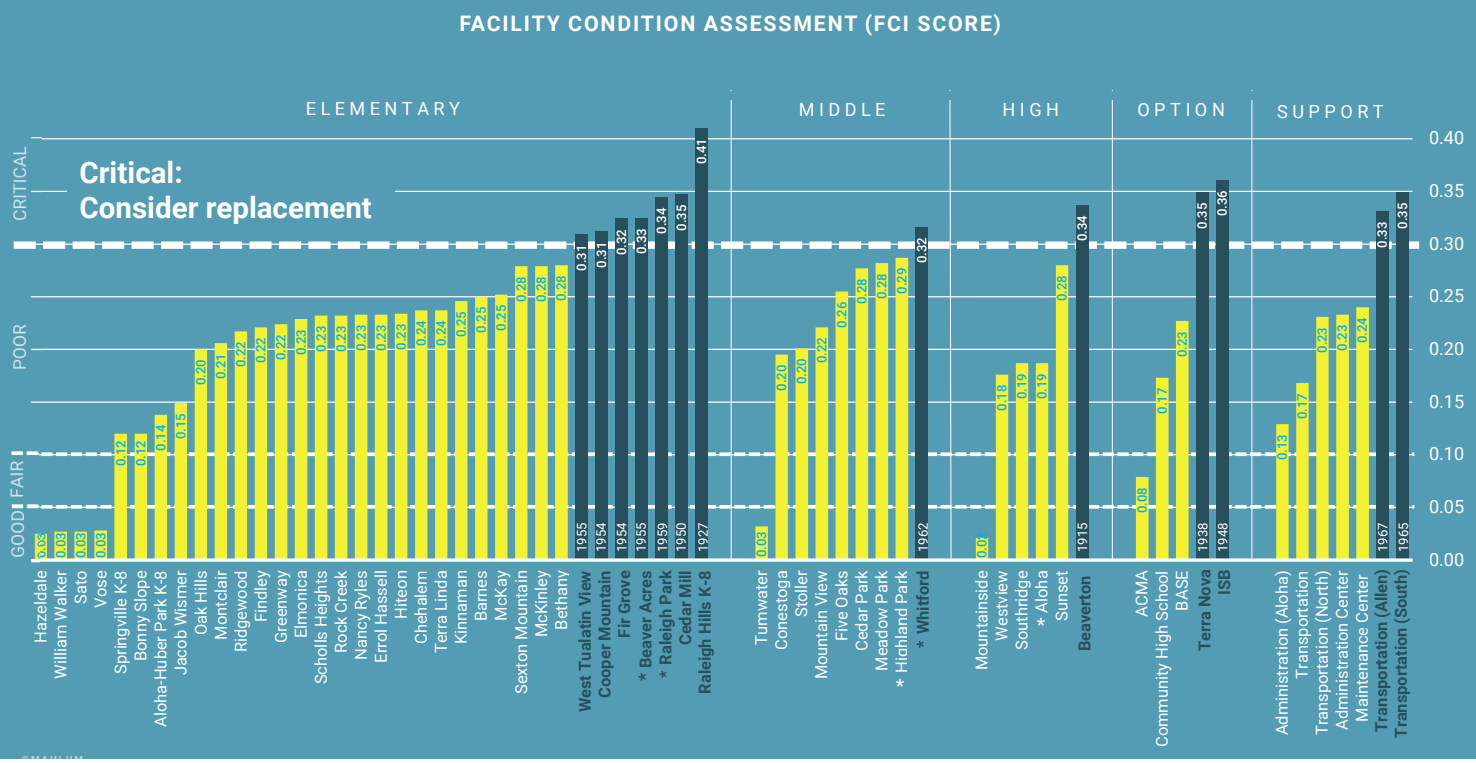
> Beaverton High School (105 years old)

> Raleigh Hills K-8 (93 years old)

> Barnes Elementary (93 years old)

> McKay Elementary (91 years old)

> Terra Nova (82 years old)



There are also seven additional facilities that will exceed the 75 year life span of facilities during the next 10 years.

FACILITY CONDITION

In 2019, the District hired an outside consultant to complete a facility condition assessment (FCA) of District facilities in alignment with Oregon Department of Education (ODE) assessment requirements. The FCA evaluated the physical condition of exterior and interior building systems and site elements, and resulted in an facility condition index (FCI) score that is used to compare the relative condition of each facility.

As shown in the chart above, 13 District facilities were evaluated as being in critical condition and should be considered for possible replacement.

SEISMIC CONDITION

Although new facilities are built to meet the current seismic codes at the time of construction, many District buildings are more than 30 years old and have had little or no earthquake resistance built into their original designs. Seismic evaluation can be used to prioritize future seismic improvements within the District and work toward meeting the goal of the 2017 Oregon Revised Statute (ORS) 455.400 which notes: "Subject to available funding, all seismic rehabilitations or other actions to reduce seismic risk must be completed before January 1, 2032." ORS 455.400 is included in Appendix A for reference.

A seismic evaluation of all District facilities was completed in 2019, and provided scores indicating how each facility would likely perform during a seismic event, based on the American Society of Civil Engineers (ASCE) 41-13 performance objectives. The performance level target established by the District is the Damage Control Range, which is between Life Safety and Immediate Occupancy.

The District's 10 newest facilities meet or exceed the District target for seismic condition, while the majority of other District facilities fall into the Collapse Prevention range. However, there are 11 District facilities that were evaluated in the Less than Collapse Prevention range, including five elementary schools, four middle schools, one high school, and one option school. Seismic condition at these schools should be addressed as soon as possible.

DEFERRED MAINTENANCE

Although the District continually addresses maintenance issues, there are still considerable facility and site improvement needs throughout the District. As is typical for many school districts, there is more need than the District's alloted operations budget can accommodate, as all facilities continuously wear over time and need to be maintained.

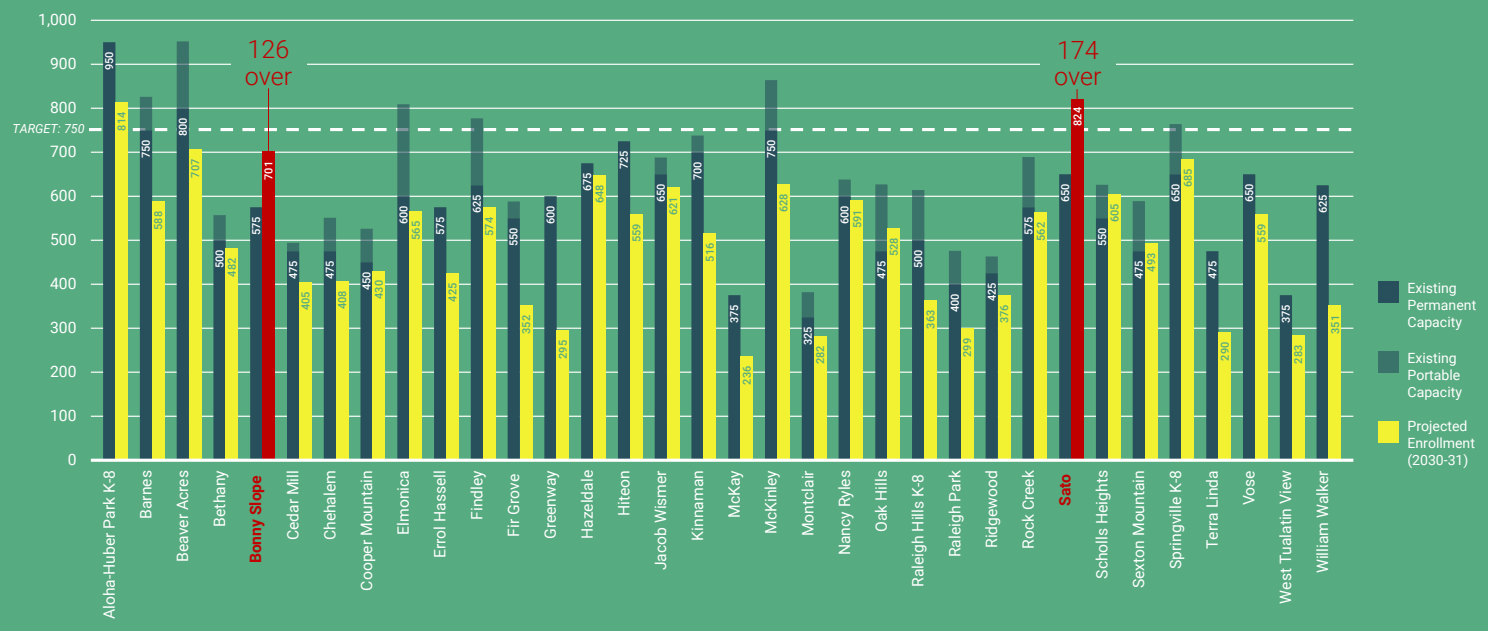
As part of the FCA, deferred maintenance costs were developed for each facility. The District's total 10-year deferred maintenance need was determined to be $610.1 million and includes improvements at all District facilities. Seismic work identified in the 2019 seismic evaluation was incorporated into the deferred maintenance costs. Costs are escalated and include soft costs.

Additional information regarding facility condition can be found in Section 06 — Facility Condition.

ENROLLMENT & CAPACITY

Beaverton School District currently serves almost 40,000 students in kindergarten through 12th grade. The success of the District's educational programs is fostered in part by the ability of each school to house the students, teachers, and spaces needed for effective teaching and learning.

EXISTING CAPACITY & PROJECTED 2030-31 ENROLLMENT: ELEMENTARY SCHOOLS



EXISTING CAPACITY

Each school facility has an established capacity, based on the number of teaching stations, target number of students per classroom, and a scheduling utilization factor. Methodologies for determining capacity vary between districts and also between grade levels.

The District currently has a total permanent capacity of 41,652 students in grades K-12, including 19,550 at the elementary level (including K-8 schools), 7,660 at the middle school level, 11,852 at the high school level, and 2,590 for option/alternative schools. Facility capacity will be updated by the District as buildings are altered or as uses change.

ENROLLMENT FORECAST

Enrollment forecasts are used, in part, to determine whether the District will need to add or modify facility space to meet school program or configuration needs. The District received student enrollment forecasts in 2019. The 10-year enrollment forecast integrates district enrollment trends with local area population, housing, and economic trends.

District adjustments were made to the PSU Population Research Center's (PRC) 2028-29 enrollment forecast to accommodate boundary changes, grade configuration changes, and the opening of a new middle school that occurred after the PRC forecast was completed. In addition, the planning team provided a "straightline" extension to the enrollment forecast, extending the forecast by two years to 2030-31 and providing a 10-year forecast from the date of this LRFP.

The adjusted enrollment forecast indicates an overall decline in districtwide enrollment of 4.9 percent over the 10-year forecast period, a reduction of approximately 1,900 total students in kindergarten through twelfth grade. This includes a six percent decline at the elementary level, a three percent decline at the middle school level, and a 5.9 percent decline at the high school level. Growth rates vary greatly between schools within each level.

The majority of District schools are projected to see enrollment declines, however a few schools are still expected to have enrollment growth. At the elementary level, this includes Hazeldale, with projected enrollment growth of 38.7 percent; Sato, with projected enrollment growth of 26.9 percent; and four other schools with projected growth of less than 10 percent. Whitford is the only middle school that is anticipated to see an enrollment increase over the next 10 years, of approximately five percent. At the high school level, enrollment increases of less than 10 percent are expected at Mountainside and Westview.

FACILITY UTILIZATION

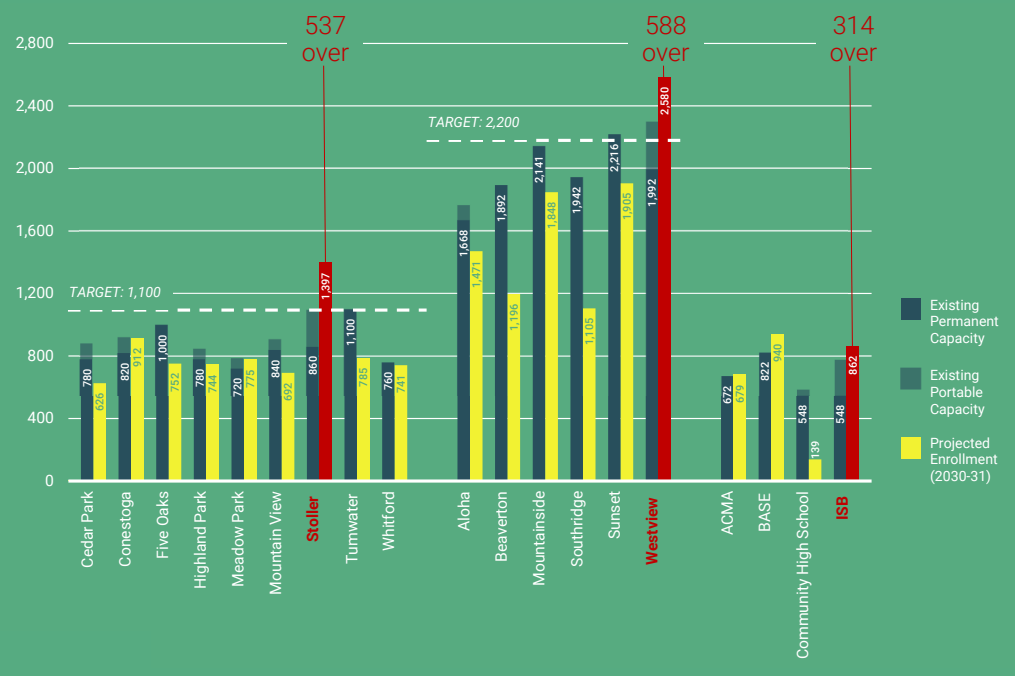
For the purposes of long-range planning, school utilization is defined as the portion of the building assigned to students, or more specifically, the number of students enrolled in a school divided by the student capacity of the school. Analysis of school utilization in this plan uses the adjusted enrollment projections to 2030-31.

Understanding school utilization is necessary to provide effective learning environments for all students. Planning for the effective utilization of schools requires an understanding of space needs for the range of academic programs offered in a school, as well as classroom and common spaces available for current and projected student use. The charts above and on the following page compare existing capacity with existing and projected enrollment by school.

Elementary

The projected elementary enrollment of 17,043 students in 2030-31 leaves more than 2,500 remaining available permanent seats, resulting in an expected utilization of approximately 87 percent districtwide. When looking at total capacity (permanent capacity plus portable capacity), over 4,000 seats remain available (79 percent utilization).

EXISTING CAPACITY & PROJECTED 2030-31 ENROLLMENT: MIDDLE, HIGH & OPTION SCHOOLS



Since enrollment accommodation within individual school boundaries minimizes the need for boundary adjustments, it is important to evaluate individual school utilization as well. Six elementary schools are projected to have enrollment at or above their existing permanent capacity (100% utilization or more) by 2030-31, including two that will be significantly over their existing capacity: Bonny Slope (126 over) and Sato (174 over).

Middle

At the middle school level, the projected districtwide enrollment of 7,423 is lower than both the permanent and total existing capacity. Individually, three middle schools are projected to be over their permanent capacity, including Stoller, which will also be significantly over its total capacity (300 over).

High School

The projected enrollment of 10,106 at the high school level is less than existing permanent capacity by more than 1,700 students, resulting in an expected districtwide utilization of approximately 85 percent. When looking at total existing capacity, over 2,100 seats remain available (82 percent utilization).

Individually, all of the District's high schools are expected to be well below their permanent capacities through 2030-31, with the exception of Westview High School. Westview's projected enrollment is expected to be 588 students (30 percent) over its permanent capacity and 283 students (12 percent) over its total capacity. Looking at individual school capacities at option schools, ACMA, BASE, and the International School of Beaverton (ISB) are all expected to be at or over capacity, with ISB being the most significantly over its permanent capacity (314 over).

Additional information regarding enrollment and capacity, including geographical analysis and capacity accommodation strategies, can be found in Section 07 — Enrollment & Capacity.

SITE OPPORTUNITIES

The Long-Range Facility Plan assesses current school sites to determine if there are adequate sites within the District to meet long-term enrollment needs and whether these sites are adequate in size and distribution to accommodate long-term forecasts.

EFFICIENT USE OF SCHOOL SITES

As land within the District has been developed to accommodate growth in Beaverton and Washington County, it has become more difficult to find suitable property for new District facilities. In order to accommodate new school facilities, the District has taken steps to use existing school properties more efficiently.

Strategies include the use of modular classrooms, multistory buildings, shared parking, partnerships, and expansion on existing sites. Other possible strategies include limiting space allocated to non-educational uses, co-location with existing district facilities, and replacement of small schools.

ANALYSIS OF LAND REQUIREMENTS

The District currently owns 63 active facility sites covering approximately 825 acres, as well as three undeveloped sites. Based on the adjusted enrollment projections to 2030-31, it appears that no additional school sites will need to be purchased as part of the District's 10-year Long-Range Facility Plan. The District's undeveloped sites, combined with opportunities for added capacity at some existing operational sites, appear to offer adequate opportunity to increase capacity to meet enrollment and program demand for the foreseeable future.

Additional site-related information can be found in Section 08 — Site Opportunities.

CAPITAL FINANCING

FINANCING TOOLS FOR CAPITAL PROJECTS

An array of financing tools are available to the District. For Oregon school districts, general obligation (GO) bonds are the primary tool for financing school facility needs. GO bonds are a municipal debt security issued by the District. They are used to finance capital expenditures and are supported by a voter-approved property tax levy.

Historically, Beaverton School District has used this method of financing for most of its capital construction. GO bonds can be issued for land acquisition, construction, new schools, renovation or improvement of school facilities, and equipment intrinsic to the facility.

The District is currently significantly below its maximum allowable level of indebtedness. However, the real maximum level of indebtedness is the one for which the District can get voter approval. There is a legal maximum debt capacity of 7.95% of real market value, and the District has remaining capacity of $2.38 billion.

The real limitation is the capacity made available by the voting patrons of the District. In 2021, the District's levy rate is estimated to be $2.05 per $1,000 of assessed value and will drop to roughly $1.60 in 2023. Historically, when a tax rate step-down occurs, it is potentially a good time for the District to return to voters with a bond issue. The last two significant bond programs were approved by District voters in 2006 ($196 million) and 2014 ($680 million), when a step-down in the tax rate occurred.

2014 SCHOOL BOND SUCCESSES

The most recent successful school bond program occurred when District voters approved the $680 million capital bond measure in May 2014. Bond funds have been used to address repairs, provide new capacity and relieve overcrowding, modernize and renovate facilities, improve safety, and replace outdated learning technology, curriculum, and equipment over an eight-year period.

The District, through good financial stewardship and management, has been able to take advantage of favorable interest rates and available bond premiums from bond sales to leverage the $680 million bond into an $807 million construction program.

ALTERNATIVES TO NEW CONSTRUCTION

There are a number of ways to accommodate growth in programs and/or enrollment that do not necessitate new construction or renovation. Strategies that address program need, growth, and condition can provide additional capacity and may influence the extent of major modernizations and/or new construction.

Whenever possible, it is important for the District to explore options for increasing the amount of school capacity without having to make major capital investments. These strategies are identified as potential ideas to be considered, and will not necessarily be implemented by the District.

Strategies that address program need:

> Repurpose existing space for other uses when possible

> Utilize public / private partnerships

> Develop online education programs to reduce enrollment demand

> Locate alternative programs in non-traditional facilities

Strategies that address growth:

> Increase class sizes

> Re-activate vacant / repurposed buildings

> Adjust attendance boundaries to maximize occupancy at underutilized schools

> Allow or maintain enrollment above target capacities

> Add capacity with modular classrooms (typically funded through operational dollars rather than capital funds)

Strategies that address condition:

> Close schools in the poorest condition and consolidate if enrollment / capacity allow

> Address the most critical issues using annual maintenance dollars when possible

10-YEAR CAPITAL PLAN

BOND PLAN DEVELOPMENT

Over the course of 10 months of meetings with the District Leadership Team, three meetings with the Focus Group, and three community open houses, two preliminary capital bond proposals were developed. The District Leadership Team identified potential projects for the proposals based on the District's Strategic Plan, the LRFP guiding principles, goals, and action items, and a detailed understanding of the identified need in the District.

Project needs were balanced with a recognition of community support levels, resulting in the development of two bond plan options: a smaller plan that would result in little or no tax rate increase and a larger plan that more adequately addresses District need and would result in a small tax rate increase.

Bond plan options received feedback from the Focus Group and the broader community, and were then revised by the District Leadership Team based on that input. The final adjusted plans reflect incorporation of selected input.

CAPITAL BOND PROPOSALS

The two capital bond proposals, summarized in the table on the following page, incorporate community input and intend to strike a balance between community support for funding and current District need. Either proposal can serve as the basis for a potential capital measure, at the discretion of the

Board. The chosen proposal may be adjusted prior to a capital measure, due to changes in District need, economic conditions, and/or additional community input.

The capital bond proposals represent one phase of work in an ongoing process of addressing District need. Projects that were identified during the planning process and have not been prioritized for inclusion in this phase of the Long-Range Facility Plan will continue to be tracked and addressed in later phases of the Plan.

Bond Option 1, estimated at $325.1 million, is a smaller plan that would allow a refill of the current bond and result in little or no tax rate increase. This plan includes a limited amount of educational program improvements, replacement of Raleigh Hills Elementary School and the Allen Street Transportation facility, and limited amounts of modernization, capacity and enrollment, and other district support funding.

Bond Option 2 is a larger plan, estimated at $722.6 million. This option is anticipated to result in a refill of the current bond and a tax rate increase of $0.25 per $1,000 of assessed property value. Option 2 includes everything that is in Option 1, in addition to the full replacement of Beaverton High School and larger funding amounts for educational program, modernization, capacity and enrollment, and other district support.

Of the two proposals, Bond Option 2 received the most support from Focus Group members and the broader community, based on discussion comments and polling results.

Costs associated with the capital bond proposals were developed by the District Leadership Team. They are rough-order-of-magnitude (ROM) project cost estimates that include soft costs of 12 to 20 percent, depending on project scope. Construction projects are escalated to the estimated midpoint of construction at three percent per year, with an additional two percent market escalation factor on most projects. Costs may be revisited prior to the bond due to changing market conditions.

Bond options also include a separate bond fee / management cost allocation of eight percent, as well as a contingency allocation of at least 10 percent on most projects (excluding deferred maintenance, technology, bus replacement, and critical equipment).

Additional bond proposal information, including project descriptions and implementation, are included in Section 10 — 10-Year Capital Plan.

TABLE:
Capital Bond Proposals

Project	BOND OPTION 1: No Tax Rate Increase	BOND OPTION 2: $0.25 Tax Rate Increase
EDUCATIONAL PROGRAM		
Special Education Improvements	$2.0M	$2.0M
Prekindergarten Modifications	$1.0M	$1.0M
Outdoor Learning Improvements	-	**$5.0M**
Physical Education / Athletics Additions	$5.6M	**$13.0M**
FACILITY CONDITION: REPLACEMENT		
Raleigh Hills Elementary Replacement	$44.0M [1]	$44.0M [1]
Beaverton High School Replacement	$15.0M [2]	**$230.0M**
Allen St. Transportation Replacement	$11.0M	$11.0M
FACILITY CONDITION: MODERNIZATION		
Deferred Maintenance	$110.0M	**$138.0M**
School Modernization	$12.0M	**$36.0M**
Seismic Upgrades	$20.0M	**$40.0M**
Security Upgrades	$6.0M	**$15.0M**
Nutrition Services Upgrades	$5.0M	$5.0M
CAPACITY & ENROLLMENT		
Classroom Additions	$7.5M	**$10.0M**
OTHER SUPPORT		
Technology	$27.0M	**$53.0M**
School Office Relocation	$10.0M	$10.0M
Bus Replacement	$8.0M	**$10.0M**
Critical Equipment	$4.0M	**$7.0M**
Subtotal	**$288.1M**	**$630.0M**
Bond Fee / Management Cost (8%)	$23.0M	$50.4M
Contingency (10%)	$13.9M [3]	$42.2M [3]
Total	**$325.1M**	**$722.6M**

[1] *Assumes additional $11.8M from 2014 bond funds*
[2] *Planning and design only*
[3] *Excludes Deferred Maint., Technology, Bus Repl., and Critical Equip.*

BEYOND 10 YEARS

FUTURES STUDY CONTEXT

In 2016, the Beaverton School District worked with a multidisciplinary consultant team to explore how District services and facilities might evolve over the next 50 years.

The main purpose of this study was to understand how long-range change might influence actions being considered by the District, including programs, policies, and investments. Findings were documented in a Futures Study Report, published in the Fall of 2017.

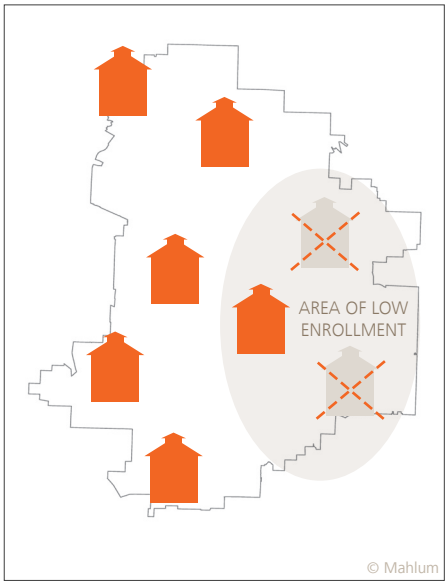
RELATIONSHIP TO THE LONG-RANGE FACILITY PLAN

Key questions and strategic approaches explored by the Futures Study correlate with the three primary areas of facility related need identified in the Long-Range Facility Plan: alignment of capacity and enrollment, support for educational programs, and addressing facility condition. This alignment facilitates the District's ability to track development of the Long-Range Facility Plan against Futures Study scenarios to determine which facility management strategies might be considered in the 10-year plan.

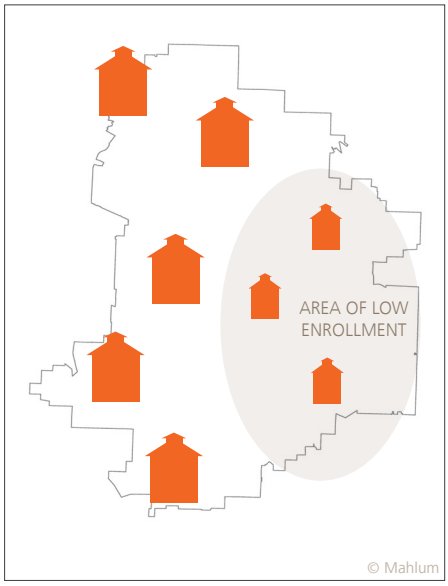
While variation exists between supporting data used for the Futures Study and that used for development of the Long-Range Facility Plan, particularly in the area of enrollment projections, plan proposals incorporate a number of the strategic facility management approaches outlined by the Futures Study. Two example approaches are shown above, and additional strategies are included in Section 11 — Beyond 10 Years.

The application of these strategies is most closely related to the two major replacement projects that have been identified in the capital bond proposals: Raleigh Hills Elementary School and Beaverton High School.

FUTURES STUDY APPROACH A: Replace at Target Size & Consolidate Schools



FUTURES STUDY APPROACH B: Replace at Appropriate Size to Meet Enrollment Need



LONG-RANGE FACILITY PLAN UPDATES

Enrollment forecasts associated with the Long-Range Facility Plan suggest that the District will, when viewed districtwide, benefit from the availability of surplus capacity through the next 10 years (2031), and possibly through the next 20 years and beyond. Therefore, it is expected that adding additional capacity will not necessarily be a component of future long-range facility plans.

With this in mind, the District may, however, elect to increase the capacity specific sites (to their target capacity) as part of future replacement projects. The decision to implement this approach would allow higher utilization of school sites, and improve the site's ability to accommodate a wider variety of future conditions. In this scenario, added capacity would likely be paired with other facility management strategies outlined in the Futures Study, such as boundary adjustment or consolidation.

With reference to facility management strategies outlined in the Futures Study, and in view of current enrollment forecasts, future long-range facility plans may focus on other areas of facility need, such as the accommodation of changing education programs and addressing the deteriorating condition of existing facilities, rather than capacity.

A more detailed description of the Futures Study, its relationship to the 2021 Long-Range Facility Plan, and future plans can be found in Section 11 — Beyond 10 Years.

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SECTION 02

PURPOSE & PROCESS

The primary purpose of the Long-Range Facility Plan is to evaluate the adequacy of existing educational facilities within the context of current educational objectives, plan for future capital improvements for those facilities as needed, and address how student populations will be accommodated over the next 10 years.

PURPOSE

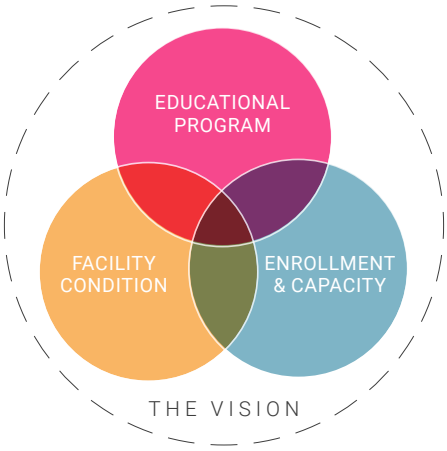
The Long-Range Facility Plan (LRFP) provides a strategic framework for the management of Beaverton School District's (the District) facilities over time, such that they continually support the ongoing success of District students, staff, and community.

The Long-Range Facility Plan results from a synthesis of three primary considerations:

> Educational Program: evaluating the adequacy of existing educational facilities within the context of current educational objectives

> Enrollment & Capacity: understanding how student populations will be accommodated over the next 10 years

> Facility Condition: considering deferred maintenance, modernization, and replacement of existing buildings and sites



Plan proposals that address these primary considerations are guided by a strategic vision established by the District and informed by input from the broader District community.

The District has adopted the following goal for its students:

WE empower all students to achieve post-high school success.

This goal is further defined through the four Pillars of Learning that guide District

decisions, which are described in Section 04 — Vision and Goals.

> WE Innovate

> WE Expect Excellence

> WE Embrace Equity

> WE Collaborate

Providing the physical space, facilities and environment to support educational programming is a critical step toward achieving Innovation, Excellence, Equity and Collaboration. This LRFP provides an overall understanding of District facilities, conditions, capacity, and improvement needs.

The plan also addresses the requirements of OAR 581-027-0040, Long-Range Facility Plan Requirements, and Section 5 of ORS 195.110, School Facility Plan for Large School Districts. In doing so, options are proposed for a 10-year capital improvement plan that addresses prioritized need, reflects community values, and targets alignment with community capital support. The OAR 581-027-0040 requirements are included in Appendix A — Regulatory Information.

BACKGROUND

The Beaverton School District is the third largest school district in Oregon. It is responsible for the education of almost 40,000 students and has over five million square feet of building space under its ownership and control. Coupled with the 860 acres it owns, the District is one of the largest building and property owners in the Portland region.

District facilities include school buildings, transportation facilities, athletic fields, food services and administrative facilities. The District has a large responsibility to maintain existing facilities and provide new facilities to meet educational needs.

The District is continually monitoring the condition of existing facilities and planning for future facility needs. While most of this effort is under the umbrella of good stewardship and property management, the State of Oregon has statutory and administrative rule requirements that direct school districts to prepare long-range facility plans.

This document is the Beaverton School District 2021 Long-Range Facility Plan and represents an update of previous LRFPs, the most recent of which was prepared in 2010. The State's interest in long-range facility planning for school districts is expressed in two legislative actions, listed below.

> The Oregon Revised Statute (ORS) 195.110 is the state statute that requires school districts to prepare facility plans and prescribes the elements of those plans. Originally enacted in 1993, the law underwent amendments in 2001 and 2007.

> The State Department of Education enacted Oregon Administrative Rule (OAR) 581-027. This OAR provides guidance for local school districts to receive state matching funds for facility improvements. Included in the OAR 581-027 is the requirement that requests for state matching funds be based on a long-range school facility plan.

LRFP & BOND HISTORY

The District originally adopted an LRFP in June 1994, in compliance with ORS 195.110. The District later updated the plan in June 2002. Following adoption of this LRFP, the District successfully passed a construction bond for $195 million in 2006, to provide needed school facilities to respond to student enrollment growth.

In 2007, the Legislature amended ORS 195.110. At the same time, the District was completing the renovations to existing school facilities and new school facilities approved in the 2006 bond. Following the amendments to ORS 195.110, the District decided to update its 2002 LRFP to incorporate its recent facility improvements, address new facility and enrollment information, and maintain compliance with the amended requirements of ORS 195.110. The resulting document was the 2010 LRFP, which was adopted by the District in June 2010. Following adoption of the 2010 LRFP, the District once again successfully passed a construction bond in 2014– this time for $680 million– to provide a wide range of school renovations and new school facilities.

The significant construction program associated with the renovations and new school facilities approved in the 2014 bond is nearing completion. Following past practices, the District undertook an effort to update the 2010 LRFP, which has led to the recommendations included in this 2021 LRFP. This plan includes two alternative construction bond programs for the School Board to consider, to place before District voters in 2022.

The previous LRFPs were prepared for the District during periods of high student enrollment growth, as new residential development in Washington County and Beaverton filled in vacant areas within the District's boundary. However, the District is now becoming largely built-out as developable land becomes scarce within its boundary. While population growth will continue, school enrollment is forecasted to grow at a slower pace than historic patterns.

WHY NOW?

Given the current uncertainty created by the COVID 19 pandemic in 2020/21 and the impact on in-school learning, a reasonable question to ask would be – why update the LRFP now? Even in this environment, the District's facility responsibilities continue. The following points emphasize why this is an appropriate time to update the 2010 LRFP:

> The District needs to be ready with school facilities when the pandemic is behind us and students return to in-classroom learning.

> ORS 195.110 requires a 10-year plan for statutory compliance. The last Beaverton School District LRFP was adopted in 2010.

> OAR 581-027 ties state funding opportunities for capital projects to local school districts having an adopted current LRFP.

> While student enrollment growth has flattened, there's an opportunity to review facility needs in light of recently completed capital projects and school capacity/student demands in specific areas of the District.

> The District needs to add an equity lens to school facility planning.

> The District needs to plan ahead for new capital programs as current school bonds expire.

> District facilities continue to age. The LRFP will address schools that are too old to be efficiently maintained.

> Maintenance and modernization needs continue to grow.

> Identify opportunities for efficiencies in District facilities.

LONG-RANGE FACILITY PLANNING PROCESS

In July of 2020, the District undertook an effort to develop an updated Long-Range Facility Plan. The combined team of Mahlum and Angelo Planning Group was selected to facilitate this process and assist with preparation of the plan.

The core planning process included two groups, a District Leadership Team (DLT) and a community Focus Group. Information developed with these groups was later shared with the broader community through a variety of outreach methods. In addition, periodic updates were presented to the Board of Directors during Board meetings throughout the planning process.

This document represents the collaborative effort of the District Leadership Team, Focus Group, Board of Directors, and the planning team.

DISTRICT LEADERSHIP TEAM

The District Leadership Team, comprised of key District leadership, was assembled to provide input and develop plan options. Team members included four staff representing planning, enrollment, and facilities, as well as input from staff representing educational programming.

The planning team worked with the DLT consistently throughout the 10-month process, to identify District goals and needs and develop a long-range facility plan to address those goals and needs. Information from the District's Teaching and Learning Department and other key groups was incorporated into the facility need determination.

FOCUS GROUP

A 12-member Focus Group was formed in Fall 2020 to provide input on the LRFP. The group was comprised of community members, neighborhood association representatives, and local businesses, as well as local jurisdiction representatives from the City of Beaverton and Washington County.

The role and purpose of the Focus Group was established as follows:

> Consistently attend meetings and actively participate

> Work with the "big picture"

> Express point of view and be open to other viewpoints

> Provide input regarding long-range facility plan options as proposed by the District Steering Committee

> Provide insight into public support for capital funding, and at what level

> Offer recommendations to the District and Board

> Serve as ambassadors for the process and the proposed plan

However, it was not the group's role to make final decisions regarding capital expenditures and facilities or to establish District policy.

The Focus Group met three times between November 2020 and March 2021. They reviewed information on the various elements of school facility planning prescribed in ORS 195.110 and OAR 581-027, including enrollment trends, facility condition, educational programming, school capital financing, and capital improvement needs.

The Focus Group provided valuable input regarding District need and plan development. The DLT used this input to refine the Long-Range Facility Plan options and then presented revised plans to the Focus Group at the third meeting.

Meeting minutes and presentations from Focus Group meetings were made available on the District website and are included in Appendix C — Focus Group Meetings.

COMMUNITY OUTREACH

Community input is a critical component of a long-range facility plan. It is important to understand the needs of the District's community, so that they are adequately represented in the plan. Community support is also critical for successful implementation of a long-range facility plan.

Multiple outreach strategies were implemented by the District as a part of the planning process, in order to garner as much input as possible from a wide range of community constituents. In addition to working with a community Focus Group, outreach efforts included presenting at a variety of community group meetings, holding public open houses, and conducting an online survey.

Outreach efforts were limited by the constraints of the Covid-19 pandemic quarantine that was in place during the planning time frame, requiring all outreach to occur virtually via a digital platform rather than in person.

COMMUNITY GROUP PRESENTATIONS

Members of the DLT presented Long-Range Facility Plan information to over 40 community groups during February and March of 2021. Groups included Community Planning Organizations (CPOs), Neighborhood Association Committees (NACs), Parent-Teacher Organizations (PTOs), and other neighborhood groups.

Presentations included a description of District needs and the preliminary proposed capital bond plan options, as well as time for questions and feedback from the community. Community input from these meetings was brought back to the DLT and used to inform plan development.

PUBLIC OPEN HOUSES

As part of the long-range facility plan process, the District held three open house sessions in February 2021 to garner input from the broader community. Sessions were facilitated by the planning team, with participation from a number of District representatives.

The primary goals of the open houses were to:

> Provide an understanding of the District's facility-related goals and needs

> Present preliminary capital bond proposal options and rationale

> Hear community feedback regarding District need and bond plan options

The public open houses were held virtually, with two evening sessions and one afternoon session. Each two-hour meeting included an informational presentation, open discussion time for questions and feedback, and a short real-time poll related to the two proposed capital bond plan options.

Participants' questions and comments, spanning a number of topics and diverse perspectives, are summarized in the Community Outreach Summary included in Appendix B — Supplemental Information.

ONLINE SURVEY & VIDEOS

The District facilitated an online survey regarding the Long-Range Facility Plan to gather additional input from constituents who may not have been able to have their voice heard through other avenues. The survey was sent to all District families, with links to two informational videos that described District needs and the proposed capital bond options.

Approximately 1,000 responses were submitted in response to the District's survey. Approximately 260 written comments were also submitted from community members, parents, staff, and students in response to the survey.

SECTION 03

REGULATORY CONTEXT

The regulatory context for the Long-Range Facility Plan is primarily established by the Oregon Revised Statutes (ORS) and Oregon Administrative Rules (OAR), in addition to any applicable city and county ordinances.

Changes to the regulatory environment in the State of Oregon since the previous LRFP was completed in 2010 include the recent development of the School Construction Matching Program by the Oregon Department of Education and revisions to the physical education requirements.

ORS 195.110 REQUIREMENTS

Much of the regulatory context addressed in the 2021 LRFP remains unchanged since the 2010 LRFP update. As noted, ORS 195.110: School Facility Plan for Large School Districts is the statute that prescribes what elements the State of Oregon is looking for in a LFRP. Subsection (5)(a) includes the specific topics the LRFP must include:

The school facility plan must cover a period of at least 10 years and must include, but need not be limited to, the following elements:

(A) Population projections by school age group.

(B) Identification by the city or county and by the large school district of desirable school sites.

(C) Descriptions of physical improvements needed in existing schools to meet the minimum standards of the large school district.

(D) Financial plans to meet school facility needs, including an analysis of available tools to ensure facility needs are met.

(E) An analysis of:

- (i) The alternatives to new school construction and major renovation; and
- (ii) Measures to increase the efficient use of school sites including, but not limited to, multiple-story buildings and multipurpose use of sites.

(F) Ten-year capital improvement plans.

(G) Site acquisition schedules and programs.

The 2021 LRFP has been reviewed and updated as needed to meet the specific requirements of ORS 195.110.

ORS 195.110: School Facility Plan for Large School Districts is included for reference in Appendix A — Regulatory Information.

OAR 581- 027 REQUIREMENTS

The Oregon Administrative Rules are created by most agencies and some boards and commissions to implement and interpret their statutory authority. The OARs are the official compilation of rules and regulations having the force of law in the state of Oregon, and are the regulatory and administrative corollary to the Oregon Revised Statutes. The OARs are published pursuant to ORS 183.360 (3).

Chapter 581 of the OAR encompasses the rules and regulations of the Oregon Department of Education (ODE). Division 27 within this chapter covers the School Construction Matching Program and defines requirements for facility assessment, seismic assessment, and long-range facility plans. Adoption of this LRFP will satisfy the current requirements of the applicable OARs.

OAR 581-027-0040: Long-Range Facility Plan Requirements is included for reference in Appendix A — Regulatory Information.

SCHOOL CONSTRUCTION MATCHING PROGRAM

The State of Oregon provides matching grants to school districts from designated resources in the Oregon School Capital Improvement Matching (OSCIM) account. The State determines and apportions the amount of available resources to districts among the funding cycles in each biennium.

The total amount of State matching grant funds available and awarded varies during each funding cycle. In order to qualify for an OSCIM program matching grant, Districts must submit a long-range facility plan and facility assessment as part of their OSCIM program application. Failure to submit these documents will disqualify the District from participation in the OSCIM program application for that funding cycle.

Section 581-027-0023 (Submission of Long-Range Facility Plans and Facility Assessment as part of Oregon School Capital Improvement Matching Program Grant Application) prescribes the elements of the LFRP that a district must submit to be eligible for matching funds:

(8) The Long-Range Facility Plan must meet the following requirements:

- (a) Comply with the standards set forth in OAR 581-027-0040; and
- (b) Demonstrate how the new buildings proposed to be built are integrated into the Long-Range Facility Plan.

(9) The Facility Assessment must meet the following requirements:

- (a) Comply with the standards set forth in OAR 581-027-0035;
- (b) Cover buildings that will be including in the OSCIM program grant application. A district may include facility assessments for more buildings than would be improved using OSCIM program funds;
- (c) Cover a District's current buildings even if the District is applying for the OSCIM program only for the construction of a new building.

(10) Districts are not required to use a Certified Contractor to complete the Long-Range Facility Plan or the Facility Assessment.

(11) A District may use the same Facility Assessment and Long-Range Facility Plan as a basis for an OSCIM program application for four years from the year in which the plan was completed.

The 2021 LRFP provides the information needed to comply with the specific elements of OAR 581-027.

PHYSICAL EDUCATION REQUIREMENTS

In 2007, the Oregon Legislature enacted House Bill 3141 (ORS 329.496), which calls for a minimum of 150 minutes of weekly physical activity for students in kindergarten through fifth grade, and 225 minutes of weekly physical activity for students in sixth through eighth grades. Senate Bill 4 (SB4) was enacted in 2017, with new provisions and amendments.

School districts are required to provide students with the specified amount of physical activity starting in the 2017-18 school year, with full compliance required by the 2022-23 school year.

Based on preliminary evaluations completed by the District as part of this planning process, several schools may need additional physical education (PE) teaching stations in order to meet this requirement through the 2030-31 school year (the capital plan horizon). A more detailed analysis will be required to confirm specific space needs. The District will also need to assess the availability of PE instructors and supporting budget, which is not included in a capital plan.

ORS 329.496: Physical Education Participation is included for reference in Appendix A — Regulatory Information.

URBAN AND RURAL RESERVES

Urban and Rural Reserves, including Urban Reserve Areas (URAs), were adopted by Metro and the region in 2010. Development of the URAs in the vicinity of North Bethany and Cooper Mountain has most directly affected Beaverton School District student enrollment. The District participates in the community planning for the Reserve areas and the District's enrollment forecasts include the planned residential densities and committed development in these areas.

NORTH BETHANY

The North Bethany URA was subsequently included in the regional Urban Growth Boundary (UGB) and, following that action, significant residential development has occurred. This development resulted in enrollment increases in the northern portion of the school district boundary and led to attendance boundary adjustments for

certain schools. The District's enrollment forecasts consider the new and committed developments in this area.

Most of the North Bethany area has either been built-out or is committed to development. The District owns a 10-acre site for a future elementary school in the North Bethany area. However, there are no plans for constructing a new school in this area within the time frame of this Long-Range Facility Plan, as it is not expected to be needed.

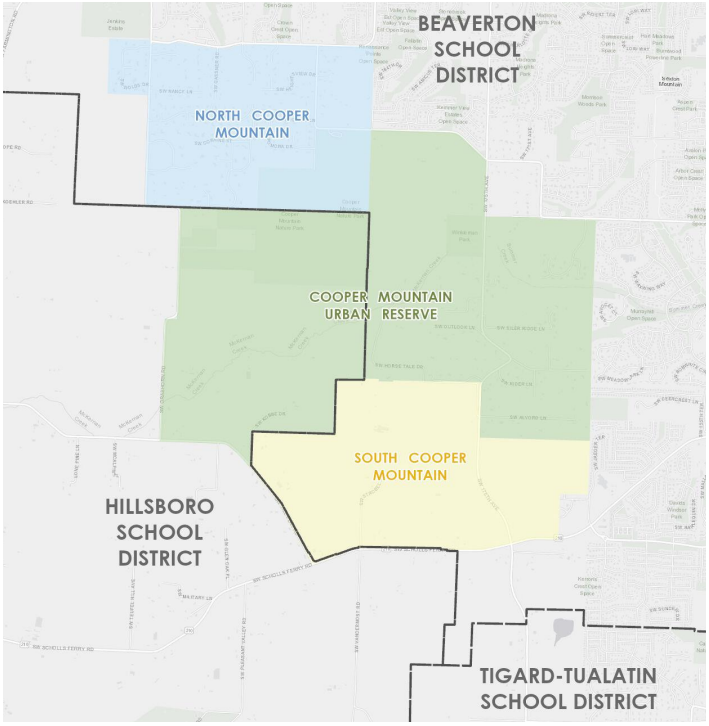
SOUTH COOPER MOUNTAIN

South Cooper Mountain (544 acres located at the southwest edge of Beaverton) was added to the UGB in 2011 and annexed by the City of Beaverton in 2013. The South Cooper Mountain Community Plan was adopted in 2015. Much of this area has been developed or is committed to development. The new Mountainside High School is located with the South Cooper Mountain planning area. In addition, the District owns property for a future elementary school within this planning area.

The Cooper Mountain area is located in the southwest corner of Beaverton inside the Metro UGB and adjacent to the existing city limits. It is bordered by Grabhorn Road to the west, Tile Flat Road to the south, Kemmer Road and Weir Road to the north, and the existing city limits to the east. The area is largely undeveloped but includes existing residences, as well as Cooper Mountain Nature Park, Winkelman Park, and Tualatin Valley Fire & Rescue (TVF&R) Station 69.

The Cooper Mountain Community Plan area is made up of 179 properties totaling 1,232 acres. A concept plan for the Cooper Mountain area is currently being developed by the City of Beaverton in advance of the property annexing to the City. Roughly half of this area is located within the Beaverton School District boundary. The other half of the planning area is located within the Hillsboro School District boundary.

DIAGRAM:
South Cooper Mountain URA



LOCAL COMPREHENSIVE PLANS

Following adoption of the LRFP by the School Board, the Plan will be presented to the City of Beaverton and Washington County for adoption into their respective local comprehensive plans.

In accordance with ORS 195.110 (2)(a):

(2) A city or county containing a large school district shall:

(a) Include as an element of its comprehensive plan a school facility plan prepared by the district in consultation with the affected city or county.

Upon adoption the local jurisdiction may use the LRFP to evaluate whether a plan or land use regulation amendment proposed within the jurisdiction will significantly impact school capacity. If significant impacts are identified, the large school district may request that the city or county implement a coordinated process with the district to identify methods to address the projected impacts.

The cities of Tigard, Hillsboro, and Portland also have area served by the Beaverton School District. However, with limited area, these cities will not need to adopt the LRFP into their comprehensive plans.

HISTORIC CONSERVATION

State statute ORS 358.653 requires school districts that have buildings of historic significance in their facility portfolio to coordinate with the State Historic Preservation Office to protect buildings from inadvertently being transferred, sold, demolished, substantially altered, or allowed to deteriorate by work being performed on the buildings.

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SECTION 04

VISION & GOALS

The vision for the Long-Range Facility Plan is rooted in the District's goal of empowering all students to achieve post-high school success and aligns with the District Strategic Plan and Equity Guides.

DISTRICT STRATEGIC PLAN

The Beaverton School District Strategic Plan, shown at right, emphasizes excellence, innovation, equity, and collaboration. Developed by the School Board in 2014, these broad goals form the framework for detailed strategic measures and ongoing assessment in a variety of areas. They were also used as the foundation for developing specific facility-related guiding principles for the Long-Range Facility Plan.

WE EXPECT EXCELLENCE

WE teach students knowledge and skills for our evolving world.

WE seek, support, and recognize world-class employees.

WE INNOVATE

WE engage students with a variety of relevant and challenging learning experiences.

WE create learning environments that promote student achievement.

WE EMBRACE EQUITY

WE build honest, safe, and inclusive relationships with our diverse students and their families.

WE provide needed support so that every student succeeds.

WE COLLABORATE

WE work and learn in teams to understand student needs and improve learning outcomes.

WE partner with our community to educate and serve students.

GUIDING PRINCIPLES

The following guiding principles were developed by the District Leadership Team to establish goals for the planning process and outcome. They are organized around the four pillars of the District's Strategic Plan.

WE EXPECT EXCELLENCE

> Strategically plan for the maintenance, modernization, and replacement of facilities.

> Plan for facility needs to meet all state regulatory requirements.

> Maintain investment in current facilities by addressing unfunded maintenance needs.

> Where significant investment is required to renovate and upgrade existing facilities (greater than 75% replacement cost), consider the cost / benefits of replacement.

> Address all addition and expansion needs in existing facilities throughout the District.

WE INNOVATE

> Update the Educational Specifications to reflect the evolving needs of pedagogical practices.

> Provide flexible school facilities that foster creativity in teaching and support the evolution of high-quality education.

> Incorporate sustainability, energy efficiency, and maintenance into the facility planning process.

WE EMBRACE EQUITY

> Consider facility planning decisions through an equity lens.

> Create greater parity across facilities.

> Plan for upgrades / improvements.

WE COLLABORATE

> Collaboratively plan for future facility needs driven by community, demographics, and pedagogical change.

> Provide community amenities and support partnerships with other local agencies and service providers.

LRFP GOALS & IMPLEMENTATION ACTIONS

The following LRFP goals and actions for implementation were developed by the District as part of the planning process, and in alignment with the Strategic Plan and Guiding Principles.

GOAL 1: UTILIZE THE 2020 FACILITY CONDITION ASSESSMENT (FCA) TO PRIORITIZE BUILDING INVESTMENTS AND DECREASE DEFERRED MAINTENANCE.

1A: Prioritize deferred maintenance work using Facility Condition Assessment (FCA) data.

1B: Update FCA data annually to reflect changes based on completed repairs, completed replacement/construction, or continued deferred maintenance.

1C: Assess current Maintenance Department resources and a gap analysis for needed maintenance productivity.

1D: Provide a yearly report to the School Board on the status of deferred maintenance.

1E: Hire needed positions in the Maintenance Department to provide a preventive and corrective maintenance program.

GOAL 2: INVEST IN SEISMIC IMPROVEMENTS SUCH THAT ALL SCHOOLS MEET COLLAPSE PREVENTION PERFORMANCE ON OR BEFORE DECEMBER 2032 AND AS DIRECTED BY OREGON REVISED STATUTE (ORS) 455.400.

2A: Prioritize seismic rehabilitation work based on buildings with the lowest structural score and availability of funding resources and/or targets of opportunity with scheduled repair work.

2B: Apply every funding cycle for state seismic rehabilitation grants.

GOAL 3: IMPLEMENT SECURITY IMPROVEMENTS ON OR BEFORE DECEMBER 2028. THESE PROJECTS INCLUDE BUT ARE NOT LIMITED TO FENCING, CAMERA, KEY CARD INSTALLATIONS, ISOLATION ROOMS, AND VESTIBULES.

3A: Ensure schools at a minimum have a key card access system and security cameras by December 2023.

GOAL 4: MAINTAIN HIGH STANDARDS FOR DESIGN AND CONSTRUCTION OF NEW AND RENOVATED FACILITIES AND ALIGNED TO THE EDUCATIONAL SPECIFICATIONS.

4A: Establish a level of service standard for lighting, fresh air exchange, heating/cooling, technology, teaching stations, and storage in classrooms and other teaching anf learning spaces.

4B: Develop a plan to improve deficient spaces, in coordination with annual facility improvements and maintenance.

4C: Regularly review and update the Educational Specifications to reflect best practices and lessons learned from completed projects.

GOAL 5: INVEST IN NEW ENERGY EFFICIENT BUILDING SYSTEM AND TECHNOLOGY TO ENSURE LONG-TERM OPERATIONAL PERFORMANCE AND UTILITY SAVINGS SPECIFICALLY EVALUATED ON TRUE LIFE-CYCLE COST ANALYSIS VERSUS FIRST-COST OF CONSTRUCTION.

5A: All new construction buildings shall meet all of the following energy efficiency program metrics:

> Enroll in the Energy Trust of Oregon's (ETO) New Building Program Whole Buildings Offering.

> Meet Oregon's 1.5 Percent Green Energy Technology (GET) requirement, which stipulates public entities spend

1.5 percent of public building capital construction costs on specified renewable energy systems.

> Meet or exceed Oregon Department of Energy (ODOE) SB1149 EUI (Energy Usage Index) target guidelines:

- Elementary / Middle Schools: 29 kBtu/SF/Yr
- High Schools: 37 kBtu/SF/Yr

> Eligible for EPA ENERGY STAR Certification with a score of 75 or higher. ENERGY STAR certified buildings save energy, save money, and help protect the environment by generating fewer greenhouse gas emissions than typical buildings. To be eligible for ENERGY STAR certification, a building must earn an ENERGY STAR score of 75 or higher on EPA's 1 – 100 scale, indicating that it performs better than at least 75 percent of similar buildings nationwide.

> Require ENERGY STAR appliances throughout.

5B: All existing buildings shall meet the following energy efficiency program metrics by 2040:

> Meet or exceed Oregon Department of Energy (ODOE) SB1149 EUI (Energy Usage Index) Target Guidelines:

- Elementary / Middle Schools: 29 kBtu/SF/Yr
- High Schools: 37 kBtu/SF/Yr, and

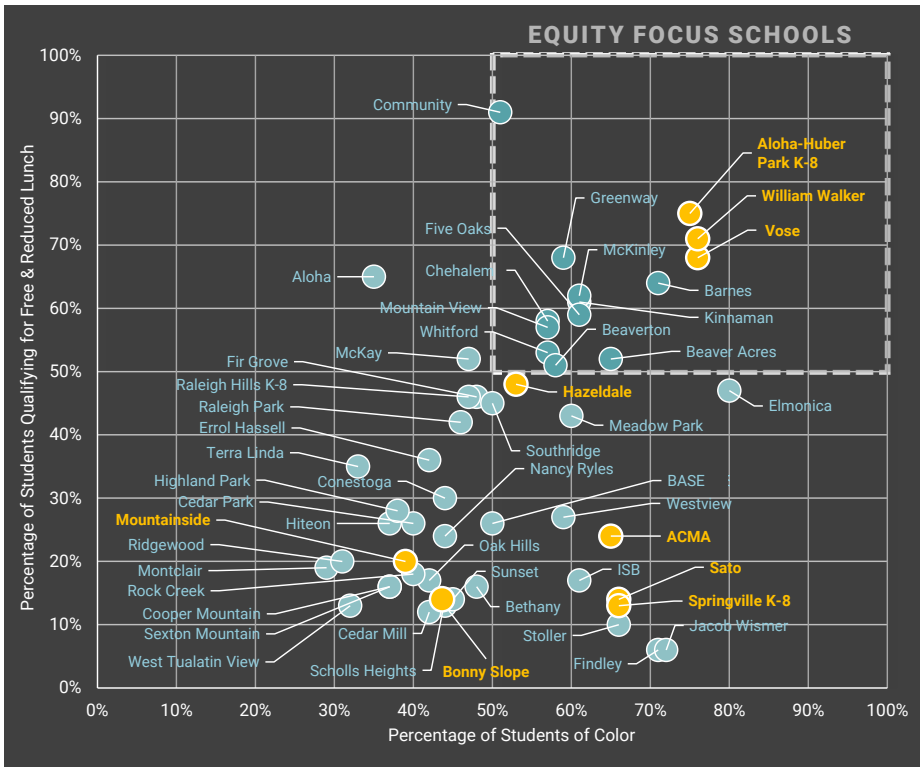
> EPA ENERGY STAR certified with a score of 75 or higher.

GOAL 6: BALANCE SCHOOL CAPACITY WITH CURRENT AND PROJECTED ENROLLMENT LEVELS.

6A: Regularly review and adjust attendance boundaries to respond to enrollment growth, decline and the capacity/quality of school buildings.

6B: Maintain transparent and collaborative decision-making practices in attendance boundary adjustments.

CHART:
Equity Focus Schools



EQUITY LENS

Beaverton School District is a diverse community of learners. 53.9 percent are students of color, 34.8 percent qualify for free-and-reduced lunch, and 12.5 percent are English language learners, with 94 different languages spoken in student homes.

In order to break the predictive link between student demographics and student success, the District applies the principle of equity to all aspects of their schools and programs and aspires to have the five "P"s listed below:

PARTNERSHIP elevates multiple perspectives from historically underserved communities

PEOPLE reflect the diversity of our student body

PLACE is safe, inclusive, and affirming for historically underserved students and their families

POLICY articulates a vision for equity

PRACTICE eliminates gaps in access, opportunity, and expectation

DISTRICT EQUITY GUIDES

The following list includes the equity guides that the District has adopted. They are questions that the District asks itself when considering any decision.

> Whose voice is and is not represented in this decision?

> Who does this decision benefit or burden?

> Is this decision in alignment with the BSD Equity Policy

> Does this decision close or widen the access, opportunity, and expectation gaps?

USING THE EQUITY LENS IN A PLANNING CONTEXT

In addition to being mindful of the equity guides throughout the long-range planning effort, the planning team also evaluated specific equity metrics related to historically underserved groups to inform the planning process. Using District data for individual schools, the team looked at socioeconomics, race, and language spoken.

Recognition of which schools have enrolled students with a high level of socio-economic need, a high level of racial diversity, and a high percentage of English-language learners informed planning decisions throughout the process, within the context of many other factors.

Equity Focus Schools
The chart on the previous page shows where schools fall in terms of their percentage of enrolled students qualifying for free and reduced lunch and the percentage of students of color. Schools in the upper right quadrant have more than 50 percent of enrolled students in both of these categories, identifying them for equity focus. Schools in this category include nine elementary schools, three middle schools, one high school, and one option school.

Recently constructed schools (after 2000) are also identified in orange (with the exception of Tumwater Middle School, which is not yet open as a middle school and did not have student data). Almost one-quarter of the schools in the equity focus category have been recently replaced, including Aloha Park K-8 (2005), Vose Elementary School (2017), and William Walker Elementary School (2018). Five Oaks Middle School was not replaced, but received a major modernization and addition as part of the 2014 bond. This work reflects the District's ongoing commitment to equity.

Geographic Equity
Looking at school equity from a geographic perspective, as shown in the graphic at right, provides another metric for consideration. When viewed through a lens of greater than 50 percent free-and-reduced lunch, greater than 50 percent students of color, and greater than 15 percent English-language learners, the following schools emerge (shown in red):

> Aloha Park K-8

> Barnes Elementary School

> Beaver Acres Elementary School

> Chehalem Elementary School

> Greenway Elementary School

> Kinnaman Elementary School

> McKinley Elementary School

> Vose Elementary School

> William Walker Elementary School

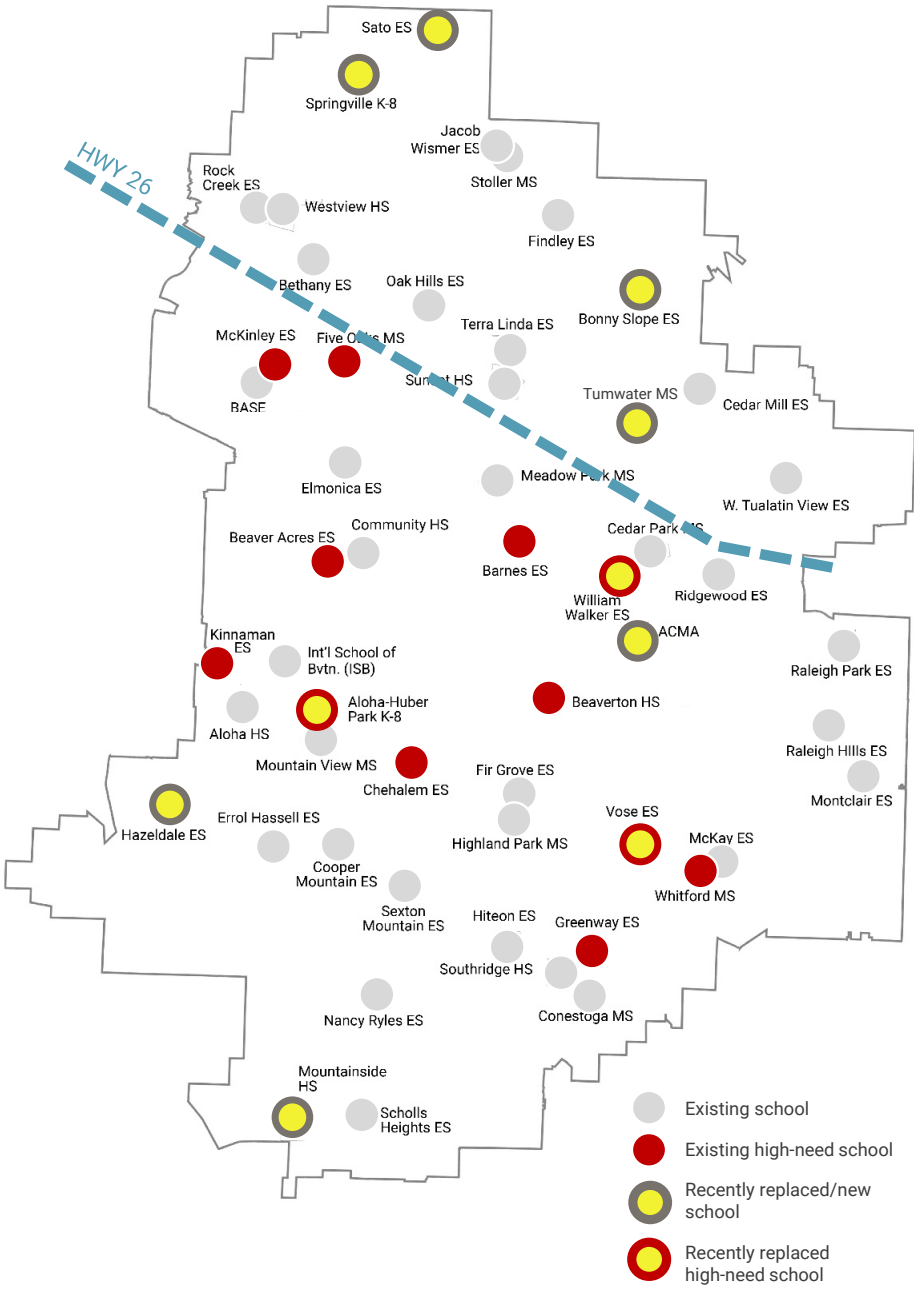
> Five Oaks Middle School

> Whitford Middle School

> Beaverton High School

All of these schools are located to the south of Highway 26, primarily in the central, older parts of the District. As illustrated in the diagram, three of these schools have been replaced.

DIAGRAM:
Equity Mapping of School Replacement Projects Since 2000



SECTION 05

EDUCATIONAL PROGRAM

The purpose of a long-range facility plan is to develop a "road map" outlining strategic management of district facilities that offer high-quality, effective, and adaptable learning environments for students. Over the last few decades, education has changed dramatically to incorporate a new understanding of how individuals learn.

MODERN LEARNING ENVIRONMENTS

Ensuring that the District builds modern, student-centered learning environments to accommodate the variety of ways that students learn is essential to fulfilling the Long-Range Facility Plan's purpose. The LRFP addresses changing needs for educational program delivery and how facilities can support these requirements.

Many of the District's existing facilities are dated and may not support these aspirations or reflect the cultural norms of the community. Education facilities have historically been designed in a "one-size-fits-all" manner. Older building configurations were designed to support one teacher with a group of 30 students, limiting flexibility for team-teaching, variety in student group sizes, and typically with no space outside the classroom for instruction.

BACKGROUND

There have been enormous strides in our understanding of how the brain functions and how children learn. We know that individuals learn in a variety of ways, requiring information to be provided in a variety of formats.

This knowledge has given rise to new approaches towards more effective teaching and learning, such as project-based learning, student-managed learning, small group work, independent research, and presentation. While the realities of our modern world continue to change and evolve, many older school buildings are still configured as they were 80 years ago (designed as factories for learning—with repetitive classrooms, sized for 30 students in a double-loaded corridor configuration).

Today's learners are citizens of the world. They are connected through media and technology to a greater network of information than ever before. They need to be able to sift through vast quantities of information and evaluate it rather than memorize it. They must be more creative, innovative, and work in a more collaborative way. As global community members, students need to understand

and relate to different cultures and languages. They live in a rapidly changing world, which requires flexibility to meet the needs of the future.

In order to meet the nation's needs for the twenty-first century, the U.S. Department of Education offers the following guidelines regarding the design of learning environments:

> Enhance teaching and learning and accommodate the needs of all learners

> Serve as centers of the community

> Result from a planning and design process involving all stakeholders

> Provide for health, safety, and security

> Effectively use adaptable resources

> Allow for flexibility and adaptability to changing needs

FACILITY PLANNING IMPLICATIONS

Increasingly, insightful teams of administrators, educators, and parents are collaborating with architects to re-imagine the schoolhouse. The goal is to create buildings that will engage students, welcome the community, and adapt to shifts in population and pedagogy.

Modern learning environments are student-centered and integrate innovative teaching methods, such as hands-on learning and collaborative project-based work, with effective learning environments that are flexible, adaptable and technology-rich. Modern learning environments accommodate and encourage different students, of varying ages, abilities, and interests, to learn different things from different people in different places, in different ways, and at different times.

Modern learning environments engage students, welcome the community and adapt to shifts in student population. They are flexible, connected, collaborative, culturally relevant, multisensory, and multipurpose; with provisions for small study spaces and shared group space.

Learning Everywhere

Learning can take place anywhere. Spaces that support multiple uses are places that provide space for a wide range of learning styles. Additionally, they are spaces that can take a variety of forms depending on the school's social and cultural context, students' ages and abilities, educational philosophies, curriculum and pedagogies. Multipurpose learning spaces must be flexible. They should be able to serve a variety of learning communities within the school, as well as the community surrounding the school.

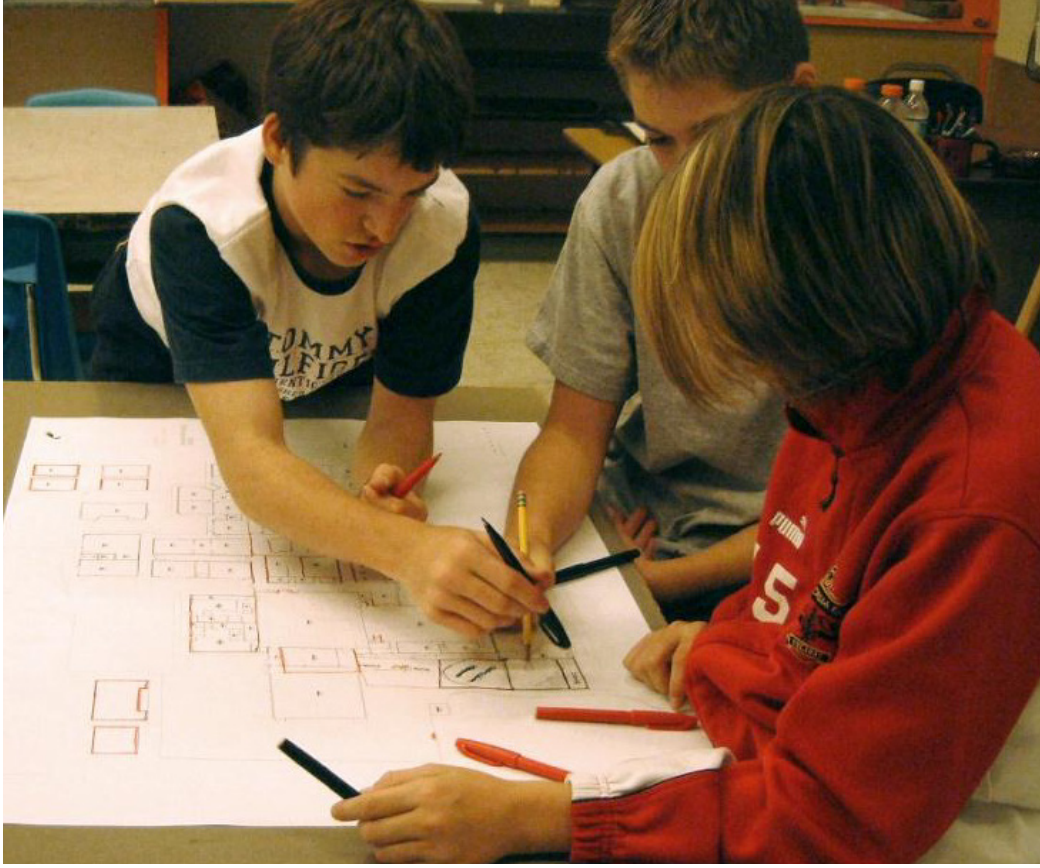
Design Patterns

School facility design contributes to creating successful learning environments. Types of teaching and learning, such as independent study, peer tutoring, project-based learning, student-managed learning, mentoring, and distance learning, create the need for different types of space.

Environmental Responsibility

Teachers and students perform best in facilities that meet their needs. Facilities must be well-ventilated, comfortable environments that are free of hazards and irritants, while also minimizing energy and resource use. Access to daylight and good acoustics are also key elements of a healthy environment.

School buildings can be designed to go beyond sustainability, in terms of energy use, and employ the building as a teacher of environmental stewardship and a laboratory for learning about natural processes and building technologies. There is increasing national concern about the buildings and spaces in which students learn, and how these might affect both health and achievement.



EDUCATIONAL ADEQUACY

Educational adequacy addresses the following question:

How well does the facility create a successful environment for learning, inspiring, and building community?

Although educational adequacy can be difficult to quantify, facilities can be evaluated in a number of different ways, including area per student comparison and elements of successful learning environments.

AREA PER STUDENT

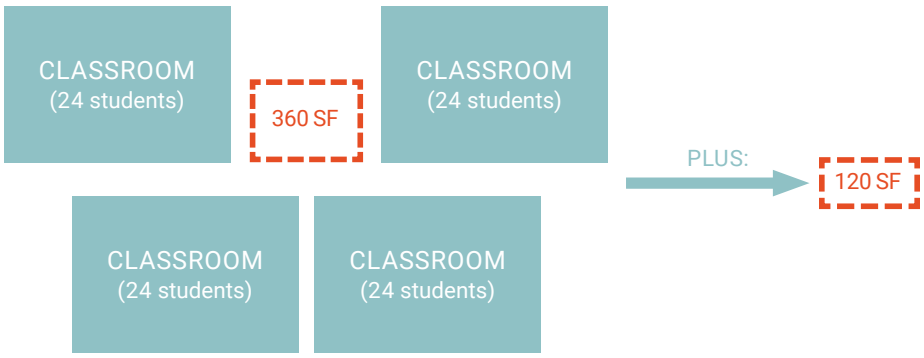
Gross square footage per student (GSF/student) is one metric that can be used to compare educational adequacy in school facilities. GSF/student is determined by taking the total gross square footage of a facility and dividing it by the permanent student capacity of the building. It is important to note that this metric is not necessarily a reflection of classroom size, as it takes into account all spaces within the building and provides the average amount of total space per student.

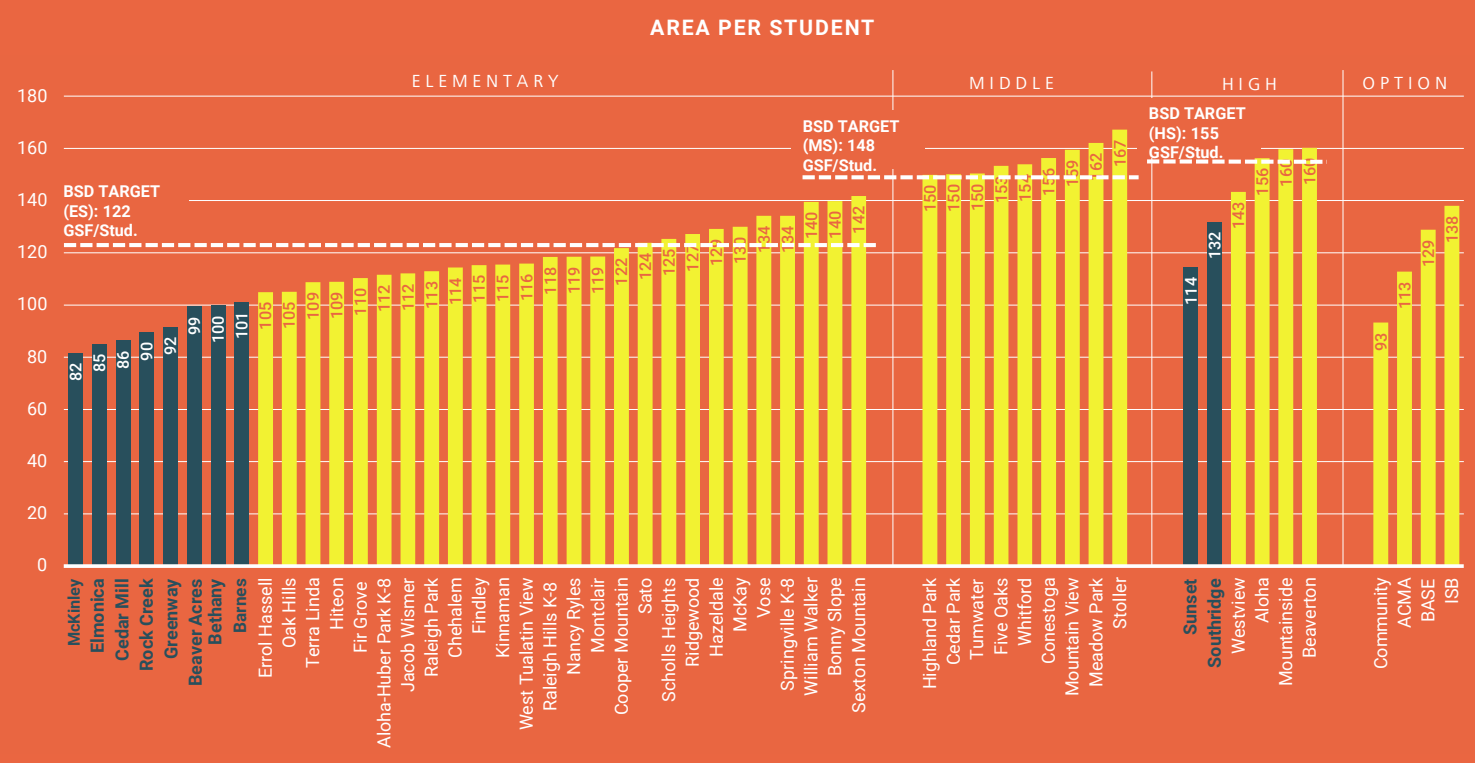
Beaverton School District's area per student targets are 122 GSF/student for elementary schools, 148 GSF/student for middle schools, and 155 GSF/student for high schools. These targets are based on the District's Educational Specifications and evaluation of recently completed school facilities. The District is typical of most school districts, in that its school facilities vary widely in terms of area per student.

A small amount of difference in area per student can have a big impact on the amount of space in a facility and how it is used. For example, the difference between Montclair Elementary (119 GSF/student) and Sato Elementary (124 GSF/student) is only five square feet per student. However, when this is multiplied by the number of students per classroom (25), it equates to an additional 125 square feet per classroom, or an additional 500 square feet of space for a cluster of four classrooms.

This additional space is enough to provide break-out areas and/or other types of teaching and support space for the classrooms that a school with a lower area per student would not be able to have, as shown in the diagram below.

Impact of Five Square Feet Per Student:





Distribution and configuration of space is also important to consider. Adding onto an existing school can increase the area per student, but does not always provide the desired types and relationships of spaces, such as break-out spaces adjacent to classrooms.

A comparison of area per student in the District's school facilities is shown in the chart above.

Elementary School Level
Of the District's 34 elementary schools, eight schools fall more than 20 GSF/student below the District target. Ranging from 80 to 101 GSF/student, these schools are typically older facilities that are not configured for modern learning. These schools are identified as having a potential opportunity to improve the learning environment if replaced or added onto.

At the other end of the spectrum, 11 elementary schools are at or above the target area per student, including all of the District's most recently constructed schools.

Middle & High School Level
All of the District's nine middle schools are at or above the District's target area per student.

Two of the District's six comprehensive high schools, Sunset and Southridge, are more than 20 GSF/student below the District target, while three are above the target.

The District's four alternative school facilities, which house middle school and/or high school students, all fall below the middle school and high school targets. This is typical for non-traditional programs that may not include all of the facility components of a comprehensive neighborhood school facility. The District does not have a target area per student for alternative programs, as the programs and facilities vary greatly.

ELEMENTS OF SUCCESSFUL LEARNING ENVIRONMENTS

> Facilitate learning everywhere

> Support multiple modes of delivery

> Offer opportunities for social learning

> Integrate technology throughout

> Maximize connections to community

> Seek educational partnerships and joint use

> Embrace sustainable design

> Inspire!

Shared Learning
Modern learning environments tend to offer several options that support large group, small group, and individual learning needs. Currently, two options exist in many of the District's older schools, including the general classroom environment and the hallway.

Existing facility considerations related to shared learning include:

> Limited or no shared learning areas in older schools

> Limited or no space for one-on-one, group projects, etc.

> Limited ability for outside of classroom supervision

> Disruption caused by use of learning space as a thoroughfare

Classrooms
Existing facility considerations related to classroom suitability include:

> Classrooms do not allow for flexible learning

> Limited or no connection to other learning areas

> Functionally limiting

Natural Light
Access to daylight is a key element of a healthy learning environment. Research over the last two decades has shown that lighting impacts physical health, psychological well-being, and academic performance. Characteristics related to the level and quality of natural light and educational suitability include:

> Little or no opportunity for visual relief

> Spaces that are dark and uninviting

Wayfinding / Character / Community
Supervision and wayfinding are important considerations in modern learning environments. Characteristics that can impact the educational suitability of a facility include:

> Spatially constrictive

> Difficult wayfinding

> Restricted observation of students

> Unwelcoming environment

> Limited or poorly configured spaces for community use

MODULAR CLASSROOMS

Modular classrooms,or portables, are located at many District schools to meet capacity needs. Although these classrooms provide the basic facilities for learning, they are not ideal learning environments due to a number of factors. Issues include their remote location and disconnectedness, as well as related supervision and security concerns. Modular classrooms also may not have materials, systems, and amenities that are commensurate with permanent building space, resulting in limited display and storage areas, limited natural light, and/or suboptimal heating ventilation systems.

The District recognizes the limitations of modular classrooms and has set a goal to remove and/or limit the use of portables wherever possible. However, it is recognized that there are situations where their use is necessary due to budget, site, or other constraints.

AREAS OF EDUCATIONAL PROGRAM NEED

The following information summarizes specific District educational programs that could require and/or benefit from modification of existing facilities within the 10-year time frame of the Long-Range Facility Plan.

Educational goals and needs for the LRFP have been defined for those programs that have clarity regarding facility support needs. Not all of the District's educational programs are included. Of those shown, it is yet to be determined what, if any, changes may be made. Some programs were determined to not require action as part of the Long-Range Facility Plan, and are included for informational purposes only.

EARLY CHILDHOOD EDUCATION

EXPAND PRESCHOOL PROGRAM

Goal
Provide one prekindergarten classroom at every elementary school with Title I status.

Existing Condition
15 Title I elementary schools are identified within the District for the 2020-21 school year and six Title I schools currently have prekindergarten programs.

Need
Implement a preschool program in the remaining nine Title I elementary schools by adding a prekindergarten classroom and associated support, including a required outdoor play area. (Although the specific plan approach, either new construction or modernization, will be determined on a school-by-school basis, new construction is assumed for the purposes of the Long-Range Facility Plan.)

Elementary schools that need to add a preschool program include:

> Beaver Acres
> Chehalem
> Elmonica
> Flr Grove
> Hazeldale
> Kinnaman
> McKinley
> Raleigh Hills
> Raleigh Park

SPECIAL EDUCATION

NEIGHBORHOOD SCHOOL IMPROVEMENTS

Goal
Provide adequate and equitable special education facilities at all schools (classrooms and support), so the majority of students needing special education can be served in their home attendance area.

Existing Condition
21 elementary, two middle, and three high schools currently have adequate special education facilities.

Need
Provide additional space and/or improvements to existing space at the remaining 13 elementary, seven middle, and three high schools that have inadequate special education facilities.

Special education program space requirements vary between grade levels and are determined by the District's educational specifications. A revised version of the education specification for special education was developed by the District during the planning process and was used in planning the size requirements at each grade level.

SPECIALIZED PROGRAM FACILITY

Goal
Provide a new stand-alone special education school to serve approximately 120 to 130 students for whom the District cannot currently accommodate their educational needs.

Existing Condition
Students are currently transported to non-District facilities, resulting in long transportation times and additional expense.

Need
Provide a stand-alone special education school for these students, either in a new or modernized facility. The estimated size for this facility is approximately 36,000 gross square feet and includes 15 classrooms, four safe rooms, offices, and support space.

PHYSICAL EDUCATION

MEET STATE PHYSICAL EDUCATION REQUIREMENTS

Goal
Provide space to accommodate State physical eduction (PE) requirements at all District facilities (elementary schools and middle schools).

Existing Condition
The number of PE spaces in existing District elementary and middle school facilities may not be adequate to meet State requirements at all schools.

Need
Additional gymnasiums or other PE teaching stations may be needed at some elementary and middle schools (to be determined). An analysis of existing PE spaces was completed as part of this planning process and indicated a need for additional PE teaching stations as many schools (14 elementary, two middle, and one option school).

However, as this analysis was based on a number of assumed factors and because there are also programmatic strategies to address this need, such as adjusting class sizes, scheduling, and utilization rates, the District determined not to include specific PE facility need as part of the LRFP.

One exception to this is Stoller Middle School. Due to its large enrollment and limited PE facilities, it is unlikely that programmatic changes will be enough to fulfill State requirements.

Other schools that may have a significant need for additional PE teaching stations include: Bonny Slope Elementary, Jacob Wismer Elementary, McKinley Elementary, and Conestoga Middle School. Further evaluation will be needed to determine PE facility need at these and all other District elementary and middle schools.

EDUCATIONAL SUPPORT

ADMINISTRATION & SUPPORT FACILITY IMPROVEMENTS

Goal
Provide adequate administration and support space to accommodate the District's educational programs and goals.

Existing Condition
There is a need for additional administrative support space in the District. The current Central Office building was built in 1970 when the enrollment size of the District was half of its current enrollment and there were fewer districtwide administrative services provided. Since then, districtwide administrative services have grown substantially and the current structure is inadequate for current operations.

Due to space limitations at the Central Office facility, some districtwide services are currently housed in locations separate from the Central Office, such as the Multilingual Department, Nutrition Services, and Special Education. Ideally, all districtwide administrative services would be in one location to improve community access.

Need
Expand the District's Central Office facility to accommodate all districtwide administration programs in one location.

SECTION 06

FACILITY CONDITION

Beaverton School District is the third largest school district in Oregon, educating almost 40,000 students each year. The District is located to the west of Portland and encompasses an area of approximately 57 square miles in Washington County.

EXISTING DISTRICT FACILITIES

Beaverton School District owns and operates over 5.7 million square feet of facility space on over 800 acres of land throughout the District. This includes 34 elementary schools, nine middle schools, six high schools, and five option schools, as well as several administrative and support facilities. The two area charter schools are not owned or operated by the District and are not included as part of this LRFP.

Three additional school facilities that were funded in the 2014 bond have recently been constructed, adding to the District's facility inventory. Recent projects include a new elementary school, a new middle school, and a new high school.

Many District schools have one or more modular classrooms, or "portables," on site to provide additional student capacity. The square footage and capacity of portables is calculated separately from permanent facility space.

ELEMENTARY SCHOOLS

The majority of the District's elementary schools house students in kindergarten through fifth grade, with the exception of three K-8 schools: Aloha-Huber Park, Raleigh Hills, and Springville. Both Raleigh Hills and Springville are in the process of transitioning to K-5 schools by 2022-23, and are considered as such for the purposes of this LRFP. Aloha-Huber is anticipated to remain a K-8 facility through the time frame of this Plan.

The 31 K-5 elementary schools range in size from approximately 41,100 square feet to as much as 87,200 square feet at the newest elementary schools in the District. The K-8 facilities are larger, ranging from approximately 59,200 square feet to 106,000 square feet. Currently, 22 elementary schools have modular classrooms on site.

MIDDLE SCHOOLS

The District's nine middle schools house students in sixth through eighth grades. They range in size from approximately 116,700 square feet up to 165,500 square

feet at Tumwater, the newest middle school. Currently, six middle schools have modular classrooms on site.

HIGH SCHOOLS

The six high schools in the District range in size from approximately 254,000 square feet to 342,000 square feet at Mountainside, the District's newest high school. Two existing high schools have modular classrooms on site.

OPTION SCHOOLS

The District's five option school facilities vary in program, grade levels and size. All option schools accommodate high school students, with several schools accommodating middle school students as well. The District has a total of approximately 320,000 square feet of facility space allocated for option schools. Facility sizes range from 51,125 square feet to over 105,000 square feet. Two options schools have modular classrooms on site.

Most option school facilities are housed on their own sites. Exceptions include the International School of Beaverton (ISB), which is co-located with the District's branch administrative facility, and BASE, which is co-located with other District support offices at the Capital Center.

SUPPORT FACILITIES

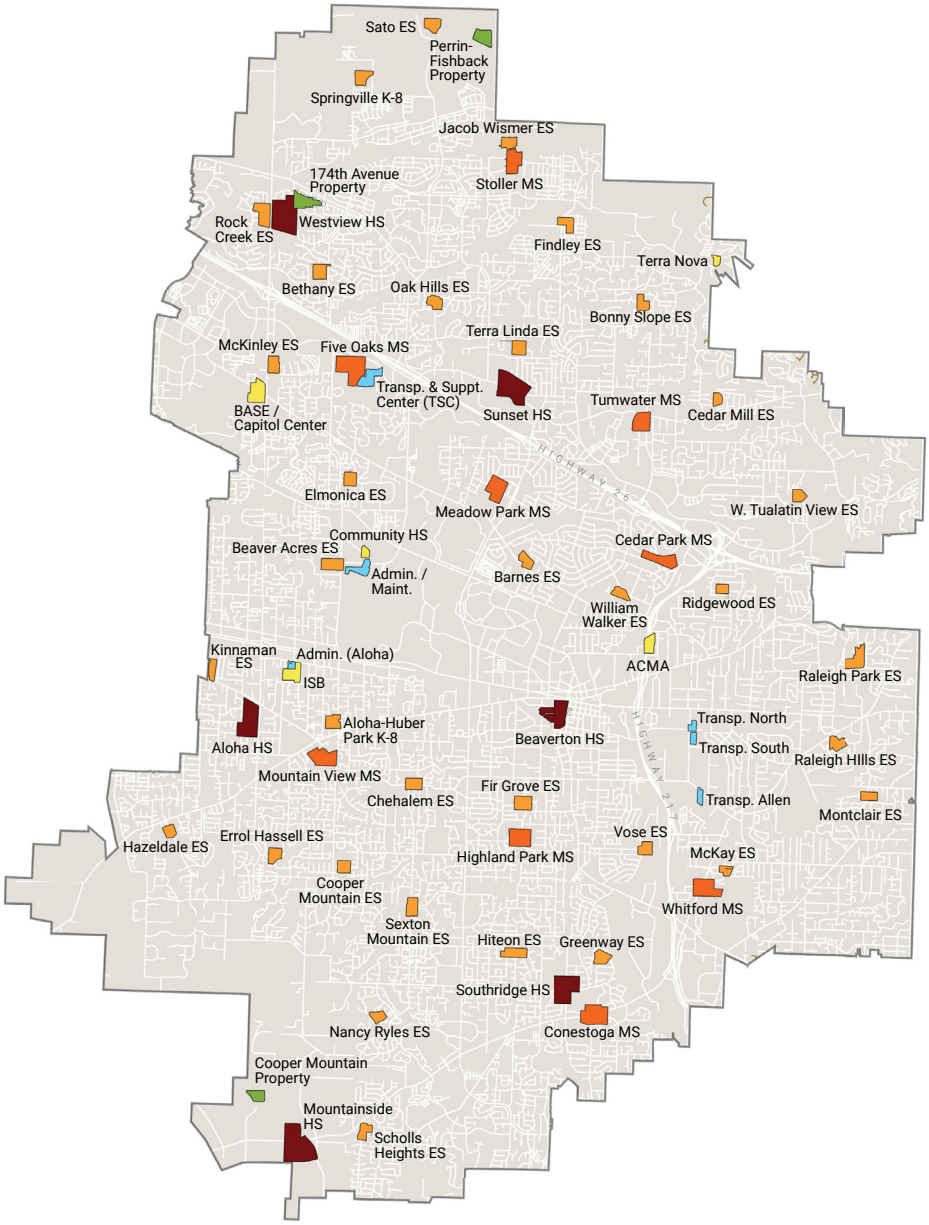
The majority of the District's support facilities are housed on one main campus, which has an administration building, several portables, and five maintenance buildings. There is also a small administrative branch facility, as well as four transportation and support facilities located throughout the District. There are approximately 253,000 square feet of support facilities in the District.

UNDEVELOPED PROPERTY

The District currently owns three parcels of undeveloped property. Two properties are located in the northern part of the District. The 174th Avenue property is located directly east of Westview High School and includes four tax lots. It is 14.8 acres in size, with about 11.6 acres of developable land, due to the presence of wetlands in the northern portion of the site. The Perrin-Fishback property is located at the northern edge of the District, near Sato Elementary School, and is approximately 10.0 acres in size.

The most recently acquired South Cooper Mountain property is located on the southern edge of the District, near Mountainside High School. It is approximately 11.0 acres in size.

DIAGRAM:
Existing District Facilities



FACILITY TYPE

- Elementary School
- Middle School
- High School
- Option School
- District Support
- Undeveloped Property

FACILITY AGE

District educational facilities vary significantly in age, with original construction dates as early as 1915 and as recent as 2021. Although facility age does not solely determine building condition, it is a significant factor that should be considered. The chart above illustrates the age of all District facilities.

Original construction dates were used for all buildings, although many District facilities have received modernizations and additions since their initial construction. This is because major building systems and components, such as foundations, structure and exterior materials, continue to degrade over time and eventually require replacement, regardless of subsequent work that has been done in the building.

Facilities built 75 or more years ago (before 1946), shown in blue above, are identified as candidates for potential replacement, due to both physical condition and program accommodation issues.

In addition to age-related degradation, older school facilities were generally not designed to accommodate current models of teaching and learning. Building configurations were typically designed to support one teacher with a group of 20-30 students, providing limited flexibility for team-teaching or convening a variety of student group sizes. Older schools commonly have no space outside of the traditional classroom for private conversations, individualized instruction, or group project work. Shared facilities, such as cafeterias, gymnasiums, restrooms, and administration areas are also often undersized for current functions and needs.

ELEMENTARY SCHOOLS

The majority of the District's elementary schools (31 schools) are less than 75 years old, including four schools that have been constructed within the last five years.

Three of the District's elementary school facilities are over 75 years old, including McKay, Barnes, and Raleigh Hills. The age of these facilities may be a contributing factor in their consideration for replacement, along with other factors such as condition, capacity, and educational adequacy. There are also five elementary schools that will exceed the 75 year life span of facilities during the next 10 years, including Beaver Acres, West Tualatin View, Fir Grove, Cooper Mountain, and Cedar Mill.

MIDDLE SCHOOLS

All of the District's middle schools are less than 75 years old, however five of the District's middle schools were built in the 1960's and are now over 50 years old. Although they will not be in need of replacement due to age within the time frame of this LRFP, it should be noted that they will likely be reaching the end of their useful life around the same time. The newest middle school, Tumwater, was completed in 2017.

HIGH SCHOOLS

The oldest comprehensive high school, and oldest facility in the District, is Beaverton High School, with the majority of the facility being constructed in 1915. At 105 years old, it should be considered as a candidate for replacement based on its age. Newer portions of the facility, such as the cafeteria, do not need to be replaced due to age.

Two other high schools, Sunset and Aloha, are over 50 years old, with the Sunset facility exceeding 75 years within the next 10 years. Mountainside High School, the newest high school in the District, was completed in 2017.

OPTION SCHOOLS

The facilities that house the District's option schools are all over 40 years old. The Terra Nova facility is currently over 75 years old, and the ISB facility will exceed a 75-year life span within the next 10 years.

SUPPORT FACILITIES

All of the District's support facilities are less than 75 years old, although the Administration - Aloha facility is nearing that age and will exceed a 75-year life span within the next 10 years.

STRATEGIC REPLACEMENT

Due to the number of facilities with similar dates of original construction, these facilities can be expected to reach the end of their useful life around the same period of time. While immediate replacement may not be warranted, incremental replacement implemented over the course of several decades should be considered. This proactive approach may be used to ensure that the District is not faced with the burden of replacing a large number of facilities within a short period of time.

HISTORIC BUILDINGS

The Merle Davies building, which is part of the Beaverton High School campus, is identified as part of the City of Beaverton Inventory of Historic Resources and is classified as a significant landmark.

FACILITY CONDITION

FACILITY ASSESSMENT PROCESS

In 2019, the District hired an outside consultant to complete a facility condition assessment (FCA) of District facilities in alignment with Oregon Department of Education (ODE) assessment requirements. The assessment covered 63 District facilities including schools, administration, and support buildings. The FCA report is included in Appendix D.

The FCA evaluates the physical condition of site elements, exterior and interior building systems, and incorporates the recommendations from the 2019 Seismic Assessment, described on pages 30-31 and included in Appendix E.

The assessment team reviewed available information such as previous reports, energy use, drawings, operations and maintenance reports, capital project history, and maintenance practices provided by the District. In addition, interviews were conducted with District maintenance staff and others to gather critical information on historic performance and known deficiencies. On-site information was gathered by visual inspection only; no tools were used and no destructive testing was performed.

Building systems were evaluated in the following categories:

> Fire and Life Safety– alarm panels, emergency generators, security systems, and fire suppression systems

> Heating System– boilers, furnaces, unit ventilators, terminal units, and other major equipment

> Ventilation System

> Air Conditioning System– cooling towers, chillers, and major labeled equipment

> Roofing System– roof type, reported age, drainage, or any unusual roofing conditions

> Electrical System– electrical service provided and distribution system, including switchgear, transformers, emergency generators, and main distribution panels

> Plumbing– domestic water supply, domestic water heaters, sanitary sewer, and any special or unusual plumbing systems (such as fuel systems and gas systems)

> Vertical Transportation

> Building Envelope– walls, doors, windows, and fire escapes, including curtain-wall systems, glazing, exterior sealant, exterior balconies, and stairways

> Structural Components– footings, foundations, slabs, columns, floor framing system, and roof framing system (no structural testing)

> Furnishings– fixed furnishings (cabinets, casework, etc.)

> Site Paving– site paving and/or site components including pavement, curbs, drains, and sidewalks

> Kitchen Equipment– walk-in freezers and refrigerators, dishwashers, ovens, stoves, broilers, grills, fryers, and ice makers

> Site and Other– playgrounds, synthetic turf fields, sports and ground facilities, natural fields, auditoriums, tracks, outbuildings, and stadiums

FACILITY CONDITION INDEX

Building condition evaluations yielded Facility Condition Index (FCI) scores for each District facility. An FCI score is generally intended to reflect the amount of capital required to address deferred maintenance items. It represents the cost to repair deficiencies as a percentage of the cost to fully replace the existing facility "as-is." It does not necessarily bring the facility up to current code and is not intended to represent improvements required to make the building equivalent to a new facility (a building with an approximate 75-year lifespan and modern learning environments).

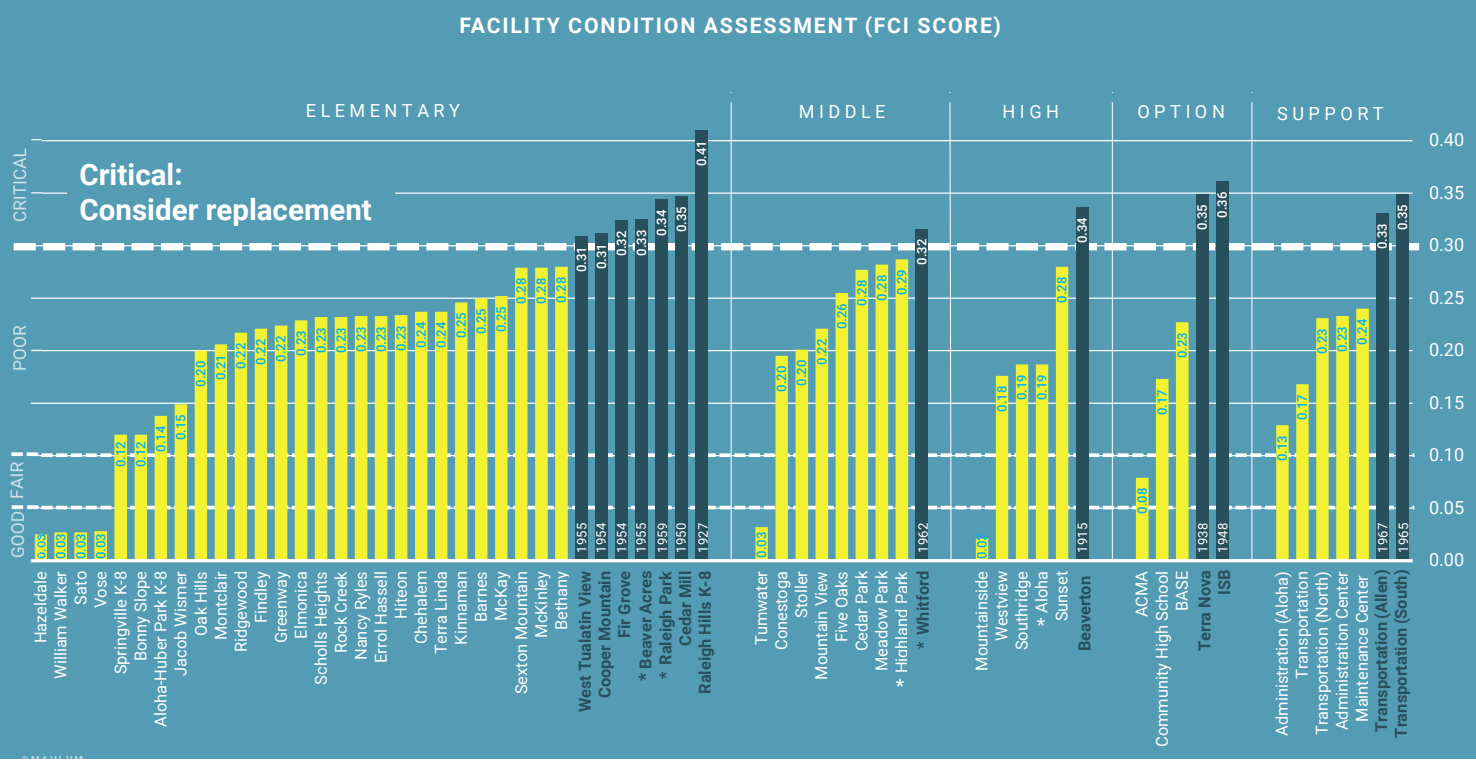
The State facility assessment is a tool used to help the ODE understand the relative condition of various districts' facilities across Oregon. It can also be used as a tool to help school districts and their communities understand the relative condition of facilities within their district, and make decisions regarding the modernization and replacement of aging facilities. However, the FCI score does not represent total facility need, and the comparison of cost to repair deficiencies relative to replacement cost does not represent the same finished product as a fully modernized or new building.

FCI scores are defined with the following "rules of thumb" in the FCA report:

0.05 or Below: Good Condition
Continue predictive and preventive maintenance

0.05 – 0.10: Fair Condition
Continue maintenance with capital renewal

0.10 or Above: Poor Condition
Consider whole building replacement or renovation versus repair



The FCA report recommends that the District should target having a majority of their buildings below the 0.10 score if planning to continue to operate in the building.

FCI scores for all District facilities are shown in the chart above, and in the table at the end of this section. As illustrated, all but seven District buildings were assessed as being in the Poor Condition category (0.10 or above). Therefore, a fourth category, Critical Condition, was defined for the purposes of this planning effort.

The Critical Condition category identifies buildings with FCI scores of 0.30 or more. It serves as a mechanism to allow the District Leadership Team and Focus Group to easily identify the worst-case building conditions for discussion and planning prioritization. 13 District facilities fall into the Critical Condition category.

ELEMENTARY SCHOOLS

Seven of the District's elementary schools have an FCI score above 0.30, indicating they were evaluated as being in critical condition. Two schools, Beaver Acres and Raleigh Park, received significant facility improvements after the assessment was completed, and therefore have effectively lower (better) FCI scores than shown.

Of the remaining five schools in critical condition, Raleigh Hills is in the worst condition, with a score of 0.41, followed by Cedar Mill, Fir Grove, Cooper Mountain, and West Tualatin View.

The District's four newest elementary schools have FCI scores in the "good condition" range. All other elementary schools fall into the "poor condition" range, with FCI scores between 0.22 and 0.28.

MIDDLE SCHOOLS

One District middle school, Whitford, was evaluated to be in critical condition, however this facility received significant facility improvements after the assessment was completed, and therefore has an effectively lower (better) FCI score than shown.

All other District middle schools scored in the "poor condition" category with scores between 0.20 and 0.29, with the exception of the recently completed Tumwater Middle School, which is in good condition.

HIGH SCHOOLS

Beaverton High School is the District's only high school that was evaluated to be in critical condition. With an FCI score of 0.34, it has one of the worst scores in the District.

Other District high schools fall into the "poor condition" category, with the exception of the recently completed Mountainside High School, which is in good condition.

OPTIONS SCHOOLS

Of the District's five option school facilities, two have been evaluated to be in critical condition, including the ISB and Terra Nova facilities, with scores of 0.36 and 0.35 respectively.

Other option schools range from fair to poor condition. The "fair" score for ACMA reflects that the facility includes a portion of the original building.

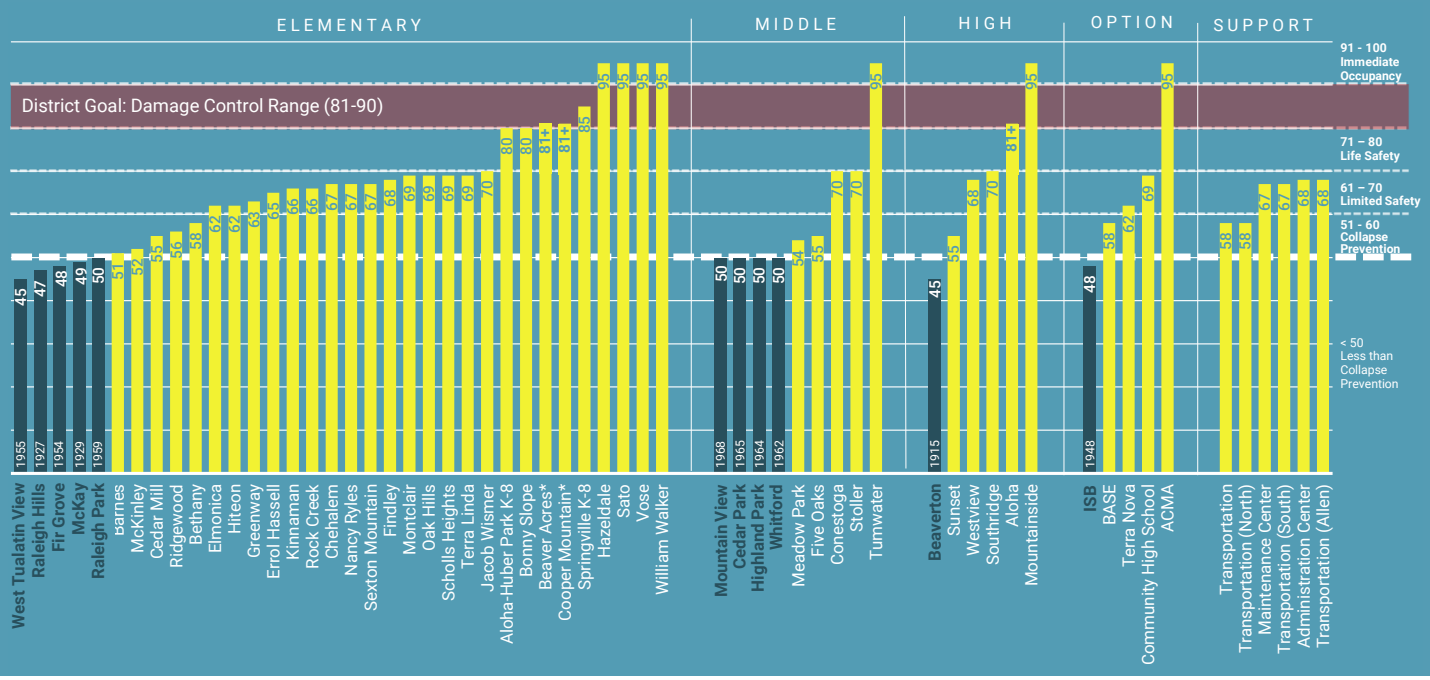
SUPPORT FACILITIES

Two District support facilities, the Allen and South transportation facilities, have FCI scores in the critical condition range. All other support facilities were evaluated to be in poor condition, with scores between 0.13 and 0.24.

SEISMIC CONDITION

Although new facilities are built to meet the current seismic codes at the time of construction, many District buildings are more than 30 years old and have had little or no earthquake resistance built into their original designs.

SEISMIC CONDITION



Seismic condition should be considered in the context of "rolling compliance." New codes are typically issued every few years and adjustments related to seismic requirements occur each time. The first seismic code was developed in 1976 and it has evolved over time with each new code, changing zones from low to moderate to high.

SEISMIC EVALUATION

Seismic evaluation can be used to prioritize future seismic improvements within the District and work toward meeting the goal of the 2017 Oregon Revised Statute (ORS) 455.400 which notes:

"Subject to available funding, all seismic rehabilitations or other actions to reduce seismic risk must be completed before January 1, 2032."

In 2019, the District hired a structural engineering firm to evaluate all District facilities (except the Aloha Administration facility). The resulting report provides an updated summary of how each campus is expected to perform during a seismic event, according to American Society of Civil Engineers (ASCE) 41-13. (Although ASCE 41-17 has since been released, it is not expected to significantly change the findings.) The full seismic report is included in Appendix E.

ASSESSMENT PROCESS

Seismic assessments included a review of available structural drawings, building walk-throughs, and preliminary seismic evaluations to determine likely seismic deficiencies.

The Tier 1 checklists from ASCE 41-13 were used as a guide for all seismic assessments. These checklists assist in identifying seismic deficiencies of a structure. A full Tier 1 evaluation was not completed for each school, as this was a higher-level review.

SCORING

Each campus was given a score based on its seismic vulnerabilities. This score indicates how it would likely perform during a seismic event based on the ASCE 41-13 performance objectives. The scoring ranges are:

> **Immediate Occupancy (91-100)**
Very limited structural damage and continued use of the building will not be limited by its structural condition.

> **Damage Control Range (81-90)**
Halfway between Immediate Occupancy and Life Safety.

> **Life Safety (71-80)**
Significant damage to the structure will occur but with margin against partial or total collapse. Although damaged structure may not be an imminent collapse risk, it would be prudent to implement structural repairs or install temporary bracing before re-occupancy.

> **Limited Safety Range (61-70)**
Halfway between Life Safety and Collapse Prevention.

> **Collapse Prevention (51-60)**
Little to no lateral strength or stiffness to resist lateral loads. Structural collapse possible in aftershock events, thus not safe to occupy after an event.

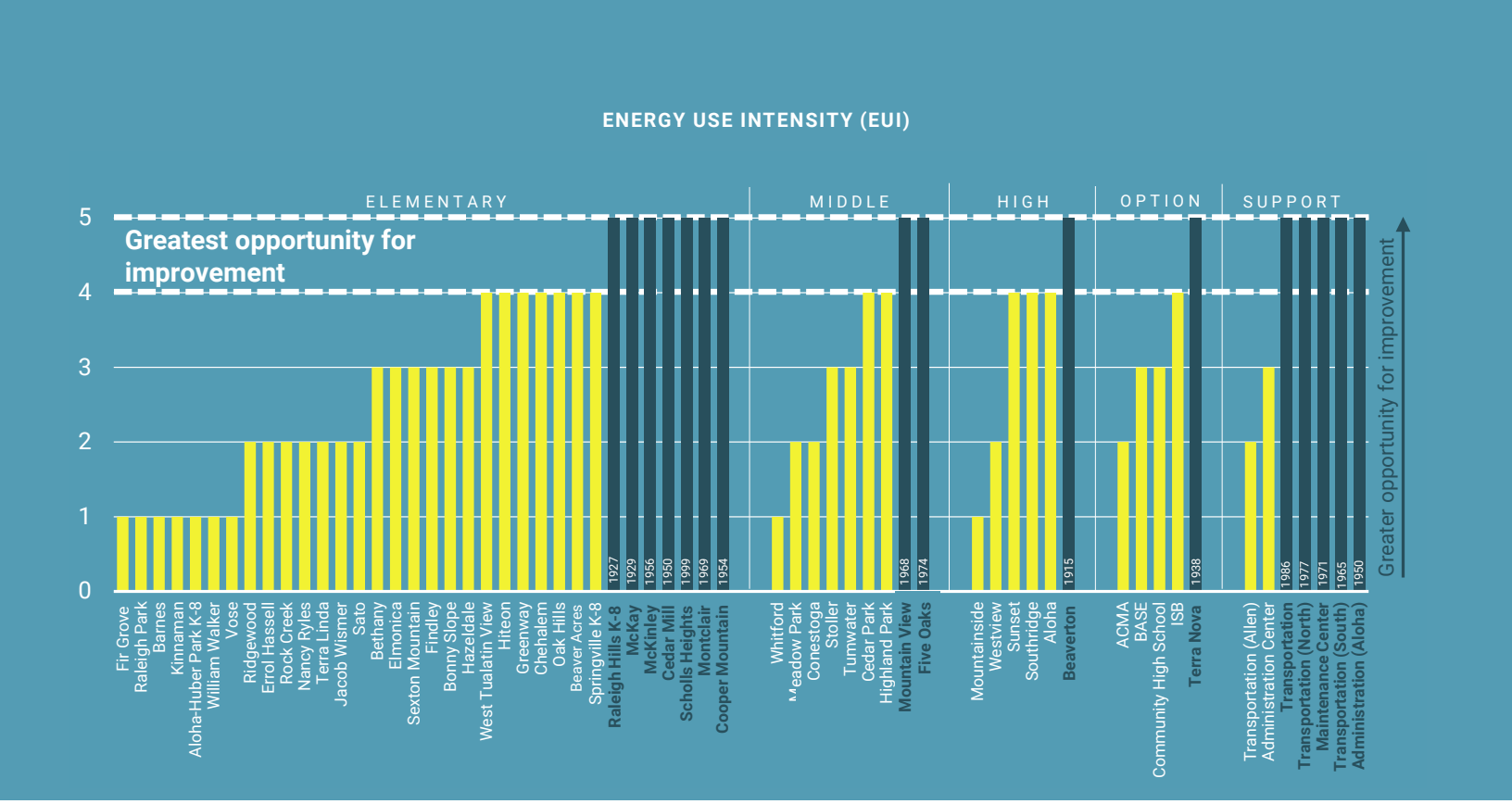
> **Less than Collapse Prevention (41-50)**
Possible partial or full collapse of structure.

DISTRICT TARGET

The Damage Control Range, between Life Safety and Immediate Occupancy, is the performance level target for Beaverton School District. The intent of the Damage Control performance level is to limit damage to the building beyond what would be expected for the Life Safety performance level. Damage Control is the recommended performance level for Risk Category III buildings, the code required risk category for new school buildings.

EXISTING CONDITIONS

The District's 10 newest facilities meet or exceed the District target for seismic condition. In addition, seismic



improvements were completed at three schools after the seismic evaluation was done, including Beaver Acres Elementary School, Cooper Mountain Elementary School, and Aloha High School. Seismic scores have been adjusted at these schools to reflect that they are now assumed to be within the targeted Damage Control Range, although their exact score has not been recalculated.

The majority of other District facilities fall into the Collapse Prevention range. However, there are 11 District facilities that were evaluated to be in the Less than Collapse Prevention range, including:

> Fir Grove Elementary School

> McKay Elementary School

> Raleigh Hills Elementary School

> Raleigh Park Elementary School

> West Tualatin View Elementary School

> Cedar Park Middle School

> Highland Park Middle School

> Mountain View Middle School

> Whitford Middle School

> Beaverton Middle School

> ISB

Seismic condition at these schools should be addressed as soon as possible. This can be accomplished through seismic improvements or facility replacement, depending on a variety of other factors.

IMPROVEMENT COSTS

The seismic evaluation included rough-order of magnitude estimates of probably cost for completing seismic improvements at each District facility. These estimates were based on previous seismic rehabilitation studies of similar building construction types and ages. They include an allotment for repairing architectural finishes, but do not include other mechanical/electrical/plumbing or architectural upgrades that might occur during a seismic rehabilitation project. Costs do not include soft costs or escalation and are therefore not equivalent with other costs shown in this LRFP. They are included for reference only.

The probable construction cost to bring all schools in the District up to the target seismic range is estimated in the report at $139.9 million, in 2019 dollars.

Upgrades to the schools in each scoring range break out as follows:

> Less Than Collapse Prevention: $48.7M

> Limited Safety & Collapse Prevention: $89.8M

> Life Safety: $1.4M

ENERGY USE

Energy Use Intensity (EUI) is a metric that evaluates which facilities will provide the most return on investment in terms of energy improvement. Modernizations at the most poorly performing schools will yield the highest return.

EUI evaluation and scoring was completed by an outside consultant as part of the 2019-20 facility condition assessment. Facilities are scored on a scale of one to five, with higher scores indicating greater opportunity for improvement.

> Score of 1: Energy performance in top 20% of buildings

> Score of 2: Energy performance in top 20-40% of buildings

> Score of 3: Energy performance in middle 40-60% of buildings

> Score of 4: Energy performance in bottom 20-40% of buildings

> Score of 5. Energy performance in bottom 20% of buildings

As shown in the chart above, many District facilities fall into the highest category, including seven elementary schools, two middle schools, one high school, one option school, and five of the District's seven support facilities.

DEFERRED MAINTENANCE

The initial construction cost of a school accounts for only 10 percent of its lifetime cost, according to School Construction News. Districts often struggle to fund the ongoing facility maintenance, and general operating funds are typically not budgeted to handle major repairs such as roof or mechanical system replacements. A building's life cycle may be 75 years or more, but many building components, including roofs, typically only last 20 years or less.

Although the District continually addresses maintenance issues, there are still considerable facility and site improvement needs throughout the District. As is typical for many school districts, there is more need than the District's alloted operations budget can accommodate, as all facilities continuously wear over time and need to be maintained.

Deferred maintenance needs include:

> Upgrades and/or replacements to structural, mechanical, and electrical systems

> Exterior enclosure improvements

> Interior finishes improvements

> Upgrades and/or replacements to commercial equipment and conveyance systems

> Fire and life safety improvements

> Site work

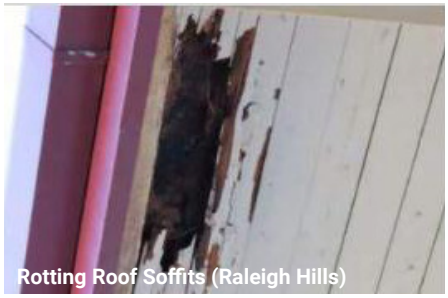
As part of the FCA, deferred maintenance costs were developed for each facility. The District's total 10-year deferred maintenance need was determined to be $610.1 million and includes improvements at all District facilities. The chart on the following page illustrates the total estimated deferred maintenance need for each facility, including seismic work identified in the 2019 seismic evaluation. Costs shown are escalated project costs.

ELEMENTARY

The total deferred maintenance need at the elementary level is approximately $233 million. Four facilities have been assessed as having over $10 million each in deferred maintenance needs. These schools include Beaver Acres, Fir Grove, Kinnaman, and Raleigh Hills K-8.

Major repair or replacement items at these facilities include roof and window replacements, significant mechanical, electrical and plumbing work, lighting, fire protection, interior finishes, and fixed furnishings. Maintenance items vary between individual facilities.

Examples of documented conditions at District elementary schools are shown below. More information regarding deferred maintenance needs for all District facilities can be found in the Facility Assessment Report, included in Appendix D.


Rotting Roof Soffits (Raleigh Hills)


Roof Drainage Issues (Hiteon)


Corroded Plumbing (Chehalem)


Aged Electrical Panels (West Tualatin View)


Leaking Drain Damage (Findley)

MIDDLE SCHOOLS

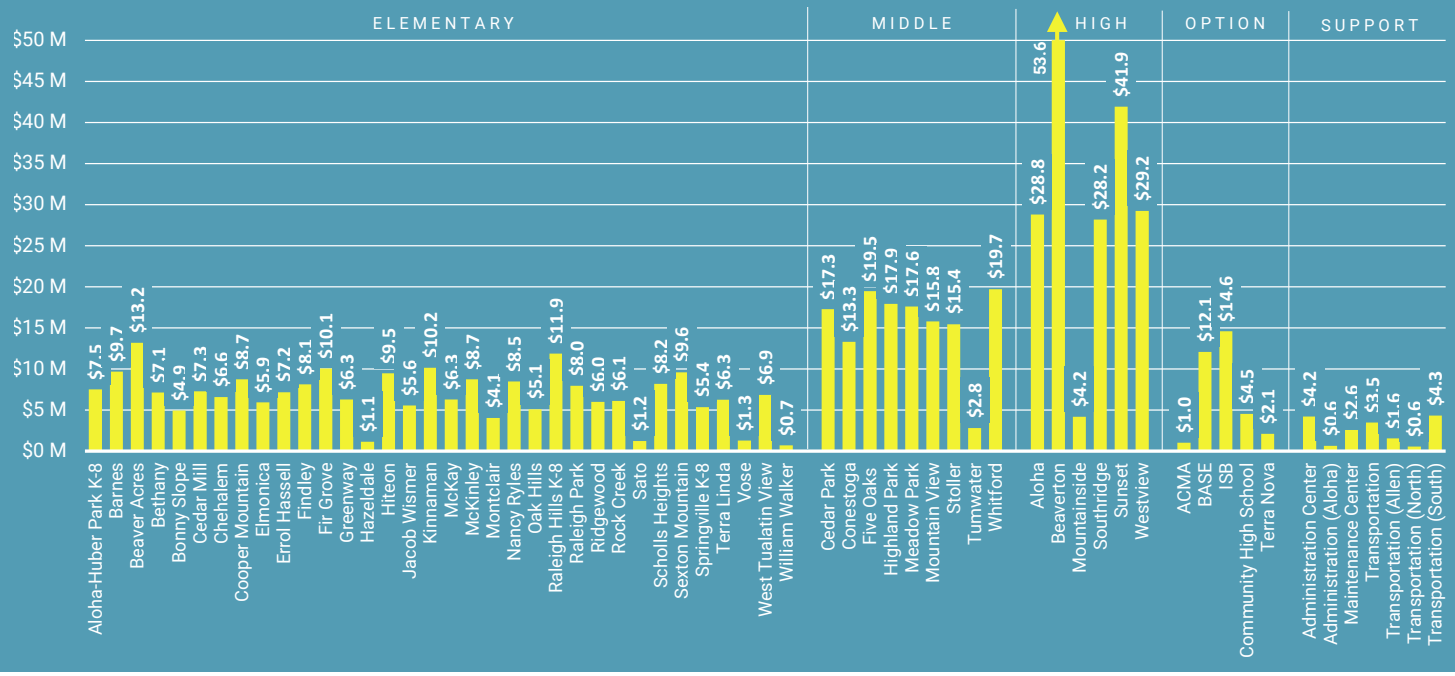
The total deferred maintenance need at the middle school level is approximately $139 million. All District middle schools, except the newest Tumwater facility, have been assessed with between $13 and $20 million each in deferred maintenance need over the next 10 years.

Five Oaks and Whitford have the greatest need, at $19.5 million and $19.7 million respectively. The major cost at Five Oaks is for a roof replacement, which was outside of the scope and timeline of the recent bond project work completed at this facility. Examples of documented conditions at District middle schools are shown below.


Water Damaged Ceiling (Highland Park)


Damaged Paving (Meadow Park)

10-YEAR DEFERRED MAINTENANCE



HIGH SCHOOLS

At the high school level, the total deferred maintenance need is approximately $186 million. All of the District's high schools, with the exception of Mountainside, have significant deferred maintenance needs of over $20 million each. High school facilities are much larger and therefore typically have significantly higher maintenance costs.

Beaverton High School, assessed with $56.3 million of deferred maintenance, has the greatest amount of need of any facility in the District and is also the oldest facility. Sunset High School, with $41.9 million of deferred maintenance, has the second greatest need in the District. Examples of documented conditions at District high schools are shown below.


Old Pneumatic Controls (Beaverton)


Exterior Brick Damage (Sunset)


Corroded Pump (Aloha)


Aged Rooftop Units (Southridge)

OPTION SCHOOLS

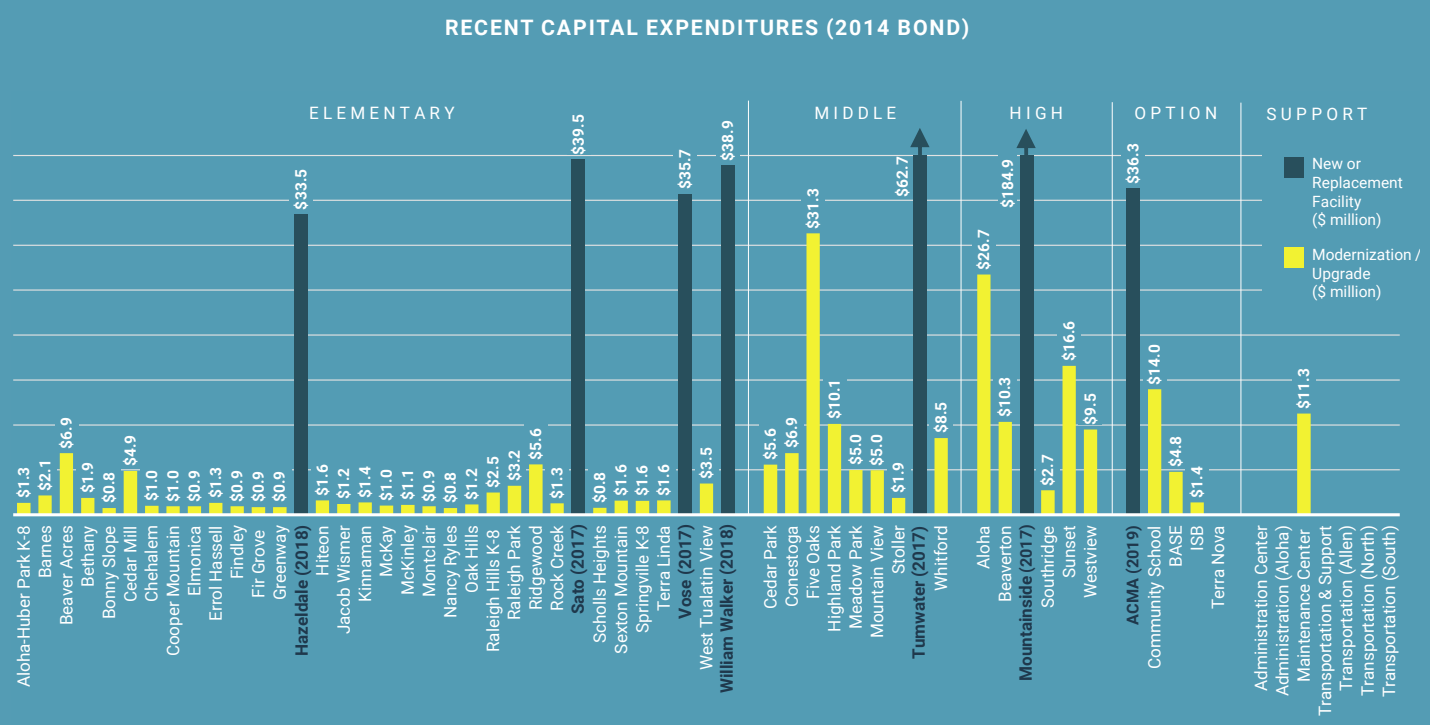
Option school facilities have a combined deferred maintenance need of approximately $34 million, with varying degrees of need at each facility. Two of the largest facilities, ISB and BASE, also have the greatest need, at $14.6 million and $11.4 million respectively.


Roof Moss & Bubbling (ISB)

SUPPORT FACILITIES

District support facilities have all been assessed as having relatively low deferred maintenance needs, with a combined total of approximately $17 million. Need at each facility ranges between $0.6 million and $4.3 million.


Moisture in Windows (Maintenance Center)



RECENT CAPITAL EXPENDITURES

Understanding the relative amount of recent investment in District facilities can help in determining and prioritizing planning approaches for a long-range facility plan. Beaverton School District has completed a number of improvements to existing facilities over the last 10 years, in addition to constructing several new and replacement schools.

The District's capital expenditures at each facility from the most recent bond, in 2014, are illustrated in the chart above. New or replacement facilities are shown in blue, and facilities that received modernizations or upgrades are shown in yellow. (Note: The two largest expenditures, for Tumwater and Mountainside, are greater than the amount included the chart above and are therefore not shown proportionally.)

Facilities that have received significant recent capital investment may be less likely to be considered for replacement in the near term.

SUMMARY TABLE

The table on the following pages summarizes basic building condition information for all District facilities, including the facility condition data discussed in this section.

TABLE:
Facility Condition Summary

	FACILITY SIZE		FACILITY CONDITION				RECENT EXP.	DEF. MAINT.
Facility	Building Area (Perm. GSF)	Site Area (Acres)	Constr. Date	FCI Score	Seismic Score	EUI Score	2014 Bond	10-Year Need
ELEMENTARY SCHOOLS								
Aloha-Huber Park K-8	106,046	9.95	2005	0.14	80	1	$1.33 M	$7.50 M
Barnes	75,900	8.20	1927	0.25	51	1	$2.15 M	$9.69 M
Beaver Acres	79,507	13.60	1955	0.33	71+	4	$6.85 M	$13.19 M
Bethany	49,913	10.69	1970	0.28	58	3	$1.89 M	$7.15 M
Bonny Slope	80,405	8.34	2008	0.12	80	3	$0.75 M	$4.93 M
Cedar Mill	41,055	5.62	1950	0.35	55	5	$4.89 M	$7.28 M
Chehalem	54,316	10.00	1970	0.24	67	4	$1.00 M	$6.59 M
Cooper Mountain	54,821	8.07	1954	0.31	71+	5	$0.95 M	$8.74 M
Elmonica	51,063	8.76	1980	0.23	62	3	$0.95 M	$5.94 M
Errol Hassell	60,345	9.20	1979	0.23	65	2	$1.34 M	$7.18 M
Findley	72,052	9.96	1996	0.22	68	3	$0.95 M	$8.14 M
Fir Grove	60,666	12.00	1954	0.32	48	1	$0.86 M	$10.06 M
Greenway	54,991	9.45	1979	0.22	63	4	$0.86 M	$6.29 M
Hazeldale	87,200	7.20	2018	0.03	95	3	$33.46 M	$1.14 M
Hiteon	78,972	12.00	1974	0.23	62	4	$1.62 M	$9.46 M
Jacob Wismer	72,863	8.39	2000	0.15	70	2	$1.22 M	$5.56 M
Kinnaman	80,837	7.86	1974	0.25	66	1	$1.38 M	$10.15 M
McKay	48,736	5.44	1929	0.25	49	5	$1.02 M	$6.29 M
McKinley	61,265	10.02	1956	0.28	52	5	$1.10 M	$8.74 M
Montclair	38,526	7.20	1969	0.21	69	5	$0.94 M	$4.05 M
Nancy Ryles	71,119	7.00	1991	0.23	67	2	$0.76 M	$8.47 M
Oak Hills	49,890	9.02	1966	0.20	69	4	$1.16 M	$5.10 M
Raleigh Hills K-8	59,197	10.00	1927	0.41	47	5	$2.48 M	$11.88 M
Raleigh Park	45,166	15.50	1959	0.34	50	1	$3.24 M	$7.95 M
Ridgewood	54,059	7.00	1957	0.22	56	2	$5.62 M	$5.99 M
Rock Creek	51,505	17.37	1974	0.23	66	2	$1.29 M	$6.10 M
Sato	80,500	9.87	2017	0.03	95	2	$39.53 M	$1.24 M
Scholls Heights	68,941	8.50	1999	0.23	69	5	$0.78 M	$8.18 M
Sexton Mountain	67,318	10.83	1989	0.28	67	3	$1.59 M	$9.60 M
Springville K-8	87,206	10.02	2009	0.12	85	4	$1.56 M	$5.36 M
Terra Linda	51,636	10.44	1969	0.24	69	2	$1.61 M	$6.26 M
Vose	87,200	8.80	2017	0.03	95	1	$35.71 M	$1.28 M
West Tualatin View	43,447	7.05	1955	0.31	45	4	$3.49 M	$6.86 M
William Walker	87,200	9.20	2018	0.03	95	1	$38.86 M	$0.69 M
Subtotal: Elementary Schools	***2,213,863***	***322.55***					***$203.17 M***	***$233.05 M***

Notes:
Building areas, site areas, construction dates, and 2014 bond expenditures were provided by Beaverton School District.
FCI scores, EUI scores, and deferred maintenance 10-year needs are taken from the 2020 Facility Condition Assessment (McKinstry).
Seismic scores are taken from the 2019 Seismic Assessment Report (KPFF).

TABLE:
Facility Condition Summary, Continued

	FACILITY SIZE		FACILITY CONDITION				RECENT EXP.	DEF. MAINT.
Facility	Building Area (Perm. GSF)	Site Area (Acres)	Constr. Date	FCI Score	Seismic Score	EUI Score	2014 Bond	10-Year Need
MIDDLE SCHOOLS								
Cedar Park	117,054	16.80	1965	0.28	50	4	$5.58 M	$17.28 M
Conestoga	128,179	25.01	1993	0.20	70	2	$6.85 M	$13.32 M
Five Oaks	153,277	32.23	1974	0.26	55	5	$31.31 M	$19.47 M
Highland Park	116,892	19.00	1964	0.29	50	4	$10.11 M	$17.94 M
Meadow Park	116,682	19.39	1962	0.28	54	2	$4.99 M	$17.60 M
Mountain View	133,942	23.81	1968	0.22	50	5	$4.95 M	$15.79 M
Stoller	143,788	16.89	1998	0.20	70	3	$1.88 M	$15.45 M
Tumwater	165,455	16.30	2017	0.03	95	3	$62.72 M	$2.82 M
Whitford	116,962	23.41	1962	0.32	50	1	$8.54 M	$19.72 M
Subtotal: Middle Schools	***1,192,231***	***192.84***					***$136.95 M***	***$139.39 M***
HIGH SCHOOLS								
Aloha	260,677	31.31	1967	0.19	71+	4	$26.74 M	$28.81 M
Beaverton	303,158	26.23	1915	0.34	45	5	$10.35 M	$53.63 M
Mountainside	342,000	46.15	2017	0.02	95	1	$184.85 M	$4.20 M
Southridge	256,070	32.39	1998	0.19	70	4	$2.74 M	$28.17 M
Sunset	253,727	38.06	1957	0.28	55	4	$16.58 M	$41.91 M
Westview	281,183	44.65	1993	0.18	68	2	$9.49 M	$29.25 M
Subtotal: High Schools	***1,696,815***	***218.79***					***$250.74 M***	***$185.97 M***
OPTION SCHOOLS								
ACMA	75,856	8.94	2021	0.08	95	2	$36.31 M	$1.03 M
BASE	105,883	18.55	1970	0.23	58	3	$13.97 M	$12.09 M
Community	51,125	4.20	1979	0.17	69	3	$4.78 M	$4.53 M
ISB	75,585	15.45	1948	0.36	48	4	$1.38 M	$14.58 M
Terra Nova	11,800	3.83	1938	0.35	62	5	-	$2.10 M
Subtotal: Option Schools	***320,249***	***50.97***					***$56.44 M***	***$34.34 M***
SUPPORT FACILITIES								
Administration Center	35,995	3.27	1972	0.23	68	5	-	$4.22 M
Administration (Aloha)	4,929	2.86	1950	0.13	-	3	-	$0.65 M
Maintenance Center	34,428	7.93	1971	0.24	67	5	$11.26 M	$2.59 M
Transportation & Support	53,390	13.70	1986	0.17	67	5	-	$3.50 M
Transportation (Allen)	9,779	5.40	1967	0.33	58	5	-	$1.55 M
Transportation (North)	5,139	3.40	1977	0.23	68	2	-	$0.57 M
Transportation (South)	25,800	2.90	1965	0.35	58	5	-	$4.32 M
Capital Center	83,358	*incl. above*	1970	0.23	58	3	-	*incl. w/ BASE*
Subtotal: Support Facilities	***252,818***	***39.46***					***$11.26 M***	***$17.39 M***

Notes:
See notes on previous page.

SECTION 07

ENROLLMENT & CAPACITY

One of the tasks of the Long-Range Facility Plan is to ensure adequate space and capacity for the expected number of students in the District's desired programs, so that every student has access to a high-quality education regardless of race, class, gender, or ability.

PLANNING PARAMETERS

SPACE FOR ALL STUDENTS

School utilization planning is necessary to provide effective learning environments for all students. Well-utilized schools have ample learning spaces for all students in attendance, as well as sufficient common spaces to support educational programs and enrollment.

School facility plans include forecasts of future facility capacity requirements. For large districts such as Beaverton School District, this analysis may translate into future new construction needs – either through expansion of existing facilities or construction of new facilities.

One of the necessary inputs to this work is an estimate of the student capacity of existing school buildings. This same factor is important in the scoping of future new capacity construction projects.

REGULATORY REQUIREMENTS

State law (ORS 195.110) requires large school districts with K-12 enrollment of more than 2,500 students to develop long-range facility plans. School facility plans must contain "objective criteria to be used by an affected city or county to determine whether adequate capacity exists to accommodate projected development." Once a large school district's long-range facility plan is adopted into a local jurisdiction's comprehensive plan, the local jurisdiction has the ability to limit or deny application for new residential development, if the school district identifies the lack of student capacity based on a student capacity formula and the local jurisdiction has considered options to address school capacity.

The determination of school capacity is important for both short-term and long-term school facility planning. In the short term, the District works closely with the cities of Beaverton, Hillsboro, Portland, and Tigard, as well as Washington and Multnomah Counties, to monitor residential development that may impact school facilities.

DISTRICT CAPACITY

DETERMINING EXISTING CAPACITY

Facility capacity is a planning metric that reflects the number of students that can be accommodated in a particular building. It does not take into account specific variations in classroom sizes and configurations, and also does not signify the maximum number of students that can be accommodated in a school. The number of students actually enrolled at a school may be higher or lower than its capacity.

Facility capacity can be determined in a variety of ways. The previous District model for capacity calculation, adopted with the 2002 LRFP, determined available school capacity based on square footage per student factors for each school level. However, this method did not accommodate for variations in the size and amount of support spaces in a building. For example, two schools with the same number of classrooms could have very different capacities, if one had a very large gymnasium and cafeteria or wider hallways. Newer schools were particularly out of alignment, due to the increased amount of space required to accommodate modern learning environments.

Therefore, it was recommended that the District consider switching to a classroom count method, which calculates capacity based on the actual number of classrooms or teaching stations in a school, multiplied by the target number of students per classroom and a target classroom utilization factor.

This provides a capacity calculation that is in closer alignment with the actual building capacity, and is more consistent across schools of different ages, configurations, and program components. Similar to the previous capacity calculation, special program areas, including dedicated special education spaces, are not included in the calculation.

Changing the way capacity is calculated in the District results in capacity adjustments at many schools, with some having higher capacities and some having lower capacities. Changing the capacity calculation model resulted in a districtwide capacity reduction of approximately 2,200 seats, which more accurately reflects actual District capacity.

CAPACITY FORMULA

For purposes of the Long-Range Facility Plan, capacity is determined as follows:

Number of general classrooms (elementary schools)
or
Number of teaching stations (middle and high schools)

X

Target number of students per classroom

X

Classroom utilization factor

Classrooms / Teaching Stations

General classrooms at the elementary level include grade-level classrooms, but do not include specialized teaching spaces such as music rooms, gymnasiums, and special education classrooms. At the middle and high school levels, all scheduled teaching stations are included when determining capacity, with the exception of dedicated special education classrooms.

Target Students per Classroom

The target number of students per classroom is a planning parameter that reflects an “ideal” class size target for a given grade level. Actual class sizes vary, and may be larger or smaller than the targets, depending on many operational factors.

For Beaverton School District, permanent facility capacities are based on the following class size targets, in alignment with the District’s most recent Education Specifications:

> Elementary: 25 students per classroom

> Middle: 25 students per classroom

> High: 30 students per classroom

> Option / Alternative: 30 students per classroom

Target classroom capacities will continue to be evaluated, and may be revised in the future, based on the findings of this Long-Range Facility Plan or other developments in the District. They do not represent District policy, actual student count, or an absolute cap.

For portable, or modular, classrooms, capacities are based on reduced class size targets, as follows:

> Elementary: 19 students per classroom

> Middle: 21 students per classroom

> High: 23 students per classroom

> Option / Alternative: 23 students per classroom

Classroom Utilization Factor

A classroom utilization factor is applied, to reflect for the amount of time classrooms can be used for teaching each day. Target classroom utilization factors vary between districts and grade levels, depending a number of factors, including the number of periods in the school day and whether teachers use their classrooms for planning. It is not possible to achieve 100% utilization at the middle and high school levels, due to a variety of factors, including scheduling conflicts, the need for specialized rooms for some programs, and the need for teachers to have space to work during planning periods.

Lower utilization factors indicate that classrooms are unused for one or more periods of the day, due to teacher planning time and/or scheduling requirements, which is typical for most middle and high schools. For example, 80 percent classroom utilization reflects classroom

usage for four out of five periods a day.

For Beaverton School District, the classroom utilization factors used in determining capacity are as follows:

> Elementary: 100 percent utilization

> Middle: 80 percent utilization

> High: 83 percent utilization

> Option / Alternative: 83 percent utilization

These utilization factors are intended to reflect an average "snapshot" of classroom utilization at each level, and will continue to be evaluated. The District's classroom utilization factors are all within typical planning ranges for each grade level.

EXISTING FACILITY CAPACITY

Permanent Capacity
The District has a total permanent capacity of 41,652 students in grades K-12, including all elementary, middle, high school, and option/alternative facilities.

The existing permanent capacity at the elementary level, which includes 31 K-5 and three K-8 neighborhood schools, is 19,550 students. Two K-8 schools, Raleigh Hills and Springville, are in the process of transitioning to K-5 schools by 2022-23, and are considered as such for the purposes of this Long-Range Facility Plan. Capacities vary greatly between elementary schools, ranging from 325 students at Montclair Elementary to 950 students at Aloha-Huber K-8, but have an average capacity of 575 students.

The existing permanent capacity at the middle school level, which includes nine neighborhood schools housing grades 6-8, is 7,660 students. District middle schools range in capacity from 760 at Whitford Middle School to 1,100 students at the new Tumwater Middle School, with an average capacity of 851 students.

The existing permanent capacity at the high school level (grades 9-12) is 11,852 students, including the District's six comprehensive high schools. They range in capacity from 1,743 to 2,291 students, with an average of 1,975 students.

The District's four option / alternative schools have a combined capacity of 2,590 students. These programs vary in capacity, from 548 to 822 students, and may include grades 6-12 or 9-12. Capacity is not included for the Terra Nova facility, as it is a partial day program with no dedicated enrollment, or the Rachel Carson School of Environmental Science, as it is housed at a neighborhood middle school.

Portable Capacity
Many District schools have modular classrooms on site. They have been added over time to provide additional capacity at existing schools and accommodate the significant enrollment growth that has occurred in recent years.

The District has a total portable capacity of 3,245 students, including 1,938 at the elementary level, 638 at the middle school level, 401 at the high school level, and 267 at option / alternative schools.

Because of the temporary nature of modular facilities, portable capacity is typically not considered when determining future capacity need in a long-range facility plan.

Capacity Updates
The District will continue to update facility capacity as buildings are altered or as uses change. It is important to check with District facilities staff for the most current capacity figures.

TARGET CAPACITY

DETERMINING TARGET CAPACITY

While actual school building capacities are often a reflection of the educational models in place at the time a school was constructed, school capacity targets are based on current thinking regarding the number of students needed to meet a district's program goals and provide an optimal learning environment.

Facility capacity targets are intended to provide guidelines for planning purposes. They may vary through the years, as educational program models and funding levels change.

The District has established the following target capacities for educational facilities, as described in the District's education specifications:

> Elementary (K-5): 750 students

> Middle (6-8): 1,100 students

> High (9-12): 2,200 students

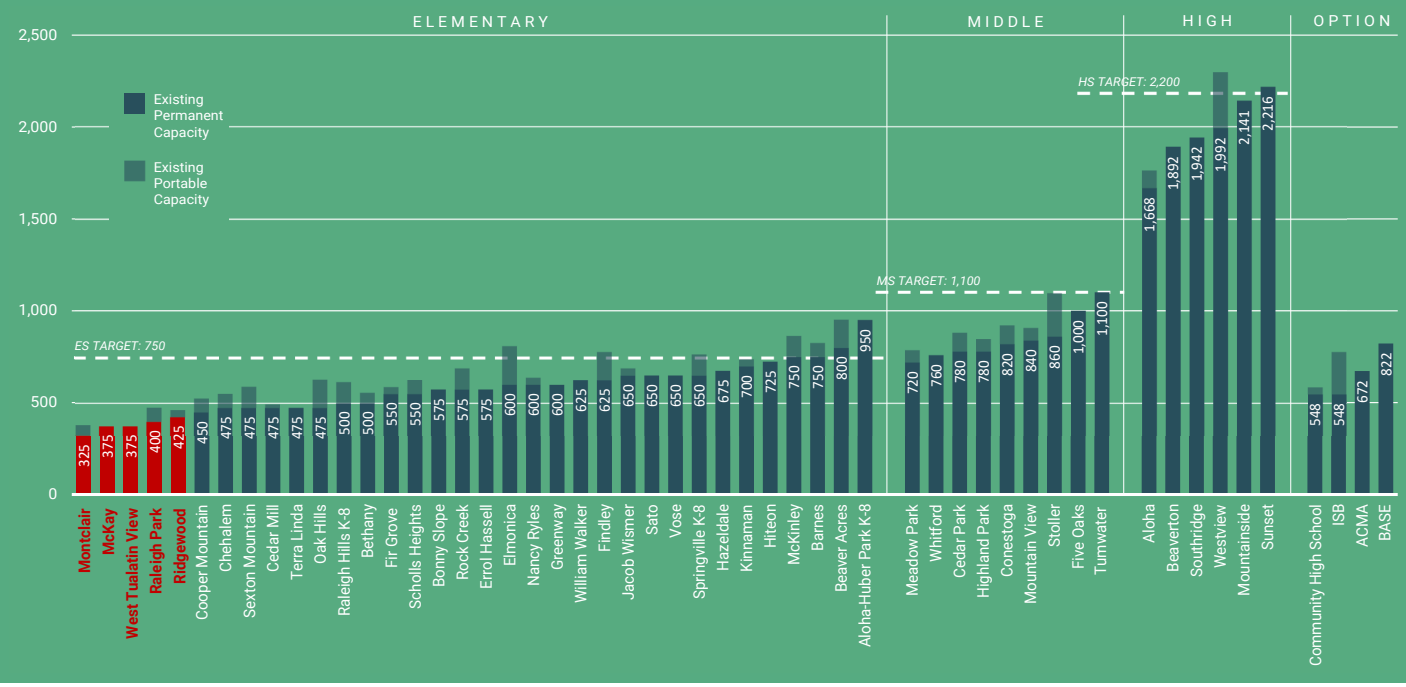
The District's school size targets for elementary and middle school are higher than many other school districts in the region. The Portland, Hillsboro, David Douglas, and Gresham school districts have an elementary school size target size of 600 students, while North Clackamas, Forest Grove, and Newberg are between 500 and 550. Middle school targets typically range from 675 to 900.

School size targets at other regional districts vary widely at the high school level. North Clackamas and Hillsboro have a target capacity of 1,800 students, while Forest Grove's is 2,500 students. Smaller districts may have much higher (effectively unlimited) targets because they only have one high school.

Districts may also establish target 'floor' and 'ceiling' sizes for different types of facilities. A target floor represents the minimum capacity a facility can have and still provide an appropriate learning environment and efficient operations. A target ceiling is the maximum facility capacity that can still allow for an appropriate learning environment.

It is typical for districts to have a wide variety of existing school capacities, as building stock is constructed over a long period of time and reflects the educational models and capital constraints of the time. It is generally assumed that schools that are near the target capacity are able to provide a full academic program. Schools with capacity that is significantly below the target may not be able to offer a full program without supplemental funding.

EXISTING & TARGET SCHOOL CAPACITY



EXISTING CONDITIONS

As illustrated in the comparative chart above, more than half of the District's schools have facility capacities that are below the established target capacities. This indicates a potential opportunity to increase capacity in the District in the future on sites currently owned by the District.

Elementary Schools

At the elementary level, five schools (shown in red above) have permanent capacities that are less than 60 percent of the target capacity of 750, or less than 450 students, indicating that there is a potential opportunity to increase the capacity and efficiency of these sites in the future. These schools include Montclair, McKay, West Tualatin View, Raleigh Park, and Ridgewood. Many of these schools are older facilities, built at a time when school sizes were typically smaller.

Two elementary schools have permanent capacities greater than the District target. However, the only school that is more than 50 students above the target is Aloha Huber, a K-8 school. Although specific targets have not been defined by the District for K-8 schools, it is expected that these facilities will be larger than traditional K-5 elementary schools, due to the additional grade levels that must be accommodated.

Middle Schools

With the exception of recently-constructed Tumwater, all District middle schools are below the target capacity of 1,100 students. None of the middle schools are below 60 percent of target capacity, however five schools fall below 75 percent of target capacity. These sites may provide opportunities to add capacity in the future as needed. No middle schools in the District are above the target capacity.

High Schools

The District's smallest high school, Aloha, has a permanent capacity of 1,668, approximately 75 percent of the target capacity of 2,200 students. None of the high schools are significantly above target capacity, with only Sunset High School being slightly above capacity at 2,216 students. When including portable capacity, Westview is also above target capacity, at 2,297 students.

Option/Alternative Schools

Because of the diverse nature of these facilities, in terms of program, grade levels, and enrollment, capacity targets have not been set for option/alternative schools. All of the option/alternative schools in the District have capacities well below the District targets for traditional facilities at the same grade levels, which is typical for this type of facility.

OTHER PROGRAM CONSIDERATIONS

Like many school districts, Beaverton offers programs and special services beyond K-12 general education instruction, to support students whose needs are not met in traditional school settings. The District currently provides alternative education options, as well as special services including special education, early learning programs, and English language programs.

These programs typically have space and facility requirements that were not anticipated during the design and construction era of most district facilities. It is clear that the success and increased demand for these programs fosters space needs that must be designed and integrated districtwide into the overall program delivery for each school.

SPECIAL EDUCATION

In 2019, approximately 12.3 percent of District students were eligible for special education services districtwide. Of these students, approximately 20 percent received their special education services and a portion of their core instruction in a specialized classroom, two percent received special education services and all core instruction in separate special schools operated by other agencies,

and 78 percent received their special education services with in the resource room setting and core instruction in the general education classroom.

Every school in the District has a resource room. At the elementary level, this includes one to two designated rooms where students receive special education services. At the middle school and high school levels, the special education teachers require a classroom space similar to their general education colleagues.

Some schools have specialized classrooms that are designed for the specific needs of students with disabilities. These classrooms are District supported and include students from across the District. In 2019, there were 1,081 District students who were placed in a specialized program. Elementary schools may have one to three specialized classrooms, middle schools may have two to three specialized classrooms, and high schools may have two to four specialized classrooms. Resource rooms and dedicated specialized classrooms are not counted as a part of a school's total available capacity.

The District also has two specialized programs that are separate from the District's comprehensive schools. These facilities have relatively small enrollments and are not included in capacity calculations. The District also contracts with outside agencies for approximately 100 students to attend separate special schools that support students with significant behavioral, social emotional, and life skills supports and training.

OPTION / ALTERNATIVE EDUCATION

The District has four stand-alone Option schools: Arts and Communication Magnet Academy (ACMA), International School of Beaverton (ISB), Community High School, and the newly combined Health & Science School / School of Science & Technology, now known as BASE.

Currently, the space available in District Options schools and programs does not accommodate student demand. In 2019, over 1,800 students applied for the 1,063 available Option program slots. The demand for Option schools and programs is expected to continue to increase over the next ten years. Because option / alternative program enrollments are set by the District, enrollment projections for these facilities may not necessarily reflect the actual need or demand.

ONLINE LEARNING

The District opened a new online school in Fall 2020, called BSD FLEX. This program offers online courses for District students at all grade levels who need a flexible learning option due to special circumstances. For the 2020-21 school year, the program has approximately 1,000 students in grades K-12, due to the increased need for remote learning due to the Covid-19 pandemic. However, in the long term, the anticipated enrollment is 500 students.

As BSD FLEX students may also be taking in-person classes at various other District schools, online enrollment is not assumed to result in a decreased enrollment elsewhere.

ENGLISH LANGUAGE LEARNERS / ENGLISH LANGUAGE DEVELOPMENT

Although the District has historically had dedicated pull-out classrooms for English Language Learners (ELL) and English Language Development (ELD) programs, it is moving toward a pull-in/ inclusion model where ELL programming will be taught in existing classrooms. Therefore, school capacities include ELL classrooms as general classrooms.

KINDERGARTEN

All District schools currently provide full-day kindergarten and will continue to do so. Full-day kindergarten was implemented districtwide in 2015-16. Kindergarten classrooms are included in school capacities as general classrooms.

PREKINDERGARTEN

While not government-mandated, prekindergarten programs are currently offered at seven elementary schools in the District, including Aloha Huber Park, Barnes, Bonny Slope, Greenway, McKay, Vose, and William Walker. Most of these facilities are Title 1 schools that fund prekindergarten programs as needed with General Fund allocations.

The District anticipates providing prekindergarten programs at all Title 1 schools by 2030-31. Based on current Title 1 status, this would include adding a prekindergarten program at nine additional elementary schools. Existing prekindergarten classrooms are not counted as part of a school's available capacity.

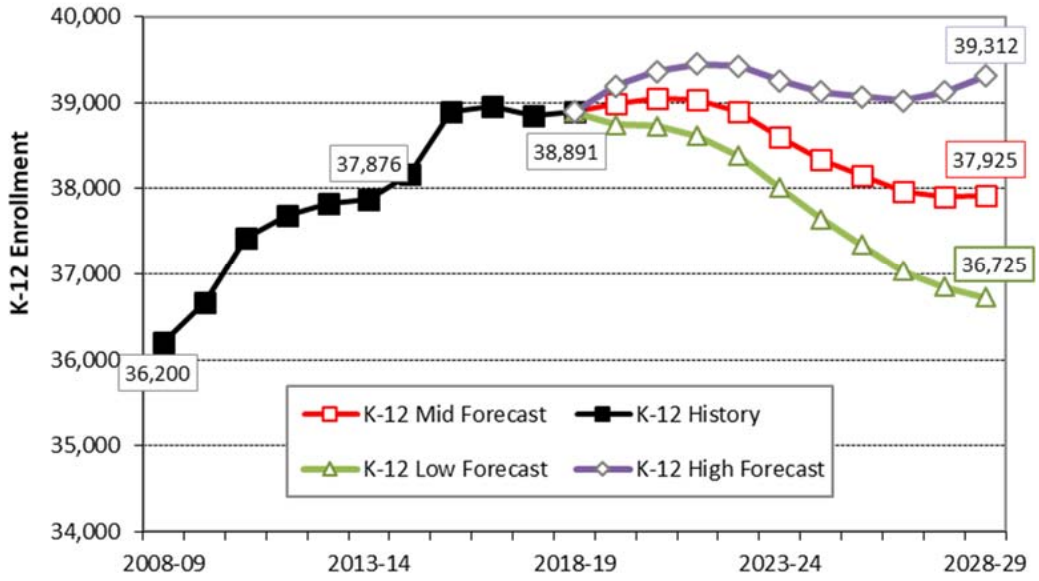
EARLY INTERVENTION (EARLY CHILDHOOD SPECIAL EDUCATION)

The Early Intervention (EI) program offers special education and support services for children from birth to school age. The program is operated by the Northwest Regional Education Service District (NWRESD), however the District is responsible for providing transport services for all preschool aged children with disabilities living within its attendance boundaries. As such, the District provides instruction space to NWRESD programs when possible to reduce transportation expenses. EI program needs are not specifically accommodated in the Long-Range Facility Plan, as the District is not mandated to provide capacity for these services.

PARTNER PROGRAMS

Head Start, before- and after-school care, school-based health clinics, and other partner programs are not specifically accommodated in the Long-Range Facility Plan, in terms of capacity. The District will look at adding additional programs as opportunities present themselves, and as partners and facility space are available.

CHART:
K-12 Enrollment History & Forecast, PSU PRC Enrollment Forecast Report



ENROLLMENT FORECAST

Enrollment forecasts are used, in part, to determine whether a school district will need to add or modify facility space to meet school program or configuration needs. Student enrollment forecasts, combined with a methodology for determining student capacity in each school, provide a framework for facility needs to better serve student achievement. As such, student enrollment forecasts comprise an important component of the Long-Range Facility Plan.

PRC FORECAST

The District received student enrollment forecasts from the Population Research Center (PRC) at Portland State University (PSU) in May 2019. The 10-year enrollment forecast, using historic enrollment through the 2018-19 school year, integrates District enrollment trends with local area population, housing, and economic trends. Information sources that inform the forecast include the US Census Bureau, birth data from the Oregon Center for Health Statistics, city and county population estimates produced by PRC, and housing development data from relevant cities and counties.

Key takeaways from the study include the following.

Population, Housing & Employment Trends

> There were 3,103 births to District residents in 2017, the smallest annual total since 1996, and 19 percent fewer than the peak in 2007.

> From 2014 to 2018, permits were issues in the District for over 3,300 single family homes and nearly 2,400 apartment units, not including senior housing and accessory dwelling units.

> The Portland Metropolitan area's seasonally adjusted unemployment rate was 3.8 percent in March 2019, matching the national rate.

> Employment in the Portland tri-county area (Multnomah, Washington and Clackamas counties) is projected to grow by 12.7 percent from 2017 to 2027.

Districtwide Enrollment Trends

> The District enrolled 38,891 student in Fall 2018, an increase of 38 students (0.1 percent) from Fall 2017.

> K-12 enrollment grew by 2,694 students (seven percent) over the seven years from 2008-09 to 2015-16. However, small increases in 2016-17 and 2018-19 and a one year decline in 2017-18 amounted to a K-12 loss of three students in the most recent three years.

> Elementary (K-5) enrollment reached a peak of 18,350 students in 2015-16. Annual losses in the subsequent three years resulted in a decline of 678 students (3.7 percent), with districtwide K-5 enrollment in 2018-19 falling to the lowest total since 2009-10.

Forecast Range

The PRC study presents three forecasts ("Middle," "Low," and "High") for a 10-year horizon from 2019-20 to 2028-29, as shown in the chart above. PRC considers the middle forecast as most likely to occur. The low forecast considers the effect of less robust local area population growth than anticipated during the forecast period, and the high forecast assumes stronger than anticipated growth.

For the purposes of the Long-Range Facility Plan, the middle series forecast is used.

Enrollment forecasts are typically updated annually to incorporate new enrollment data, as well as newly released birth and housing data. For reference, the 2019 PRC enrollment forecast report can be found in Appendix F of this report.

FORECAST ADJUSTMENTS

District Adjustments
District adjustments were made to the PRC forecast to accommodate boundary changes, grade configuration changes, and the opening of a new middle school that will occur after the PRC forecast was completed.

> Enrollment adjustments to accommodate boundary shifts were made at Elmonica, McKinley, and Beaver Acres elementary schools, and at all middle schools.

> Enrollment adjustments to accommodate a planned shift from K-8 to K-5 grade levels were made at Springville and Raleigh Hills.

> Middle school enrollments were redistributed to incorporate Tumwater Middle School, which has been used as a swing school for several years and is planned to open as a middle school in Fall 2021.

> Actual 2019-20 enrollment numbers were used instead of PSU forecast numbers for that year at all grade levels.

Time Frame Extension
In order to meet the requirements of OAR 581-027-0040 and ORS 195.110, the enrollment forecast was extended by two years out to 2030-31, to provide a 10-year forecast from the date of this LRFP.

This was accomplished using a "straight-line" methodology, extrapolating growth at each facility for two additional years based on the growth rates established in the PRC forecast. This is an estimate used for planning purposes only, and does not take into the account any possible changes in population, housing, and employment that may occur beyond the PRC forecast horizon.

PROJECTED DISTRICT ENROLLMENT

The adjusted enrollment forecast indicates an overall decline in districtwide enrollment of 4.9 percent over the 10-year forecast period, a reduction of approximately 1,900 total students in kindergarten through twelfth grade.

Elementary School Enrollment
Districtwide, a six percent decline is projected at the elementary level, a reduction of 1,086 students. Growth rates vary greatly between schools. The majority of the District's elementary schools are projected to see enrollment declines, with eight schools expected to have greater than 10 percent enrollment declines.

Two schools are expected to have significant growth in the next 10 years, including Hazeldale with projected enrollment growth of 38.7 percent, and Sato, with projected enrollment growth of 26.9 percent. Four other elementary schools, located at the north and south ends of the District, are expected to have a lower level of growth, with enrollment increases of less than 10 percent.

Middle School Enrollment
Middle school enrollment is projected to decline by three percent (233 students) across the District as a whole. Enrollments at individual middle schools are declining more than their original PRC forecast rates, due to enrollment shifting into the new Tumwater Middle School. This is particularly true for two adjacent middle schools, Cedar Park and Five Oaks, which are both projected to have enrollment reductions of over 25 percent.

Whitford is the only middle school that is anticipated to see an enrollment increase over the next 10 years, of approximately five percent.

High School Enrollment
At the high school level, enrollment is projected to decline by 5.9 percent (634 students) districtwide. This includes enrollment declines at four high schools (Aloha, Beaverton, Southridge, and Sunset) and increases at two high schools (Mountainside and Westview).

Option / Alternative School Enrollment
Three of the District's four option schools (BASE, Community High School, and ISB) are projected to have enrollment increases of less than 10 percent. The exception is ACMA, which is projected to have an enrollment decline of 3.9 percent. This is considered a forecasting anomaly, as this program is always oversubscribed. ACMA is expected to be utilized at full capacity.

The Rachel Carson, Summa, and Terra Nova option school programs do not have dedicated enrollment. These students are included in the enrollment at their neighborhood schools.

GEOGRAPHIC ANALYSIS

The map diagrams on the following pages illustrate projected enrollment growth rate through 2030-31 at each school facility.

DIAGRAM:
Projected Enrollment Growth Rate 2019-20 to 2030-31: Elementary School Level

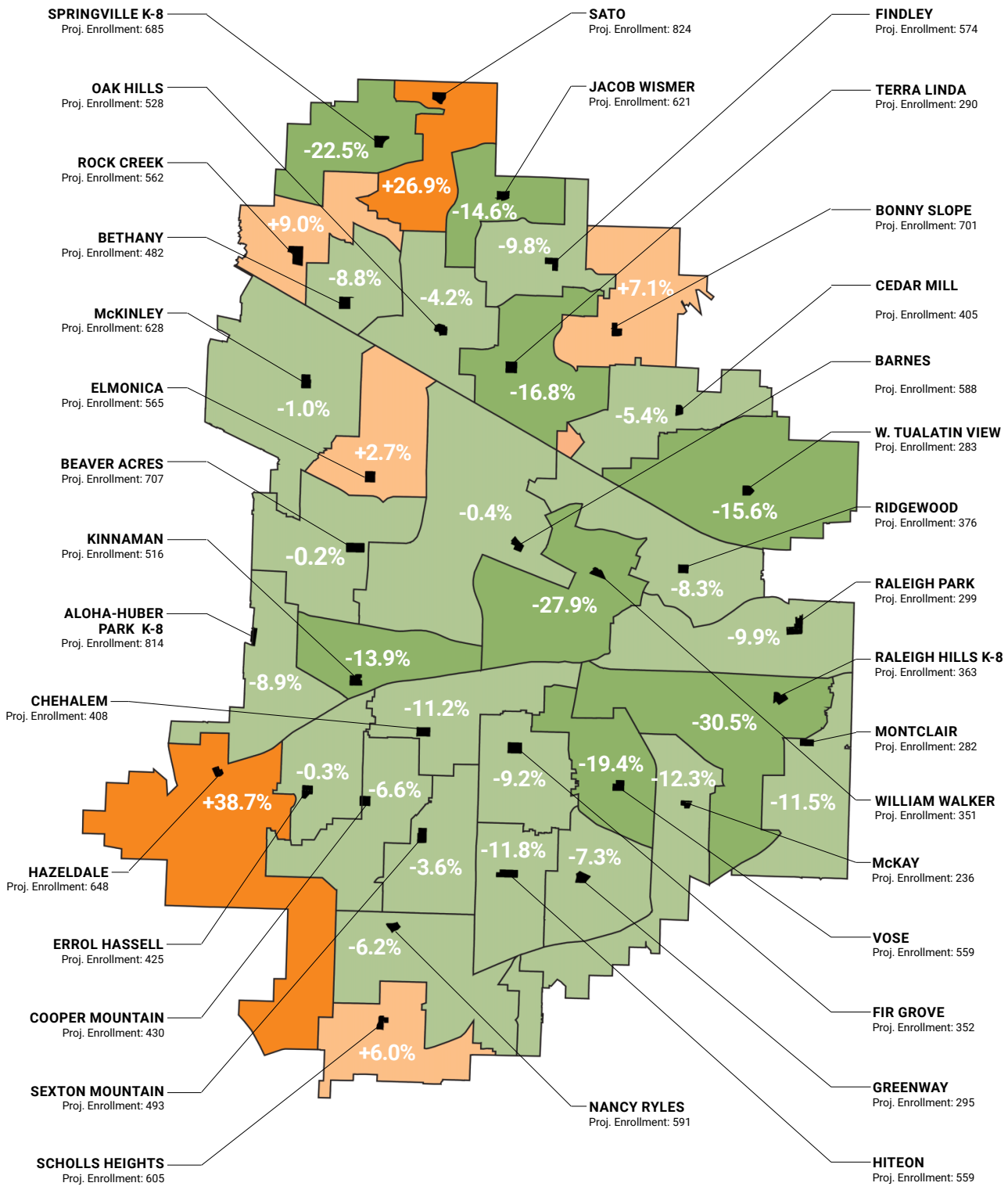
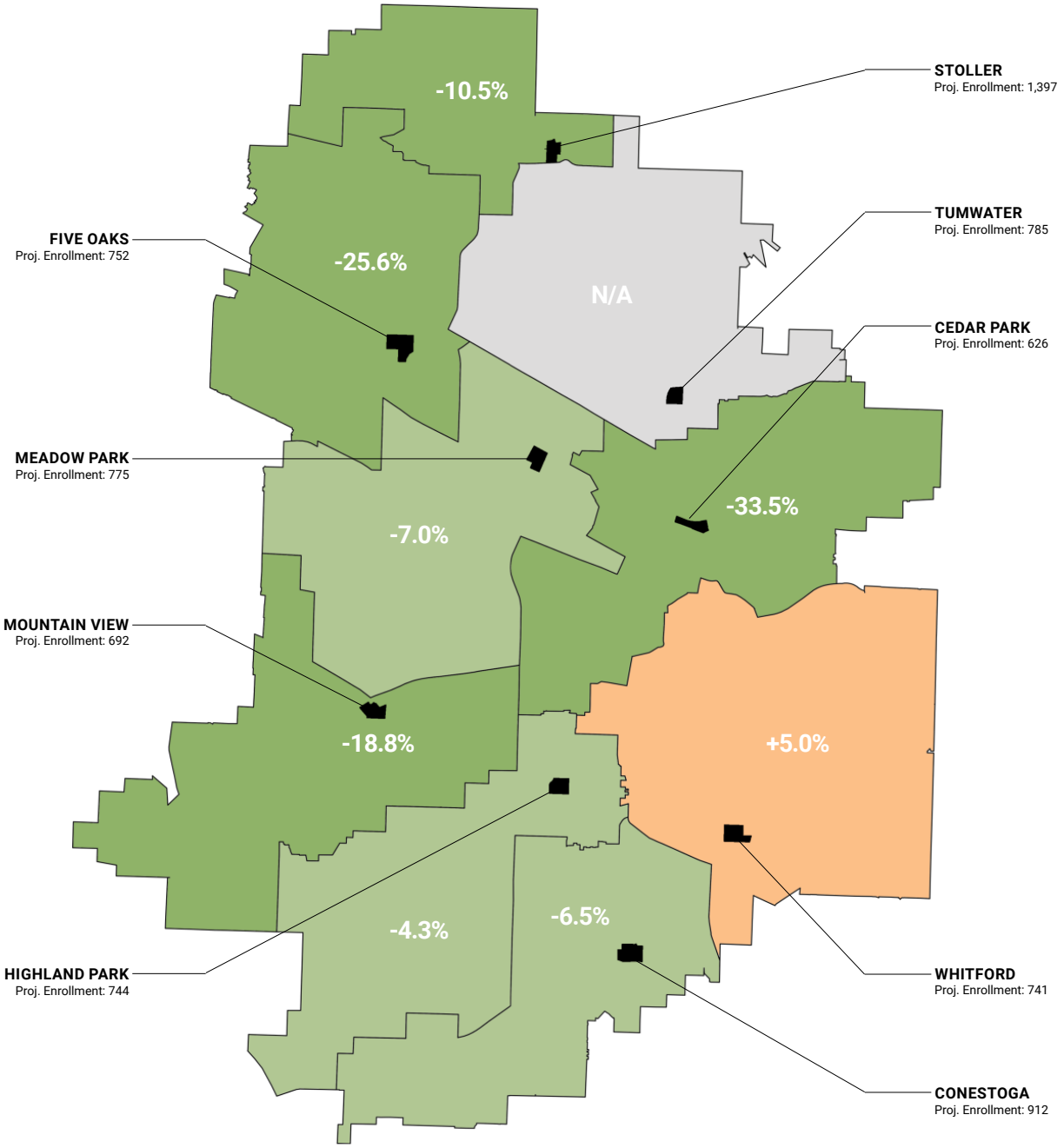


DIAGRAM:
Projected Enrollment Growth Rate 2019-20 to 2030-31: Middle School Level



> 10% enrollment GROWTH

1-10% enrollment GROWTH

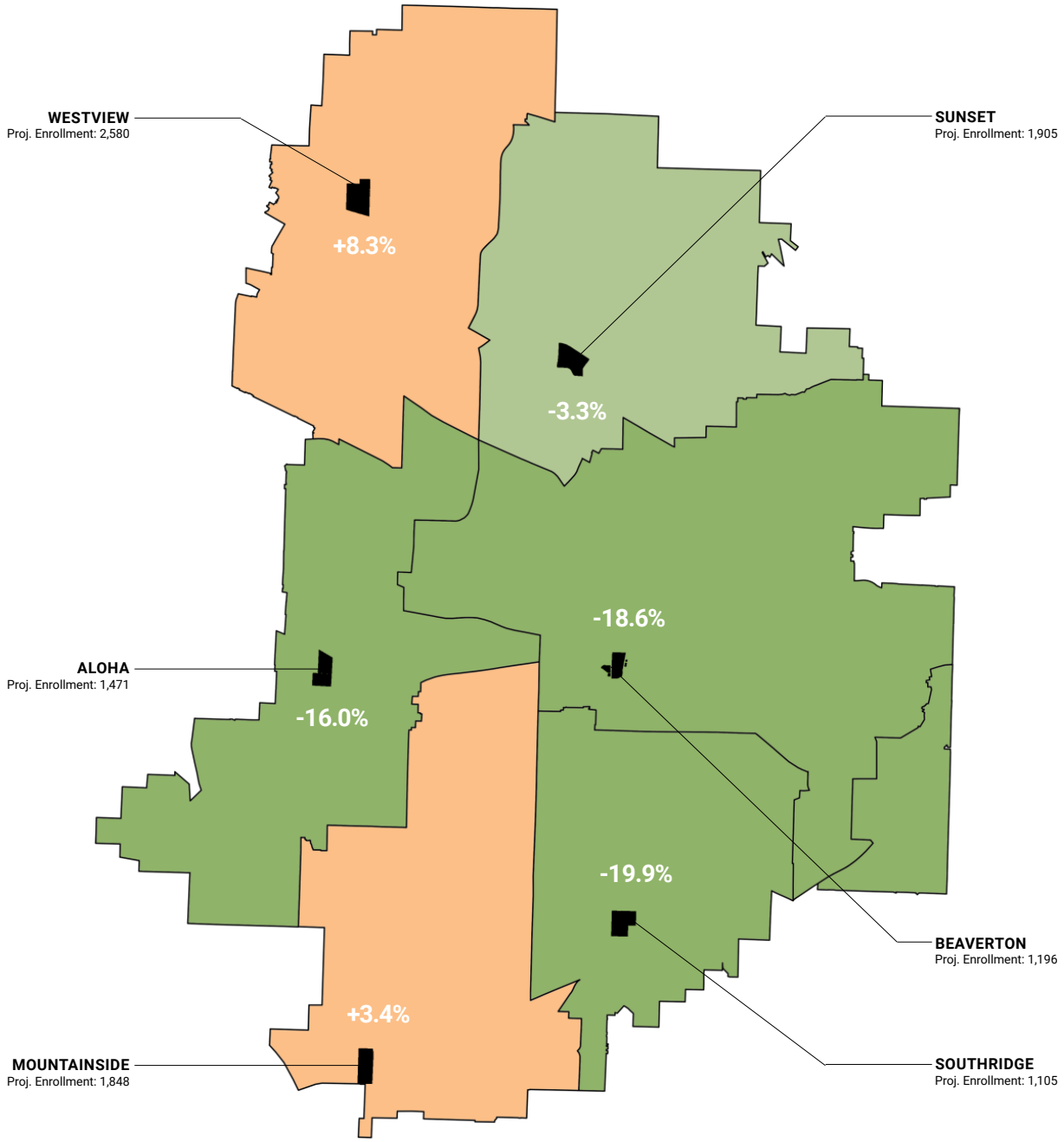
1-10% enrrollment DECLINE

>10% enrollment DECLINE

* *Middle school boundaries shown reflect proposed boundary adjustments from the 2020 adjustment process and may differ slightly from final boundaries.*

** *Tumwater does not show a growth rate because it will not have any middle school enrollment until Fall 2021.*

DIAGRAM:
Projected Enrollment Growth Rate 2019-20 to 2030-31: High School Level



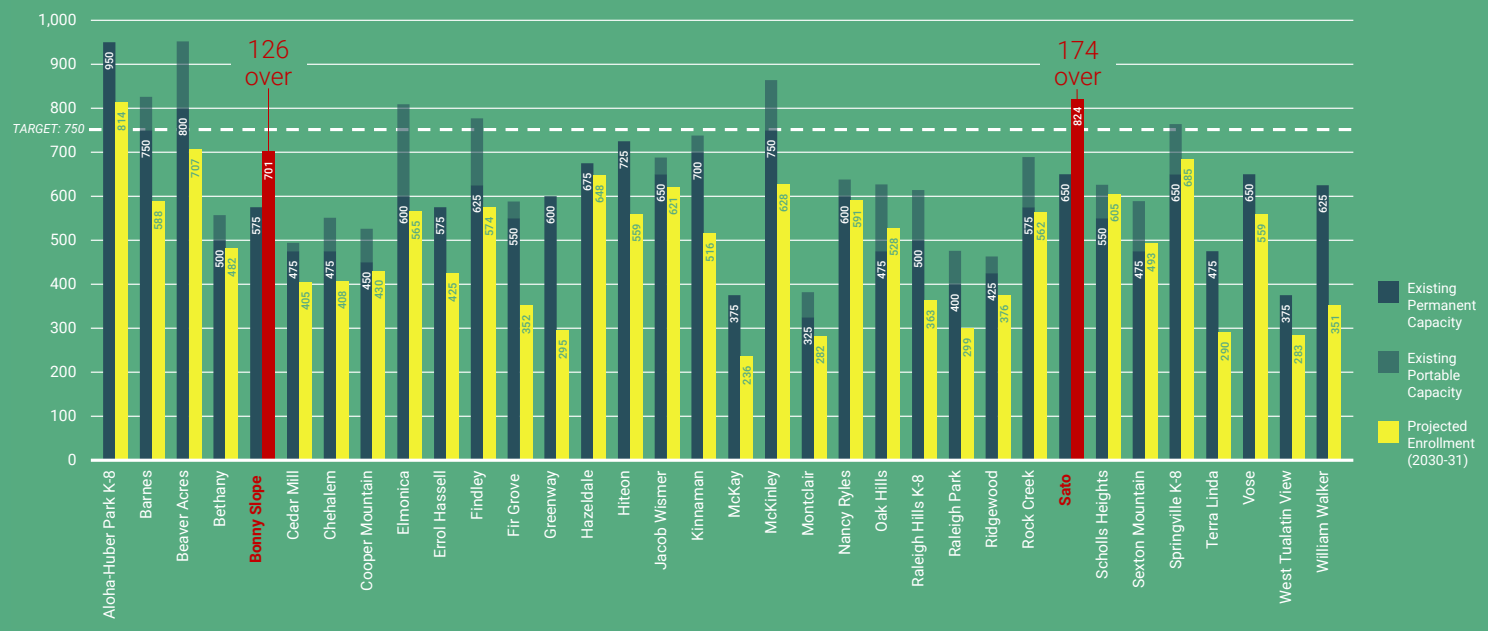
> 10% enrollment GROWTH

1-10% enrollment GROWTH

1-10% enrrollment DECLINE

>10% enrollment DECLINE

EXISTING CAPACITY & PROJECTED 2030-31 ENROLLMENT: ELEMENTARY SCHOOLS



FACILITY UTILIZATION

Understanding school utilization is necessary to provide effective learning environments for all students. Planning for the effective utilization of schools requires an understanding of space needs for the range of academic programs offered in a school, as well as classroom and common spaces available for current and projected student use.

UTILIZATION

For the purposes of long-range planning, school utilization is defined as the portion of the building assigned to students, or more specifically, the number of students enrolled in a school divided by the student capacity of the school. For example, a school with 500 students and 500 classroom seats would be operating at 100% utilization, while the same building with only 400 students would be operating at 80% utilization. Analysis of school utilization in this plan uses the adjusted enrollment projections to 2030-31, described previously on pages 44-45.

The charts above and on the following page compare existing capacity and projected enrollment for each school in the District. Strategies to improve utilization are described on page 53 and are also discussed in Section 09, beginning on page 65, as alternatives to new construction.

Elementary Schools

Existing districtwide permanent capacity at the elementary level is 19,550 students, including K-8 facilities. This is greater than the projected 2030-31 enrollment of 17,043 by over 2,500 students, resulting in an expected utilization of approximately 87 percent.

Existing districtwide total capacity (permanent capacity plus portable capacity) at the elementary level is 21,488 students, providing over 4,000 seats more than the projected enrollment (79 percent utilization).

Since enrollment accommodation within their individual school boundaries minimizes the need for boundary adjustments, it is important to evaluate individual school utilization as well. Several elementary schools are projected to have enrollment at or above their existing permanent capacity (100% utilization or more) by 2030-31. These facilities include:

> Bonny Slope Elementary

> Oak Hills Elementary

> Sato Elementary

> Scholls Heights Elementary

> Sexton Mountain Elementary

> Springville K-8

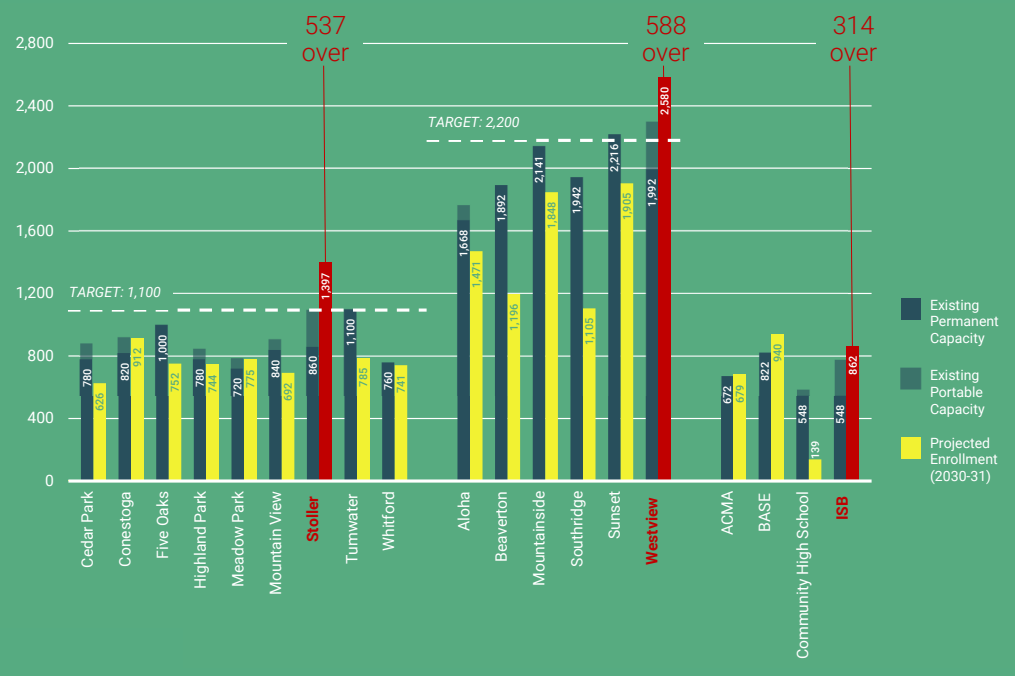
Two of these schools, shown in red above, are projected to be significantly over their existing capacity: Bonny Slope (126 over) and Sato (174 over).

When portable capacity is considered, Bonny Slope and Sato remain over capacity, as they do not have any modular classrooms. The remaining schools can accommodate projected enrollments when including their portable capacity.

In contrast, many of the District's elementary schools have projected enrollments that are well below their permanent capacities. Schools that are expected to have lower than 70 percent utilization by 2030-31 include: Greenway Elementary, McKay Elementary, Terra Linda Elementary, and William Walker Elementary.

Low utilization can be an indicator of inefficient facility operation, as well as potentially limiting delivery of a robust education program due to low student population. The District may want to consider approaches which improve the utilization of existing facilities in the future. Potential strategies to address low utilization could include school consolidation, co-location with other programs, and/or grade reconfiguration, as discussed on pages 53 and 65-66.

EXISTING CAPACITY & PROJECTED 2030-31 ENROLLMENT: MIDDLE, HIGH & OPTION SCHOOLS



Middle Schools
At the middle school level, both the existing permanent capacity of 7,660 and the existing total capacity of 8,298 exceed the projected districtwide enrollment of 7,423. (Existing middle school capacity includes Tumwater, which is slated to house middle schoolers beginning Fall 2021.)

Looking at individual school facilities, there are three middle schools that are projected to exceed their permanent capacity:

> Conestoga Middle School

> Meadow Park Middle School

> Stoller Middle School

Of these, Stoller has the highest overage, with a projected enrollment that exceeds capacity by over 500 students (over 300 students when including portables). Capacity accommodation strategies are discussed on pages 53 and 65-66.

Conestoga and Meadow Park can both accommodate their projected enrollments with their existing portables. None of the District's middle schools are projected to have significantly low utilization.

High Schools
Existing districtwide permanent capacity at the high school level is 11,852 seats, not including option / alternative schools. This is greater than the projected 2030-31 enrollment of 10,106 by more than 1,700 students, resulting in an expected districtwide utilization of approximately 85 percent.

Total capacity (permanent capacity plus portable capacity) at the high school level is 12,253 seats, providing about 2,100 seats more than the projected enrollment (82 percent utilization).

As shown above, all of the District's high schools are expected to be well below their permanent capacities through 2030-31, with the exception of Westview High School. Westview's projected enrollment is expected to be 588 students (30 percent) over permanent capacity and 283 students (12 percent) over total capacity.

Both Beaverton and Southridge high schools are projected to have very low utilization by 2030-31. Beaverton is projected to be 696 students (37 percent) below capacity, while Southridge is projected to be 837 students (43 percent) below capacity.

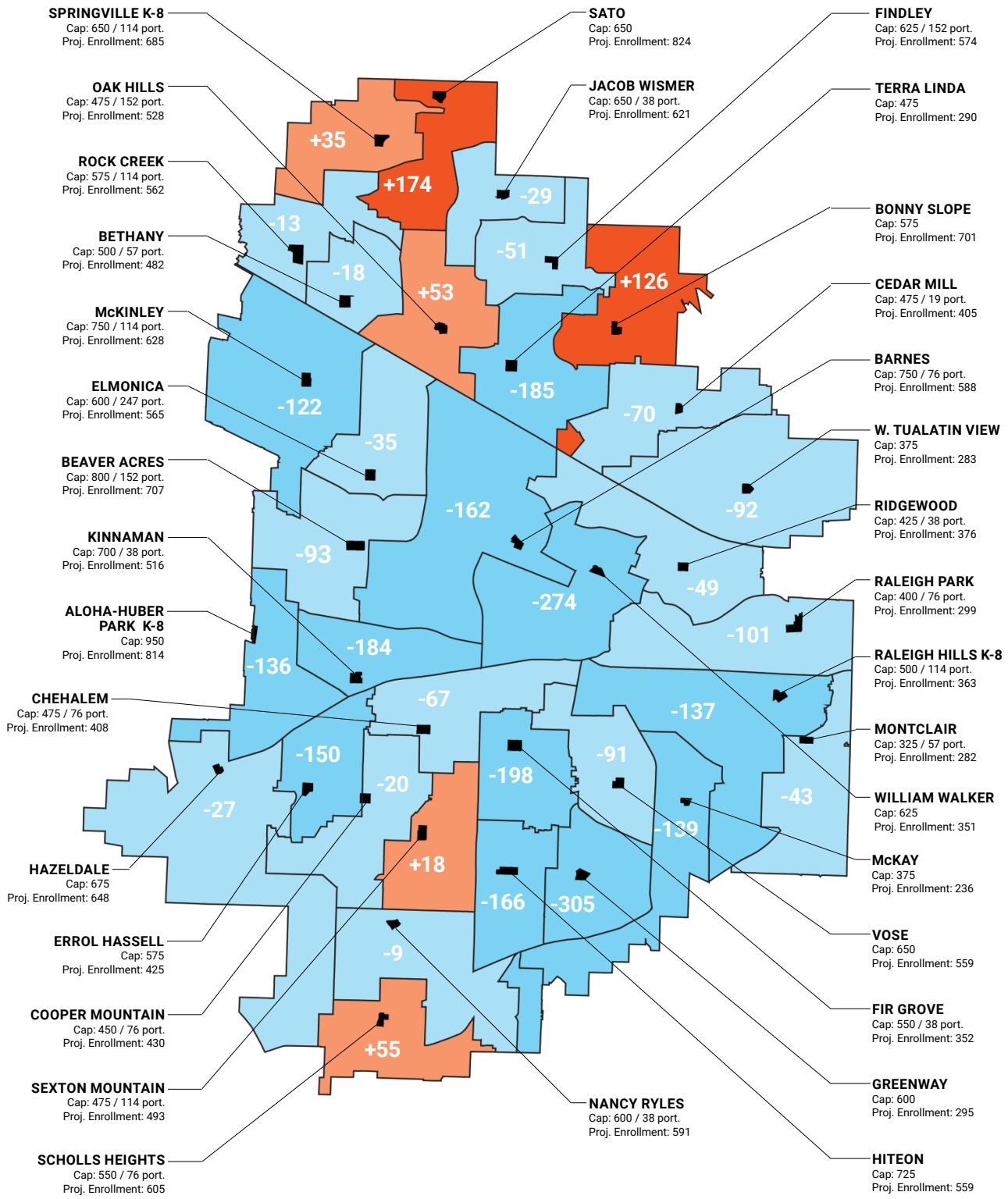
Capacity accommodation and utilization improvement strategies are discussed on pages 53 and 65-66.

Option / Alternative Schools
The District's option / alternative school facilities have a combined permanent capacity of 2,590 and total capacity of 2,857. The projected enrollment of 2,619 students is just over the permanent capacity and 200 students below the total capacity. (Note: Summa and Rachel Carson enrollments are included with the neighborhood schools they are housed in, and Terra Nova's capacity is not included because the facility is used for a partial-day program for students who are enrolled at other District high schools).

Looking at individual school capacities, ACMA, BASE, and ISB are all expected to be at or over capacity. Community High School, with a projected enrollment of 139, is anticipated to be at only 25 percent of its full capacity.

GEOGRAPHIC ANALYSIS
The map diagrams on the following pages illustrate projected 2030-31 utilization rates at each school facility.

DIAGRAM:
Projected Utilization: Elementary Schools (2030-31 Enrollment & Existing Capacity)



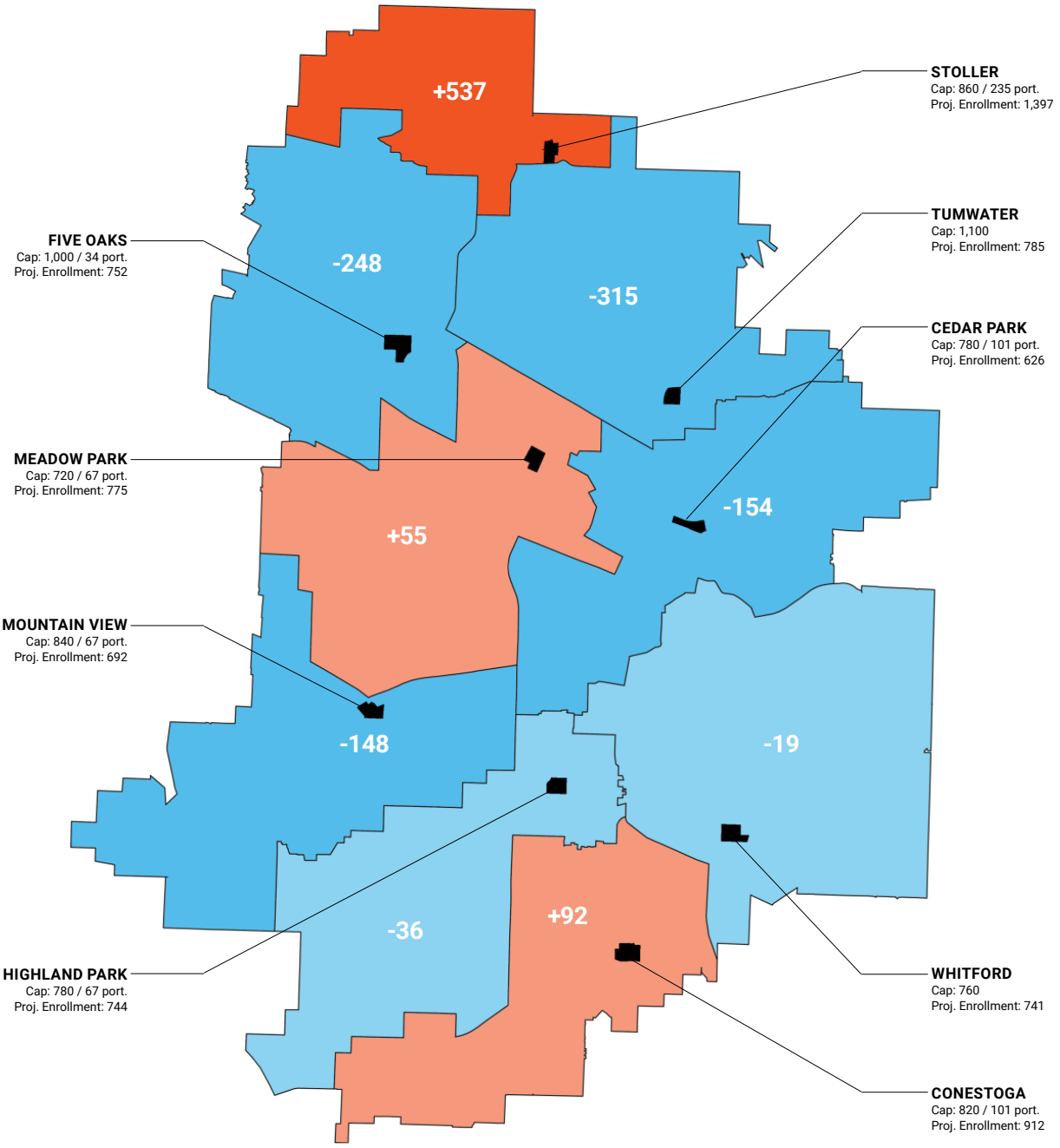
> 100 OVER permanent capacity

1-100 OVER permanent capacity

1-100 UNDER permanent capacity

>100 UNDER permanent capacity

DIAGRAM:
Projected Utilization: Middle Schools (2030-31 Enrollment & Existing Capacity)



> 100 OVER permanent capacity

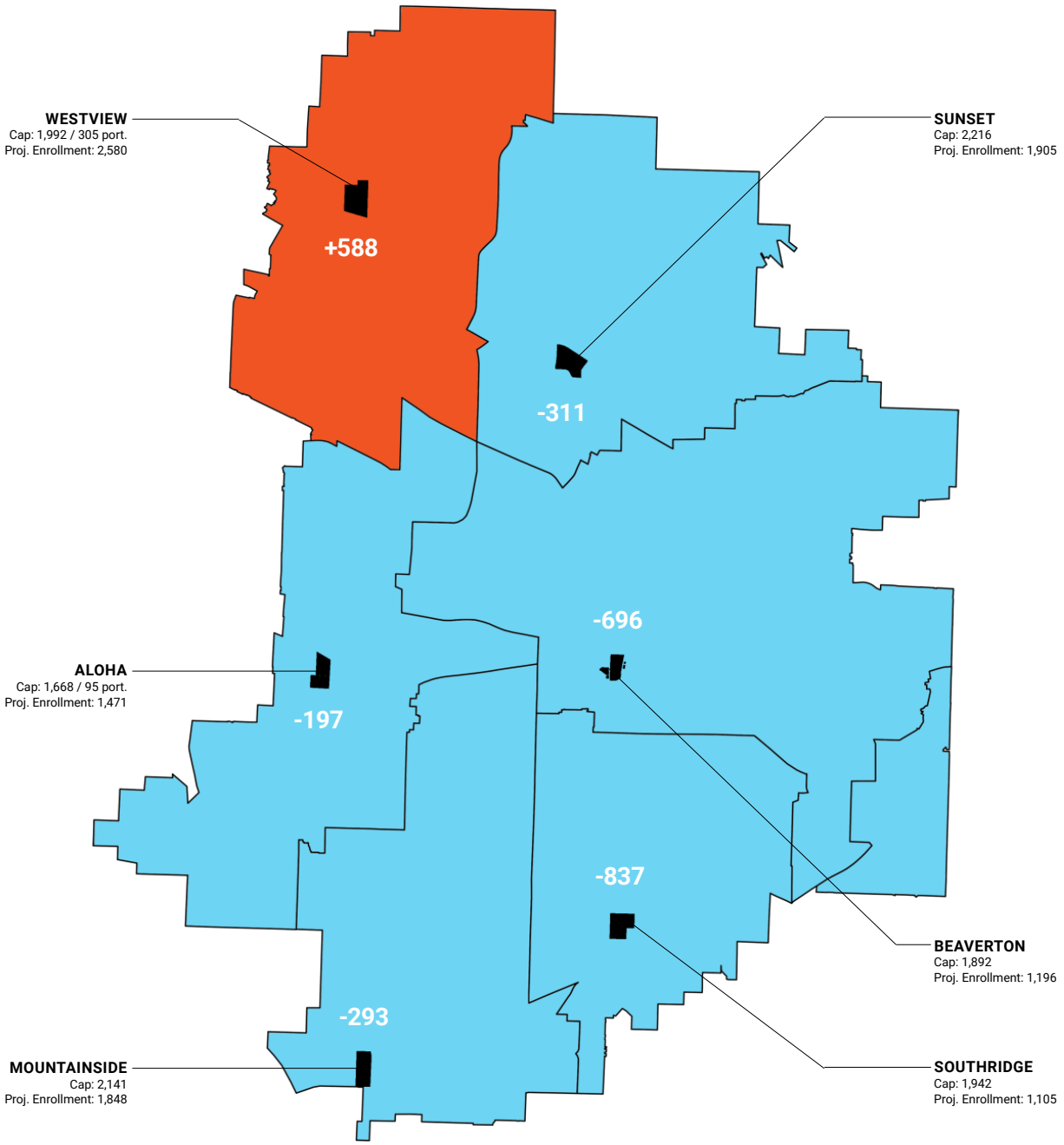
1-100 OVER permanent capacity

1-100 UNDER permanent capacity

>100 UNDER permanent capacity

* *Middle school boundaries shown reflect proposed boundary adjustments from the 2020 adjustment process and may differ slightly from final boundaries.*

DIAGRAM:
Projected Utilization: High Schools (2030-31 Enrollment & Existing Capacity)



> 100 OVER permanent capacity

1-100 OVER permanent capacity

1-100 UNDER permanent capacity

>100 UNDER permanent capacity

CAPACITY ACCOMMODATION STRATEGIES

Space utilization percentages can be treated as the beginning of a conversation about capacity. These numbers act as a flag, indicating the location and severity of utilization issues. However, significantly high or low percentages of space utilization at one or more schools do not automatically indicate a need for construction of new school facilities or school closures.

The District has a number of possible strategies that can be considered to address schools that are over capacity. However, it cannot request local jurisdictions to halt residential growth through a development moratorium.

While the District can participate and comment on new residential developments that may impact school capacity, the District is obligated to consider other measures to address capacity and utilization needs, including the measures that follow. Additionally, the strategies and other alternatives to new construction that are discussed in greater detail in Section 09: Capital Financing, would be considered.

The following strategies can address the need for additional capacity and/or improve utilization.

OPEN ENROLLMENT

Open enrollment allows students to transfer to a school with available capacity outside of their attendance area. The District provides a list of schools offering open enrollment each winter, for enrollment the following fall. A student attending a school on open enrollment is guaranteed enrollment at that school for the duration of his or her time at that school level.

If a school that has been offering open enrollment were to reach a significant level of space utilization, the District would likely terminate open enrollment at that school to relieve overcrowding.

ADMINISTRATIVE TRANSFER

Administrative transfer allows a student to transfer to a school outside of their attendance area at any time during a school year. Transfer requests are reviewed by building administrators and approved or denied on a case-by-case basis, for one year only. An excessive number of administrative transfers to one building could result in space utilization issues for that building.

MODULAR CLASSROOMS

The use of modular classrooms (portables) can provide additional capacity at existing school sites. Where there are no site conditions prohibiting their use (e.g. site size, environmental constraints, or local zoning and development standards), they are a flexible means of responding to capacity needs.

BOUNDARY ADJUSTMENTS

Adjustments of attendance boundaries can be very emotionally charged, contentious, and complex. However, they do not require capital investment. Boundary adjustments can shift students from crowded schools to others with more capacity. These efforts typically require extensive work with the community, and must be planned a significant amount of time prior to the implementation date.

ADDITION / EXPANSION OF EXISTING SCHOOLS

Expanding existing building space to provide additional capacity is an option when capital construction monies are available. Permanent construction costs more than providing portables and requires confidence that the growth and enrollment levels at schools in that area will be increased or sustained in the long term.

NEW SCHOOL CONSTRUCTION

Construction of new schools is the most costly of these options, as it typically requires the purchase of land. However, when demand is high and sustained, and enrollment projections support the investment, a new school offers a high quality teaching and learning environment, and can address significant space utilization issues.

A determination that a school is reaching a significant level of space utilization based on the school capacity formula can serve as the beginning of a conversation with local jurisdictions regarding a proposed residential application. The District can discuss potential solutions to the issue with the jurisdictions and evaluate options such as those described above.

SCHOOL CONSOLIDATION

Consolidating smaller schools that have very low utilization (enrollment well below the existing capacity) can improve utilization and increase operational efficiency, as well as helping to align schools with the District's target capacity. However, school closure has a significant impact on the surrounding community, and many other issues should be considered, such as the potential for increased transportation times, available space in nearby schools, continuation of site-specific programs and activities, and the impact of neighborhood schools in a community.

SUMMARY TABLE

The table on the following pages summarizes permanent and portable capacity, historic and projected enrollment, and utilization rates for all District school facilities, as described in this section.

TABLE:
Capacity, Enrollment & Utilization Summary: Elementary Schools

	CAPACITY			ENROLLMENT			UTILIZATION			
Facility	Permanent Capacity (2020-21)	Portable Capacity (2020-21)	Total Capacity	Historic Enrollmnt (2019-20)	Projected Enrollmnt (2030-31)	Percent Change	Over/ Under Perm. Capacity	Facilty Util. (Perm.)	Over/ Under Total Capacity	Facilty Util. (Total)
ELEMENTARY SCHOOLS										
Aloha-Huber Park K-8	950	0	950	893	814	-8.9%	-136	86%	-136	86%
Barnes	750	76	826	590	588	-0.4%	-162	78%	-238	71%
Beaver Acres	800	152	952	708	707	-0.2%	-93	88%	-245	74%
Bethany	500	57	557	528	482	-8.8%	-18	96%	-75	86%
Bonny Slope	575	0	575	655	701	7.1%	126	122%	126	122%
Cedar Mill	475	19	494	428	405	-5.4%	-70	85%	-89	82%
Chehalem	475	76	551	459	408	-11.2%	-67	86%	-143	74%
Cooper Mountain	450	76	526	461	430	-6.6%	-20	96%	-96	82%
Elmonica	600	209	809	550	565	2.7%	-35	94%	-244	70%
Errol Hassell	575	0	575	426	425	-0.3%	-150	74%	-150	74%
Findley	625	152	777	636	574	-9.8%	-51	92%	-203	74%
Fir Grove	550	38	588	387	352	-9.2%	-198	64%	-236	60%
Greenway	600	0	600	318	295	-7.3%	-305	49%	-305	49%
Hazeldale	675	0	675	467	648	38.7%	-27	96%	-27	96%
Hiteon	725	0	725	634	559	-11.8%	-166	77%	-166	77%
Jacob Wismer	650	38	688	727	621	-14.6%	-29	95%	-67	90%
Kinnaman	700	38	738	599	516	-13.9%	-184	74%	-222	70%
McKay	375	0	375	269	236	-12.3%	-139	63%	-139	63%
McKinley	750	114	864	634	628	-1.0%	-122	84%	-236	73%
Montclair	325	57	382	319	282	-11.5%	-43	87%	-100	74%
Nancy Ryles	600	38	638	630	591	-6.2%	-9	98%	-47	93%
Oak Hills	475	152	627	551	528	-4.2%	53	111%	-99	84%
Raleigh Hills K-8	500	114	614	522	363 [1]	-30.5%	-137	73%	-251	59%
Raleigh Park	400	76	476	332	299	-9.9%	-101	75%	-177	63%
Ridgewood	425	38	463	410	376	-8.3%	-49	88%	-87	81%
Rock Creek	575	114	689	516	562	9.0%	-13	98%	-127	82%
Sato	650	0	650	649	824	26.9%	174	127%	174	127%
Scholls Heights	550	76	626	571	605	6.0%	55	110%	-21	97%
Sexton Mountain	475	114	589	511	493	-3.6%	18	104%	-96	84%
Springville K-8	650	114	764	884	685 [1]	-22.5%	35	105%	-79	90%
Terra Linda	475	0	475	349	290	-16.8%	-185	61%	-185	61%
Vose	650	0	650	693	559	-19.4%	-91	86%	-91	86%
West Tualatin View	375	0	375	336	283	-15.6%	-92	76%	-92	76%
William Walker	625	0	625	487	351	-27.9%	-274	56%	-274	56%
Subtotal: Elementary Schools	***19,550***	***1,938***	***21,488***	***18,129***	***17,043***	***-6.0%***	***-2,507***	***87.2%***	***-4,445***	***79.3%***

Notes:

Capacities listed are effective as of March 1, 2021. The District will continue to update facility capacity as buildings are altered or as uses change. It is important to check with District facilities staff for the most current capacity figures.

Capacity is based on District planning targets and classroom count and does not include self-contained specialized programs, such as special education, prekindergarten, or ELL (MS and HS level only).

Enrollment projections are based on the BSD Enrollment Forecast (PSU PRC, 2019) with District adjustments and a straight-line extension to 2030-31.

[1] Reflects shift to K-5 enrollment by 2022-23.

[2] Includes Summa program enrollment.

[3] Tumwater will not be used as a middle school until Fall 2021.

[4] Includes Rachel Carson School of Environmental Science enrollment.

TABLE:
Capacity, Enrollment & Utilization Summary: Middle, High & Option Schools

	CAPACITY			ENROLLMENT			UTILIZATION			
Facility	Permanent Capacity (2020-21)	Portable Capacity (2020-21)	Total Capacity	Historic Enrollmnt (2019-20)	Projected Enrollmnt (2030-31)	Percent Change	Over/ Under Perm. Capacity	Facilty Util. (Perm.)	Over/ Under Total Capacity	Facilty Util. (Total)
MIDDLE SCHOOLS										
Cedar Park	780	101	881	941 [2]	626 [4]	-33.5%	-154	80%	-255	71%
Conestoga	820	101	921	975	912	-6.5%	92	111%	-9	99%
Five Oaks	1,000	0	1,000	1,010 [4]	752	-25.6%	-248	75%	-248	75%
Highland Park	780	67	847	777 [2]	744	-4.3%	-36	95%	-103	88%
Meadow Park	720	67	787	834 [2]	775 [2]	-7.0%	55	108%	-12	99%
Mountain View	840	67	907	853	692	-18.8%	-148	82%	-215	76%
Stoller	860	235	1,095	1,560 [2]	1,397 [2]	-10.5%	537	162%	301	128%
Tumwater	1,100	0	1,100	- [3]	785	n/a	-315	71%	-315	71%
Whitford	760	0	760	706 [2]	741 [2]	5.0%	-19	98%	-19	98%
Subtotal: Middle Schools	***7,660***	***638***	***8,298***	***7,656***	***7,423***	***-3.0%***	***-237***	***96.9%***	***-875***	***89.5%***
HIGH SCHOOLS										
Aloha	1,668	95	1,764	1,751	1,471	-16.0%	-197	88%	-293	83%
Beaverton	1,892	0	1,892	1,469	1,196	-18.6%	-696	63%	-696	63%
Mountainside	2,141	0	2,141	1,787	1,848	3.4%	-293	86%	-293	86%
Southridge	1,942	0	1,942	1,380	1,105	-19.9%	-837	57%	-837	57%
Sunset	2,216	0	2,216	1,971	1,905	-3.3%	-311	86%	-311	86%
Westview	1,992	305	2,297	2,382	2,580	8.3%	588	130%	283	112%
Subtotal: High Schools	***11,852***	***401***	***12,253***	***10,740***	***10,106***	***-5.9%***	***-1,747***	***85.3%***	***-2,148***	***82.5%***
OPTION SCHOOLS										
ACMA	672	0	672	706	679	-3.8%	7	101%	7	101%
BASE	822	0	822	881	940	6.7%	118	114%	118	114%
Community	548	38	586	128	139	8.6%	-409	25%	-447	24%
ISB	548	229	777	847	862	1.7%	314	157%	85	111%
Terra Nova	*N/A (Partial day program)*			*N/A (Partial day program)*			*N/A (Partial day program)*			
Subtotal: Option Schools	***2,590***	***267***	***2,857***	***2,562***	***2,619***	***2.2%***	***30***	***101.2%***	***-237***	***91.7%***

Notes:

Capacities listed are effective as of March 1, 2021. The District will continue to update facility capacity as buildings are altered or as uses change. It is important to check with District facilities staff for the most current capacity figures.

Capacity is based on District planning targets and classroom count and does not include self-contained specialized programs, such as special education, prekindergarten, or ELL (MS and HS level only).

Enrollment projections are based on the BSD Enrollment Forecast (PSU PRC, 2019) with District adjustments and a straight-line extension to 2030-31.

[1] Reflects shift to K-5 enrollment by 2022-23.

[2] Includes Summa program enrollment.

[3] Tumwater will not be used as a middle school until Fall 2021.

[4] Includes Rachel Carson School of Environmental Science enrollment.

SECTION 08

SITE OPPORTUNITIES

In addition to estimating the student capacity of each school, a long-range facility plan assesses current school sites to determine if there are adequate sites within the district to meet long-term enrollment needs and whether these sites are adequate in size and distribution to meet long-term forecasts.

This evaluation provides assurance that there is a sufficient inventory of properties relative to enrollment demands, and that they are being used effectively to address school needs.

EFFICIENT USE OF SCHOOL SITES

As land within the District has developed to accommodate growth in Beaverton and Washington County, it has become more difficult to find suitable property for new District facilities. In order to accommodate new school facilities, the District has taken steps to use existing school properties more efficiently.

The best example of this is how new and rebuilt schools approved in the 2014 Capital Bond Program were constructed. Four out of the seven "new" schools were provided by first, removing the existing school and second, rebuilding a new, more modern school on the same site. The four schools where this efficient approach occurred were ACMA, Hazeldale Elementary School, Vose Elementary School, and William Walker Elementary School.

The other three new schools (Mountainside High School, Tumwater Middle School, and Sato Elementary School) were built on vacant sites that the District owns. From a sequencing perspective, Tumwater was the first new school constructed and, once finished, it operated as the "swing school" where students from the four schools attended during the school year their home school was being reconstructed.

There are several ways in which the District makes efficient use of its school sites, including using modular (portable) classrooms, building multistory schools, sharing use of school sites for other District uses and with other public agencies, locating schools on smaller sites, and alternative parking arrangements.

However, the District must consider specific site conditions and the values and demands of the families in the District when evaluating these options. Site conditions, such as environmental features like steep slopes and wetlands and development code regulations that establish use standards for school buildings and portable classrooms and setback requirements. Community values may include providing enough parking for volunteers, connected and safe walking, biking, and transit access,

providing fields for sports, extracurricular activities and shared uses with Tualatin Hills Parks and Recreation (THPRD) and other community service providers, and making facilities and educational quality equitable between schools.

ORS 195.110 includes the requirement for school districts to consider "Measures to increase the efficient use of school sites including, but not limited to, multiple-story buildings and multipurpose use of sites." The statute requires consideration of measures to efficiently use school sites and provides examples of such measures – multistory buildings and multiple uses of school sites – but does not more precisely define them. This leaves the District discretion in determining what efficiency measures to consider. This section describes some of the measures the District has used and can consider in arranging more efficient future use of its school facility sites.

MODULAR CLASSROOMS

Modular, or portable, classrooms are an affordable and flexible method for responding to fluctuations in school enrollment and increasing efficient use of a school site. The modular classrooms used by the District typically consist of two classrooms, each about 900 square feet. Portables often make the difference between a school being below or over capacity. The portables used in the District range between being temporary to semi-permanent.

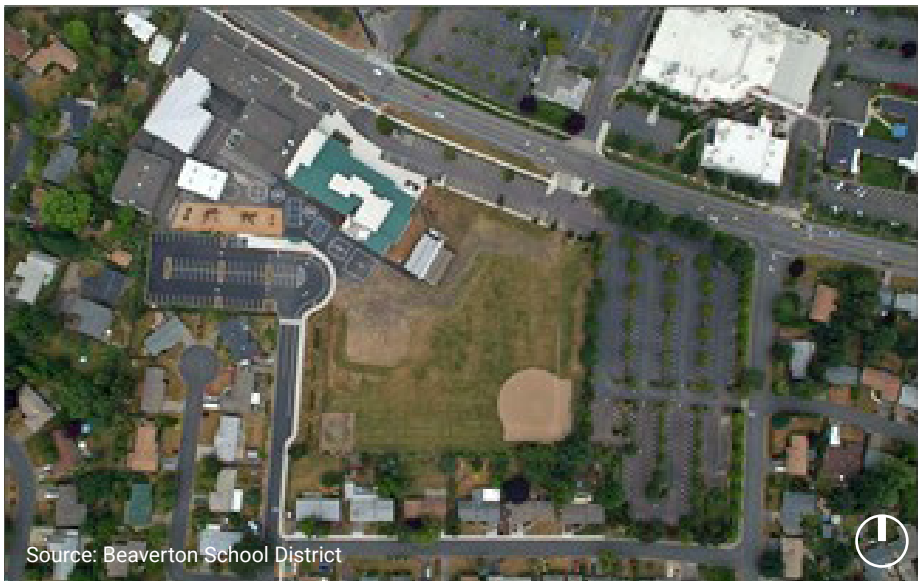
The use of modular classrooms must be balanced with site considerations and issues of educational quality and equity between schools. The following site conditions must be considered:

> Environmental constraints/conditions – steep or changing slopes; streams, wetlands, or other sensitive lands

> School features – parking, play areas and fields

> Development code – how portables are classified and regulated according to zoning code; building setbacks from lot lines required by the code

IMAGE:
Barnes Elementary School



> Fire safety – access roads and proximity to hydrants

> Core facilities – including the lack of restroom facilities in portables

Other issues to consider when making decisions about using portables include educational quality and equity. There is a growing body of research indicating a positive relationship between the quality of a school facility and student achievement.

It cannot necessarily be assumed that permanent classrooms are always better quality than portable classrooms, but because portables are designed to be temporary and uniform, they lack some of the architectural quality and special features or amenities that permanent classrooms have. These differences may impact student achievement. When some schools have more portables than others, there is the potential to foster inequity between schools, possibly resulting in lower performance and achievement.

MULTISTORY BUILDINGS

Multistory buildings are typically more expensive to construct than single-story buildings. Local building codes used to prohibit younger students from being taught on floors above or below the main floor. However, these codes have been revised to remove this restriction. At the same time, multistory buildings provide significantly more student capacity using the same footprint as a single-story building. As land costs increase, multistory buildings become more cost-effective to build and operate.

Land costs in Beaverton School District have risen significantly in the last 30 years. The District has made it a practice to construct multistory buildings when new schools are built. Recent examples of this include:

> Aloha Huber Park K-8 (2005)

> Bonny Slope Elementary School (2008)

> Springville K-8 (2009)

> Sato Elementary School (2017)

> Vose Elementary School (2017)

> Tumwater Middle School (2017)

> Mountainside High School (2017)

> Hazeldale Elementary School (2018)

> William Walker Elementary School (2018)

> ACMA (2021)

SHARED USE & PARTNERSHIPS

Another effective way of maximizing the use of a site is to share the use with other organizations. It was found during

IMAGE:
Hiteon Elementary School

IMAGE:
Rock Creek Elementary School

the school facility design workshops held during previous facility planning efforts that community members in particular support the partnership between the District and THPRD, for the use of outdoor and indoor space. This shares not only the use of a site, but the costs associated with fields and outdoor recreation space and operating the facility's indoor recreational and instructional space.

There are other shared use partnerships that the District can enter into and develop. Some natural pairings include those with other educational and community service providers, such as Portland Community College.

SHARED PARKING

Required vehicle parking standards are a local zoning code issue that can add to the need for larger school sites. For example, given the number of full-time employees at the Hiteon Elementary School, 80 minimum and 120 maximum parking spaces are required pursuant to City of Beaverton code. The school site, which was recently expanded, now has 114 parking spaces that occupy approximate 34,000 square feet or about 0.8 acres. The school sits on a 12.2-acre site, so parking accounts for about 6.5 percent of the total site area.

Shared parking arrangements most directly affect the amount of the school site being dedicated to parking. Shared parking arrangements require nearby organizations with ample parking and compatible use schedules (i.e. not conflicting), which may not be available at all school sites.

Barnes Elementary School has a parking agreement with the Foursquare Church adjacent to its site. The image on the previous page shows the location of the shared parking area (immediately to the east of the ball fields). Church parking spaces are available during the week for school activities. Conversely, the parking spaces at Barnes Elementary School are available for church parking on Sundays and during activities which may require additional parking. Additional agreements like these could be pursued in the future where opportunities exist to reduce land needs (and costs).

EXPANSION ON EXISTING SITES

Expanding school facilities on existing sites is another way of using existing sites more efficiently. There are several school sites where the District has done this. Hiteon Elementary School, shown above, offers a good example of how the District has worked to maximize its school sites.

The District expanded buildings, parking, and fields on Hiteon's 12.2-acre site in 2008/2009. The building area was expanded by 42 percent for a total of 78,972 square feet. This means that building area makes up almost 20 percent of the lot area. As for the rest of the site, 61 percent of the lot is landscaped or associated with recreational uses, about a quarter of which is Hiteon Park, almost three acres managed by THPRD.

Conversely, Rock Creek Elementary School, shown above, offers an example of a land-rich school site. Its building area comprises only about six percent of the 17.6-acre lot area. The site, therefore, offers possibilities of redevelopment and co-location of schools in the future.

The site could potentially accommodate both an elementary school and middle school, or the site could be converted to a middle school site if there were a need for additional middle school capacity in this portion of the District. While neither option has been proposed or evaluated, the large Rock Creek school site does appear to provide the District with options for future expansion.

LIMIT SPACE FOR NON-EDUCATIONAL USES

There are several options to reduce the space on a school site dedicated to

non-educational uses, such as athletic facilities or parking. However, the following factors should be considered:

> Good walking, biking, and transit access should be available to reduce the demand for vehicle parking.

> Sufficient parking is an issue for parents and others who volunteer at schools during the daytime. As schools have come to rely more on volunteers in times of operating budget shortfalls, this is an important consideration.

> School sports and extracurricular activities have consistently been highly regarded by District families. Unless there are convenient alternatives to providing space for these activities, very careful consideration should be taken when evaluating whether to reduce this space on a school site.

CO-LOCATION WITH EXISTING DISTRICT FACILITIES

In some cases, a district's existing facilities may be located on sites that are large enough to accommodate co-location with another facility in the future, if the need arises. This option may be considered in particular for smaller non-neighborhood facilities, such as an alternative program or special education facility. However, it will be important to assess program compatibility before considering co-location, as well as other factors outside the scope of this study, such as setbacks, easements, site access, and the presence of wetlands.

Based on a high-level analysis that included comparison with District site size targets, general topography, site configuration, and location in the District, a few of the District's school sites appear to offer opportunities for co-location with another future facility in their existing configuration, beyond the shared use that is already occurring with adjacent District sites.

As District facilities continue to age and require replacement, it is recommended that the District consider the possibility of co-location in the future, and plan replacement facilities on larger sites with this potential strategy in mind.

REPLACE SMALL SCHOOLS TO MAXIMIZE SITE UTILIZATION

School facilities vary in size and capacity for many reasons, including the educational goals and budget parameters at the time of constructions. Districts can maximize the utilization of their existing sites by replacing or adding onto schools that are well below their target capacities. This can significantly increase district capacity without the need for additional sites.

The District has implemented this strategy with the recent replacements of three elementary schools: Hazeldale, Vose, and William Walker. The original facilities for all three schools had capacities of under 500 students each, and were replaced on the same site with larger capacity schools.

INTERIM LOCATION

Because of the extensive work often required to upgrade schools to achieve modern learning environments, entire schools may need to temporarily relocate into different facilities while construction is completed. These facilities that will temporarily house displaced students are called "interim relocation sites." In some instances, vacant school buildings might serve this purpose.

Any school recommended for replacement or major alteration that might require student displacement will require an analysis of the site and its relationship to the neighborhood in order to determine the feasibility to work on-site around the existing buildings.

Some of the District's existing facilities appear to have sites that will likely accommodate replacement on site while maintaining operations in the current facility, but will have to be verified on a site-by-site basis.

Currently the District does not have any vacant facilities that can be used as "swing" sites for temporary relocation. Tumwater was used as a swing site for many of the replacement projects completed as part of the 2014 bond, but will become a neighborhood middle school in the upcoming school year.

ANALYSIS OF LAND REQUIREMENTS

Based on the adjusted enrollment projections to 2030-31, it appears that no additional school sites will need to be purchased as part of the District's 10-year Long-Range Facility Plan.

The District's three undeveloped sites, combined with opportunities for added capacity at some existing operational sites, appear to offer adequate opportunity to increase capacity to meet enrollment and program demand for the foreseeable future.

DISTRICT-OWNED ACTIVE FACILITY SITES

The District currently owns 63 active facility sites and serves an 55.8-square-mile area in Washington County that primarily includes the city of Beaverton. The District's active facility sites total over 800 acres and include 55 school sites in operation and eight administrative and support sites.

The following chart summarizes the combined area of each site type and the percentage of total District site area.

Type of Site	Area (Acres)	%
Elementary School	323.6	39%
Middle School	192.8	23%
High School	218.8	27%
Option School	51.0	6%
District Support	39.5	5%
Total Site Area	**824.6 acres**	

DIAGRAM:
District-Owned Reserve Sites

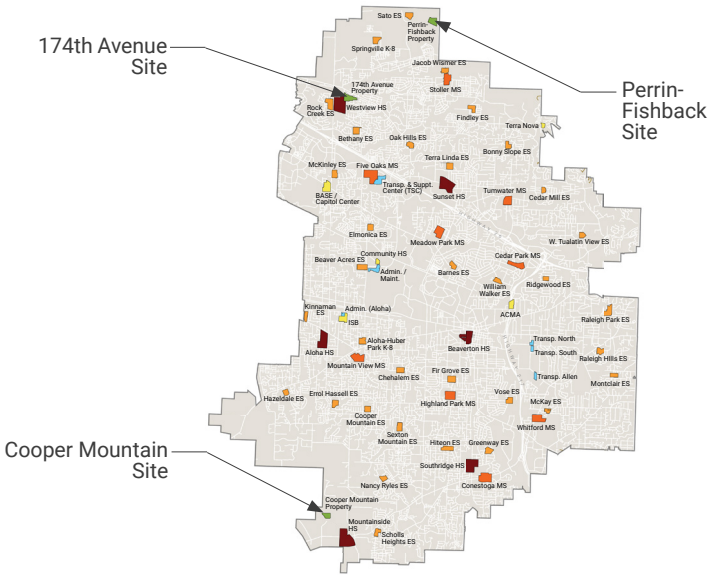


IMAGE:
174th Avenue Site

Currently, the District's active school sites fall into the following size ranges:

> Elementary school site range in size from approximately five to 17 acres, however the majority are within the seven to 10 acre target range

> Middle school sites range from approximately 16 to 32 acres in size

> High school sites range from approximately 26 to 46 acres in size

DISTRICT-OWNED RESERVE SITES

The District currently owns three vacant properties that could be used for the construction of new school facilities, shown above and on the following page.

Two of the sites are located north of Sunset Highway:

> 174th Avenue site (east of Westview High School)

> Perrin-Fishback site

The third site is located in the Cooper Mountain planning area in the southern area of the District:

> Cooper Mountain site

All three sites are suitable from a size perspective for an elementary school. The 174th Avenue site, also known as the Westview property, is 14.8 acres in size, with an estimated 11.6 acres of developable land. The Perrin-Fishback site is approximately 10 acres in size. The Cooper Mountain site, also known as the Horse Barn site, is 11.0 acres.

Both the Perrin-Fishback and Cooper Mountain sites are located in areas where the District can expect new residential growth (and, therefore, enrollment growth) to occur.

Location-wise, the 174th Avenue site is less desirable because of access constraints. None of these sites currently have capital construction funds available to provide new school facilities.

IDENTIFYING FUTURE SCHOOL SITES

One component of a long-range facility plan is to identify desirable sites that may be needed for future use as District enrollment increases over time. Although the District does not have an immediate need to purchase more land and the availability of vacant sites within the District is very limited, it is still important to understand the criteria for site selection that may be used for future land acquisition.

CRITERIA FOR SITE SELECTION

Each parcel of land identified as a potential school site should be thoroughly examined to determine its suitability in terms of educational plan, accessibility, cost, size and environmental impact. Each site and the surrounding property should be evaluated on both its present and possible future uses. The following are general site criteria for all educational facilities.

Site Size

Minimum site sizes have been established by the District for each educational level. These basic guidelines are based on the District's education specification criteria (such as number and type of play fields, number of building floors, and parking and bus requirements).

> Elementary site size target of 7-10 acres

> Middle schools site size target of 15-20 acres

> High school site size target of 35-40 acres

These parameters are target sizes that are used for guidance and comparison. Existing school sites vary in size due to a number of factors.

IMAGE:
Perrin-Fishback Site

IMAGE:
Cooper Mountain Site

Site Characteristics
- Usable size and shape
- Ability to support the educational program
- Ability to support future expansion
- Usable topography and soil conditions
- Presence of trees and other vegetation

Infrastructure
- Availability of water, sewer and energy sources (electricity, natural gas)
- Potential for alternative energy use and/or shared use
- Availability of telecommunications

Legal Requirements
- Appropriate zoning (will variance or re-zone be required)
- Ability to comply with state rules and regulations (disabled access, etc.)
- Not a hazardous area (flood plain, etc.)
- Available and free of encumbrances
- **Location**
- Convenient location for majority of students
- Relationship to existing educational facilities
- Proximity to other community services (library, parks, museums)
- Zoning potential development of surrounding land
- Potential for shared use (parks, etc.)
- Appropriate location for open space in the community
- Aesthetically pleasing environment

Vehicular Access
- Accessible for service vehicles
- Suitable surrounding roads and traffic patterns
- Multiple points of access to the site

Health and Safety
- Safe environment
- Healthy air quality
- Free of industrial and traffic noise
- Served by public agencies (police, fire, public transit, etc.)

Pedestrian & Bicycle Access
In accordance with ORS 195.115, city and county governing bodies shall work with school district personnel to identify barriers and hazards to children walking or bicycling to and from school. The cities, counties and districts may develop a plan for the funding of improvements designed to reduce the barriers and hazards identified.

SECTION 09

CAPITAL FINANCING

ORS 195.110(5)(a)(D) requires that school districts include in their Long-Range Facility Plan:

"Financial plans to meet school facility needs, including an analysis of available tools to ensure facility needs are met."

FINANCING TOOLS FOR CAPITAL PROJECTS

This section provides a discussion of the financing tools available to the Beaverton School District and its capacity for generating capital resources. The following represents the array of financing tools that are at the District's disposal.

CONSTRUCTION EXCISE TAX (CET)

The 2007 State Legislature passed Senate Bill 1036, allowing school districts to impose a CET on improvements to real property that result in a new structure or additional square footage in an existing structure.

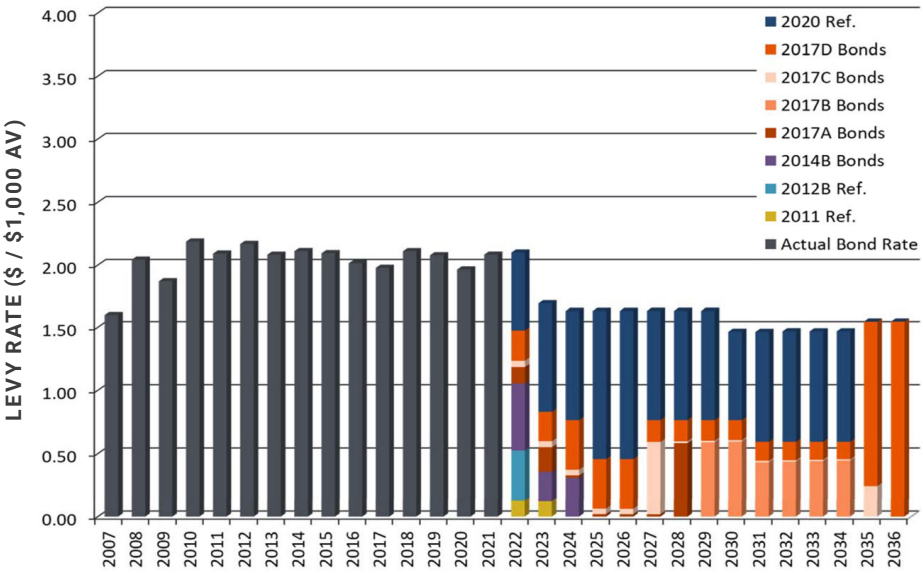
The District is collecting $1.00 per square foot of new residential construction and $0.50 per square foot of new nonresidential construction. These funds can be used for land acquisition, construction, renovation or improvement of school facilities, costs to purchase and install equipment and furnishings or other tangible property that has a useful life of more than one year, and architectural, engineering, legal or similar costs related to capital improvements. The District continues to renew the agreement every year to collect these funds.

STATE FACILITIES GRANT

The 1997 Legislature established the facility grant program (OAR 581-027), but delayed implementation until 1999/2000. The grant is for costs to equip and furnish a facility and cannot be used for construction costs. This was partly in response to the 1996 Measure 47 (included in Measure 50), which limited construction costs that could be bonded to those that are intrinsic to the structure.

The District could receive up to eight percent of the construction cost of a new school, excluding land. The actual revenue limitations have shown this grant to be more in the three to four percent range of project cost.

CHART:
Outstanding General Obligation Bonds - Actual and Projected Rates, Piper Sandler



GENERAL OBLIGATION (GO) BONDS

GO Bonds are a municipal debt security issued by the District and backed by the full faith and credit of the Beaverton School District. They are used to finance capital expenditures and are supported by a voter-approved property tax levy.

For Oregon school districts, bonds are the primary tool for financing school facility needs. Historically, Beaverton School District has used this method of financing for most of its capital construction. GO bonds can be issued for land acquisition, construction, new schools, renovation or improvement of school facilities, and equipment intrinsic to the facility.

The District is currently significantly below its maximum allowable level of indebtedness. However, the real maximum level of indebtedness is the one for which the District can get voter approval. There is a legal maximum debt capacity of 7.95 percent of real market value, and the District has remaining capacity of $2.38 billion.

The real limitation is the capacity made available by the voting patrons of the District. In 2021, the District's levy rate is estimated to be $2.05 per $1,000 of assessed value and will drop to roughly $1.60 in 2023. As shown in the chart above, a step-down in the tax rate occurs in 2023.

Historically, when a tax rate step-down occurs, it is potentially a good time for the District to return to voters with a bond issue. The last two significant bond programs were approved by District voters in 2006 ($196 million) and 2014 ($680 million), when a step-down in the tax rate occurred.

FULL FAITH AND CREDIT OBLIGATION BOND (FFCO)

Similar to a GO Bond, the District can issue a municipal debt security by authorization from the School Board. The debt is repaid using resources other than a tax levy.

CERTIFICATE OF PARTICIPATION BOND (COP)

COP's are a financial obligation the District can use to finance essential capital improvements. Like a GO bond, a COP is a loan from investors to the District. Unlike GO bonds, however, COP's are not backed by the full faith and credit of the District, rather, the repayment of the debt service on the COP's is subject to annual appropriation by the District.

QUALIFIED ZONE ACADEMY BONDS (QZABS)

QZABs are noninterest-bearing bonds, and the borrowing school district pays the principal back in 15 years. QZABs are part of an annual $400 million federal program, appropriated by Congress and is administered by the Oregon Department of Education. The money can only be used for qualifying schools where 35 percent or more of students are eligible for free or reduced-price school meals.

A 10 percent match is required from a business or nonprofit partner which can be in cash or in-kind donations. The funds can be used for renovation and repairs, energy efficiency and renewable energy, equipment and technology.

LOCAL OPTION LEVY (LOL)

The Measure 50 property tax limit (1997) is usually less than the Measure 5 tax limit (1990), and the difference is generally referred to as the tax "gap." The 1997 Legislature approved school use of the gap for a voter approved local option property tax. Districts may use a LOL for operating and capital expenditures.

GENERAL FUND

The General Fund is the primary fund of the District that provides resources necessary to operate day-to-day activities of the District.

DONATIONS & GRANTS

The District receives donations given by a person or foundation for charitable purposes to benefit the education of Beaverton students. An example would be the Nike School Innovation Fund, which has donated to the District.

The District pursues federal and state grant opportunities as they are available. Having a currently-adopted LRFP is a typical criterion for grant applications.

IMAGES:
Examples of 2014 Bond Projects


Tumwater Middle School


Mountainside High School


Hazeldale Elementary School


ACMA


Sato Elementary School

2014 SCHOOL BOND SUCCESSES

The most recent successful school bond program occurred when District voters approved the $680 million capital bond measure in May 2014. Bond funds have been used to address repairs, provide new capacity and relieve overcrowding, modernize and renovate facilities, improve safety, and replace outdated learning technology, curriculum, and equipment over an eight-year period.

The District, through good financial stewardship and management, has been able to take advantage of favorable interest rates and available bond premiums from bond sales to leverage the $680 million bond into an $807 million construction program (per the July 2020 Bond Accountability Committee Project Summary).

The following is a list of projects constructed through the 2014 bond program:

- ACMA Replacement
- Aloha High School Title IX Compliance
- Capital Center Improvements & Data Center
- Districtwide ADA Compliance
- Districtwide Communication System
- Districtwide Facility Repairs
- Districtwide HVAC Controls
- Domestic / Fire Line Separation
- Five Oaks Middle School Renovation & Expansion
- Green Energy Technology
- Hazeldale K-5 Replacement
- IT Data Center at Capital Center
- Kitchen Improvements
- Land for a new K-5 school in South Cooper Mountain
- Maintenance Facility Improvements
- McKay Elementary School ADA Improvements
- New High School: Mountainside
- New Elementary School: Sato
- New Middle School: Tumwater
- Security Upgrades
- Seismic Upgrades
- Sunset High School Title IX Compliance
- Springville K-8 Improvements
- Vose K-5 Replacement
- William Walker K-5 Replacement

ALTERNATIVES TO NEW CONSTRUCTION

There are a number of ways to accommodate growth in programs and/or enrollment that do not necessitate new construction or renovation. Strategies that address program need, growth, and facility condition can provide additional capacity and may influence the extent of major modernizations and/or new construction.

Whenever possible, it is important for the District to explore options for increasing the amount of school capacity without having to make major capital investments. These strategies, some of which are also discussed on page 53, are identified as potential ideas to be considered and will not necessarily be implemented by the District.

Strategies that address program:

> Repurpose existing space for other uses when possible

> Utilize public / private partnerships

> Develop online education programs to reduce enrollment demand

> Locate alternative programs in nontraditional facilities

Strategies that address growth:

> Increase class sizes

> Reactivate vacant / repurposed buildings

> Adjust attendance boundaries to maximize occupancy at underutilized schools

> Allow or maintain enrollment above target capacities

> Add capacity with modular classrooms (typically funded through operational dollars rather than capital funds)

Strategies that address condition:

> Close schools in the poorest condition and consolidate if enrollment / capacity allow

> Address the most critical issues using annual maintenance dollars when possible

STRATEGIES THAT ADDRESS PROGRAM

Repurpose Existing Space
The District has historically reviewed program alternatives and considered a variety of changes that schools could institute to potentially increase the capacity of existing school facilities to serve projected enrollment.

Implement Public / Private Partnerships
There may be opportunities for public / private partnerships to support District programs, in lieu of new construction or major renovations. In general, lease arrangements are made on a case-by-case basis to support educational program objectives.

In particular, there is opportunity for career and technical education programs to have robust partnerships with industry, both within school facilities and with internships at industry partner sites.

Develop Online Education Programs
Providing a robust online school program can help districts manage enrollment to a limited extent, as well as fill a need for students with particular learning styles and needs. However, this option is typically only used by a small percentage of students.

The District currently has an online education program, the FLEX Online School. It is a tuition-free option school within the District that provides curriculum and support services for grades K–12 in an fully online format.

Although the current year is an exception due to distance learning requirements that resulted from the Covid-19 pandemic, the District anticipates the that fully online learning will not be used by a large number of students in the future. Therefore, it is not expected to provide a significant reduction in enrollment at traditional school facilities.

Locate Alternative Programs in Nontraditional Facilities
Small, specifically tailored educational programs can be located in facilities other than traditional school buildings, allowing districts to utilize other types of building stock they may own, or lease commercial or retail space.

The ability to house some students outside of traditional school facilities can reduce enrollment demand. This strategy is most appropriate for high school students and potentially middle school students as well.

STRATEGIES THAT ADDRESS GROWTH

Increase Class Size
The District could choose to increase the target class size to accommodate growth, however, this approach is impractical to meet long-term needs. All districts have natural fluctuations in class size, both between grade levels and within a given year, however there is a limit to the number of students that can be accommodated within a given space, determined by the size of existing classrooms. Large class sizes may also compromise instruction.

In addition, existing facilities have support spaces, such as a cafeterias and restrooms, that are sized to accommodate a certain number of students. Increasing class sizes beyond what the building was designed for may impact the viability of these support functions.

Reactivate Vacant and Leased buildings
The District fully utilizes its existing building stock and does not currently own any vacant or leased facilities. However, this strategy should be kept in mind when replacing facilities in the future. If the District has the opportunity to take buildings offline rather than demolish them, it can provide flexibility for future use, as well as potential swing space during construction periods.

Offline facilities may provide an opportunity to address growth in the future. However, their location in relation to areas of capacity need must be considered, as well as the significant capital costs associated with maintenance and improvement. Leasing facilities may offset some costs.

Adjust Attendance Boundaries
Adjusting attendance boundaries within the District can help compensate for enrollment growth in individual schools, particularly if growth is concentrated in specific areas. However, this process is complex and can cause significant disruption for schools and families. This approach can also lead to increased busing requirements and associated costs.

Allow Enrollment over Targeted Capacities
Allowing enrollment over targeted capacities is another way to compensate for enrollment growth in concentrated areas.

The District has two elementary schools with projected 2030-31 enrollments over the stated targeted capacity of 750, including Sato and Bonny Slope. At the middle school level, Stoller is the only school projected to have enrollment over the District target of 1,100 students, and at the high school level, Westview is projected to have enrollment over the target of 2,500. Two schools also have existing permanent capacities that are greater than the target capacity, including Aloha Huber K-8 and Beaver Acres Elementary School.

It was determined by the District that increasing enrollment above the target capacity as a planning strategy does not align with the District's vision and goals, and will not provide the best educational environment for students. However, it is understood that enrollments fluctuate over time due to a number of factors and cannot always be managed to stay under established targets.

Add Capacity with Modular Classrooms
Modular classroom buildings offer solutions both for making more efficient use of a school site and providing a substitute to constructing new permanent buildings. Modular buildings offer flexibility in responding to changes in enrollment and cost less than permanent buildings to purchase and operate.

Modular classroom buildings lack some of the architectural quality and special features or amenities that permanent classrooms have. It is these differences that may make a difference in student achievement. Further, while adding to a school's enrollment, they do not expand the existing shared common areas such as cafeterias, gymnasiums, media centers and restrooms. Finally, as discussed in the previous chapter, it is important to note that the addition of modular classrooms may create security concerns and place additional stress on already underfunded operational budgets.

The District currently has many school facilities that have portable classrooms on site. Some are used as regularly scheduled classrooms and others are used only on an intermittent, as-needed basis, or for storage.

There is a desire to eliminate modular buildings whenever possible, therefore the Long-Range Facility Plan is primarily based on permanent capacity only.

STRATEGIES THAT ADDRESS CONDITION

Close Schools and Consolidate
Closing or repurposing schools that are in the poorest condition can alleviate the need for modernization, if these students can be accommodated at neighboring schools.

The District's projected excess capacity of more than 2,500 seats at the elementary level an 1,700 seats at the high school level by 2030-31could allow for the closure of one or more small schools in the District, with these students being absorbed into nearby existing or replacement schools.

Several elementary schools are well below the District's target size of 750, including, but not limited to, McKay Elementary (375), Montclair Elementary (325), and West Tualatin View Elementary (375). In addition to being small, these schools are also some of the oldest schools in the District and have significant maintenance and operational needs, making them possible candidates for closure.

Older schools at the secondary level are also subject to review for potential consolidation and closure. Enrollment forecasts will factor into such reviews at all school levels.

However, school closure has a significant impact on the surrounding community, and many other issues should be considered, such as the potential for increased transportation times, available space in nearby schools, continuation of site-specific programs and activities, and the impact of neighborhood schools in a community.

Therefore, closing or repurposing school facilities, or declaring such facilities as surplus, should be carefully considered by the District in the future. Ideal candidates would be facilities that are in very poor condition, have capacity significantly below District targets, have low enrollment forecasts, and/or do not adequately accommodate educational programs.

Use Maintenance Funding for Critical Issues
It may be possible to allocate some operational funds to fix immediate needs in some facilities. As noted previously, this is not a viable long-term strategy and may impact the District's ability to meet operational needs. Currently, the District's maintenance budget does not have capacity for additional projects beyond basic maintenance needs.

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SECTION 10

10-YEAR CAPITAL PLAN

The 10-year capital plan identifies funding strategies for addressing the facility needs of the District that have been identified in Sections 01 through 09 of the Long-Range Facility Plan.

SUMMARY OF NEED

The 10-year capital plan addresses identified need in alignment with District goals and programs. The total District need is estimated at $1.3 billion (escalated project cost), in the areas of educational program, facility condition, enrollment and capacity, and District support. As plan proposals were considered, the total identified District need in these areas included the following components:

EDUCATIONAL PROGRAM NEED: $523.9 M

Estimated need includes the following categories, as described in Section 05 - Educational Program:

> Early Childhood Education

> Special Education

> Physical Education

> Remove Portable Classrooms

> Districtwide Educational Adequacy

FACILITY CONDITION NEED: $666.1 M

Estimated need includes 10-year deferred maintenance costs established by the FCA and includes estimated costs associated with building condition, site condition, and seismic improvements districtwide. It also incorporates lump sum amounts determined by the District for specific projects, including school modernization, security upgrades, and nutrition services upgrades.

ENROLLMENT AND CAPACITY NEED: $60.2 M

Districtwide, there is currently adequate existing capacity to address enrollment projections over the next 10 years, if strategies such as boundary adjustments are implemented to accomplish this. However, some individual school boundaries have significant identified need which, if left unaddressed through other means, would result in capacity-related need at these facilities. Estimated costs assume enrollment is met through permanent capacity.

These schools include:

> Bonny Slope Elementary School

> Sato Elementary School

> Stoller Middle School

> Westview High School

DISTRICT SUPPORT: $80.0 M

In addition to the three primary areas of need described above, the District also identified several support projects that will be needed in the next 10 years. Categories include:

> Technology

> School Office Relocation

> Bus Replacement

> Critical Equipment

PLAN DEVELOPMENT

Over the course of 10 months of meetings with the District Leadership Team, three meetings with the Focus Group, and three community open houses, two preliminary capital bond proposals were developed. The District Leadership Team identified potential projects for the proposals based on the District Strategic Plan, the LRFP guiding principles, goals, and action items, and a detailed understanding of the identified need in the District.

Project needs were balanced with a recognition of community support levels, resulting in the development of two bond plan options: a smaller plan that would result in little or no tax rate increase and a larger plan that more adequately addresses District need and would result in a small tax rate increase.

Bond plan options received feedback from the Focus Group and the broader community, and were then revised by the District Leadership Team based on that input. The final adjusted plans reflect incorporation of selected input.

FOCUS GROUP INPUT

The Focus Group provided feedback on the two capital bond proposals, which was a critical outcome of the LRFP process. Focus Group input is summarized below. More detailed information regarding this input can be found in Appendix C — Focus Group Meetings.

Prioritization

> Prioritize educational program needs, particularly early childhood education and a special needs facility.

> Prioritize seismic upgrades, including a strategy to meet State seismic requirements.

> Prioritize critical security and facility maintenance items.

Utilization

> School consolidation may potentially be controversial, creates many logistical questions, and may negatively impact the bond measure. Should it be done? If so, where?

> Boundary adjustments should be considered as an alternative to increasing capacity through building replacements or classroom additions.

Distribution

> Equity is a priority, including a focus on improving Title 1 schools.

> Projects should be distributed throughout the District to the greatest extent possible.

Focus Group members prioritized the proposed projects in the following order:

1. Beaverton High School Replacement
2. Deferred Maintenance & Modernization
3. Raleigh Hills Elementary School Replacement
4. Seismic & Security Upgrades
5. Educational Program Improvements

BROADER COMMUNITY INPUT

Community input from the open house sessions regarding the two capital bond proposals is summarized below. A more detailed Community Outreach Summary is included in Appendix B — Supplemental Information.

Prioritization

> Prioritize safety and seismic upgrades.

> Provide more learning options for general students, not just special communities.

Utilization

> Adjust attendance boundaries to resolve capacity issues.

> Overcapacity at Stoller Middle School is an issue.

Distribution

> Prioritize equity for disadvantaged schools.

> Provide clearer descriptions of how a bond would touch each community.

Survey respondents prioritized the proposed projects in the following order:

1. Beaverton High School Replacement
2. Raleigh Hills Elementary School Replacement
3. Seismic & Security Upgrades
4. Deferred Maintenance & Modernization
5. Educational Program Improvements

CAPITAL BOND PROPOSALS

The two capital bond proposals developed by the District and are summarized on the following page. The bond proposals incorporate community input and intend to strike a balance between community support for funding and current District need.

Either of the proposals shown can serve as the basis for a potential capital measure, at the discretion of the Board. The chosen proposal may be adjusted prior to a capital measure, due to changes in District need, economic conditions, and/or additional community input.

The proposed bond plans represent one phase of work in an ongoing process of addressing District need. Projects that were identified during the planning process and have not been prioritized for inclusion in this phase of the Long-Range Facility Plan will continue to be tracked and addressed in later phases of the Plan. This is discussed further in Section 11 — Beyond 10 Years.

BOND OPTION 1

Bond Option 1, estimated at $325.1 million, is a smaller plan that would allow a refill of the current bond and result in little or no tax rate increase.

This plan includes a limited amount of educational program improvements, replacement of Raleigh Hills Elementary School and the Allen Street Transportation facility, and limited amounts of facility maintenance and modernization, capacity and enrollment accommodations, and other District support funding.

BOND OPTION 2

Bond Option 2 is a larger plan, estimated at $722.6 million. This option is anticipated to result in a refill of the current bond and a tax rate increase of $0.25 per $1,000 of assessed property value.

Bond Option 2 includes everything that is in Bond Option 1, in addition to the replacement of Beaverton High School and larger funding amounts for educational program improvements, facility maintenance and modernization, capacity and enrollment accommodations, and other District support.

PREFERRED OPTION

Of the two proposals, Bond Option 2 received the most support from Focus Group members and the broader community, based on discussion comments and polling results.

Focus Group members' reasons cited for this support included:

> Voters in the region understand that school districts need significant investments in capital infrastructure.

> Option 1 is too small for the challenges that the District is facing, and defers investments into the future.

> The District can make a compelling case for a large investment around priorities that are broadly supported by the community.

> It makes sense to address the significant needs in the District comprehensively, and Option 1 does not go far enough.

> The replacement of Beaverton High School is important. With the redevelopment happening in downtown Beaverton, it has the added benefit of supporting housing in the downtown.

> Option 2 will have greater benefit in the long run.

> The majority of voters in this area prioritize investments in projects that address equity issues in facilities and programming.

Although there was limited public participation in the community open houses, likely due to pandemic

TABLE:
Capital Bond Proposals

Project	BOND OPTION 1: No Tax Rate Increase	BOND OPTION 2: $0.25 Tax Rate Increase
EDUCATIONAL PROGRAM		
Special Education Improvements	$2.0M	$2.0M
Prekindergarten Modifications	$1.0M	$1.0M
Outdoor Learning Improvements	-	**$5.0M**
Physical Education / Athletics Additions	$5.6M	**$13.0M**
FACILITY CONDITION: REPLACEMENT		
Raleigh Hills Elementary Replacement	$44.0M [1]	$44.0M [1]
Beaverton High School Replacement	$15.0M [2]	**$230.0M**
Allen St. Transportation Replacement	$11.0M	$11.0M
FACILITY CONDITION: MODERNIZATION		
Deferred Maintenance	$110.0M	**$138.0M**
School Modernization	$12.0M	**$36.0M**
Seismic Upgrades	$20.0M	**$40.0M**
Security Upgrades	$6.0M	**$15.0M**
Nutrition Services Upgrades	$5.0M	$5.0M
CAPACITY & ENROLLMENT		
Classroom Additions	$7.5M	**$10.0M**
OTHER SUPPORT		
Technology	$27.0M	**$53.0M**
School Office Relocation	$10.0M	$10.0M
Bus Replacement	$8.0M	**$10.0M**
Critical Equipment	$4.0M	**$7.0M**
Subtotal	**$288.1M**	**$630.0M**
Bond Fee / Management Cost (8%)	$23.0M	$50.4M
Contingency (10%)	$13.9M [3]	$42.2M [3]
Total	**$325.1M**	**$722.6M**

[1] *Assumes additional $11.8M from 2014 bond funds*
[2] *Planning and design only*
[3] *Excludes Deferred Maint., Technology, Bus Repl., and Critical Equip.*

constraints, polling results illustrated clear support for the larger of the two bond options (75 percent). Reasons for this support cited by members of the broader community included:

> The safety of students, teachers and staff is most important, and make school replacement necessary.

> Bringing schools up to current seismic code is critical.

> The projects are essential and must be dealt with. Continuing to defer these projects will only exacerbate the problem and be more costly in the long run.

> Beaverton High School has significant facilities and educational needs.

PROJECT COSTS

Costs associated with the capital bond proposals were developed by the District Leadership Team. They are rough-order-of-magnitude (ROM) project cost estimates that include soft costs of 12 to 20 percent, depending on project scope. Construction projects are escalated to the estimated midpoint of construction at three percent per year, with an additional two percent market escalation factor on most projects. Costs may be revisited prior to the bond due to changing market conditions.

Bond options also include a separate bond fee / management cost allocation of eight percent, as well as a contingency allocation of at least 10 percent on most projects (excluding deferred maintenance, technology, bus replacement, and critical equipment).

PROJECT DESCRIPTIONS

Preliminary project scope was defined for projects included in the Long-Range Facility Plan options in order to establish estimated costs, with the understanding that adjustments may be made as projects continue to evolve.

Projects are categorized in the three primary areas of District need: educational program, facility condition, and enrollment and capacity. A fourth category was added to accommodate District support projects. Budget amounts listed for each project are for both plan options (one cost listed) or separate (Option 1 cost / Option 2 cost).

EDUCATIONAL PROGRAM PROJECTS

Special Education Improvements: $2.0 M
Adapt existing special education spaces to be more suitable for their current use and support student needs, such as creating larger/additional classroom spaces and adding adaptive equipment, kitchen facilities, office space, built-in cabinets, accessible restrooms, accessible playground equipment, and other modifications.

Prekindergarten Modifications: $1.0 M
In alignment with the District's prioritization of early childhood education, upgrade existing prekindergarten spaces to meet the unique needs of young learners, including redesign to be more inclusive of current learning practices and purchasing appropriate materials and furniture.

Outdoor Learning Improvements: $5.0 M
Expand outdoor covered play areas at elementary schools across the District.

> Currently, several schools do not have covered play areas, and many more do not have ones that are adequately sized.

> These are highly flexible areas that allow for an outdoor extension of learning and play, and provide gathering and queuing areas that protect children from the rain.

Physical Education / Athletics Additions: $5.6 M / $13.0 M
Build a new gymnasium at Stoller Middle School and Barnes ES (Option 2 only), and provide some improvements to other District athletic facilities (Option 2 only), including an outdoor restroom/storage facility at Westview High School.

> The current space at Stoller is not adequate to support current or future enrollment.

> The current gymnasium and cafeteria at Barnes are inadequate to support the school and need to be replaced.

FACILITY CONDITION: REPLACEMENT PROJECTS

Raleigh Hills K-8 Replacement: $44.0 M*
Replace existing Raleigh Hills K-8 with new K-5 elementary school for 750 students.

Addresses facility condition need:

> Worst FCI score in the District (0.41 – Critical Condition)

> One of the oldest facilities in the District (93 years old)

> One of four elementary schools with a seismic rating below Collapse Prevention

Addresses educational program need:

> Provides state-of-the-art modern learning environments for up to 1,500 District high school students

> Provides special education and other specialized spaces in alignment with current District standards

Improves equity:

> More than 45 percent of students are eligible for free/reduced lunch

> Previously identified as the next priority in the 2014 bond plan

Adds capacity:

> Existing school capacity is 250 below the District target of 750 (new school will add 250 seats)

Operational and capital efficiency:

> EUI score of 5, indicating the greatest opportunity to improve energy efficiency

> Eliminates approximately $12M of deferred maintenance need at the existing facility

*The total replacement cost for Raleigh Hills Elementary is estimated at $55.8 million, however $11.8 million remaining from the previous 2014 bond is also allocated for this project.

Beaverton High School Replacement: $230.0 M*
Replace existing Beaverton High School with a new high school for 1,500 students on the current site (Option 2 only).

Addresses facility condition need:
> One of the worst FCI scores in the District (0.34 – Critical Condition)
> Oldest facility in the District (the majority of the existing building is 105 years old)
> Only high school with a seismic rating below Collapse Prevention

Addresses educational program need:
> Provides state-of-the-art modern learning environments for up to 1,500 District high school students
> Provides special education and other specialized spaces in alignment with current District standards

Improves equity:
> 51 percent of students are eligible for free/reduced lunch

Operational and capital efficiency:
> EUI score of 5, indicating the greatest opportunity to improve energy efficiency
> Eliminates approximately $53M of deferred maintenance need at the existing facility

The planned replacement capacity for Beaverton High School is lower than the District's target capacity of 2,200 students and the existing facility capacity, because enrollment is projected to drop significantly at this school as well as across the District at the high school level. The planned capacity of 1,500 students accommodates the projected enrollment with a buffer for additional students or programs, and is large enough to provide the amenities of a full comprehensive high school.

The design of a new Beaverton High School facility will include design options for enlarging the facility to meet the District's target capacity of 2,200 students.

The District is very conscious of investments that have already been made at the Beaverton High School campus, such as the 2002 cafeteria and the recent concessions / restroom building. The District has a goal of maintaining these areas if at all possible and the preliminary plan ideas that have been explored so far intend to keep them.

*Bond Option 1 includes design and planning only for $15.0 M.

Allen Street Transportation Facility Replacement: $11.0 M
Replace existing Allen Street Transportation facility.

Addresses facility condition need:
> One of the worst FCI scores in the District (0.33 – Critical Condition)
> Existing facility is more than 50 years old
> Repair bays are cramped and lack space to utilize modern technical repair aids
> One-third of the hydraulic floor lifts are unusable due to leaks, failed parts, and excessive age (more than 50 years old)

Addresses safety concerns:
> Two-thirds of the vehicle lifts lack safety stops to prevent unplanned retraction
> Technicians must use jack stands to prevent buses from lowering below safe working heights
> Yard has numerous areas of sinkage, as well as broken and cracked asphalt, which impairs vehicle travel and ingress / egress from repair bays

FACILITY CONDITION: MODERNIZATION PROJECTS

Deferred Maintenance: $110.0 M / $138.0 M
Repair and upgrade projects at all District facilities (except new ones), based on the recently completed facility condition assessment findings. Components include roofing, HVAC systems, electrical and plumbing systems, equipment, electrical systems, building envelope, interior finishes, fire/life safety, conveyance, and site improvements.

Although improvements will vary based on the specific facility condition needs of each school, every school facility will have some improvements.

The allocated project amounts in the bond options represent between 18 percent (Option 1) and 23 percent (Option 2) of the total 10-year deferred maintenance need (which also includes seismic improvements). This will allow the District to address the most pressing needs at each facility. School districts commonly only fund a portion of the total maintenance need, due to budget constraints.

School Modernization: $12.0 M / $36.0 M
Modernize schools to improve the learning environment, enhance student engagement, and improve health and behavior. Modernization includes improving aesthetics/condition of building materials (walls, hard floors, carpet), upgrading television and audio/visual equipment, ensuring sufficient lighting, improving natural lighting, and increasing square footage of classrooms and support spaces.

> Currently, there is disparity in the quality of facilities in new/newer construction when compared to classrooms in older schools. Some students are learning in old and outdated classrooms and facilities inequities exist throughout the District.
> District general funds are limited and not available to pay for needed school modernization.
> Research shows that students respond with positive results to a modern leaning environment: better grades, better attendance, and improved creativity.

Seismic Upgrades $20.0 M / $40.0 M*
Seismic upgrades to District target level (Damage Control Range) for the District's worst performing buildings that are not anticipated to be replaced, based on the 2019 seismic evaluation findings.

In alignment with the District's seismic strategy, seismic upgrades will be performed incrementally and will address the worst performing buildings first. Specific facilities to be upgraded are to be determined, however the following middle schools have been identified as priorities: Whitford, Highland Park, Cedar Park, and Mountain View. All have seismic scores of 50, placing them within the 'Less than Collapse Prevention' range.

> Seismic improvements help the District work toward meeting the goal of the 2017 Oregon Revised Statute (ORS) 455.400 which states: "Subject to available funding, all seismic rehabilitations or other actions to reduce seismic risk must be completed before January 1, 2032."

*Additional funding for seismic improvements, such as Seismic Rehabilitation Grant Program (SRGP) grants, may be available. Grants will be pursued and used to supplement the allocated funding.

Security Upgrades: $6.0 M / $15.0 M
Cameras, fencing, and access control upgrades at various schools.

> The current bond has been able to provide basic interior camera coverage to all schools. This upgrade will provide the opportunity to ensure potential interior areas of risk are covered, as well as high-traffic exterior areas.

> Secondary-level access control improvements will focus on exterior ingress and egress and interior security.

> Repair and/or replacement of fencing will address security risks and areas of vulnerability within sites and at property borders

Nutrition Services Upgrades: $5.0 M
Various projects throughout the District, including electrical and equipment upgrades at 11 sites, water fountain installation at 25 sites, freezer capacity additions, service line remodels at Westview High School and Community High School, a full kitchen remodel at Beaver Acres Elementary School, and a cafeteria expansion at Barnes Elementary School.

> Addresses safety concerns at Beaver Acres Elementary School

> Increases food storage capacity and delivery efficiency at Conestoga Middle School

> Streamlines service and reduces staffing at Westview and Community high schools

> Increases cafeteria seating capacity and reduces the number of lunches at Barnes Elementary School

ENROLLMENT & CAPACITY PROJECTS

Classroom Additions: $7.5 M / $10.0 M
Additional classrooms at Sato Elementary School and Stoller Middle School (Options 1 and 2), and Oak Hills Elementary School (Option 2) to address capacity needs.

Stoller Middle School is currently over capacity, and both Stoller and Sato Elementary School are projected to have enrollments that are significantly over their total capacity (including portable capacity) within the time frame of the LRFP.

Oak Hills Elementary School's current and projected enrollments exceed its permanent capacity and is forecasted to remain stable over the long term. This circumstance is unique for an established neighborhood, in comparison to other established neighborhoods in the District. Adding more capacity to the school was deemed necessary by the District, in order to accommodate the enrollment and eliminate the need for portable classrooms as a long-term capacity solution for the school.

The capital bond plans do not propose to add new capacity to Bonny Slope Elementary School or Westview High School, the two other schools expected to have the most significant over-enrollment within the next 10 years. At Bonny Slope, this is due to the availability of capacity at other elementary schools in proximity to the school. As enrollment increases and capacity is utilized, it may be necessary to consider a boundary adjustment with one or more neighboring elementary schools.

At Westview High School, over-enrollment may be addressed over the next 10 years with a variety of strategies, such as adding portables, boundary adjustments, or other solutions outside of the capital bond plan.

DISTRICT SUPPORT PROJECTS

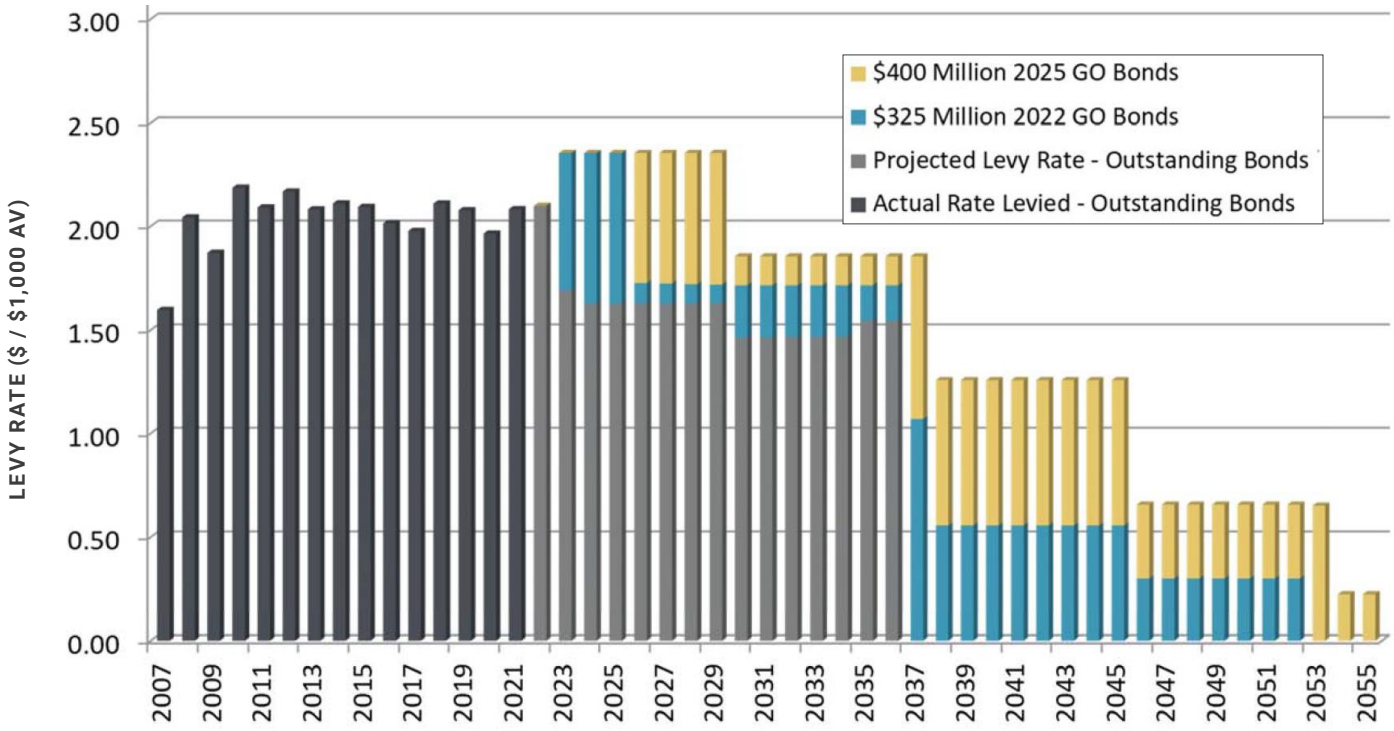
Technology: $27.0 M / $53.0 M
Provide student devices and districtwide infrastructure.

School Office Relocation: $10.0 M
Office relocations to improve security at Aloha High School, Westview High School, and Cooper Mountain Elementary School.

Bus Replacement: $8.0 M / $10.0 M
Continue the existing bus replacement cycle.

Critical Equipment: $4.0 M / $7.0 M
Provide maintenance equipment, athletic equipment, and copiers throughout the District.

CHART:
Projected Levy Rates for Bond Option 2 ($722.6 M), Piper Sandler



IMPLEMENTATION

FUNDING

Funding is assumed to be provided through a general obligation bond with an approximate 30-year term. The District and School Board have not yet determined the best time to bring a capital measure to the community to address current and projected needs.

The proposed bond amortization structure, shown in the chart above, provides an incremental rate "step-down" after every seven or eight years, to allow the potential for the District to go out for another bond at that time. Bond and levy rate analysis was provided to the District by Piper Sandler, including estimated tax rate increases per $1,000 of assessed property value.

Bond amounts and levy rates are estimated based on a number of factors, including growth in the community, changes to assessed property values, and interest rates. It is important to note that bond amounts included in this Long-Range Facility Plan are estimates only, and will need to be reassessed and adjusted prior to proposing a capital measure.

CAPITAL MEASURE SUPPORT

Focus Group Support
Several Focus Group members voiced concern about proposing a capital measure this year, due to the impacts of the Covid-19 pandemic. However, the majority of Focus Group members were in support of the District considering implementation of the next phase of the Long-Range Facility Plan by proposing a capital measure in near future.

Reasons cited included:

> These investments are essential in ensuring that the District is able to provide a high quality, equitable education experience to all students.

> The community prioritizes these types of investments and has shown it repeatedly.

> Schools will keep depreciating over time, so the District must be proactive about having the funds to keep up with necessary maintenance.

> It is a good idea to implement a capital measure when it is replacing expiring bonds.

> It makes sense to address the significant needs in the District comprehensively.

Broader Community Support
Survey respondents in the community open houses showed clear support for a capital measure in the near future (83 percent). Reasons cited included:

> A capital measure is necessary to address the pressing facility needs.

> The safety, equity, and cost savings benefits need to be addressed as soon as possible for our students.

> The needs summarized in the Long-Range Facility Plan more than justify a capital measure.

> District needs are great and escalation is costly.

> Our schools should all be up to current seismic codes as soon as possible.

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SECTION 11

BEYOND 10 YEARS

In 2016, the Beaverton School District worked with a multidisciplinary consultant team to explore how District services and facilities might evolve over the next 50 years.

FUTURES STUDY CONTEXT

PURPOSE OF THE STUDY

In 2016, the Beaverton School District worked with a multidisciplinary consultant team, including ECONorthwest, Mahlum Architects, Getting Smart, and Sapient Solutions, to conduct a "Futures Study."

The main purpose of this study was to understand how long-range change might influence actions being considered by the District, including programs, policies, and investments.

The Futures Study explored how District facilities and services might evolve over the next 20-50 years. This 50-year look at potential change, and its impact on how education is defined and delivered, make the Futures Study different from the 10-year long-range facility plan studies required by state law.

Findings of the study were documented in a Futures Study Report, published in the Fall of 2017 and included in Appendix G. This report is not considered to be a policy document; it is a planning study that provides data and analysis to inform future discussion among the District Board, its staff, partner agencies, parents, and the general public about how to deliver quality education to District students.

FUTURES STUDY DRIVING QUESTIONS

The Futures Study provided an opportunity for the District to address key questions within the context of a 50-year timeline. A summary of questions explored included:

1. Growth of Enrolled Students
The demand and need for facilities is a function of the number of students the District must serve and their characteristics. How many students are likely to live in the District in the future? Where will they locate, and how will their numbers and locations affect decisions about facility investment?

2. Education Models
An education model refers to the curriculum, teaching methods,

DIAGRAM:
Planning Scenarios, 2017 Futures Study

Future Conditions	Scenario 1: Business as Usual	Scenario 2: High Growth	Scenario 3: Increased Innovation	Scenario 4: Constrained Funding
Enrollment Growth	Expected	High	Expected	Expected
Funding per Student	Expected	Expected	Expected	Low
External Competition	Expected	Expected	High	Expected
Flexibility of Education and Facility Models	Expected	Expected	High	High

supporting technology, and student schedule (when they are in the classroom by time of day, day of the week, and season). What educational models and trends should the District pay attention to?

Technology, classroom techniques, and staff and facility management techniques are changing rapidly and likely to change even faster in the future. A longer-run view considers how these factors might change and, in doing so, impact the number, type, and location of facility space required.

3. Facility Needs
The ultimate output of the Futures Study is a thoughtful description of new facilities that might be needed: What types, where, and when? How might those needs change given different assumptions about development and operations (e.g., new methods for delivering educational services, new forms of school facilities, or new partnerships for sharing facilities)?

FUTURES STUDY PARAMETERS & SCENARIOS

The Futures Study developed four scenarios to explore the long-term future of educational need and facility delivery in the District.

Each scenario examines the question: If all the students that are expected to be in the District 50 years from now were here tomorrow—and given assumptions about funding, District education models, and certain external forces—what facilities would the District need to provide in order to accommodate those students?

Parameters
The Futures Study defined each scenario using assumptions regarding "expected," "low," or "high" conditions associated with four parameters that may influence the District and its facilities. "Expected" reflects a continuation of conditions present at the time of the Study. "Low" or "high" are relative to "expected" conditions. Parameters used to define the four scenarios were:

1. Student enrollment:
What is the enrollment of the District at each grade level? How many students will attend a District school?

2. District funding:
How much funding will the District have from both its operating levy and capital bonds?

3. Competition for students:
How stiff is the competition for school-aged children in the District from other public and private schools?

4. Education Models and Programs:
Will the District implement new teaching models? How will programs change? Will the District adopt education or facility policies that differ from those in place today?

Scenarios
Based on a specific mix of "expected," "high," and "low" conditions associated with each of the four parameters, the following scenarios were developed:

Scenario1: Business As Usual
This scenario assumed all parameters will be a continuation of present conditions (at the time of study).

Scenario 2: High Growth
This scenario assumed that student enrollment exceeds current conditions.

Scenario 3: Increased Innovation
This scenario assumed that the District will need to respond to increased external competition by innovating either educationally, or through some other means.

Scenario 4: Constrained Funding
This scenario assumed that historic levels of funding, whether operationally, or for capital investment, will be lower than current conditions.

Approaches and Strategies
The Futures Study explored a number of management strategies that could be implemented in response to the shifting demands associated with each scenario. These strategies looked at a wide range of approaches, including adjustment of both operational and capital (site / facility) related variables.

The strategic approaches associated with the 2021 Long-Range Facility Plan are specifically related to facility needs that have been identified for the next ten years. These approaches only represent a small portion of those strategies outlined in the Futures Study.

RELATIONSHIP TO THE LONG-RANGE FACILITY PLAN

The key questions explored by the Futures Study generally align with the three primary areas of need identified in the Long-Range Facility Plan: capacity and enrollment, educational programs, and facility condition.
This alignment facilitates the District's ability to track the Long-Range Facility Plan against Futures Study scenarios to determine which facility management strategies might be considered in the 10-year plan.

CAPACITY AND ENROLLMENT

Forecasts associated with the Futures Study suggested that two-thirds of District-wide enrollment increases, for the 50-year period being studied, would occur within the first 20 years. This would equate to approximately 10,000 more K-12 students by the year 2035.

Forecasts also suggested that particular areas within the District would experience enrollment increases at a much higher rate. Between 2015 and 2035, Bethany, Cooper Mountain / Sexton Mountain, and Sunset / Cedar Mill were expected to see the highest rates of enrollment growth.

Forecasts associated with the Long-Range Facility Plan, covering the period between 2019 and 2031, indicate that several attendance boundaries will be over-enrolled, these areas largely correspond with those previously identified for high growth in the Futures Study.

However, when viewed districtwide, there is a predicted decrease in enrollment at elementary schools, middle schools, and option programs. High school enrollment is predicted to remain essentially unchanged. This represents a departure from all enrollment assumptions made in the Futures Study.

As a result, the Long-Range Facility Plan does not need to propose adding capacity to address districtwide deficits. It does, however, propose adding capacity at specific over-enrolled school sites rather than re-balance enrollment through boundary adjustments.

Based on forecasts tied to the Long-Range Facility Pan, decreased enrollment results in a districtwide capacity surplus at all grade levels, and impacts utilization rates at many school sites. Consequently, several facility management strategies discussed in the Futures Study, and specifically related to utilization, may find applicability.

EDUCATIONAL PROGRAMS

Discussions with District staff associated with teaching and learning suggest that no significant program changes, or related facility modifications, are anticipated over the 10-year period covered by the Long-Range Facility Plan. Consequently, the LRFP proposes modest education program-related facility modifications. These proposals are directly related to early childhood learning and physical education on a limited number of existing school sites.

FACILITY CONDITION

While the Futures Study did not specifically reference and integrate the deteriorating physical condition of facilities over the 50-year timeline, facility management strategies discussed in the document do explore actions that are related to, or necessitated by, age and system deficiency.

With regard to this, the major projects identified in the Long-Range Facility Plan, replacement of Raleigh Hills Elementary and the replacement of Beaverton High School, have been proposed largely due to the age and deteriorated condition of those facilities.

MAJOR PROJECTS

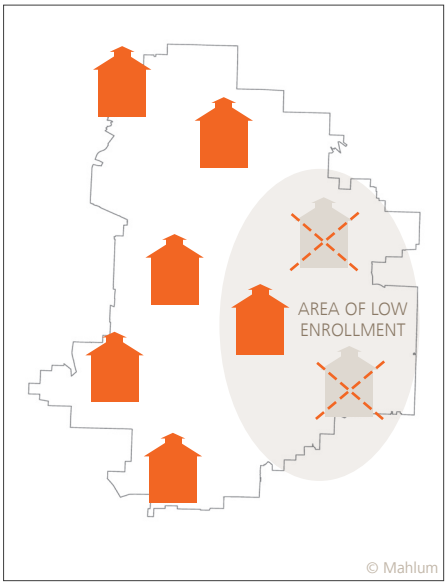
The Long-Range Facility Plan proposes that Raleigh Hills Elementary be replaced at the District target capacity. This approach maximizes the utilization of the Raleigh Hills site and offers flexibility with regard to the accommodation of future long-term enrollment increases, should they occur over the next 20 to 50 years.

This approach also provides an opportunity for implementation of other utilization-related strategies over the next 10 to 20 years. These strategies could include boundary adjustment or consolidation of schools (shown in Approaches A and C on the following pages).

The Long-Range Facility Plan proposes that the Beaverton High School replacement be sized to align with projected enrollment need, rather than the District high school target size of 2,200 students. This approach accommodates the replacement, due to deteriorating condition, of the District's oldest school facility while not unnecessarily increasing capacity. Shared support areas could be sized to accommodate the District's target capacity, thereby providing future flexibility to accommodate classroom additions, should long-term enrollment increases occur over the next 50+ years.

The adjacent Futures Study diagrams (Approaches A through E) illustrate facility management strategies related to the utilization of school sites and a description of the opportunities offered by each approach.

REPLACE AT TARGET SIZE & CONSOLIDATE SCHOOLS



APPROACH A

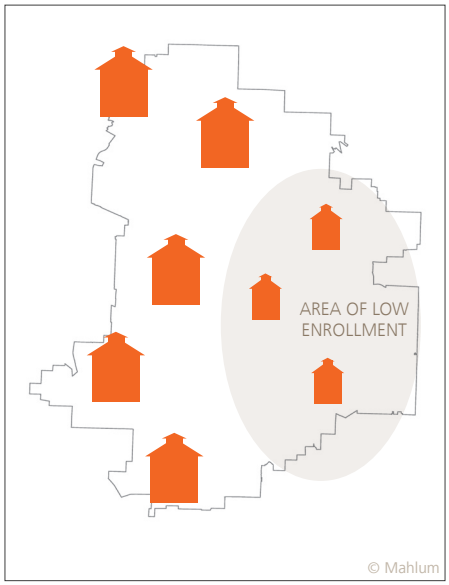
There are several approaches to school replacement in areas of lower enrollment need. One strategy, which is used in Scenarios 1-3, involves replacing school facilities at the target size of 750. Only the number of facilities required to meet projected enrollment would be replaced, and other schools in lower enrollment areas would be closed.

These facilities and sites could be repurposed for other District functions as needed.

Potential Opportunities

Although this strategy makes sense from an operational standpoint, it reduces the number of neighborhood schools and has the potential to increase travel distances for many District students. In addition, school closure is usually not a desirable option for families in the affected area, and can lead to a complex and contentious process.

REPLACE AT APPROPRIATE SIZE TO MEET ENROLLMENT NEED



APPROACH B

Another potential strategy for addressing areas of lower enrollment is to replace all school facilities, but at a reduced size and capacity that aligns with projected enrollment.

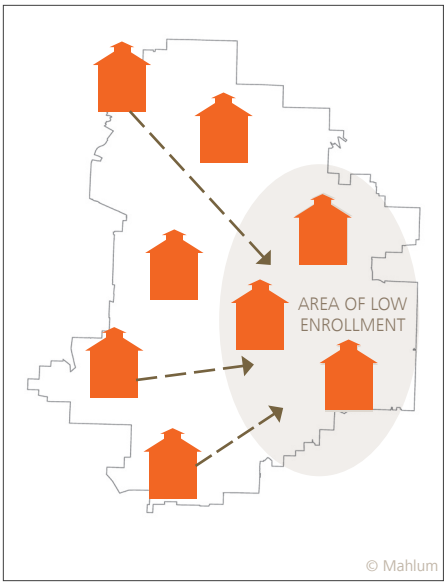
Facilities would be designed to expand to the District target capacity of 750 students in the future, if needed. Site configuration and access would be planned to accommodate a future addition and core instructional and support areas in each facility, such as the gymnasium, cafeteria, library, and administration, would be sized to accommodate the full target capacity.

This strategy allows all of the District's neighborhood schools to be retained, without building unnecessary space.

Potential Opportunities

Replacement schools should be built within a capacity range that is large enough to provide an appropriate learning environment and operational efficiency. Typically, schools below 300 to 350 students are considered not able to meet this criteria, but this range should be established by the District.

REPLACE AT TARGET SIZE & SHIFT ENROLLMENT (BOUNDARIES & BUSING)



APPROACH C

A third strategy for addressing areas of lower enrollment is to replace all school facilities throughout the District at target capacity. The resulting excess facility capacity in areas of lower enrollment can be used to accommodate unhoused students from areas of higher enrollment.

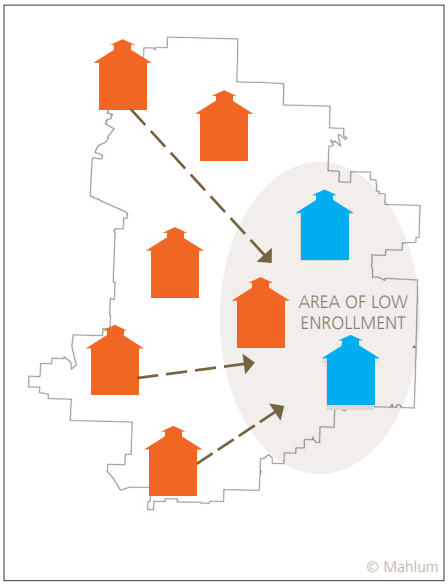
Potential Opportunities

This strategy allows all of the District's neighborhood schools to be retained, and all new facilities to meet the District's target capacity. However, it would likely require significant shifting of school catchment areas, as well as increased busing of students.

Two approaches are to shift students incrementally to the next closest school and then shift displaced students from that school to the next closest school, until capacity is reached throughout the District. This minimizes travel distances, but affects more students.

Another approach is to shift students from over-enrolled schools to under-enrolled schools. This affects a smaller number of students, but would require longer travel distances, including the potential to pass another school on the way to school. Both approaches would likely involve some students crossing major arterials, such as Highway 26 and 217.

REPLACE AT TARGET SIZE & CREATE MAGNET PROGRAMS



APPROACH D

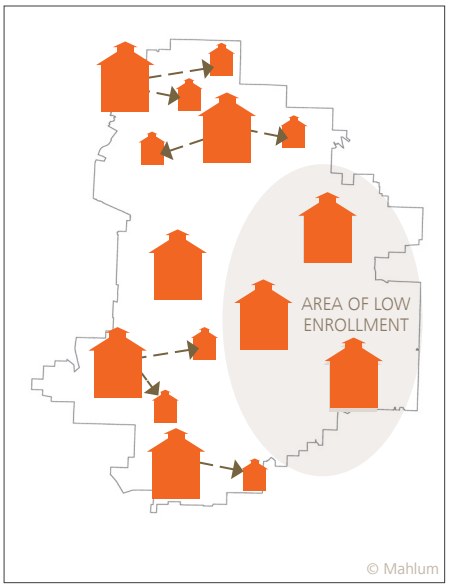
Replace all school facilities throughout the District at target capacity, but create magnet programs at facilities in areas of lower enrollment, particularly at the elementary level. The District already has several successful magnet programs at the middle and high school levels, such as ACMA, BASE, and ISB.

These programs attract students from all over the District and can reduce capacity need in higher enrollment areas, potentially without requiring busing.

Potential Opportunities

This strategy would also require some boundary adjustments. Providing facilities with both magnet programs and neighborhood programs would minimize busing requirements, by accommodating students living in lower enrollment areas, while also providing some capacity relief in higher enrollment areas.

CREATE ADDITIONAL SMALL SCHOOLS



APPROACH E

Creating smaller schools throughout the District, particularly in areas with high levels of projected enrollment and limited site acquisition options, can be used in conjunction with other strategies to provide additional capacity in high-need areas. This strategy would be particularly useful in areas with limited existing facilities and site acquisition options.

Potential Opportunities

These small schools could vary in size, depending on capacity need, program goals and available sites and facilities. They could be independent programs, connected to nearby neighborhood school programs, or connected to each other.

Potential examples include:

> Distributed micro-schools, with capacities of 25 to 100 students per school and a centralized program run by the District; located on new residential-sized sites that could be easier for the District to acquire

> Additional options programs, including elementary-level options programs, with capacities of 100 to 300 students per school; co-located facilities on existing school sites with available space

LONG-RANGE FACILITY PLAN UPDATES

FUTURE PLAN EMPHASIS

Enrollment forecasts associated with the Long-Range Facility Plan suggest that the District will, when viewed districtwide, benefit from the availability of surplus capacity through the next 10 years (through 2031). This condition may extend through the next 20 years and possibly beyond.

Therefore, it is expected that adding additional capacity, beyond current districtwide totals per grade level, will not necessarily be a component of future long-range facility plans.

With this in mind, the District may, however, elect to increase the capacity specific sites (to their target capacity) as part of future replacement projects.

The decision to implement this approach would allow higher utilization of school sites, and also improve the site's ability to accommodate a wider variety of future conditions. In this scenario, added capacity would likely be paired with other facility management strategies outlined in the Futures Study, such as attendance boundary adjustment or consolidation.

With reference to facility management strategies outlined in the Futures Study, and in view of current enrollment forecasts, future long-range facility plans may focus on other areas of facility need, such as the accommodation of changing education programs and addressing the deteriorating condition of existing facilities, rather than capacity.

MAJOR PROJECTS BEYOND THE 2021 PLAN

Addressing Facility Condition

Based on current facility condition information, and with specific regard to seismic safety, the District has identified a prioritized list of major projects that may be associated with subsequent long-range facility planning efforts. Major projects include, but are not limited to, the partial replacement of ISB, replacement of Fir Grove Elementary, replacement of either Ridgewood Elementary or Raleigh Park Elementary, replacement of either Cedar Mill Elementary or West Tualatin View Elementary, and replacement of Barnes Elementary.

Addressing Enrollment & Educational Program

With respect to current enrollment forecasts and facility management strategies outlined in the Futures Study, the District also anticipates the possible consolidation of underutilized sites, which could include one of the elementary schools identified as an "either/or" scenario in the replacement list above.

The District may also want to repurpose the underutilized sites with other District programs. For example, the District has identified as an educational programming need a stand-alone special education school to serve the approximately 120 to 130 students for whom the District cannot current accommodate their educational needs in the District.

The District started a new on-line school, FLEX Online, in school year 2020-21. As this program matures and grows, a permanent facility will be needed. As enrollment declines and school consolidation becomes an issue for discussion and decision, opportunities will likely exist to house District programs in more permanent situations.

Educational programs evolve over time, and the resulting facility needs will continue to be evaluated by the District. For example, additional space may be required in the future for new Career and Technology Education (CTE) programs, new or expanded Option/Alternative Education programs, or an expanded preschool program. These programs may also be housed at underutilized sites.

Addressing District Support

The current Central Office building was built in 1970, when student enrollment was half of its current enrollment level and there were fewer districtwide administrative services provided. Since then, districtwide administrative services have grown substantially and the current structure is inadequate for current operations. Due to space limitations at the Central Office facility, some districtwide services are currently housed in locations separate from the Central Office, such as the Multilingual Department, Nutrition Services, and Special Education. Ideally, all districtwide administrative services would be in one location to improve community access.

The Plan does not propose to include a specific strategy to address the current need for a properly-sized Central Office. However, the District should consider options for enlarging or relocating the Central Office if opportunities are presented. For example, consolidation of existing schools may present an opportunity to review programming choices which may include relocating the Central Office to the facility that has become redundant.

Special Covid-19 Considerations

The District should also study the impacts of the Covid-19 Pandemic on the District's facilities. Subjects that could be studied include, but are not limited to, building ventilation systems, infrastructure support for technology, remote learning and work, energy use, and room size/configuration.

Maintaining Safe & Equitable Buildings

The District is committed to good stewardship of its facilities and being able to operate its facilities to an average life span of 75 years. To do so will require a continual commitment to funding deferred maintenance of its facilities and assets. A significant number of facilities will be reaching the 75-year life span by 2040. It will be essential to maintain facilities, since replacement of structures is challenging for any community.

Regardless of building replacement and maintenance, the District is committed to ensuring all of its facilities are safe, which will require additional investment in student and staff safety and seismic improvements.

The future will also bring innovations and programming that cannot be predicted in 2021. The District will need to be nimble enough to provide adequate facilities to accommodate potential innovations. For example, the technology needs of the District will be ever evolving and will need to be accommodated to support our students, staff, and community.

A critical consideration for all current and future facility needs is the equity of investment in and improvement of facilities across the District. The District has practiced fair and equitable facility investments through prior Long-Range Facility Plans and implementation strategies. It is essential that future plans, investments, and strategies are based in ensuring all segments of the Beaverton School District community are served equitably.

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APPENDIX A

REGULATORY INFORMATION

APPENDIX A: REGULATORY INFORMATION

ORS 195.110: SCHOOL FACILITY PLAN FOR LARGE DISTRICTS

195.110 School facility plan for large school districts. (1) As used in this section, "large school district" means a school district that has an enrollment of over 2,500 students based on certified enrollment numbers submitted to the Department of Education during the first quarter of each new school year.

(2) A city or county containing a large school district shall:

(a) Include as an element of its comprehensive plan a school facility plan prepared by the district in consultation with the affected city or county.

(b) Initiate planning activities with a school district to accomplish planning as required under ORS 195.020.

(3) The provisions of subsection (2)(a) of this section do not apply to a city or a county that contains less than 10 percent of the total population of the large school district.

(4) The large school district shall select a representative to meet and confer with a representative of the city or county, as described in subsection (2)(b) of this section, to accomplish the planning required by ORS 195.020 and shall notify the city or county of the selected representative. The city or county shall provide the facilities and set the time for the planning activities. The representatives shall meet at least twice each year, unless all representatives agree in writing to another schedule, and make a written summary of issues discussed and proposed actions.

(5)(a) The school facility plan must cover a period of at least 10 years and must include, but need not be limited to, the following elements:

(A) Population projections by school age group.

(B) Identification by the city or county and by the large school district of desirable school sites.

(C) Descriptions of physical improvements needed in existing schools to meet the minimum standards of the large school district.

(D) Financial plans to meet school facility needs, including an analysis of available tools to ensure facility needs are met.

(E) An analysis of:

(i) The alternatives to new school construction and major renovation; and

(ii) Measures to increase the efficient use of school sites including, but not limited to, multiple-story buildings and multipurpose use of sites.

(F) Ten-year capital improvement plans.

(G) Site acquisition schedules and programs.

(b) Based on the elements described in paragraph (a) of this subsection and applicable laws and rules, the school facility plan must also include an analysis of the land required for the 10-year period covered by the plan that is suitable, as a permitted or conditional use, for school facilities inside the urban growth boundary.

(6) If a large school district determines that there is an inadequate supply of suitable land for school facilities for the 10-year period covered by the school facility plan, the city or county, or both, and the large school district shall cooperate in identifying land for school facilities and take necessary actions, including, but not limited to, adopting appropriate zoning, aggregating existing lots or parcels in

more sites designated for school facilities to an urban growth boundary pursuant to applicable law.

(7) The school facility plan shall provide for the integration of existing city or county land dedication requirements with the needs of the large school district.

(8) The large school district shall:

(a) Identify in the school facility plan school facility needs based on population growth projections and land use designations contained in the city or county comprehensive plan; and

(b) Update the school facility plan during periodic review or more frequently by mutual agreement between the large school district and the affected city or county.

(9)(a) In the school facility plan, the district school board of a large school district may adopt objective criteria to be used by an affected city or county to determine whether adequate capacity exists to accommodate projected development. Before the adoption of the criteria, the large school district shall confer with the affected cities and counties and agree, to the extent possible, on the appropriate criteria. After a large school district formally adopts criteria for the capacity of school facilities, an affected city or county shall accept those criteria as its own for purposes of evaluating applications for a comprehensive plan amendment or for a residential land use regulation amendment.

(b) A city or county shall provide notice to an affected large school district when considering a plan or land use regulation amendment that significantly impacts school capacity. If the large school district requests, the city or county shall implement a coordinated process with the district to identify potential school sites and facilities to address the projected impacts.

(10) A school district that is not a large school district may adopt a school facility plan as described in this section in consultation with an affected city or county.

(11) The capacity of a school facility is not the basis for a development moratorium under ORS 197.505 to 197.540.

(12) This section does not confer any power to a school district to declare a building moratorium.

(13) A city or county may deny an application for residential development based on a lack of school capacity if:

(a) The issue is raised by the school district;

(b) The lack of school capacity is based on a school facility plan formally adopted under this section; and

(c) The city or county has considered options to address school capacity. [1993 c.550 §2; 1995 c.508 §1; 2001 c.876 §1; 2007 c.579 §1]

Note: *Section 3, chapter 579, Oregon Laws 2007, provides:*

Sec. 3. *A school district that is a large school district as defined in ORS 195.110 on the effective date of this 2007 Act [January 1, 2008] shall complete a school facility plan within two years after the effective date of this 2007 Act. [2007 c.579 §3]*

OAR 581-027-0040: LONG-RANGE FACILITY PLAN REQUIREMENTS

581-027-0040 Long-Range Facility Plan Requirements

(1) Each Long Range Facility Plan shall contain the following information:

a. Population projections by school age group for the next ten years using U.S. Census or Census partner data.

b. Collaboration with local government planning agencies (city and/or county):

i. Identification of suitable school sites if needed

ii. Site acquisition schedules and programs

c. Evidence of community involvement in determining:

i. Educational vision of local community

ii. Proposals to fund long-range facility needs

d. Identification of buildings on historic preservation lists including the National Historic Register, State Historical Preservation Office, and local historic building lists.

e. Analysis of district's current facilities' ability to meet current national educational adequacy standards:

i. Identification of facility standards used to meet district educational vision as well as national educational adequacy standards

ii. Identification of deficiencies in current facilities

iii. Identification of changes needed to bring current facilities up to standards

iv. Identification of alternatives to new construction and major renovation to meet current national educational adequacy standards

v. Identification of current facility capacity and ability of current capacity to meet current national educational adequacy standards.

f. A description of the plan the district will undertake to change its facility to match the projections and needs for the district for the next ten years.

(2) The Department shall establish a template for Districts and their Certified Contractors to use to collect the information required in OAR 581-027-0040 (1).

(3) Districts and Certified Contractors shall use the template established by the Department to provide the final report to the Department in electronic format.

Stat. Auth.: Sections 2 and 5, Chapter 783, Oregon Laws 2015 (Enrolled Senate Bill 447).

Stats. Implemented: Section 5, Chapter 783, Oregon Laws 2015 (Enrolled Senate Bill 447).

ORS 329-496: PHYSICAL EDUCATION PARTICIPATION

(1) Every public school student in kindergarten through grade eight shall participate in physical education for the entire school year.

(2) (a) Students in kindergarten through grade five, and students in grade six at a school that teaches kindergarten through grade six, shall participate in physical education for at least 150 minutes during each school week.

(b) Except as provided by paragraph (a) of this subsection, students in grades six through eight shall participate in physical education for at least 225 minutes during each school week.

(c) Notwithstanding the time requirements established by paragraphs (a) and (b) of this subsection, the State Board of Education shall adopt rules that prorate the time requirements for:

(A) School weeks with scheduled school closures, including closures for holidays, inservice days and days scheduled for parent-teacher conferences;

(B) School weeks with unscheduled school closures, including closures for inclement weather and emergencies;

(C) School weeks with out-of-school activities that occur during usual school hours, including field trips and outdoor school programs;

(D) Part-time school programs, including half-day kindergarten; **and**

(E) Irregular class schedules, including class schedules based on a four-day week.

(d) School districts and public charter schools are not required to comply with the time requirements established by paragraphs (a) and (b) of this subsection for school years during the biennium in which the total amounts appropriated or allocated to the State School Fund and available for distribution to school districts are less than the amounts determined to be needed for school districts through the State School Fund under the tentative budget prepared as provided by ORS 291.210 (Preparing tentative budget). After the beginning of a biennium, a school district or a public charter school may cease

to comply with the time requirements established by paragraphs (a) and (b) of this subsection if the amounts appropriated or allocated to the State School Fund and available for distribution to school districts are less than the amounts determined to be needed for distribution through the State School Fund, as calculated under ORS 291.210 (Preparing tentative budget).

(3) School districts and public charter schools shall offer instruction in physical education that meets the academic content standards for physical education adopted by the State Board of Education under ORS 329.045 (Revision of Common Curriculum Goals, performance indicators, diploma requirements, Essential Learning Skills and academic content standards). The instruction shall be a sequential, developmentally appropriate curriculum that is designed, implemented and evaluated to help students develop the knowledge, motor skills, self-management skills, attitudes and confidence needed to adopt and maintain physical activity throughout their lives.

(4) (a) School districts and public charter schools shall devote at least 50 percent of physical education class time to actual physical activity in each school week, with as much class time as possible spent in moderate physical activity.

(b) (A) For the purpose of satisfying the time requirements established by subsection (2) of this section, school districts and public charter schools may provide up to 45 minutes of activities during each school week that:

(i) Meet the academic content standards for physical education adopted by the State Board of Education under ORS 329.045 (Revision of Common Curriculum Goals, performance indicators, diploma requirements, Essential Learning Skills and academic content standards);

(ii) Are provided for students by a teacher whose license allows the teacher to provide instruction in physical education to those students, even if the teacher does not have a physical education endorsement; **and**

(iii) Have been reviewed by a licensed teacher with a physical education endorsement.

(B) The Department of Education shall:

(i) Review and, as appropriate, approve activities that are developed by nonprofit professional organizations representing health and physical education educators if the activities meet the requirements of subparagraph (A) of this paragraph; **and**

(ii) Make available to school districts and public charter schools a list of activities approved as provided by this subparagraph.

(C) School districts and public charter schools may provide activities that meet the requirements of subparagraph (A) of this paragraph even if the activities are not approved as provided by subparagraph (B) of this paragraph.

(5) (a) Notwithstanding subsections (1), (2) and (4) of this section, a student with disabilities shall have suitably adapted physical education incorporated as part of the individualized education program developed for the student under ORS 343.151 (Individualized education program).

(b) Notwithstanding subsections (1), (2) and (4) of this section, a student who does not have an individualized education program but has chronic health problems, other disabling conditions or other special needs that preclude the student from participating in regular physical education instruction shall have suitably adapted physical education incorporated as part of an individualized health plan developed for the student by the school district or public charter school.

(6) School districts and public charter schools shall assess school curricula at regular intervals to measure the attainment of the minimum number of minutes that students are required to participate in physical education under this section.

(7) (a) All teachers of physical education for public school students in kindergarten through grade eight shall be adequately prepared and shall regularly participate in professional development activities to effectively deliver the physical education program.

(b) (A) Notwithstanding any licensing or endorsement requirements established by the Teacher Standards and Practices Commission, a teacher with an elementary multiple subject endorsement may instruct students in activities described in subsection (4)(b) of this section if the activities are reviewed by a licensed teacher with a physical education endorsement.

(B) A teacher described in this paragraph may provide instruction in activities described in subsection (4)(b) of this section to students who are not regularly taught by the teacher as long as the instruction in the activities to students who are not regularly taught by the teacher does not exceed 45 minutes during each school week. Nothing in this subparagraph allows a school district to employ a teacher for the sole purpose of providing instruction in activities described in subsection (4)(b) of this section.

(8) A school district that does not comply with the requirements of this section is considered to be nonstandard under ORS 327.103 (Standard school presumed). [2007 c.839 §5; 2017 c.301 §1]

Note: Sections 2, 3, 5, and 7, chapter 301, Oregon Laws 2017, provide:

Sec. 2. Phase-in of time requirements. (1) Except as provided by subsections (2) and (3) of this section and only for school years prior to the 2022-2023 school year, a school district may not be considered nonstandard under ORS 327.103 (Standard school presumed) and moneys may not be withheld or any other penalty or sanctions imposed on a school district that does not comply with the time requirements established by ORS 329.496 (Physical education participation) (2).

(2) (a) For the 2019-2020 school year, students identified in ORS 329.496 (Physical education participation) (2)(a) shall participate in physical education for at least 120 minutes during each

school week.

(b) For the 2020-2021 school year and every school year thereafter, students identified in ORS 329.496 (Physical education participation) (2)(a) shall participate in physical education for at least 150 minutes during each school week.

(c) If a school district fails to comply with paragraph (a) or (b) of this subsection, the school district may be considered nonstandard under ORS 327.103 (Standard school presumed).

(3) (a) For the 2021-2022 school year, students identified in ORS 329.496 (Physical education participation) (2)(b) shall participate in physical education for at least 180 minutes during each school week.

(b) For the 2022-2023 school year and every school year thereafter, students identified in ORS 329.496 (Physical education participation) (2)(b) shall participate in physical education for at least 225 minutes during each school week.

(c) If a school district fails to comply with paragraph (a) or (b) of this subsection, the school district may be considered nonstandard under ORS 327.103 (Standard school presumed).

(4) For the purposes of this section, a school district may:

(a) Prorate time requirements provided by this section in compliance with rules adopted by the State Board of Education under ORS 329.496 (Physical education participation) (2)(c);

(b) Apply up to 45 minutes of activities described in ORS 329.496 (Physical education participation) (4)(b) to the time requirements provided by this section; **and**

(c) Cease to comply with the time requirements provided by this section if the conditions described in ORS 329.496 (Physical education participation) (2)(d) are satisfied. [2017 c.301 §2]

Sec. 3. Repeal. Section 2 of this 2017 Act is repealed on July 1, 2022. [2017 c.301 §3]

Sec. 5. Recommendations for implementation of time requirements for students in grades six through eight. (1) The Department of Education shall develop recommendations for implementing the provisions of ORS 329.496 (Physical education participation) (2)(b).

(2) For the purpose of developing the recommendations, the department shall collaborate with advocates for physical education, representatives of school districts, educators and other interested stakeholders. Collaboration may be in person, electronically, or a combination of both.

(3) When developing the recommendations, the department shall consider:

(a) Best practices for providing physical education to students in grades six through eight and balance those best practices with resources available for providing physical education to students in grades six through eight, including scheduling issues, facility availability, costs for adding or upgrading facilities, moneys available for adding or upgrading facilities, the availability and costs of licensed physical education teachers and any other issues identified by the entities identified in subsection (2) of this section.

(b) All options for implementing the requirements of ORS 329.496 (Physical education participation) (2)(b) and other alternatives to the requirements of ORS 329.496 (Physical education participation) (2)(b) that are available for providing physical education to students in grades six through eight.

(4) All agencies of state government, as defined in ORS 174.111 ("State government" defined), and school districts are directed to assist the department in the performance of the department's duties under this section and, to the extent permitted by laws relating to confidentiality, to furnish information and advice the department considers necessary to perform its duties.

(5) The department may accept donations of time and money for the purpose of fulfilling the duties of the department under this section.

(6) The department shall submit any recommendations for legislation to the interim committees of the Legislative Assembly related to education no later than November 15, 2018. [2017 c.301 §5]

Sec. 7. Repeal. Section 5 of this 2017 Act is repealed on December 31, 2018. [2017 c.301 §7]

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[1] Legislative Counsel Committee, *CHAPTER 329—Oregon Educational Act for the 21st Century; Educational Improvement and Reform*, https://www.oregonlegislature.gov/bills_laws/ors/ors329.-html (2017) (last accessed Mar. 30, 2018).

ORS 455.400: EFFECT OF SEISMIC REHABILITATION PROVISIONS ON EXCLUSIVE REMEDY

Nothing in ORS 455.020 (Purpose), 455.390 (Definitions for ORS 455.020, 455.390, 455.395 and 455.400) and 455.395 (Admissibility of data or agreements as evidence) and this section shall be construed as expanding or limiting the exclusive means by which subject workers and their beneficiaries are compensated for injury, death or disease arising out of and in the course of employment as provided in ORS chapter 656. [1995 c.400 §6]

Note: See note under 455.390 (Definitions for ORS 455.020, 455.390, 455.395 and 455.400).

Note: Section 3, chapter 797, Oregon Laws 2001, provides:

Sec. 3. Subject to available funding, if a building evaluated under section 2 (4), chapter 797, Oregon Laws 2001, is found by a board to pose an undue risk to life safety during a seismic event, the governing board of a public university listed in ORS 352.002 (Public universities), local school district board, community college board or education service district board, as appropriate, shall develop a plan for seismic rehabilitation of the building or for other actions to reduce the risk. For a board that is subject to ORS 291.224 (Inclusion of capital construction program in Governor□s budget), the board□s plan to rehabilitate or take other action to reduce the seismic risk of a building must be included in the capital construction program of the board. A board that is subject to ORS 291.224 (Inclusion of capital construction program in Governor□s budget) shall rank the relative benefit of projects to reduce seismic risk in comparison with other life safety and code requirement projects. Subject to availability of funding, all seismic rehabilitations or other actions to reduce seismic risk must be completed before January 1, 2032. If the building is listed on a national or state register of historic places or properties or is designated as a landmark by local ordinance, the plan for seismic rehabilitation or other action shall be developed in a manner that gives consideration to preserving the character of the building. [2001 c.797 §3; 2013 c.768 §162; 2015 c.767 §177]

Note: Section 3, chapter 798, Oregon Laws 2001, provides:

Sec. 3. Subject to available funding, if a building evaluated under section 2 (4) of this 2001 Act is found to pose an undue risk to life safety during a seismic event, the acute inpatient care facility, fire department, fire district or law enforcement agency using the building shall develop a plan for seismic rehabilitation of the building or for other actions to reduce the risk. Subject to available funding, all seismic rehabilitations or other actions to reduce the risk must be completed before January 1, 2022. If the building is listed on a national or state register of historic places or properties or is designated as a landmark by local ordinance, the plan for seismic rehabilitation or other actions shall be developed in a manner that gives consideration to preserving the character of the building. [2001 c.798 §3]

APPENDIX B

SUPPLEMENTAL INFORMATION

APPENDIX B: SUPPLEMENTAL INFORMATION

BEAVERTON SCHOOL DISTRICT | LONG-RANGE FACILITY PLAN

COMMUNITY OPEN HOUSE SUMMARY

As part of the long-range facility plan (LRFP) process, the Beaverton School District held three open house sessions in February 2021 to garner input from the broader community.

Sessions were facilitated by the planning team of Mahlum Architects and Angelo Planning Group and attended by a number of District representatives. The primary goals of the open houses were to:

> Provide an understanding of the District's facility-related goals and needs

> Present long-range plan options and rationale

> Hear community feedback regarding District need and plan options

The public outreach sessions were held virtually due to the constraints of the pandemic, with two evening and one afternoon sessions. Each two-hour open house included an informational presentation, open discussion time for questions and feedback, and a short poll related to the two planning options.

The introductory portion of the presentation included a description of the LRFP process, recent bond history, District strategic goals, and guiding principles of the LRFP. This was followed by a summary of the three primary areas of District facility need: educational program, facility condition, and enrollment and capacity. The final section of the presentation explained the two proposed long-range facility plan options, with descriptions and District rationale for each of the major projects. Presentation slides are included at the end of this document and recordings of each open house can be found on the District website.

Participants' questions and comments, spanning a number of topics and diverse perspectives, are summarized in the following section. A summary of the community polling results begins on page 4. Although the sample size was relatively small, polling results illustrated clear support for a capital measure in 2021 (83%) and for the larger $722M plan option (82%).

Respondents prioritized the proposed projects in the following order:

1. Beaverton High School Replacement
2. Raleigh Hills Elementary School Replacement
3. Seismic & Security Upgrades
4. Deferred Maintenance & Modernization
5. Educational Program

A total of 27 community members attended one or more of the three open house sessions, and 14 attendees responded to the real-time poll. Participants represented many different schools and neighborhoods, and included parents with current and former students in the district and other community members. A list of all participants and the schools they are affiliated with is included on page 5.

COMMUNITY QUESTIONS & INPUT

The following questions were asked by participants during the open houses, and were answered by either a member of the planning team or a District representative. In some cases, information has been paraphrased for clarity and brevity.

PROCESS

When was the last public strategic discussion held, and will it be made public? Are the recommendations from the last round being incorporated in this plan?

> The previous long-range facility plan (LRFP) for the district was completed in 2010 and is a public document that is on the District website. (https://resources.finalsite.net/images/v1557510252/beavertonk12orus/jnkvssupy2xozxa1etfn/LongRangeFacilitiesPlan2010.pdf)

> It was completed by Angelo Planning Group, who is also involved in developing the current plan, and included significant community involvement through an advisory group and open houses. The LRFP was followed by a capital measure that was successfully passed in 2014.

> Yes, the information and recommendations from the previous plan have been considered as part of this plan, including evaluating which previously identified projects have been addressed.

What is the timeline for putting a capital measure to the voters?

> Many things need to happen before a capital measure can be referred to the voters, and it is important to recognize that we cannot make commitments today about things that require the action of our Board in the future.

> If a May 2022 bond was approved by voters, the District would then need to sell bonds to get funding, and for example, construction of Raleigh Hills is expeccted to take approximately 1.5 years after that. The District will be able to use remaining funds from the 2014 bond to do the planning, design, and permitting of Raleigh Hills prior to this, which can save months or years.

Thank you for sharing and taking our questions. Though we may not agree with every decision you make, it's clear you're considering a lot of data in an attempt to make the most informed and equitable decisions. You've got a tough job and we appreciate the transparency, diligence, and rigor.

EDUCATIONAL PROGRAM

What about creating more option schools and learning choices? As of today, the chance of getting into an option school is very low.

> Option School programs are considered and developed by the District's Teaching & Learning department.

> There are currently no proposals for new option programs, which is why we have not identified any facility need in the educational program need section of the plan.

> The District has recently put a lot of focus on adding options programs within the comprehensive high schools, such as CTE. Options programs are also funded with Measure 98 funds, so they are not a part of the long-range plan for that reason.

The current Education Specifications regarding target school sizes are broken, and don't allow for a clean feeder system.

> The District's education specifications were approved prior to the 2014 bond, and require a broad effort to determine if they are not working.

> As part of this process, the planning team has been working with the Teaching & Learning department, and has not heard from them that the Education Specifications are not working.

I would support a bond issue that addresses the needs of special education, an underfunded demographic.

The District should increase flexibility in school design layouts and have social distancing requirements. It would be useful to have demountable partitions so that classroom sizes could be increased or decreased as needed.

ENROLLMENT & CAPACITY

School capacity appears to be different in some cases, compared to what has been shown in previous documents. Why is this?

> The District has changed the way school capacity is calculated, which has led to adjustments in the total existing capacity at some schools. The new method of calculation is based on actual classroom count and is a more accurate reflection of the space available in school facilities.

Does the projected enrollment used in the long-range facility plan incorporate the new middle school boundaries? Stoller MS appears to have very high enrollment after the reboundary effort.

> Yes, new middle school boundaries were incorporated, although since they were not yet finalized, there were some minor adjustments that are not included, in particular with the Meadow Park MS boundary.

Detailed enrollment projections for all schools were not shown as part of the presentation. Will these be posted on the District website?

> Yes, enrollment projects will be posted, most likely in April.

Has the District looked at whether the projected enrollment at the elementary and middle school levels could be accommodated by adjusting boundaries instead of adding capacity?

> Yes, there is excess capacity districtwide at all levels, so students could be accommodated in existing facilities with boundary adjustments.

> However, it is important to note that this is a complex process that can impact a significant number of District families, and is not the right answer in every case.

Is additional capacity needed at Raleigh Hills Elementary School? Won't this will create additional capacity that developers will use as an excuse to allow additional development in the areas without capacity?

> The 2014 bond identified the need for significant improvement at Raleigh Hills, but really the facility needs to be replaced.

> While replacement will create some additional capacity, the District's intention is not to facilitate more development in the area. There is not a lot of opportunity for development in the Raleigh Hills area, except for periodic infill, as there are very few vacant lots available.

The actual capacities at many elementary schools do not align with the District's target capacity. How can they be better aligned?

> The long-range facility plan is a living document, and planning parameters are continuing to be adjusted.

> A core consideration when developing target capacities is to reflect the size of school that is both efficient and provides a robust curriculum.

> As District targets are established or adjusted, each plan update asks the question if any schools merit modification toward that target, based on a number of factors, including facility condition and enrollment projections.

The middle school enrollment growth map shows an increase at Whitford MS. Why?

> The PSU PRC projections have been adjusted somewhat to align with current conditions. It is likely that this is the result of additions made to Whitford during the boundary adjustments.

> While enrollment is shown to be increasing at Whitford, the projected enrollment will still be within the existing capacity of the school.

> Also note that the maps were prepared prior to the completion of the adjustment process and there are further enrollments reductions at Meadow Park and Mountain View that are not reflected in the map.

FACILITY CONDITION

How does the plan address retrofitting existing facilities to for security from shooter threats, e.g. automating locking systems, surveillance and sight lines, main entrance revisions?

> The proposed plans do include funding for an expansion of the security infrastructure. The exact details of the security upgrades are not public, but do include all of the elements you mentioned.

> All schools have received, and continue to receive security upgrades as part of the 2014 bond.

How has COVID changed the requirements for schools, e.g. flexibility, social distancing, and HVAC ventilation?

> How it affects the design of future buildings remains to be seen, but it is currently changing school operations across the nation, such as maintaining 35 square feet per student and requiring face coverings. All Oregon schools follow the guidance from the Oregon Department of Education / Oregon Health Authority Ready Schools, Safe Learners. (https://www.oregon.gov/ode/students-and-family/healthsafety/Documents/Ready%20Schools%20Safe%20Learners%202020-21%20Guidance.pdf)

Regarding ODE/OHA safe learning requirements, does the FCI take this into account or is follow-up planning work required?

> FCI is an established indicator of facility condition and doesn't take into account the new COVID-related guidance. However, new requirements and recommendations can impact how we plan and prioritize facility upgrades.

> To be fiscally responsible, we will want to look at proven results from scientific studies that show HVAC upgrades improve the safety of the environment before allocating funding

Strategies such as increasing the number of air exchanges have additional health benefits beyond limiting the spread of COVID.

PLAN OPTIONS

The presentation didn't cover a description of the Elementary School Replacement project. What is the plan for this line item?

> The Elementary School Replacement project includes funding for a study to determine which school or schools would be the best candidate for replacement and preliminary planning. It does not include the actual school replacement, which would potentially be included in a future plan.

> The most likely candidates at this point are West Tualatin View Elementary and Cedar Mill Elementary. The study process would assess the viability and capacity of existing school sites and where a new school could be located.

I appreciate seeing that Raleigh Hills Elementary School is part of the plan. However, as the District doesn't currently have a vacant facility to relocate students, what would happen to students during construction?

> That is something that will be determined later in the process. There is an opportunity to use existing buildings more efficiently, such as Cedar Park Middle School.

As a Beaverton homeowner, I support plan Option 2, or even more, but given the history and volatility of the real estate market, are there other funding sources?

> The primary source of capital for school improvements in the State of Oregon is a capital measure.

> There is also relatively limited funding from the state, in the form of matching grants that have an $8 million maximum amount.

> There are also some grants for seismic improvements that the District has successfully applied for and will continue to pursue.

As a Raleigh Hills Elementary School and Beaverton High School parent, I am relieved that these priorities are being kept. Will the timeline take into consideration that students won't be disrupted at every level?

> The School Board is sensitive to these kinds of issues. It is not an issue that would halt a project, but it would be considered and could potentially impact the phasing.

> There is also the potential to maintain operations during construction, which would eliminate the need for temporary relocation.

Will the replacement of Beaverton High School include replacement of the recently constructed buildings on the site?

> The District is very conscious of the investments that have been made, such as the 2002 cafeteria and the recent concessions/restroom building.

> The intent is to try not to impact the new facilities, and all plan ideas that have been explored so far intend to keep them.

I believe we were told Beaverton High School could be rebuilt on site while school was in session (because the new HS would be built toward the front of the lot near the highway?)

> Yes, that is an option for BHS.

COMMUNITY POLL

Attendees were asked to respond to a short poll at the end of each open house, including five questions related to the two proposed long-range facility plan options. The questions and community feedback are included below.

1. SHOULD THE DISTRICT CONSIDER IMPLEMENTING THE NEXT PHASE OF THE LONG-RANGE FACILITY PLAN BY PROPOSING A CAPITAL MEASURE IN 2021? WHY OR WHY NOT?

YES: 10 votes

> Yes, to address the pressing facility needs.

> Yes, assuming that the ES replacement will be a study and not the replacement.

> Yes! The safety, equity, and cost savings benefits need to be addressed as soon as possible for our students. These building need to be updated or rebuilt to meet current and future needs.

> Yes, the needs summarized in the LRFP more than justify a capital measure.

> Yes, assuming there is time to vet the plan/proposal - construction is only going to get more expensive.

> Yes, needs are great and escalation is costly.

> Yes, but I don't know if the community will approve it. The data you presented indicates these improvements are needed, but will they vote yes when kids haven't even been in buildings for a year? I would, but I know many parents are really frustrated.

> Yes, the next phase should be implemented in the not-too-distant future. 2021 may be too soon, what with the pandemic. We cannot afford to have our existing school infrastructure to deteriorate any further.

> Yes. It takes lots of time to plan and design for school replacement.

> Yes, our schools should all be up to current seismic codes as soon as possible.

NO: 2 votes

> No, only for fear that it won't pass in 2021 during this time of economic uncertainty and anxiety due to COVID. Prioritize 2022 instead, in hopes that the economy looks better.

> No. We are currently paying for two measures and do not think we get anything in return.

2. OF THE TWO PLANS PRESENTED AT THIS MEETING, WHICH WOULD YOU SUPPORT AND WHY?

OPTION 1: $325M (RENEW EXPIRING BOND / NO TAX RATE INCREASE)

OPTION 2: $722M (TAX RATE INCREASE OF $0.25 PER $1,000 OF ASSESSED VALUE)

OPTION 1: 2 votes

> Option 1 for sure, but I would need more detailed information on Option 2.

OPTION 2: 9 votes

> The projects are essential and must be dealt with. Continuing to defer these projects will only exacerbate the problem and be more costly in the long run.

> BHS has significant facilities and educational needs. I'm sure that the recent fire has introduced additional line items to address. The BHSSF can only go so far.

> I would like to see seismic and deferred improvements made, along with the BHS replacement.

> Public input should be incorporated into all phases of planning to maintain trust of the votes/tax payers so we later feel this investment was in the community's best interest and that we were heard and respected.

> Personally I would support Option 2, but think Option 1 is the only one that has a chance of approval.

> The safety of students, teachers and staff is the most important. So, the school replacement is necessary.

> Bringing schools up to current seismic code is critical.

NEITHER OPTION: 1 vote

> Neither. While growth is somewhat stable, BSD should be working toward creating a clean feeder system.

3. DO YOU SEE ANYTHING THAT IS MISSING FROM THE PROPOSALS?

> Cost benefits of replacing facilities instead of trying to maintain them (band-aid versus real fix and the longevity of the newer facilities).

> More detail provided for physical security and language to increase our facilities resistance to infectious disease spread, not merely COVID is too early to define, but for more common influenzas and other viruses.

> I know it is early in the planning phase, but I want to see more about the timing and phasing of when schools will likely begin and complete upgrades/rebuilding. Some need to be handled simultaneously and I want to know if there is capacity to do that before voting on a bond.

> I think the focus should remain on seismic and deferred maintenance, along with replacement of RH ES and BHS. I also think we should also prioritize equity for disadvantaged schools.

> Consider how controversial the Stoller optics may be, considering we just had the middle school boundary decision and were told that capacity would be addressed in the new boundaries.

> Cleaning up the feeder system is missing. Acquisition of sites to land bank would be a good step to consider.

> Are there any new schools that will be built in next 10 years? If yes, they should be included in the proposals.

> More learning options for general students, not just special communities; more technology and science studies. Specify new programs in the plan. Give more services relating to a whole population in an area and not by specific needs. People who need and live in rich communities suffer.

> An option for new infill school facilities, to reduce the number of students in the existing facilities, in lieu of adding on to some of the existing buildings.

> Schools can be centers for activities that create pride. Provide clearer descriptions of how the bond would touch each community would go a long way.

4. DO YOU SEE ANYTHING IN THE PROPOSALS THAT SHOULD NOT BE INCLUDED?

> The Stoller over-capacity issue is going to be difficult to justify considering that addressing capacity was listed specifically as a priority during the recent middle school boundary re-do. And now, before the boundaries are even put into place, it appears Stoller is already over capacity.

> I just want to reiterate that I believe more study is required for the elementary school replacement, so I do not think the full replacement should be included in this proposal, but keep it to a study/design.

> Interested in more information on what "critical equipment" includes. If it's critical, why does the number double in Option 2?

> School educational program support other than PE (STEM/STEAM, CTE, Arts, etc.)

> I do not love the idea of adding on to buildings when adjusting boundaries could resolve capacity issues.

> All of it makes sense for me. I think the community will be upset at additions to Stoller given the recent contentious boundary adjustment process.

> Replacement of portables should not be considered. Expansion of schools such as Stoller to allow the school to expand beyond its "ideal size."

> No, the logic of the approach is understandable to me.

5. OF THE EIGHT PROJECTS LISTED BELOW, WHAT ARE YOUR TOP THREE PRIORITIES?

1. Beaverton HS Replacement
   5 top priority votes and 11 total votes
2. Raleigh Hills ES Replacement
   4 top priority votes and 8 total votes
3. Seismic & Security Upgrades
   3 top priority votes and 10 total votes
4. Deferred Maintenance & Modernization
   2 top priority votes and 4 total votes
5. Educational Program Improvements
   4 total votes
6. Classroom & Gymnasium Additions
   3 total votes
7. Technology
   2 total votes
8. Allen St. Transportation Replacement
   No votes

OPEN HOUSE PARTICIPANTS

27 community members attended one or more open house session. Participants included current, former, and future parents of Beaverton School District students, former District employees and students, and other community members.

> Jennifer Alger
> Jessica Baker
> Sarah Beachy
> Lauren Booth
> Eleissa Buddress
> Victoria Clapper
> Casey Cunningham
> Liz Delapoer
> Doaa Elhaggan
> Rachel He
> Ryan Hendricks
> Michelle Hill
> Gary Joaquin
> LeeAnn Larsen, School Board Member
> Sarah Loumena
> Mary Manseau
> Tricia McMinn
> Karen Montovino
> Tomomi Motoyama
> Kristi Nelson
> Galit Pinker
> Christopher Prahl
> Becky Tymchuk, School Board Chair
> Sean Walker
> Eric Yang
> Qinming Zhang
> Xiuyun Zhang

Open house participants shared their affiliations with the following schools:

> Cedar Mills Elementary School
> Findley Elementary School
> Hiteon Elementary School
> Raleigh Hills K-8
> Sato Elementary School
> Springville K-8
> Terra Linda Elementary School
> Meadow Park Middle School
> Stoller Middle School
> Timberland Middle School
> Whitman Middle School
> Aloha High School
> Beaverton High School
> Sunset High School
> Westview High School
> International School of Beaverton (ISB)

OPEN HOUSE PRESENTATION

The open house presentation slides are included on the following pages. In addition, recordings of each open house can be found on the District website.

mahlum | APG

Beaverton School District

Long-Range Facility Plan
COMMUNITY OPEN HOUSE

February 2-4, 2021

BEAVERTON SCHOOL DISTRICT

Agenda

Introduction	6:00 – 6:05
What is an LRFP?	6:05 – 6:10
District Goals & Bond History	6:10 – 6:20
Understanding District Need	6:20 – 6:45
LRFP Plan Proposals	6:45 – 7:10
Community Discussion	7:10 – 7:30
Community Poll	7:30 – 8:00

Goals for this Evening

Provide an understanding of the District's facility-related goals and needs

Present long-range plan options and rationale

Hear community feedback regarding District need and plan options

Planning Team

MAHLUM / ANGELO PLANNING GROUP

LeRoy Landers AIA

Frank Angelo

Jennifer Lubin AIA

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DISTRICT LEADERSHIP TEAM

Steven Sparks
Executive Administrator for Long Range Planning

Joshua Gamez
Chief Facilities Officer

Aaron Boyle
Administrator for Facilities Development

Robert McCracken
Facilities Planning Coordinator

FOCUS GROUP

12 members
Representing the community, city, and county

Please Keep In Mind…

We are still **in the process** of developing a plan

We may not be able to answer every question

Our primary interest is to **hear from YOU** - we want your reaction to the ideas

There will be time for questions and comments at the end

Your **feedback** will be part of a report to the Superintendent

The Superintendent will hear advice and make recommendations to the School Board

What is being proposed is not a promise – these are **possible ideas** that help develop the plan

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What Is an LRFP?

What is a Long-Range Facility Plan (LRFP)?

A long-range facility plan (LRFP) is a tool that helps school districts, and their communities, strategically manage educational facilities to accommodate current and projected need.

The primary objective of an LRFP is to support the education and success of all district students.

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Why Now?

A 10-year plan is required by the State (previous LRFP adopted in 2010) to be eligible for state funding opportunities for capital projects

District facilities continue to age and maintenance needs continue to grow

Identify opportunities for efficiencies in District facilities and add an equity lens to facility planning

Plan ahead for new capital programs as current school bonds expire

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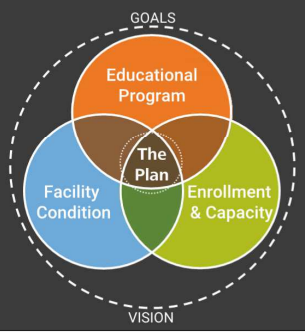
What should an LRFP consider?



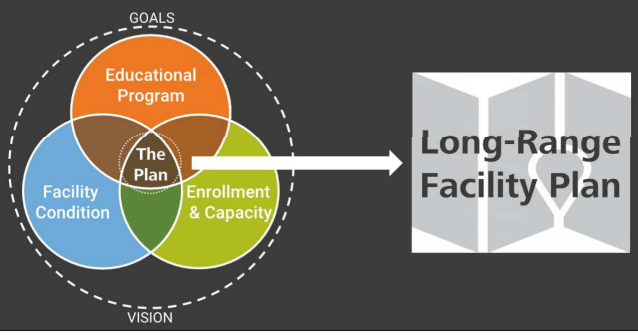
Vision & Goals
- Strategic Plan
- Committee Goals

Educational Program
- Education Specification
- Kindergarten / Pre-K
- PE / Athletics / Fields
- STEM | STEAM
- Special Education
- College & Career Readiness
- Technology
- Target Capacities

Enrollment & Capacity
- Growth
- Utilization
- Boundaries
- Consolidation

Facility Condition
- Health and Safety
- Accessibility (ADA)
- Infrastructure
- Sustainability / Resilience
- Life Expectancy
- Academic Suitability

What should an LRFP consider?



Plan Development

District Goals

District Vision

2019-20 Strategic Plan

District Goal: **WE** empower all students to achieve post-high school success.

WE Expect Excellence

WE engage students with a variety of relevant and challenging learning experiences.

WE create learning environments that promote student achievement.

WE Innovate

WE teach students knowledge and skills for our evolving world.

WE seek, support, and recognize world-class employees.

WE Embrace Equity

WE build honest, safe, and inclusive relationships with our diverse students and their families.

WE provide needed support so that every student succeeds.

WE Collaborate

WE work and learn in teams to understand student needs and improve learning outcomes.

WE partner with our community to educate and serve students.

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LRFP Guiding Principles

WE EXPECT EXCELLENCE

Strategically plan for the **maintenance, modernization and replacement** of facilities.

Plan for facility needs to **meet all state regulatory requirements**.

Maintain investment in current facilities by addressing unfunded maintenance needs.

Where significant investment is required to renovate and upgrade existing facilities (greater than 75% replacement cost) **consider the cost / benefits of replacement**.

Address all **addition and expansion needs** in existing facilities throughout the district.

WE INNOVATE

Update educational specifications to reflect the **evolving needs** of pedagogical practices.

Provide **flexible school facilities** that foster creativity in teaching and support the evolution of high-quality education.

Incorporate **sustainability, energy efficiency and maintenance** into the facility planning process.

WE EMBRACE EQUITY

Consider facility planning decisions through an **equity lens**.

Create greater **parity** across facilities.

Plan for **upgrades / improvements**.

WE COLLABORATE

Collaboratively plan for future facility needs driven by community, demographic and pedagogical change.

Provide **community amenities** and support partnerships with other local agencies and service providers.

Equity Lens

Decisions should be considered through an equity lens, by asking the following questions:

> Whose voice is and is not represented in this decision?

> Who does this decision benefit or burden?

> Is this decision in alignment with the BSD Equity Policy?

> Does this decision close or widen the access, opportunity, and expectation gaps?

MAHLUM

Bond History

Why Do We Need Bond Measures?

The purpose of a bond measure is to make sure that district facilities are able to do the following:

> Support educational programs

> Protect your existing investment

> Accommodate enrollment

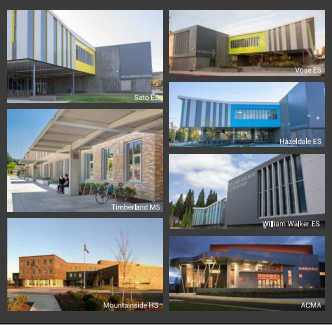
2014 Bond ($680M): New / Replacement School Projects

Elementary Schools
> Sato (2017)
> Vose (2017)
> Hazeldale (2018)
> William Walker (2018)

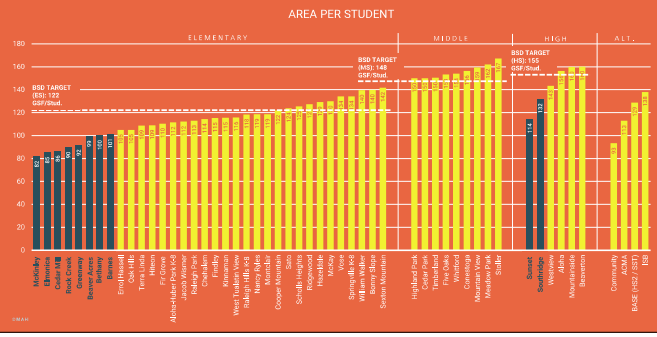
Middle School
> Timberland (2017)

High School
> Mountainside (2017)

Option / Alternative School
> ACMA (2019)



EDUCATIONAL PROGRAM: Educational Adequacy



EDUCATIONAL PROGRAM: Identified Projects

Districtwide Educational Adequacy: $260.2 M
Increase building area to the target area per student at all school facilities

Special Education: $99.7 M + $21.9 M
Special education facility additions at 12[1] elementary, 7 middle, and 3 high schools to align with district standards

New or modernized stand-alone special education facility ($14.4 M - $21.9 M)

Early Childhood Education: $13.6 M
Preschool classroom and support additions at 8[1] elementary schools to provide preschool at all Title I schools

Physical Education: $61.6 M
Gymnasium or multipurpose room additions at 14 elementary, 2 middle, and 1 option school (20 total PE teaching stations) to meet state PE requirements *(estimated number, assumptions to be confirmed)*

Remove Portable Classrooms: $66.9 M
Remove all (175) portable classrooms and replace with permanent classrooms where capacity is needed (~72 classrooms)

Costs are rough-order-of-magnitude estimates, including soft costs and escalated to 2024.
[1] Raleigh Hills ES not included in costs (assume replacement).

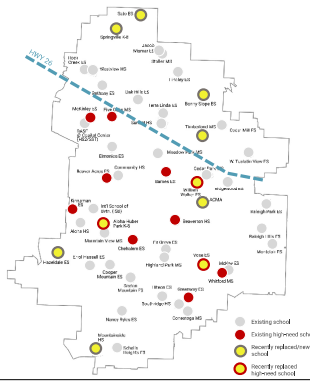
Equity Lens

When viewed through the lens of:
- >50% free and reduced lunch
- >50% students of color
- >15% English language learners

The following schools emerge:

Aloha-Huber K-8*	Vose ES*
Barnes ES	William Walker ES*
Beaver Acres ES	Five Oaks MS
Chehalem ES	Whitford MS
Greenway ES	Beaverton HS
Kinnaman ES	
McKinley ES	

**Recently replaced*



EDUCATIONAL PROGRAM: Takeaways

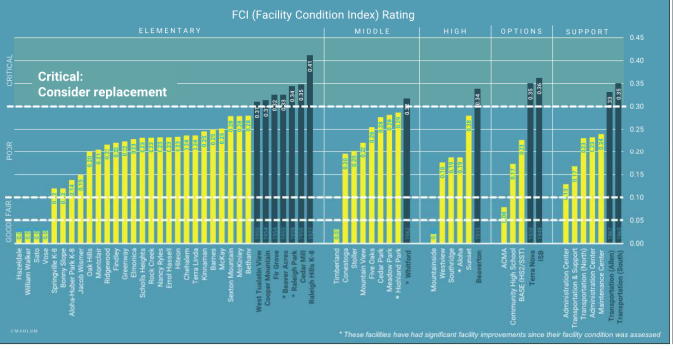
> There are eight elementary schools and two high schools that are significantly below square footage targets identified in district education specifications

> There are three known areas of facility improvement to support program goals: preschool, special education, and physical education

> Nine elementary schools, two middle schools, and one high school emerge when viewed through the lens of free and reduced lunch, students of color, and ELL

FACILITY CONDITION: Facility Age

FACILITY CONDITION: **Facility Condition Assessment**



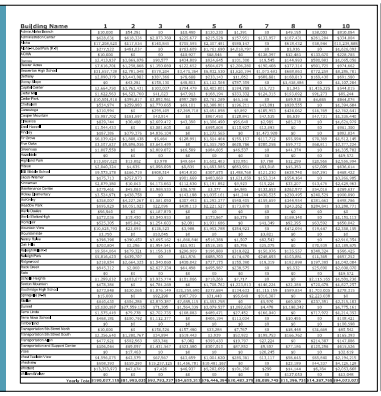
FACILITY CONDITION: **Seismic Condition**

FACILITY CONDITION: **Deferred Maintenance**

Total deferred maintenance need: **$610 M***

Includes:

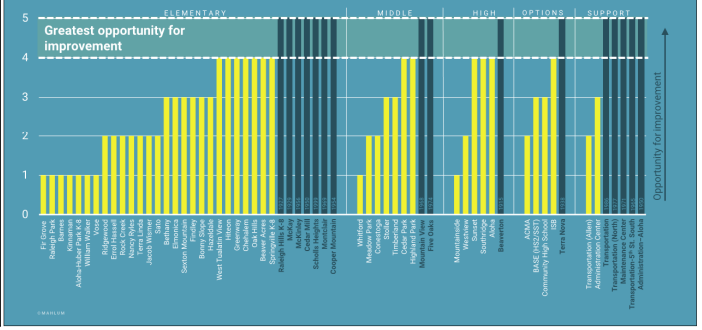
> Structural, mechanical, electrical
> Exterior enclosure and interior finishes
> Commercial equipment/conveyance
> Fire and life safety
> Site work



Building Name	1	2	3	4	5	6	7	8	9	10
Hazeldale	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
William Walker	$600,000	$600,000	$1,000,000	$600,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Vose	$17,000,000	$17,000,000	$100,000	$700,000	$3,500,000	$200,000	$0	$8,000,000	$500,000	$11,000,000
Springville K-8	$4,000,000	$4,000,000	$0	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$0	$0	$1,000,000
Aloha-Huber Park K-8	$300,000	$0	$0	$0	$800,000	$0	$0	$0	$1,000,000	$300,000
Jacob Wismer	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Montclair	$14,000,000	$3,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Ridgewood	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Findley	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Greenway	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Schools Heights	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Rock Creek	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Nancy Ryles	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Terra Linda	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Kinnaman	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Barnes	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
McKay	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Sexton Mountain	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
McKinley	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Beaverton	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
West Tualatin View	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Whitford	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Meadow Park	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Conestoga	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Timbertrail	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Highland Park	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Five Oaks	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Cedar Park	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Meadow Park	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Mountainside	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Westview	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Sunset	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Southridge	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Aloha	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Mountainside	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Beaverton	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
ACMA	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
BASE (HS2/SST)	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Community High School	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Terra Nova	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Transportation (Alder)	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Administration Center	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Transportation	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Transportation-Maintenance Center	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Transportation-5th St. South	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Transportation-Alder Branch	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Administration - Aloha Branch	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Totals	$100,457,000	$100,861,000	$102,761,000	$101,833,000	$106,344,000	$98,861,000	$101,461,000	$98,861,000	$101,961,000	$104,661,000

*Includes seismic deficiencies (approximately $268 M)

FACILITY CONDITION: **Energy Use Intensity (EUI)**



FACILITY CONDITION: **Takeaways**

> When viewed through the metrics of age, facility condition, seismic condition, and energy use, two schools fall into the worst category in all four areas: **Raleigh Hills K-8 and Beaverton High School**

> Four elementary schools, four middle schools, one high school and one alternative school fall into the worst seismic category (below collapse prevention)

> Districtwide deferred maintenance is estimated at $610 M

ENROLLMENT & CAPACITY: **Enrollment Projections**

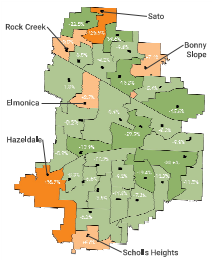
Table 11
Enrollment Forecasts for Individual Schools, 2019-20 to 2028-29

School	Actual 2018-19	Forecast 2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	Change 2018-19-2028-29
Aloha-Huber Park (K-8)	926	906	885	875	854	834	824	824	818	821	828	-98
Barnes	634	605	587	593	590	583	588	589	588	585	588	-46
Beaver Acres*	623	612	602	587	582	572	586	585	585	585	591	-32
Bethany	534	530	517	506	501	485	486	483	484	483	490	-44
Bonny Slope	650	664	674	685	702	698	683	687	688	687	693	43
Cedar Mill	428	440	442	434	425	416	410	407	405	404	409	-19
Chehalem	471	468	462	439	441	426	419	414	412	412	417	-54
Cooper Mt.	469	456	444	442	435	424	431	431	431	430	436	-33
Elmonica*	757	768	777	776	775	766	744	741	737	735	745	-12
Errol Hassell	441	442	437	445	439	435	435	431	426	422	425	-16
Findley	685	652	620	605	593	587	585	585	587	583	585	-100
Fir Grove	385	367	361	355	351	350	352	351	351	354	358	-27
Greenway	332	328	320	311	304	299	301	301	299	297	299	-33
Hazeldale	440	445	454	457	493	512	519	546	574	595	615	175
Hiteon	638	629	621	604	587	579	576	573	570	568	573	-65
Jacob Wismer	725	717	697	691	679	653	661	652	644	636	640	-85
Kinnaman	630	584	558	551	539	527	529	525	525	524	531	-99

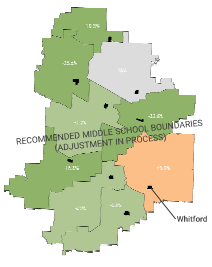
*These figures reflect the 2018-19 attendance boundaries. They do not include a proposed adjustment for Elmonica, Beaver Acres and McKinley elementary schools, which was under consideration at the same time as the development of this forecast.

ENROLLMENT & CAPACITY: **Areas of Enrollment Growth & Decline**

Elementary Enrollment (2030-31)
6.0% enrollment reduction
(~1,090 less students districtwide)

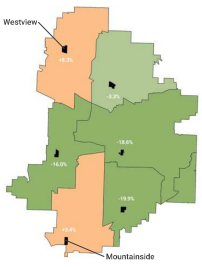


Middle School Enrollment (2030-31)
3.0% enrollment reduction
(~230 less students districtwide)



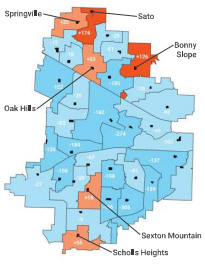
*MS enrollments reduced due to addition of Timberland MS and relocation

High School Enrollment (2030-31)
5.9% enrollment reduction
(~634 less students districtwide)

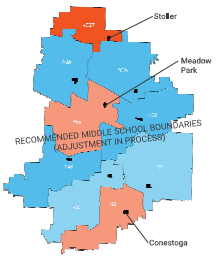


ENROLLMENT & CAPACITY: **School Utilization**

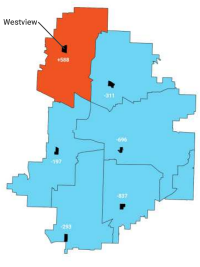
Elementary Capacity (2030-31)
12.8% remaining permanent capacity
(~2,500 available seats districtwide)



Middle School Capacity (2030-31)
3.1% remaining permanent capacity
(~240 available seats districtwide)



High School Capacity (2030-31)
14.7% remaining permanent capacity
(~1,740 available seats districtwide)



ENROLLMENT & CAPACITY: **Takeaways**

> There is adequate districtwide capacity at every grade level, however…

- Two elementary schools are projected to be more than 100 students over capacity: **Sato ES and Bonny Slope ES**
- One middle school is projected to be more than 500 students over capacity: **Stoller MS**
- One high school is projected to be almost 600 students over capacity: **Westview HS**

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Plan Options

PLAN OPTION 1: No Tax Rate Increase

> Maintain current tax rate

> Bond amount of ~$325 M

> Four-year bond program timeframe

PLAN OPTION 2: $0.25 Tax Rate Increase

> Increases current tax rate by $0.25 per $1,000 of assessed value

> Bond amount of ~$725 M

> Seven-year bond program timeframe

MAHLUM

Plan Options

Project	PLAN OPTION 1: No Tax Rate Increase	PLAN OPTION 2: $0.25 Tax Rate Increase
EDUCATIONAL PROGRAM		
Special Education Improvements	$2.0M	$2.0M
Prekindergarten Modifications	$1.0M	$1.0M
Outdoor Learning Improvements	-	**$5.0M**
Physical Education / Athletics Additions	-	**$8.0M**
FACILITY CONDITION: REPLACEMENT		
Raleigh Hills ES Replacement	$44.0M [1]	$44.0M [1]
Beaverton HS Replacement	$20.0M [2]	**$230.0M**
Elementary School Replacement Study	-	**$3.0M**
Allen St. Transportation Replacement	$11.0M	$11.0M
FACILITY CONDITION: MODERNIZATION		
Deferred Maintenance (FCA)	$110.0M	**$140.0M**
School Modernization	$10.0M	**$30.0M**
Seismic Upgrades	$20.0M	**$45.0M**
Security Upgrades	$6.0M	**$15.0M**
Nutrition Services Upgrades	$5.0M	$5.0M
CAPACITY & ENROLLMENT		
Classroom Additions	$10.0M	$10.0M
OTHER SUPPORT		
Technology	$27.0M	**$53.0M**
School Office Relocation	$10.0M	$10.0M
Bus Replacement	$8.0M	**$10.0M**
Critical Equipment	$4.0M	**$8.0M**
Subtotal	**$288.0M**	**$630.0M**
Bond Fee / Management Cost (8%)	$23.0M	$50.4M
Contingency (10%)	$13.9M [3]	$41.9M [3]
Total	**$324.9M**	**$722.3M**

NOTES

[1] *Cost assumes an additional $11.8 M is provided from 2014 bond funds*

[2] *Cost includes BHS planning and design only*

[3] *Excludes FCA, Technology, and Critical Equipment*

* *Costs are rough-order-of-magnitude project costs, to be confirmed*

MAHLUM

Educational Program

Special Education Improvements
Adapt existing special education spaces to be more suitable for their current use and support student needs*, such as creating larger/additional classroom spaces and adding adaptive equipment, kitchen facilities, office space, built-in cabinets, accessible restrooms, accessible playground equipment, and other modifications.*

Prekindergarten Modifications
In alignment with the District's prioritization of early childhood education, ***upgrade existing prekindergarten spaces to meet the unique needs of young learners****, including redesign to be more inclusive of current learning practices and purchasing appropriate materials and furniture.*

Outdoor Learning Improvements
Expand outdoor covered play areas at elementary schools across the District. *Currently several schools do not have covered play areas, and many more do not have ones that are adequately sized. These are highly flexible areas that allow for an outdoor extension of learning and play and provide gathering and queueing areas that protect children from the rain.*

Physical Education / Athletics Additions
Build a new gym at Stoller MS and Barnes ES, and provide some improvements to other District athletic facilities*, including an outdoor restroom/storage facility at Westview HS. The current space at Stoller is not adequate to support current or future enrollment. The current gymnasium and cafeteria at Barnes are inadequate to support the school and will be replaced.*

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Facility Replacement: Raleigh Hills Elementary School

Replace existing Raleigh Hills K-8 with new elementary school for 750 students.

WHY:

> Worst FCI score in the district (0.41 – Critical Condition)

> One of the oldest facilities in the district (93 years old)

> One of four elementary schools with a seismic rating below collapse prevention

> EUI score of 5, with greatest opportunity to improve energy efficiency

> More than 45% of students are eligible for free/reduced lunch

> Existing school capacity is 250 below district target of 750

> Previously identified as the next priority in the 2014 bond plan

> Eliminates ~$12M of deferred maintenance need

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* *Cost assumes an additional $11.8 M is provided from remaining 2014 bond funds*

Facility Replacement: Beaverton High School

Replace existing Beaverton High School with a new high school for 1,500 students.

WHY:

> One of the worst FCI scores in the district (0.34 – Critical Condition)

> Oldest facility in the district (majority of existing building is 105 years old)

> Only high school with a seismic rating below "Collapse Prevention"

> EUI score of 5, with greatest opportunity to improve energy efficiency

> 51% of students are eligible for free/reduced lunch

> Eliminates ~$53M of deferred maintenance need

MAHLUM

Facility Replacement: Allen Street Transportation Facility

Replace existing Allen Street Transportation facility.

WHY:

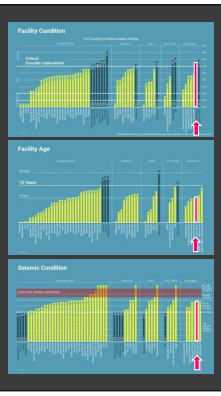
> One of the worst FCI scores in the District (0.33 – Critical Condition)

> Existing facility is more than 50 years old

> Repair bays are cramped and lack space to utilize modern technical repair aids

> 1/3rd of the hydraulic floor lifts are unusable due to leaks, failed parts, and excessive age and 2/3rds of the vehicle lifts lack safety stops to prevent unplanned retraction

> Technicians must use jack stands to prevent buses from lowering below safe working heights



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Modernization / Capacity & Enrollment

Deferred Maintenance
Repair and upgrade projects at all facilities (except new ones), *based on recently completed assessment findings. Components include roofing, HVAC, site, equipment, electrical, building envelope, interior finishes, fire/life safety, and conveyance.*

School Modernization
Modernize schools to improve the learning environment, enhance student engagement, and improve health and behavior, *including improving aesthetics/condition of building materials (walls, hard floors, carpet), upgrading television and A/V equipment, ensuring sufficient lighting, improving natural lighting, and increasing square footage of classrooms and support.*

Seismic Upgrades
Seismic upgrades to district target level for worst performing buildings that are not anticipated to be replaced *(facilities TBD, priorities are Whitford MS, Highland Park MS, Cedar Park MS, Mountain View MS).*

Security Upgrades
Cameras, fencing, and access control upgrades at various schools.

Nutrition Services Upgrades
Various projects throughout the District*, including electrical and equipment upgrades at 11 sites, water fountain installation at 25 sites, service line remodels at Westview HS and Community HS, freezer capacity additions, full kitchen remodel at Beaver Acres ES, and cafeteria expansion at Barnes ES.*

Classroom Additions
Add additional classrooms at Sato ES, Oak Hills ES, and Stoller MS *to address capacity needs.*

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Plan Options

Project	PLAN OPTION 1: No Tax Rate Increase	PLAN OPTION 2: $0.25 Tax Rate Increase
EDUCATIONAL PROGRAM		
Special Education Improvements	$2.0M	$2.0M
Prekindergarten Modifications	$1.0M	$1.0M
Outdoor Learning Improvements	–	**$5.0M**
Physical Education / Athletics Additions	–	**$8.0M**
FACILITY CONDITION: REPLACEMENT		
Raleigh Hills ES Replacement	$44.0M [1]	$44.0M [1]
Beaverton HS Replacement	$20.0M [2]	**$230.0M**
Elementary School Replacement Study	–	**$3.0M**
Allen St. Transportation Replacement	$11.0M	$11.0M
FACILITY CONDITION: MODERNIZATION		
Deferred Maintenance (FCA)	$110.0M	**$140.0M**
School Modernization	$10.0M	**$30.0M**
Seismic Upgrades	$20.0M	**$45.0M**
Security Upgrades	$6.0M	**$15.0M**
Nutrition Services Upgrades	$5.0M	$5.0M
CAPACITY & ENROLLMENT		
Classroom Additions	$10.0M	$10.0M
OTHER SUPPORT		
Technology	$27.0M	**$53.0M**
School Office Relocation	$10.0M	$10.0M
Bus Replacement	$8.0M	**$10.0M**
Critical Equipment	$4.0M	**$8.0M**
Subtotal	**$288.0M**	**$630.0M**
Bond Fee / Management Cost (8%)	$23.0M	$50.4M
Contingency (10%)	$13.9M [3]	$41.9M [3]
Total	**$324.9M**	**$722.3M**

NOTES

[1] Cost assumes an additional $11.8 M is provided from 2014 bond funds

[2] Cost includes BHS planning and design only

[3] Excludes FCA, Technology, and Critical Equipment

** Costs are rough-order-of-magnitude project costs, to be confirmed*

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Community Discussion: *What Do You Think?*

Community Polling: *What Do You Think?*

Question 1

Should the District consider implementing the next phase of the long-range facility plan by **proposing a capital measure** in 2021?

Why or why not?

Please type in your answer using the chat feature.

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Question 2

Of the two plans presented at this meeting, which would you **support** and why?

Option 1: $325M (renew expiring bond / no tax rate increase)

Option 2: $722M (tax rate increase of $0.25 per $1,000 of assessed value)

Please type in your answer using the chat feature.

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Question 3

Do you see anything that is **missing** from the proposals?

Please type in your answer using the chat feature.

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Question 4

Do you see anything in the proposals that should **not** be included?

Please type in your answer using the chat feature.

Question 5

Of the projects listed below, what are your **top three** priorities?

A. Educational Program Improvements
B. Raleigh Hills ES Replacement
C. Allen St. Transportation Replacement
D. Beaverton HS Replacement
E. Deferred Maintenance & Modernization
F. Seismic & Security Upgrades
G. Classroom & Gymnasium Additions
H. Technology

Please type in your answer using the chat feature, numbering the projects 1-3 in order of the priority you prefer.

Question 6

Please provide the following demographic information to help us understand who we are hearing from:

A. School(s) or community you are most closely affiliated with

B. Relationship to the District (current parent, had children in the district previously, community member)

Please type in your answers using the chat feature.

DRAFT

BSD Roadmap to Achieving Seismic Safety 10.28.19

Goal:

2017 Oregon Revised Statute (ORS) 455.400

> "Subject to available funding, all seismic rehabilitations or other actions to reduce seismic risk must be completed before January 1, 2032."

Our goal is to construct new facilities to "Immediate Occupancy" and to upgrade existing facilities to "Life Safety".

Strategy:

We plan to achieve this goal through three actions: Replace, Repair, Decommission, or No Action. The decision on which action to pursue for each site depends heavily on overall facility conditions, as well as facility enrollment projections. These decisions are consistent with the BSD LRFP. The plan will be to perform seismic upgrades incrementally. We will deal with the worst performing buildings first, and the best performing ones last. In many cases (ex. Sunset HS) it may make sense to only improve the worst performing spaces (gym, auditorium) for now.

Funding:

These projects will primarily be funded by local capital construction bonds. These projects are dependent upon successful elections. We will also pursue Oregon SRGP grants.

Background:

- 2019 Seismic Study
- School Investment Profiles
- FEMA - Incremental Seismic Rehabilitation
- Facilities Condition Assessment
- LRFP - Forthcoming

Plan:

Replace Raleigh Hills 2022 Bond Beaverton HS 2026 Bond ISB** 2026 Bond Fir Grove 2026 Bond Ridgewood **OR** Raleigh Park* 2034 Bond Cedar Mill **OR** West TV* 2034 Bond Barnes** 2034 Bond	Repair Whitford (50), Highland Park (50), Cedar Park (50), Mountain View (50), McKinley (52), Meadow Park (54), Sunset HS (55), Five Oaks (55), Bethany (58), Capitol Center (58), Hiteon (62), Elmonica (62), Greenway (63), Errol Hassel (65), Kinnaman (66), Rock Creek (66), Sexton Mountain (67), Chehalem (67), Nancy Ryles (67), Findley (68), Westview (68), Scholls Heights (69), Oak Hills (69), Montclair (69), Terra Linda (69), Merlo Station (69), Jacob Wismer (70), Southridge (70), Stoller (70), Conestoga (70)
Decommission McKay Terra Nova Cedar Mill **OR** West TV* Ridgewood **OR** Raleigh Park*	No Action ACMA, William Walker, Hazeldale, Vose, Sato, Mountainside, Timberland, Springville, Bonny Slope, Aloha-Huber Park, Beaver Acres***, Aloha HS***, Cooper Mountain***.

*Plan is to consolidate, not sure which site yet.

**Partial site replacement, older building section only

***Will be completed w/ 2014 Bond.

Next Steps/Update:

- We have just completed volume 5 of the seismic assessment. The goal of this assessment was to prioritize the most dangerous (red) areas in our facilities and determine the necessary improvements.
- In order to meet the goals of ORS 455.400 we need a unified plan to reduce seismic risk in all facilities, that is the purpose of this document.
- Our next step should be to compare the results of the seismic assessment, facilities condition assessment, and population projections to develop the long range facilities plan (LRFP). The LRFP should outline the 10-year plan for each facility. This will help us know where to make improvements.
- With reference specifically to the 'Repair' box above, there are a couple of approaches we could take to reduce our seismic risk:
    - Incremental Rehabilitation Approach: basically this would mean addressing the highest risk portions of the district first. This is what the vol5 seismic report attempts to demonstrate. The initial budget necessary is less than the whole building approach, but in the end it is less efficient. Because you would be potentially touching each building multiple times it will cost more and it will be more disruptive to the school
    - Whole Building Approach: This approach would prioritize projects based on the overall score of the entire building. This initial cost of this approach would be more because the projects are larger, but the overall cost and impact would be less because it is more efficient.
    - The total budget need would really depend on which of the above approaches we choose, as well as the buy in for the replacement/decommission plan.
    - I think that whichever approach we choose, it is clear that Whitford, Cedar Park, Highland Park, and Mountain View should be our first priorities for upgrade.

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MEMORANDUM

Date: 11 August 2020

To: Steven Sparks, Beaverton School District

From: Jennifer Lubin

Subject: **Capacity Methodology Comparison**

Project: Beaverton School District Long-Range Facility Plan

Capacity is a planning metric that reflects the number of students that can be accommodated within a school facility. The capacity of a building can be determined using a variety of formulas.

With the intent of providing a more accurate representation of instructional space available at each school, we are proposing a change in the way capacity is calculated for BSD facilities.

CURRENT CAPACITY CALCULATION

The current formula used by the Beaverton School District (adopted with the 2002 Facility Plan) determines school capacity based on the overall area of a school and an assumed square footage per student for each grade level. Capacity is calculated as follows: total building gross square footage, minus space used for specialized programs, divided by a gross square footage per student factor (with a different factor being used for each grade level).

This method does not accommodate for variations in the size and amount of support space within a building and does not consider the actual number of classrooms. For example, two schools with the same number of classrooms could have very different calculated capacities, if one of the schools had a larger gym, a larger cafeteria, or wider hallways. Conversely, two schools with very different classroom counts could have the same, or very similar, calculated capacities. Newer schools may be particularly out of alignment, due to the increased amount of space required to accommodate modern learning environments.

PROPOSED CAPACITY CALCULATION

It is recommended that the District consider switching to a classroom count method. This approach calculates capacity based on the actual number of classrooms or teaching stations in a school, multiplied by the target number of students per classroom and a target utilization factor. This method provides a capacity calculation that is in closer alignment with actual building capacity, and is more consistent across schools of different ages and with different program components and configurations. Similar to the previous BSD capacity calculation, special program areas, including dedicated special education spaces, are not included in the calculation.

Proposed Capacity Formula:

Number of general classrooms (elementary schools)
or
Number of teaching stations (middle and high schools)

X

Target number of students per classroom

X

Utilization factor

Description of Capacity Formula Components

Classrooms / Teaching Stations:
General classrooms at the elementary level include grade-level classrooms, but do not include specialized teaching spaces such as music rooms, gymnasiums, and special education classrooms. At the middle and high school levels, all scheduled teaching stations are included when determining capacity, with the exception of dedicated special education classrooms.

Target Student Count per Classroom:
The target number of students per classroom is a planning parameter that reflects an "ideal" class size for a given grade level. It is understood that, depending on many operational factors, actual student count per classroom may be larger or smaller than the target student count.

For BSD, capacities of permanent facilities are based on the following class size targets:

- Elementary: 25 students per classroom
- Middle: 25 students per classroom
- High: 30 students per classroom
- Option / Alternative: 30 students per classroom

These capacities reflect the targets in the district's education specification for elementary, middle, and high schools. Target classroom capacities will continue to be evaluated, and may be revised in the future, based on the findings of this long-range planning process or other developments in the district. They do not represent district policy, actual student count, or an absolute cap.

For portable, or modular, classrooms, capacities are based on reduced class size targets, as follows:

- Elementary: 19 students per classroom
- Middle: 21 students per classroom
- High: 23 students per classroom
- Option / Alternative: 23 students per classroom

Utilization Factor:
A utilization factor is applied, to reflect the amount of time the classroom can be used for teaching each day. Target utilization factors vary between districts and grade levels, depending a number of factors, including the number of periods in the school day and whether teachers use their classrooms for planning. It is not possible to achieve 100% utilization at the middle and high school levels, due to a variety of factors, including scheduling conflicts, the need for specialized rooms for some programs, and the need for teachers to have space to work during planning periods.

Lower utilization factors indicate that classrooms are unused for one or more periods of the day, due to teacher planning time and/or scheduling requirements, which is typical for most middle and high schools. For example, 80 percent utilization reflects classroom usage for four out of five periods a day.

For BSD, the utilization factors used in determining capacity are as follows:

- Elementary: 100 percent utilization
- Middle: 80 percent utilization
- High: 83 percent utilization
- Option / Alternative: 83 percent utilization

RESULTS COMPARISON

Changing the way capacity is calculated in the district results in different capacities at many schools, with some having higher capacities and some having lower capacities. Districtwide, the difference is a reduction in capacity of 1,692 seats, reflecting a reduction in elementary and middle school capacity, and an increase in high school and option / alternative school capacity. A summary table of the changes is shown below and detailed in the attached spreadsheet.

School Level	Capacity with Previous Calculation	Capacity with Proposed Calculation	Difference
Elementary School Capacity	20,846	19,200	-1,646
Middle School Capacity	8,885	7,960	-925
High School Capacity	11,785	12,251	+466
Option / Alternative School Capacity	2,400	2,814	+414
Total District Capacity	**43,916 students**	**42,225 students**	**-1,692**

The attached table shows the number of PreK, special education, general, and portable classrooms that were identified at each school. Only the classrooms in the "Gen Ed" category are used to calculate permanent capacity, and only the portable classrooms are used to calculate portable capacity. PreK and Special Education classrooms (self-contained classrooms and resource rooms) are also not included in a school's capacity.

For elementary schools, classroom counts were determined by reviewing the floor plans and identifying the number of general classrooms for each facility. Specialized teaching spaces, such as music rooms and gymnasiums, were not included as general classrooms. For middle and high schools, a combination of floor plan review and coordination with school principals was used to determine classroom count. Specialized classrooms, such as science, music, and art, are included in the classroom counts at the middle and high school levels, as these rooms are also scheduled for instruction.

Example School Comparison

With the previous capacity method, based on square footage, a smaller school like McKinley ES (61,265 SF / 29 classrooms) was calculated to have a capacity of 568 students, while a larger school like William Walker ES (87,200 SF / 25 classrooms) was calculated to have a capacity of 800 students, even though it has four fewer classrooms. The new calculation, which is based on number of classrooms, results in a capacity of 725 at McKinley and 625 at William Walker, which aligns with the number of classrooms available at each school.

	FACILITY SIZE		TEACHING STATIONS								CAPACITY			
Facility	Area (Perm. GSF)	Area/Stud. (Perm. GSF)	Grade Levels	Title I Status	PreK	Spec Ed [7]	Gen Ed	Total (Perm.)	Port	Total (Perm. + Port.)	PREVIOUS Perm. Cap. (BSD)	UPDATED Perm. Cap.	2019-20 Port. Cap. (BSD)	Total Cap. (Perm. + Port.)
ELEMENTARY SCHOOLS												*25 100%*	*19 100%*	
1 Aloha-Huber Park K-8	106,046	112	PK-8	✓	1	1	38	40	0	40	1,033	950	0	950
2 Barnes	75,900	101	PK-5	✓	1	1	30	32	4	36	723	750	76	826
3 Beaver Acres	79,507	99	PK-5	✓	**1**	4	32	37	8	45	741	800	152	952
4 Bethany	49,913	100	K-5			1	20	21	3	24	481	500	57	557
5 Bonny Slope	80,405	140	K-5		1	1	23	25	0	25	777	575	0	575
6 Cedar Mill	41,055	86	K-5			1	19	20	1	21	393	475	19	494
7 Chehalem	54,316	121	PK-5 [8]	✓	**1**	3	18	22	4	26	498	450	76	526
8 Cooper Mountain	54,821	122	K-5			3	18	21	4	25	512	450	76	526
9 Elmonica	51,063	89	PK-5 [8]	✓	**1**	1	23	25	13	38	475	575	247	822
10 Errol Hassell	60,345	105	K-5			1	23	24	0	24	576	575	0	575
11 Findley	72,052	115	K-5			1	25	26	8	34	703	625	152	777
12 Fir Grove	60,666	121	PK-5 [8]	✓	**1**	1	20	22	2	24	555	500	38	538
13 Greenway	54,991	92	PK-5	✓	1	2	24	27	0	27	514	600	0	600
14 Hazeldale	87,200	134	PK-5 [8]	✓	**1**	3	26	30	0	30	836	650	0	650
15 Hiteon	78,972	109	K-5			3	29	32	0	32	736	725	0	725
16 Jacob Wismer	72,863	112	K-5			1	26	27	2	29	711	650	38	688
17 Kinnaman	80,837	147	PK-5 [8]	✓	**1**	3	22	26	2	28	781	550	38	588
18 McKay	48,736	130	PK-5	✓	1	3	15	19	0	19	406	375	0	375
19 McKinley	61,265	85	PK-5 [8]	✓	**1**	3	29	33	6	39	568	725	114	839
20 Montclair	38,526	119	K-5			1	13	14	3	17	367	325	57	382
21 Nancy Ryles	71,119	119	K-5			1	24	25	2	27	693	600	38	638
22 Oak Hills	49,890	105	K-5			3	19	22	8	30	463	475	152	627
23 Raleigh Hills K-8	59,197	125	K-8 [9]	✓	**1**	2	19	22	6	28	539	475	114	589
24 Raleigh Park	45,166	113	K-5			1	16	17	4	21	434	400	76	476
25 Ridgewood	54,059	127	K-5			3	17	20	2	22	461	425	38	463
26 Rock Creek	51,505	90	K-5			1	23	24	6	30	497	575	114	689
27 Sato	80,500	124	K-5			4	26	30	0	30	760	650	0	650
28 Scholls Heights	68,941	125	K-5			3	22	25	4	29	644	550	76	626
29 Sexton Mountain	67,318	150	K-5			4	18	22	6	28	628	450	114	564
30 Springville K-8	87,206	134	K-8 [9]			3	26	29	6	35	836	650	114	764
31 Terra Linda	51,636	109	K-5			3	19	22	0	22	480	475	0	475
32 Vose	87,200	134	PK-5	✓	1	3	26	30	0	30	818	650	0	650
33 West Tualatin View	43,447	116	K-5			2	15	17	0	17	407	375	0	375
34 William Walker	87,200	140	PK-5	✓	1	4	25	30	0	30	800	625	0	625
Subtotal: Elementary Schools	***2,213,863***	***116***	***(avg)***		***14***	***15***	***75***	***768***	***858***	***104***	***962***	***20,846***	***19,200***	***1,976***	***21,176***
MIDDLE SCHOOLS												*25 80%*	*21 80%*	
35 Cedar Park	117,054	146	6-8	-	-	4	40	44	6	50	872	800	101	901
36 Conestoga	128,179	153	6-8	-	-	4	42	46	6	52	959	840	101	941
37 Five Oaks (+ Rachel Carson)	153,277	139	6-8	-	-	5	55	60	2	62	1,127	1,100	34	1,134
38 Highland Park	116,892	146	6-8	-	-	4	40	44	4	48	871	800	67	867
39 Meadow Park	116,682	154	6-8	-	-	4	38	42	4	46	855	760	67	827
40 Mountain View	133,942	149	6-8	-	-	5	45	50	4	54	990	900	67	967
41 Stoller	143,788	171	6-8	-	-	5	42	47	14	61	1,081	840	235	1,075
42 Timberland [3]	165,455	148	6-8	-	-	2	56	58	0	58	1,272	1,120	0	1,120
43 Whitford	116,962	146	6-8	-	-	5	40	45	0	45	858	800	0	800
Subtotal: Middle Schools	***1,192,231***	***150***	***(avg)***			***38***	***398***	***436***	***40***	***476***	***8,885***	***7,960***	***672***	***8,632***
HIGH SCHOOLS												*30 83%*	*23 83%*	
44 Aloha	260,677	150	9-12	-	-	5	70	75	5	80	1,801	1,743	95	1,838
45 Beaverton (& Merle Davies Annex)	303,158	148	9-12	-	-	3	82	85	0	85	2,093	2,042	0	2,042
46 Mountainside	342,000	158	9-12	-	-	3	87	90	0	90	2,386	2,166	0	2,166
47 Southridge	256,070	129	9-12	-	-	3	80	83	0	83	1,791	1,992	0	1,992
48 Sunset	253,727	111	9-12	-	-	4	92	96	0	96	1,755	2,291	0	2,291
49 Westview	281,183	139	9-12	-	-	5	81	86	16	102	1,959	2,017	305	2,322
Subtotal: High Schools	***1,696,815***	***139***	***(avg)***			***23***		***515***	***21***	***536***	***11,785***	***12,251***	***401***	***12,652***
OPTION / ALTERNATIVE SCHOOLS												*30 83%*	*23 83%*	
50 ACMA [4]	75,856	109	6-12	-	-	0	28	28	0	28	725	697	0	697
51 BASE (HS2 / SST) @ Capital Center	105,883	125	6-12	-	-	1	34	35	0	35	738	847	0	847
52 Community High School (Merlo)	51,125	93	9-12	-	-	1	22	23	2	25	330	548	38	586
53 International School of Beaverton	75,585	132	6-12	-	-	1	23	24	12	36	523	573	229	802
54 Terra Nova High School	11,800	79	9-12	-	-	0	6	6	0	6	84	149	0	149
Subtotal: Option / Alternative Schools	***320,249***	***108***	***(avg)***			***3***	***113***	***116***	***14***	***130***	***2,400***	***2,814***	***267***	***3,081***
DISTRICT TOTAL											**43,916**	**42,225**	**3,316**	**45,541**

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APPENDIX C

FOCUS GROUP MEETINGS

APPENDIX C: FOCUS GROUP MEETINGS

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MEETING MINUTES

PROJECT:	Beaverton School District LRFP	**PROJECT NO:**	2019910.10
DATE:	19 November 2020	**FILE NAME:**	Document1
SUBJECT:	Focus Group Meeting 1: District Need		
MEETING DATE:	17 November 2020	**TIME:**	6:30 – 8:30 PM
LOCATION:	Virtual (Zoom)		

ATTENDEES:	Kavin Buck	Focus Group
	Shellie Bailey-Shah	Focus Group
	Michelle Caspell Hill	Focus Group
	Jason Hohnbaum	Focus Group
	Brian Kennedy	Focus Group
	Angel Nunez	Focus Group
	Abhijit Sathaye	Focus Group
	Eric Schmidt	Focus Group
	D. Raghav Shan	Focus Group
	Kimi Sloop	Focus Group
	Rob Zoeller	Associate Planner, City of Beaverton (representing Brian M.)
	Steven Sparks	Executive Administrator for Long-Range Planning
	Joshua Gamez	Chief Facilities Officer
	Aaron Boyle	Administrator for Facilities Development
	Robert McCracken	Facilities Planning Coordinator
	Don Grotting	BSD Superintendent
	Carl Mead	BSD Assistant Superintendent
	Dave Williams	BSD Public Communications Officer
	LeRoy Landers	Principal, Mahlum Architects
	Jennifer Lubin	Senior Planner, Mahlum Architects
	Frank Angelo	Principal, Angelo Planning Group
COPY TO:	Brian Martin	Focus Group
	Alfredo Moreno	Focus Group

The following represents the architect's understanding of discussions held and decisions reached in the meeting. Anyone with amendments to these minutes should notify the author within five (5) days of the minutes date in order to amend as appropriate.

Please refer to the Meeting 1 slide presentation and meeting recording, both of which can be found on the District website, for additional information regarding Meeting 1 content.

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ITEM	DISCUSSION
1.1	**Superintendent's Introduction** Thank you for serving your community, especially in these unprecedented and unique times. The operational side of the district is important to ensure the long-term success of the district. The district is in the process of reforming middle school boundaries and is continuing with work on bond projects. The Long-Range Facility Plan project is important to the future of the district moving forward and looking at future capital bonds. This committee will help identify the capital investments and priorities that need to be made in the district. This is a great group of committee members: if anyone can do it, you can. I look forward to hearing recommendations, questions, and concerns for the district and school board to consider.
1.2	**Introduction and Process** LeRoy and Frank presented an introduction to the Long-Range Facility Plan (LRFP) process and purpose. The LRFP process is designed to ensure the long-range success of the district. The following topics were discussed: > What is a long-range facility plan and the three areas of need (educational program, facility condition, and capacity/enrollment) > What can an LRFP do for you > Why now and historical context > What should an LRFP consider > Plan development strategies
1.3	**District Vision and Goals** Steven described the key components of the district's Strategic Plan, the LRFP Guiding Principles that have been developed for this process, and the Equity Lens that is used for evaluation. Key elements of the Guiding Principles include: support of educational programs, financial responsibility, ability to evolve and respond to changing needs, and addressing social and community equity across the district.
1.4	**Educational Program** LeRoy described the educational needs of the district, as related to facility support.: > Educational program: areas where need has been identified for the LRFP include special education, early childhood education, physical education, and district support. > Equity lens: used to analyze the distribution of recently constructed schools, looking at free and reduced lunch percentages, students of color percentages, and geographic locations. > Evaluating equity using actual and target area per student: schools that are more than 20 square feet below the district target may have significant implications on how facilities are able to support educational programs. Focus Group Questions: > *What is support space?* Support space is space that supports educational programming, such as facilities such as central office, transportation, and maintenance. > *Is educational adequacy chart based on actual attendance or maximum/expected capacity?* It is based on actual capacity. > *Do equity maps and graphs also take into account facility age?* This is covered later in the facility condition section.

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- *If we prioritize a special education stand-alone facility, how would it affect programs at each school?* It wouldn't, because they are different populations of students.
- *How do you prioritize special education programs if two schools are close to each other?* The district works to distribute programs as equitably as possible and takes many factors into consideration.
- *What about other "buckets" of need, such as technology and transportation, particularly related to distance learning and the pandemic?* These are not part of facilities per say but will be part of any future bond that happens. The district goal is to put CDL in a permanent building, to grow the program and attract staff, which would be part of IT/technology.
- *Will prek programs have an impact on enrollment?* No, they are families that already will be in the district. However, these programs would add more students at an individual school, about 20 students per class.
- *Can prek double as a career program at a high school?* This can be done, but ideally programs should be located in a familiar setting and peer group. Preschool students are best served in an elementary environment where they can become familiar with services. However, the district is currently looking at having high school students come to elementary schools to participate in prek programs.

1.5 Facility Condition

LeRoy described district needs related to facility condition, looking at facility age, facility condition assessment, seismic condition, energy use intensity ratings, deferred maintenance, and recent capital expenditures.

- Facility age: Schools over 75 years old may be considered at the end of their useful life.
- Facility condition: assessments (FCA) were completed this year for all district facilities and resulted in facility condition index (FCI) ratings that represent the ratio of total deferred maintenance cost to current building replacement value. FCI scores greater than 30% indicate that the facility may be considered for facility replacement. The deferred maintenance represented with FCI scores does not address educational adequacy, energy efficiency, or system replacements. Facilities that are candidates for potential replacement based on their FCI scores include Cedar Mill ES, Raleigh Park ES, Raleigh Hills ES, …
- Seismic condition: seismic evaluations were completed in 2019. The district goal is for all buildings to be in the Damage Control range (between immediate occupancy and life safety). Four elementary schools, four middle schools, Beaverton High School, and ISB are all currently less than collapse prevention.
- Energy Use Intensity (EUI): this metric looks at what will provide the most return on investment in terms of energy improvement. Modernizations at the most poorly performing schools will yield the highest return. Many schools fall into this category.
- Deferred maintenance: the total deferred maintenance need is in the district is $610.1 million.
- Recent capital expenditures: understanding 2014 bond project expenditures so that the Plan does replace something you have recently spent significant amount of money on.

Focus Group Questions:

- *How do you prioritize when there is so much need?* There is always more cumulative need that can be addressed at one time, based on the amount of community support. Districts typically develop a prioritization with deferred maintenance categories, such as health/life safety and protecting capital investment.

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> *What is the district plan for portables?* The goal of the district is to remove portables from school sites as quickly as is possible, however some schools still rely on portables to accommodate capacity. There are many reasons to have students in permanent buildings. Portables were not assessed as part of the facilities assessment. Five Oaks and ACMA have recently had portables removed.
> *Does the district keep the same data on portables as on permanent facilities, such as seismic rating and age?* Yes, the district does have this information. It is not included in this presentation, but the district can be followed up with that information. Portables are inspected annually, well maintained, and kept up to date.

1.6 Capacity & Enrollment

Frank provided a description of the planning parameters and described the analysis of existing and target school capacities, and projected growth and capacity need at the elementary, middle, and high school levels.

> Planning parameters include existing school capacity, target class size, utilization rate, target building capacity, and existing and projected enrollment.
> School capacity: five elementary schools are more than 60% under target capacity and many other district schools are somewhat below target capacities.
> Elementary enrollment and capacity: districtwide enrollment is expected to decrease by 6% by 2030-31, but some individual schools are still projected to be over capacity, including Sato and Bonny Slope. Several schools will be under-enrolled by more than 30% of their capacity.
> Middle school enrollment and capacity: districtwide enrollment is expected to decrease by 3% by 2030-31, however some schools still are over capacity, particularly Stoller.
> High School enrollment and capacity: districtwide enrollment is expected to decrease by 5.9% by 2030-31, but Westview is projected to be significantly over capacity.
> Overall, the district appears has enough capacity to accommodate projected enrollment for the next ten years, with some adjustments to balance enrollment between facilities.
> Cooper Mountain development: the area in southwestern Beaverton will be coming into the urban growth boundary and there is a planning effort that will come online within the next 10 years that is expected to generate a number of new students in the district.

Focus Group Questions:

> *What is the timeline under which the district hopes to replace portable capacity with permanent capacity?* The process is underway and will continue as quickly as is possible, given enrollment needs at individual schools.
> *Are any of the schools below target capacity also listed as not meeting standards in educational adequacy?* What is the strategy for tackling both issues concurrently? Specifically, no, the five schools below target capacity are not the same ones that have the lowest areas per student. However, understanding the overlap of varying needs at facilities is helpful in the prioritization process, allowing the district to get “more bang for the buck.”
> *Does the estimate for over and under enrollment statistics include any projections for how the racial demographics and proportions will adjust as the population shifts?* The PSU forecast is a population-based forecast. It does not include racial/ethnic breakouts in the forecast but rather takes a holistic view of the population.
> *Since the district is going down in enrollment, how do you balance paying property tax on undeveloped properties?* The district has various income revenue schemes to utilize these properties in the interim. It is important to remember that no one is making more land anywhere and getting rid of any undeveloped property would require serious consideration

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- *Didn't PPS surplus properties in 80s and 90s and then find themselves in a pinch later?* Yes, and Beaverton had some surplus facilities in the 70s as well. The eastern part of district has declining enrollment now, but there is a prime 70-acre site in this area owned by city of Portland and could become developed in the future. Light rail has increased densities immensely in areas where people did not expect it, like the Aloha area.
- *What is the best way to describe the deferred maintenance situation at BSD?* $610 million is significant. There is a long list of items that need to be addressed.
- *Why talk about new buildings rather than addressing needs at existing buildings?* It is a balance of priorities and will be discussed in more detail at the next meeting.

1.7 Closing Questions & Next Steps

- *Is any of this data 'locked down' or can we share with other community members?* All of the information that was shared this evening is public. All focus group members are encouraged to discuss and share with others in the community. You are the ambassadors of this process.
- The second focus group meeting will be held on Tuesday, December 15th. The team will present a preliminary long-range plan approach and prioritized thinking. Before that meeting, take 30 minutes to review tonight's presentation to refresh yourselves on the need information.
- Please feel free to email any thoughts, questions, comments to Steven Sparks and he will relay to the team.
- The goal is to get meeting information out to members at least one week before the next meeting, so you will have time to review and digest prior to our meetings.

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Beaverton School District

Long-Range Facility Plan
FOCUS GROUP MEETING 1

17 November 2020

BEAVERTON SCHOOL DISTRICT

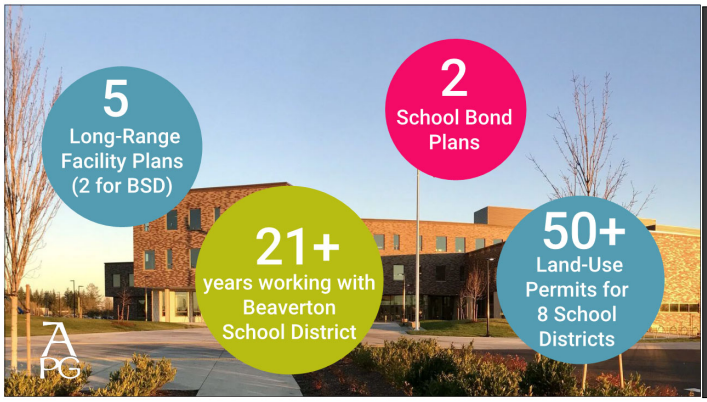
Agenda

Introduction & Process	6:30 – 6:55
Vision & Goals	6:55 – 7:10
Educational Program	7:10 – 7:30
Facility Condition	7:30 – 7:50
Capacity & Enrollment	7:50 – 8:10
General/Closing Questions	8:10 – 8:20

Goals for this Evening

- Introduce team and focus group
- Understand the LRFP process
- Understand District vision and guiding principles that will inform the process
- Develop a high-level understanding of facility-related need

Introduction & Process



Planning Team

LeRoy Landers AIA
Mahlum

Frank Angelo
Angelo Planning Group

Jennifer Lubin AIA
Mahlum

District Leadership Team

Steven Sparks
Executive Administrator for Long Range Planning

Joshua Gamez
Chief Facilities Officer

Aaron Boyle
Administrator for Facilities Development

Robert McCracken
Facilities Planning Coordinator

Focus Group Members

Kavin Buck
Raleigh Park ES / Whitford MS / Beaverton HS Parent

Michelle Caspell Hill
International School of Beaverton Parent

Jason Hohnbaum
McKay ES / Conestoga MS / Southridge HS Parent

Brian Kennedy
Cedar Mill ES / Meadow Park MS / Sunset HS Parent

Brian Martin
City of Beaverton, Community Development Dept.

Alfredo Moreno
Arco Iris Parent

Angel Nunez
Aloha Huber K-8 / Five Oaks MS / Sunset HS Parent

Abhijit Sathaye
Findley ES / Timberland MS / Sunset Parent

Eric Schmidt
Cooper Mountain ES / Mountain View MS / Aloha HS Parent

D. Raghav Shan
Springville K-8 / Stoller MS / Westview HS Parent

Kimi Sloop
West TV ES / Cedar Park MS / Beaverton HS Parent

What is a Long-Range Facility Plan (LRFP)?

Comprehensive summary of facility need

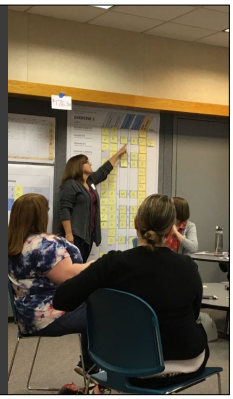
> Studies a district's ability to accommodate educational programs
> Tracks district's capacity with respect to projected enrollment
> Documents the condition of district's facilities and sites

Strategic management tool for district facilities over time

> Explores modernizations, additions, replacement, and new construction
> Identifies opportunities for more efficient use of sites and site acquisition schedules if needed
> ***Creates a prioritized capital plan that aligns with community support***

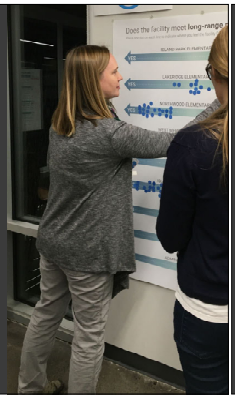
What can a LRFP do for you?

> Provide the information you need to make well-informed decisions
> Allow coordination with jurisdictions regarding development within a district
> Help your district strategically plan for future facility needs
> Keep your community informed and build support
> Establish an on-going cycle for keeping your capital investments up to date
> Allow your district to meet ORS 195.110 and OAR 581-027-0040 requirements
> Help you avoid doing something now that you have to undo later



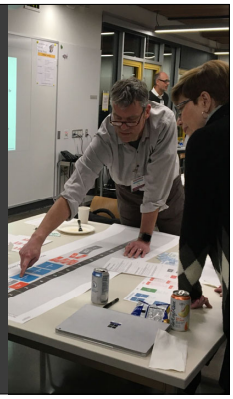
Why Now?

> District needs to be ready with school facilities when the pandemic is over
> ORS 195.110 requires a 10-year plan (last BSD LRFP adopted in 2010)
> OAR 581-027 requires a current LRFP to be eligible for state funding opportunities for capital projects
> Add an equity lens to school facility planning
> Need to plan ahead for new capital programs as current school bonds expire
> District facilities continue to age (address schools that are too old to efficiently maintain)
> Maintenance and modernization needs continue to grow
> Identify opportunities for efficiencies in District facilities

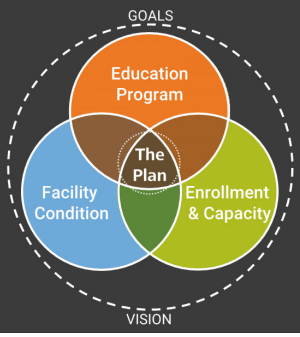


LRFP Historical Context

> Long-Range Facility Plans were prepared in 2002 and 2010
> Identified capital needs and need for new schools
> District successfully passed school construction bond programs:
  $195 million in 2006
  $680 million in 2014
> Planning was done during period of high student enrollment growth
> Washington County and Beaverton will continue to grow, but at a slower pace
> While enrollment has flattened, there's an opportunity to review facility needs in light of recent capital projects and school capacity / student demand



What should an LRFP consider?



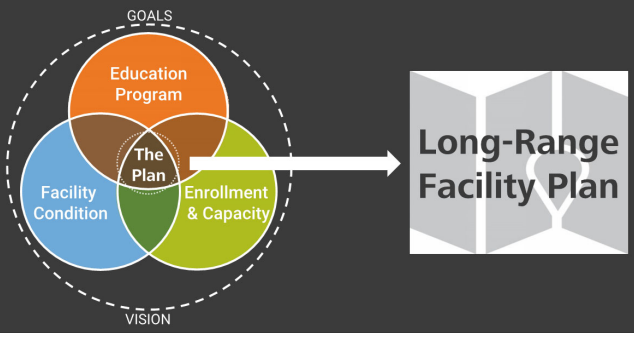
Vision & Goals
Strategic Plan
Committee Goals

Education Program
Education Specification
Kindergarten / Pre-K
PE / Athletics / Fields
STEM | STEAM
Special Education
College & Career Readiness
Technology
Target Capacities

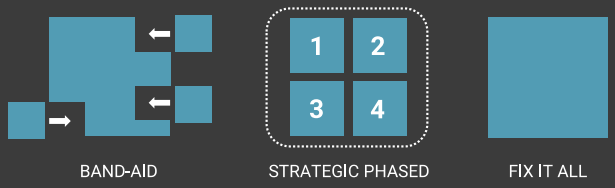
Enrollment & Capacity
Growth
Utilization
Boundaries
Consolidation

Facility Condition
Health and Safety
Accessibility (ADA)
Infrastructure
Sustainability / Resilience
Life Expectancy
Academic Suitability

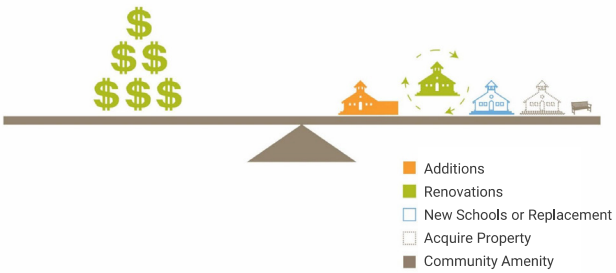
What should an LRFP consider?



Plan Development



Plan Development



Who should be involved?

District Steering Committee (5-8)

Focus Group (12-14) *or* Community Advisory Committee (30-40)

Community Outreach (>100)

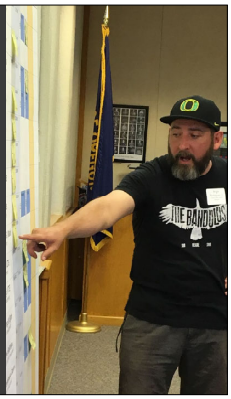
What does the Focus Group Do?

Roles and Responsibilities

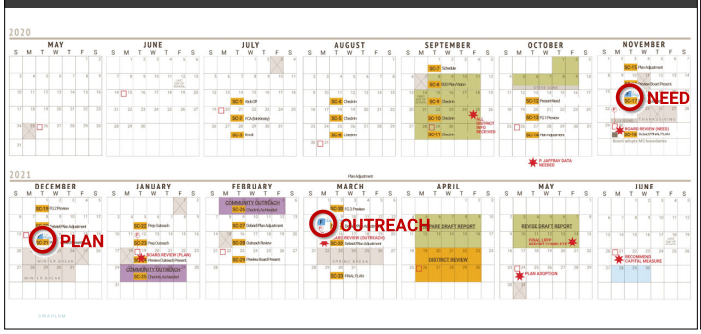
- Consistently attend meetings and actively participate
- Work with the "big picture"
- Express point of view and be open to other viewpoints
- Provide input regarding long-range facility plan options as proposed by the District Steering Committee
- Provide insight into public support for capital funding, and at what level
- Offer recommendations to the District and Board
- Serve as ambassadors for the process and the proposed plan

It is *not* the Focus Group's responsibility to:

- Lead the planning process
- Make final decisions regarding capital expenditure or facilities
- Establish policy



Schedule



Focus Group Meetings

Meeting 1: District Need
November 17, 2020, 6:30 – 8:30 PM

Meeting 2: Preliminary Plan
December 15, 2020, 6:30 – 8:30 PM

Meeting 3: Outreach Review / Final Plan
March 8, 2021, 6:30 – 8:30 PM

District Vision

2019-20 Strategic Plan

District Goal: **WE** empower all students to achieve post-high school success.

WE Expect Excellence

WE engage students with a variety of relevant and challenging learning experiences.

WE create learning environments that promote student achievement.

WE Innovate

WE teach students knowledge and skills for our evolving world.

WE seek, support, and recognize world-class employees.

WE Embrace Equity

WE build honest, safe, and inclusive relationships with our diverse students and their families.

WE provide needed support so that every student succeeds.

WE Collaborate

WE work and learn in teams to understand student needs and improve learning outcomes.

WE partner with our community to educate and serve students.

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LRFP Guiding Principles

WE EXPECT EXCELLENCE

Strategically plan for the **maintenance, modernization and replacement** of facilities.

Plan for facility needs to **meet all state regulatory requirements**.

Maintain investment in current facilities by addressing unfunded maintenance needs.

Where significant investment is required to renovate and upgrade existing facilities (greater than 75% replacement cost) **consider the cost / benefits of replacement**.

Address all **addition and expansion needs** in existing facilities throughout the district.

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LRFP Guiding Principles

WE INNOVATE

Update educational specifications to reflect the **evolving needs** of pedagogical practices.

Provide **flexible school facilities** that foster creativity in teaching and support the evolution of high-quality education.

Incorporate **sustainability, energy efficiency and maintenance** into the facility planning process.

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LRFP Guiding Principles

WE EMBRACE EQUITY

Consider facility planning decisions through an **equity lens**.

Create greater **parity** across facilities.

Plan for **upgrades / improvements**.

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LRFP Guiding Principles

WE COLLABORATE

Collaboratively plan for future facility needs driven by community, demographic and pedagogical change.

Provide **community amenities** and support partnerships with other local agencies and service providers.

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Equity Lens

Decisions should be considered through an equity lens, by asking the following questions:

> Whose voice is and is not represented in this decision?

> Who does this decision benefit or burden?

> Is this decision in alignment with the BSD Equity Policy?

> Does this decision close or widen the access, opportunity, and expectation gaps?

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7:00 – 7:10

Vision & Goals: Any Questions?

> Is there anything about this information that strikes you?

> What do you see as positive? Negative?

> Are there additional goals that we haven't identified?

Identifying Need:

Educational Program

BSD Programs

The District has a number of educational programs.

Educational goals and needs for the LRFP can be defined for those programs that have clarity regarding facility support needs.

- Special Education
- Option / Alternative Education
- Early Childhood Education
- Physical Education
- Career & Technology Education
- ELL / ELD
- Before & After School Care
- Partner Programs
- District Support

Special Education

Goal:

Provide adequate and equitable special education facilities at all schools (2 classrooms and support), so students can be served in home attendance area

Existing Condition:

21 elementary, 2 middle, and 3 high schools currently have adequate special education facilities

Need:

13 elementary, 7 middle, and 3 high schools need additional and/or improved special education space (new or modernized facility)

Special Education

Goal:

Provide a new stand-alone special education school to serve 130 students for whom the District cannot currently accommodate their educational needs

Existing Condition:

Students are currently transported to non-District facilities (long transportation times)

Need:

Stand-alone special education school (new or modernized facility)

Early Childhood Education

Goal:

Provide one pre-K classroom at every elementary school with Title I status

Existing Condition:

15 Title I elementary schools are identified for the 2020-21 school year

6 Title I schools currently have pre-K programs

Need:

9 Elementary schools need to add a pre-K program (all are projected to have available capacity)

Physical Education

Goal:

Provide space to meet State PE requirements at all District facilities (elementary and middle schools)

Existing Condition:

The number of existing PE spaces may not be adequate to meet State requirements in all schools

Need:

Additional gymnasiums or other PE teaching stations may be needed at some elementary and middle schools (to be determined)

District Support

Goal:

Provide adequate administration and support space to accommodate the District's educational programs and goals

Existing Condition:

There is a need for additional support space in the District

Need:

Replace and expand central administration

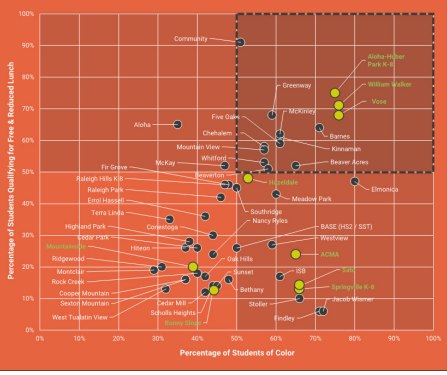
Replace transportation facility (Allen)

Equity Lens

- Recently constructed schools (after 2000)

ACMA MS (2019)
Hazeldale ES (2018)
William Walker ES (2018)
Mountainside HS (2017)
Sato ES (2017)
Vose ES (2017)
Timberland MS* (2017)
Springville K-8 (2009)
Bonny Slope ES (2008)
Aloha Huber Park K-8 (2005)

*Timberland MS not shown (no data)



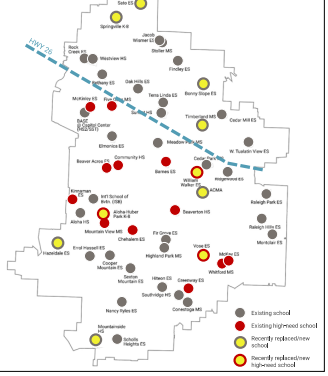
Equity Lens

Distribution of new or replacement school facilities (after 2000)

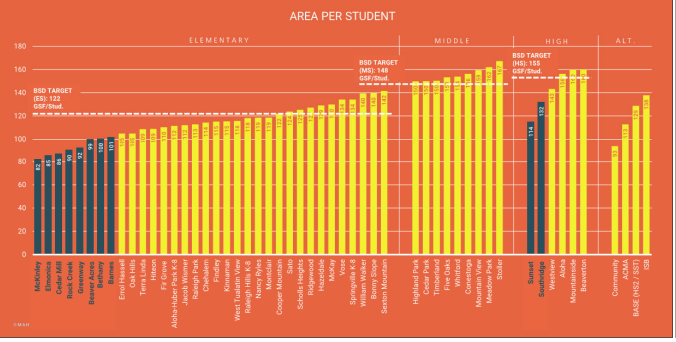
> 3 elementary schools and 1 middle school north of Highway 26

> 4 elementary schools, 1 high school, and 1 alternative school south of Highway 26

3 out of 10 new schools had more than 50% of students qualify for free/reduced lunch): Aloha-Huber Park K-8, Vose ES, William Walker ES



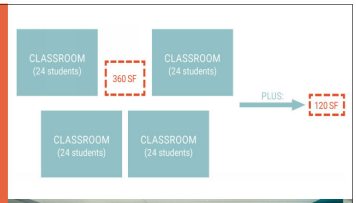
Educational Adequacy



Educational Adequacy

Difference of 5 square feet per student

An additional 15 square feet per student at the elementary level would add a gymnasium



Elements of Successful Learning Environments

Facilitate learning everywhere

Support multiple modes of delivery

Offer opportunities for social learning

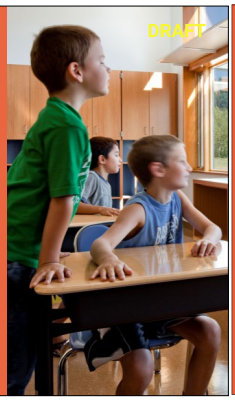
Integrate technology throughout

Maximize connections to community

Seek educational partnerships & joint use

Embrace sustainable design

Inspire!



Educational Program
Take-Aways

> There are known areas of facility improvement to support program goals

> Every decision should be looked at through the lens of equity

> There are numerous schools at elementary and high school levels that are significantly below square footage targets identified in district educational specifications

7:20 – 7:30

Educational Program: Any Questions?

> Is there anything about this information that strikes you?

> What do you see as positive? Negative?

> Are there additional needs that we haven't identified?

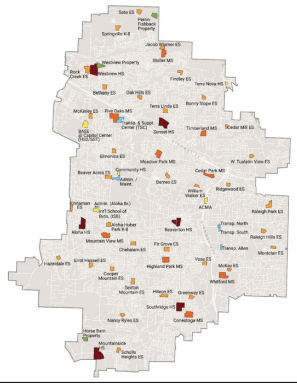
Identifying Need:

Facility Condition

District Overview

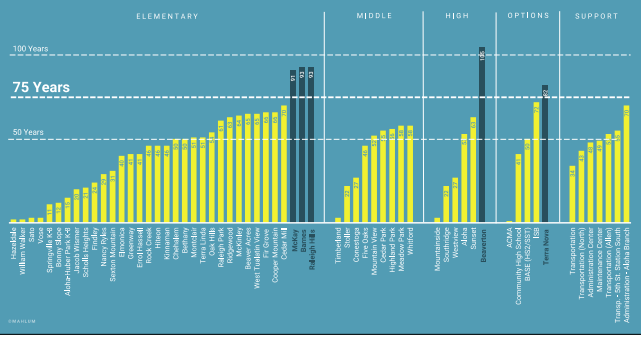
Over 5.7 million square feet of facility space:

- **34** elementary schools
- **9** middle schools
- **6** high schools
- **5** options / alternative schools
- **8** support facilities
- **3** undeveloped properties



District Overview

Facility Age



Facility Condition

Facility condition assessment (FCA) completed in 2020, providing facility condition index (FCI) scores for all district facilities

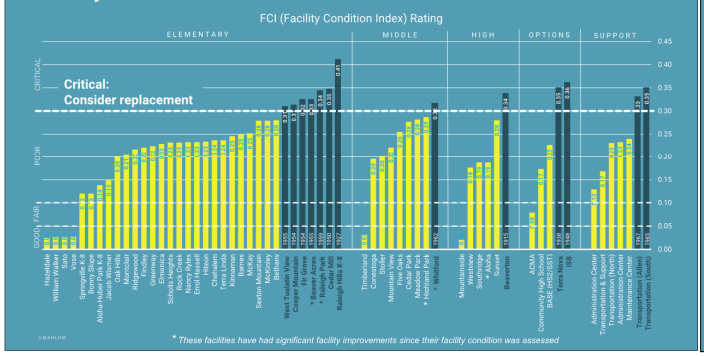
FCI score represents the ratio of total deferred maintenance cost to current building replacement value

FCI Rating System*

- Good: 0 – 5%
- Fair: 5% – 10%
- Poor: 10% – 30%
- Critical: Greater than 30% (consider facility replacement)

** International Facility Management Association*

Facility Condition



Seismic Condition

Seismic evaluation and report completed in 2019 by structural engineers

3 additional schools have had upgrades since then

6 tiers of performance standards

District goal:
Damage Control Range

STRUCTURAL PERFORMANCE STANDARDS

Immediate Occupancy
> Very limited structural damage has occurred
> Risk of life-threatening injury as a result of structural damage is very low
> Minor repairs might be required, but not generally to re-occupy
> Continued use of the building will not be limited by its structural condition

Damage Control Range *(District Goal)*
> Halfway between Immediate Occupancy and Life Safety

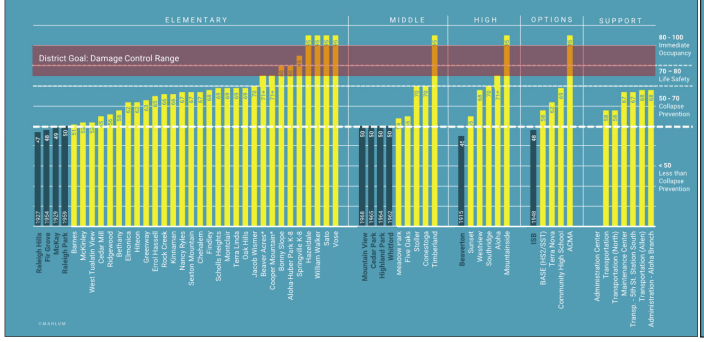
Life Safety
> Significant damage to the structure will occur but some margin against partial or total collapse will remain
> Some structural elements will be severely damaged, but this damage will not result in large falling debris hazards, either inside or outside the building
> Injuries might occur during the earthquake; however, the overall risk of life-threatening injury as a result of structural damage is expected to be low
> It should be possible to repair the structure; however, for economic reasons, this repair might not be practical
> Although the damaged structure may not be an imminent collapse risk, it would be prudent to implement structural repairs or install temporary bracing before re-occupancy

Limited Safety Range
> Halfway between Life Safety and Collapse Prevention

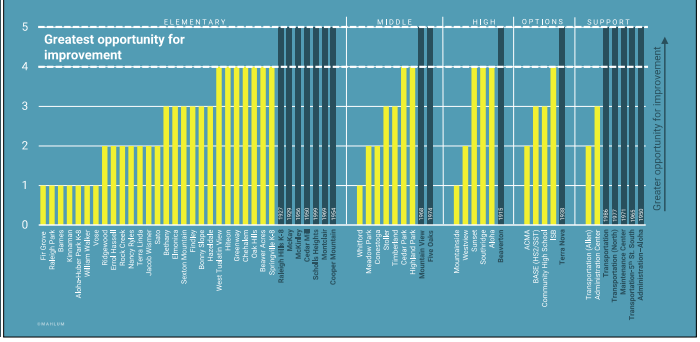
Collapse Prevention
> Little to no lateral strength or stiffness to resist lateral loads
> Large permanent drifts to the building where doors may not open
> Structural collapse possible in aftershock events thus not safe to occupy after event
> Cost to repair structure will likely outweigh demo/replacement

Less Than Collapse Prevention
> Possible partial or full collapse of structure
> Non-collapsed areas have minimal reserve capacity and significant residual drift
> Full structural collapse probable in aftershock or wind event
> Building will likely require full demo/rebuild

Seismic Condition



Energy Use Intensity (EUI)



Deferred Maintenance

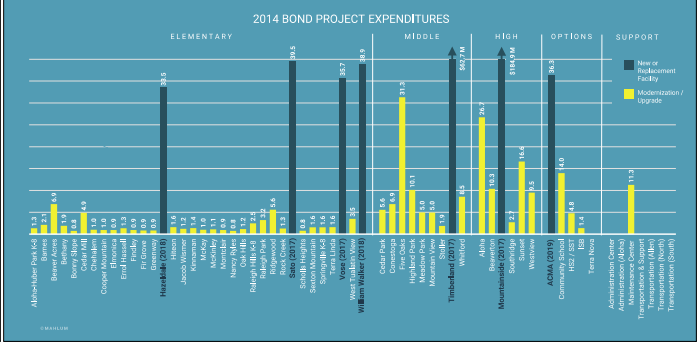
Total deferred maintenance need:
$610.1 M*

Includes:
> Structural, mechanical, electrical
> Exterior enclosure and interior finishes
> Commercial equipment / conveyance
> Fire and life safety
> Site work

** Includes seismic deficiencies (approximately $268 M)*

Building Name	1	2	3	4	5	6	7	8	9	10
Aloha-Huber Park K-8	$1,270,000	$1,270,000	$1,270,000	$1,270,000	$1,270,000	$1,270,000	$1,270,000	$1,270,000	$1,270,000	$1,270,000
Barnes	$2,100,000	$2,100,000	$2,100,000	$2,100,000	$2,100,000	$2,100,000	$2,100,000	$2,100,000	$2,100,000	$2,100,000
Beaverton High School	$17,400,000	$17,400,000	$17,400,000	$17,400,000	$17,400,000	$17,400,000	$17,400,000	$17,400,000	$17,400,000	$17,400,000
Bethany	$2,000,000	$2,000,000	$0	$2,000,000	$2,000,000	$2,000,000	$2,000,000	$2,000,000	$2,000,000	$2,000,000
Bonny Slope	$10,000	$0	$0	$10,000	$80,000	$0	$100,000	$10,000	$100,000	$100,000
Cedar Mill	$10,000,000	$10,000,000	$10,000,000	$10,000,000	$10,000,000	$10,000,000	$10,000,000	$10,000,000	$10,000,000	$10,000,000
Cedar Park	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Cooper Mountain	$12,400,000	$6,200,000	$6,200,000	$12,400,000	$12,400,000	$12,400,000	$12,400,000	$12,400,000	$12,400,000	$12,400,000
Corvallis	$12,400,000	$12,400,000	$12,400,000	$12,400,000	$12,400,000	$12,400,000	$12,400,000	$12,400,000	$12,400,000	$12,400,000
Creekside	$0	$43,281	$105,518	$108,181	$111,186	$114,566	$117,946	$121,326	$124,706	$127,086
Cumulative	$1,000,000	$1,043,281	$1,148,799	$1,256,980	$1,368,166	$1,482,732	$1,600,678	$1,722,004	$1,846,710	$1,973,796
Deer Creek	$2,000,000	$2,000,000	$2,000,000	$2,000,000	$2,000,000	$2,000,000	$2,000,000	$2,000,000	$2,000,000	$2,000,000
Deer Trail	$12,400,000	$12,400,000	$12,400,000	$12,400,000	$12,400,000	$12,400,000	$12,400,000	$12,400,000	$12,400,000	$12,400,000
Elmonica	$2,000,000	$2,000,000	$2,000,000	$2,000,000	$2,000,000	$2,000,000	$2,000,000	$2,000,000	$2,000,000	$2,000,000
Fanno	$0	$43,281	$105,518	$108,181	$111,186	$114,566	$117,946	$121,326	$124,706	$127,086
Fir Grove	$8,100,000	$8,100,000	$8,100,000	$8,100,000	$8,100,000	$8,100,000	$8,100,000	$8,100,000	$8,100,000	$8,100,000
Five Oaks	$1,400,000	$1,400,000	$1,400,000	$1,400,000	$1,400,000	$1,400,000	$1,400,000	$1,400,000	$1,400,000	$1,400,000
Florence	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Forest Hills	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Fox Chase	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Gaston	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Greenway	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Hazeldale	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Hiteon	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Hollyrood	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Jacob Wismer	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Kinnaman	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Lynn Ridge	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Mckay	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Mckinley	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Montclair	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Nancy Ryles	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Oak Hills	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Raleigh Hills K-8	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Ridgewood	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Rock Creek	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Sato	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Scholls Heights	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Seuton Mountain	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Springville K-8	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Stella Schulte	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Terra Linda	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Vista View	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Westgate	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Whitford	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Wonderland	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Administration Center	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Transportation (Alto)	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Transportation (Aloha)	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Transportation (North)	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Transportation (South)	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Yearly Total	$1,000,000	$1,043,281	$1,148,799	$1,256,980	$1,368,166	$1,482,732	$1,600,678	$1,722,004	$1,846,710	$1,973,796

Recent Capital Expenditures



Facility Condition
Take-Aways

> 5 facilities are more than 75 years old

> 13 facilities are in unsatisfactory condition (FCI >30%), indicating potential need for replacement

> 2/3 of facilities are below the goal of seismic life safety, including 10 facilities that are below collapse prevention

> 16 facilities have an EUI rating of 5, indicating the greatest opportunity for improvement

> District facility condition need is $610.1 M

7:40 – 7:50

Facility Condition: Any Questions?

> Is there anything about this information that strikes you?

> What do you see as positive? Negative?

> Are there additional needs that we haven't identified?

Identifying Need:

Capacity & Enrollment

District Overview

Third largest district in Oregon

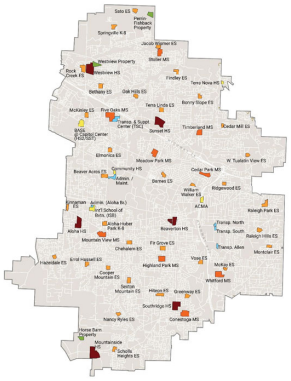
Over 41,000 students in grades K-12

18,611 elementary school students

9,721 middle school students

12,502 high school students

Option/alternative and pre-K programs



Planning Parameters

Existing Capacity
Reflects the number of available seats in a school for planning purposes, based on the existing number of classrooms, target class size, and utilization rate

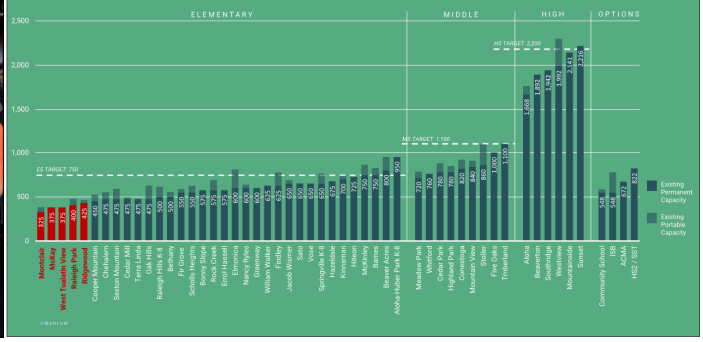
Target Class Size
25 (elementary) / 25 (middle) / 30 (high)

Utilization Rate
100% (elementary) / 80% (middle) / 83% (high)

Target Capacity
750 (elementary) / 1,100 (middle) / 2,200 (high)

Projected Enrollment
Estimated student enrollment through 2030-31, based on the 2019 PSU PRC forecast and adjusted for boundary changes, grade level changes, and a two-year extension

Existing Capacity: More than 60% Under Target Capacity



Enrollment Growth: Elementary

18,129 existing enrollment

17,043 projected enrollment (2030-31)

-6.0% enrollment reduction

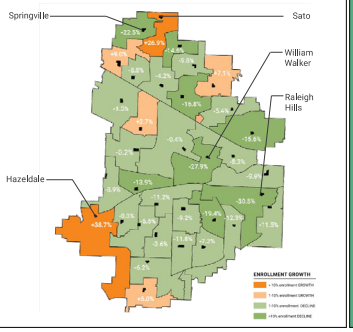
Total elementary level enrollment is declining districtwide.

Hazeldale is projected to have an enrollment increase of 38.7% and Sato is projected to have an enrollment increase of 26.9% by 2030-31.

Three elementary schools are projected to have an enrollment decline of more than 20% by 2030-31 (Springville, Raleigh Hills*, and William Walker).*

** Enrollment at Springville and Raleigh Hills reflects a reduction due to the change from K-8 to K-5.*

ELEMENTARY SCHOOLS
Projected Enrollment Growth Through 2030-31



Capacity & Enrollment: Elementary

19,550 / 21,488 permanent/total capacity

17,043 projected enrollment (2030-31)

2,507 (13%) remaining capacity

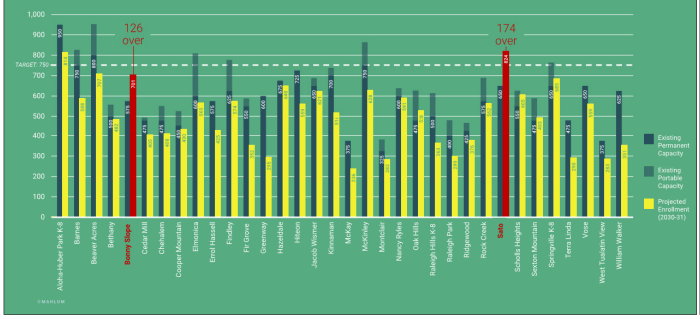
Total enrollment can be accommodated within existing capacity if school boundary or other enrollment adjustments are implemented.

Bonny Slope and Sato enrollments are projected to be more than 100 students over capacity by 2030-31.

Greenway and William Walker are projected to be more than 200 students under capacity by 2030-31.

ELEMENTARY SCHOOLS
Permanent Capacity & Projected Enrollment

Capacity & Enrollment: Projected Elementary Over-Enrollment (>30 Students per Classroom)



Capacity & Enrollment: Projected Elementary Under-Enrollment (>30% Below Capacity)

Enrollment Growth: Middle

7,656 existing enrollment

7,423 projected enrollment (2030-31)

-3.0% enrollment reduction

Total middle school level enrollment is declining districtwide.

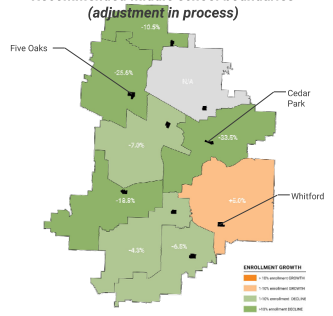
Whitford is projected to have an enrollment increase of 5% by 2030-31.

Cedar Park and Five Oaks are projected to have an enrollment decline of more than 30% by 2030-31.

** Timberland enrollment growth is not applicable because it is not currently functioning as a middle school (shown in gray)*

MIDDLE SCHOOLS
Projected Enrollment Growth Through 2030-31

Recommended middle school boundaries (adjustment in process)



Capacity & Enrollment: Middle

7,660 / 8,298 permanent/total capacity

7,423 projected enrollment (2030-31)

237 (3%) remaining capacity

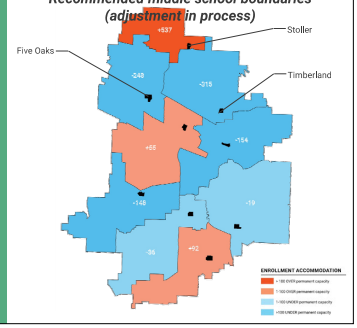
Total enrollment can be accommodated within existing capacity if school boundary or other enrollment adjustments are implemented.

Stoller enrollment is projected to be 537 students over capacity by 2030-31.

Five Oaks and Timberland are projected to be more than 200 students under capacity by 2030-31.

MIDDLE SCHOOLS
Permanent Capacity & Projected Enrollment

Recommended middle school boundaries (adjustment in process)



Enrollment Growth: High

10,740 existing enrollment

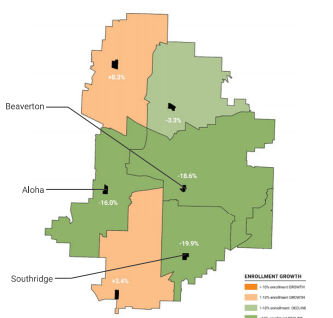
10,106 projected enrollment (2030-31)

-5.9% enrollment reduction

Total high school level enrollment is declining districtwide.

Three high schools are projected to have an enrollment decline of more than 15% by 2030-31 (Springville, Raleigh Hills*, and William Walker).*

HIGH SCHOOLS
Projected Enrollment Growth Through 2030-31



Capacity & Enrollment: High

11,852 / 12,253 permanent/total capacity

10,106 projected enrollment (2030-31)

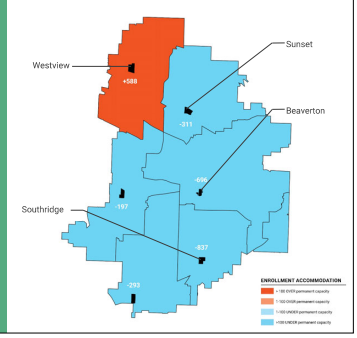
1,747 (15%) remaining capacity

Total enrollment can be accommodated within existing capacity if school boundary or other enrollment adjustments are implemented.

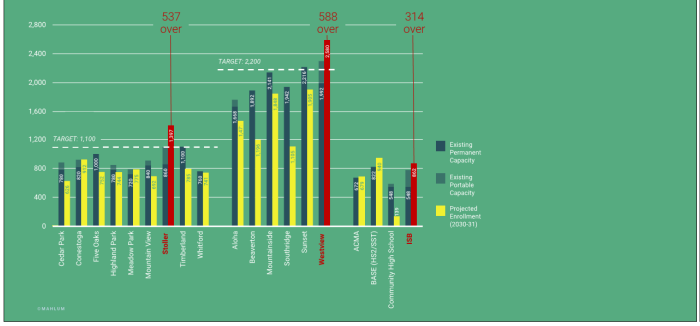
Westview enrollment is projected to be 588 students over capacity by 2030-31.

Three high schools are projected to be more than 300 students under capacity by 2030-31 (Beaverton, Southridge, and Sunset).

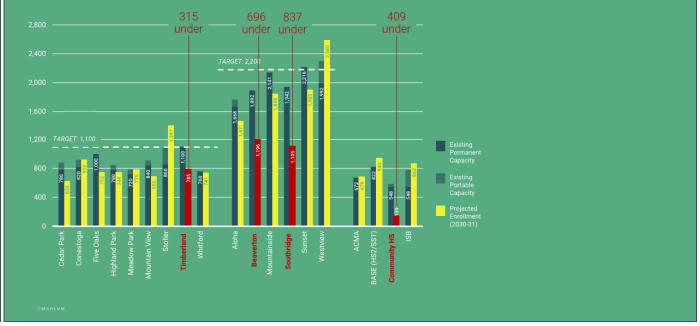
HIGH SCHOOLS
Permanent Capacity & Projected Enrollment



Capacity & Enrollment: Projected Middle & High Over-Enrollment (>30 (MS) / >35 (HS) Students per Classroom)



Capacity & Enrollment: Projected Middle & High Under-Enrollment (>30% Below Capacity)



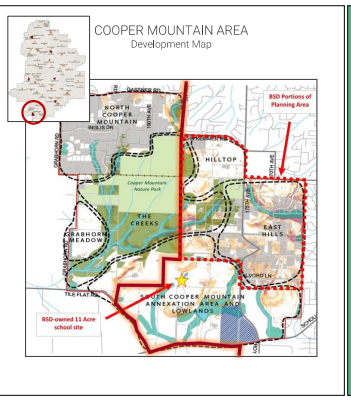
Cooper Mountain Development

Projected additional students due to development in the Cooper Mountain area:

539-719 elementary students

192 middle school students

173 high school students



Capacity & Enrollment

Take Aways

> 5 elementary schools are more than 60% below target capacity of 750

> Projected enrollment through 2030-31 is expected to decline overall at the elementary, middle, and high school levels, however there are several individual schools that are projected to have significant enrollment growth or decline

> Districtwide, there is existing capacity to accommodate the projected enrollment, however there are several individual schools that are projected to be significantly over- or under-enrolled

8:00 – 8:10

Capacity & Enrollment: Any Questions?

> Is there anything about this information that strikes you?

> What do you see as positive? Negative?

> Are there additional needs that we haven't identified?

General / Closing Questions

Discussion & Input

> Is there anything about this information that strikes you?

> What do you see as positive? Negative?

> Are there additional needs that we haven't identified?

Next Steps

Thank You!

mahlum

MEETING MINUTES

PROJECT:	Beaverton School District LRFP	**PROJECT NO:**	2019910.10
DATE:	16 December 2020	**FILE NAME:**	M002_FG2_201215
SUBJECT:	Focus Group Meeting 2: Preliminary Plans		
MEETING DATE:	15 December 2020	**TIME:**	6:30 – 8:30 PM
LOCATION:	Virtual (Zoom)		

ATTENDEES:	Kavin Buck	Focus Group
	Shellie Bailey-Shah	Focus Group
	Michelle Caspell Hill	Focus Group
	Jason Hohnbaum	Focus Group
	Brian Kennedy	Focus Group
	Brian Martin	Focus Group (City of Beaverton)
	Alfredo Moreno	Focus Group
	Angel Nunez	Focus Group
	Ken Rencher	Focus Group (Washington County)
	Abhijit Sathaye	Focus Group
	Eric Schmidt	Focus Group
	D. Raghav Shan	Focus Group
	Kimi Sloop	Focus Group
	Steven Sparks	BSD Executive Administrator for Long-Range Planning
	Joshua Gamez	BSD Chief Facilities Officer
	Aaron Boyle	BSD Administrator for Facilities Development
	Robert McCracken	BSD Facilities Planning Coordinator
	Carl Mead	BSD Deputy Superintendent for Operations and Support Svcs
	LeRoy Landers	Mahlum Architects
	Jennifer Lubin	Mahlum Architects
	Frank Angelo	Angelo Planning Group
COPY TO:		

The following represents the architect's understanding of discussions held and decisions reached in the meeting. Anyone with amendments to these minutes should notify the author within five (5) days of the minutes date in order to amend as appropriate.

Please refer to the Meeting 2 slide presentation and meeting recording, both of which can be found on the District website, for additional information regarding Meeting 2 content.

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ITEM	DISCUSSION
1.1	**Welcome Back & Review** This evening we will present preliminary proposals that represent staff recommendations for a plan, should the board decide to proceed with one. We are here to get a temperature check from you, the community, on these proposals. Thank you for coming back and committing your time to this effort. > Key prompts and questions are included in the google doc that was sent out last week. Please fill out the form to provide us with some measurable answers to pass on to other district stakeholders and inform the process. > LeRoy provided a brief review of the long-range facility plan process and the primary 'buckets' of need. This process is all about striking a balance between community capital support and district need.
1.2	**Bond History** Frank provided a broad overview of capital bonds in the district. > The most recent bond was passed in 2014. It was an outgrowth of a bond advisory committee and was based on the 2010 LRFP. > The 2014 bond was for $680 million, which at the time was the largest bond passed in the state of Oregon. The bond included several major replacement school projects, new schools, major renovations, and other district support. > The current status of district's bond debt is summarized in the chart shown, provided by Piper Sandler. In 2020, the rate is about $1.96 per $1,000 of assessed value (AV). This rate will reduce to around $1.60 per $1,000 AV in 2022 if it is not refilled. Focus Group Questions: > ***Is there a risk of compression with a tax increase, related to Measure 5 and 50?*** The District is not near the maximum mill rate, so it can be increased. It was noted that general obligation bonds are not subject to compression (only local option levy and permanent rate are subject). > ***BHS appears to continue to have significant needs but is listed as receiving major modernization at BHS under the 2014 bond. Why?*** The 2014 work was about $10M, distributed throughout the whole school, which doesn't really qualify as major modernization at such a large facility. It was also noted that the library and concessions were upgraded through donor funding, which gets lumped into the total amount listed. > ***Were there lessons learned from the 2014 bond about expenditures/overages that will be used this time around for planning?*** Yes, the lessons learned have definitely informed the way this current package of projects was put together. The district is doing more detailed early planning and cost estimating to develop the bond package, as well as using conservative numbers.
1.3	**Summary of District Need and Guiding Principles** LeRoy provide a brief review of the identified needs in the district, including educational program need, capacity/enrollment need, and facility condition need, as well as some additional support needs. Rough-order-of-magnitude estimates of cost were identified for known projects in each area of need. The guiding principles that the district is using to develop the long-range facility plan were also reviewed. Focus Group Questions: > ***It appears there are no proposals for new schools in the southwest or northwest parts of district. Is that correct?*** Yes, the plans do not propose any new capacity in terms of a new school. The 'Forward Stride' property was most recently acquired for a future elementary school. There is

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enough room in Hazeldale ES to accommodate growth in the Cooper Mountain area for the next 10 years. The district may come back at a future date (next plan) to add capacity in the southwest, but this area is not expected to have the kind of enrollment growth that has been seen in the Bethany area.

> ***Currently, not all of the Cooper Mountain area is within the Beaverton School District. Is there a long-term discussion to switch the boundary?*** No, the boundary will remain where it is (the western part is in the Hillsboro School District).

1.4 Long-Range Facility Plan Proposals

LeRoy described the two proposed long-range plan options, the projects and estimated costs included in each, and the rationale for each project:

Option 1: ~$325M (Maintains existing tax rate and has four-year bond program timeframe.)

> Facility replacement projects totaling $75M, including Raleigh Hills Elementary School, Allen Street Transportation Facility, and BHS (planning only-design and entitlements).
> Facility condition upgrades totaling $151M, including deferred maintenance, school modernization, seismic upgrades, security upgrades and nutrition services upgrades.
> Capacity and enrollment upgrades of $10M, including classroom and gymnasium additions.
> Other support totaling $49M, including technology, school office replacement, bus replacements, and critical equipment.

Option 2: ~$725M (Increases tax rate by $0.25 per $1,000 AV and has a seven-year bond program timeframe. This amount approximates the previous 2014 bond level (which was $680M). For someone who has a home with an assessed value of $300,000, it would increase about $6.25 per month.)

> Facility replacement projects totaling $324M, including Raleigh Hills Elementary School, Allen Street Transportation Facility, BHS (full replacement), and planning for a new elementary school to replace Cedar Mill and West Tualatin View.
> Facility condition upgrades totaling $207M, including deferred maintenance, school modernization, seismic upgrades, security upgrades and nutrition services upgrades.
> Capacity and enrollment upgrades of $15M, including classroom and gymnasium additions.
> Other support totaling $85M, including technology, school office replacement, bus replacements, and critical equipment.

Focus Group Questions:

> ***Are educational program needs included or omitted in either of these plans?*** They are not specifically included in either of the plans. The leadership team is relying on the Teaching and Learning department to define their needs. Some information was provided regarding needs for special education and preschool programs. Part of the problem with new preschool programming is understanding the demand for it.
> ***Is the special education stand-alone facility (for students who are currently transported out of district) included in either of the plans?*** No, but the district is currently doing a cost-benefit analysis of options for this program. There may be a middle school that can be repurposed for this use.
> ***Considerations that stand out to me are seismic upgrades and the expectation to meet requirements by 2032. Are there other projects that were on the table that really need to be done by 2032 to meet that mark?*** The district has evaluated our needs and have covered the highest needs in Plan Option 2. We have presented what is needed from a facilities point of view. Aaron noted that while the plan addresses most of the needs, some areas will not be fully

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up to the desired standards, including Sunset High School, but they do not have the same level of need as Beaverton High School or Raleigh Hills.

> ***How does the deferred maintenance work affect the overall FCI ratings of the schools, particularly those that are critical?*** Aaron explained that FCI scores are a reflection of the cost to repair deficiencies as a ratio to the cost of facility replacement. LeRoy noted that repairs are going to impact the rolling tally of FCI scores: scores improve when facility improvements are made. Repairs have been prioritized to address the highest need each year.

1.5 Focus Group Input

The group was asked to consider and discuss a number of targeted questions related to the plan options. Questions included: What, if anything, strikes you about the plans? What do you see as positive or negative? Is there anything missing from the list or anything that shouldn't be there? Which plan would you and your community most support?

Abhijit: The district needs to focus on whether we are spending money in the right place and the right time. There don't appear to be any line items for educational programs. Macro-level signals should inform the planning, including that the district will have excess capacity in 2030. Looking at Raleigh Hills specifically, there are five schools around it that have room to absorb Raleigh Hills enrollment. Can this problem be solved by boundary adjustment rather than replacing the school? Improving Title 1 schools should be a priority, along with providing funding for educational program needs. Adding classroom additions to existing schools is also questionable for the same reason. Steve noted that the district can work on balancing enrollment through boundary adjustments, however the Raleigh Hills facility is in desperate need of being replaced. The plan may include combining/consolidating schools as well, which is a decision for later on. These considerations must be a component of the long-range plan. Ultimately the Board will decide which way to go.

Brian K: One thing that helped the 2014 bond be successful was how much projects were spread around the district. Plan Option 1 probably isn't ambition enough, even though not raising taxes is an advantage. I don't think it goes far enough: some communities that were looking for investment are not going to get it for many years. Option 2 addresses more of these concerns. The community is conditioned to accept that bond amounts are large, and Option 2 is small relative to the recent PPS bond. Mountainview High School was not estimated accurately for 2014 bond, and the number for Beaverton High School seems much more accurate, which is smart. Other 2014 bond projects were not significantly over budget.

D. Raghav: I agree with Brian's assessment that Option 1 does not go far enough, especially looking at the level of need that was shown in the first meeting's presentation. I would propose Option 2. However, thinking about where we are (in the middle of a pandemic), it seems like a hard sell in general. What is the process and when would it be put forth to the community? Steve noted that the district needs to acknowledge the pandemic and iffy economic outlook. These are issues that the Board is going to have to consider before deciding to go forward with a bond. The Board may consider a bond measure as soon as November 2021, but they are not tied to that. PPS and Newberg did pass substantial bond measures in Nov 2020 during the pandemic, but other districts were not successful.

Michelle: I agree with Abhijit's thoughts on boundaries. It is interesting that it was assumed that boundaries stay the same in these plan options. I think this community would like to see things being done by the district other than asking for money. However, I agree that we need the plan that is the size of Option 2.

Eric: Option 1 is just like a band-aid, while Option 2 offers a lot of return on investment. Deferred maintenance is a no-brainer, especially for retired folks who don't have children in the district. Any

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bond is going to be a real sales job for the district. Maybe November 2021 is not the best time. 2020 was a presidential election and had a huge turnout, so maybe May 2022 would be better, as there will be a primary then. Timing is everything and so is marketing.

Angel: What is the difference between a four-year and seven-year bond program timeframe? Josh and Aaron noted that it is an estimate of how long the district needs to complete the projects. Currently, the district can't manage more than about $100M of work per year with the existing infrastructure and staff. After the timeframe ends, the district would have to go out for another bond. Therefore, Option 1 is preferred, so we can see where we are at in four years (gives buffer time).

Alfredo: The equity impact of Option 2 (replacing two schools with 40-50% free/reduced lunch student population) should resonate well with our community, in my opinion. Especially with Beaverton High School as the centerpiece, which is the historic flagship of the district.

Kavin: I am leaning toward Option 2. It's all about marketing and getting the word out early and clearly in terms of communicating the needs of the district.

Brian M.: As a city representative, I have no opinion about Option 1 or 2. However, I would like to note that we are going to be required by the state to allow "middle housing" (duplexes, townhomes, etc.) in residential neighborhoods, and nobody really knows what that means for population growth. I would like to be helpful in identifying any hurdles when the district starts to narrow in on projects. Please look at the Beaverton Housing Options Project (www.beavertonoregon.gov/HOP) for more information and to get involved.

Ken: From a Washington County perspective, we are looking at where we might see the additional units coming in. My rough guess is that it may not be that big of an impact in the near-term. The changes will begin to be implemented over the next couple of years but may be offset by birthrates continuing to fall (at record lows now). I recommend dramatically overestimating transportation costs for all of the bond projects. Transportation costs are typically more expensive that what is planned and there are currently a lot of needs in the area. The County doesn't have a position on Option 1 or 2 but would support options that are flexible to allow for dealing with other challenges. The facility condition number of $610M is a big number; maybe the bond should be higher than Option 2? $0.30 per $1,000 might allow more projects to be done at a significant level.

Kimi: Combining smaller/under capacity schools is an emotional issue for people. I think Option 2 is an easier sell (planning for elementary school replacement only). It gives people more time to get their heads around the concept.

1.7 Closing Questions & Next Steps

- Thank you to everyone for attending and contributing, and for Abhijit, Kimi, and Eric for emailing their specific questions and concerns. The next step in this process is to communicate with the broader public, to educate everyone about what we are doing.
- If possible, please go to the google doc and answer the questions. As a community member, we are interested in you thinking of them in the context of need and from a political standpoint. Are there things that could end up on a plan that would be difficult for political reasons, and the reverse?
- All of you will be getting the calendar of outreach events, so please tell your friends and encourage them to check it out. Steve will also be sending regular updates about what is going on. We want to keep you engaged and continue to receive your feedback.
- Please attend the final focus group meeting in March, after the broader community outreach.

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Beaverton School District

Long-Range Facility Plan
FOCUS GROUP MEETING 2

15 December 2020

BEAVERTON SCHOOL DISTRICT

Agenda

Welcome Back & Review	6:30 – 6:40
Bond History	6:40 – 6:50
Summary of District Need	6:50 – 7:00
Plan Proposals & Rationale	7:00 – 7:30
Focus Group Input	7:30 – 8:20
Questions & Next Steps	8:20 – 8:30

Goals for this Evening

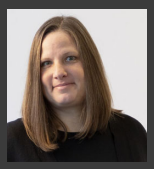
- High-level review of bond history and district need
- Understand preliminary long-range plan options and rationale
- Focus Group feedback on the plans

Welcome Back & Review

Planning Team

LeRoy Landers AIA
Mahlum

Frank Angelo
Angelo Planning Group



Jennifer Lubin AIA
Mahlum

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District Leadership Team

Steven Sparks
Executive Administrator for Long Range Planning

Joshua Gamez
Chief Facilities Officer

Aaron Boyle
Administrator for Facilities Development

Robert McCracken
Facilities Planning Coordinator

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Focus Group Members

Kavin Buck
Raleigh Park ES / Whitford MS / Beaverton HS Parent

Michelle Caspell Hill
International School of Beaverton Parent

Jason Hohnbaum
McKay ES / Conestoga MS / Southridge HS Parent

Brian Kennedy
Cedar Mill ES / Meadow Park MS / Sunset HS Parent

Brian Martin
City of Beaverton, Community Development Dept.

Alfredo Moreno
Arco Iris Parent

Angel Nunez
Aloha Huber K-8 / Five Oaks MS / Sunset HS Parent

Abhijit Sathaye
Findley ES / Timberland MS / Sunset Parent

Eric Schmidt
Cooper Mountain ES / Mountain View MS / Aloha HS Parent

D. Raghav Shan
Springville K-8 / Stoller MS / Westview HS Parent

Kimi Sloop
West TV ES / Cedar Park MS / Beaverton HS Parent

Ken Rencher
Washington County, DLUT

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Focus Group Meetings

Meeting 1: District Need
November 17, 2020, 6:30 – 8:30 PM

● Meeting 2: Preliminary Plan
December 15, 2020, 6:30 – 8:30 PM

Meeting 3: Outreach Review / Final Plan
March 8, 2021, 6:30 – 8:30 PM

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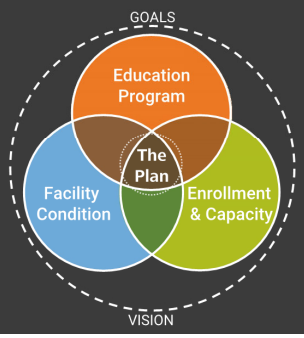
What should an LRFP consider?



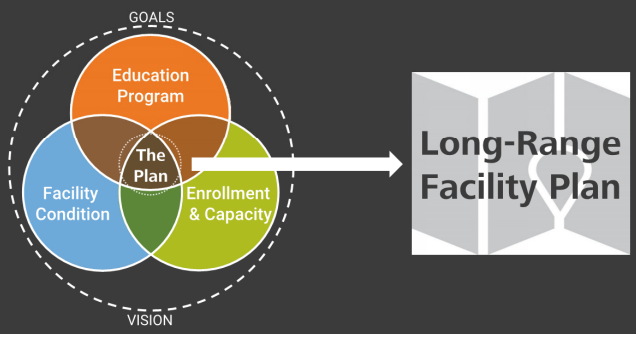
Vision & Goals
Strategic Plan
Committee Goals

Education Program
Education Specification
Kindergarten / Pre-K
PE / Athletics / Fields
STEM | STEAM
Special Education
College & Career Readiness
Technology
Target Capacities

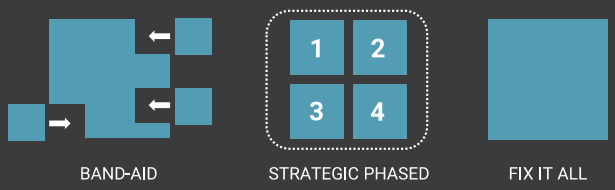
Enrollment & Capacity
Growth
Utilization
Boundaries
Consolidation

Facility Condition
Health and Safety
Accessibility (ADA)
Infrastructure
Sustainability / Resilience
Life Expectancy
Academic Suitability

What should an LRFP consider?



Plan Development



Plan Development

Capital Bonds 101

> BSD has historically used General Obligation Bonds as method of financing for most of its capital construction

> GO Bonds are a municipal debt security issued by the District and are backed by the full faith and credit of the District

> They are used to finance capital expenditures and are supported by a voter approved property tax levy

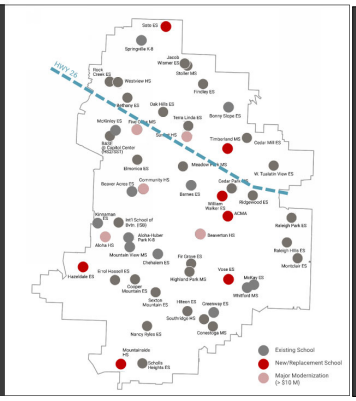
> Bonds can be issued for land acquisition, construction, new schools, renovation or improvement of school facilities and equipment intrinsic to the facility

> Bond duration averages 25 years

2014 Bond: $680 M

Educational Program: $80.0 M
Enrollment & Capacity: $188.6 M
Facility Condition: $98.0 M
> Replacement Schools: $102.3 M
> Modernizations: $85.9 M
Other Support: $125.2 M

** Dollars per category are approximate and reflect the original allocated bond amounts*



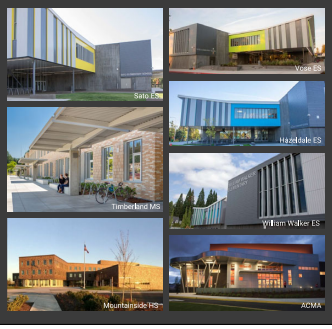
2014 Bond: New/Replacement School Projects

Elementary School
> Sato (2017)
> Vose (2017)
> Hazeldale (2018)
> William Walker (2018)

Middle School
> Timberland (2017)

High School
> Mountainside (2017)

Option / Alternative School
> ACMA (2019)



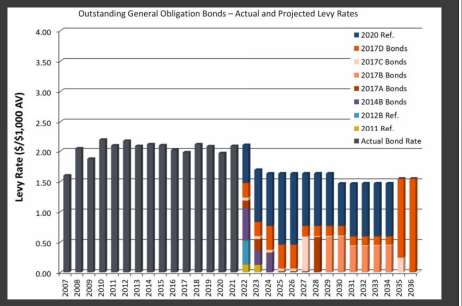
District Bond Debt

Step-down in the tax rate occurs in 2023

Two plan options with different approaches regarding the 2023 step-down:

> Maintain current tax rate

> Increase tax rate



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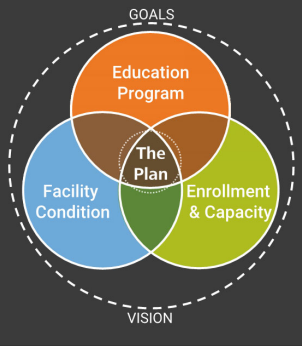
6:45 – 6:50

Bond History: Any Questions?

Summary of District Need

Three 'Buckets' of Need



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Educational Program Need

> There are known areas of facility improvement to support program goals (Special Education, Early Childhood Education, Physical Education, District Support, remove portables, other program adjustments)

> Every decision should be looked at through the lens of equity

> There are numerous schools at elementary and high school levels that are significantly below square footage targets identified in district educational specifications

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Educational Program Need: Known Line Items & Assumptions

Districtwide Educational Adequacy: $260.2 M
Increase building area to the target SF/student at all school facilities

Special Education: $99.7 M + $21.9 M
Special education facility additions at 12[1] elementary, 7 middle, and 3 high schools to align with district standards + New or modernized stand-alone special education facility ($14.4 M - $21.9 M)

Early Childhood Education: $13.6 M
Preschool classroom and support additions at 8[1] elementary schools to provide preschool at all Title I schools

Physical Education: $61.6 M
Gymnasium or multipurpose room additions at 14 elementary, 2 middle, and 1 option school (20 total PE teaching stations) to meet state PE requirements *(estimated number, assumptions to be confirmed)*

Remove Portable Classrooms: $66.9 M
Remove all (175) portable classrooms and replace with permanent classrooms where capacity is needed (~72 classrooms)

Costs are rough-order-of-magnitude estimates, including soft costs and escalated to 2024.
[1] Raleigh Hills ES not included in costs (assume replacement).

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Facility Condition Need

> 5 facilities are more than 75 years old

> 13 facilities are in unsatisfactory condition (FCI >30%), indicating potential need for replacement (Raleigh Hills K-8 is the worst, followed by ISB, then a tie between Cedar Mills ES, Terra Nova, and Transportation South)

> 2/3 of facilities are below the goal of seismic life safety, including 10 facilities that are below collapse prevention

> 16 facilities have an EUI rating of 5, indicating the greatest opportunity for improvement

> District facility condition need is $610.1 M

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Facility Condition Need: Known Line Items & Assumptions

Deferred Maintenance: $610.1 M
Repair and upgrade projects at all facilities (except new ones), based on recently completed Facility Conditions Assessment (FCA) findings.

Seismic Upgrades: ~$268 M
Seismic upgrades to district target level for all school facilities built before 2009[1]

Security Upgrades: $12.0 M (known upgrades)
Addition of cameras, fences, and other security measures at various schools districtwide

Nutrition Services: $5.0 M (known upgrades)
Upgrades to school kitchens at various schools districtwide

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[1] Raleigh Hills ES not included in costs (assume replacement).

Capacity & Enrollment Need

- 5 elementary schools are more than 60% below target capacity of 750
- Projected enrollment through 2030-31 is expected to decline overall at the elementary, middle, and high school levels, however there are several individual schools that are projected to have significant enrollment growth or decline
- Districtwide, there is existing capacity to accommodate the projected enrollment, however there are several individual schools that are projected to be significantly over- or under-enrolled

Capacity & Enrollment Need: Known Line Items & Assumptions *

Add Classroom and Gymnasium Capacity: $10.0 M
Add additional classrooms at Sato ES and Stoller MS, and an additional gymnasium at Stoller MS, to accommodate enrollment

Add Classroom Capacity: $5.0 M
Add additional classrooms at Oak Hills ES to accommodate enrollment (remove portables)

** Reflects managing enrollment within specific school boundaries*

Other Support Need: Known Line Items & Assumptions

Technology: $53.0 M (lump sum)
Student devices and infrastructure districtwide

Bus Replacement: $14.0 M (lump sum)
Continue $2.0 M per year replacement cycle

Critical Equipment: $8.0 M (lump sum)
Maintenance equipment, athletic equipment, and copiers districtwide

School Office Relocation: $10.0 M (known upgrades)
Office relocations to improve security at Aloha HS, Westview HS, and Cooper Mountain ES

LRFP Guiding Principles

WE EXPECT EXCELLENCE

Strategically plan for the **maintenance, modernization and replacement** of facilities.

Plan for facility needs to **meet all state regulatory requirements**.

Maintain investment in current facilities by addressing unfunded maintenance needs.

Where significant investment is required to renovate and upgrade existing facilities (greater than 75% replacement cost) **consider the cost / benefits of replacement**.

Address all **addition and expansion needs** in existing facilities throughout the district.

LRFP Guiding Principles

WE INNOVATE

Update educational specifications to reflect the **evolving needs** of pedagogical practices.

Provide **flexible school facilities** that foster creativity in teaching and support the evolution of high-quality education.

Incorporate **sustainability, energy efficiency and maintenance** into the facility planning process.

LRFP Guiding Principles

WE EMBRACE EQUITY

Consider facility planning decisions through an **equity lens**.

Create greater **parity** across facilities.

Plan for **upgrades / improvements**.

LRFP Guiding Principles

WE COLLABORATE

Collaboratively plan for future facility needs driven by community, demographic and pedagogical change.

Provide **community amenities** and support partnerships with other local agencies and service providers.

6:55 – 7:00

District Need: Any Questions?

Long-Range Facility Plan Proposals

Assumptions

PLAN OPTION 1: No Tax Rate Increase

> Maintain current tax rate
> Bond amount of ~$325 M
> Four-year bond program timeframe

PLAN OPTION 2: $0.25 Tax Rate Increase

> Increases current tax rate by $0.25 per $1,000 of assessed value
> Bond amount of ~$725 M
> Seven-year bond program timeframe

PLAN OPTION 1: No Tax Rate Increase

FACILITY REPLACEMENT	$75.0 M
Raleigh Hills ES Replacement	$44.0 M[1]
Allen St. Transportation Replacement	$11.0 M
BHS Replacement (Planning & Design)	$20.0 M

FACILITY CONDITION	$151.0 M
Deferred Maintenance	$110.0 M
School Modernization	$10.0 M
Seismic Upgrades	$20.0 M
Security Upgrades	$6.0 M
Nutrition Services Upgrades	$5.0 M

CAPACITY & ENROLLMENT	$10.0 M
Classroom & Gymnasium Additions	$10.0 M

OTHER SUPPORT	$49.0 M
Technology	$27.0 M
School Office Relocation	$10.0 M
Bus Replacements	$8.0 M
Critical Equipment	$4.0 M

Management/Bond Fees (8%)	$22.8 M
Contingency (10%)	$13.6 M

Option 1 Total: $321.4 M

NOTES
[1] Cost assumes an additional $11.8 M is provided from 2014 bond funds
Costs are rough-order-of-magnitude project cost estimates

PLAN OPTION 1: No Tax Rate Increase

Facility Replacement

Raleigh Hills Elementary School: $44.0 M*

Replace existing Raleigh Hills with new elementary school for 750 students.

Why:

> Highest (worst) FCI score in the district (0.41 – Critical Condition)
> One of the oldest facilities in the district (93 years old)
> One of four elementary schools with a seismic rating below collapse prevention
> EUI score of 5, with greatest opportunity to improve energy efficiency
> More than 40% of students are eligible for free/reduced lunch
> Existing school capacity is 250 below district target of 750
> Identified as the next priority in the 2014 bond plan

** Cost assumes an additional $11.8 M is provided from remaining 2014 bond funds*

PLAN OPTION 1: No Tax Rate Increase

Facility Replacement

Allen St. Transportation Facility: $11.0 M

Replace existing Allen Street transportation facility.

Why:

> One of the worst FCI scores in the District (0.33 – Critical Condition)
> Existing facility is more than 50 years old
> Repair bays are cramped and lack space to utilize modern technical repair aides
> 1/3rd of the hydraulic floor lifts are unusable due to leaks, failed parts, and excessive age and 2/3rds of the vehicle lifts lack safety stops to prevent unplanned retraction
> Technicians must use jack stands to prevent buses from lowering below safe working heights

PLAN OPTION 1: No Tax Rate Increase

Facility Upgrades

Deferred Maintenance: $110.0 M - $130.0 M

Repair and upgrade projects at all facilities (except new ones), based on recently completed Facility Conditions Assessment (FCA) findings. Building component types include roofing, HVAC, site, equipment, electrical, building envelope, interior finishes, fire and life safety, and conveyance.

Why:

> With 5.7M SF of building space, there is a significant need for ongoing repair and end-of-life replacement for all asset types
> These investments are too large to be covered by the general fund and are critical to ensure that buildings are operational
> FCA recommends $29.3M annually to maintain buildings in good condition; this falls short of that, but is a great improvement and will help extend building life
> The list of projects to be executed will be reviewed and prioritized by staff annually to ensure that critical needs are met and asset life is maximized

PLAN OPTION 1: No Tax Rate Increase

Facility Upgrades

School Modernization: $10.0 M - $30.0 M

Modernize schools to improve the learning environment, enhance student engagement, and improve health and behavior. Modernization includes improving aesthetics/condition of building materials (walls, hard floors, carpet), upgrading television and A/V equipment, ensuring sufficient lighting, improving natural lighting, and increasing square footage of classrooms and support spaces.

Why:

> Disparity in the quality of facilities in new/newer construction when compared to classrooms in older schools: some students are learning in old and outdated classrooms and facility inequities exist throughout the district
> District general funds are limited, not available for needed school modernization
> Research shows that students respond positively to modern learning environments: better grades, better attendance, and improved creativity

PLAN OPTION 1: No Tax Rate Increase

Facility Upgrades

Seismic Upgrades: $20.0 M - $30.0 M*

Seismic upgrades to district target level (damage control range) for worst performing buildings that are not anticipated to be replaced (facilities TBD, priorities are Whitford MS, Highland Park MS, Cedar Park MS, Mountain View MS).

Why:

> Safety is a District priority
> District goal is to construct new facilities to "Immediate Occupancy" and to incrementally upgrade existing facilities to "Life Safety"
> 2017 Oregon Revised Statute (ORS) 455.400: "Subject to available funding, all seismic rehabilitations or other actions to reduce seismic risk must be completed before January 1, 2032."

** Need is $40M+; will pursue grants for additional funding*

PLAN OPTION 1: No Tax Rate Increase

Facility Upgrades

Security Upgrades: $6.0 M - $12.0 M

Cameras, fencing, and access control upgrades at various schools.

Why:

- Interior camera upgrades will provide coverage fill-in to ensure potential areas of risk are covered and exterior cameras will improve coverage in high-traffic areas
- New, replaced, or repaired fencing will minimize security risks and areas of vulnerability
- Secondary level access control at high schools and middle schools will improve functionality of ingress/egress and interior building security

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PLAN OPTION 1: No Tax Rate Increase

Facility Upgrades

Nutrition Services Upgrades: $5.0 M

Various projects throughout the District, including electrical and equipment upgrades at 11 sites, water fountain installation at 25 sites, service line remodels at Westview HS and Community HS, freezer capacity additions, full kitchen remodel at Beaver Acres ES, and cafeteria expansion at Barnes ES.

Why:

- Address kitchen safety issues and improve efficiency at second largest elementary school (kitchen remodel at Beaver Acres ES)
- Reduce number of lunches and increase instructional time (cafeteria expansion at Barnes ES)
- Streamline service, upgrade equipment, and increase food storage capacity

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PLAN OPTION 1: No Tax Rate Increase

Facility Addition

Classroom & Gymnasium Additions: $10.0 M - $15.0 M

Add additional classrooms at Sato ES and Stoller MS, plus a new gymnasium at Stoller MS ($10M). Add classrooms at Oak Hills ES to replace portables ($5M).

Why:

- Accommodate enrollment at specific school facilities
- Maintain classrooms sizes that are appropriate for the school level
- Maintain current student body composition
- Address State of Oregon physical education requirements by adding a gymnasium (Stoller MS)
- Accommodate early learning programming (Sato ES)

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PLAN OPTION 1: No Tax Rate Increase

FACILITY REPLACEMENT	$75.0 M
Raleigh Hills ES Replacement	$44.0 M [1]
Allen St. Transportation Replacement	$11.0 M
BHS Replacement (Planning & Design)	$20.0 M
FACILITY CONDITION	**$151.0 M**
Deferred Maintenance	$110.0 M
School Modernization	$10.0 M
Seismic Upgrades	$20.0 M
Security Upgrades	$6.0 M
Nutrition Services Upgrades	$5.0 M

CAPACITY & ENROLLMENT	$10.0 M
Classroom & Gymnasium Additions	$10.0 M
OTHER SUPPORT	**$49.0 M**
Technology	$27.0 M
School Office Relocation	$10.0 M
Bus Replacements	$8.0 M
Critical Equipment	$4.0 M
Management/Bond Fees (8%)	$22.8 M
Contingency (10%)	$13.6 M

Option 1 Total: $321.4 M

NOTES
[1] Cost assumes an additional $11.8 M is provided from 2014 bond funds
Costs are rough-order-of-magnitude project cost estimates

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PLAN OPTION 2: $0.25 Tax Rate Increase

FACILITY CONDITION: REPLACEMENT	$324.0 M
Raleigh Hills ES Replacement	$44.0 M [1]
Allen St. Transportation Replacement	$11.0 M
BHS Replacement	**$266.0 M**
ES Replacement (Planning & Design)	**$3.0 M [2]**
FACILITY CONDITION: MODERNIZATION	**$207.0 M**
Deferred Maintenance	$130.0 M
School Modernization	$30.0 M
Seismic Upgrades	$30.0 M
Security Upgrades	$12.0 M
Nutrition Services Upgrades	$5.0 M

CAPACITY & ENROLLMENT	$15.0 M
Classroom & Gymnasium Additions	$15.0 M
OTHER SUPPORT	**$85.0 M**
Technology	$53.0 M
School Office Relocation	$10.0 M
Bus Replacements	$14.0 M
Critical Equipment	$8.0 M
Management/Bond Fees (8%)	$50.5 M
Contingency (10%)	$42.6 M

Option 2 Total: $724.1 M

NOTES
[1] Cost assumes an additional $11.8 M is provided from 2014 bond funds
[2] Alternate version of Option 2 includes full ES Replacement at $52.0 M and reductions in other areas (tech, equip, security, seismic, etc.)
Costs are rough-order-of-magnitude project cost estimates

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PLAN OPTION 2: $0.25 Tax Rate Increase

Facility Replacement

Beaverton High School: $266.0 M

Replace existing Beaverton High School with a new high school for 2,200 students.

Why:

- One of the highest (worst) FCI scores in the district (0.34 – Critical Condition)
- Majority of existing building is 105 years old
- Only high school with a seismic rating below "Collapse Prevention"
- EUI score of 5, with greatest opportunity to improve energy efficiency
- 51% of students are eligible for free/reduced lunch

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PLAN OPTION 2: $0.25 Tax Rate Increase

Facility Replacement

ES Replacement: $3.0 M (Plan/Design) *or* $52.0 M (Full Replacement)

Replace existing Cedar Mill and West Tualatin View elementary schools with one new elementary school for 750 students.

Why:

- High (worst) FCI scores in the district (Cedar Mill–0.35, West Tualatin View–0.31)
- Existing school capacities are more than 60% below district target size of 750 (Cedar Mill has a capacity of 275, West Tualatin View has a capacity of 375)
- Both are substantially below the district's seismic target of "Immediate Occupancy"
- Cedar Mill has an EUI score of 5 (greatest opportunity to improve energy efficiency)
- Approximately 11% of combined student body is eligible for free/reduced lunch

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PLAN OPTION 2: $0.25 Tax Rate Increase

FACILITY CONDITION: REPLACEMENT	$324.0 M
Raleigh Hills ES Replacement	$44.0 M [1]
Allen St. Transportation Replacement	$11.0 M
BHS Replacement	**$266.0 M**
ES Replacement (Planning & Design)	**$3.0 M [2]**
FACILITY CONDITION: MODERNIZATION	**$207.0 M**
Deferred Maintenance	$130.0 M
School Modernization	$30.0 M
Seismic Upgrades	$30.0 M
Security Upgrades	$12.0 M
Nutrition Services Upgrades	$5.0 M

CAPACITY & ENROLLMENT	$15.0 M
Classroom & Gymnasium Additions	$15.0 M
OTHER SUPPORT	**$85.0 M**
Technology	$53.0 M
School Office Relocation	$10.0 M
Bus Replacements	$14.0 M
Critical Equipment	$8.0 M
Management/Bond Fees (8%)	$50.5 M
Contingency (10%)	$42.6 M

Option 2 Total: $724.1 M

NOTES
[1] Cost assumes an additional $11.8 M is provided from 2014 bond funds
[2] Alternate version of Option 2 includes full ES Replacement at $52.0 M and reductions in other areas (tech, equip, security, seismic, etc.)
Costs are rough-order-of-magnitude project cost estimates

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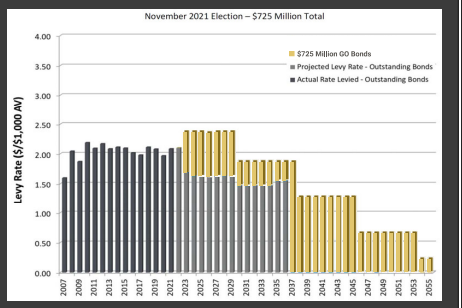
PLAN OPTION 2: $0.25 Tax Rate Increase

> $0.25 per $1,000 AV tax rate increase

> Yields ~$725 M

> 7-year step-down



Bond Plan Options: Comparison

PROJECT	OPTION 1	OPTION 2
Raleigh Hills ES Replacement	$44.0 M [1]	$44.0 M
Allen St. Transportation Replacement	$11.0 M	$11.0 M
BHS Replacement	$20.0 M [2]	$266.0 M
ES Replacement (Planning & Design)	–	$3.0 M [3]
Deferred Maintenance	$110.0 M	$130.0 M
School Modernization	$10.0 M	$30.0 M
Seismic Upgrades	$20.0 M	$30.0 M
Security Upgrades	$6.0 M	$12.0 M
Nutrition Services Upgrades	$5.0 M	$5.0 M
Classroom & Gymnasium Additions	$10.0 M	$15.0 M
Technology	$27.0 M	$57.2 M
School Office Relocation	$10.0 M	$10.0 M
Bus Replacements	$8.0 M	$14.0 M
Critical Equipment	$4.0 M	$8.0 M
Management/Bond Fees (8%)	*$22.8 M*	*$50.5 M*
Contingency (10%)	*$13.6 M*	*$42.6 M*
TOTAL BOND AMOUNT	**$321.4 M**	**$724.1 M**

NOTES

[1] Cost assumes an additional $11.8 M is provided from 2014 bond funds

[2] BHS Planning & Design only

[3] Alternate version of Option 2 includes full ES Replacement at $52.0 M and reductions in other areas (tech., equip, security, seismic, etc.)

** Costs are rough-order-of-magnitude project costs*

Focus Group Input

> Based on your understanding of district need, should the district consider a bond measure?

> What, if anything, strikes you about the plans?

> What do you see as positive? Negative?

> Is there anything missing from the list that should be there?

> Is there anything on the list that shouldn't be there?

> Which plan would you support? Which plan do you think your community would support?

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MEETING MINUTES

PROJECT:	Beaverton School District LRFP	**PROJECT NO:**	2019910.10
DATE:	09 March 2021	**FILE NAME:**	M003_FG3_210308
SUBJECT:	Focus Group Meeting 3: Feedback & Plan Review		
MEETING DATE:	08 March 2021	**TIME:**	6:30 – 8:30 PM
LOCATION:	Virtual (Zoom)		

ATTENDEES:	Kavin Buck	Focus Group
	Michelle Caspell Hill	Focus Group
	Brian Kennedy	Focus Group
	Brian Martin	Focus Group (City of Beaverton)
	Alfredo Moreno	Focus Group
	Angel Nunez	Focus Group
	Ken Rencher	Focus Group (Washington County)
	Abhijit Sathaye	Focus Group
	D. Raghav Shan	Focus Group
	Kimi Sloop	Focus Group
	Steven Sparks	BSD Executive Administrator for Long-Range Planning
	Joshua Gamez	BSD Chief Facilities Officer
	Aaron Boyle	BSD Administrator for Facilities Development
	Robert McCracken	BSD Facilities Planning Coordinator
	Carl Mead	BSD Deputy Superintendent for Operations and Support Svcs
	LeRoy Landers	Mahlum Architects
	Jennifer Lubin	Mahlum Architects
	Frank Angelo	Angelo Planning Group
COPY TO:	Shellie Bailey-Shah	Focus Group
	Jason Hohnbaum	Focus Group
	Eric Schmidt	Focus Group

The following represents the architect's understanding of discussions held and decisions reached in the meeting. Anyone with amendments to these minutes should notify the author within five (5) days of the minutes date in order to amend as appropriate.

Please refer to the Meeting 3 slide presentation and meeting recording, both of which can be found on the District website, for additional information regarding Meeting 3 content.

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ITEM	DISCUSSION
1.1	**Welcome Back** Steve provided an update on the process. The District has participated in over 40 meetings in the community and has gone to as many different groups as possible. A survey has also been released and has had over 1,000 responses. The process has been very informative and the plan options have been adjusted, based on feedback received. LeRoy reviewed the agenda for the evening, including a review of district goals and needs and a summary of the feedback that has been received. The team appreciates all of the emails and detailed feedback that has been received from the focus group. It has all been reviewed and has informed the long-range facility plan. Finally, focus group members will be asked to participate in a live poll that includes the same questions that were asked in the public outreach sessions.
1.2	**Review of District Goals and Needs** LeRoy provided a high-level summary of the District's vision, goals, and the identified facility needs, including education program need, facility condition need, and enrollment and capacity need. > How can facilities improve learning within the community, specifically in the areas identified by the District in the Strategic Plan? > The District steering committee worked to develop a set of guiding principles that tie to the Strategic Plan and provide specific LRFP objectives. > There are many reasons that the District is undertaking a long-range facility plan at this time, including state requirements, planning ahead as current bonds expire, addressing maintenance and modernization needs that continue to grow, and identifying opportunities for efficiencies.
1.3	**Summary of Feedback** LeRoy provided an overview of input from focus group members and the broader community, including a very summarized list of key points that were provided by focus group members. Additional input at a much higher level is also being considered by the District committee.
1.4	**Updated Plan Proposals** LeRoy described the two updated proposed long-range plan options, the projects and estimated costs included in each, and the rationale for each project: > Option 1 is ~$325M and Option 2 is ~$725M. > New allocations for educational program components were added to both plan options, reflecting input from the focus group and community, with greater funding in Option 2. Areas include special education improvements, prekindergarten modifications, outdoor learning improvements (Option 2 only), and physical education/athletics additions. > The second allocation category, facility replacement, is based on facility condition. Raleigh Hills is being considered for replacement in both options, Beaverton High School is included in full in Option 2 and planning and design only in Option 1, and Allen St. Transportation Facility replacement is proposed in both options. The capacity of the Beaverton High School replacement was reduced from 2,200 to 1,500 students, with the capability to expand to 2,200 in the future. This adjustment was made to more accurately reflect projected enrollment needs and address feedback regarding school utilization. This change reduced the cost of the project, allowing increases in other areas while maintaining the same overall bond amount. > Modernization allocations, also based on facility condition, include deferred maintenance, school modernization, seismic upgrades, security upgrades, and nutrition services upgrades.

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Amounts vary between the two options, with larger amounts in Option 2 for all categories except nutrition services. Increases in the deferred maintenance, seismic, and security allocations in Option 2 reflect input from the focus group and community and will allow additional scope in these areas.

> Capacity and enrollment allocations include classroom additions to Sato ES and Stoller MS (Option 1), and additionally at Oak Hills ES in Option 2.

1.5 Discussion

> ***Are classroom additions at Sato going to be infilling the overhand like at Vose?*** The District has a preliminary design for additions to prototype schools that would be located under the overhang at Vose and Sato.

> ***Some buildings are likely to be replaced. Does this mean that the deferred maintenance will not be needed?*** The $610 amount reflects the total deferred maintenance backlog, not all of which is included in the bond plans. The amount included in the bond options is significantly less and has taken out the repair projects for facilities that are being replaced. ***What about schools that are planned to be closed or replaced in a future phase?*** The District would likely hold off on the seismic upgrades, but would likely continue to do some deferred maintenance, because there is still a need to keep buildings operational and safe, but try to be thoughtful about the investment. Having future bond funds is not guaranteed, so the District still needs to maintain buildings and utilize them efficiently. If we do rebuild Raleigh Hills, we will look at the surrounding schools that are also old, such as McKay, and may move some students to Raleigh Hills and some to Greenway, as part of the long-range plan option. Bonny Slope is over capacity but may be addressed by doing a boundary adjustment and shift kids to neighboring schools that have capacity, rather than add capacity at this school. This is part of the requirements of ORS 195.110.

> ***Is there anything from public feedback that is no longer in the plan options? Are the consolidations off the table?*** No feedback resulted in the removal of a project from the options, but the District did adjust money into different 'buckets,' such as adding more money into the seismic category. There was flexibility because the Beaverton HS budget was reduced due to reduced size of the school down to 1,500 students.

> ***If you build a new school, you save an amount of money on deferred maintenance. Does this include savings from consolidation from every school?*** No, the amount just reflects savings for the specific school.

> ***How many people attended the community forums?*** We know we only reached a small percentage of the voters in the District and a small number of people who have children in the District. However, this still tells us that we are going in the right direction and provides a wealth of feedback about what level of support people are comfortable with. Based on the feedback we received, the plan is supportable. Whether or not voters will approve a bond will involve far broader outreach and scientific polling.

> ***In both groups of input, it was discussed that boundary adjustments be used instead of additions, but it does not appear this is reflected in the options.*** As we write the plan document, we will talk about the potential role of boundary adjustments as a means to manage capacity and enrollment, including working hand-in-hand with specific plan strategies, such as the Raleigh Hills strategy discussed earlier. If the measure passes, then we will talk about potential for consolidation. At the end of this process, we still have empty capacity at the elementary level.

> ***Option 1 does not include the full replacement of BHS. Does that plan include more deferred maintenance for that school in that case?*** The priorities for deferred maintenance will be driven by the facility condition assessment. Therefore, BHS work will be prioritized against other

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schools. Given the age of BHS, there will likely be several projects for BHS in the Option 1 plan that will still occur in terms of deferred maintenance. The total amount in the bond is roughly a fifth of the total deferred maintenance. If BHS is not replaced, it is not the intent of the District to use the full amount allocated for deferred maintenance if it is not replaced. If it is replaced, there is an amount of high priority maintenance. The replacement strategies that are being proposed are intended to take facility maintenance off the books in the long term – a strategic and phased approach to dealing with maintenance needs districtwide.

> ***I'm in agreement with Option 2, and thinking about what kind of case the District can make to the community, with everything seen in the details and the priority on BHS. It is an important civic place, represents the historic character of our community, and reflects an investment in equity with that work. Considering the construction of Mountainside earlier, it would be an important step.***
> ***As we emerge from the pandemic, are improvements to HVAC, increased outdoor space, etc. more important to prioritize having in place in more facilities?*** That has been a common question in community meetings. Based on current guidance for HVAC, we know we have some schools that don't meet the requirements. If the current guidance continues, we will need to address these schools. Beyond that, our systems are relatively good. The District may look at specifying equipment and filters that are more effective and efficient in the future, so there are things to look at.
> ***The plan as laid out matches well with the priorities of the last bond and what the BAC laid out. Raleigh Hills was recommended to delay last time by the BAC and is in desperate need of replacement. The BAC has also been concerned with seismic issues and this is also reflected.***
> ***The plan options reflect a detailed and deep analysis and the materials seemed clear. Happy to help on the permitting or any city-related questions that come up.***
> The District is proceeding with design work for the Raleigh Hills replacement school and will be soliciting for design for that project. This will lead to working with the City and County on how to address our needs and the impacts, particularly on Scholls Ferry Road. It will be a complicated process and it is best to work with agencies from the start.
> ***BHS and RH are obviously needing a lot of work. It is nice to see these addressed in Option 2 and good to see support from the community so far. Why is Stoller MS overcrowded after recent completion of the boundary adjustment?*** It is important to understand we are using two different formulas for calculating capacity. The old version was based on buildings square footage and now we are calculating capacities based on classroom count.
> ***Does the reduced size of BHS mean a reduction in the number of programs at BHS and if so, will there be options for students to go elsewhere?*** A 1,500-student capacity will provide space for other types of classroom space, since only 1,200 to 1,300 students are projected. So full programming will be available, with the option to host supplementary programs.

1.6 Real-Time Polling

Input from the broader community has been limited but is still a useful tool to gauge support. The Focus Group was asked to consider the same questions.

1. Should the district consider implementing the next phase of the long-range facility plan by proposing a capital measure in 2021 or 2022? (Steve noted that the Board is now pretty clear that if they refer a bond it will be in 2022.)

> Yes, although economic outlook post pandemic might make this bad timing in 202.
> Yes. These investments are essential in ensuring that the District is able to provide a high-quality, equitable education experience to all students.
> Yes, the community prioritizes these types of investments and has shown it repeatedly.

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> Yes. Schools will keep depreciating over time, so we have to be proactive about having the funds to keep up with necessary maintenance.
> Yes, especially if it is replacing expiring bonds.
> Yes, with appropriate community education, it makes sense to address the significant needs in the district comprehensively.
> Yes. I like the 2022 date. The need is apparent and worth going after the higher bond value.

2. Of the two plans presented at this meeting, which would you support and why?

Option 1: $325M (renew expiring bond / no tax rate increase)
Option 2: $722M (tax rate increase of $0.25 per $1,000 of assessed value)

> Option 2. Voters in the region understand that school districts need significant investments in capital infrastructure. Also, Option 1 is too small for the challenges that the district is facing. Option 1 just defers investments into the future. The district can make a compelling case for a large investment around priorities that are broadly supported by the community.
> Option 2. It makes sense to address the significant needs in the district comprehensively. Option 1 does not go far enough.
> Option 2. The replacement of BHS is a significant factor. With the redevelopment happening in downtown Beaverton, it has the added benefit of supporting housing in the downtown.
> Option 2. The examples shown in the presentation make it clear that Option 2 will have greater benefit in the long run. I believe the District will be able to sell the community on the value of this to families in the District, and that the bond will therefore pass.
> Option 2. It has well-articulated explanations of what can be done with increased investment. The tax increase would be relatively small and, again, I think the majority of voters in this area prioritize investments in projects that address equity issues in facilities and programming.
> Neither. I would like to see deferred maintenance addressed more aggressively. The way it is presented, it feels like we are building a new ES when there is three ES worth of underutilized capacity. Building new ES should include the plans that detail what other school can be closed. That will go a long way in explaining the reasoning and will also help with deferred maintenance. Class additions in ES and MS should be solved by boundary adjustments instead. We should build Beaverton HS, not very clear on size decision. For deferred maintenance and seismic upgrade, we should document how long will it take to take care of all pending work.

3. Do you see anything that is missing from the proposals?

> I don't think so. This plan can't do everything, but it will do a lot of really good things.
> Provide a clearly articulated plan for how boundary adjustment can be used to resolve capacity issues. If this is given/explained well, it will resonate with everyone.
> Identify the District plan on how to utilize the extra capacity in elementary schools and provide specifics on special education and kindergarten programs.
> I think everything is accounted for. The "COVID" factor of space per student, air quality, etc. may need to be addressed as part of the narrative.
> Might be worth explaining a little more what Allen Transportation facility does or what equipment it services.
> More consideration of how these changes are motivated by predictions of how populations in Beaverton will change over time, i.e. disadvantaged schools today may not be the disadvantaged schools in 10 years due to gentrification, etc.
> I think the community would really like to see what other steps may be taken, such as boundary changes/consolidation, that could help with capacity issues and reducing maintenance costs of facilities that would no longer be used.

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> I suppose my mind continues to stay on the outreach aspect if the decision to do Option 2 is chosen. Folks in North Bethany may not be as cognizant of needs in the other areas of the District, and I would emphasize education and outreach there.

Do you see anything in the proposals that should not be included?

> Plan to build a new elementary school when there is excess capacity today (to the tune of three elementary school's worth of capacity) is strange. Please do add plans on what other school it will lead closure of. If you know this is coming, please list it as part of the LRFP. Otherwise, why we are building a new elementary school is difficult to explain when there is still $600M worth of deferred maintenance.
> Agree with first comment (above).
> Security improvements may be an area where you will get questions, specifically addressing the presence of SROs. The District may need to be ready to explain how that is or isn't related.
> I don't think there is anything that shouldn't be included. I can imagine arguments against including the Allen St. project, but it's really important to invest in the infrastructure that makes it possible to support educational activities.
> I can support everything in the proposal.
> No.

Of the projects listed below, what are your top three priorities?

> Beaverton HS Replacement: 3 first priority / 2 second priority / 2 third priority votes
> Deferred Maintenance & Modernization: 3 first priority / 1 third priority votes
> Raleigh Hills ES Replacement: 1 first priority vote
> Seismic & Security Upgrades: 3 second priority / 2 third priority votes
> Educational Program Improvements: 2 second priority / 2 third priority votes
> Allen St. Transportation Replacement: no votes
> Classroom & Gymnasium Additions: no votes
> Technology: no votes

1.7 Closing Questions & Next Steps

> LeRoy reviewed what happens next in the process, which includes taking final input from the focus group back to the District for consideration, developing the Long-Range Facility Plan and report, and Board consideration of LRFP adoption and possible recommendation for a capital measure.
> Steve noted that due to the Board election in May, bond referral consideration would likely happen after July 1st, when the new board is seated.
> Steve also explained that focus group members should expect that they may be contacted by the Superintendent or school board members to hear their thoughts about the plan and any future bond. As the District begins publishing materials, they will be sent to the focus group and any feedback would be appreciated.
> Thank you to everyone for attending and contributing and thank you on behave of Superintendent Grotting and our Board.
> If you have further thoughts or comments, please forward to Steve.
> Focus group members are encouraged to stay connected to this process. As a group, you have some of the deepest knowledge about facilities in the District.

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Beaverton School District

Long-Range Facility Plan
FOCUS GROUP MEETING 3

08 March 2021

BEAVERTON SCHOOL DISTRICT

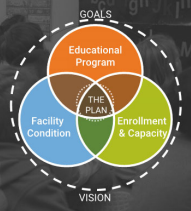
Agenda

Welcome Back	6:30 – 6:35
Review: District Goals & Needs	6:35 – 6:45
Summary of Feedback	6:45 – 7:00
Updated Plan Options	7:00 – 7:30
Discussion	7:30 – 8:00
Polling Questions	8:00 – 8:15

Goals for This Evening

- Provide a high-level summary of guiding principles and need
- Provide a summary of feedback from focus group and community open houses
- Present updated long-range plan options and rationale
- Receive any additional feedback regarding revised plan options

Review: District Goals & Needs



District Vision

2019-20 Strategic Plan

WE District Goal: **WE** empower all students to achieve post-high school success.

WE Expect Excellence

WE engage students with a variety of relevant and challenging learning experiences.

WE create learning environments that promote student achievement.

WE Innovate

WE teach students knowledge and skills for our evolving world.

WE seek, support, and recognize world-class employees.

WE Embrace Equity

WE build honest, safe, and inclusive relationships with our diverse students and their families.

WE provide needed support so that every student succeeds.

WE Collaborate

WE work and learn in teams to understand student needs and improve learning outcomes.

WE partner with our community to educate and serve students.

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LRFP Guiding Principles

WE EXPECT EXCELLENCE

Strategically plan for the **maintenance, modernization and replacement** of facilities.

Plan for facility needs to **meet all state regulatory requirements**.

Maintain investment in current facilities by addressing unfunded maintenance needs.

Where significant investment is required to renovate and upgrade existing facilities (greater than 75% replacement cost) **consider the cost / benefits of replacement**.

Address all **addition and expansion needs** in existing facilities throughout the district.

WE INNOVATE

Update educational specifications to reflect the **evolving needs** of pedagogical practices.

Provide **flexible school facilities** that foster creativity in teaching and support the evolution of high-quality education.

Incorporate **sustainability, energy efficiency and maintenance** into the facility planning process.

WE EMBRACE EQUITY

Consider facility planning decisions through an **equity lens**.

Create greater **parity** across facilities.

Plan for **upgrades / improvements**.

WE COLLABORATE

Collaboratively plan for future facility needs driven by community, demographic and pedagogical change.

Provide **community amenities** and support partnerships with other local agencies and service providers.

LRFP: Why Now?

- District needs to be ready with school facilities when the pandemic is over
- ORS 195.110 requires a 10-year plan (last BSD LRFP adopted in 2010)
- OAR 581-027 requires a current LRFP to be eligible for state funding opportunities for capital projects
- Add an equity lens to school facility planning
- Need to plan ahead for new capital programs as current school bonds expire
- District facilities continue to age (address schools that are too old to efficiently maintain)
- Maintenance and modernization needs continue to grow
- Identify opportunities for efficiencies in District facilities

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EDUCATIONAL PROGRAM: Takeaways

- There are eight elementary schools and two high schools that are significantly below square footage targets identified in district education specifications
- There are three known areas of facility improvement to support program goals: preschool, special education, and physical education
- Nine elementary schools, two middle schools, and one high school emerge when viewed through the lens of free and reduced lunch, students of color, and ELL

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FACILITY CONDITION: **Takeaways**

> When viewed through the metrics of age, facility condition, seismic condition, and energy use, two schools fall into the worst category in all four areas: **Raleigh Hills K-8 and Beaverton High School**

> Four elementary schools, four middle schools, one high school and one alternative school fall into the worst seismic category (below collapse prevention)

> Districtwide deferred maintenance is estimated at **$610 M**

ENROLLMENT & CAPACITY: **Takeaways**

> There is adequate districtwide capacity at every grade level, however…

- Two elementary schools are projected to be more than 100 students over capacity: **Sato ES and Bonny Slope ES**
- One middle school is projected to be more than 500 students over capacity: **Stoller MS**
- One high school is projected to be almost 600 students over capacity: **Westview HS**

Summary of Feedback

Focus Group Input

PRIORITIZATION

> Prioritize **educational program needs**, particularly early childhood education and a special needs facility.

> Prioritize **seismic upgrades**, including a strategy to meet State seismic requirements.

> Prioritize **critical security and facility maintenance items.**

UTILIZATION

> **School consolidation** may potentially be controversial, creates many logistical questions, and may negatively impact the bond measure. Should it be done? If so, where?

> **Boundary adjustments** should be considered as an alternative to increasing capacity through building replacements or classroom additions.

Focus Group Input

DISTRIBUTION

> **Equity** is a priority, including a focus on improving Title 1 schools.

> Projects should be **distributed throughout the district** as much as possible.

PROCESS

> What **sources of capital** are available?

> **Timing of tax increases** and what is the approach if there is no capital measure?

> Which projects are **"must-have" versus "nice-to-have" ?**

Community Outreach

Open Houses

> Three virtual open house sessions

> 2-hour meetings providing District goals, needs, and proposed plan information

> Feedback through open discussion and real-time polling

Community Group Presentations

> 40+ presentations to various community groups (CPO, NAC, PTO, etc.)

> Short informational presentation with questions / feedback

Online Survey

> Survey sent to all District families, with links to informational videos

Open Houses: Polling Results

PRIORITIZATION

> Prioritize **safety and seismic** upgrades.

> Provide **more learning options** for general students, not just special communities.

DISTRIBUTION

> Prioritize **equity for disadvantaged schools.**

> Provide clearer descriptions of how the bond would **touch each community.**

UTILIZATION

> **Adjust boundaries** to resolve capacity issues.

> **Overcapacity at Stoller Middle School** is an issue.

Open Houses: Polling Results

Should the District consider implementing the next phase of the long-range facility plan by proposing a capital measure in 2021? **83% said "YES"**

Of the two plans presented, which would you support and why?
82% said "OPTION 2"

Project Prioritization:

1. **Beaverton High School Replacement**
2. **Raleigh Hills Elementary School Replacement**
3. **Seismic & Security Upgrades**
4. **Deferred Maintenance & Modernization**
5. **Educational Program Improvements**
6. **Classroom Additions**
7. **Technology**
8. **Allen Transportation Center Replacement**

Updated Plan Options

Plan Options

Project	PLAN OPTION 1: No Tax Rate Increase	PLAN OPTION 2: $0.25 Tax Rate Increase
EDUCATIONAL PROGRAM		
Special Education Improvements	$2.0M	$2.0M
Prekindergarten Modifications	$1.0M	$1.0M
Outdoor Learning Improvements	-	**$5.0M**
Physical Education / Athletics Additions	$5.6M	**$13.0M**
FACILITY CONDITION: REPLACEMENT		
Raleigh Hills ES Replacement	$44.0M [1]	$44.0M [1]
Beaverton HS Replacement	$15.0M [2]	**$230.0M**
Allen St. Transportation Replacement	$11.0M	$11.0M
FACILITY CONDITION: MODERNIZATION		
Deferred Maintenance	$110.0M	**$138.0M**
School Modernization	$12.0M	**$36.0M**
Seismic Upgrades	$20.0M	**$40.0M**
Security Upgrades	$6.0M	**$15.0M**
Nutrition Services Upgrades	$5.0M	$5.0M
CAPACITY & ENROLLMENT		
Classroom Additions	$7.5M	**$10.0M**
OTHER SUPPORT		
Technology	$27.0M	**$53.0M**
School Office Relocation	$10.0M	$10.0M
Bus Replacement	$8.0M	**$10.0M**
Critical Equipment	$4.0M	**$7.0M**
Subtotal	**$288.1M**	**$630.0M**
Bond Fee / Management Cost (8%)	$23.0M	$50.4M
Contingency (10%)	$13.9M [3]	$42.2M [3]
Total	**$325.1M**	**$722.6M**

NOTES

[1] *Cost assumes an additional $11.8 M is provided from 2014 bond funds*

[2] *Cost includes BHS planning and design only*

[3] *Excludes FCA, Technology, and Critical Equipment*

* *Costs are rough-order-of-magnitude project costs, to be confirmed*

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Educational Program

Special Education Improvements *(Options 1 & 2)*
Adapt existing special education spaces to be more suitable for their current use and support student needs, such as creating larger/additional classroom spaces and adding adaptive equipment, kitchen facilities, office space, built-in cabinets, accessible restrooms, accessible playground equipment, and other modifications.

Prekindergarten Modifications *(Options 1 & 2)*
In alignment with the District's prioritization of early childhood education, **upgrade existing prekindergarten spaces to meet the unique needs of young learners**, including redesign to be more inclusive of current learning practices and purchasing appropriate materials and furniture.

Outdoor Learning Improvements *(Option 2)*
Expand outdoor covered play areas at elementary schools across the District. Currently several schools do not have covered play areas, and many more do not have ones that are adequately sized. These are highly flexible areas that allow for an outdoor extension of learning and play and provide gathering and queueing areas that protect children from the rain.

Physical Education / Athletics Additions *(Options 1 & 2)*
Build a new gym at Stoller MS (both options) and Barnes ES (Option 2), and provide some improvements to other District athletic facilities (Option 2), including an outdoor restroom/storage facility at Westview HS. The current space at Stoller is not adequate to support current or future enrollment. The current gymnasium and cafeteria at Barnes are inadequate to support the school and will be replaced.

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Plan Options

Project	PLAN OPTION 1: No Tax Rate Increase	PLAN OPTION 2: $0.25 Tax Rate Increase
EDUCATIONAL PROGRAM		
Special Education Improvements	$2.0M	$2.0M
Prekindergarten Modifications	$1.0M	$1.0M
Outdoor Learning Improvements	-	**$5.0M**
Physical Education / Athletics Additions	$5.6M	**$13.0M**
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* *Costs are rough-order-of-magnitude project costs, to be confirmed*

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Facility Replacement: Raleigh Hills Elementary School

Replace existing Raleigh Hills K-8 with new elementary school for 750 students.

WHY:

- Worst FCI score in the district (0.41 – Critical Condition)
- One of the oldest facilities in the district (93 years old)
- One of four elementary schools with a seismic rating below collapse prevention
- EUI score of 5, with greatest opportunity to improve energy efficiency
- More than 45% of students are eligible for free/reduced lunch
- Existing school capacity is 250 below district target of 750
- Previously identified as the next priority in the 2014 bond plan
- Eliminates ~$12M of deferred maintenance need

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* *Cost assumes an additional $11.8 M is provided from remaining 2014 bond funds*

Facility Replacement: Beaverton High School

Replace existing Beaverton High School with a new high school for 1,500 students.

WHY:

- One of the worst FCI scores in the district (0.34 – Critical Condition)
- Oldest facility in the district (majority of existing building is 105 years old)
- Only high school with a seismic rating below "Collapse Prevention"
- EUI score of 5, with greatest opportunity to improve energy efficiency
- 51% of students are eligible for free/reduced lunch
- Eliminates ~$53M of deferred maintenance need

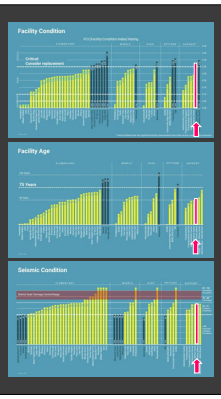
MAHLUM

Facility Replacement: Allen Street Transportation Facility

Replace existing Allen Street Transportation facility.

WHY:

- One of the worst FCI scores in the District (0.33 – Critical Condition)
- Existing facility is more than 50 years old
- Repair bays are cramped and lack space to utilize modern technical repair aids
- One-third of the hydraulic floor lifts are unusable due to leaks, failed parts, and excessive age and 2/3rds of the vehicle lifts lack safety stops to prevent unplanned retraction
- Technicians must use jack stands to prevent buses from lowering below safe working heights



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Plan Options

Project	PLAN OPTION 1: No Tax Rate Increase	PLAN OPTION 2: $0.25 Tax Rate Increase
EDUCATIONAL PROGRAM		
Special Education Improvements	$2.0M	$2.0M
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[3] *Excludes FCA, Technology, and Critical Equipment*

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Modernization / Capacity & Enrollment

Deferred Maintenance *(Options 1 & 2)*
Repair and upgrade projects at all facilities (except new ones), based on recently completed assessment findings. Components include roofing, HVAC, site, equipment, electrical, building envelope, interior finishes, fire/life safety, and conveyance.

School Modernization *(Options 1 & 2)*
Modernize schools to improve the learning environment, enhance student engagement, and improve health and behavior, including improving aesthetics/condition of building materials (walls, hard floors, carpet), upgrading television and A/V equipment, ensuring sufficient lighting, improving natural lighting, and increasing square footage of classrooms and support.

Seismic Upgrades *(Options 1 & 2)*
Seismic upgrades to district target level for worst performing buildings that are not anticipated to be replaced (facilities TBD, priorities are Whitford MS, Highland Park MS, Cedar Park MS, Mountain View MS).

Security Upgrades *(Options 1 & 2)*
Cameras, fencing, and access control upgrades at various schools.

Nutrition Services Upgrades *(Options 1 & 2)*
Various projects throughout the District, including electrical and equipment upgrades at 11 sites, water fountain installation at 25 sites, service line remodels at Westview HS and Community HS, freezer capacity additions, full kitchen remodel at Beaver Acres ES, and cafeteria expansion at Barnes ES.

Classroom Additions *(Options 1 & 2)*
Add additional classrooms at Sato ES and Stoller MS (Options 1 and 2), and Oak Hills ES (Option 2) to address capacity needs.

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Question 1

Should the District consider implementing the next phase of the long-range facility plan by **proposing a capital measure** in 2021?

Why or why not?

Please type in your answer using the chat feature.

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Question 2

Of the two plans presented at this meeting, which would you **support** and why?

Option 1: $325M (renew expiring bond / no tax rate increase)

Option 2: $722M (tax rate increase of $0.25 per $1,000 of assessed value)

Please type in your answer using the chat feature.

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Question 3

Do you see anything that is **missing** from the proposals?

Please type in your answer using the chat feature.

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Question 4

Do you see anything in the proposals that should **not** be included?

Please type in your answer using the chat feature.

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Question 5

Of the projects listed below, what are your **top three** priorities?

A. Educational Program Improvements
B. Raleigh Hills ES Replacement
C. Allen St. Transportation Replacement
D. Beaverton HS Replacement
E. Deferred Maintenance & Modernization
F. Seismic & Security Upgrades
G. Classroom & Gymnasium Additions
H. Technology

Please type in your answer using the chat feature, numbering the projects 1-3 in order of the priority you prefer.

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Next Steps

> Take final comments from focus group back to the District for consideration and possible revision *(~March)*

> Draft a Long-Range Facility Plan and report for review by the District and Board *(~April)*

> Finalize report *(~May)*

> Board will consider adopting the LRFP *(~May)*

> Board will consider possible recommendation for capital measure *(~June)*

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APPENDIX D

FACILITY CONDITION ASSESSMENT REPORT

McKinstry, 2020

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Facility Condition Assessment
Executive Summary

Purpose

The intent of this study is to provide a Facility Condition Assessment of the facilities within the Beaverton School District. The assessment covered 62 district facilities including schools, administration, and support buildings, totaling nearly 6 million square feet of space. The study reviewed the physical condition of site elements (e.g. parking lots, site drainage), exterior systems (e.g. windows, roof), interior building systems (HVAC, electrical, flooring), and incorporated the existing recommendations from the KPFF Seismic Report. In-depth replacement costs of equipment and systems was estimated, and an estimated remaining life was assigned to all systems and equipment analyzed. Further project prioritization scoring was also included in the assessment in order to support data-driven decisions for capital replacements.

Measures of success as defined by the project team are:

- Enhanced Capital Planning – the outcome shouldn't be a report in a binder, but a tool that can be used for capital planning.
- Operation Excellence – provide the results in a format that can be utilized to improve operation of maintenance and capital teams.
- Comprehensive Reporting – data-driven reporting in a concise format
- Safety – perform on-site assessments in a safe manner and complete without injury.

Project Team

Members of the project team include:

- Ryan Dickerson, Assessor/PM
- Mark Hood, Assessor
- Rick Becker, Account Manager
- Stephanie Dost, Energy Services
- Eric Caldwell, Assessor
- Michael Weingarten, Assessor
- Peter Goodall, Architect
- TJ Mulqueen, Engineering
- Marla Corey-Loiola, Estimator
- Arial Chen, Assessor

This document combines observations and data generated by the project team. This information was gathered by visual inspection only. No tools were used, or destructive testing performed for our analysis.

Methodology

PHASE 1 – INFORMATION CONSOLIDATION

Develop Project Goals & Define Project Outcomes

As a team, Beaverton School District staff and McKinstry developed project goals and outcomes so we could together track the success of the project. We also established key performance indicators (KPIs) for the project

based on our shared understanding of the project as well as McKinstry's prior experience conducting facility assessments with large school districts.

Review District Documentation & Practices

The facility condition assessment team reviewed any previous reports, available information, energy use, drawings, O&M reports, capital project history and maintenance practices provided by the district to familiarize themselves with the facilities. McKinstry also incorporated the KPFF seismic assessments into our final reports.

Interviews with Project Stakeholders

Interviews were conducted with district maintenance staff and on-site points of contact to gather critical information on historic performance and known deficiencies. This information helped our team understand the human impact of the conditions we encountered.

PHASE 2 – CRITERIA FOR CONDITION ASSESSING

Aligning District and McKinstry Standards

McKinstry provided assessment information on systems that align with the district's standards listed below:

APPLICABLE EDUCATIONAL SPECIFICATION CATEGORIES

- Walls, Windows, Ceilings and Doors
- Environmental Conditions for Optimal Learning (HVAC/Indoor Air Quality)
- Furnishings, Fixtures, and Equipment
- Electricity
- Educational Adequacy
- Lighting
- Plumbing
- Flooring
- Security
- Communications

Develop Data Collection Format

McKinstry deployed our detailed K-12 facility assessment data collection tool and a portion of the ODE Facility Assessment Template for the Beaverton School District project. Together, our teams ensured that these checklists contained all the necessary elements for completing the project with Beaverton School District based on the documents and interviews conducted prior to the date of the on-site visits.

Our checklists and ratings included the following systems:

Fire and Life Safety – Identify alarm panels, emergency generators, security systems, and fire suppression systems.
Heating System - Identify boilers, furnaces, unit ventilators, terminal units, and other major equipment.
Ventilation System - Identify the ventilation systems at the property and assess its overall condition.
Air Conditioning System - Identify the material air-conditioning components, including cooling towers, chillers, and major labeled equipment.
Roofing System - Material roof systems, including roof-type, reported age, drainage, or any unusual roofing conditions. The team will observe for evidence of material repairs, significant ponding, or evidence of material roof leaks.

Electrical System - Identify the electrical service provided and distribution system at the subject property. Observation and evaluation will include switchgear, transformers, emergency generators and main distribution panels.

Plumbing - Identify the material plumbing systems at the subject property, including domestic water supply, domestic water heaters, sanitary sewer, or any special or unusual plumbing systems (such as fuel systems and gas systems).

Vertical Transportation - Identify the existing vertical transportation equipment and provide an overall assessment of condition. Detail deficiencies for each elevator and provide an analysis of the remaining useful life, along with budgets for any expected expenditures up to, and including, modernization or replacement.

Building Envelope - Identify the material elements of the building exterior, to include walls, doors, windows, and fire escapes. This will also include the façade, curtain-wall systems, glazing, exterior sealant, exterior balconies, and stairways. Observations may be subject to grade, accessible balconies, and rooftop vantage points.

Structural Components - Evaluate the footings, foundations, slabs, columns, floor framing system, and roof framing system as part of the structural inspection for soundness. Observations will be subject to grade and visibility of components. This is a visual inspection only, and no structural testing of components or materials will be undertaken.

Furnishing – Evaluate fixed furnishings (cabinets, casework, etc.).

Site Paving - Observe and evaluate the site paving and/or site components including pavement, curbs, drains and sidewalks.

Kitchen Equipment – Walk-in freezer and refrigerators, dishwashers, ovens, stoves, broilers, grills, fryers, and ice makers.

Site and other-

- Playgrounds
- Sports and ground facilities
- Auditorium
- Outbuildings
- Synthetic turf fields
- Natural fields
- Tracks
- Stadiums

PHASE 3—CONDITION ASSESSING

The McKinstry Facility Assessment Team conducted all condition assessments at the locations identified.

Perform Condition Assessments

Our dedicated facilities team performed assessments on all sites requested by the district. We worked with district staff to gain access to the facilities and perform our analysis. While on-site the team collected equipment and system inventories, categorized, and performed analysis on all system and asset types identified in Phase 2.

The following data was collected:

- Facility Name
- Location Type
- Building Name
- Location Description
- Asset Tag
- Asset Equipment Type
- Asset System
- Asset Sub System
- Manufacturer
- Model Number
- Serial Number
- Asset/Equipment Size

- Approximate Install Date
- Estimated Remaining Life
- Asset Condition
- Classroom Impact
- EUI Score
- Estimated Replacement Cost
- Notes
- Deficiencies

PHASE 4—DATA ANALYSIS

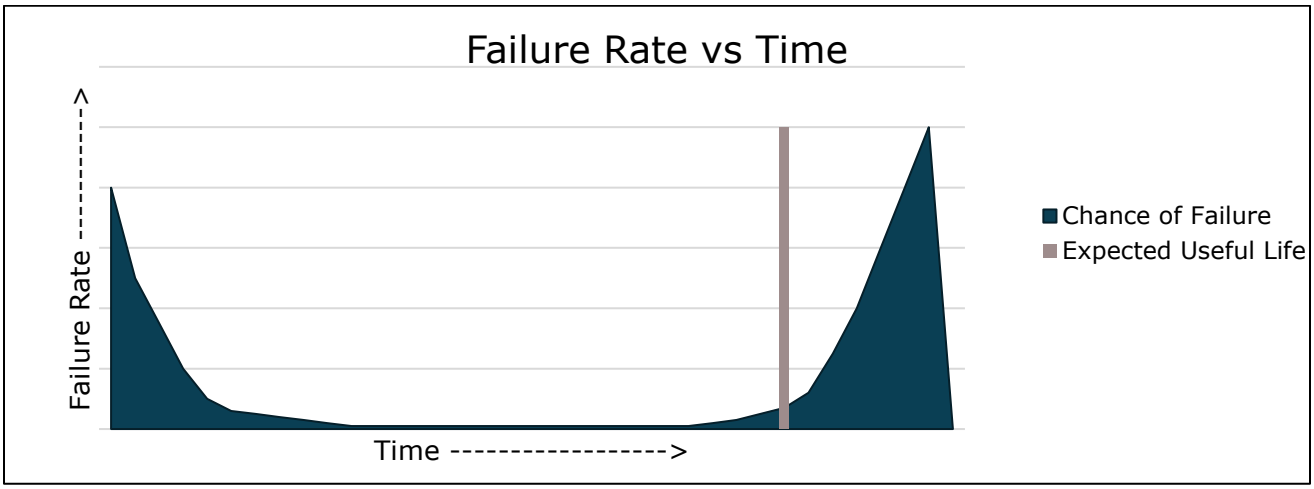
After on-site data was collected, the McKinstry team performed analysis on the information collected.

Assign Probable Costs

Using our team's experience with all the building systems, cost data, and past experiences, an opinion of probable cost was developed for each element within the report to assist in establishing appropriate repair budgets to be used in determining the Net Present Value of the Asset. Cost estimates are generated for equipment and systems based on a like-for like replacement. Where appropriate (typically items outside of the realm of maintenance replacement), the following costs were included in the estimates: Demo/removal of existing, materials, labor, contingency, general conditions, general requirements, bonds and insurance, and engineering fees. Additionally, multipliers may have been added for particular systems or equipment that may be less accessible, require cranes, or other special conditions.

Estimated Remaining Life

Estimated remaining life was calculated using three data points: the actual condition of the system, the expected useful life of the system, and the probability of failure of the system.



FCA Viz Tool

To make data actionable, McKinstry has provided a software tool that enables visualization of facilities data in service of capital planning. The Facility Condition Assessment Visualization Tool (FCA Viz) is an interactive data visualization tool, built in Tableau, that gives decision-makers the ability to navigate through their portfolio at an asset level and communicate goals and plans to stakeholders. The raw data and customized tool are yours to use for capital planning.

The FCA Viz tool allows you to weigh each of the qualitative criteria per asset to match your own priorities. For example, you may value the asset condition and the impact on the classroom, were it to fail, more highly than energy performance or maintenance intensity when prioritizing projects.

Asset Scoring Criteria

At each location, the equipment and systems were given a score from one to five in four different categories. The scoring is defined below:

ASSET CONDITION SCORE (1 – 5)

1 – Excellent Condition New or easily restorable to "like new" condition.
2 – Good Condition Component is not new but exhibits no damage or excessive wear.
3 – Fair Condition Minor component wear, but operating properly.
4 – Poor Condition Component has significant wear and is approaching the end of its expected useful life.
5 – Very Poor Condition Component is at or past its expected useful life, has major damage, complete failure, or in need of replacement.

CLASSROOM IMPACT SCORE (1 – 5)

1 – Little or No Classroom Impact Occupants will not be impacted if the system or equipment fail.
2 – Mild Classroom Impact Few occupants will be impacted by the failure of the system or equipment.
3 – Moderate Occupant Impact Many occupants may be moderately or slightly impacted by the failure of the system or equipment.
4 – High Classroom Impact Many or all occupants may be highly impacted by the failure of the equipment or system.
5 – Space is Unusable Many or all occupants may not be able to perform their work because of the failure of the equipment or system.

EUI (ENERGY USE INTENSITY) SCORE (1 – 5)

1 – Top 20% of Energy Performing Buildings

2 – Top 20%-40% of Energy Performing Buildings
3 – Middle 40%-60% of Energy Performing Buildings
4 – Bottom 20%-40% of Energy Performing Buildings
5 – Bottom 20% of Energy Performing Buildings

PHASE 5—REPORT

Prepare Facilities Condition Assessment Report and Other Deliverables

We've compiled all field observation reports into a final working presentation document. We delivered executive summaries in our reports, walked our clients through their options, trained district staff on the FCA Viz Tool and provided the raw data that we used to come to our conclusions.

In all, Beaverton School District received the following deliverables from McKinstry:

- A summary description of each site and facility with necessary and recommended improvements, alongside photos and narratives.
- Analysis of critical (immediate) repairs, and repairs anticipated over the term of the analysis.
- Schedule for recommended replacement or repairs (schedule of priorities).
- 30-year capital plan with an executive summary. Including a graphic presentation of results to provide a quick, user-friendly summary of the facilities observed, their conditions and estimated costs assigned by category.
- The FCA Viz Tool to help interactively display Beaverton School District's data, plus training on how to use the tool.

Facility Condition Assessment Summary

DISTRICT STATISTICS

Measurable	Stat
Buildings	62
Asset Count	11,385
Average Condition Score	3.04 out of 5.00 (Fair)
30-Year Net Present Value to Replace Assets	$1.15 Billion
Average Estimated Remaining Life of Assets	10.3 Years
1st Year Estimated Capital Renewal Needs	$178 Million

The net present value of $1.15 Billion represents the cost of replacing all 11,385 assets captured in this study are on a regular replacement cycle over 30 years. That suggests that the district would need to spend approximately $38.3 Million a year on regular capital replacement needs. The 1st year estimated capital renewal needs indicates that the district hasn't been spending the suggested $38.3 Million per year and therefore has a multi-year backlog of deferred maintenance. Fortunately, the district's Maintenance Department utilizes strategies to extend the life of equipment and the Capital Department prioritizes

replacements based on impact to students and operations. It is also important to note that a significant portion of the capital renewal costs for the first 4 years is associated with seismic upgrades. If seismic upgrade costs are removed from the study, the recommended yearly capital renewal budget is approximately $29.3 Million per year.

30-YEAR CAPITAL NEEDS BY LOCATION

See table on next page.

SUMMARY BY EQUIPMENT TYPE

Equipment Type	Average Condition Score
Structural	4.204
Mechanical Utilities	3.417
Portable Classroom	3.185
Mechanical	3.153
Site Work	3.017
Commercial Equipment	2.949
Electrical	2.931
Roofing	2.847
Exterior Enclosure	2.788
Furnishings	2.778
Equipment	2.743
Electrical Utilities	2.724
Interior Finishes	2.709
Fire & Life Safety	2.533
Conveyance	2.423
Grand Total	3.042

Equipment Type	1	2	3	4	5
Structural	$104,762,206	$66,839,119	$72,379,776	$21,928,928	$1,784,336
Mechanical Utilities	$640,000	$85,000	$100,000	$15,000	$30,000
Portable Classroom			$480,000	$400,000	$1,520,000
Mechanical	$42,600,572	$4,785,254	$11,199,763	$19,864,371	$26,420,945
Site Work	$602,017	$676,993	$48,670	$473,260	$2,183,401
Commercial Equipment	$212,150	$106,950	$436,789	$169,400	$943,872
Electrical	$9,303,718	$1,344,452	$1,356,842	$3,353,899	$8,848,681
Roofing	$10,397,636	$1,350,000	$10,791,157	$455,801	$12,583,466
Exterior Enclosure	$6,579,624	$712,611	$937,839	$649,027	$1,993,950
Furnishings	$1,029,684	$729,594	$477,042	$857,124	$602,478
Equipment	$92,920	$40,000	$40,000	$104,090	$337,788
Electrical Utilities	$137,483	$122,396	$632,759	$104,965	$1,013,034
Interior Finishes	$1,705,710	$3,711,285	$1,231,614	$1,468,879	$8,741,847
Fire & Life Safety		$2,100	$1,287		
Conveyance	$60,000	$30,500		$319,032	$66,408
Grand Total*	**$178,123,719**	**$80,536,254**	**$100,113,538**	**$50,163,776**	**$67,070,207**

*All numbers are displayed in 2020 dollars.

FACILITY CONDITION INDEX

The **Facility Condition Index** (FCI) is used in facilities management to provide a benchmark to compare the relative condition of a group of facilities. This index is determined by dividing the total deferred maintenance costs by the Current Replacement Value (CRV) of the facility. The basis of the index is to provide information to owners that will help them determine whether they should continue to maintain and perform capital replacement projects at a location versus completely replacing or renovating the facility. A rule of thumb for the index score is as follows:

Good < 0.05 – Continue predictive and preventive maintenance

BEAVERTON SD – FACILITY CONDITION ASSESSMENT

Fair 0.05 – 0.10 – Continue maintenance with capital renewal

Poor 0.10 – Consider whole building replacement or renovation versus repair

As a K-12 portfolio, the district should target to get a majority of their buildings below the 0.10 number if they would like to continue to operate in the building. Typically, projects associated with HVAC, Roofing, Seismic, and Exterior Enclosure drive the FCI numbers down sharply.

High Schools				
Building	Year Built	Current Replacement Value (CRV)	FCI Score	Location Type
Terra Nova School	1938	$6,032,750.00	0.349	High School
Beaverton	1915/1938	$155,756,239.20	0.337	High School
Sunset	1958	$149,686,243.65	0.280	High School
Aloha	1968	$153,786,396.15	0.187	High School
Southridge	1999	$151,068,496.50	0.187	High School
Westview	1994	$165,883,910.85	0.176	High School
Merlo Station	1993	$26,137,656.25	0.173	High School
Merle Davies @ BHS	1915/1938	$23,008,050.00	0.048	High School
Mountainside	2017	$201,762,900.00	0.021	High School

Middle Schools				
Building	Year Built	Current Replacement Value (CRV)	FCI Score	Location Type
ISB	1944	$40,362,390.00	0.361	Middle School
Whitford	1963	$62,457,708.00	0.316	Middle School
Highland Park	1965	$62,420,328.00	0.287	Middle School
Meadow Park	1963	$62,308,188.00	0.282	Middle School
Cedar Park	1965	$62,506,836.00	0.277	Middle School
Five Oaks	1976	$76,382,826.00	0.255	Middle School
Mountain View	1969	$71,525,028.00	0.221	Middle School
Stoller	1999	$76,782,792.00	0.201	Middle School
Conestoga	1994	$68,447,586.00	0.195	Middle School
Arts & Communication ACMA (Performing Arts Center)	2010	$13,083,000.00	0.079	Middle School
Timberland (new Middle School	2016	$88,644,000.00	0.032	Middle School

K-8 Schools				
Building	Year Built	Current Replacement Value (CRV)	FCI Score	Location Type
Raleigh Hills K-8	1927	$28,960,778.75	0.410	K-8
Aloha-Huber Park (K-8)	2006	$54,216,017.50	0.138	K-8

BEAVERTON SD – FACILITY CONDITION ASSESSMENT

K-8 Schools				
Building	Year Built	Current Replacement Value (CRV)	FCI Score	Location Type
Springville (K-8)	2009	$44,584,067.50	0.120	K-8

Elementary Schools				
Building	Year Built	Current Replacement Value (CRV)	FCI Score	Location Type
Cedar Mill	1950	$20,989,368.75	0.347	Elementary School
Raleigh Park	1959	$23,091,117.50	0.344	Elementary School
Beaver Acres	1955	$40,647,953.75	0.325	Elementary School
Fir Grove	1954	$31,015,492.50	0.324	Elementary School
Cooper Mountain	1954	$28,027,236.25	0.312	Elementary School
West Tualatin View	1955	$22,212,278.75	0.309	Elementary School
Bethany	1971	$25,518,021.25	0.280	Elementary School
McKinley	1962	$31,321,731.25	0.279	Elementary School
Sexton Mountain	1989	$34,416,327.50	0.279	Elementary School
Mckay	1929	$24,916,280.00	0.252	Elementary School
Barnes	1927	$38,803,875.00	0.250	Elementary School
Kinnaman	1975	$41,327,916.25	0.246	Elementary School
Chehalem	1971	$27,769,055.00	0.237	Elementary School
Terra Linda	1970	$26,398,905.00	0.237	Elementary School
Hiteon	1974	$40,374,435.00	0.234	Elementary School
Nancy Ryles	1992	$36,359,588.75	0.233	Elementary School
Errol Hassell	1979	$30,851,381.25	0.233	Elementary School
Scholls Heights	1999	$35,246,086.25	0.232	Elementary School
Rock Creek	1975	$26,331,931.25	0.232	Elementary School
Elmonica	1980	$25,937,757.50	0.229	Elementary School
Greenway	1979	$28,114,148.75	0.224	Elementary School
Findley	1997	$36,836,585.00	0.221	Elementary School
Ridgewood	1958	$27,637,663.75	0.217	Elementary School
Montclair	1970	$19,696,417.50	0.206	Elementary School
Oak Hills	1967	$25,506,262.50	0.200	Elementary School
Jacob Wismer	2001	$37,251,208.75	0.149	Elementary School
Bonny Slope	2008	$41,107,056.25	0.120	Elementary School
Vose	2017	$45,501,250.00	0.028	Elementary School
Sato	2017	$45,501,250.00	0.027	Elementary School
William Walker	2019	$26,120,785.00	0.027	Elementary School
Hazeldale	2018	$45,501,250.00	0.025	Elementary School

Administration Buildings				
Building	Year Built	Current Replacement Value (CRV)	FCI Score	Location Type
Administration Center	1972	$18,120,602.90	0.233	Administration
Capital Center	1970	$53,303,619.86	0.227	Administration
Admin Aloha Branch	1999	$5,034,200.00	0.129	Administration

Ancillary Buildings				
Building	Year Built	Current Replacement Value (CRV)	FCI Score	Location Type
Transportation 5th Street South	1965	$12,379,614.00	0.349	Ancillary Building
Transportation Allen	1969	$4,692,257.57	0.331	Ancillary Building
Maintenance Center	1971	$10,768,153.80	0.240	Ancillary Building
Transportation 5th Street North	2001	$2,465,846.37	0.231	Ancillary Building
Transportation and Support Center	1973	$20,794,266.52	0.168	Ancillary Building

BEAVERTON SCHOOL DISTRICT
THRIVE • CONTRIBUTE • EXCEL

Aloha-Huber Park K-8 School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: *Aloha-Huber Park K-8 School*

Age: 2006

Size (SF): 106,046

Area: *9.95* acres

Assessment Date: *11/5/19*

Student Population: 714

School Ratings

Facility Conditions Index: 0.138

Avg Condition Score: 2.82 out of 5

Asset Count: 208

Energy Use Intensity: 30.87
EUI Target (<50 hrs/wk): <29
EUI Target (>50 hrs/wk): <47

Cost Information

NPV of Assets: $20,892,738

Year 1 Asset Replacement Cost: $277,522

Current Replacement Value: $54,216,018

Energy Spend*

Electricity: $51,931

Natural Gas: $14,642

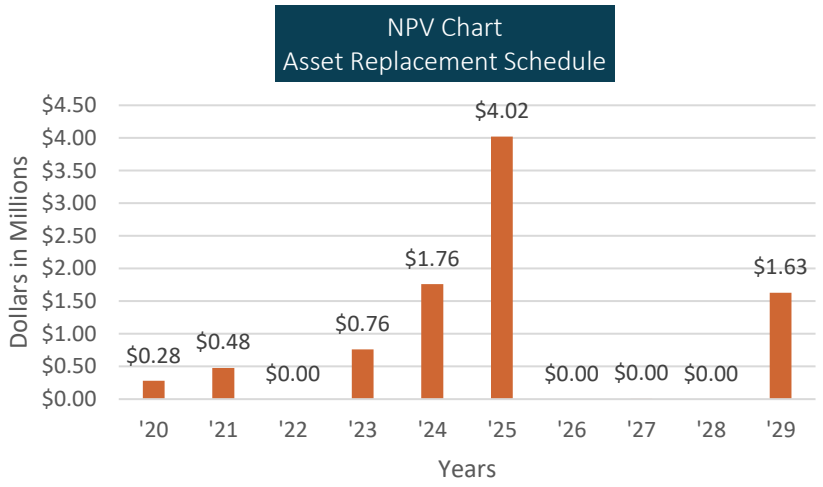
Water Spend*: $18,466

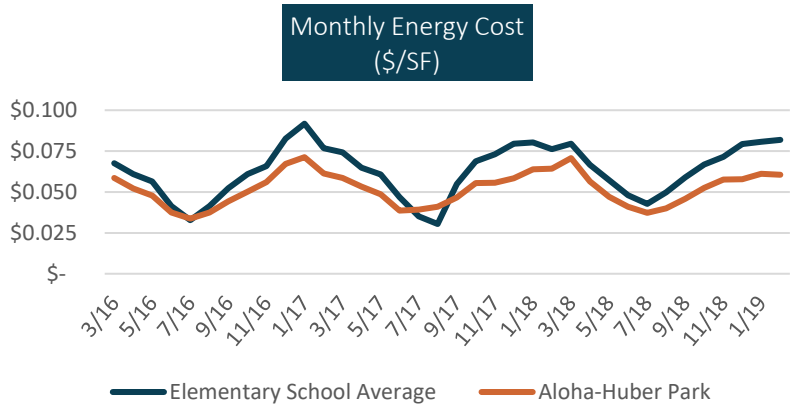
**3/19 – 2/20*

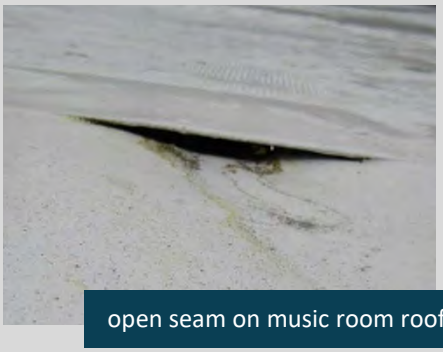
McKinstry
For The Life Of Your Building

Critical Asset Infrastructure – Replacement Priority

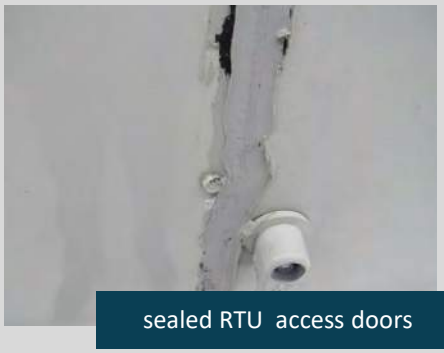
Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$1,014,860	S3	NA
Mechanical	Plumbing	$87,852	5, 4	1, 2
Interior Finishes	Plumbing Fixtures	$265,115	5	5
Mechanical	HVAC	$456,741	4	4, 5
Mechanical Utilities	Storm Sewer	$25,000	4	1







open seam on music room roof



sealed RTU access doors

clogged rain water drainage

playground area trip hazard

General Building Condition

Roof

- Most of the school roof is in excellent condition as it was replaced in 2017.
- Roof over music room has open seams that need to be sealed.
- Ladder on roof is not bolted and should be affixed properly.

Mechanical/HVAC

- Natural gas main gas pipe does not have an earthquake valve and one should be installed as soon as possible.
- Boiler #2 was down for repairs at the time of the assessment. Additionally, the flue for boiler #2 is loose from the roof and causes rainwater infiltration.
- Several RTUs access doors have been sealed with roofing tar. This is an access issue that make it more difficult to get to the equipment when troubleshooting is needed.
- RTU AC-1 has a bent door strut that makes access difficult.
- Regular filter changes should be incorporated into the campus preventative maintenance plan.

Electrical

- Main electrical room is being used for storage, but proper clearances are being maintained. Any potentially flammable items should be relocated to proper storage area.

Plumbing

- Plumbing fixtures were identified to be in fair to good conditions.

Fire, Life, Safety

- Several clogged rainwater drainage points were identified on the roof. All storm drains should be cleaned

Interior Finishes

- Heavy wear on carpet in main corridors and main entrance.
- Some signs of heavy wear on stair finishes

Utilities

- Kitchen is undersized for school need

Site Improvements

- Some cracking on parking lot surfaces will need resurfacing and painting
- Pedestrian pathways could benefit from resurfacing
- Northeast gate needs lock
- South exit is a potential bottleneck for emergency egress with only two doors for the entire classroom wing
- Surrounding playground areas have curbs that are a trip hazard

BEAVERTON SCHOOL DISTRICT
THRIVE • CONTRIBUTE • EXCEL

Beaver Acres Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

***School**: Beaver Acres Elementary School*

Age: 1955

Size (SF): 79,507

Area: *13.6* acres

Assessment Date: *8/9/19*

Student Population: 708

School Ratings

Facility Conditions Index: 0.325

Avg Condition Score: 3.29 out of 5

Asset Count: 192

Energy Use Intensity: 50.09
EUI Target (<50 hrs/wk): <29
EUI Target (>50 hrs/wk): <47

Cost Information

NPV of Assets: $20,091,739

Year 1 Asset Replacement Cost: $768,763

Current Replacement Value: $40,647,954

Energy Spend*

Electricity: $51,500

Natural Gas: $19,128

Water Spend*: $18,211

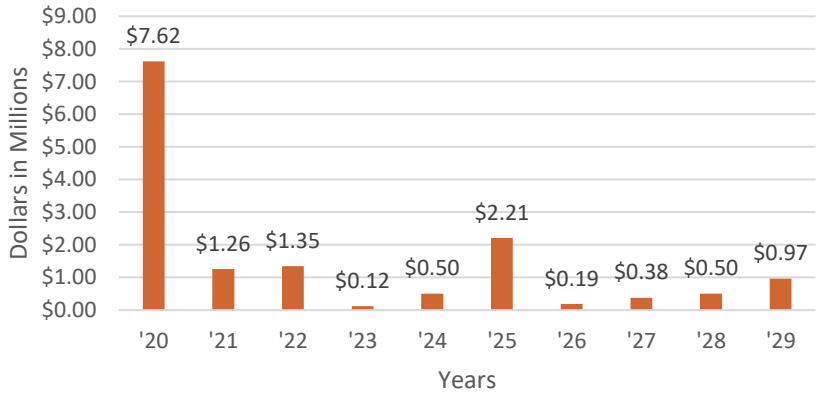
**3/19 – 2/20*

McKinstry
For The Life Of Your Building

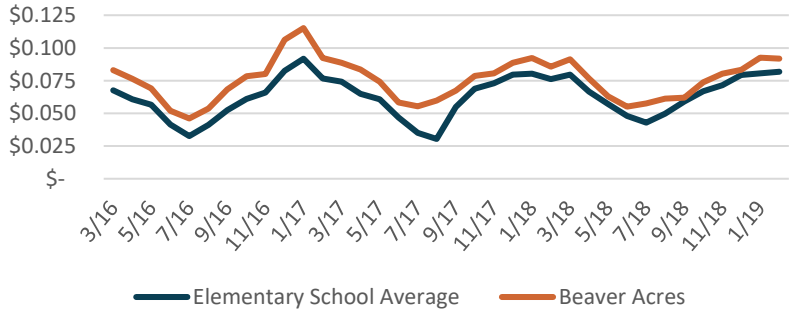
Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$6,847,938	S5	NA
Site Work	Parking Lots	$210,930	4	2
Exterior Enclosures	Aluminum Windows	$477,042	4	1
Mechanical	HVAC	$1,557,720	4	2
Food Service	Oven, Walk-In	$37,600	4	3

NPV Chart
Asset Replacement Schedule



Monthly Energy Cost
($/SF)



poor asphalt roof condition

no pan or strapping on DHW

wood window condition

cracked parking lot paving

General Building Condition

Roof

- Asphalt sheet roof is in poor condition: drainage issue was noted on the north side of the kitchen, warping was noted over the main area, water was trapped at lip of north roof, and drains were clogged.
- Soft spots were noted in a few areas of the BUR ballasted roof.

Mechanical/HVAC

- Mechanical HVAC equipment and distribution systems were generally found to be in fair to good condition.

Electrical

- Improper storage noted in front of electrical panels is a safety concern. Items should be relocated to a more appropriate location.

Plumbing

- Domestic hot water heater in boiler room does not have drainage pan or earthquake strapping.

Fire, Life, Safety

- All storm drain should be cleaned. The gutter overflowing at the front of the building is causing damage to the building.

Interior Finishes

- Wood windows are single pane and in poor condition
- Wire glass doors were noted at A Hall and should be replaced
- Minor issues with interior wall and ceiling finishes. Minor damage noted on interior drywall. Minor staining evident on ceiling tiles.
- Interior resilient tile floor finishes are in poor condition. Tiles are damaged in kitchen area. Possible asbestos containing tiles were noted in old classrooms and gym.
- Fixed furnishings show severe wear in older areas

Utilities

- Site communication and security system noted to be in fair to good condition.

Site Improvements

- Overall asphalt parking lots are in poor condition. Cracking is evident and many areas need to be restriped.
- Tree roots are causing pedestrian paving to lift in some areas. Cracking is evident as a result.
- Masonry wall on north side has a penetration.
- Panel siding wall in poor condition. Wall on west side is bubbling and warping; and the front of the building shows signs of minor water intrusion.

BEAVERTON SCHOOL DISTRICT
THRIVE • CONTRIBUTE • EXCEL

Bethany Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

***School**: Bethany Elementary School*

Age: 1971

Size (SF): 49,913

Area: *10.69* acres

Assessment Date: *10/22/19*

Student Population: 528

School Ratings

Facility Conditions Index: 0.280

Avg Condition Score: 3.45 out of 5

Asset Count: 111

Energy Use Intensity: 42.58
EUI Target (<=50 hrs/wk): <29
EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $11,994,152

Year 1 Asset Replacement Cost: $2,090,379

Current Replacement Value: $25,518,021

Energy Spend*

Electricity: $32,716

Natural Gas: $9,684

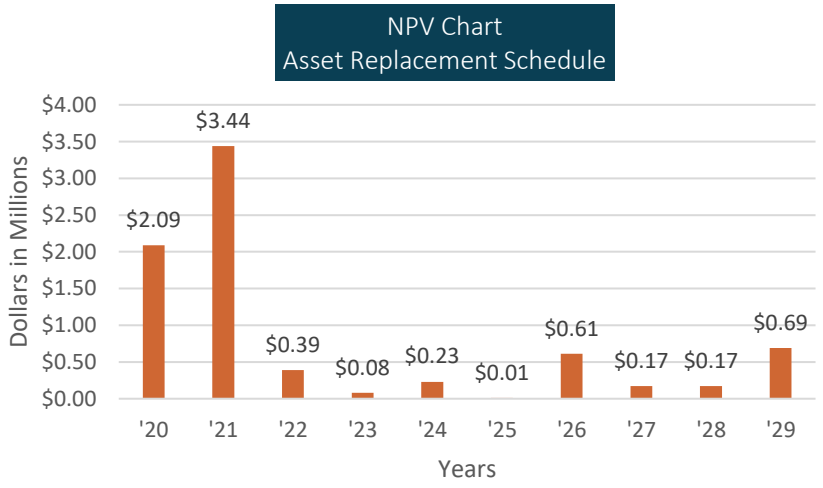
Water Spend*: $4,297

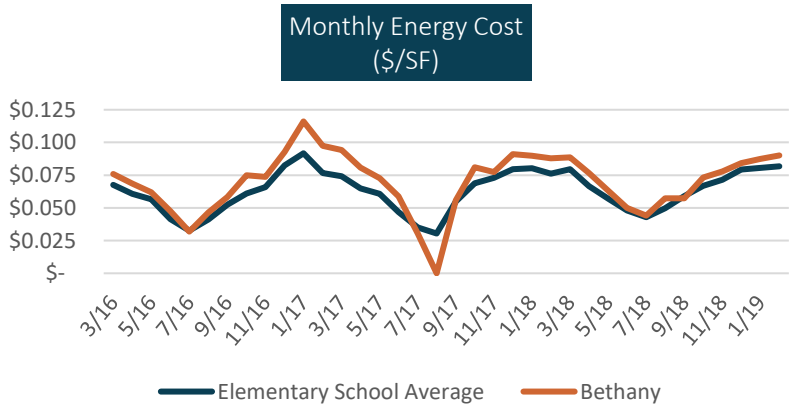
**3/19 – 2/20*

McKinstry
For The Life Of Your Building

Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$3,343,672	S5	NA
Mechanical	HVAC	$655,253	5, 4	1
Roofing	Built-Up	$1,297,738	4	1
Mechanical	Chiller, Controls	$289,306	4	3
Electrical	Comm & Security	$36,436	4	3
Interior Finishes	Carpet	$203,945	4	5
Food Service	Dishwasher, Food Warmer, Walk-ins	$36,200	4	2, 4





poor roof condition

rooftop HVAC equipment

water damage to ceiling tile

worn out parking painting

General Building Condition

Roof

- The overall roof is in poor condition with heavy moss build up, standing water, and exposed seams

Mechanical/HVAC

- HVAC distribution systems on site were noted to be in poor condition. Older JCI controls system could also benefit from an upgrade
- Mechanical equipment was overall found to be in fair condition

Electrical

- Electrical service and distribution equipment were noted to be in fair condition
- Access control system is in good condition
- Lighting control system was manual with lighting control panels

Plumbing

- Plumbing equipment and distribution system was noted overall to be in fair condition

Fire, Life, Safety

- Fire protection equipment was noted to be in fair condition
- All storm drain should be cleaned

Interior Finishes

- Interior finishes (walls, floors, and ceilings) are generally in fair condition. Areas of note include heavy wear on some carpet areas, multiple cracks on resilient tile, minor damage to gym ceiling, and some water damage to ceiling tiles

Utilities

- Site communication and security was noted to be in good to fair condition

Site Improvements

- Parking lot paving is in fair condition with some minor cracking. The parking lot painting is worn and could benefit from repainting
- Playground equipment is in fair condition, but the playground area needs additional bark chips
- Exterior walls are in fair condition with only some minor damage to soffit

BEAVERTON SCHOOL DISTRICT
THRIVE • CONTRIBUTE • EXCEL

Bonny Slope Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: *Bonny Slope Elementary School*

Age: 2008

Size (SF): 80,405

Area: *8.34* acres

Assessment Date: *12/4/19*

Student Population: 625

School Ratings

Facility Conditions Index: 0.120

Avg Condition Score: 2.17 out of 5

Asset Count: 208

Energy Use Intensity: 45.67
EUI Target (<=50 hrs/wk): <29
EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $12,133,850

Year 1 Asset Replacement Cost: $0

Current Replacement Value: $41,107,056

Energy Spend*

Electricity: $48,490

Natural Gas: $15,495

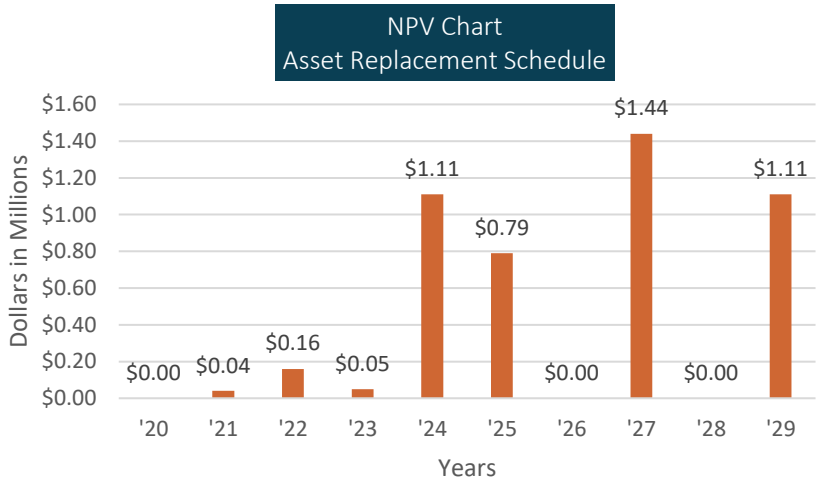
Water Spend*: $16,283

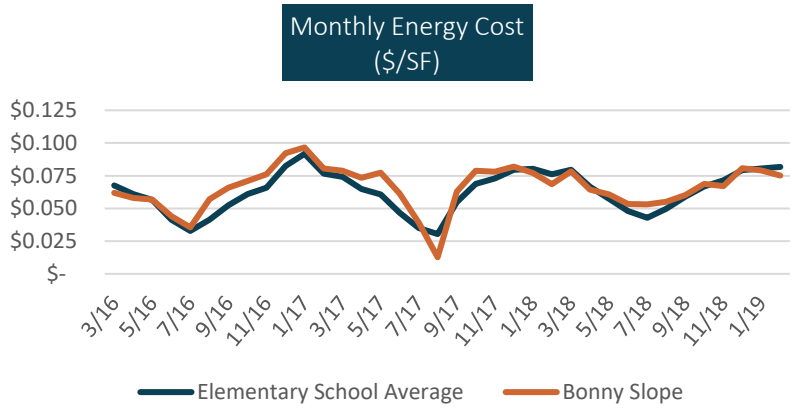
**3/19 – 2/20*

McKinstry
For The Life Of Your Building

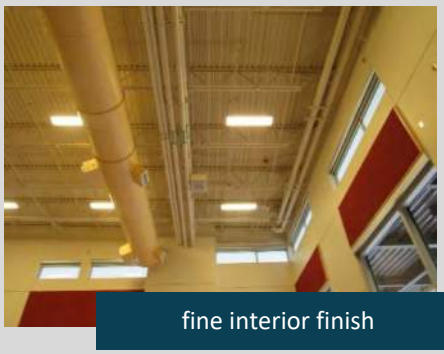
Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Mechanical	Test & Balance, VFD	$159,411	4	3
Plumbing	Water Heater	32,604	3	3



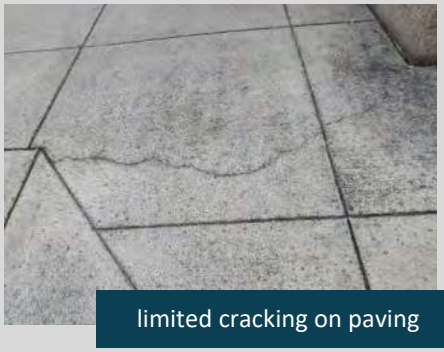


good TPO roof condition



fine interior finish

blocked electrical equipment



limited cracking on paving

General Building Condition

Roof

- TPO roof is in good condition though there are minor cracks in the walk pads. All roof drains were noted to be clear

Mechanical/HVAC

- Mechanical equipment and distribution system were found to be in good to fair condition

Electrical

- Improper storage of items was noted in front of electrical equipment in mechanical rooms. Items should be relocated to ensure adequate safe access to electrical panel
- LED, T8, CFL lighting was installed on site

Plumbing

- Manual plumbing fixtures were noted to be in fair condition. Domestic water distribution and sanitary waste system were in similarly fair condition

Fire, Life, Safety

- Fire protection system (sprinklers, standpipes, and associated specialties) were noted to be in good condition
- All storm drain should be cleaned

Interior Finishes

- Interior doors, stairs, and finishes (walls, floors, and ceilings) were all found to be in good condition

Conveyance

- One elevator and one ADA lift were noted on site. Both were found to be in good condition

Utilities

- Site communication and security was noted to be in good condition
- Oil leaking in compartment of the 100 KW generator (Notified maintenance)

Site Improvements

- Playground equipment is in good condition through the playground area could use more wood chips for added coverage
- Parking lots and pedestrian paving was in good condition with only some minor cracking noted
- CFL and sodium site lighting was installed
- Exterior walls are in good condition with no cracks evident

BEAVERTON SCHOOL DISTRICT
THRIVE • CONTRIBUTE • EXCEL

Cedar Mill Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: *Cedar Mill Elementary School*

Age: 1950

Size (SF): 41,055

Area: 5.62 acres

Assessment Date: 7/29/19

Student Population: 428

School Ratings

Facility Conditions Index: 0.347

Avg Condition Score: 2.94 out of 5

Asset Count: 96

Energy Use Intensity: 69.04
EUI Target (<=50 hrs/wk): <29
EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $10,841,835

Year 1 Asset Replacement Cost: $1,622,563

Current Replacement Value: $20,989,369

Energy Spend*

Electricity: $23,865

Natural Gas: $17,689

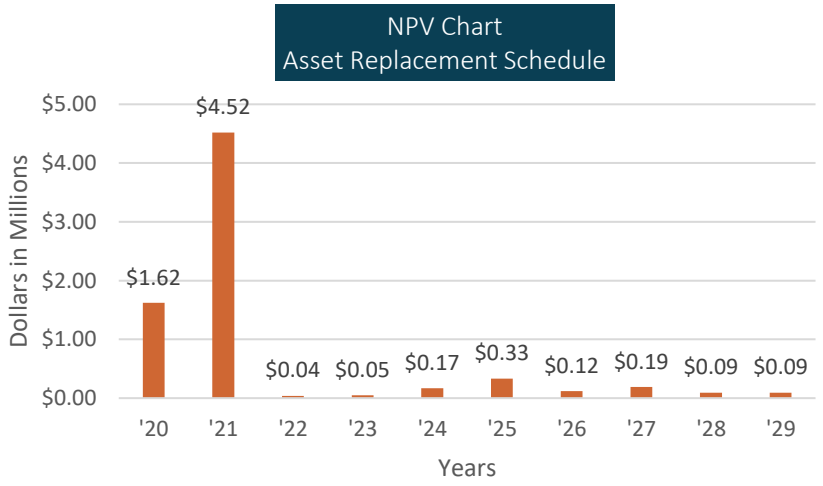
Water Spend*: $5,330

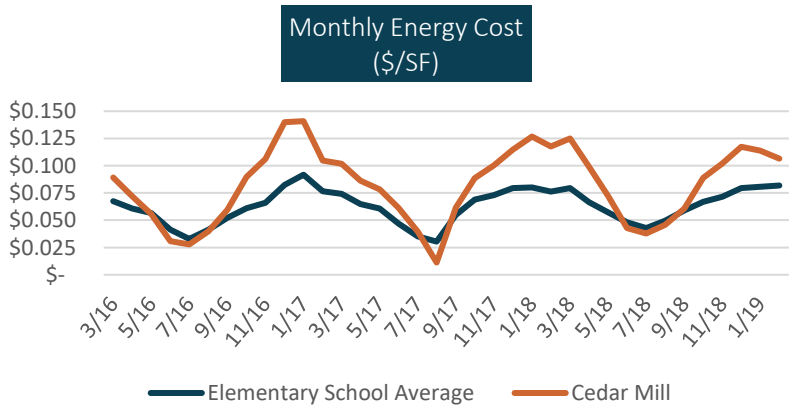
**3/19 – 2/20*

McKinstry
For The Life Of Your Building

Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$4,321,860	S5	NA
Exterior Enclosures	Aluminum Windows	$410,550	5	1
Electrical	Lighting	$133,429	4	1
Interior Finishes	Flooring, Ceiling	$257,415	4	1
Site Work	Parking Lots	$65,940	4	2

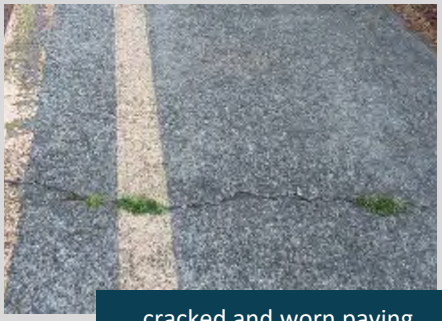




preparation for roof replacement

rusted rooftop RTUs

suspected asbestos tiles



cracked and worn paving

General Building Condition

Roof

- Single ply roof covering is fair condition but there is evidence of water penetration and leaking into the building. Ballasted roof is in very poor condition. This area is being prepared for a new TPO roof replacement

Mechanical/HVAC

- Overall HVAC equipment was noted to be in poor condition. Some equipment replacement was in progress on main building. Unit ventilators are being replaced with new rooftop units and some new ductwork. Extension building rooftop units should be replaced next as equipment is aged and rusting
- At the time of the site visit, the boiler was noted to be out of commission

Electrical

- Brand new electric distribution was noted in most of the building. The rest of the equipment is original and should be replaced soon
- Lighting and branch wiring on site were noted to be in poor condition.

Plumbing

- Hot water heater in boiler room is not strapped down and does not have a catch basin. Both items should be remediated

Fire, Life, Safety

- Poor sprinkler coverage was noted especially in the downstairs areas
- All storm drain should be cleaned

Interior Finishes

- Windows are in very poor condition and should be replaced soon. The single pane windows are inefficient, and the anti-glare coasting is wearing off
- Some interior doors were noted to have non-ADA compliant door handles
- Gym and cafeteria areas have resilient tiles with suspected asbestos contain material. Tiles are also in poor condition with some cracking
- Bathroom areas show signficiant wear in ceramic tiles
- Ceiling tiles were noted to be in overall poor condition. Frequent damage was noted throughout was several fallen tiles

Conveyance

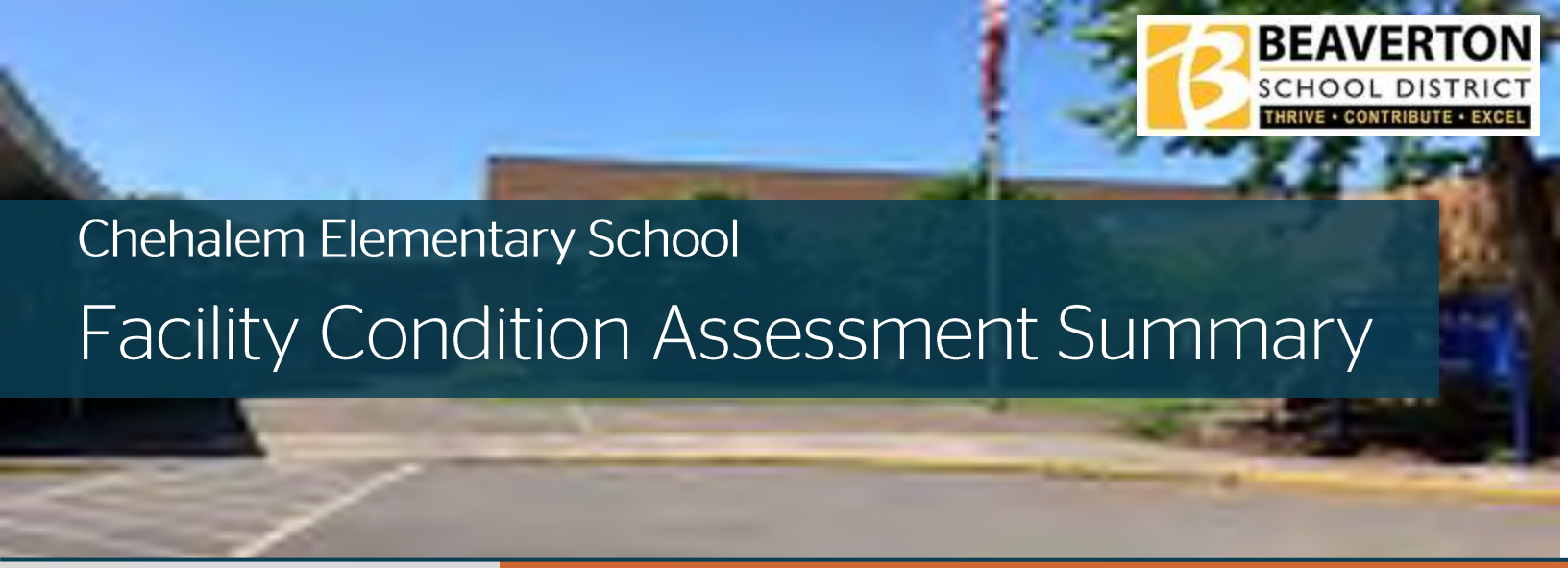
- Two stair lifts were noted on site. Both were found to be in fair condition

Utilities

- Site communication and security was noted to be in fair condition

Site Improvements

- Most of the wood at the foundation is covered by bark. Over time this bark could potentially cause the wood here to rot. An alternative solution should be used in these areas
- Gaps below door and door frame noted in the extension building. These doors should be weather stripped to improve building efficiency
- Site equipment was noted to be primarily in fair condition considering the age. Restroom accessories and stalls have some cosmetic damage
- Poor overall site lighting coverage. Perimeter LED lighting has day burners
- North side of parking is in poor condition



BEAVERTON SCHOOL DISTRICT
THRIVE • CONTRIBUTE • EXCEL

Chehalem Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: *Chehalem Elementary School*

Age: 1971

Size (SF): 54,316

Area: 10.0 acres

Assessment Date: *9/18/19*

Student Population: 459

School Ratings

Facility Conditions Index: 0.237

Avg Condition Score: 4.03 out of 5

Asset Count: 125

Energy Use Intensity: 45.01
EUI Target (<=50 hrs/wk): <29
EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $11,495,979

Year 1 Asset Replacement Cost: $534,974

Current Replacement Value: $27,769,055

Energy Spend*

Electricity: $37,191

Natural Gas: $12,529

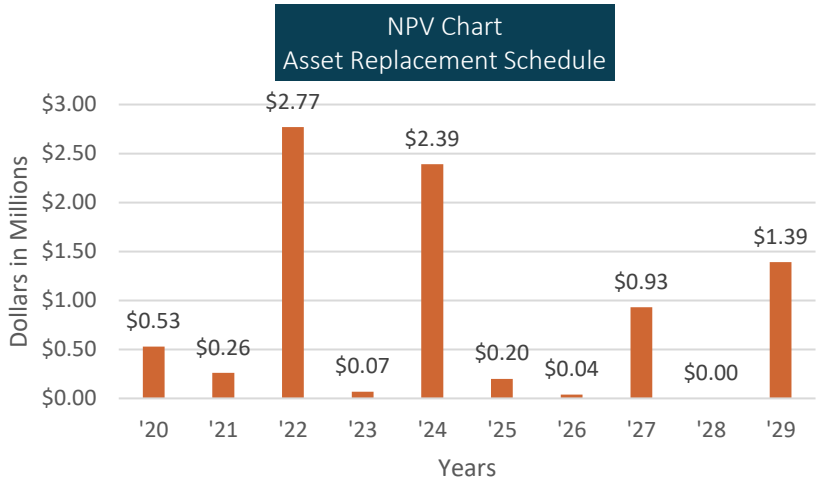
Water Spend*: $5,640

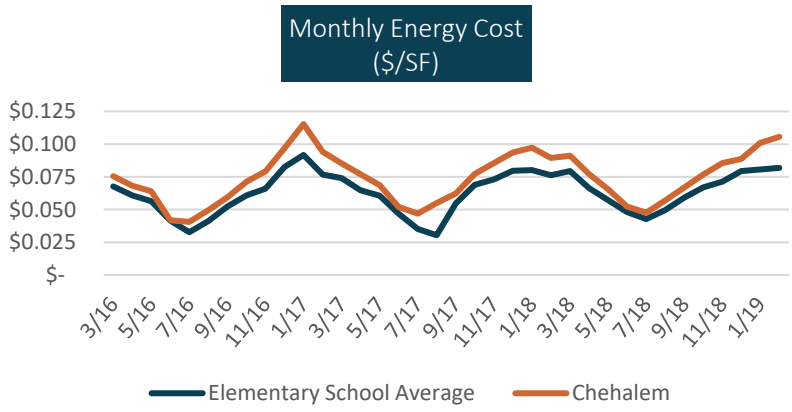
**3/19 – 2/20*

McKinstry
For The Life Of Your Building

Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$2,599,021	S4	NA
Electrical	Switchboard	$218,120	5	1
Interior Finishes	Flooring, Ceiling	$257,415	4	1
Plumbing	Water Heaters	$24,965	5	1
Plumbing	Domestic Water Distr.	$395,420	5	1
Exterior Enclosures	Aluminum Windows	$206,944	4	2
Site Work	Storm Sewer	$15,000	4	1





clogged drains and moss build up

gravel in equipment

corroded plumbing equipment

damaged pedestrian paving

General Building Condition

Roof

- Built-up gravel roof is in poor condition. Areas of concern include leaks, moss build-up, and clogged roof drains

Mechanical/HVAC

- Packaged units, resistant heaters, and pumps are aging. Gravel should be cleared from rooftop exhaust fan housing. RTU's have been vandalized. Faculty must keep all RTUs padlocked due to students accessing the roof
- Wild temperature swings in B-Hall due to a lack of wall insulation and the inefficient single pane windows
- HVAC ductwork was noted to not be insulated in areas
- Hot water system is aging and should be scheduled for replacement
- Controls system was noted to be aged and in poor condition
- High building internal air pressure prevents three main doors from closing

Electrical

- Electrical service and distribution equipment is in poor condition. Additionally, panels in main corridor should be locked for safety
- Site lighting is in poor condition. T8 and CFL lighting installed on site. Office light fixture covers are a hazard and should be replaced. The covers have previously fallen off and hit staff

Plumbing

- Overall plumbing fixture was noted to be in fair condition though the kitchen domestic water heater does not have earthquake straps and is suspected to have asbestos containing insulation
- Domestic water distribution was found to be in poor condition. Bad pressure relief valve and poor drainage for condensate was noted. The main water valve is padlocked in the open position with chains.
- Sanitary waste was noted to have overflowed last year but was fixed

Fire, Life, Safety

- Students can access roof by standing on gas meter cage. Gates should be added around the perimeter fence lines to secure the site
- All storm drain should be cleaned

Interior Finishes

- Inefficient single pane windows are in poor condition and should be replaced
- Some interior doors were noted to have wire glass which is a safety concern
- Ceiling tiles are in poor condition with leaks and missing tiles noted
- Interior resilient tiles are in poor condition. They are sinking and not level
- Wood stage floor is worn and should be resurfaced and stained

Utilities

- Water supply piping is corroded. Main building water supply suspected to contain asbestos
- Pipes old and need to be replaced. Classroom drops in the west end of building, hallway mains and building main in custodial closet, kitchen and cafeteria
- Intrusion alarm system was noted not to be active in portables

Site Improvements

- Parking lots and pedestrian paving were noted to be in poor condition even though painting is new. East side parking floods whenever it rains.

BEAVERTON SCHOOL DISTRICT
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Cooper Mountain Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: *Cooper Mountain Elementary School*

Age: 1954

Size (SF): 54,821

Area: 8.07 acres

Assessment Date: 7/30/19

Student Population: 461

School Ratings

Facility Conditions Index: 0.312

Avg Condition Score: 3.31 out of 5

Asset Count: 98

Energy Use Intensity: 55.76
EUI Target (<=50 hrs/wk): <29
EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $12,985,711

Year 1 Asset Replacement Cost: $1,265,970

Current Replacement Value: $28,027,236

Energy Spend*

Electricity: $46,164

Natural Gas: $16,259

Water Spend*: $5,227

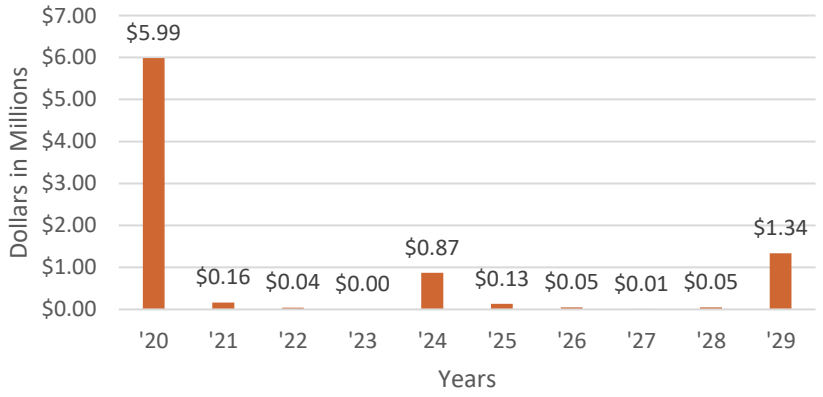
**3/19 – 2/20*

McKinstry
For The Life Of Your Building

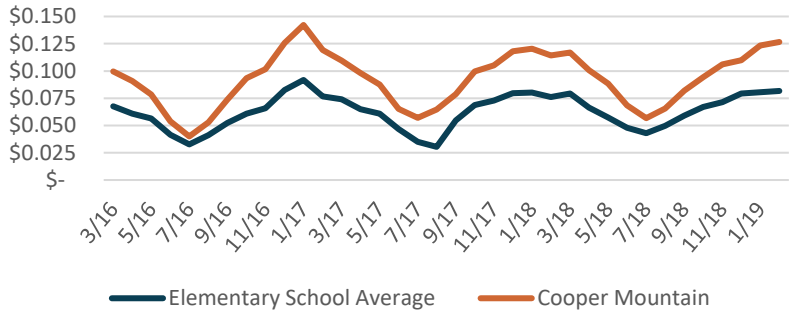
Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$4,721,733	S4	NA
Roofing	Built-Up	$498,888	5	1
Electrical	Switchboard	$319,200	5	1
Exterior Enclosures	Aluminum Windows	$208,868	5	1
Plumbing	Water Heaters	$19,085	5	1
Mechanical	Air Handling Unit, Pumps	$28,050	5	1
Interior Finishes	Flooring, Ceiling	$130,633	4	2

NPV Chart
Asset Replacement Schedule

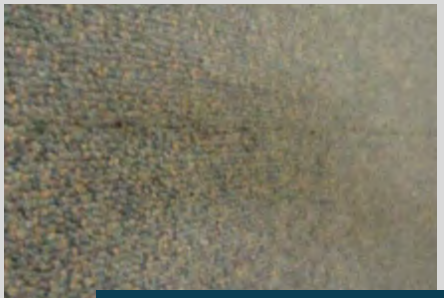


Monthly Energy Cost
($/SF)



ballasted roof condition

worn exhaust fan belt



worn carpet areas

cracking on pedestrian paving

General Building Condition

Roof

- Ballasted sections of the roof are in very poor condition and in need of immediate replacement. Moss accumulation is significant in these areas
- Roof access hatch is difficult to operate

Mechanical/HVAC

- HVAC equipment is aged but still functional
- Belts on rooftop exhaust fans are worn and need to be replaced

Electrical

- Electrical service and distribution equipment are in fair condition
- T8 lighting installed throughout the school

Plumbing

- Plumbing fixtures are aged but still functional. Consistent backup was noted in the custodial sink
- No seismic strap or concrete pad at domestic water heater

Fire, Life, Safety

- All storm drain should be cleaned

Interior Finishes

- Inefficient single pane exterior windows should be replaced
- Interior finish is mostly in fair to poor condition. Areas of concern include worn carpet, damaged wallboard, and misshaped ceiling tiles

Utilities

- Site communication and security was in fair to good condition

Site Improvements

- Exterior wall masonry is in poor condition with some cracking noted
- Additional bark chips should be added to playground area
- Parking lots and pedestrian paving was in fair condition. Some cracking and weed growth noted in parking area
- Site lighting is noted to be insufficient
- Chiller and generator are easily accessible. Area perimeter should be secured and locked to limit access

Elmonica Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: *Elmonica Elementary School*

Age: 1980

Size (SF): 50,734

Area: 8.76 acres

Assessment Date: 10/15/19

Student Population: 550

School Ratings

Facility Conditions Index: 0.229

Avg Condition Score: 3.60 out of 5

Asset Count: 166

Energy Use Intensity: 47.63
EUI Target (<=50 hrs/wk): <29
EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $10,717,109

Year 1 Asset Replacement Cost: $829,744

Current Replacement Value: $25,937,758

Energy Spend*

Electricity: $40,391

Natural Gas: $8,018

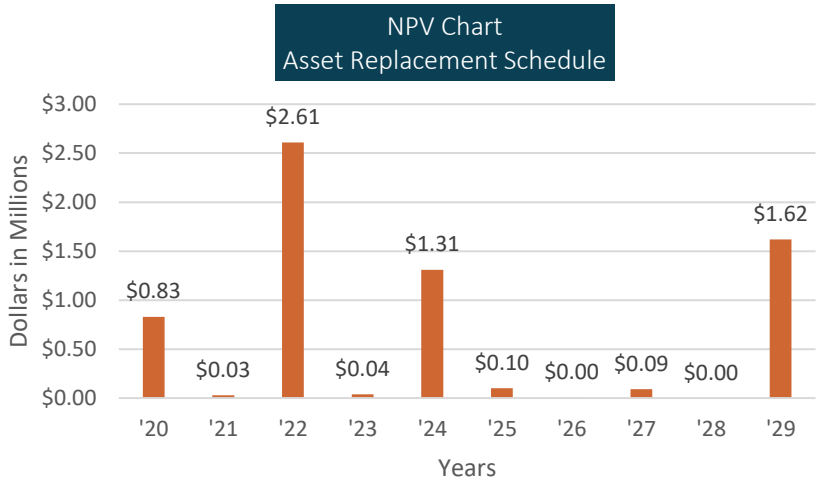
Water Spend*: $6,700

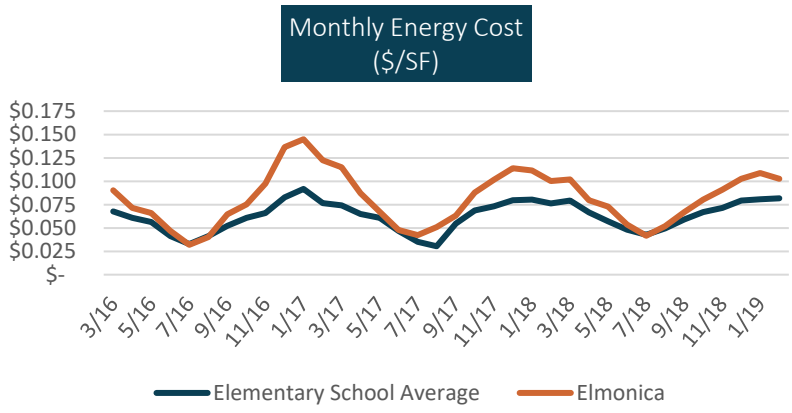
**3/19 – 2/20*

McKinstry
For The Life Of Your Building

Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$2,427,622	S4	NA
Mechanical	HVAC	$659,091	5	1
Electrical	Transformer/Elec Panel	$121,390	5	1
Exterior Enclosures	Aluminum Windows	$96,665	4	1
Site Work	Pedestrian Paving & Storm Sewer	$30,000	4	1
Roofing	Built-Up	$263,817	4	5





roof solar condition

damage to AC unit

metal mesh in door glass

cracked pedestrian paving

General Building Condition

Roof

- Majority of the roof is in good condition though the built-up section of the roof is in poor condition
- Solar panels on the roof are in good condition
- Damage noted to the soffit area above the metal exterior walls

Mechanical/HVAC

- Building controls are in poor condition and consists of a combination of pneumatic with JCI digital overlay
- Multiple hot and cold areas noted in the building
- Ductwork is a mix and new and older ducts
- Damage evident on kitchen air conditioning unit

Electrical

- Electrical service & distribution equipment is in generally poor condition.
- Some Electrical panels are over forty years old at past their expected useful life
- Lighting control system consists of some motion detectors
- T8 lighting is installed throughout the school with some LED on exterior

Plumbing

- Some hot water tanks are missing drains. Drains should be installed to ensure safe drainage in case of a leak
- Rainwater drainage on roof is clogged leading to water runoff over the side of the building. Drainage should be cleared

Fire, Life, Safety

- All storm drain should be cleaned

Interior Finishes

- Moveable walls in annex and library are in poor condition and should be replaced soon
- Metal mesh in interior door and window glass are a potential safety hazard
- Inefficient single pane windows should be replaced
- Water damage and dents noted to ceiling tiles
- Interior doors need to be refinished

Utilities

- Site communication & security systems are in good to fair condition
- Kitchen freezer capacity is limited and could benefit from increased capacity

Site Improvements

- Pedestrian paving is in poor condition with many cracks and uneven surfaces that pose a potential trip hazard
- Parking lot paving is in fair condition with some alligatoring and cracked curbs
- Perimeter lighting is LED and provides good site coverage
- Several ant trails into the building were found. New sealant or a better barrier should be installed to prevent ants from getting in
- Bark level in playground area is low and presents a potential trip hazard. Bark chips should be refilled in this area

BEAVERTON SCHOOL DISTRICT
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Errol Hassell Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: *Errol Hassell Elementary School*

Age: 1979

Size (SF): 60,345

Area: 9.20 acres

Assessment Date: 9/25/19

Student Population: 426

School Ratings

Facility Conditions Index: 0.233

Avg Condition Score: 3.82 out of 5

Asset Count: 147

Energy Use Intensity: 41.15

EUI Target (<=50 hrs/wk): <29

EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $13,218,821

Year 1 Asset Replacement Cost: $1,544,433

Current Replacement Value: $30,851,381

Energy Spend*

Electricity: $36,020

Natural Gas: $10,581

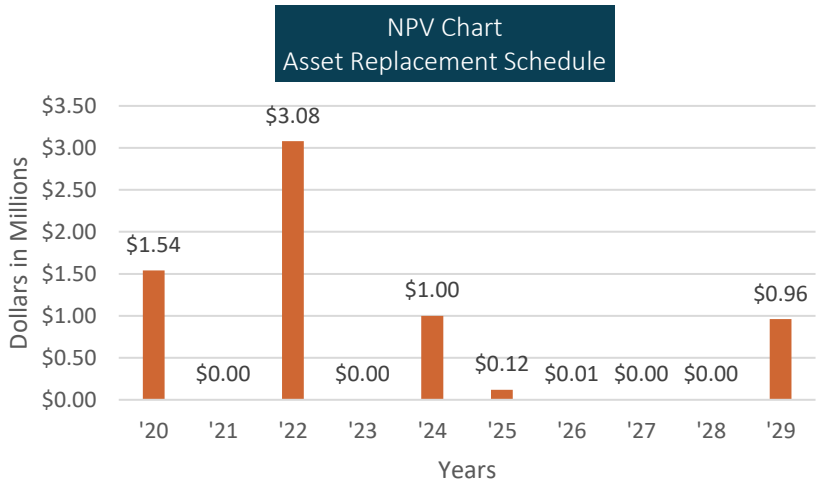
Water Spend*: $17,135

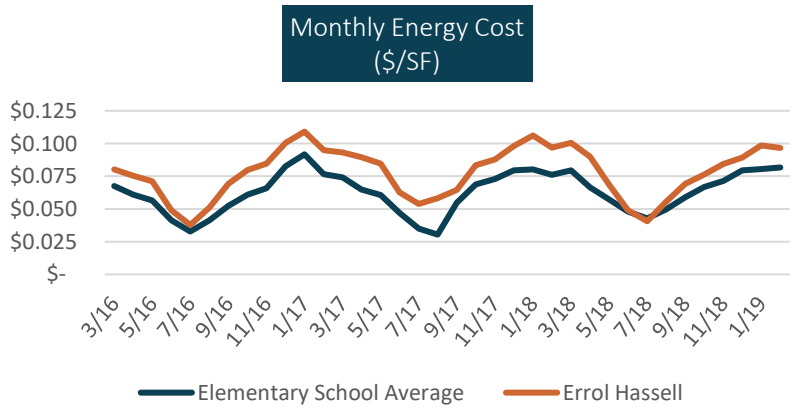
**3/19 – 2/20*

McKinstry
For The Life Of Your Building

Critical Asset Infrastructure – Replacement Priority

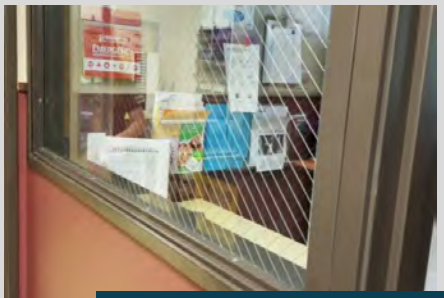
Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$2,887,508	S4	NA
Mechanical	HVAC	$839,832	5	1
Commercial Equipment	Food Service	$17,200	4	3
Exterior Enclosures	Exterior Doors	$57,600	4	5
Interior Finishes	Carpet, Ceiling Tile	$171,929	4	5
Roofing	Built-Up	$156,987	4	5





moss build up on roof

damaged condenser coils



wire glass doors

spalling and cracked paving

General Building Condition

Roof

- Most of the roof is in good condition though the built-up ballasted portion of the roof is in poor condition with significant moss build up

Mechanical/HVAC

- HVAC equipment and distribution system were noted to be in overall fair condition. Damage to Carrier condenser coils were noted
- Aged pneumatic controls were noted to be in poor condition

Electrical

- Electrical service and distribution equipment is overall in fair condition.
- Staff indicated that breaker in kitchen trips frequently
- T8 lighting fixtures installed throughout the building

Plumbing

- Plumbing equipment was noted to be in fair condition overall

Fire, Life, Safety

- All storm drain should be cleaned

Interior Finishes

- Metal wire mesh was found on interior and exterior door windows which is a potential safety concern
- Carpet worn in high traffic areas
- Multiple stained and damaged ceiling tiles

Utilities

- Perimeter fencing at the front of the building prevents the site from being safety secured
- There is no way to properly secure and lockdown B Building
- More card reader access is recommended on site
- Walk-in refrigerator is undersized. Many repairs have been required to keep equipment running

Site Improvements

- Pedestrian paving was noted to be in poor condition with multiple repairs needed due to cracks, spalling, and worn painting
- Weather stripping on doors are in poor condition and should be replaced

Findley Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: *Findley Elementary School*

Age: 1997

Size (SF): 72,052

Area: 9.96 acres

Assessment Date: 12/17/19

Student Population: 636

School Ratings

Facility Conditions Index: 0.221

Avg Condition Score: 3.34 out of 5

Asset Count: 114

Energy Use Intensity: 41.64

EUI Target (<=50 hrs/wk): <29

EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $16,406,224

Year 1 Asset Replacement Cost: $187,386

Current Replacement Value: $36,836,585

Energy Spend*

Electricity: $63,496

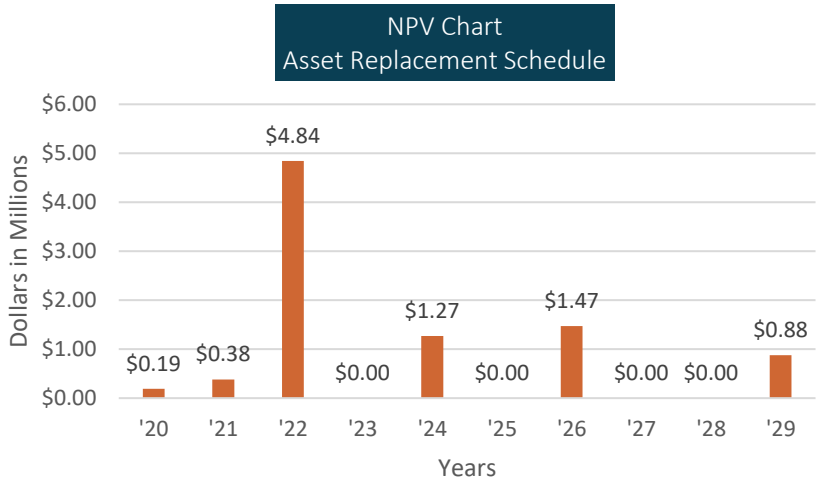
Natural Gas: $9,358

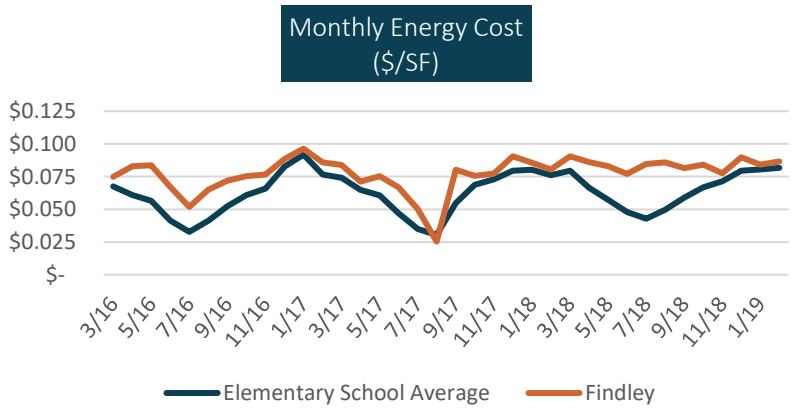
Water Spend*: $12,857

**3/19 – 2/20*

Critical Asset Infrastructure – Replacement Priority

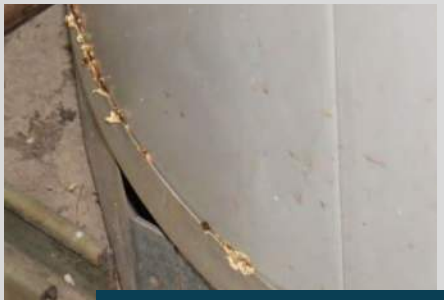
Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$2,068,613	S4	NA
Mechanical	HVAC	$2,539,717	4	1-3
Site Work	Parking Lot	$88,077	4	5
Interior Finishes	Carpet, Doors	$401,654	4	2
Mechanical	Plumbing	$51,110	5	1





clogged roof drains

leaking drain damaging wall



suspected water heater leak

poorly secured gate

General Building Condition

Roof

- Roof is in fair condition with some clogged drains and moss growth
- Roof access hatches are in poor condition

Mechanical/HVAC

- HVAC equipment is generally in fair condition
- Some hot and cold areas noted in the building
- Boiler noted to have an unusually loud hum
- Building controls are in poor condition and do not have local access

Electrical

- Electrical service & distribution equipment is in generally fair condition
- Improper storage of items noted in front of electrical equipment
- Lighting control system consists of some motion sensors
- T8 and CFL lighting installed throughout the school

Plumbing

- Plumbing fixtures were noted to be in fair condition
- Exposed rust at the bottom of the water heater points to a potential leak
- Below grade waste pump noted to fail occasionally
- Potential leak in the drain near rear door results in moss growth

Fire, Life, Safety

- All storm drain should be cleaned

Interior Finishes

- Metal mesh in door glass is a potential safety hazard
- Old carpet from the 1990s noted on interior floors and stairs. This carpet is extremely worn and should be replaced soon
- Resilient floor tiles are old and in very poor condition. There are cracks and gaps in the tiles throughout the school
- Ceiling tiles are missing in the gym hallway
- Several window seals noted to be worn and should be resealed
- Several door seals are missing and damaged. Seals should be reapplied

Conveyance

- A single elevator is located at the school. The elevator is in fair condition

Utilities

- Site communications & security systems are in generally fair to good condition

Site Improvements

- Parking lot is in generally poor condition with moss growth, alligatoring, and cracked curbs throughout
- Pedestrian paving is in fair condition though there are some uneven pathways
- Re-caulking needed for some exterior concrete walls
- Gate in corner of playfield locks loosely

Fir Grove Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: *Fir Grove Elementary School*

Age: 1954

Size (SF): 60,666

Area: 12.0 acres

Assessment Date: 7/30/19

Student Population: 387

School Ratings

Facility Conditions Index: 0.324

Avg Condition Score: 3.54 out of 5

Asset Count: 112

Energy Use Intensity: 33.69
EUI Target (<=50 hrs/wk): <29
EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $14,746,103

Year 1 Asset Replacement Cost: $6,139,424

Current Replacement Value: $31,015,493

Energy Spend*

Electricity: $32,602

Natural Gas: $9,891

Water Spend*: $2,623

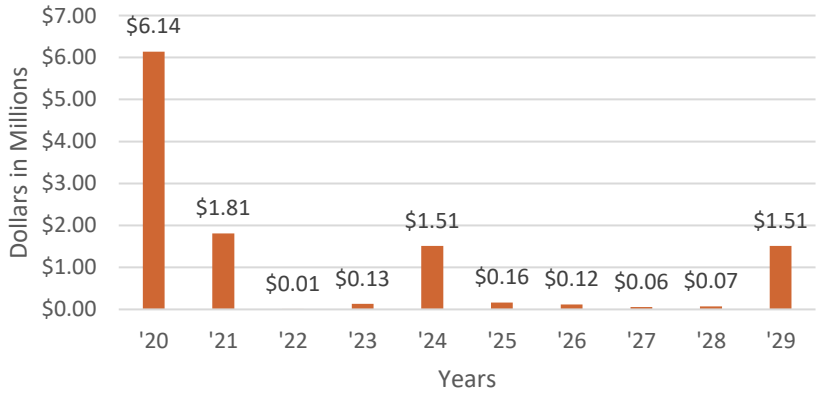
**3/19 – 2/20*

McKinstry
For The Life Of Your Building

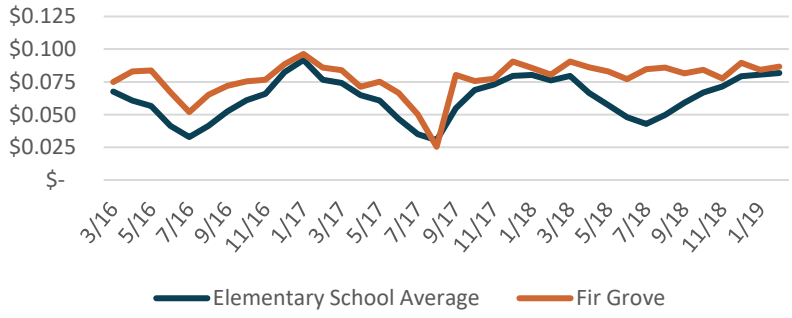
Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$4,064,015	S6	NA
Mechanical	HVAC	$180,232	5,4	1
Electrical	Elec Panel, Switchboard	$212,385	5	1
Roofing	Built Up, Asphalt	$1,350,000	4	2
Exterior Enclosures	Windows, Doors, Siding	$1,355,414	5,4	1,5
Interior Finishes	Ceiling Tile	$73,406	4	2
Mechanical	Plumbing, Storm Sewer	$49,830	5,4	1,2

NPV Chart
Asset Replacement Schedule



Monthly Energy Cost
($/SF)



exposed ballasted roof surface

failed rooftop exhaust fan

switchgear condition

mold in windows

General Building Condition

Roof

- Asphalt shingle roof is in poor condition with significant moss build up
- Ballasted roof area is in very poor condition with significant debris and moss build up. Felt fibers are visible through roof tar

Mechanical/HVAC

- HVAC equipment was noted to be in poor condition overall. Two failed exhaust fans were noted on site and should be replaced

Electrical

- Main incoming switchgear in boiler room is in poor condition with duct tape noted over breakers
- Electrical equipment was generally found to be in poor condition

Plumbing

- Plumbing fixtures were noted to be in good condition overall
- B Wing restrooms and C Wing classroom sinks are prone to frequent back ups

Fire, Life, Safety

- With the exception of A Hall, fire alarming and notification was noted to be limited. Additional coverage is recommended
- No carbon monoxide monitoring noted near gas oven
- All storm drain should be cleaned

Interior Finishes

- Inefficient single paned wood windows are recommended for replacement
- Metal framed windows were noted to be moldy
- Interior stairs are in poor condition with significant wear. Additionally, the stairs off the gym storeroom to the attic is non code compliant
- Drywall finish needs patch and painting particularly north on A Hall
- The hallway between B and C Hall has a leaky roof
- Resilient tile is in poor condition throughout

Utilities

- Site communication and security was deemed minimal at best
- Storm sewer was backed up behind building
- Additional access control recommended on site. Card reader usage is limited

Site Improvements

- Exterior panel siding walls show signs of separation from building with numerous soft spot areas
- Site lighting is limited and could benefit from increased coverage
- Tree roots are causing damage to outside benches
- Exterior door weather stripping is worn and should be replaced
- Exterior room B126 east soffit is sagging

Greenway Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: *Greenway Elementary School*

Age: 1979

Size (SF): 54,991

Area: 9.45 acres

Assessment Date: 9/18/19

Student Population: 318

School Ratings

Facility Conditions Index: 0.224

Avg Condition Score: 4.07 out of 5

Asset Count: 156

Energy Use Intensity: 45.89
EUI Target (<=50 hrs/wk): <29
EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $10,584,391

Year 1 Asset Replacement Cost: $1,007,558

Current Replacement Value: $28,114,149

Energy Spend*

Electricity: $40,118

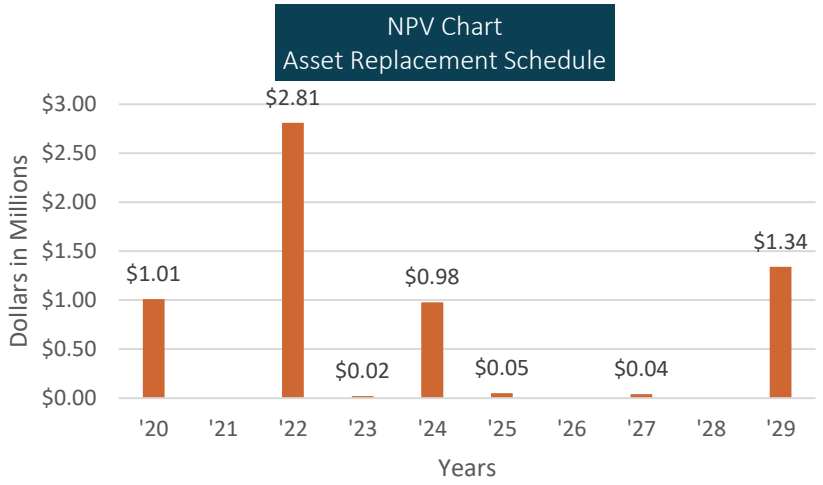
Natural Gas: $10,076

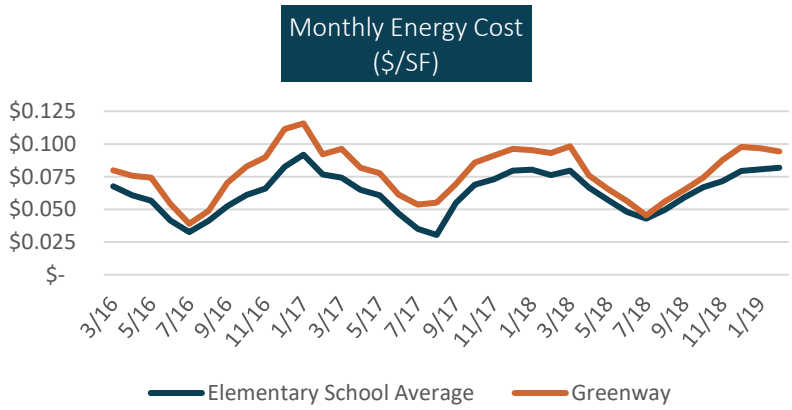
Water Spend*: $5,620

**3/19 – 2/20*

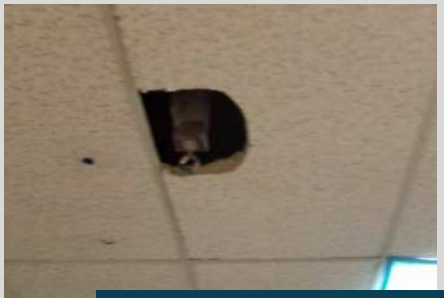
Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$2,631,319	S4	NA
Mechanical	HVAC	$861,932	5	1
Roofing	Built Up with Gravel	$285,953	4	5
Mechanical Utilities	Storm Sewer	$15,000	4	1
Commercial Equipment	Food Service	$21,000	4	3,5





debris build up on roof



damaged ceiling tiles

wire mesh door

failing refrigerator insulation

General Building Condition

Roof

- Built-up M-Building roof is in poor condition
- TPO roof is in fair condition but has significant debris build up

Mechanical/HVAC

- HVAC distriution was noted to be in poor condition as multiple hot and cold areas were identified throughout the building
- HVAC controls are a combination of pneumatic and older JCI controls in poor condition
- Air leaks were noted at library air handling units

Electrical

- Electrical service and distribution equipment were found to be in fair condition
- Site lighting is a combination of T8 and LED lighting

Plumbing

- Plumbing fixtures were noted to be in generally fair condition
- No pan or earthquake strapping was noted on domestic water heaters

Fire, Life, Safety

- No fence is present at the front of the creek. This can be a potential access and safety concern
- All storm drain should be cleaned. Fern growing in drain

Interior Finishes

- Interior finishes are overall in fair condition. Some minor items of note include cracks on drywall, staining in carpet, and damaged ceiling tiles
- Metal mesh in door windows are a potential safety concern

Utilities

- RFID access is newly installed and still in excellent condition
- Walk in refrigerator insulation is failing and should be replaced

Site Improvements

- Exterior aluminum and fiberglass walls are in poor condition with missing panels, missing painting, and water damage
- Campus cannot be secured because of lack of fencing near creek
- Parking and pedestrian paving is in good condition with minor cracking
- Site lighting provide poor coverage and should be increased
- Wood fill at playground area is low and can be a tripping hazard

Hazeldale Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: Hazeldale *Elementary School*

Age: 1954, 2018

Size (SF): 89,000

Area: 7.20 acres

Assessment Date: 11/13/19

Student Population: 467

School Ratings

Facility Conditions Index: 0.025

Avg Condition Score: 1.47 out of 5

Asset Count: 219

Energy Use Intensity: 42.70
EUI Target (<=50 hrs/wk): <29
EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $8,977,081

Year 1 Asset Replacement Cost: $0

Current Replacement Value: $45,501,250

Energy Spend*

Electricity: $23,885

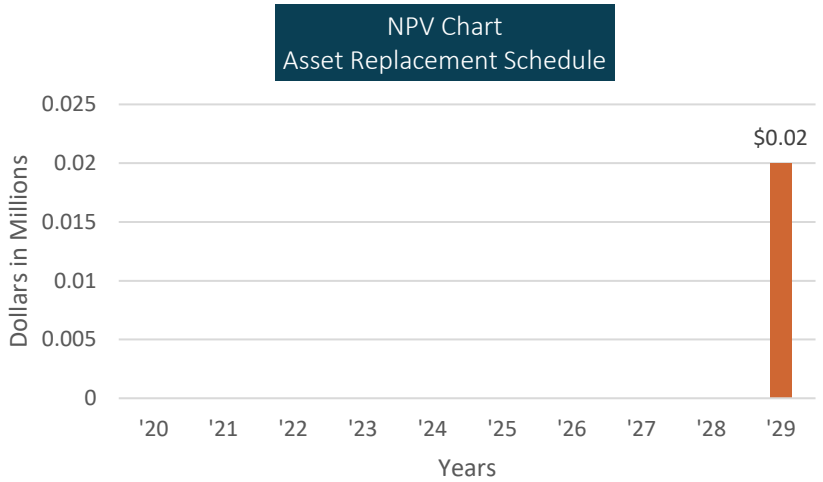
Natural Gas: $16,218

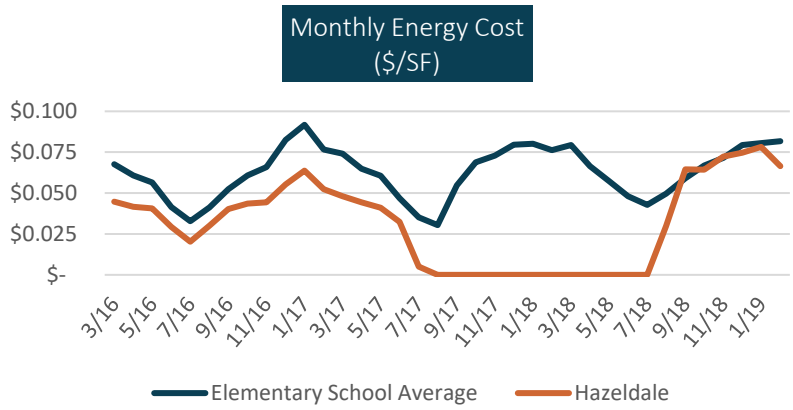
Water Spend*: $15,609

**3/19 – 2/20 School closed from 8/12-7/18 for remodel*

Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
None				





TPO roof condition

like new HVAC equipment

cracking on concrete floor

playground condition

General Building Condition

Roof

- TPO roof is in good condition. Most water drains are clean with some low spots with stagnant water

Mechanical/HVAC

- HVAC equipment and distribution system are in excellent condition

Electrical

- Electrical service and distribution equipment are in excellent condition
- Lighting control system includes daylight harvesting and occupancy sensors
- LED lighting installed throughout the campus

Plumbing

- Plumbing fixtures are in excellent condition and primarily low flow fixtures

Fire, Life, Safety

- All storm drain should be cleaned

Interior Finishes

- Interior finishes (walls, floors, and ceilings) are in excellent condition. A couple minor areas of note include small nicks in the wall, minor cracking, and areas of some concrete settling

Conveyance

- Elevator is in like-new excellent condition

Utilities

- Site communication and security was noted to be in excellent condition. Exterior cameras are installed along the perimeter

Site Improvements

- Exterior enclosure is in excellent condition
- Playground equipment is in excellent condition with AstroTurf installed in playground area
- Parking and pedestrian paving is in excellent condition

BEAVERTON SCHOOL DISTRICT
THRIVE • CONTRIBUTE • EXCEL

Hiteon Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: Hiteon *Elementary School*

Age: 1974

Size (SF): 78,972

Area: 12 acres

Assessment Date: 9/1/19

Student Population: 634

School Ratings

Facility Conditions Index: 0.234

Avg Condition Score: 3.44 out of 5

Asset Count: 154

Energy Use Intensity: 40.34
EUI Target (<=50 hrs/wk): <29
EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $16,728,184

Year 1 Asset Replacement Cost: $2,040,324

Current Replacement Value: $40,374,435

Energy Spend*

Electricity: $75,153

Natural Gas: $9,499

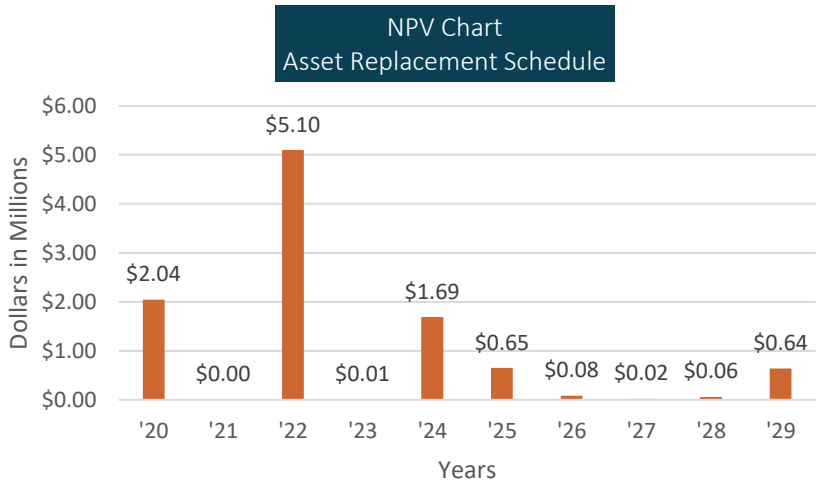
Water Spend*: $9,591

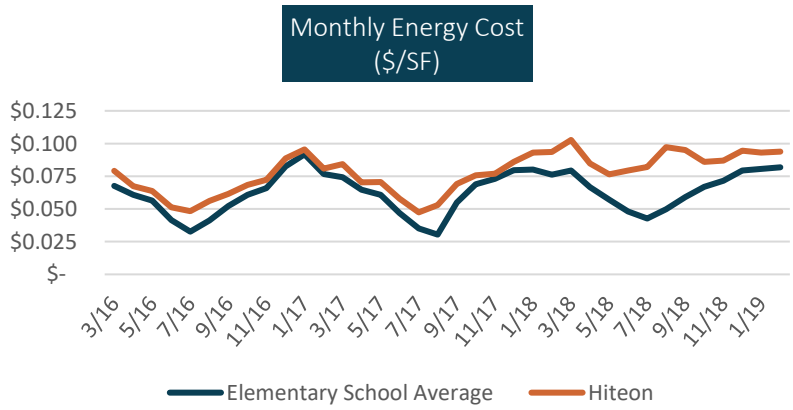
**3/19 – 2/20 School closed from 8/12-7/18 for remodel*

McKinstry
For The Life Of Your Building

Critical Asset Infrastructure – Replacement Priority

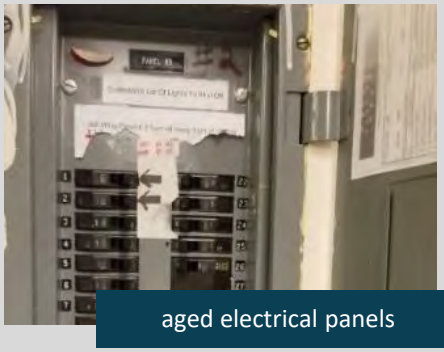
Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$3,778,810	S4	NA
Mechanical	HVAC-AHU, Fan, Etc.	$1,320,962	5, 4	1
Electrical	Switchboard	$148,960	5	1
Roofing	Built-Up	$1,026,636	4	3
Mechanical Utilities	Storm Sewer	$15,000	4	1
Interior Finishes	Floor Tile	$222,109	4	5





drainage issues on roof

newly installed chiller



aged electrical panels

sinking area along perimeter

General Building Condition

Roof

- Built up roof is in poor condition with standing water and moss growth in areas. This area should be scheduled for a replacement soon
- TPO section of the roof is in fair condition

Mechanical/HVAC

- Overall HVAC equipment was in fair condition. Items of note include a newly installed chiller and some failed Carrier condenser units
- Building controls were a combination of pneumatic and Metasys controls that were in poor condition

Electrical

- Several aged electrical panels were identified
- Lighting control system includes some motion sensing and some ultrasound
- T8 lighting was installed on site

Plumbing

- Plumbing equipment noted to be in overall fair condition
- A recent failed pressure regulator caused a flood and has since been fixed
- No pans were noted under domestic water heaters

Fire, Life, Safety

- All storm drain should be cleaned

Interior Finishes

- Interior finishes (walls, floors, and ceilings) are in fair condition. Areas of concern include some cracks on walls, wear to carpet tiles, and water stains to ceiling tiles
- Metal mesh in door glass and interior windows are a potential safety hazard
- Inefficient single pane windows should be replaced

Utilities

- Recommend increasing surveillance coverage
- Oil leaking in compartment of the 100 KW generator (Notified maintenance)

Site Improvements

- Potential sinking area identified outside café at D Building due to rainwater overflow creating erosion
- Exterior enclosure is in overall fair condition with some minor hairline cracks and damage
- Pedestrian paving is in poor condition. Some sunken concrete at entry, damaged concrete new dumpster, and too narrow sidewalk new bus lane
- Site lighting coverage was assessed to be low and could benefit from increased coverage near corner of building

BEAVERTON SCHOOL DISTRICT
THRIVE • CONTRIBUTE • EXCEL

Jacob Wismer Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: Jacob Wismer *Elementary School*

Age: 1999

Size (SF): 72,863

Area: 8.39 acres

Assessment Date: 12/11/19

Student Population: 727

School Ratings

Facility Conditions Index: 0.149

Avg Condition Score: 2.83 out of 5

Asset Count: 126

Energy Use Intensity: 38.08
EUI Target (<=50 hrs/wk): <29
EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $12,313,176

Year 1 Asset Replacement Cost: $175,313

Current Replacement Value: $37,251,209

Energy Spend*

Electricity: $50,591

Natural Gas: $11,473

Water Spend*: $16,052

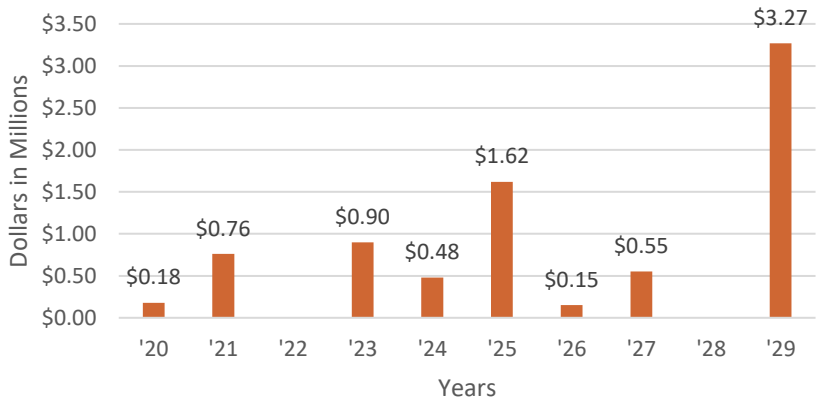
**3/19 – 2/20*

McKinstry
For The Life Of Your Building

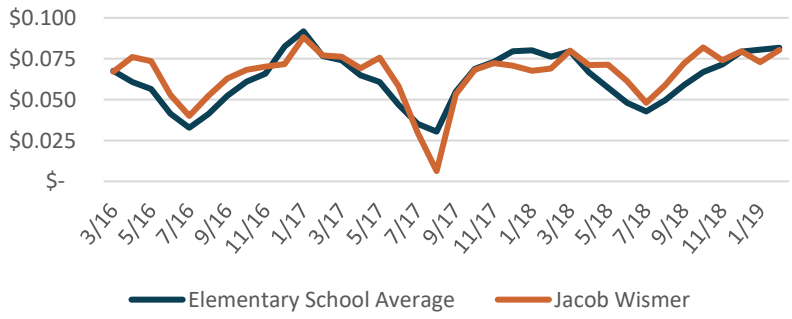
Critical Asset Infrastructure – Replacement Priority

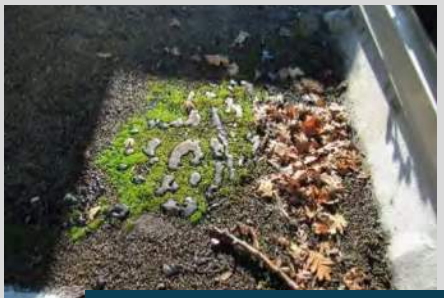
Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$697,299	S4	NA
Mechanical	Boiler.	$102,856	4	2
Pluming	Pump. Water Heater	$69,333	4	1
Commercial Equipment	Food Service	$30,000	4	5
Electrical	Generator	$25,000	4	4
Interior Finishes	Carpet	$297,718	4	2

NPV Chart
Asset Replacement Schedule



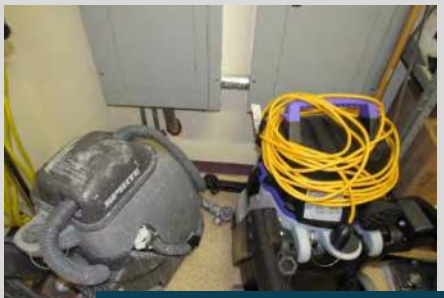
Monthly Energy Cost
($/SF)



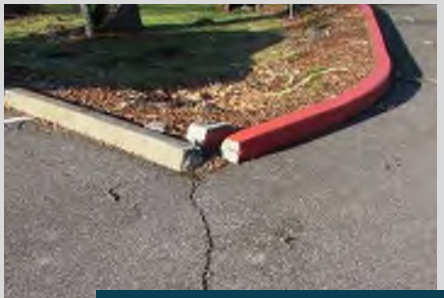


moss and other organic build up

rust on rooftop equipment



blocked electrical panels



broken curbs

General Building Condition

Roof

- Minor leaks and organic accumulation noted on roof. Overall roof is still in fair condition

Mechanical/HVAC

- HVAC equipment is primarily in fair condition with a couple items of note. Multiple repairs were noted on boiler. Rust evident on air conditioning units. No redundancy was available for boiler

Electrical

- Electrical system and distribution equipment were noted to be in fair condition. Improper storage of material was noted in front of electrical panel. Items should be relocated to allow for safe access to panels
- T8 lighting was installed throughout the school

Plumbing

- Plumbing fixtures were noted to be in generally fair condition

Fire, Life, Safety

- All storm drain should be cleaned

Interior Finishes

- Interior floor finishes are in fair to poor condition. Significant wear noted in classroom carpet. Minor cracking evident in classroom resilient tiles
- Interior ceiling finish is in fair to good condition. Minor damage evident on some ceiling tiles
- Folding wall in gym is difficult to operate with components failing
- Wire mesh in door glass is a potential safety hazard

Conveyance

- One elevator and one ADA lift noted. Both are in good condition

Utilities

- Site communication and security equipment was noted to be in good to fair condition. Ten closed circuit surveillance cameras were installed on site
- Recommend increasing surveillance coverage
- Oil leaking in compartment of the 100 KW generator (Notified maintenance)

Site Improvements

- Parking and pedestrian paving is in fair condition. Some broken curbs present a potential trip hazard
- Classrooms pods do not have door that can be secured which is a security and access concern
- Students can easily access roof using metal siding. Area should be secured to prevent unsafe access
- Rear fence noted to not be secured during the day. Fence should be properly locked during the day to secure the school
- Playground area is low on wood chips and should be refilled

Kinnaman Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: Kinnaman *Elementary School*

Age: 1975

Size (SF): 80,837

Area: 7.86 acres

Assessment Date: 10/15/19

Student Population: 599

School Ratings

Facility Conditions Index: 0.246

Avg Condition Score: 3.64 out of 5

Asset Count: 190

Energy Use Intensity: 37.58
EUI Target (<=50 hrs/wk): <29
EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $16,775,033

Year 1 Asset Replacement Cost: $2,879,180

Current Replacement Value: $41,327,916

Energy Spend*

Electricity: $44,046

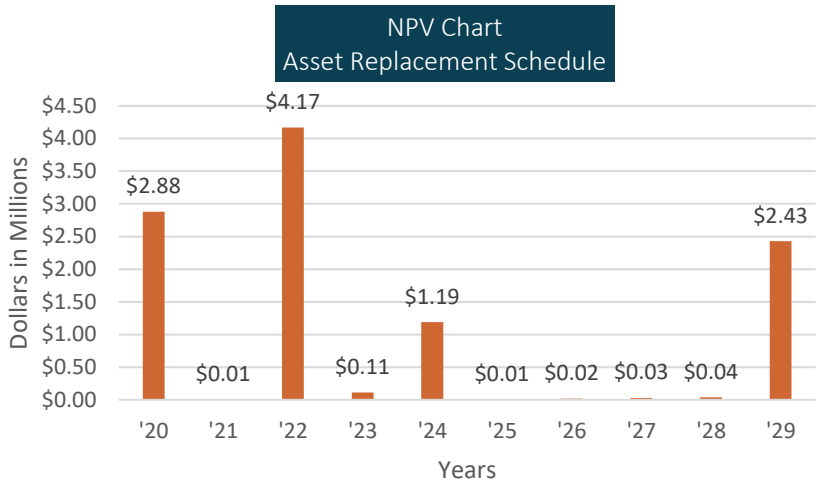
Natural Gas: $13,658

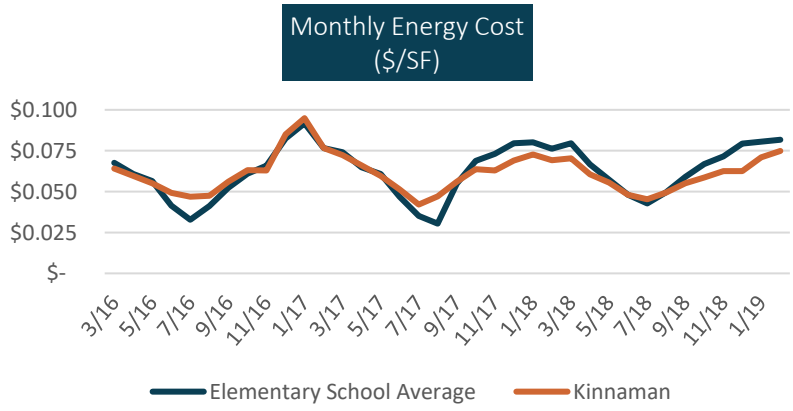
Water Spend*: $11,742

**3/19 – 2/20*

Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$3,868,050	S4	NA
Mechanical	HVAC-AHU, Fans, Control.	$1,278,834	5, 4	1-5
Pluming	Pump. Sanitary Waste	$251,677	5, 4	1-5
Roofing	Single Ply	$1,584,405	5	1
Electrical	Switchboard	$181,520	5	1
Portable Classroom	Portable	$160,000	4	5





worn roof surface

corroded piping

water stained ceiling

cracked sidewalk curb

General Building Condition

Roof

- Singly ply ballasted roof is in very poor condition. Roof surface is worn and cracked with significant moss and debris accumulation. Staff noted that the roof is scheduled to be replaced in the next year

Mechanical/HVAC

- Newer chiller and pumps were installed in C-Hall
- Water leak noted near boiler and should be remediated
- Building controls were a combination of pneumatic controls with DDC layover
- The dishwasher generates a lot of steam which the exhaust hood cannot capture. This creates excessive temperature in the space. Ventilation capacity should be increased in this area
- Rooftop exhaust clogged with leaves and should be cleared

Electrical

- Electrical service and distribution equipment noted to be in generally poor condition. Improper storage of items was found in front of electrical panels. Items should be relocated to allow for safe access to panels
- Lighting control system is comprised of manual switches with motion detection
- T8 lighting was installed throughout the school

Plumbing

- Plumbing equipment noted to be in fair overall condition
- Inadequate roof drainage noted during heavy rains. Roof drains become clogged and overflows during heavy downpours
- Drain cover in boiler room is corroding

Fire, Life, Safety

- All storm drain should be cleaned

Interior Finishes

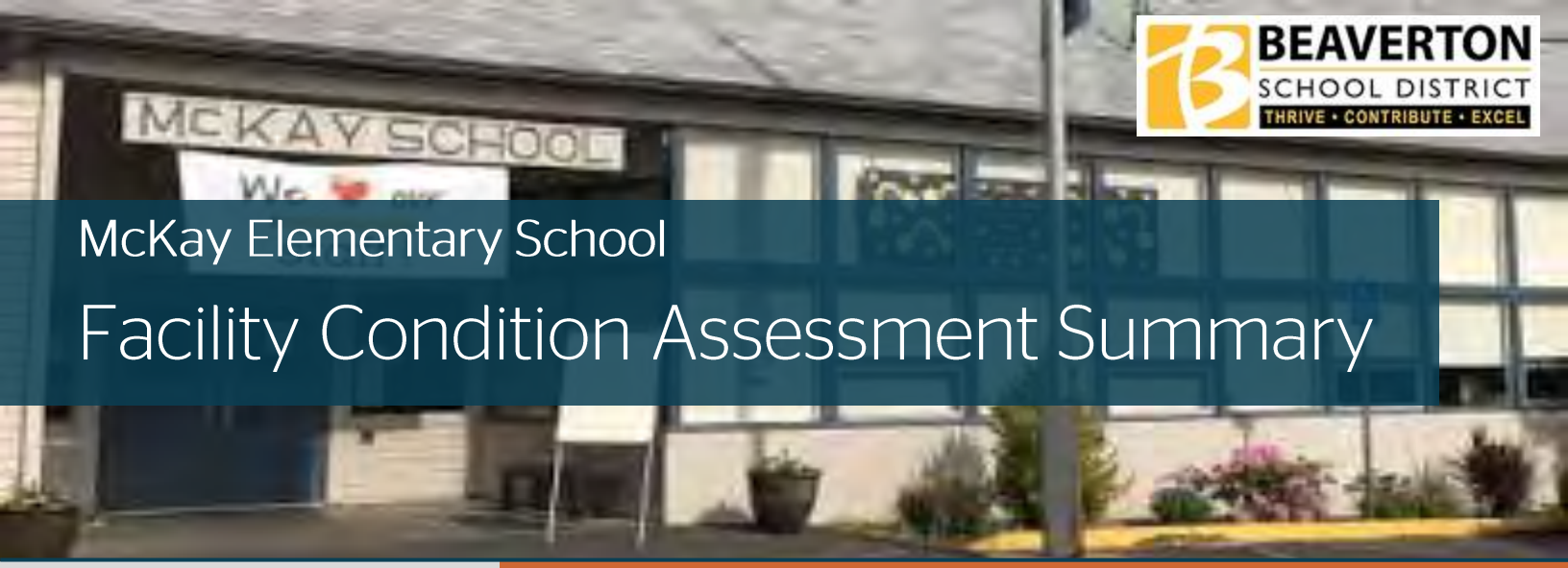
- Wall and floor finishes are in fair to good condition. Ceiling finishes show more wear with failing ceiling tiles, cracked panels, and water stains
- Inefficient single pane windows in lobby and A-Building should be replaced
- Metal mesh in door glass is a potential safety hazard
- Slip resistant sheets on stairs are significantly worn and present a potential safety hazard

Utilities

- Site communication & security equipment noted to be in fair condition

Site Improvements

- Parking lot and pedestrian paving is in fair condition. Parking lot has some alligatoring and cracks. Pedestrian paving has some minor cracks and sunken areas that present potential trip hazards
- Perimeter does not provide adequate security near C-Hall
- Playground area has low wood fill which can be a potential tripping hazard



BEAVERTON SCHOOL DISTRICT
THRIVE • CONTRIBUTE • EXCEL

McKay Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: McKay *Elementary School*

Age: 1929

Size (SF): 48,736

Area: 5.44 acres

Assessment Date: 7/29/19

Student Population: 269

School Ratings

Facility Conditions Index: 0.252

Avg Condition Score: 3.14 out of 5

Asset Count: 146

Energy Use Intensity: 49.83
EUI Target (<=50 hrs/wk): <29
EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $10,402,200

Year 1 Asset Replacement Cost: $3,524,971

Current Replacement Value: $24,916,280

Energy Spend*

Electricity: $30,087

Natural Gas: $13,335

Water Spend*: $1,842

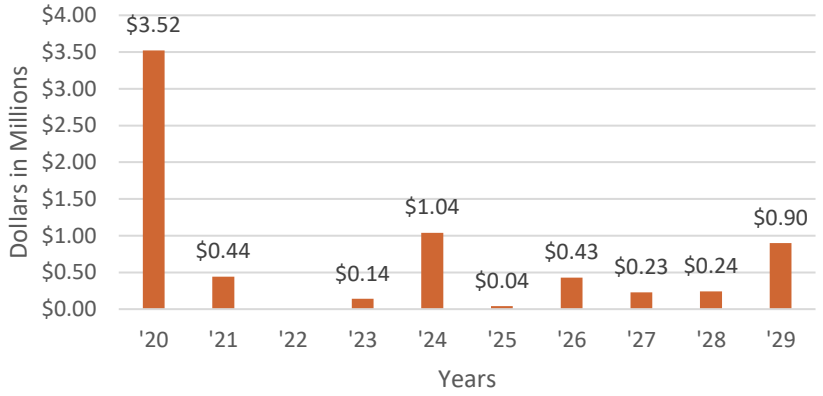
**3/19 – 2/20*

McKinstry
For The Life Of Your Building

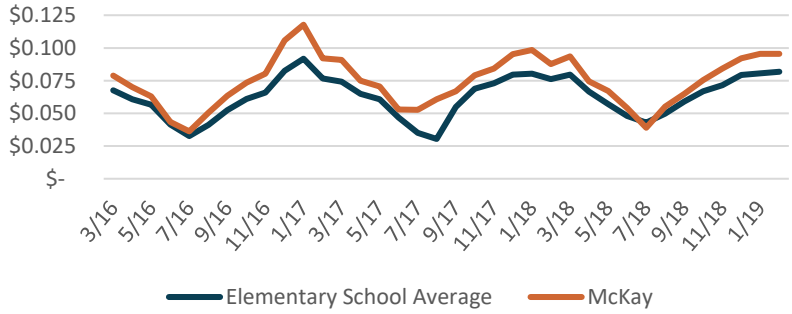
Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$3,264,825	S6	NA
Mechanical	HVAC-UV, Fan	$106,103	5, 4	1-5
Roofing	Built-Up w/ Gravel	$253,27	4	5
Exterior Enclosures	Windows	$74,274	5	1
Interior Finishes	Floor, Doors	$176,162	4	2, 4

NPV Chart
Asset Replacement Schedule

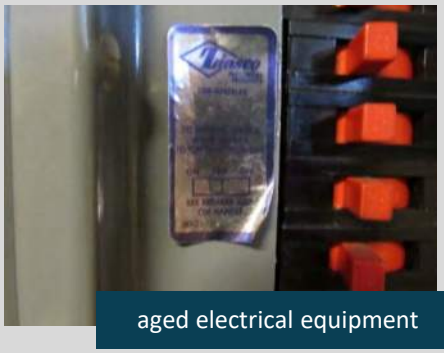


Monthly Energy Cost
($/SF)



organic build up on roof

newer HVAC condition



aged electrical equipment

playground condition

General Building Condition

Roof

- Single ply roof is in very poor condition. Significant organic debris has built up in sections of the roof

Mechanical/HVAC

- HVAC equipment was noted to be in fair condition overall

Electrical

- Electrical service and distribution equipment is aged and in poor condition

Plumbing

- Plumbing fixture was noted to be in fair overall condition
- Rainwater drainage noted to be clogged on South Wing

Fire, Life, Safety

- All storm drain should be cleaned.

Interior Finishes

- Interior finishes (walls, ceilings, and floors) are overall in fair condition. Carpet is severely worn in some classroom areas
- Wire mesh in door glass is a potential safety concern
- Inefficient single pane windows should be replaced
- Fixed furnishing still functional but old and outdated

Conveyance

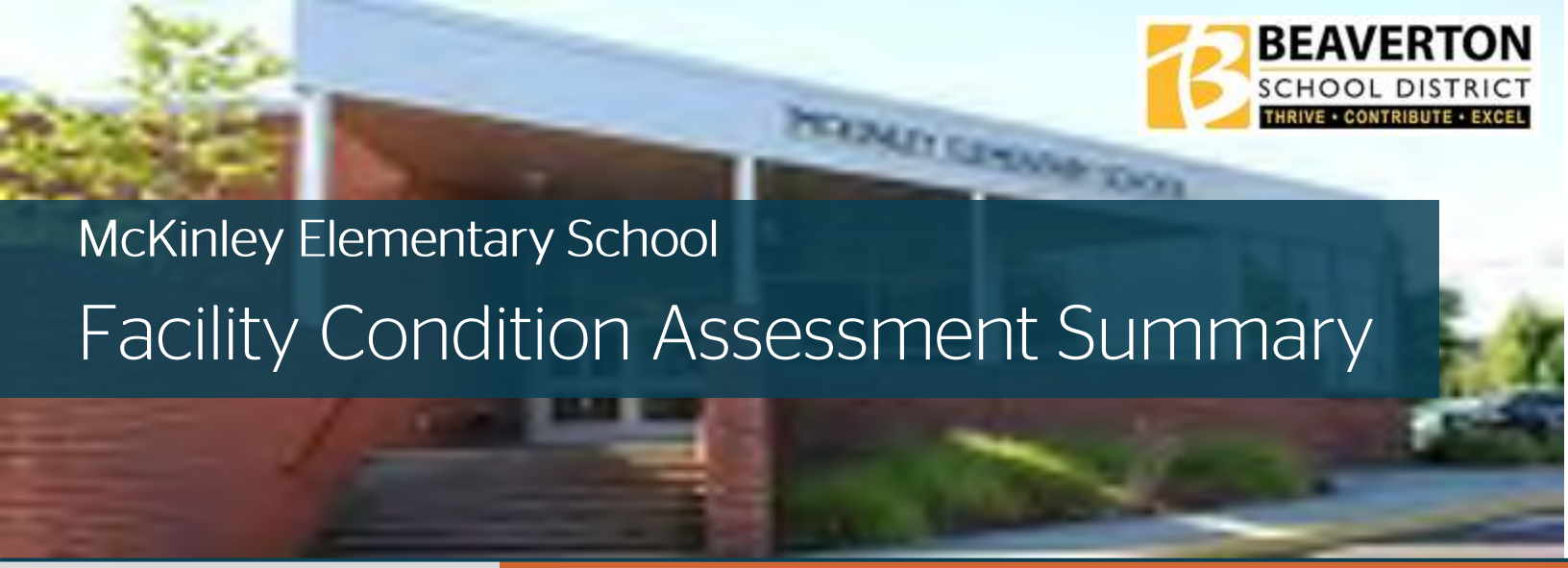
- One elevator located on site. Elevator was noted to be in good condition

Utilities

- Site communication & security system was noted to be in fair condition

Site Improvements

- Parking lots and pedestrian paving are in fair condition
- Site landscaping is in excellent condition
- Weatherstripping is worn on exterior doors and should be replaced
- Site lighting coverage is limited to the perimeter. Additional coverage is recommended



BEAVERTON SCHOOL DISTRICT
THRIVE • CONTRIBUTE • EXCEL

McKinley Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: McKinley *Elementary School*

Age: 1944

Size (SF): 61,265

Area: 10.02 acres

Assessment Date: 8/27/19

Student Population: 634

School Ratings

Facility Conditions Index: 0.279

Avg Condition Score: 3.43 out of 5

Asset Count: 180

Energy Use Intensity: 48.13
EUI Target (<=50 hrs/wk): <29
EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $14,870,794

Year 1 Asset Replacement Cost: $358,007

Current Replacement Value: $31,321,731

Energy Spend*

Electricity: $48,939

Natural Gas: $14,119

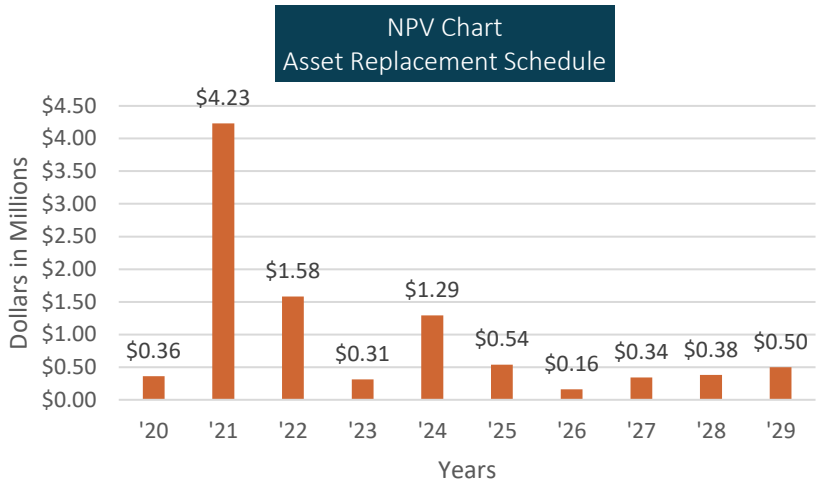
Water Spend*: $8,006

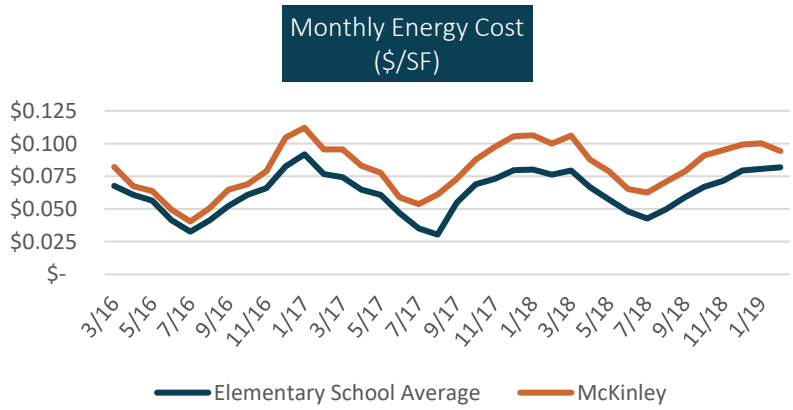
**3/19 – 2/20*

McKinstry
For The Life Of Your Building

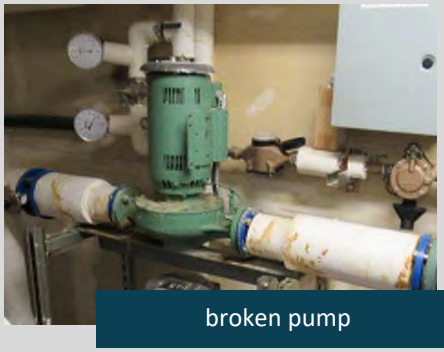
Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$4,104,142	S5	NA
Mechanical	HVAC-AHU, AC	$587,588	5, 4	1, 4
Plumbing	Domestic Water System	$446,009	5	2
Roofing	Built-Up & Sky Light	$1,461,101	4	3
Exterior Enclosures	Aluminum Windows	$116,710	4	5
Mechanical Utilities	Storm Sewer	$15,000	4	1





poorly sealed skylights



broken pump

wall damage from plumbing leak

mold growth along ceiling

General Building Condition

Roof

- Roof is in poor condition with some moss build up and leaking areas
- Skylights above play area are poorly sealed

Mechanical/HVAC

- Major positive pressure issue noted in M5 building which prevents the main entrance from closing properly
- Boiler #1 hot water circulation pump (P-1) needs to be replaced
- Exhaust fan on northeast side of main building has a broken fan belt
- JCI Metasys and programmable thermostats are dated

Electrical

- Improper storage of items blocking access to electrical equipment
- Electrical service & distribution equipment is in generally fair condition
- Lighting control system consists of manual switches with a digital panel
- T5, T8, and CFL lighting installed throughout the school

Plumbing

- Leaks in southwest boy's restroom leads to regular drywall repairs
- Toilets have recurring issues with leaks and backups
- Domestic hot water heater #2 does not have proper clearance since room is used for storage.
- Domestic water pipes are old and need replaced in E & W halls, two restrooms and city main tie-in

Fire, Life, Safety

- All storm drain should be cleaned

Interior Finishes

- Resilient floor tile has cracking and uneven surfaces throughout which presents a potential trip hazard
- Stage area requires a new finish
- Ceiling tiles in W Hall have signs of mold evident
- Inefficient single pane windows should be replaced
- Metal mesh in door glass is a potential safety hazard

Utilities

- Card reader access is not installed at all entrances and is recommended to be added at all entrances

Site Improvements

- Site lighting provides inadequate coverage of building perimeter and parking
- Bark levels in playground area are dangerously low leading to a 10" drop from the playground edge. Bark chips should be refilled
- Kids are able to access roof of the main building. This area should be properly secured to prevent unwanted access
- Large hornets noted to return every year under covered play area
- Overgrown blackberry bushes noted along south side of main building
- Center courtyard has a rodent infestation
- Stair foundation to northwest door of M5 building is crumbling
- Minor cracking noted on exterior walls

Montclair Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: Montclair *Elementary School*

Age: 1970

Size (SF): 38,526

Area: 7.2 acres

Assessment Date: 9/6/19

Student Population: 319

School Ratings

Facility Conditions Index: 0.206

Avg Condition Score: 3.53 out of 5

Asset Count: 103

Energy Use Intensity: 47.91
EUI Target (<=50 hrs/wk): <29
EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $7,581,028

Year 1 Asset Replacement Cost: $525,305

Current Replacement Value: $19,696,418

Energy Spend*

Electricity: $26,441

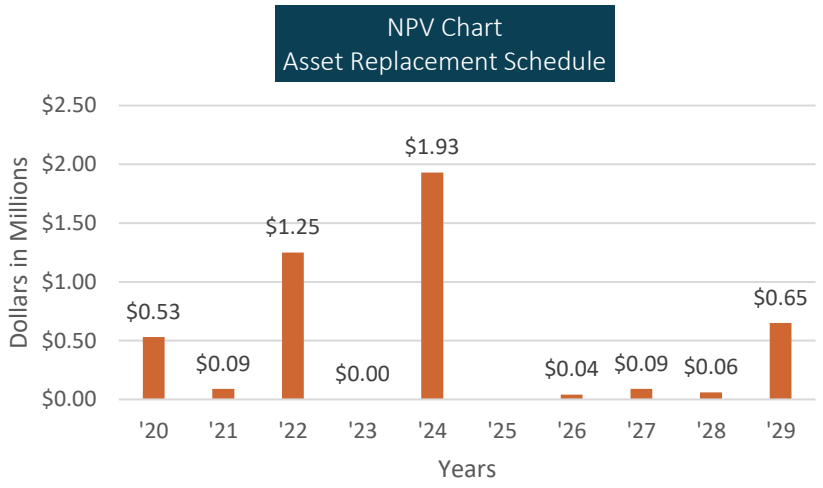
Natural Gas: $9,510

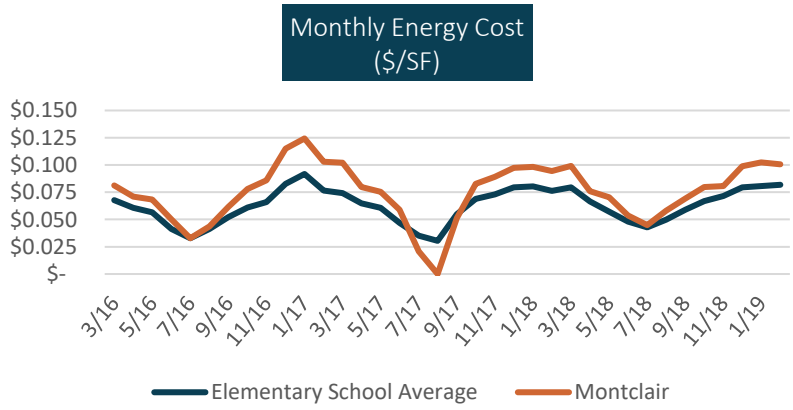
Water Spend*: $9,191

**3/19 – 2/20*

Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$1,106,081	S4	NA
Plumbing	Water Heater, Exp Tank	$27,095	5	1
Roofing	Built-Up w/ Gravel	$851,425	5	1
Electrical	Switchboard, VFD	$328,570	5	1
Exterior Enclosures	Aluminum Windows	$73,392	4	1
Electrical	Comm & Security	$78,978	4	2, 3
Mechanical	HVAC	$120,870	4	1-5





moss build up on roof

exhaust fan condition

undersized walk-in fridge

cracking paving

General Building Condition

Roof

- Built up asphalt roof is in poor condition with significant moss growth and evidence of leaks throughout

Mechanical/HVAC

- HVAC equipment is in generally poor condition
- There is no cooling in the gym
- Modular rooftop units have bad Magnehelic gauges
- Hot water circulation pump (P2) VFD is missing its controller face

Electrical

- Electrical service & distribution equipment generally in poor condition
- Breaker missing in main electrical room Panel E
- Improper storage of items block access to electrical equipment. Items should be relocated to ensure safe access to equipment
- Lighting control system consists of manual switches
- T8 and CFL lighting installed throughout the school

Plumbing

- Main domestic water heater pan is full and should be emptied. Auxiliary domestic water heater does not have a drip pan or earthquake straps
- Very poor site drainage noted

Fire, Life, Safety

- Sprinklers limited to the main building only
- All storm drain should be cleaned

Interior Finishes

- Area of original carpet are in poor condition and very worn
- Minor damage to ceiling tiles due to leaks
- Inefficient single pane windows should be replaced
- Stage area needs to be resurfaced and stained
- Wire mesh in door glass is a potential safety hazard

Utilities

- Outdoor PA system noted to be too quiet for the students and staff
- Walk-in fridges are noted to be undersized and inadequate for school needs

Site Improvements

- Parking lot and pedestrian paving are in poor condition and needs repainting
- Lots of blackberries and weeds noted along the north perimeter
- Site lighting does not provide sufficient coverage over parking lots
- Playfield is not level and in poor condition
- Perimeter fencing needs to be better secured
- Minor cracking noted along masonry exterior walls

BEAVERTON SCHOOL DISTRICT
THRIVE • CONTRIBUTE • EXCEL

Nancy Ryles Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: Nancy Ryles *Elementary School*

Age: 1992

Size (SF): 71,119

Area: 7.0 acres

Assessment Date: 11/4/19

Student Population: 630

School Ratings

Facility Conditions Index: 0.233

Avg Condition Score: 3.59 out of 5

Asset Count: 155

Energy Use Intensity: 38.89
EUI Target (<=50 hrs/wk): <29
EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $16,489,916

Year 1 Asset Replacement Cost: $398,398

Current Replacement Value: $36,359,589

Energy Spend*

Electricity: $55,057

Natural Gas: $9,778

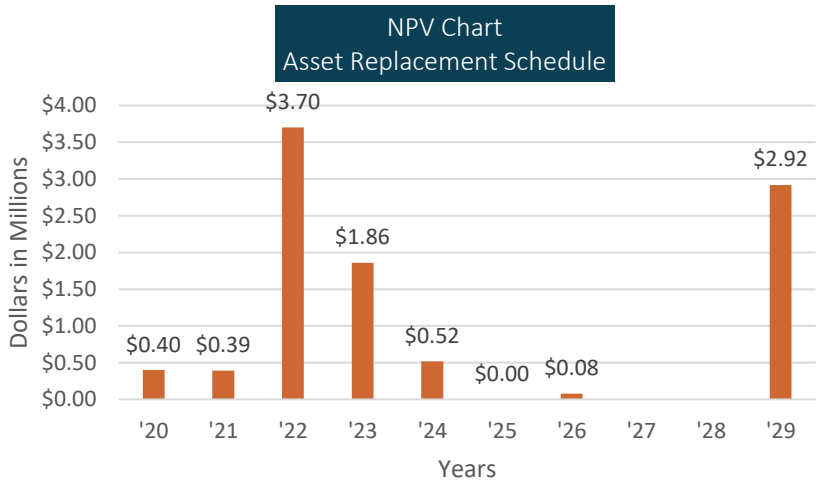
Water Spend*: $7,130

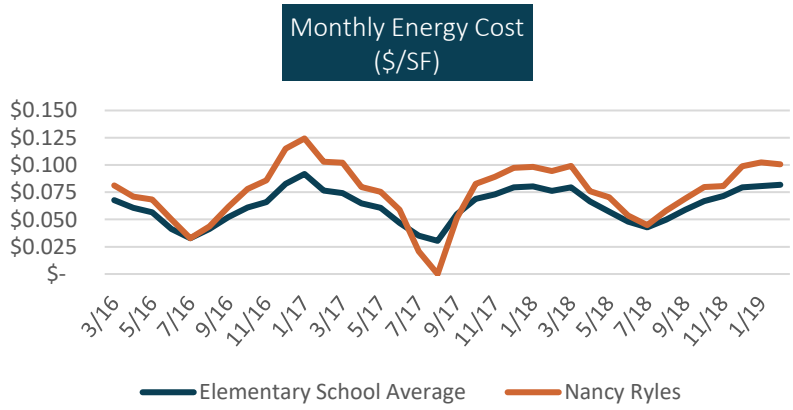
**3/19 – 2/20*

McKinstry
For The Life Of Your Building

Critical Asset Infrastructure – Replacement Priority

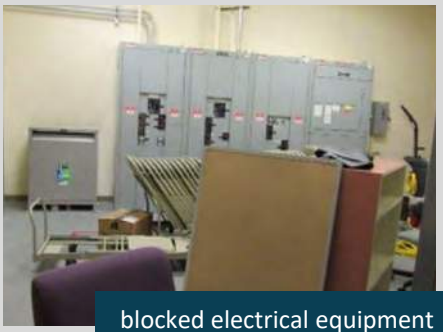
Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$3,403,044	S4	NA
Plumbing	Water Heater, Pump	$51,734	5	1
Mechanical	HVAC-Chiller, MAU	$401,671	5	1, 2
Electrical	Switchboard, VFD	$328,570	5	1
Site Work	Parking Lots, Pedestrian	$70,397	4	1, 5
Electrical	Lighting, Generator, MCC	$148,240	4	2, 4
Mechanical	HVAC-AHU, Boiler, VAV	$1,581,035	4	4





cracking on roof surface

rusted rooftop equipment



blocked electrical equipment

overgrown drainage

General Building Condition

Roof

- Asphalt shingle roof is in fair condition with moderate moss growth
- Some cracking noted on single ply roof edge and seam

Mechanical/HVAC

- McQuay chiller is rusted, and enclosure is overgrown with moss.
- Refrigerant piping is failing and should be replaced
- Some rusting components noted on rooftop units and condensing units. Condenser units on roof have failed refrigerant pipe insulation
- No cooling noted in gym which is causing overheating during high peak loads
- Exterior damage noted to Boiler 1 and exhaust fans
- VFDs are recommended for pumps
- Building controls is a combination of pneumatics and JCI Metasys

Electrical

- Electrical panels in hallways are unlocked. These panels should be locked for occupant safety
- Improper storage of items was noted in front of panels and transformers in custodial office and main electrical room. Items should be relocated for safe access to the electrical equipment
- Lighting control system includes occupancy sensors and daylighting controls
- T8 lighting was installed throughout the campus

Plumbing

- Plumbing fixtures were noted to be generally in fair condition

Fire, Life, Safety

- No sprinklers noted in portables
- All storm drain should be cleaned

Interior Finishes

- Interior finishes (walls, ceilings, and floors) are in fair to good condition. Minor areas of wear on carpet tiles

Conveyance

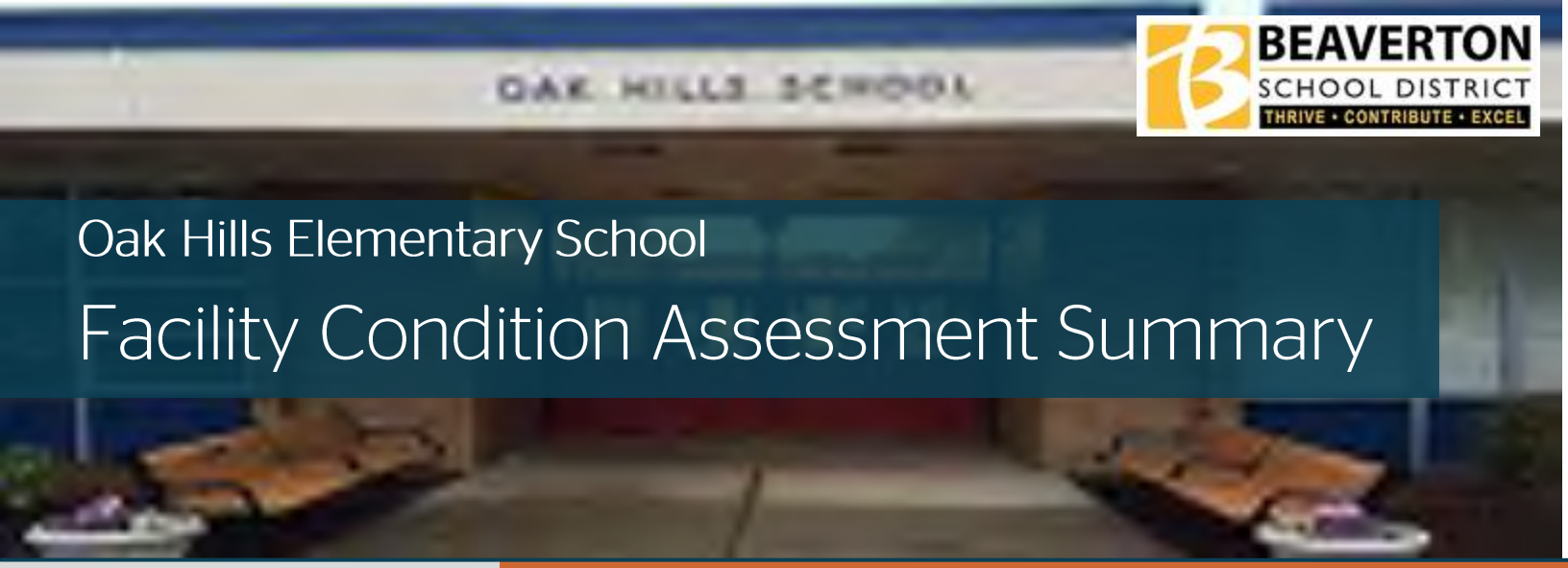
- One elevator and one stage lift noted on site. Both are in good condition

Utilities

- Communication system could benefit from upgrades. Intercom system in gym and outdoor PA system needs replacement

Site Improvements

- Perimeter fencing could be better secured. Through traffic ends up using school grounds
- Rainwater drainage has led to water damage to exterior masonry wall
- Parking lot and pedestrian paving are in poor condition. Cracking and worn painting noted throughout
- Main entrance layout creates a bottleneck that causes parent to drop off on residential streets and create prolonged traffic jams



BEAVERTON SCHOOL DISTRICT
THRIVE • CONTRIBUTE • EXCEL

Oak Hills Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: Oak Hills *Elementary School*

Age: 1967

Size (SF): 49,890

Area: 9.02 acres

Assessment Date: 10/18/19

Student Population: 551

School Ratings

Facility Conditions Index: 0.200

Avg Condition Score: 3.69 out of 5

Asset Count: 107

Energy Use Intensity: 44.73
EUI Target (<=50 hrs/wk): <29
EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $8,656,387

Year 1 Asset Replacement Cost: $703,804

Current Replacement Value: $25,506,263

Energy Spend*

Electricity: $39,655

Natural Gas: $9,338

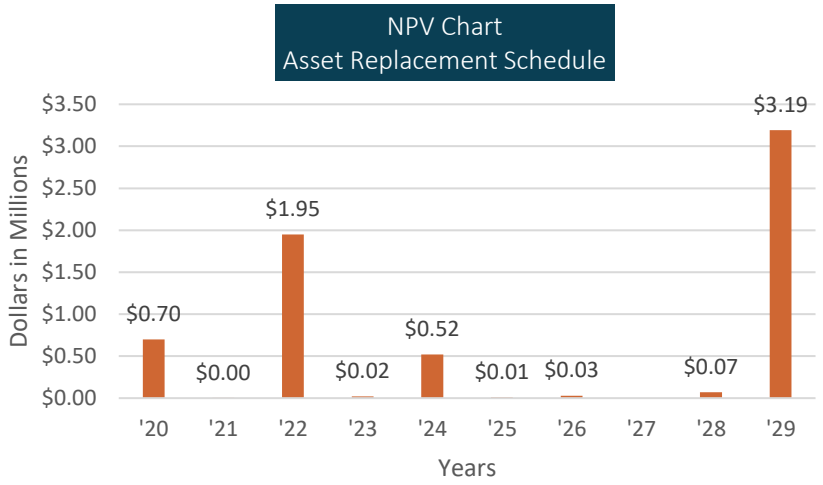
Water Spend*: $6,968

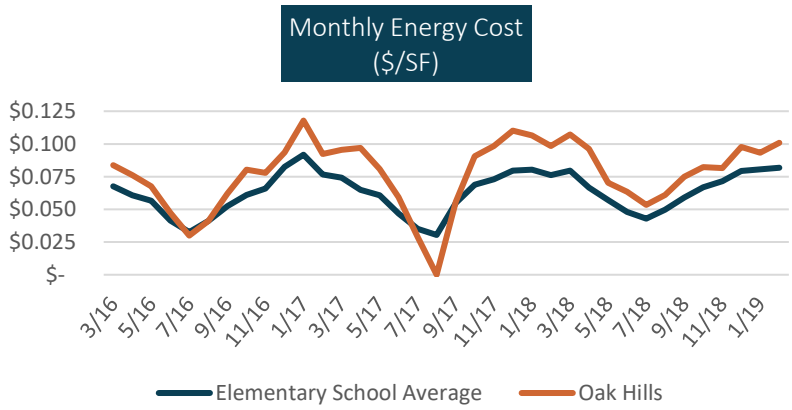
**3/19 – 2/20*

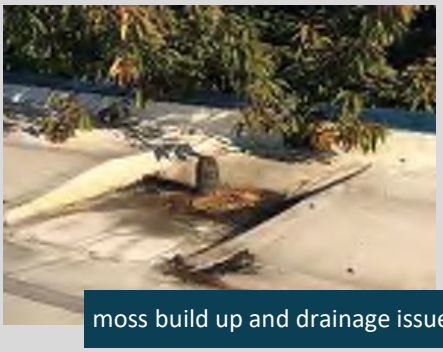
McKinstry
For The Life Of Your Building

Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$1,432,342	S4	NA
Mechanical	HVAC-AHU, MAU, Boiler	$504,603	5, 4	1
Electrical	Lighting, VFD	$104,160	5	1
Site Work	Parking Lots, Pedestrian	$65,476	4	5
Exterior Enclosures	Aluminum Windows	$95,040	5	1







moss build up and drainage issues

rust on top of ductwork

potential panel fire hazard

worn out parking lots

General Building Condition

Roof

- Roof is in fair condition though there are a couple of areas with standing water, clogged drains and moss growth
- Ladder to gym roof is missing extendable handle for safe access

Mechanical/HVAC

- HVAC equipment was noted to be in generally fair condition
- Refrigerant piping at roof is frozen and should be better insulated
- Some rust on ductwork and exterior of rooftop air conditioning
- Modine air handling unit above café has outside air damper shut at 100%

Electrical

- Aged Zinsco panels are a potential fire hazard and should be scheduled for replacement
- Lighting control system included manual switches with motion detection
- Frequent breaker trips noted in kitchen area
- T8 lighting installed throughout the campus

Plumbing

- Plumbing fixtures were noted to be in generally fair condition

Fire, Life, Safety

- All storm drain should be cleaned

Interior Finishes

- Interior finishes (walls, ceilings, and floors) are mostly in fair condition. Some areas of the carpet is worn and needs replacement. Signs of water damage to ceiling tiles noted particularly in kitchen and main hall area
- Wire mesh in glass door is a potential safety hazard
- Inefficient single pane windows are recommended for replacement

Utilities

- Site communications & security system noted to be in fair condition

Site Improvements

- Parking lot and pedestrian paving are in poor condition. Both have cracking, alligatoring, and uneven surfaces. Parking lots need restriping. Pedestrian paving needs removal of accumulated moss
- Site lighting noted to provide poor coverage between the school and portables
- Exterior lighting noted to be on during the day

BEAVERTON SCHOOL DISTRICT
THRIVE • CONTRIBUTE • EXCEL

Raleigh Hills K-5 School

Facility Condition Assessment Summary

QUICK FACTS

General Information

***School**: Raleigh Hills K-5 School*

Age: 1927

Size (SF): 56,647

Area: *10* acres

Assessment Date: 6/4/19

Student Population: 359

School Ratings

Facility Conditions Index: 0.410

Avg Condition Score: 3.54 out of 5

Asset Count: 169

Energy Use Intensity: 46.3
EUI Target (<=50 hrs/wk): <29
EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $17,151,119

Year 1 Asset Replacement Cost: $9,504,064

Current Replacement Value: $28,960,779

Energy Spend*

Electricity: $38,738

Natural Gas: $14,616

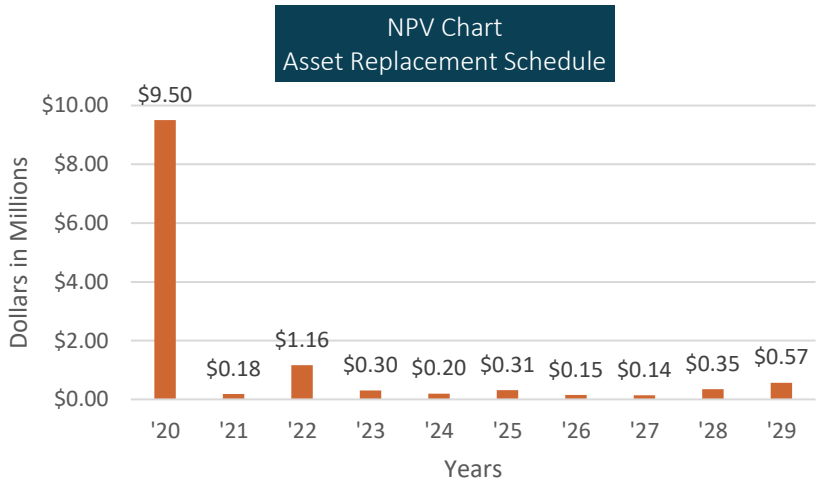
Water Spend*: $10,108

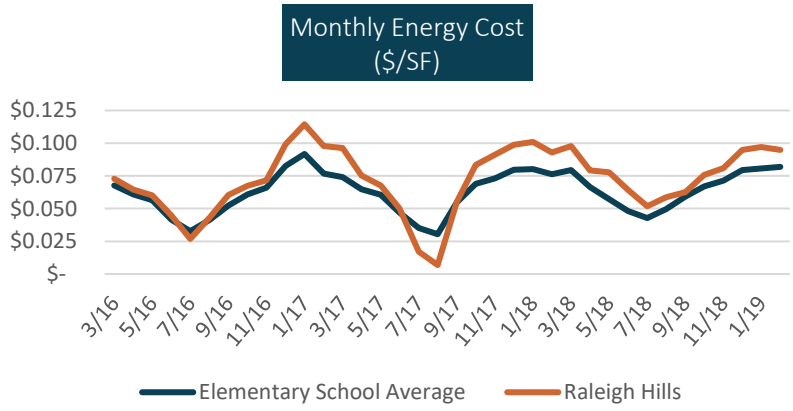
**3/19 – 2/20*

McKinstry
For The Life Of Your Building

Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$4,879,006	S6	NA
Roof	Built-Up	$637,279	5	0
Roof	Metal	$538,147	4	0
Mechanical	HVAC	$1,067,088	4, 5	1-3
Mechanical	Steam Piping	$566,470	4	0
Exterior Enclosures	Walls/Windows	$1,178,257	4	0
Plumbing	Domestic Water Dist	$793,058	4	0





rotting roof soffits

Aged fire sprinkler system

inaccessible water heater

worn site paving

General Building Condition

Roof

- Roof is in very poor condition, significant moss growth, soft spots, metal is warped, and soffits have rot and damage in many areas due to leaks.

Mechanical/HVAC

- Steam distribution pipes are original (80 years old) and can be assumed to start failing.
- Building control systems are obsolete

Electrical

- Exposed Electrical connection to several condensing units on the rooftop (notified maintenance)
- Exterior lighting is sparse and should be upgraded to newer LED lamps

Plumbing

- Water heaters are at or exceed expected useful life and water heater located in LL18 is inaccessible due to clutter in the closet. Closet should be cleared of storage items, so a code required clearance is available for the water heater (notified maintenance).

Fire, Life, Safety

- Fire sprinkler system components are obsolete and only provides partial coverage.
- No surveillance present

Interior Finishes

- Interior paint needs a refresh, patch and repair.
- Flooring is stained, worn, and/or cracked. Potential asbestos containing material (encapsulated).
- Stained and/or damaged ceiling tiles throughout, should be replaced.

Exterior Enclosures

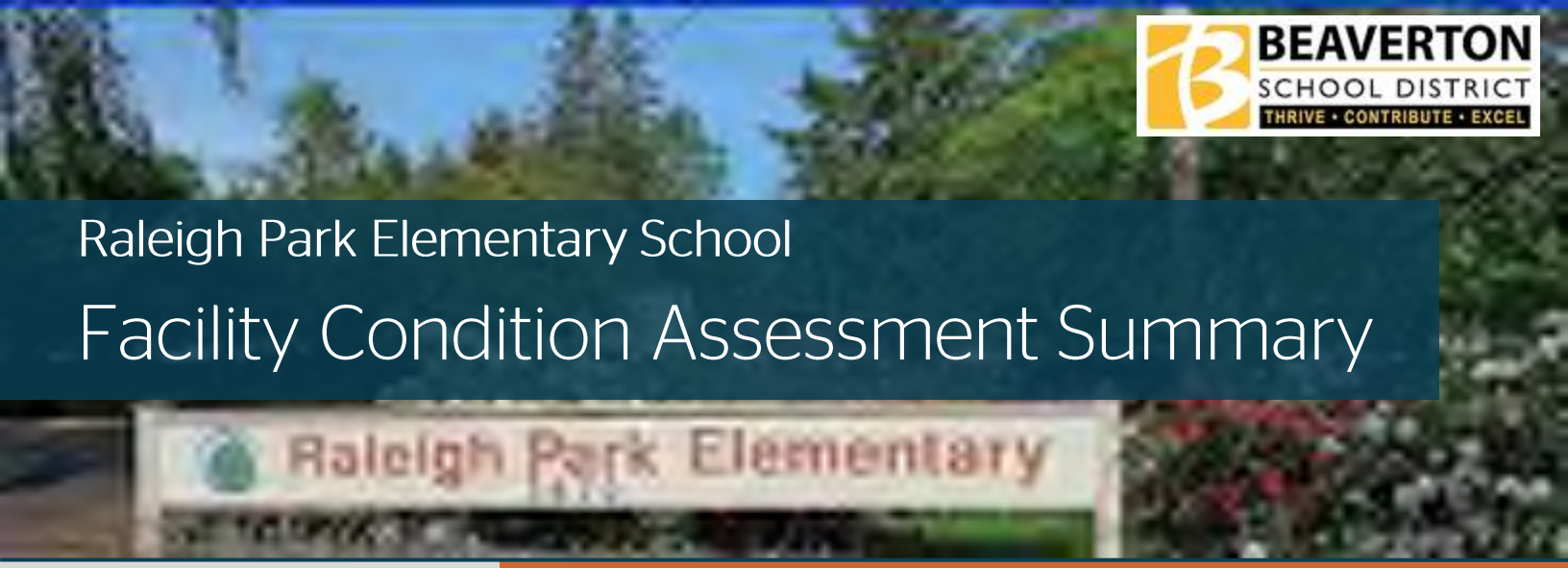
- Original building (A Wing) has many cracks and water intrusion at foundation
- A Wing's northeast facing brick is in bad condition, leaks into the basement
- Single pane windows for a majority of the school. Recommend caulking if they're not going to be replaced

Utilities

- Sanitary waste system appears to be not adequately sized or designed to keep up with demand. Formally on septic system.
- Storm drains should be cleaned.

Site Improvements

- Parking lot is alligatoring



BEAVERTON SCHOOL DISTRICT
THRIVE • CONTRIBUTE • EXCEL

Raleigh Park Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: Raleigh Park *Elementary School*

Age: 1957

Size (SF): 45,166

Area: 15.5 acres

Assessment Date: 8/27/19

Student Population: 332

School Ratings

Facility Conditions Index: 0.344

Avg Condition Score: 3.81 out of 5

Asset Count: 113

Energy Use Intensity: 40.40

EUI Target (<=50 hrs/wk): <29
EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $12,540,585

Year 1 Asset Replacement Cost: $5,816,423

Current Replacement Value: $23,091,118

Energy Spend*

Electricity: $21,685

Natural Gas: $8,040

Water Spend*: $4,640

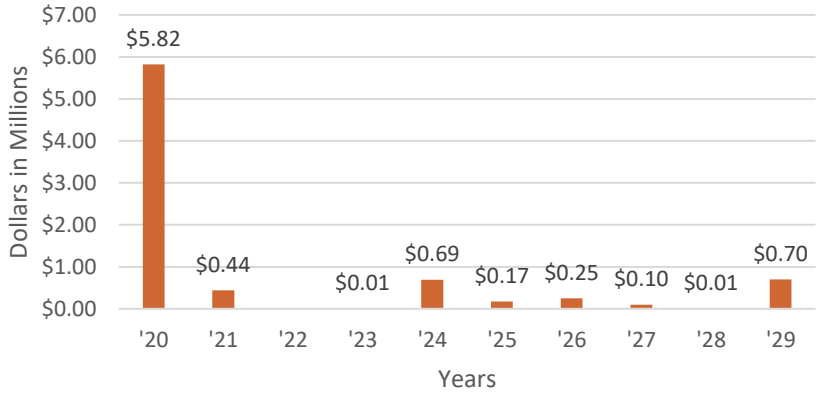
**3/19 – 2/20*

McKinstry
For The Life Of Your Building

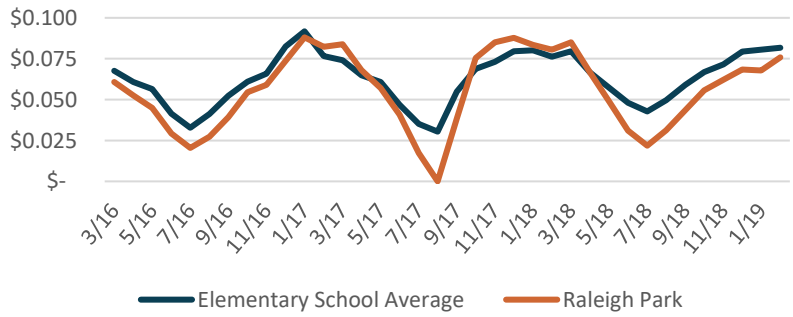
Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$3,890,148	S6	NA
Mechanical	HVAC-Unit Vent., Controls	$789,201	5, 4	1, 2
Roofing	Built-Up	$1,174,316	5	1
Commercial Equipment	Food Services	$30,500	5	1
Electrical	Lighting & Controls	$54,199	4	2
Exterior Enclosures	Aluminum Windows	$172,082	5	2

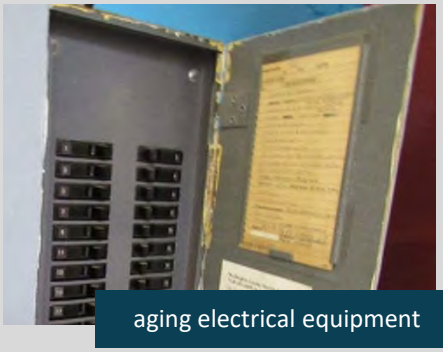
NPV Chart
Asset Replacement Schedule



Monthly Energy Cost
($/SF)



poor roof condition



aging electrical equipment

wire mesh in door glass

unsecure campus perimeter

General Building Condition

Roof

- Built up gravel roof is in very poor condition at the end of its useful life. The roof has excessive moss build up and signs up leaks throughout

Mechanical/HVAC

- HVAC equipment is in generally good condition
- Building controls are in poor condition with a combination of older pneumatic and JCI Metasys controls

Electrical

- Electrical service & distribution equipment is in very poor condition with equipment well past its useful life
- Lighting control system is in poor condition. Photocells fail annually and gym light controls consists of breakers only with panel cover cut
- Lighting and branch wiring is in very poor condition with aging equipment and a conduit on the roof detached

Plumbing

- Plumbing fixtures are in generally fair condition
- Rainwater drainage is very poor. Low points with no drains cause extensive flooding about 3 to 4 times a year on east side of the building and play area when it rains

Fire, Life, Safety

- All storm drain should be cleaned

Interior Finishes

- Metal mesh in door glass is a potential safety hazard
- Inefficient single pane windows should be replaced
- Stage area need to be resurfaced and restained

Utilities

- Existing site communication & security systems are in good to fair condition but recommend adding surveillance cameras to the property

Site Improvements

- Parking lots and pedestrian paving are in fair condition with minor cracking and areas of worn paint
- Trees along the perimeter of the building needs to be trimmed back because it is compounding moss growth on the roof
- Property is not properly fenced and does not properly secure the school
- Site lighting does not provide sufficient coverage in the parking area
- Paved play areas are sloped with no drainage and floods several times a year
- Abandoned drain near edge of school presents a potential infiltration and trip hazard concern

BEAVERTON SCHOOL DISTRICT
THRIVE • CONTRIBUTE • EXCEL

Ridgewood Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: Ridgewood *Elementary School*

Age: 1958

Size (SF): 54,059

Area: 7.0 acres

Assessment Date: 8/8/19

Student Population: 410

School Ratings

Facility Conditions Index: 0.217

Avg Condition Score: 2.42 out of 5

Asset Count: 171

Energy Use Intensity: 38.80
EUI Target (<=50 hrs/wk): <29
EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $11,626,041

Year 1 Asset Replacement Cost: $218,854

Current Replacement Value: $27,637,664

Energy Spend*

Electricity: $35,896

Natural Gas: $8,977

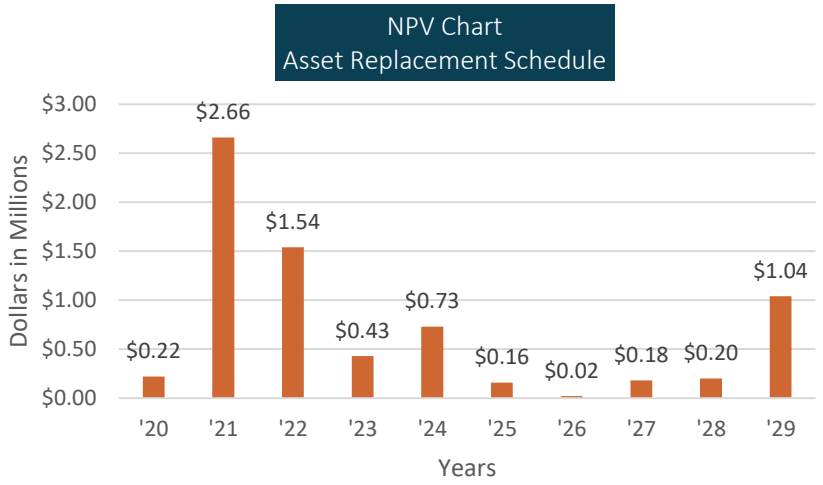
Water Spend*: $14,498

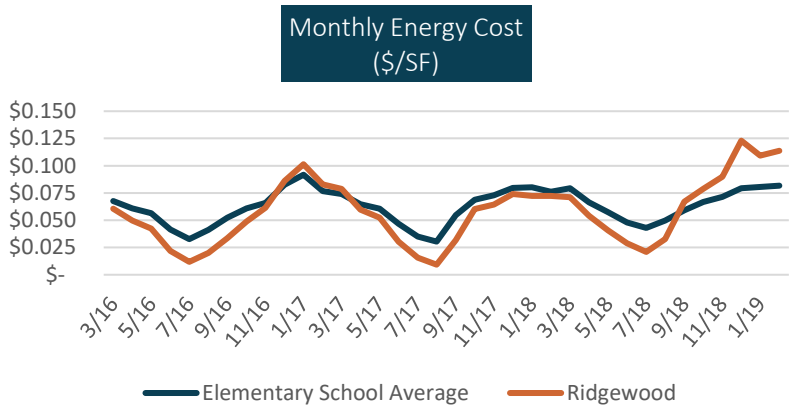
**3/19 – 2/20*

McKinstry
For The Life Of Your Building

Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$2,586,723	S5	NA
Mechanical	HVAC-AHU, UH	$88,321	5	1
Roofing	Built-Up w/ Gravel	$1,405,534	4	3
Electrical Utilities	Site Lighting	$39,463	4	3
Exterior Enclosures	Aluminum Windows	$205,965	4	5





moss growth around skylights

newer HVAC equipment

loose ceiling tile edges

playground condition

General Building Condition

Roof

- BUR Ballasted roof is in poor condition with several worn areas and moss growth evident throughout

Mechanical/HVAC

- Most HVAC equipment appeared to be fairly new and in good condition
- New VRF system was recently installed in office area
- Debris should be cleared from condensate drain for unit ventilators
- HVAC ductwork is brand new and in excellent condition

Electrical

- Electrical equipment noted to be in generally fair condition though some panels have exceeded their useful life

Plumbing

- Plumbing equipment is noted to be in generally fair condition

Fire, Life, Safety

- All storm drain should be cleaned

Interior Finishes

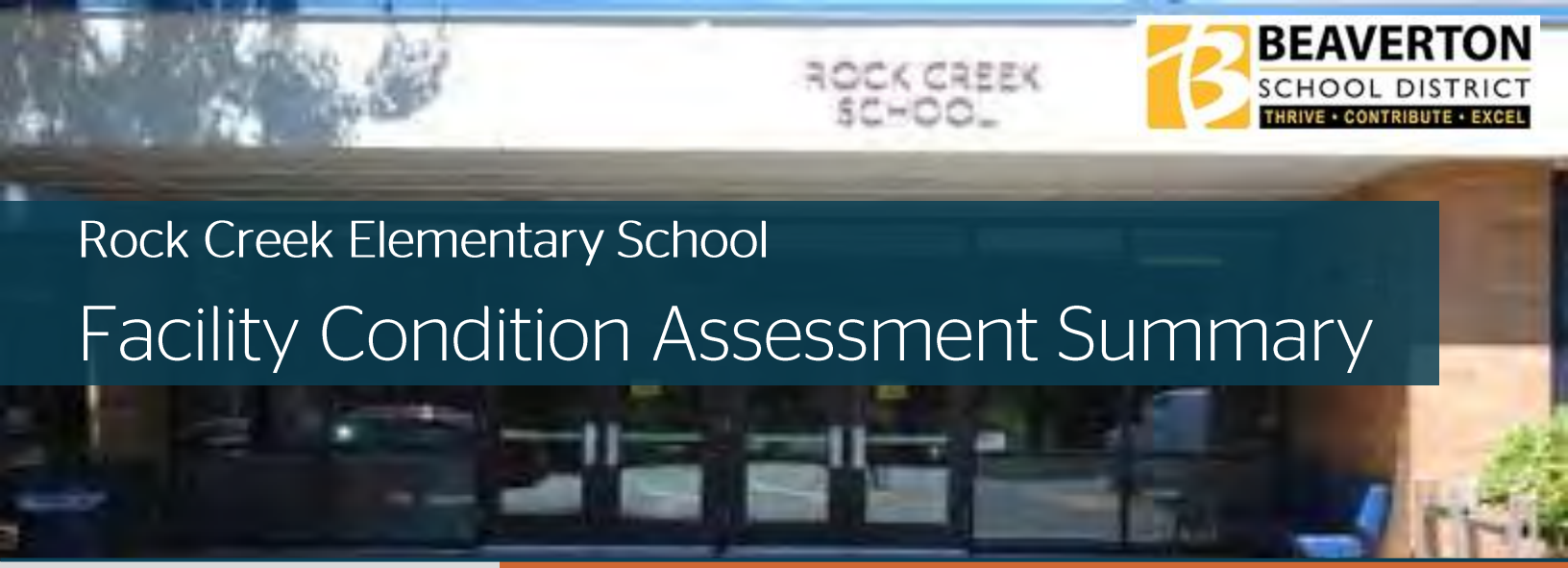
- Interior finishes (ceilings, walls, and floors) are generally in fair to good condition. Some ceiling tiles were noted to be loose at the edge
- Wire mesh in door glass is a potential safety hazard
- Inefficient single pane windows should be replaced

Utilities

- Site communication & security system was noted to be in fair condition

Site Improvements

- Parking lot paving is in fair condition but needs to be restriped
- Site lighting coverage provides poor coverage and should be increased. Exterior site lighting was also noted to be on during the day
- Playground equipment is older but still functional
- Weatherstripping at exterior doors are worn and should be replaced



BEAVERTON SCHOOL DISTRICT
THRIVE • CONTRIBUTE • EXCEL

Rock Creek Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: Rock Creek *Elementary School*

Age: 1975

Size (SF): 51,505

Area: 17,37 acres

Assessment Date: 10/22/19

Student Population: 516

School Ratings

Facility Conditions Index: 0.232

Avg Condition Score: 3.57 out of 5

Asset Count: 129

Energy Use Intensity: 40.50
EUI Target (<=50 hrs/wk): <29
EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $10,774,468

Year 1 Asset Replacement Cost: $945,312

Current Replacement Value: $26,331,931

Energy Spend*

Electricity: $45,739

Natural Gas: $6,933

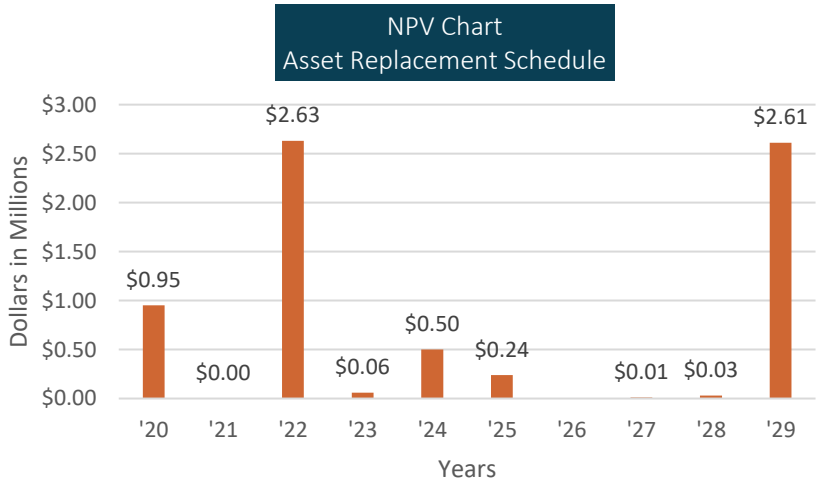
Water Spend*: $12,019

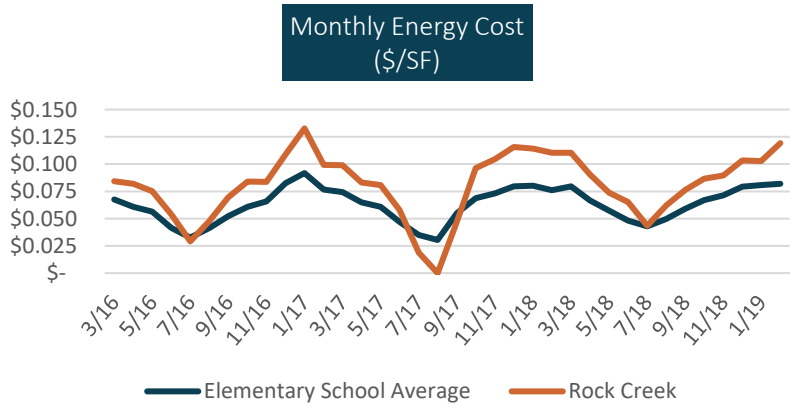
**3/19 – 2/20*

McKinstry
For The Life Of Your Building

Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$2,464,514	S4	NA
Mechanical	HVAC-AHU, UH, Fans	$841,722	5	1
Electrical	Switchboard	$42,560	5	1
Commercial Equipment	Food Service	$39,200	4	2, 3, 5





moss build up on roof

aged electrical panel

wire mesh in door glass

worn out parking lot painting

General Building Condition

Roof

- Built up roof is in fair condition with some minor cracking and moss build up
- Minor damage to metal soffits

Mechanical/HVAC

- HVAC equipment was generally found to be in fair condition
- Most exhaust fans were noted to have met or exceed its expected useful life. A plan should be put in place for replacement

Electrical

- Many electrical panels have met or exceed their useful life
- Lighting control system includes manual switches with motion detection
- T8 lighting installed throughout the campus

Plumbing

- Plumbing fixtures were noted to be in generally fair condition

Fire, Life, Safety

- All storm drain should be cleaned

Interior Finishes

- Interior finishes (walls, ceilings, and floors) are in generally fair condition. Heavy wear noted on select areas of the carpet. Some ceiling tiles had minor damage
- Wire mesh in door glass is a potential safety hazard

Utilities

- Site communication & security system generally found to be in fair to good condition

Site Improvements

- Gaps were noted in the perimeter security fence. These areas should be reinforced to safely secure the site
- Parking lot paving has some minor cracking and needs repainting
- Pedestrian paving is in fair condition with some areas of concrete grounded down for safety

BEAVERTON SCHOOL DISTRICT
THRIVE • CONTRIBUTE • EXCEL

Sato Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: Sato *Elementary School*

Age: 2017

Size (SF): 89,000

Area: 8.81 acres

Assessment Date: 12/9/19

Student Population: 649

School Ratings

Facility Conditions Index: 0.027

Avg Condition Score: 1.03 out of 5

Asset Count: 220

Energy Use Intensity: 37.40
EUI Target (<=50 hrs/wk): <29
EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $8,921,339

Year 1 Asset Replacement Cost: $0

Current Replacement Value: $45,501,250

Energy Spend*

Electricity: $28,261

Natural Gas: $21,190

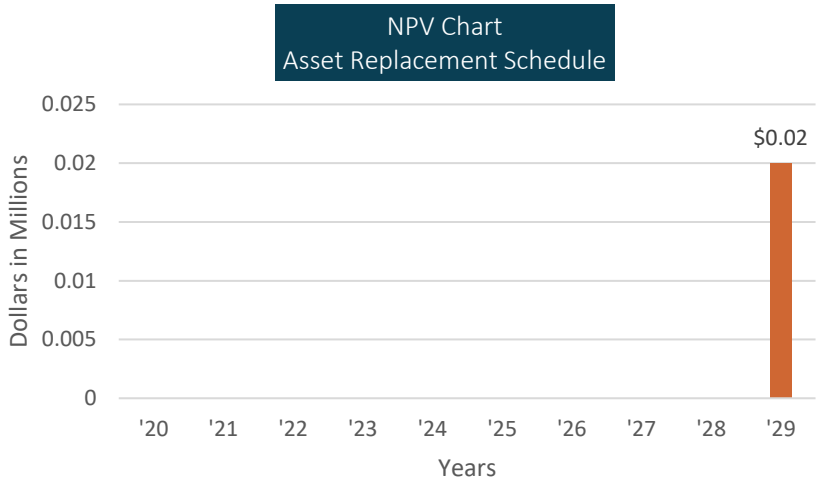
Water Spend*: $15,622

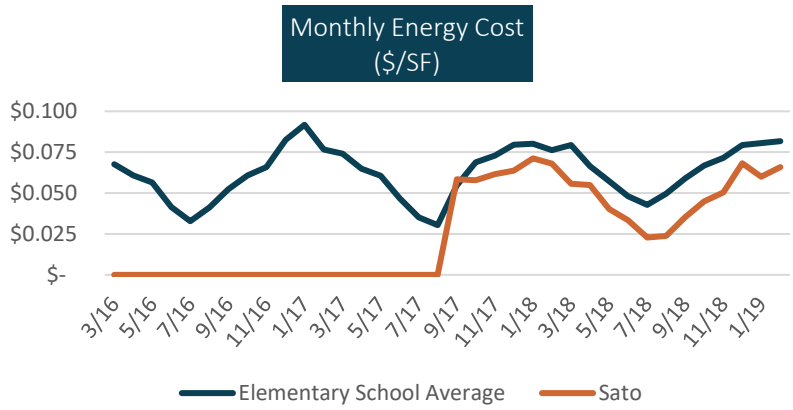
**3/19 – 2/20*

McKinstry
For The Life Of Your Building

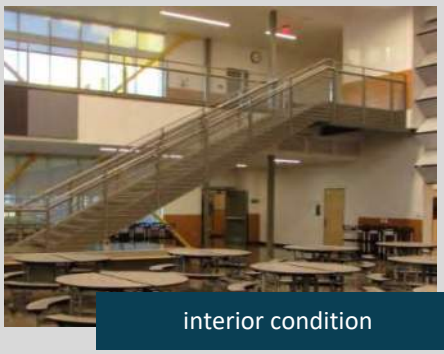
Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
None				





roof condition



interior condition

electrical equipment condition

excellent paving condition

General Building Condition

Roof

- Roof is in good condition with most water drains clear. Some low spots with stagnant water were noted
- Solar panels on roof are still in excellent condition

Mechanical/HVAC

- HVAC equipment was noted to be in excellent condition.
- Building controls included relatively new JCI BACNET controls

Electrical

- Electrical panels were noted to be in excellent condition
- Lighting control system includes daylight harvesting and occupancy sensors
- LED lighting installed throughout the school

Plumbing

- Plumbing fixtures are in excellent condition with low flow fixtures installed
- Domestic water distribution is well sized and can hold additional capacity

Fire, Life, Safety

- Fire sprinkler system includes four west systems and one dry system
- All storm drain should be cleaned

Interior Finishes

- Interior finishes (walls, floors, and ceilings) are in good to excellent condition. Minor areas of note include some small holes in the gym wall, minor cracking in tiles and concrete floors, and small tears in ceiling tiles

Conveyance

- A single elevator is located on site. The elevator is still in excellent condition

Utilities

- Site communication & security systems noted to be in excellent condition

Site Improvements

- LED lighting used for site lighting and provides excellent coverage
- Playground equipment and AstroTurf is in excellent condition
- Perimeter security notes to be excellent

BEAVERTON SCHOOL DISTRICT
THRIVE • CONTRIBUTE • EXCEL

Scholls Heights Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: Scholls Heights *Elementary School*

Age: 1999

Size (SF): 68,941

Area: 8.7 acres

Assessment Date: 11/18/19

Student Population: 571

School Ratings

Facility Conditions Index: 0.232

Avg Condition Score: 3.37 out of 5

Asset Count: 140

Energy Use Intensity: 48.38
EUI Target (<=50 hrs/wk): <29
EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $16,842,604

Year 1 Asset Replacement Cost: $1,289,632

Current Replacement Value: $35,246,086

Energy Spend*

Electricity: $50,152

Natural Gas: $15,913

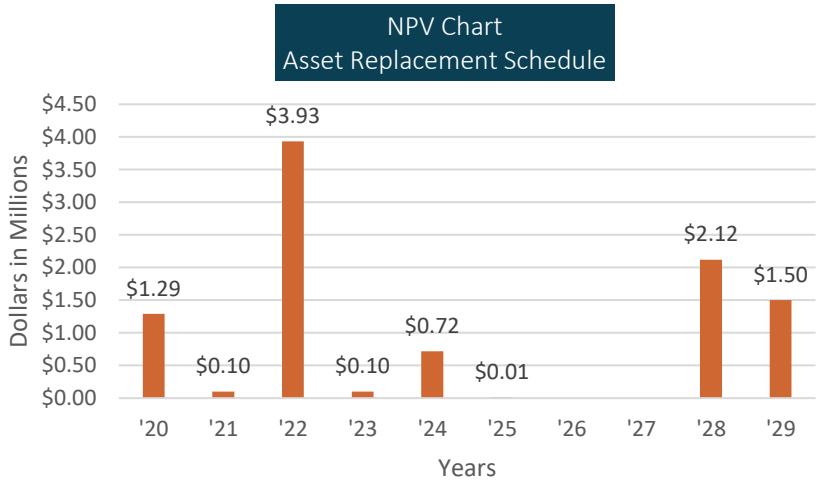
Water Spend*: $10,059

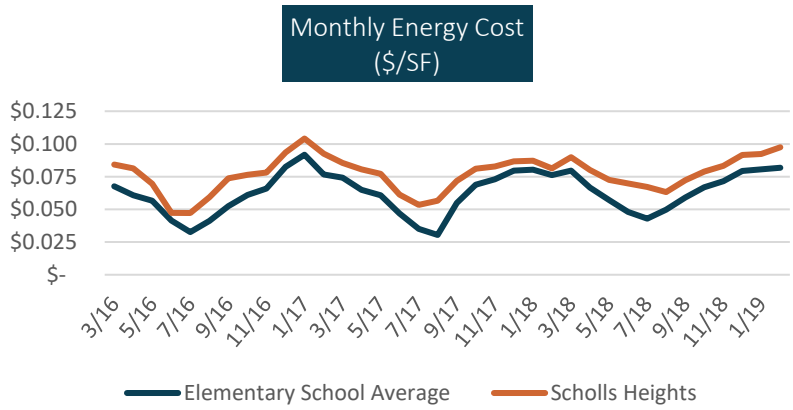
**3/19 – 2/20*

McKinstry
For The Life Of Your Building

Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$1,979,296	S4	NA
Mechanical	HVAC	$2,546,516	5, 4	1, 3
Mechanical	Plumbing	$56,516	5	1
Mechanical Utilities	Storm Sewer	$15,000	4	1
Interior Finishes	Doors	$55,670	4	5





moss build up on roof

rust on rooftop equipment

interior finish condition

cracking and moss on paving

General Building Condition

Roof

- Roof is in fair condition with some moderate moss growth. Walkway pads on TPO roof are deteriorating

Mechanical/HVAC

- HVAC equipment was noted to be in poor overall condition. Staff stated there are some frequent hot and cold areas
- Multiple repairs needed on the boiler in recent years. The boiler is suspected to be undersized for the school
- RTU-2 has significant rust on unit

Electrical

- Electrical service & distribution equipment noted to be in good condition
- Lighting control system includes manual switches with some motion sensors
- T8 lighting is installed throughout the school

Plumbing

- Plumbing fixtures were noted to be in fair overall condition
- Domestic hot water heaters need drip pans installed

Fire, Life, Safety

- Fire sprinkler system includes two wet system
- All storm drain should be cleaned

Interior Finishes

- Original carpet from 1999 on floors and stairway are extremely worn in high traffic areas and in need of replacement
- Some cracking on resilient tile flooring
- Ceiling tiles are aged and have a fair amount of water stains
- Inefficient single pane windows should be replaced
- Metal mesh in door glass is a potential safety hazard

Conveyance

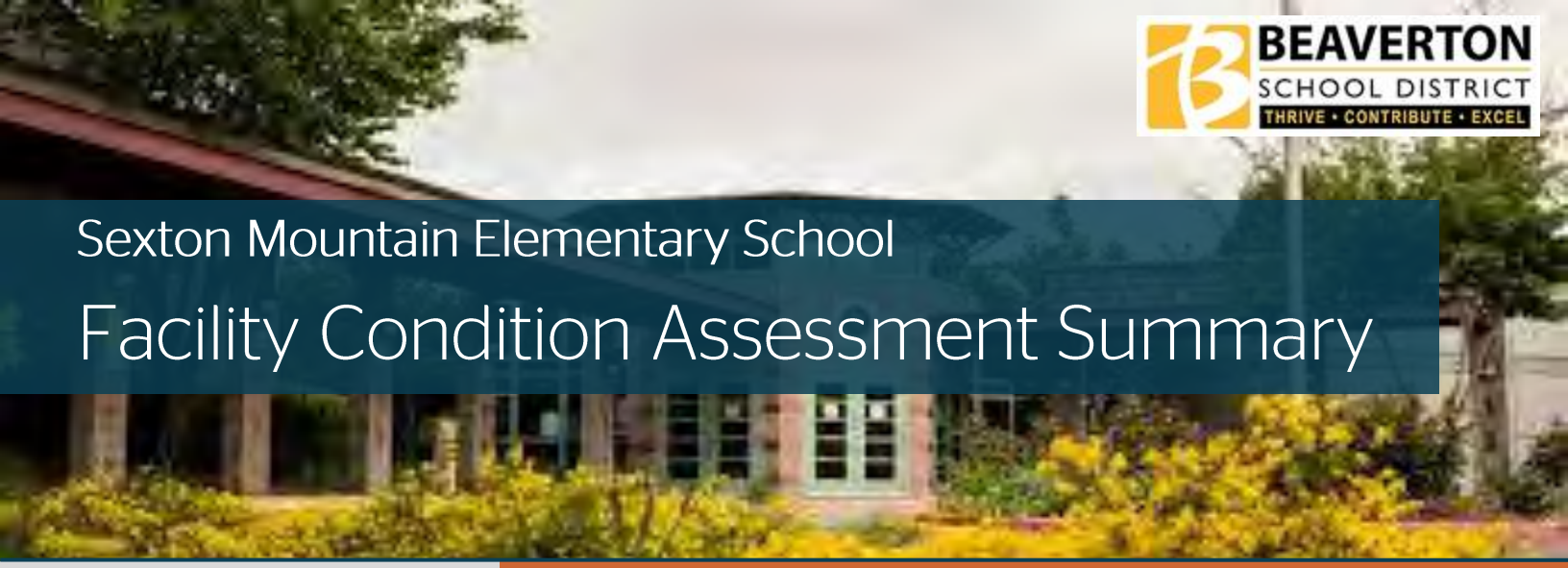
- A single elevator is located at the school. The elevator is in fair condition

Utilities

- Surveillance system includes cameras on campus front and rear

Site Improvements

- Parking lot is in good condition but has some moss growth that needs cleaning
- Pedestrian paving is in good condition but has cracks on playground path
- Site lighting coverage noted to be insufficient in play areas
- Some peeling paint noted in the read of school
- Playground equipment and athletic field is noted to be in fair condition



BEAVERTON SCHOOL DISTRICT
THRIVE • CONTRIBUTE • EXCEL

Sexton Mountain Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: Sexton Mountain *Elementary School*

Age: 1989

Size (SF): 67,318

Area: 10.83 acres

Assessment Date: 9/26/19

Student Population: 511

School Ratings

Facility Conditions Index: 0.279

Avg Condition Score: 3.49 out of 5

Asset Count: 154

Energy Use Intensity: 44.69
EUI Target (<=50 hrs/wk): <29
EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $17,439.779

Year 1 Asset Replacement Cost: $678,386

Current Replacement Value: $34,416,328

Energy Spend*

Electricity: $43,065

Natural Gas: $13,836

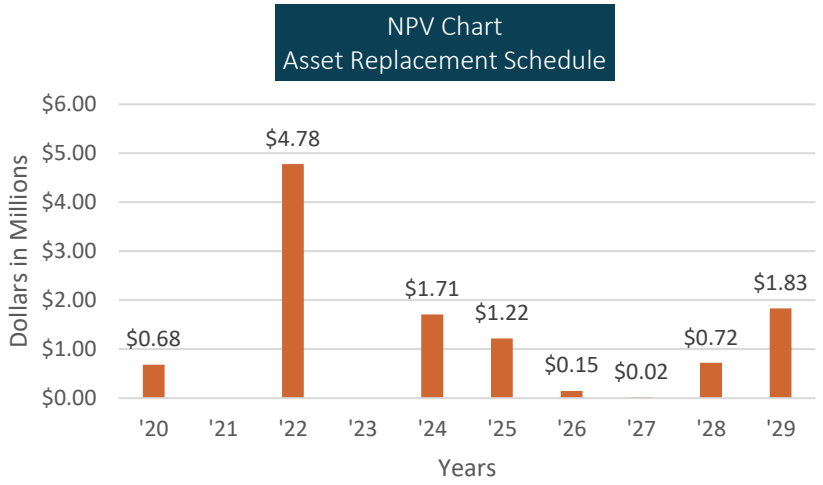
Water Spend*: $9,032

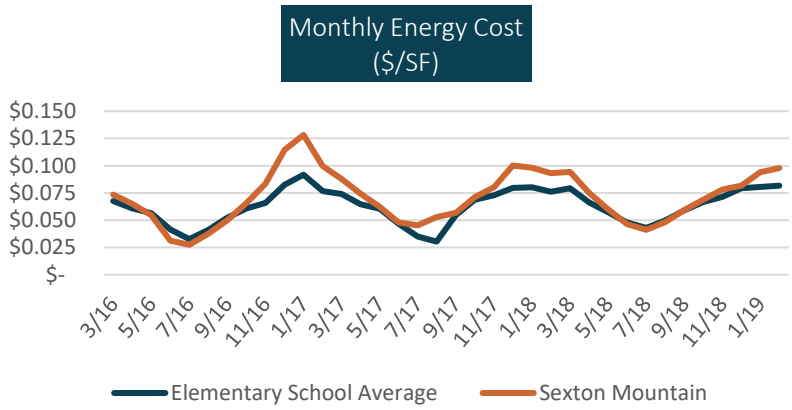
**3/19 – 2/20*

McKinstry
For The Life Of Your Building

Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$4,509,633	S4	NA
Mechanical	HVAC-VAV, MAU	$521,804	5	1
Mechanical	Plumbing	$21,538	5	1
Conveyance	Elevator	$15,000	5	1
Roofing	Built-Up	$1,225,188	4	5





moss growth on roof

rooftop equipment condition

damaged ceiling tiles

cracking paving throughout

General Building Condition

Roof

- Built up roof is in poor condition. Roof drains are clogged, and a number of low points collect stagnant water. Moss growth is evident throughout

Mechanical/HVAC

- Multiple complaints were noted about insufficient airflow in rooms and some rooms running hot
- Crushed ductwork noted on roof and presents a risk of a leak or water intrusion. This area should be reinforced
- Building controls are in poor condition

Electrical

- Electrical service and distribution equipment noted to be in fair condition
- T8 lighting installed throughout the school

Plumbing

- Plumbing fixtures were noted to be in generally fair condition

Fire, Life, Safety

- All storm drain should be cleaned

Interior Finishes

- Interior finishes (walls, floors, and ceilings) are in generally fair condition
- Minor cracking noted in resilient floor tiles
- Ceiling tiles have some cracks and staining
- Wallpaper fabric is coming loose in multiple places
- Metal mesh in interior window glass are a potential safety hazard

Utilities

- Site communications & security systems noted to be in fair to good condition
- RFID access if brand new and still in good condition

Site Improvements

- Parking lots and pedestrian paving are in poor condition. Cracks and curb damage need repair. Painting noted to be newly completed
- Minor water damage noted on exterior fiberglass walls
- Minor cracking evident on exterior masonry walls
- Playground equipment noted to be in fair condition

BEAVERTON SCHOOL DISTRICT
THRIVE • CONTRIBUTE • EXCEL

Springville Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: Springville *Elementary School*

Age: 2009

Size (SF): 87,206

Area: 10.02 acres

Assessment Date: 11/19/19

Student Population: 724

School Ratings

Facility Conditions Index: 0.120

Avg Condition Score: 2.19 out of 5

Asset Count: 208

Energy Use Intensity: 50.14
EUI Target (<=50 hrs/wk): <29
EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $14,286,101

Year 1 Asset Replacement Cost: $15,000

Current Replacement Value: $44,584,068

Energy Spend*

Electricity: $50,142

Natural Gas: $17,185

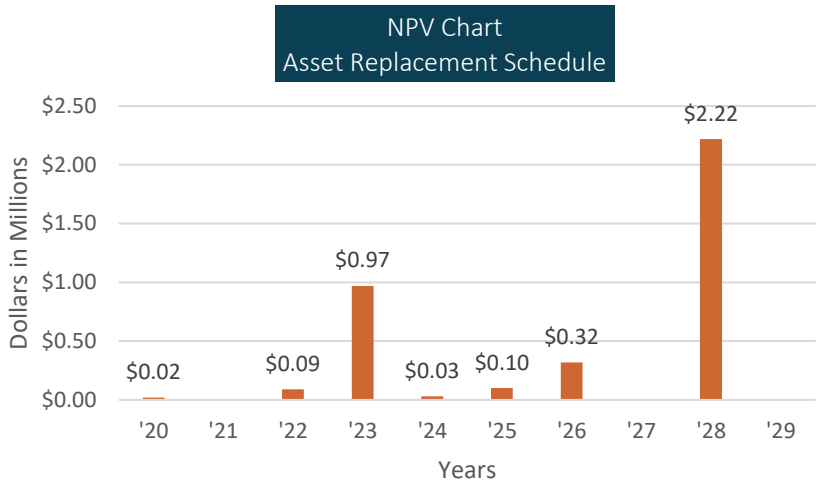
Water Spend*: $25,240

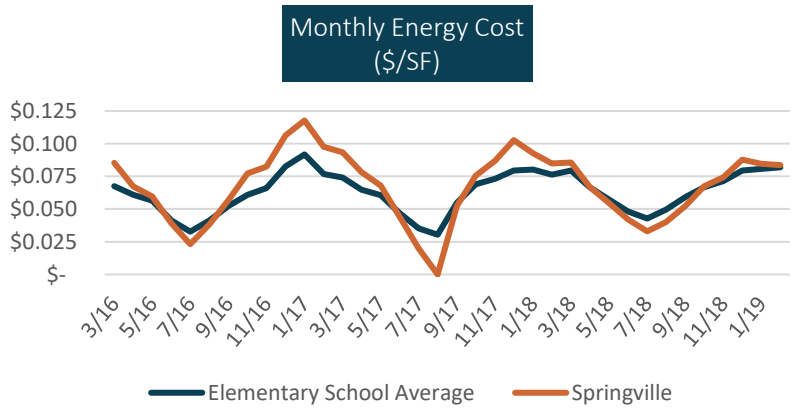
**3/19 – 2/20*

McKinstry
For The Life Of Your Building

Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Mechanical Utilities	Storm Sewer	$15,000	4	1
Mechanical	HVAC	$127,321	4	4
Mechanical	Plumbing	$8,222	4	4, 5





moss growth on roof

corroded piping

electrical equipment condition

cracking throughout paving

General Building Condition

Roof

- Roof is in fair to good condition. Ballasted built up section of the roof has heavy moss growth
- Poor roof rainwater drainage further exasperates moss growth
- Roof access hatch is difficult to operate and poses a potential safety hazard

Mechanical/HVAC

- The flue on Boiler #2 and the heating valve in the multipurpose mezzanine is leaking heavily and should be replaced. There is moisture from sustained flue gas condensation due to the hot water return temperature being below the dewpoint temperature. This condensate is highly corrosive, and a condensate collection pan should be installed. Flexible piping appears to be draining condensate from the low section in the vertical pipe rather than at the beginning of the horizontal flange
- Corrosion evidence indicates that there are some failed seals on the how water circulation pumps.
- The refrigerant piping for outdoor heat pump condensing units is damaged

Electrical

- Electrical service & distribution equipment noted to be in good condition
- Lighting control system includes digital controls and occupancy sensors
- CFL and T8 lighting installed throughout the school

Plumbing

- Plumbing fixtures are in good condition with low flow flush valves and aerators

Fire, Life, Safety

- No fire sprinklers noted in portables
- All storm drain should be cleaned

Interior Finishes

- Resilient floor tiles show signs of settling and cracking. This is pronounced behind the CMU retaining wall in the cafeteria

Conveyance

- A single elevator is located at the school. The elevator is in excellent condition

Utilities

- Surveillance system is obsolete, and system cannot be updated. This system should be replaced with increased coverage
- Communication system performs poorly and does not reach portables

Site Improvements

- Bark chip levels in playground is low and should be refilled. Bark chips also clog the site drains leading to muddy conditions
- Emergency egress issue noted on the south end. A locking gate at this end could provide an additional egress in case of emergency
- Parking lot and pedestrian paving have moderate cracking throughout

BEAVERTON SCHOOL DISTRICT
THRIVE • CONTRIBUTE • EXCEL

Terra Linda Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: Terra Linda *Elementary School*

Age: 1970

Size (SF): 51,636

Area: 10.44 acres

Assessment Date: 10/24/19

Student Population: 349

School Ratings

Facility Conditions Index: 0.237

Avg Condition Score: 3.73 out of 5

Asset Count: 140

Energy Use Intensity: 39.61
EUI Target (<=50 hrs/wk): <29
EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $11,054,398

Year 1 Asset Replacement Cost: $1,575,449

Current Replacement Value: $26,398,905

Energy Spend*

Electricity: $31,147

Natural Gas: $9,446

Water Spend*: $4,821

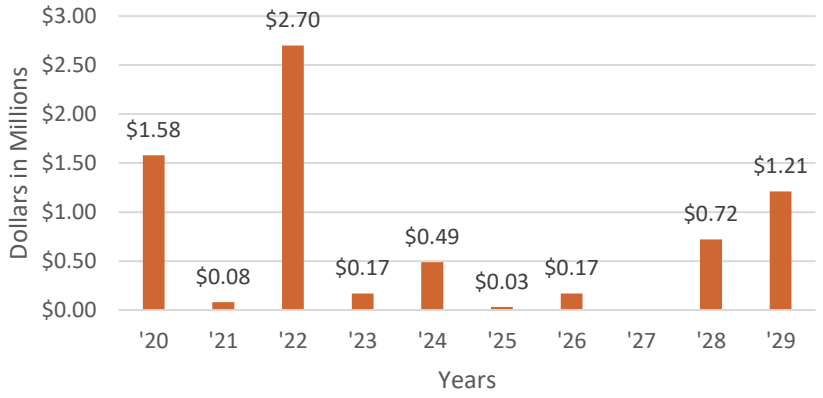
**3/19 – 2/20*

McKinstry
For The Life Of Your Building

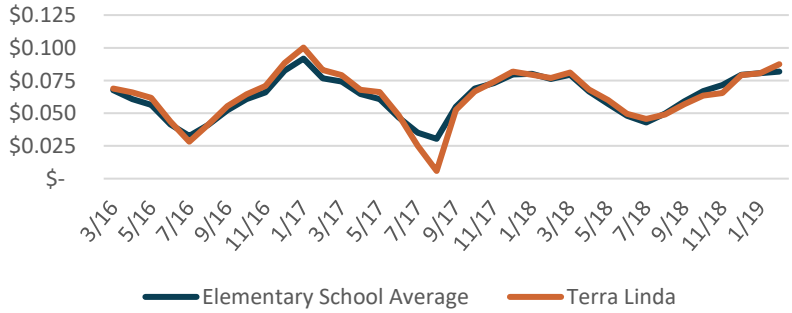
Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$2,470,783	S4	NA
Mechanical	HVAC-Fans, Boiler, VAV	$74,918	5, 4	1, 3, 4
Mechanical	Plumbing	$10,868	5	1
Roofing	Built-Up	$1,208,282	5	1
Mechanical Utilities	Storm Sewer	$15,000	4	1
Exterior Enclosures	Aluminum Windows	$118,040	4	1
Equipment	Playground	$40,000	4	3
Electrical	Comm & Security	$57,574	4	2, 5

NPV Chart
Asset Replacement Schedule

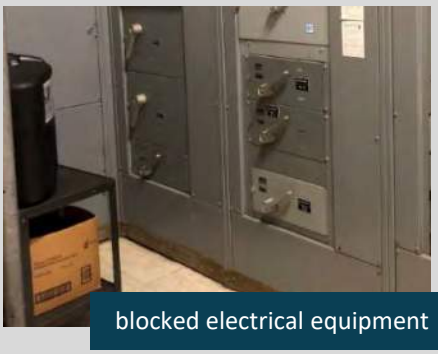


Monthly Energy Cost
($/SF)



moss build up on roof

improper condensate drainage



blocked electrical equipment

uneven site paving

General Building Condition

Roof

- Built up asphalt roof is in very poor condition with excessive moss growth, poor drainage, and multiple signs of leaks

Mechanical/HVAC

- Boiler condensate drain is not up to code and consists of plastic bins and pvc pipes. This needs to be addressed before the condensate corrodes through the bin and then the floor

Electrical

- Main electrical room is being used for storage. Items should be relocated to ensure proper safe access to equipment
- Lighting control system consists primarily of manual switches
- T8 and CFL lighting is installed throughout the school

Plumbing

- Plumbing fixtures noted to be in generally fair condition
- Old piping presents an issue as grit in pipes clog often and impedes drainage

Fire, Life, Safety

- All storm drain should be cleaned

Interior Finishes

- Interior finishes are in generally fair condition. Carpets show the most signs of wear. Leak damage located throughout ceiling tiles
- Wire mesh in door glass is a potential safety hazard
- Inefficient single pane windows should be replaced

Utilities

- Alarm system noted to have multiple issues and require troubleshooting

Site Improvements

- Wood chip levels in playground area are low and is a potential trip hazard
- Athletic track is in bad shape and not level. A low point on the north side also does not drain properly and is a slipping hazard
- Parking lots and pedestrian paving are in fair condition with some cracking throughout and uneven surfaces.
- North side of play field needs a gated fence for the bus lane
- Site lighting coverage should be increased in play field area
- Canopy light fixtures need to be cleaned
- Minor cracking and fading noted on exterior masonry wall

BEAVERTON SCHOOL DISTRICT
THRIVE • CONTRIBUTE • EXCEL

Vose Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: Vose *Elementary School*

Age: 1959/2017

Size (SF): 89,000

Area: 8.81 acres

Assessment Date: 11/6/19

Student Population: 693

School Ratings

Facility Conditions Index: 0.028

Avg Condition Score: 1.74 out of 5

Asset Count: 209

Energy Use Intensity: 34.98
EUI Target (<=50 hrs/wk): <29
EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $8,442,348

Year 1 Asset Replacement Cost: $0

Current Replacement Value: $56,501,250

Energy Spend*

Electricity: $36,617

Natural Gas: $18,319

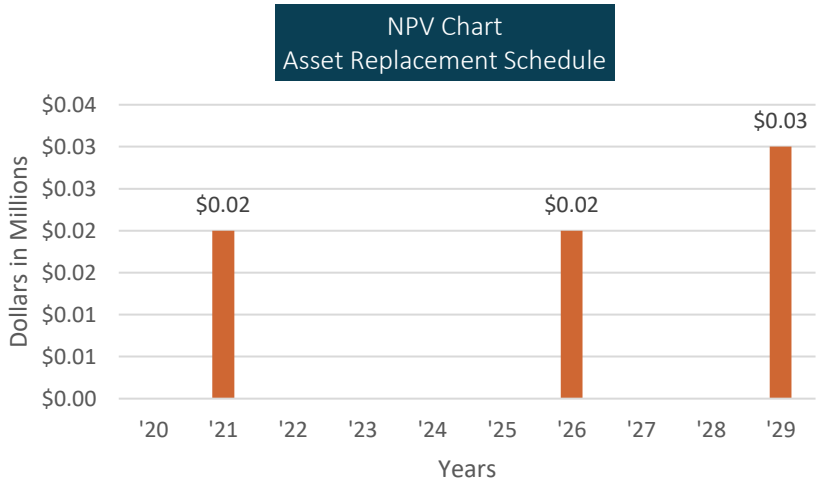
Water Spend*: $11,525

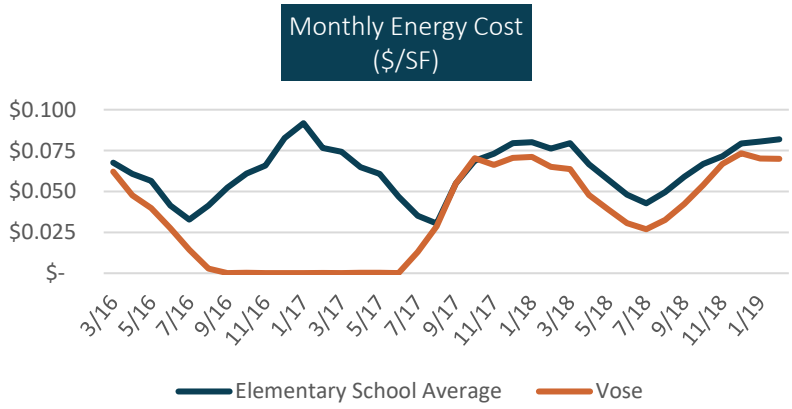
**3/19 – 2/20*

McKinstry
For The Life Of Your Building

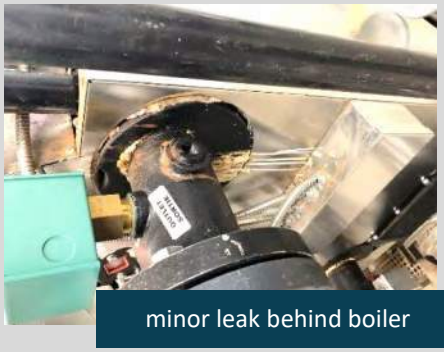
Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Exterior Enclosures	Aluminum Windows	$16,955	1	2





drainage issues on roof



minor leak behind boiler

cracking in concrete floor

playground condition

General Building Condition

Roof

- Roof is in excellent condition though there are some clogged roof drains and low spots that need repairing

Mechanical/HVAC

- HVAC equipment is noted to be in excellent condition though there is evidence of some minor leaks from rear of boilers

Electrical

- Electrical service & distribution equipment is in excellent condition
- Lighting control system consists of daylight harvesting and occupancy sensors. Some occupancy sensors were noted to not be working during site visit
- LED lighting installed throughout the school

Plumbing

- Plumbing fixtures are in excellent condition and include low flow flush valves and aerators
- Domestic how water can hold additional capacity

Fire, Life, Safety

- All storm drains should be cleaned

Interior Finishes

- Interior finishes (walls, floors, and ceilings) are in excellent to good condition. Minor areas of note include some nicks to the Wainscot walls, minor cracking on polished concrete floor, and minor damage to ceiling tiles

Conveyance

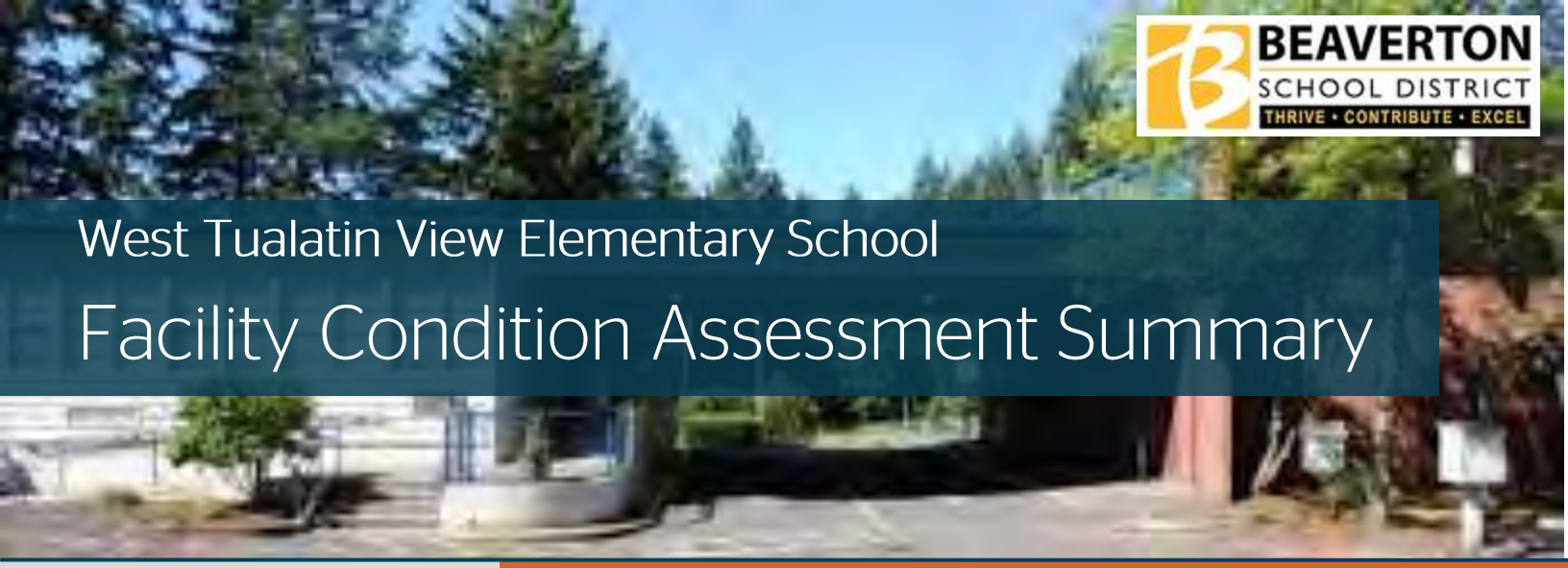
- One elevator and one stage lift located on site. Both are in excellent condition

Utilities

- Site communication & security systems are in excellent condition

Site Improvements

- Parking lot and pedestrian paving are in good condition with some minor cracking and worn paint
- Playground equipment and area is in excellent condition
- Site lighting is LED. Some exterior lights noted to be on during the day
- Perimeter security is in great condition



West Tualatin View Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: West Tualatin View *Elementary School*

Age: 1955

Size (SF): 43,447

Area: 7.05 acres

Assessment Date: 8/8/19

Student Population: 336

School Ratings

Facility Conditions Index: 0.309

Avg Condition Score: 3.72 out of 5

Asset Count: 134

Energy Use Intensity: 48.91
EUI Target (<=50 hrs/wk): <29
EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $11,420,158

Year 1 Asset Replacement Cost: $4,596,075

Current Replacement Value: $22,212,279

Energy Spend*

Electricity: $24,183

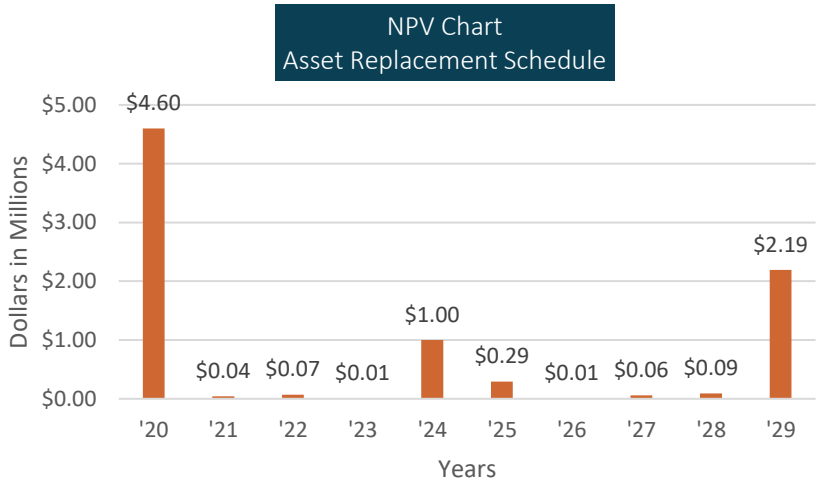
Natural Gas: $11,493

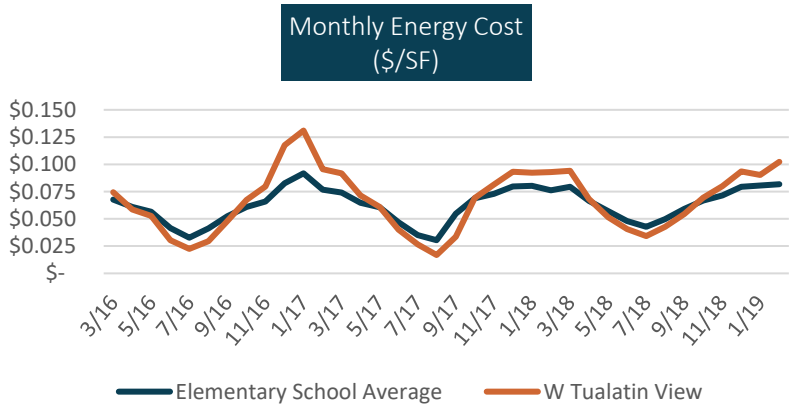
Water Spend*: $6,463

**3/19 – 2/20*

Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$3,742,090	S6	NA
Mechanical	HVAC	$71,051	5, 4	1-3
Plumbing	Sanitary Waste	$89,935	5	1
Mechanical	Plumbing	$14,653	5	1
Electrical	Switchboard	$36,472	5	1
Interior Finishes	Doors	$24,000	4	2





excessive moss growth on roof

aged air compressor

aged electrical panel

alligatoring on paving

General Building Condition

Roof

- Roof is in generally fair condition. Serious moss growth noted on commons roof and eaves have signs of dry rot. Some roof work was being completed at the time of site visits
- Main building hatch is very difficult to operate which poses a safety hazard
- Wasp nest located in commons roof hatch and poses a safety hazard

Mechanical/HVAC

- HVAC system consists of a newer boiler with an old steam radiator system
- Air conditioning is not available throughout the school

Electrical

- Main electrical panels have exceeded useful life
- Improper storage and lockout tagout in electrical rooms noted. Items should be relocated to allow safe access to equipment
- Lighting control system consists of occupancy sensors
- T8 lighting installed throughout the school

Plumbing

- Plumbing fixtures are aged but otherwise in good condition
- Domestic hot water heater in commons is leaking
- Health room needs an eyewash station
- Drains in kitchen are clogged

Fire, Life, Safety

- All storm drain should be cleaned

Interior Finishes

- Gym stage storage has floor tiles with suspected asbestos containing material
- Ceiling tiles have some cracks, tears, and stains
- Nurse station floor tiles needs repair
- Significant wear and tear on Wainscot wall finish
- Metal mesh in door glass is a potential safety hazard
- Inefficient single pane windows are in very poor condition

Conveyance

- A single elevator is located at the school. The elevator is in fair condition

Utilities

- Alarm system is aged and should be considered for replacement
- Newer door key cards installed throughout the school
- Sanitary Waste system is undersized and has failed many times. Needs immediate replacement

Site Improvements

- Parking lot paving in fair condition with some alligatoring and cracking
- Linear drains near covered play area are backed up. Other drains around perimeter need to be cleared as well
- Exterior lights noted to be on during daylight hours
- Stair railing at rear of building exterior is not up to code

William Walker Elementary School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: William Walker *Elementary School*

Age: 2019

Size (SF): 51,092

Area: 9.20 acres

Assessment Date: 11/18/19

Student Population: 487

School Ratings

Facility Conditions Index: 0.027

Avg Condition Score: 1.78 out of 5

Asset Count: 157

Energy Use Intensity: No Data

EUI Target (<=50 hrs/wk): <29

EUI Target (>=50 hrs/wk): <47

Cost Information

NPV of Assets: $7,618,699

Year 1 Asset Replacement Cost: $0

Current Replacement Value: $26,120,785

Energy Spend*

Electricity: $UNK

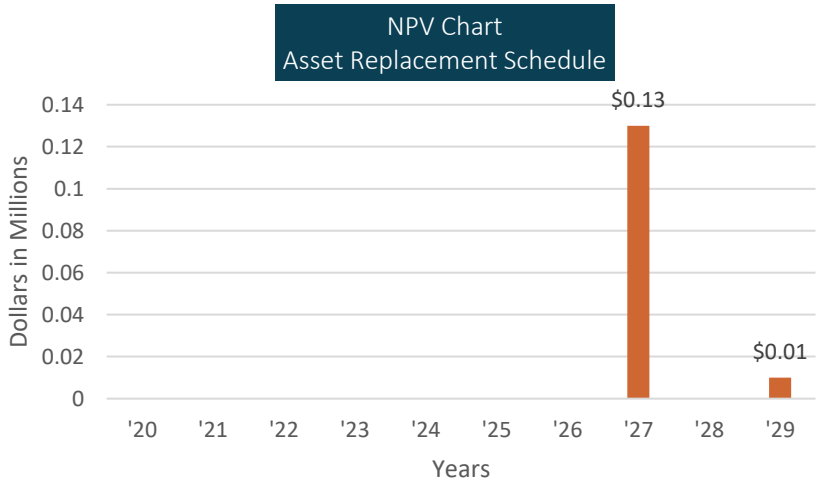
Natural Gas: $UNK

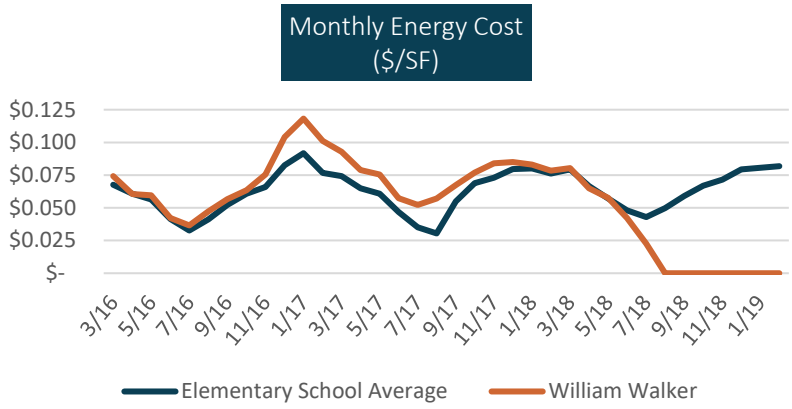
Water Spend*: $UNK

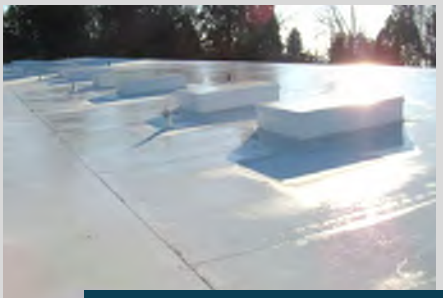
**new school*

Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
None				







roof condition

HVAC condition

interior condition

clogged storm drain

General Building Condition

Roof

- Roof is in good condition with drains clear. Some low spots noted with stagnant water

Mechanical/HVAC

- HVAC equipment and distribution system is in excellent condition
- Building controls are JCI BACNET

Electrical

- Electrical service & distribution equipment noted to be in excellent condition
- Lighting control system consists of daylight harvesting and occupancy sensors
- LED lighting installed throughout the school

Plumbing

- Plumbing fixtures are in excellent condition with low flow fixtures
- Domestic water distribution has room for additional capacity

Fire, Life, Safety

- Fire sprinkler system consists of four west systems and one dry system
- All storm drain should be cleaned

Interior Finishes

- Interior finishes (ceilings, walls, and floors) are in generally excellent condition. Some small nicks noted in drywall

Conveyance

- One elevator noted on site. Elevator is in excellent condition

Utilities

- Site communication & security systems are in excellent condition

Site Improvements

- Parking lots and pedestrian paving are in excellent condition
- Weatherstripping on some exterior doors are worn and needs to be restripped
- Playground equipment and areas are in excellent condition
- Perimeter security is in great condition

Cedar Park Middle School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: *Cedar Park Middle School*

Age: 1965

Size (SF): 117,054

Area: 16.8 acres

Assessment Date: 10/4/19

Student Population: 941

School Ratings

Facility Conditions Index: 0.277

Avg Condition Score: 2.15 out of 5

Asset Count: 213

Energy Use Intensity: 44.64

EUI Target (<50 hrs/wk): <29

EUI Target (>50 hrs/wk): <47

Cost Information

NPV of Assets: $27,995.646

Year 1 Asset Replacement Cost: $10,501,916

Current Replacement Value: $62,506,836

Energy Spend*

Electricity: $67,459

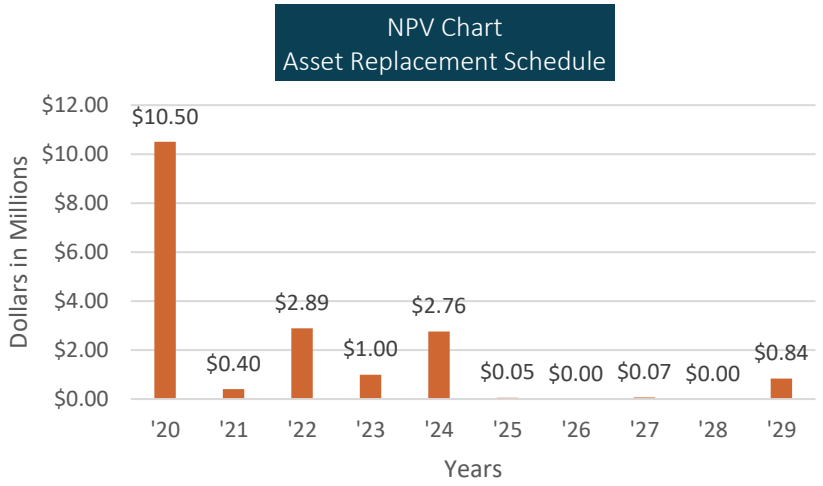
Natural Gas: $27,122

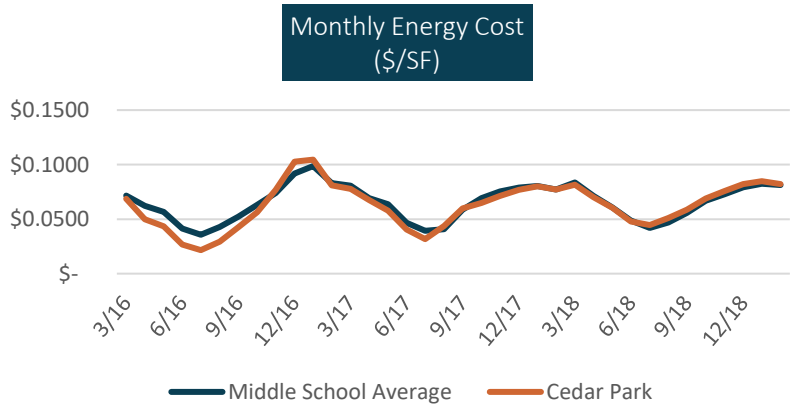
Water Spend*: $20,671

**3/19 – 2/20*

Critical Asset Infrastructure – Replacement Priority

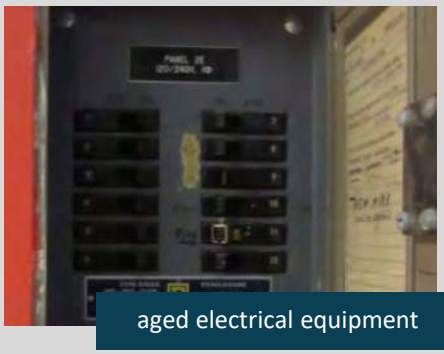
Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$10,081,861	S6	NA
Mechanical	System Test & Balance	$170,889	4	1
Utilities	Storm Sewer Site Work	$15,000	4	1
Roof	Built-Up & Skylights	$2,686,893	4	2
Commercial Equipment	Food Service Refrigerator	$17,500	4	2
Interior Finishes	Glued-Up Ceiling Tile	$384,288	3	2





water intrusion at skylights

newer rooftop equipment



aged electrical equipment

alligatoring in paving

General Building Condition

Roof

- Roof is in poor condition with cracks, brittle spots, and moss growth
- Area around skylights show signs of water intrusion. These skylights should be resealed.

Mechanical/HVAC

- Mechanical equipment was noted to be in fair condition with some newer HVAC equipment installed within the last couple of years
- Staff noted that unit heaters in classrooms are loud and vibrate which can be disruptive to learning

Electrical

- Electrical equipment was assessed to be in poor condition with some electrical equipment installed over 50 years ago. Immediate replacement is recommended
- Some T12 lighting was noted on site. These should be replaced with more efficient alternatives

Plumbing

- Backflow issues noted with domestic water distribution that leads to hot water in the cold line
- Staff noted that drainage by dumpster does not drain well

Fire, Life, Safety

- All storm drain should be cleaned

Interior Finishes

- Exterior windows are single pane and in very poor condition. Replacement of these windows are recommended
- Some interior windows have metal mesh which is a safety hazard
- Floor finishes are in fair condition though carpeted areas show more signs of wear with missing patches and rips in some areas.
- Areas of interior walls have minor cracking, damage, and stains.
- Ceiling finishes show signs of minor damage throughout the school. This includes improperly sealed tiles, sagging tiles, water damaged areas, missing tiles, and penetrated and dented areas.
- Cracks and damage noted on stair finishes
- The surface of some interior wood doors are in need of refinishing

Utilities

- Food services equipment is in good condition though the dishwasher was noted to act up occasionally
- Lighting could benefit from increased automation

Site Improvements

- Site paving is in fair condition though a couple trip hazards and alligatoring areas were noted
- Exterior doors have some dents

Conestoga Middle School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: *Conestoga Middle School*

Age: 1994

Size (SF): 128,179

Area: 25.01 acres

Assessment Date: 9/5/19

Student Population: 975

School Ratings

Facility Conditions Index: 0.195

Avg Condition Score: 3.71 out of 5

Asset Count: 239

Energy Use Intensity: 37.46

EUI Target (<50 hrs/wk): <29

EUI Target (>50 hrs/wk): <47

Cost Information

NPV of Assets: $27,117,445

Year 1 Asset Replacement Cost: $310,994

Current Replacement Value: $68,447,586

Energy Spend*

Electricity: $81,700

Natural Gas: $21,019

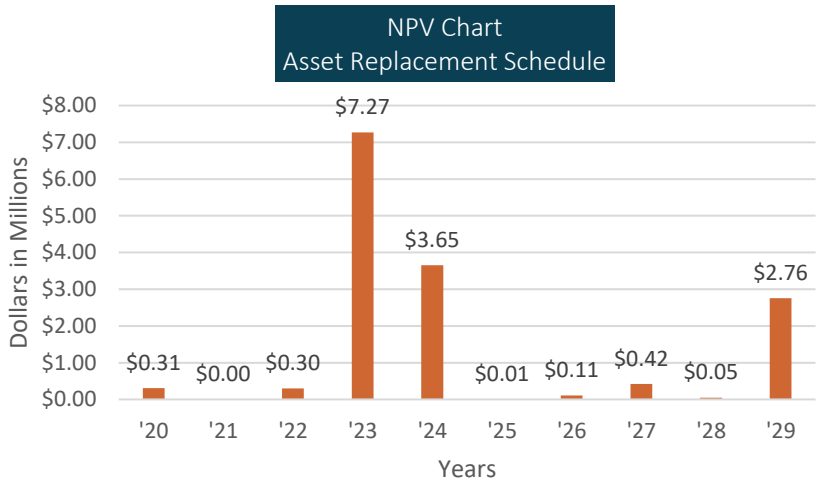
Water Spend*: $14,028

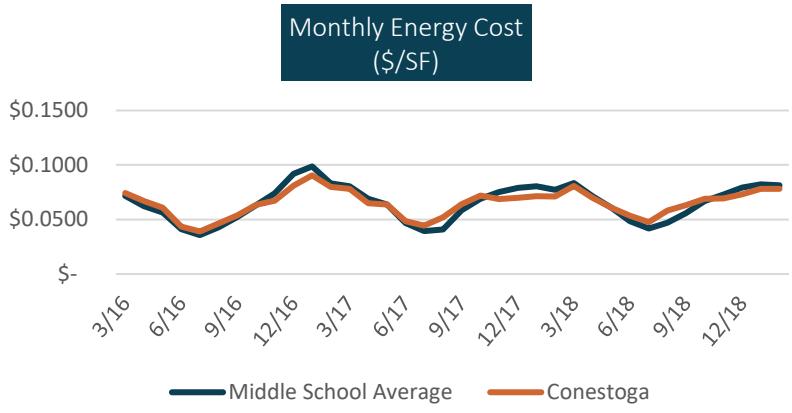
**3/19 – 2/20*

McKinstry For The Life Of Your Building

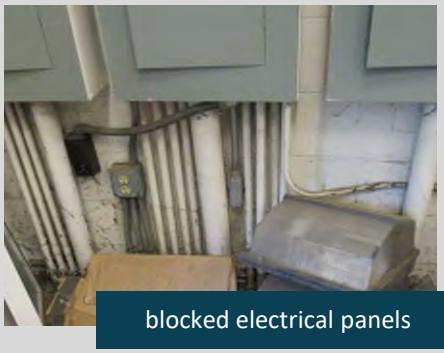
Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$6,133,365	S4	NA
Mechanical	Make-up Air Unit	$83,333	5	1
Plumbing	Water Heater, Pump	$30,269	5	1
Exterior Enclosures	Stucco Walls	$173,618	5	2
Mechanical	Boiler	$282,222	4	3





debris accumulated on roof



blocked electrical panels

rust on rooftop equipment

Damage to curb

General Building Condition

Roof

- Roof is in overall good condition with some accumulated debris in areas

Mechanical/HVAC

- Mechanical equipment was found to be in fair condition
- Rooftop equipment shows signs of wear and rust from weather
- Refrigerant leak on AHU-04
- No exhaust fan was noted in science spaces. Ventilation should be increased in these spaces

Electrical

- Improper storage of equipment was found in electrical rooms to be blocking panels. Items should be relocated to allow for safe access to equipment.

Plumbing

- Plumbing equipment and water distribution found to be in fair condition.
- No earthquake valve noted at exterior main gas supply.

Fire, Life, Safety

- All storm drain should be cleaned

Interior Finishes

- Exterior windows and doors are in good condition
- While interior doors are mostly in fair condition, some metal mesh doors present a safety concern
- Interior wall and floor finishes are mostly in fair condition. A couple areas of note: resilient tiles show signs up warping and cracking, gym walls have signs up water damage, and gym floor finish is poorly applied in areas
- Heavy moisture in gym hallway has led to rust on drop ceiling grid
- Stair finishes showing signs of wear
- Minor ceiling tile damage noted

Exterior Finishes

- Exterior stucco surface is failing and in need of replacement

Conveyance

- ADA lift is in fair condition.

Utilities

- Communication and security systems were noted to be in fair to good condition

Site Improvements

- Severe damage to curbs requires repair and repainting
- Uneven and cracked sidewalk noted near entrance
- Gravel is tracking inside at rear of building. Recommend removal of gravel

Five Oaks Park Middle School

Facility Condition Assessment Summary

QUICK FACTS

General Information

***School**: Five Oaks Middle School*

Age: 1976

Size (SF): 143,039

Area: 32.23 acres

Assessment Date: 10/16/19

Student Population: 1,010

School Ratings

Facility Conditions Index: 0.255

Avg Condition Score: 3.38 out of 5

Asset Count: 188

Energy Use Intensity: 55.15

EUI Target (<50 hrs/wk): <29

EUI Target (>50 hrs/wk): <47

Cost Information

NPV of Assets: $33,350,135

Year 1 Asset Replacement Cost: $3,107,627

Current Replacement Value: $76,382,826

Energy Spend*

Electricity: $99,058

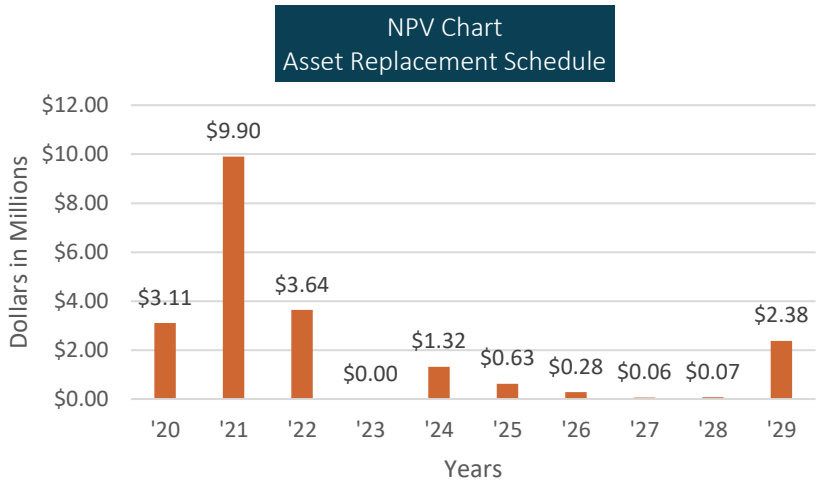
Natural Gas: $36,001

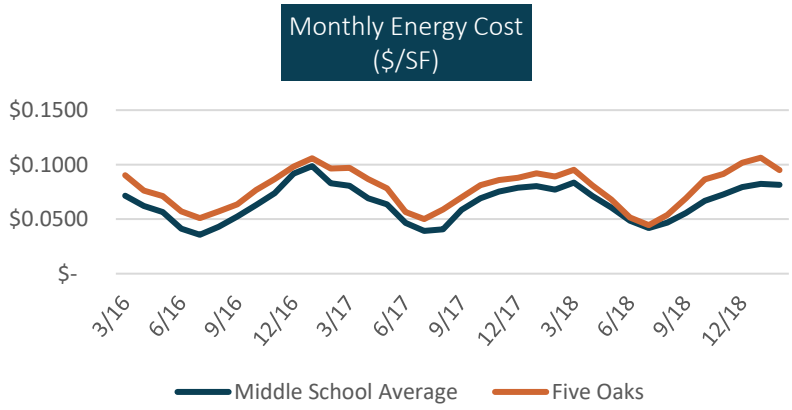
Water Spend*: $8,396

**3/19 – 2/20*

Critical Asset Infrastructure – Replacement Priority

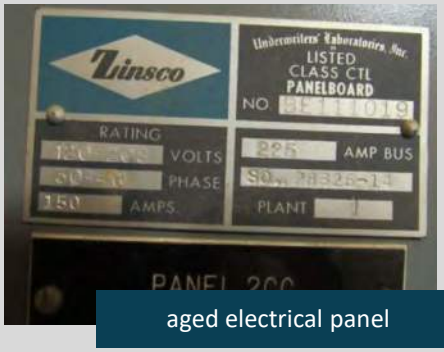
Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural – Main Building	Seismic	$9,582,183	S5	NA
Mechanical	HVAC – Air Handling Units	$1,806,250	5	1
Electrical	Switchboards, Motor Control Center	$500,840	5	1
Mechanical	Other	$414,101	5	1
Mechanical	HVAC- Boiler	$172,900	5	1
Roof	Built-Up	$3,347,113	4	3



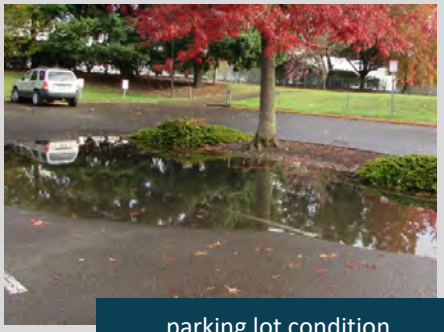


Roof exposed seams and bubbles

pneumatic controls



aged electrical panel



parking lot condition

General Building Condition

Roof

- Built-up area of roof with rock ballast is in poor condition with several areas of exposed seams and bubbles.

Mechanical/HVAC

- Ductwork is a mix of new and old ducts that are overall in fair condition
- Some pneumatic controls with DDC overlay found. These controls could benefit from an upgrade

Electrical

- Electrical equipment was noted to be in poor condition. Some Zinsco panels were aged and identified as potential fire hazards

Plumbing

- Plumbing fixtures were noted to be in fair condition
- Gutter was noted to be leaking in some areas

Fire, Life, Safety

- All storm drain should be cleaned. Northeast sewer is clogged leading to overflow

Interior Finishes

- Exterior windows are double paned and in fair condition
- Interior hollow metal doors are in poor condition. Wire mesh in door windows is a safety hazard. Some doors require repainting.
- Interior wall finishes have some cracks and holes from removal of fixed furnishing. Stains and cracked grout noted in other areas
- Floor finishes are generally in fair condition although there are a couple areas of note: computer lab carpet is worn; resilient tiles are worn, uneven, and missing in some areas; damage and cracks in gym flooring; ceramic tiles are cracked and missing in some areas; and polished concrete flooring has cracks and gaps that need filling
- Some stains and damage to ceiling tiles

Conveyance

- Elevator is older but still functional

Utilities

- Site communication and security is in fair to good condition.
- Arcing noted at booster heater outlet in kitchen

Site Improvements

- Parking lot in poor condition: moss growing in multiple areas, restriping needed, alligatoring on surface, and water collecting at low points.
- Playground equipment appears to be in good condition
- Tennis court surface is warped, and fence needs repair

Highland Park Middle School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: *Highland Park Middle School*

Age: 1965

Size (SF): 116,892

Area: 19.00 acres

Assessment Date: 9/23/19

Student Population: 777

School Ratings

Facility Conditions Index: 0.287

Avg Condition Score: 3.91 out of 5

Asset Count: 251

Energy Use Intensity: 46.06

EUI Target (<50 hrs/wk): <29

EUI Target (>50 hrs/wk): <47

Cost Information

NPV of Assets: $29,585,515

Year 1 Asset Replacement Cost: $13,607,020

Current Replacement Value: $62,420,328

Energy Spend*

Electricity: $40,473

Natural Gas: $25,753

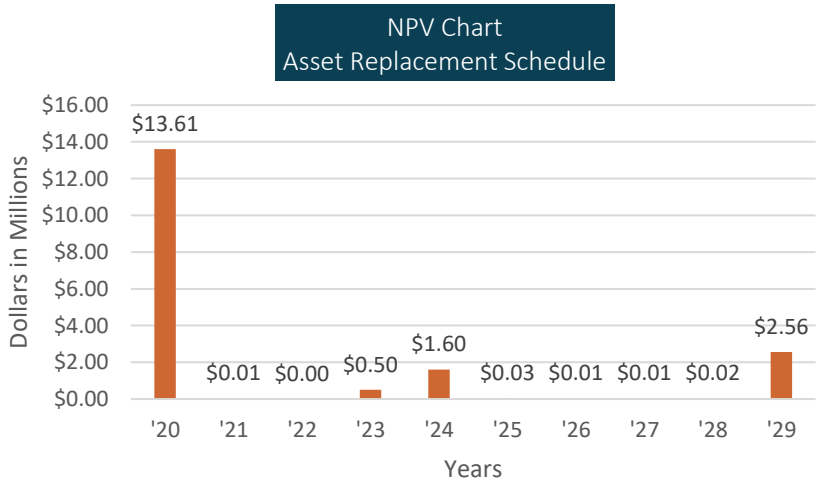
Water Spend*: $13,599

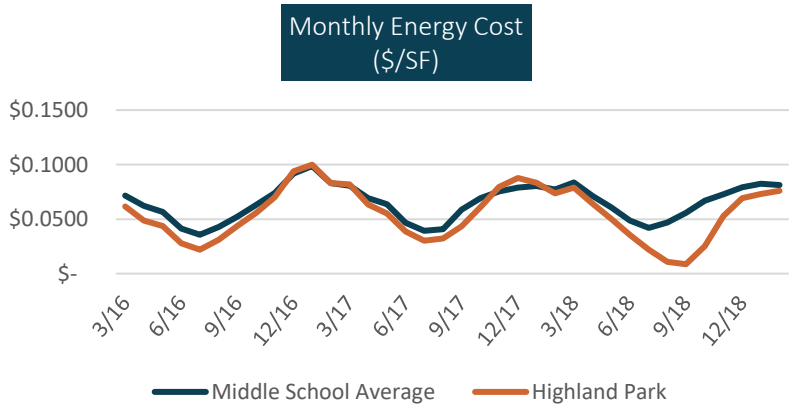
**3/19 – 2/20*

McKinstry For The Life Of Your Building

Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$10,067,908	S6	NA
Mechanical	Unit Ventilators	$1,819,562	5	1
Mechanical	HVAC – Air Handling Units	$543,750	5	1
Mechanical	HVAC- Chillers	$111,139	5	1
Plumbing	Water Heater, Pump	$95,668	5	1
Exterior Enclosures	Aluminum Windows	$445,359	5	1





newly installed roof

stains and holes in ceiling tiles

water intrusion at window

potholes in parking lots

General Building Condition

Roof

- Roof is newly replaced and still in like-new condition. Multiple skylights found to be in good condition
- Cracks noted in caulking seams on roof

Mechanical/HVAC

- Mechanical equipment generally found to be in fair condition. Unit ventilators are scheduled for replacement
- Some holes noted in ductwork and needs to be patched
- Building was noted to run warm and not provide sufficient cooling
- Pneumatic controls noted in some areas
- No exhaust fan was noted in science rooms. Additional ventilation should be added to these spaces

Electrical

- Electrical equipment was noted to be generally in fair condition
- Cracked T8 lighting fixtures were noted and should be replaced

Plumbing

- Plumbing fixture were noted to be in generally good condition
- Sanitary waste system is in poor condition and requires frequent snaking

Fire, Life, Safety

- All storm drain should be cleaned

Interior Finishes

- Exterior windows are in poor condition. Single pane windows need to be replaced. Areas of water leaks noted through window caulking
- Some interior doors were found to have wire mesh glass panels which are a potential safety hazard
- Glued up wall tiles were found to be in poor condition with dents, pen marks and other signs of damage
- Carpet and tile floor finishes are in poor condition. Deteriorating carpet areas should be replaced. Tiles show signs up high wear and are suspected to be asbestos tiles
- Fiberglass ceiling tiles are in poor condition with stains and sagging. Other ceiling finishes showed more minor signs of wear.
- Some stair finishes were found to need work. Tiles were very worn in places and even separating from stairs. Painting in some areas require touch up
- Fixed furnishing is dated but in good condition

Utilities

- Site communication and security systems noted to be in fair to good condition. RFID access control is installed on site

Site Improvements

- Parking lot has poor paint striping, multiple potholes, and alligatoring.
- Two openings were noted in fence near tennis courts

Meadow Park Middle School

Facility Condition Assessment Summary

QUICK FACTS

General Information

***School**: Meadow Park Middle School*

Age: 1963

Size (SF): 116,682

Area: 19.39 acres

Assessment Date: 10/5/19

Student Population: 834

School Ratings

Facility Conditions Index: 0.282

Avg Condition Score: 3.07 out of 5

Asset Count: 233

Energy Use Intensity: 40.60

EUI Target (<50 hrs/wk): <29

EUI Target (>50 hrs/wk): <47

Cost Information

NPV of Assets: $31,260,649

Year 1 Asset Replacement Cost: $695,829

Current Replacement Value: $62,308,188

Energy Spend*

Electricity: $54,714

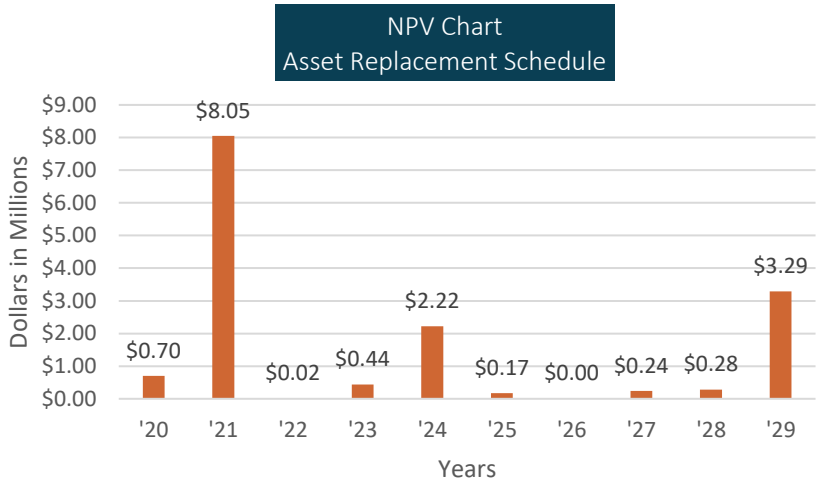
Natural Gas: $22,419

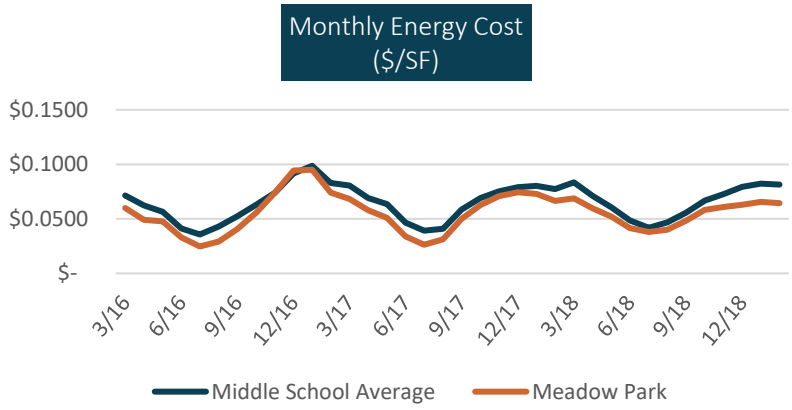
Water Spend*: $7,625

**3/19 – 2/20*

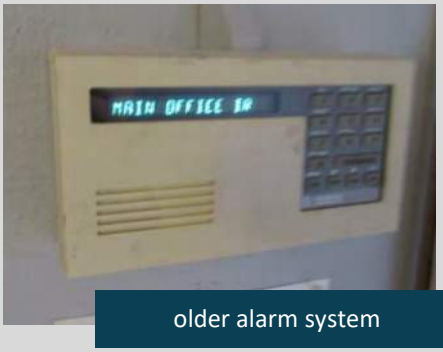
Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural – Main Building	Seismic	$7,816,527	S5	NA
Mechanical	HVAC – Air Handling Units	$262,500	5	1
Mechanical	Other	$109,082	5	1
Exterior Enclosures	Walls & Windows	$109,739	4	1





failing seams on roof



older alarm system

new HVAC unit in classroom

cracking on site paving

General Building Condition

Roof

- Single play roof is in poor condition. The seams were noted to be failing in several areas

Mechanical/HVAC

- Mechanical equipment was noted to be in mostly fair condition with some newer heating and cooling units in classrooms
- Science room was noted to have inadequate ventilation and could benefit from increased ventilation in these spaces

Electrical

- Electrical equipment found to be in good condition though dust collecting at the base of some panels present arc flash danger

Plumbing

- In cafeteria, water heaters have corrosion at the base and are leaking (notified maintenance already); causing damage to wallboard
- Mixing station for domestic hot water of the east side of campus is heavily corroded and leaking (district has been notified)

Fire, Life, Safety

- Sprinklers were noted to only cover main hallways near office and entry
- Perimeter fencing needs to be upgraded to better secure the grounds
- Older alarm panel is in poor condition and should be replaced soon
- All storm drain should be cleaned

Interior Finishes

- Interior doors are aged but still functional. Many wood doors have mesh in glass which are a potential safety hazard
- Interior wall finishes are in fair condition with some areas recently painted
- Resilient tile flooring are in poor condition and were identified potentially to contain asbestos due to age
- Ceiling tiles show signs of previous leaks, some damage throughout, and a couple fallen tiles
- Wood flooring in gym is in poor condition with coating poor applied

Utilities

- Food services and locker equipment noted to be in poor condition

Site Improvements

- Site lighting appears to provide insufficient and could benefit from increased coverage for better visibility and safety
- Parking lot paving and painting are in very poor condition and in need of replacement soon
- Pedestrian paving is in similarly poor condition with multiple cracks and tripping hazards

Mountain View Middle School

Facility Condition Assessment Summary

QUICK FACTS

General Information

***School**: Mountain View Middle School*

Age: 1969

Size (SF): 133,942

Area: 23.18 acres

Assessment Date: 10/14/19

Student Population: 853

School Ratings

Facility Conditions Index: 0.221

Avg Condition Score: 3.76 out of 5

Asset Count: 161

Energy Use Intensity: 50.11

EUI Target (<50 hrs/wk): <29

EUI Target (>50 hrs/wk): <47

Cost Information

NPV of Assets: $26,587,328

Year 1 Asset Replacement Cost: $10,625,793

Current Replacement Value: $71,525,028

Energy Spend*

Electricity: $80,678

Natural Gas: $36,238

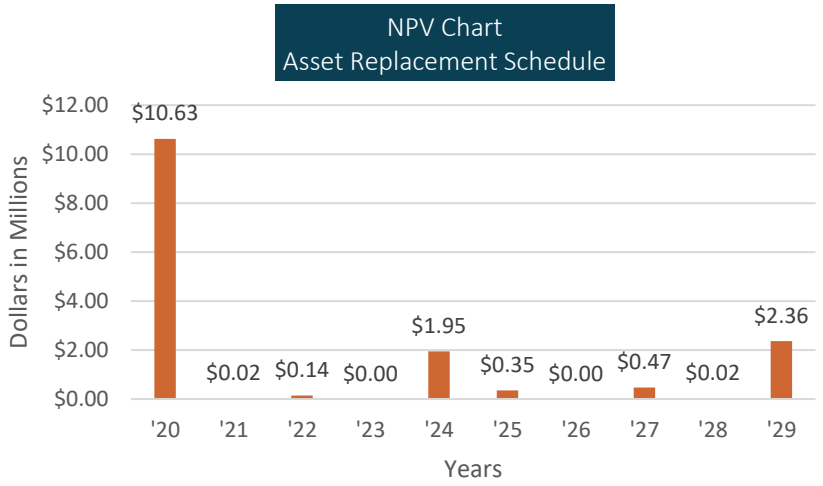
Water Spend*: $40,652

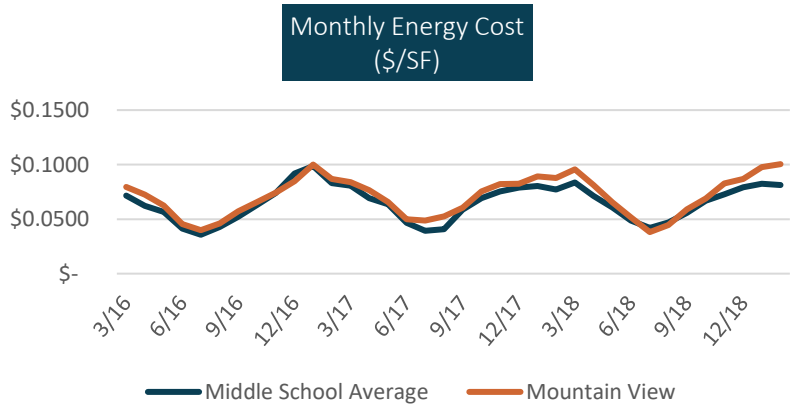
**3/19 – 2/20*

McKinstry For The Life Of Your Building

Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural – Main Building	Seismic	$8,972,775	S6	NA
Electrical	Switchboards, Panels	$672,070	5	1
Electrical	Lighting	$435,312	5	1
Electrical	Voice/Data Systems	$200,913	5	1
Mechanical	HVAC – Exhaust fans	$50,500	5	1
Mechanical	HVAC – Make-up Air Unit	$119,086	4	3

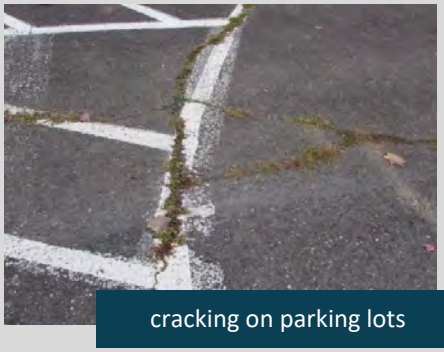




newly installed TPO roof

damage to gym ceiling

heavy dust at base of panels



cracking on parking lots

General Building Condition

Roof

- Newer TPO roof is in excellent condition

Mechanical/HVAC

- School wide controls issues were noted that cause package units to need to be reset for heating and cooling loads
- Mechanical equipment is overall in fair condition.
- Inadequate exhaust was noted in science rooms. Ventilation should be increased in these spaces

Electrical

- Zinsco electrical panels were noted be in very poor condition and present a potential fire hazard
- Electrical panels have accumulated heavy dust at the base of panels which are a serious arc flash hazard. These should be cleaned to minimize the hazard. Additionally, some panels are missing cover plate

  Lighting panels have also accumulated some dust and should be cleaned as well to minimize safety hazard

Plumbing

- Plumbing fixtures are noted to be in fair condition

Fire, Life, Safety

- All storm drain should be cleaned

Interior Finishes

- Many doors are in poor condition in need of re-finishing. Some doors also have metal mesh in glass which is a safety hazard and should be replaced
- Inefficient single-paned windows are recommended for replacement
- Interior wall finishes are in good to fair condition. Only minor dents were noted in the drywall
- Resilient tile and sheet flooring has minor damage and cracking
- Ceiling finishes are in fair condition. Some areas show signs of water stains and damage
- Carpet floor and stair finishes are in poor condition with significant wear and staining in areas. These carpet areas should be replaced soon

Utilities

- Bell schedule system fails frequently and should be replaced
- Camera system in place is in poor condition. Some interior cameras are not working and camera coverage should be increased overall

Site Improvements

- Weatherstripping is missing on a number of exterior doors and should be restriped to minimize building air leakage
- Parking lots and pedestrian paving is in poor condition. Parking lots have damaged areas with cracking and alligatoring. Pedestrian paving has cracking, sunken portions, and multiple trip hazards.
- Exterior walls have minor cracking and areas where re-caulking is needed

Stoller Middle School

Facility Condition Assessment Summary

QUICK FACTS

General Information

***School**: Stoller Middle School*

Age: 1999

Size (SF): 143,788

Area: 16.89 acres

Assessment Date: 12/10/19

Student Population: 1,560

School Ratings

Facility Conditions Index: 0.201

Avg Condition Score: 3.40 out of 5

Asset Count: 244

Energy Use Intensity: 46.21

EUI Target (<50 hrs/wk): <29

EUI Target (>50 hrs/wk): <47

Cost Information

NPV of Assets: $30,734,511

Year 1 Asset Replacement Cost: $640,430

Current Replacement Value: $76,782,792

Energy Spend*

Electricity: $125,313

Natural Gas: $18,159

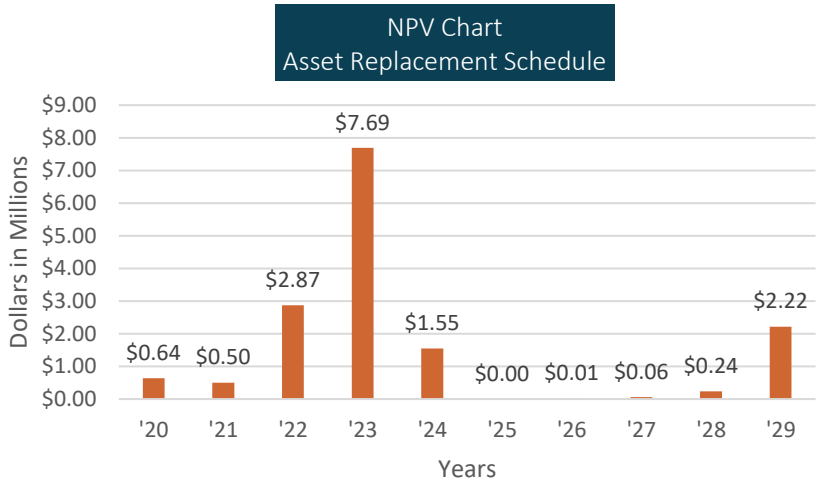
Water Spend*: $18,842

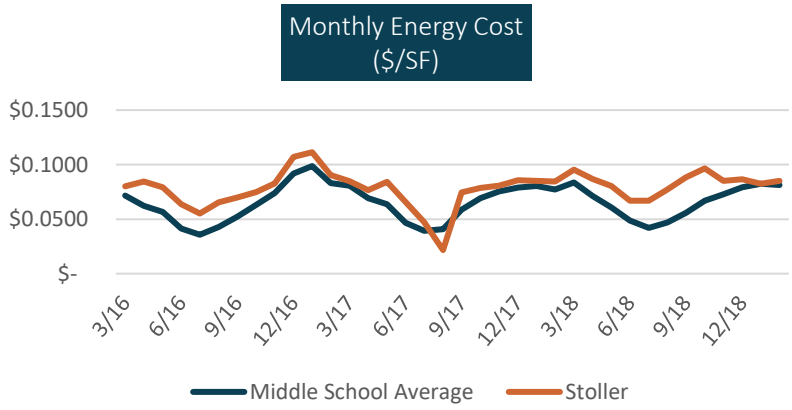
**3/19 – 2/20*

McKinstry For The Life Of Your Building

Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$6,880,256	S4	NA
Interior Finishes	Carpet	$489,598	5	1
Mechanical	HVAC – Air Conditioner	$125,000	5	1
Mechanical	HVAC General	$1,529,098	4	3
Commercial Equipment	Food Service	$92,900	4	3
Mechanical	Boiler/AC/Exh Fans	$1,224,988	3	3





moss build up on roof

damaged AHU filters

damaged ceiling finish

cracking and worn parking lot

General Building Condition

Roof

- Cumulative moss build-up on roof needs cleaning
- Significant evidence of students getting on rooftop which is a safety hazard. Roof should be secured to limit unwanted access
- Access to lower roof area is unsafe for mechanics

Mechanical/HVAC

- Mechanical equipment was found to be in very poor condition overall. There is significant damage to fits of cooling units. There are also damaged filters and missing panels on air handler
- Several hot and cold areas were identified throughout the building
- Building controls are an older system that is in poor condition

Electrical

- Improper storage was noted in front of electrical panels. These items should be relocated to ensure safe access to panels
- Lighting controls were noted to be aged and faulty

Plumbing

- In cafeteria, water heaters have corrosion at the base and are leaking (notified maintenance already); causing damage to wallboard
- Mixing station for domestic hot water of the east side of campus is heavily corroded and leaking (district has been notified)

Fire, Life, Safety

- Fire extinguisher visual testing was noted to be inconsistent
- Some leaks in VIC fitting at fire standpipes
- All storm drain should be cleaned

Interior Finishes

- Ceiling tiles in are stained and damaged in many areas; recommend spot replacement
- In general, tile floors are at or near poor condition; recommend repair and maintenance program if they aren't going to be replaced
- Metal mesh was noted on many interior windows. These are a potential safety hazard

Utilities

- Cafeteria was assessed to be too small for the school. Kids end up sitting on the floor at lunchtime
- Science classroom is in poor condition. Floors are worn and fixtures are dated
- Noise penetrates frequently from drama room into art studio

Site Improvements

- Parking lots are in poor condition with accumulated moss growth, alligatoring, cracking, and worn painting
- Rear door to play field not closing properly. This should be fixed to properly secure school perimeter

Timberland Middle School

Facility Condition Assessment Summary

QUICK FACTS

General Information

***School**: Timberland Middle School*

Age: 2016

Size (SF): 160,600

Area: 16.28 acres

Assessment Date: 12/16/19

Student Population: 1,100

School Ratings

Facility Conditions Index: 0.032

Avg Condition Score: 1.03 out of 5

Asset Count: 287

Energy Use Intensity: 36.18
EUI Target (<50 hrs/wk): <29
EUI Target (>50 hrs/wk): <47

Cost Information

NPV of Assets: $17,697,555

Year 1 Asset Replacement Cost: $0

Current Replacement Value: $88,644,000

Energy Spend*

Electricity: $62,243

Natural Gas: $34,053

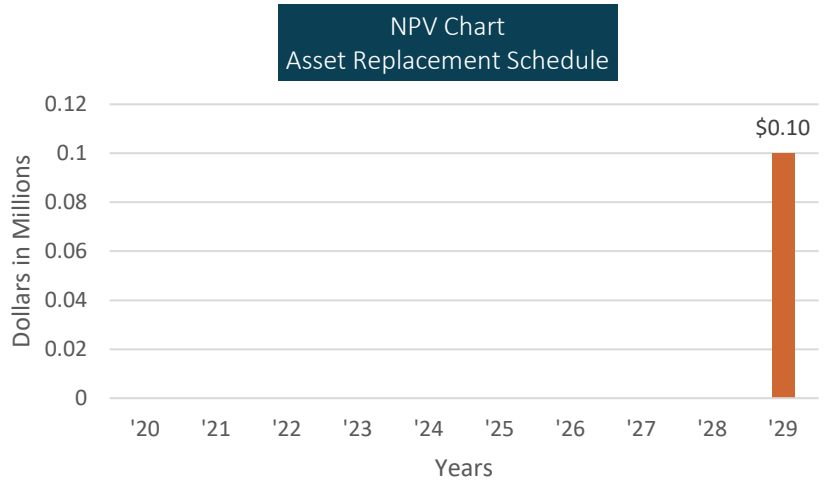
Water Spend*: $35,314

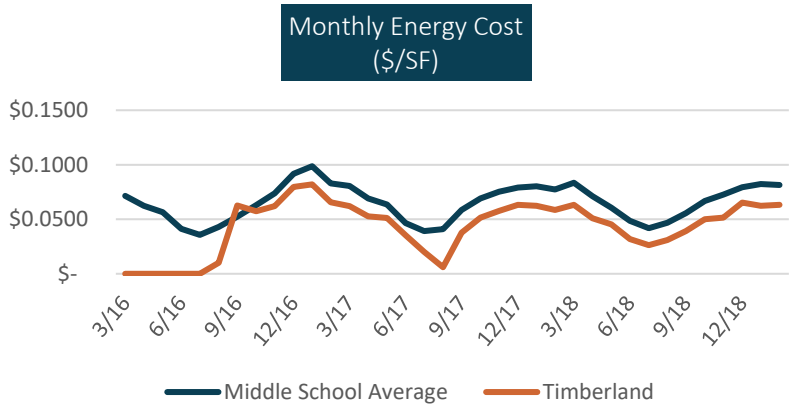
**3/19 – 2/20*

McKinstry
For The Life Of Your Building

Critical Asset Infrastructure – Replacement Priority

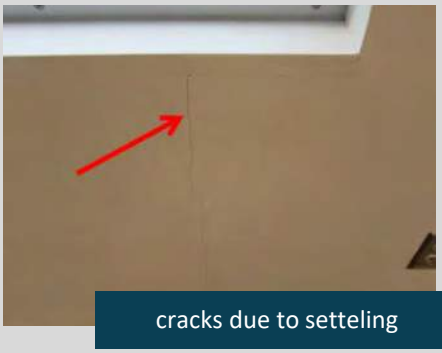
Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Interior Finishes	Floor Finish buckling	$103,335	2	26
Mechanical	Radon Exhaust Fan Cloth Transition	10,988	2	20
Interior Finishes	Kitchen dry storage wall	$25,481	2	26





cloth transition failing

solar on roof



cracks due to setteling

window gaps

General Building Condition

Roof

- Roofing is new and in great shape

Mechanical/HVAC

- The cloth transitions failing on Radon exhaust fans under slab
- All HVAC system is new and in good operations.
- Building could benefit from a retro-commissioning program.

Electrical

- All electrical is in good shape
- Lighting controls have motion sensing and day-light harvesting
- Facility has solar on the roof that is operating well

Plumbing

- All plumbing equipment is new and in good shape
- All plumbing fixtures are manually operated

Interior Finishes

- Settling in the walls near room C122 has caused a crack
- settling has affected polished concrete floors and wall in C123
- Water damage in ceiling tiles in C119B storage room

Utilities

- Should plan for cleaning of storm sewers every 10 years

Site Improvements

- Some restriping needed in parking lots
- Some minor cracking in pedestrian paving
- Minor settling of foundation causing gap to form in window area

Whitford Middle School

Facility Condition Assessment Summary

QUICK FACTS

General Information

***School**: Whitford Middle School*

Age: 1963

Size (SF): 116,962

Area: 23.41 acres

Assessment Date: 9/16/19

Student Population: 706

School Ratings

Facility Conditions Index: 0.316

Avg Condition Score: 3.97 out of 5

Asset Count: 215

Energy Use Intensity: 34.42

EUI Target (<50 hrs/wk): <29

EUI Target (>50 hrs/wk): <47

Cost Information

NPV of Assets: $28,457,635

Year 1 Asset Replacement Cost: $13,353,973

Current Replacement Value: $62,457,708

Energy Spend*

Electricity: $47,366

Natural Gas: $20,744

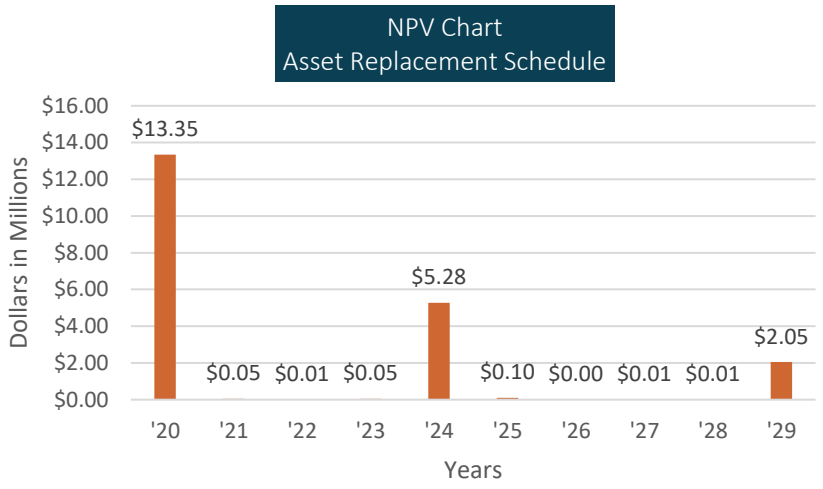
Water Spend*: $8,981

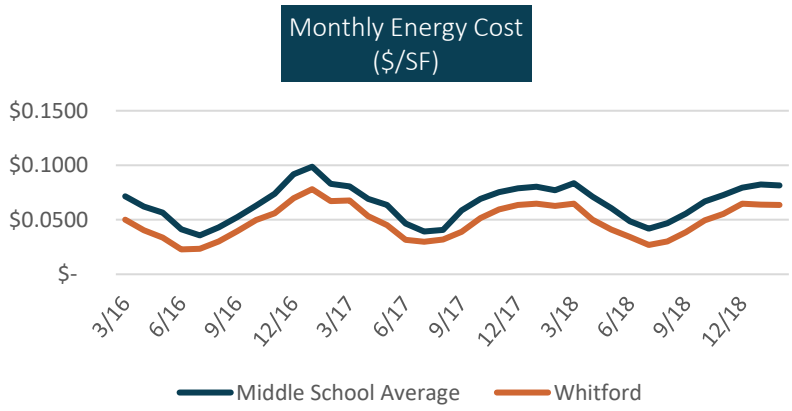
**3/19 – 2/20*

McKinstry For The Life Of Your Building

Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural – Main Building	Seismic	$10,073,937	S6	NA
Mechanical	Unit Ventilators	$1,754,683	5	1
Exterior Enclosures	Aluminum Windows	$445,625	5	1
Mechanical	HVAC – Air Handling Units	$400,000	5	1
Electrical	Switchboards, Panels	$180,170	5	1
Mechanical	HVAC- Chillers	$111,139	5	1
Plumbing	Water Heater/Pump	$51,906	5	1





significant moss growth on roof

cracking along window

eroded insulation on mini-split

worn and cracked paving

General Building Condition

Roof

- Roof is in poor condition with significant moss growth, many soft spots, exposed seams, and areas of standing water

Mechanical/HVAC

- Mechanical equipment was noted to be in fair condition overall, but ductwork was noted to be in poor condition and could use some work
- JCI and pneumatic controls were present on site. Pneumatic controls are in poor condition and should be considered for upgrade
- Insulation was missing or eroded on mini-split condensers outside
- A potential leak was noted at boiler #2.
- Air compressor was noted to note be working.

Electrical

- Most electrical equipment is in fair condition. The older electrical panels from the 1960's should be replaced soon. Exposed wiring was noted at Panel 2BH
- Lighting controls are in poor conditions and timers need to be adjusted

Plumbing

- Plumbing equipment was overall found to be in fair condition

Fire, Life, Safety

- All storm drain should be cleaned

Interior Finishes

- Inefficient single pane windows should be replaced
- Some interior doors and windows have metal mesh in glass which is a potential safety hazard
- Resilient floor tiles show significant signs of wear. These tiles are also suspected to potentially contain asbestos material
- Ceiling finishes are fair condition with limited signs of leaks and repairs
- Stairs are very worn in high traffic areas

Utilities

- Site communication and security was found to be in fair to food condition.

Site Improvements

- Parking lots and pedestrian paving both in poor condition with cracking and worm paint in several spots. Pedestrian paving has some protruding cement and metal which pose a trip hazard
- Cracking present along masonry of window frames. Additionally, window seals should be replaced
- Exterior walls could benefit from new paint

Aloha High School

Facility Condition Assessment Summary

QUICK FACTS

General Information

***School**: Aloha High School*

Age: 1968

Size (SF): 260,677

Area: acres 31.21

Assessment Date: 10/3/19

Student Population: 1,751

School Ratings

Facility Conditions Index: 0.187

Avg Condition Score: 4.1 out of 5

Asset Count: 505

Energy Use Intensity: 44.5

EUI Target (<50 hrs/wk): <37

EUI Target (>50 hrs/wk): <61

Cost Information

NPV of Assets: $54,179,012

Year 1 Asset Replacement Cost: $4,735,225

Current Replacement Value: $153,786,396

Energy Spend*

Electricity: $175,565

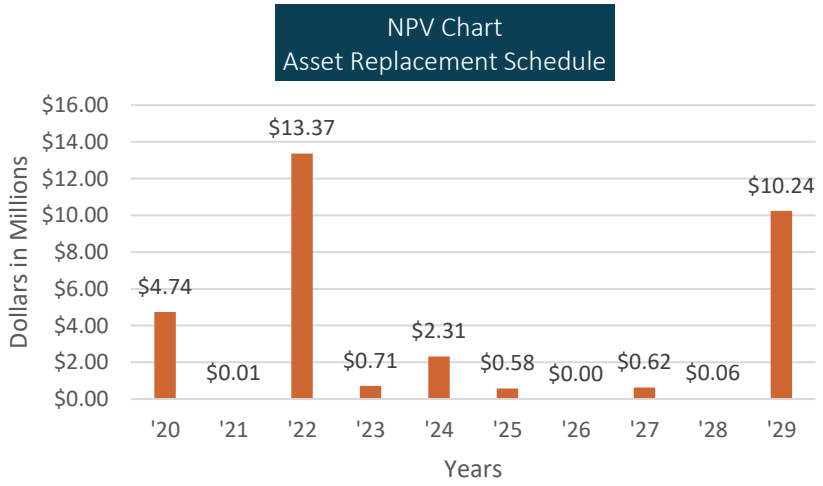
Natural Gas: $41,832

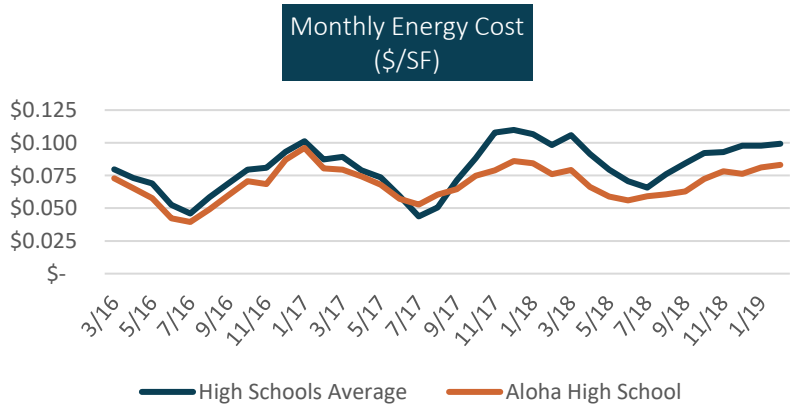
Water Spend*: $43,153

**3/19 – 2/20, includes spec ed spaces*

Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$12,473,394	S4	NA
Mechanical	HVAC – Air Handling Units	$1,558,482	5	1
Plumbing	Pumps, storage tanks	$592,954	5	1
Mechanical	Other	$1,222,341	5	1
Electrical	Switchboards, Panels	$581,210	5	1
Mechanical	HVAC- Boiler	$82,110	5	2





front walkway covering- water penetrating roof

corroded, rusty pumps

masonite panel cover

cracks in sidwalks

General Building Condition

Call out special issues resolved due to walk through, general condition summary, qualitative information

Roof

- Front covered walkway has water penetrating roof concrete causing deterioration. As a result, concrete debris is falling to sidewalk below
- Moss build-up and exposed seams in areas above shop. Large seam in caulking near auditorium has failed and allowing water to enter building

Mechanical/HVAC

- Numerous corroded and rusty pumps at end of life
- Pneumatic controls in older sections of the building have multiple air leaks
- Multiple exhaust fans on the roof not operating. Many have exceeded expected life
- Poor ventilation in science rooms
- Many air handlers have met and exceeded expected useful life
- Multiple hot cold issues observed. Building needs a complete rebalancing (Existing Building Commissioning) project

Electrical

- Multiple panels have exposed busway (notified maintenance of hazard)
- Panel 2GC near gymnasium has wood Masonite being used as front panel (notified maintenance of hazard)

Plumbing

- Many heating water pumps have met or exceeded life expectancy
- Many old inefficient plumbing fixtures in the building

Fire, Life, Safety

- Main Simplex panel in trouble for two days while on site performing inspection

Interior Finishes

- Multiple ceiling tiles are stained and damaged. Recommend spot replacement
- Many resilient tiles have cracks, stains, or are missing in older sections of the building; recommend repair and maintenance program if they aren't going to be replaced

Conveyance

- Grandstand elevator is significantly damaged and appears non-functional. It is chain locked to keep people out

Utilities

- Recommend restricting access at main entrance. There are no barriers to keeping strangers from entering building

Site Improvements

- Many cracks in parking lots. Re-striping needed in some areas
- Multiple cracks in sidewalks

Beaverton High School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: Beaverton High School

Age: 1915/1938

Size (SF): 264,016

Area: 26.23 acres

Assessment Date: 6/19/19

Student Population: 1,469

School Ratings

Facility Conditions Index: 0.337

Avg Condition Score: 3.04 out of 5

Asset Count: 508

Energy Use Intensity: 61.4

EUI Target (<50 hrs/wk): <37

EUI Target (>50 hrs/wk): <61

Cost Information

NPV of Assets: $155,756,239

Year 1 Asset Replacement Cost: $31,657,738

Current Replacement Value: $103,302,624

Energy Spend*

Electricity: $199,374

Natural Gas: $58,616

Water Spend*: $35,006

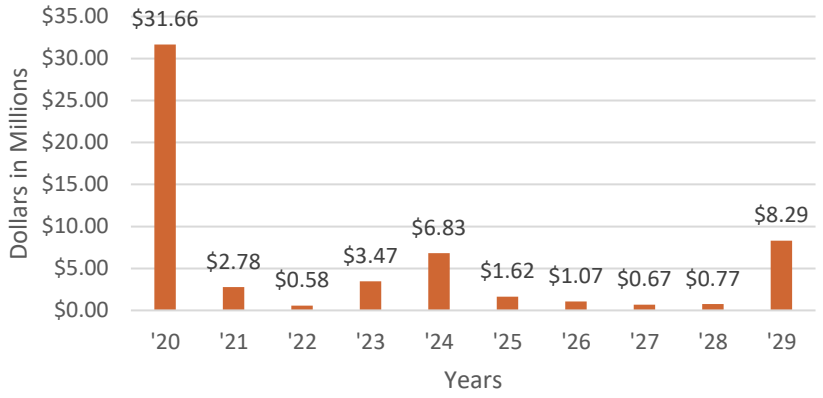
**3/19 – 2/20*

McKinstry For The Life Of Your Building

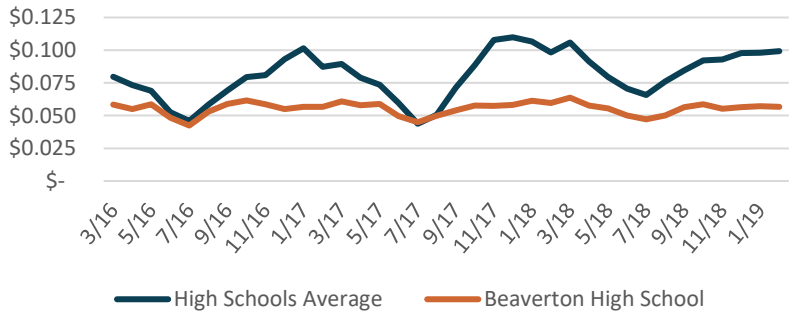
Critical Asset Infrastructure – Replacement Priority

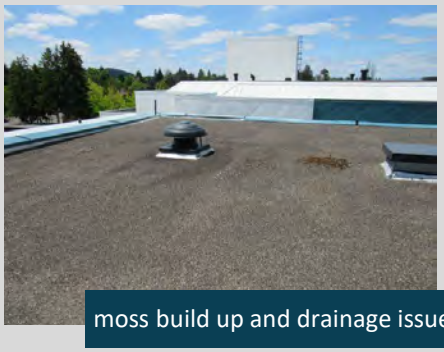
Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural – Main Building	Seismic	$29,092,532	S6	NA
Structural - Cafeteria	Seismic	$878,662	S3	NA
Electrical	Switchboards, Panels	$618,361	5	1
Mechanical	HVAC – Air Handling Units	$903,046	5	1
Mechanical	Other	$414,101	5	1
Mechanical	HVAC- Chillers	$365,932	4	2
Roof	Built-Up	$4,118,650	4	5

NPV Chart
Asset Replacement Schedule



Monthly Energy Cost
($/SF)

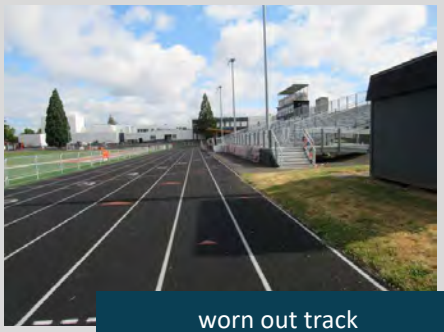




moss build up and drainage issues

pneumatic controls

corroded water heater



worn out track

General Building Condition

Call out special issues resolved due to walk through, general condition summary, qualitative information

Roof

- Moss build-up, exposed seams, and partially clogged drains on rooftop Recommend moss removal, seal, and drain cleaning

Mechanical/HVAC

- Restrooms reported to be ventilated poorly; recommend study to determine adequate additional exhaust
- Exhaust fans for locker rooms do not operate
- West side of the building's control system is pneumatic and obsolete
- Science rooms should be considered for increased ventilation
- Recommend additional ventilation for Annex Building due to change in space use
- Boilers have maintenance issues with tripping breakers and chemical balance
- Building needs a complete rebalancing (Existing Building Commissioning) project

Electrical

- Panel 2H near concessions has exposed busway (notified maintenance of hazard)
- T-12 lighting should be upgrading (Mostly Annex Building)

Plumbing

- In cafeteria, water heaters have corrosion at the base and are leaking (notified maintenance already); causing damage to wallboard
- Mixing station for domestic hot water of the east side of campus is heavily corroded and leaking (district has been notified)

Fire, Life, Safety

- All storm drains should be cleaned

Interior Finishes

- Ceiling tiles are stained and damaged in many areas; recommend spot replacement
- In general, tile floors are at or near poor condition; recommend repair and maintenance program if they aren't going to be replaced

Conveyance

- Grandstand elevator has corrosion due to driving rain and no shielding

Utilities

- Recommend increasing surveillance coverage
- Oil leaking in compartment of the 100 KW generator (Notified maintenance)

Site Improvements

- Synthetic track has many patches and rubber is showing a lot of deterioration
- Tennis court surface is warped, and fence needs repair

BEAVERTON SCHOOL DISTRICT
THRIVE • CONTRIBUTE • EXCEL

Mountainside High School

Facility Condition Assessment Summary

QUICK FACTS

General Information

***School**: Mountainside High School*

Age: 2017

Size (SF): 342,000

Area: acres 46.15

Assessment Date: 11/12/19

Student Population: 1,787

School Ratings

Facility Conditions Index: 0.021

Avg Condition Score: 1.02 out of 5

Asset Count: 546

Energy Use Intensity: 33.78
EUI Target (<50 hrs/wk): <37
EUI Target (>50 hrs/wk): <61

Cost Information

NPV of Assets: $34,076,158

Year 1 Asset Replacement Cost: $3,750

Current Replacement Value: $201,762,900

Energy Spend*

Electricity: $172,281

Natural Gas: $44,305

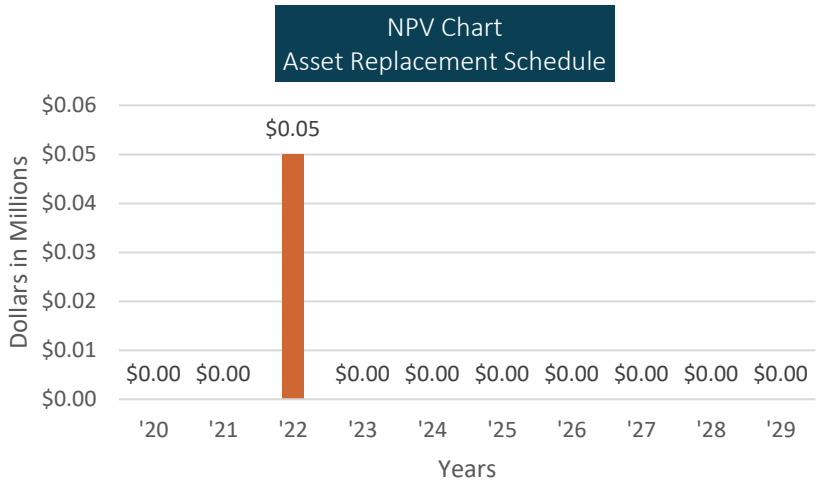
Water Spend*: $43,117

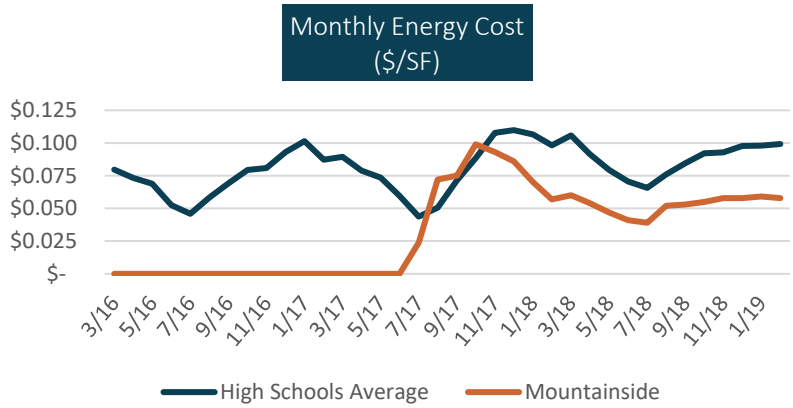
**3/19 – 2/20*

McKinstry
For The Life Of Your Building

Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Mechanical	HVAC- AC	$3,750	5	1
Utilities	Storm Sewer Site Work	$50,000	3	3





water not properly draining

package HVAC equipment

new water heater

crack on womens locker room wall

General Building Condition

Call out special issues resolved due to walk through, general condition summary, qualitative information

Roof

- Multiple low points on roof where water will not drain

Mechanical/HVAC

- Boys locker room has poor ventilation. Need to increase supply and exhaust for better air exchanges
- HVAC equipment is in like new, excellent condition
- JCI Controls

Electrical

- Proper storage procedures in place in electrical rooms
- All electrical equipment is in like new condition

Plumbing

- All plumbing devices and fixtures in like new-excellent condition

Fire, Life, Safety

- Sprinklers and fire alarm system brand new

Interior Finishes

- Wall in girls locker room is cracked showing evidence of building settling
- In general, all interior finishes are in like new condition

Conveyance

- Elevators are in like new condition

Utilities

- Site LED lighting in like new condition

Site Improvements

- Parking lots in excellent condition
- Excellent perimeter fencing and security

BEAVERTON SCHOOL DISTRICT
THRIVE • CONTRIBUTE • EXCEL

Southridge High School

Facility Condition Assessment Summary

QUICK FACTS

General Information

***School**: Southridge High School*

Age: 1999

Size (SF): 342,000

Area: 32.39 acres

Assessment Date: 6/3/19

Student Population: 1,380

School Ratings

Facility Conditions Index: 0.187

Avg Condition Score: 3.05 out of 5

Asset Count: 341

Energy Use Intensity: 48.15

EUI Target (<50 hrs/wk): <37

EUI Target (>50 hrs/wk): <61

Cost Information

NPV of Assets: $64,456,872

Year 1 Asset Replacement Cost: $273,848

Current Replacement Value: $151,068,496

Energy Spend*

Electricity: $219,040

Natural Gas: $33,536

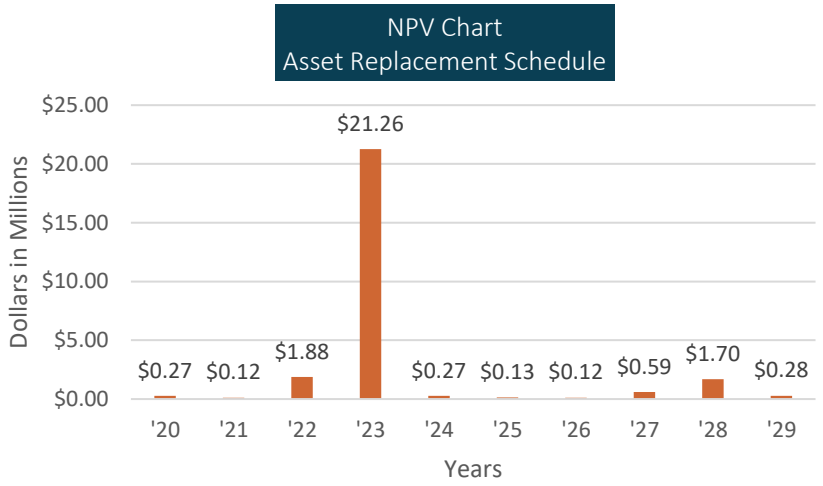
Water Spend*: $33,278

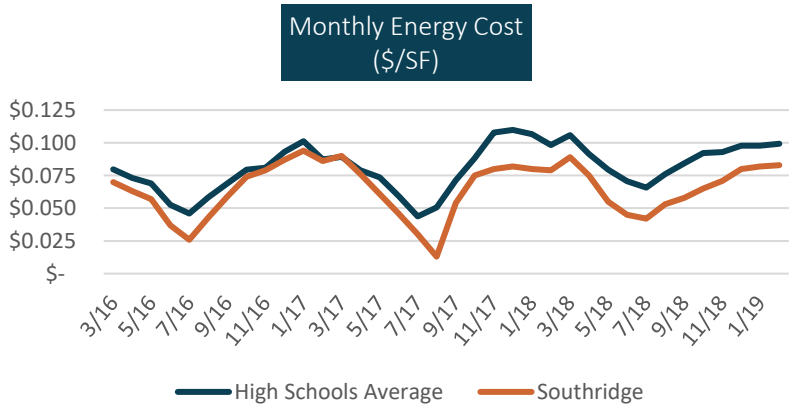
**3/19 – 2/20*

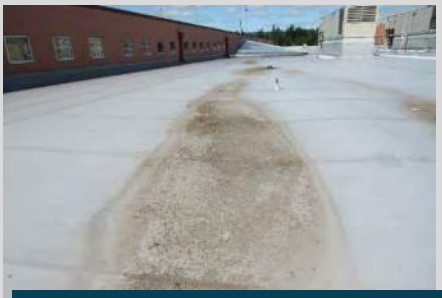
McKinstry
For The Life Of Your Building

Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$7,351,770	S4	NA
Mechanical	HVAC	$116,148	5	1
Exterior Enclosures	Aluminum Windows	$64,018	4	2
Mechanical	Boiler/Pump	$564,964	4	3
Commercial Equipment	Food Service	$52,800	4	3
Interior Finishes	Floor Finishes	$599,204	4	3







roof condition due to standing water

rooftop mechanical equipment

aging domestic water boilers

grinded down trip hazards

General Building Condition

Call out special issues resolved due to walk through, general condition summary, qualitative information

Roof

- Standing water noted near drains. A twice a month drain cleaning schedule is recommended during the rainy seasons to extend the life of the roof.
- The metal roof over the gym and some areas around “fishbowl” type skylights were noted to leak occasionally.

Mechanical/HVAC

- Science rooms exhaust should be investigated to ensure that enough capacity is available.
- Filter checks and replacements should be conducted on a regular basis. Filters inspected during site visits needed changing.
- Existing micro tech controllers are obsolete and due for needs replacement as parts are no longer availabe.
- Considerable balancing issues noted. A balancing project is recommended in the near future to ensure appropriate adjustments are made.

Electrical

- General electrical housekeeping should be completed to take care of exposed terminals, test 100A ground faults, and remediate electrical room floods.
- T-8 and T-5 lighting used throughout the school.

Plumbing

- Domestic water boilers are near the end of their useful life and exhibit cross over issues with hot and cold water leading to distribution issues at times.
- The site’s sanitary system and sewage ejection system has several known issues as a result of some initial design flaws.. The site potentially needs a separate grey water system and a redundant system for pumping.

Fire, Life, Safety

- All storm drains should be cleaned
- Fire sprinkler room sensor was broken and needs to be replaced.

Interior Finishes

- Ceiling tiles in are stained and damaged in many areas; recommend spot replacement. Sound dampening “magic carpets” are failing in main hallway and should be replaced with alternative options.
- Some minor damage to wall finishes particularly in the athletic wing.
- Several floor finishes in need of replacement in the near future.

Conveyance

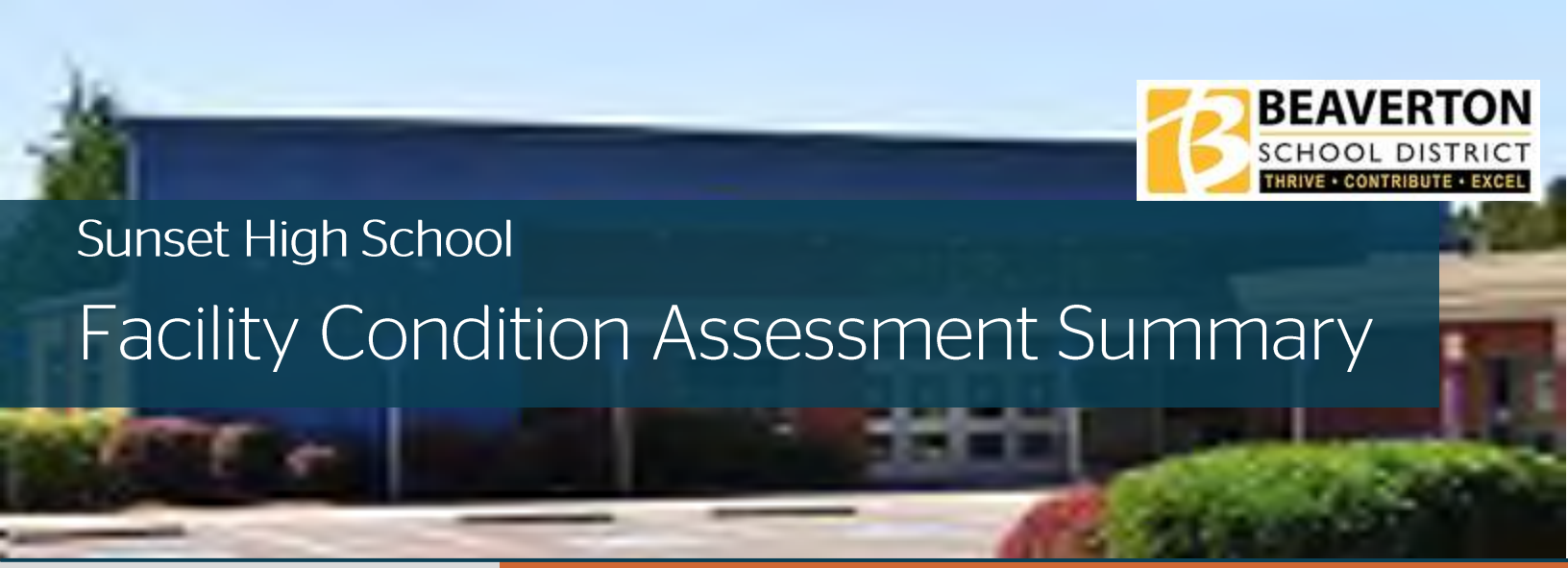
- Elevator car condition is poor and in need of refurbishment.

Utilities

- Card readers are in the process of being standardized on site.

Site Improvements

- Some cracks notes along paved areas though potential trip hazards were mitigated and grinded down.
- Landscaping is in excellent condition at the front of the school, but condition decreases further back from the roadway.



BEAVERTON SCHOOL DISTRICT
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Sunset High School

Facility Condition Assessment Summary

QUICK FACTS

General Information

***School**: Sunset High School*

Age: 1958

Size (SF): 253,727

Area: 38.06 acres

Assessment Date: 8/26/19

Student Population: 1,971

School Ratings

Facility Conditions Index: 0.280

Avg Condition Score: 3.72 out of 5

Asset Count: 381

Energy Use Intensity: 50.68
EUI Target (<50 hrs/wk): <37
EUI Target (>50 hrs/wk): <61

Cost Information

NPV of Assets: $63,574,767

Year 1 Asset Replacement Cost: $5,120,186

Current Replacement Value: $149,686,244

Energy Spend*

Electricity: $152,542

Natural Gas: $50,112

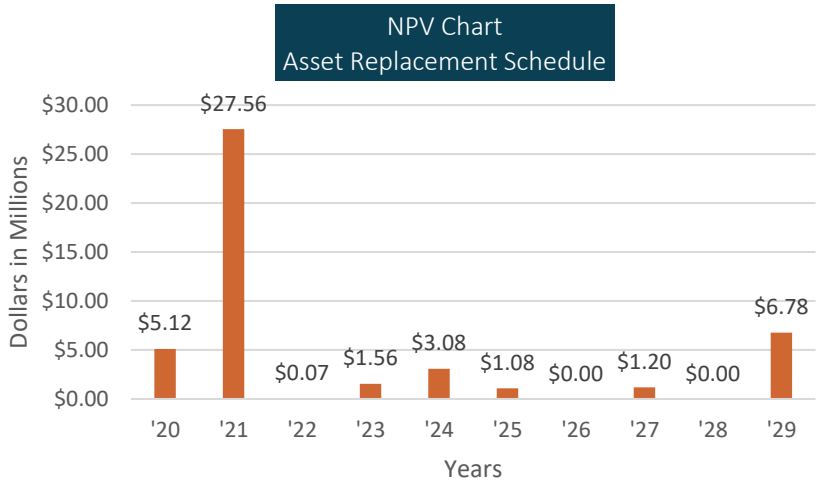
Water Spend*: $58,995

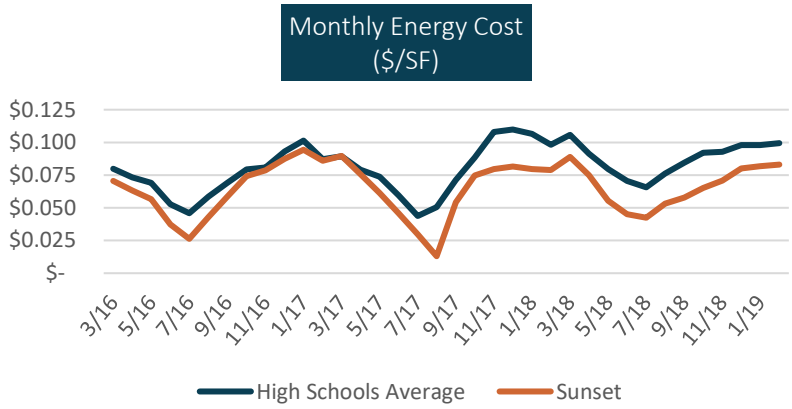
**3/19 – 2/20*

McKinstry
For The Life Of Your Building

Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$26,709,841	S5	NA
Mechanical	HVAC – Air Handling Units	$420,000	5	1
Mechanical	Other	$1,362,609	5	1
Plumbing	Domestic Water Dist.	$1,847,133	5	1
Exterior Enclosures	Aluminum Windows	$870,030	4	1





cracks in exterior brick

air handler missing belt guard

improper storage in front of electrical equipment

hazardous track condition

General Building Condition

Call out special issues resolved due to walk through, general condition summary, qualitative information

Exterior Enclosure

- Cracks in brick near boiler room
- Many roof drains in need of cleaning

Mechanical/HVAC

- Most insulation in mechanical room in need of replacement
- Bad water feed valve causing condensate to overflow onto concrete floor in mechanical room
- Condensate pumps throughout steam tunnels periodically failing
- Science rooms should be considered for increased ventilation
- Significant air leak above air compressor (notified maintenance personnel of finding)
- Air handler over stage belt guard not attached-Hazardous condition

Electrical

- Panel 2BB in I Hall near women's restroom has exposed busway (notified maintenance personnel of hazard)
- Many electrical rooms used for storage. Recommend maintaining a 4' clearance in front of panels and transformers
- Many exterior lights on during the day due to failed photocells or failed timers

Plumbing

- Old galvanized domestic water pipe is failing intermittently
- Hot water boiler #2 leaking condensate at flue exhaust joint

Fire, Life, Safety

- No sprinkler coverage in T-Hall building

Interior Finishes

- Ceiling tiles are stained throughout building. Many loose lay-in ceiling tiles
- In general, floors are in good to excellent condition

Conveyance

- Wheelchair lift near gym in good working condition

Utilities

- Storm drains need cleaning
- Parking lot lighting has poor coverage and portions of light fixtures in need of LED upgrade

Site Improvements

- Significant cracks in sidewalks at street side of building
- Minor cracks in asphalt parking lots. New striping needed
- Practice track is in poor shape. Significant hazard as edge of track where there is a deep drop off. Rubber is showing a lot of deterioration

BEAVERTON SCHOOL DISTRICT
THRIVE • CONTRIBUTE • EXCEL

Westview High School

Facility Condition Assessment Summary

QUICK FACTS

General Information

***School**: Westview High School*

Age: 1994

Size (SF): 281,183

Area: 44.65 acres

Assessment Date: 12/3/19

Student Population: 2,382

School Ratings

Facility Conditions Index: 0.176

Avg Condition Score: 3.57 out of 5

Asset Count: 391

Energy Use Intensity: 47.38

EUI Target (<50 hrs/wk): <37

EUI Target (>50 hrs/wk): <61

Cost Information

NPV of Assets: $60,249,037

Year 1 Asset Replacement Cost: $608,393

Current Replacement Value: $165,883,911

Energy Spend*

Electricity: $207,386

Natural Gas: $41,042

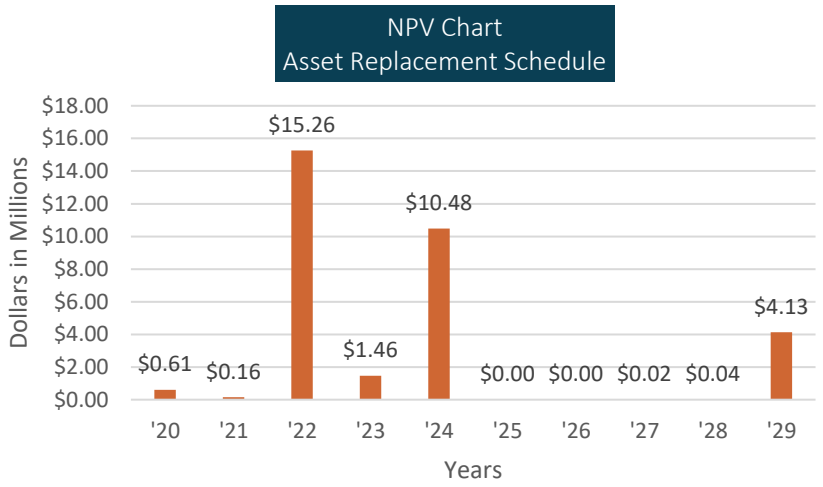
Water Spend*: $65,767

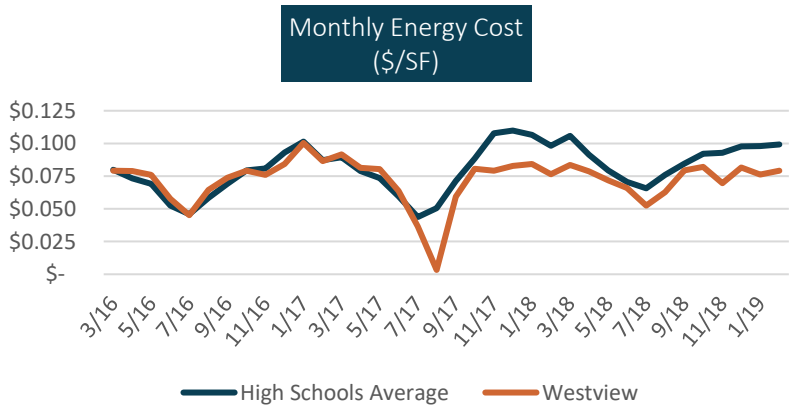
**3/19 – 2/20*

McKinstry
For The Life Of Your Building

Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$13,454,607	S4	NA
Mechanical	HVAC	$37,300	5	1
Plumbing	Water Heater	$95,066	5	1
Electrical	Closed Circuit Surveillance	$154,651	5	2
Mechanical	System Test & Balance	$410,527	4	1
Mechanical	Boiler	$230,411	4	2
Electrical	Generator	42,000	4	3

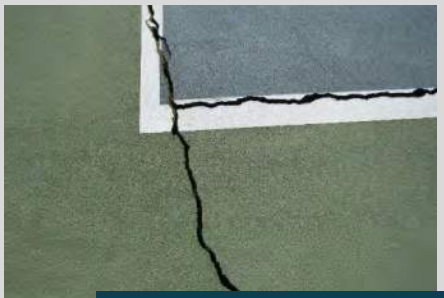




bird damage on exterior parapets

improper storage

water heater burner tube



worn our tennis court

General Building Condition

Call out special issues resolved due to walk through, general condition summary, qualitative information

Roof

- Existing roof covering appears to be in good condition.
- Bird guards should be installed on roof exterior parapets.

Mechanical/HVAC

- Existing mechanical equipment are primarily in fair condition.

Electrical

- Existing electrical equipment is in fair condition.
- Improper storage should be removed from electrical rooms.
- Closed circuit surveillance system is worn out with several cameras no longer working.
- Lighting control system is manual with motion.

Plumbing

- The water heater serving the kitchen has a burner tube that has eroded significantly due to highly acidic condensate collecting in the boiler vessel. The unit should be replaced.
- Some poor rainwater drainage spots were identified.

Fire, Life, Safety

- Fire protection equipment appear to be in good condition.
- All storm drain should be cleaned

Interior Finishes

- All woods doors have wire glass which is a potential safety concern.
- Most interior finishes are in fair to good condition. Carpet and resilient sheet flooring areas show the most amount of wear.

Utilities

- Site lighting includes metal halide.
- Oil leaking in compartment of the 100 KW generator (Notified maintenance)

Site Improvements

- Parking lots and pedestrian paving have many cracks and broken curbs.
- Synthetic grass surface on football field has degraded. Rubber base fill is noticeably visible through worn areas.
- Tracks and tennis courts show significant signs of wear with multiple cracks.

BEAVERTON SCHOOL DISTRICT
THRIVE • CONTRIBUTE • EXCEL

ACMA Performing Arts Center

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: ACMA Performing Arts

Age: 2010

Size (SF): 44,570

Area: 8.94 acres

Assessment Date: 11/6/19

Student Population: 338

School Ratings

Facility Conditions Index: 0.079

Avg Condition Score: 2.67 out of 5

Asset Count: 84

Energy Use Intensity: 82.46
EUI Target (<50 hrs/wk): <29
EUI Target (>50 hrs/wk): <47

Cost Information

NPV of Assets: $3,263,575

Year 1 Asset Replacement Cost: $10,000

Current Replacement Value: $13,803,000

Energy Spend*

Electricity: $64,349

Natural Gas: $15,879

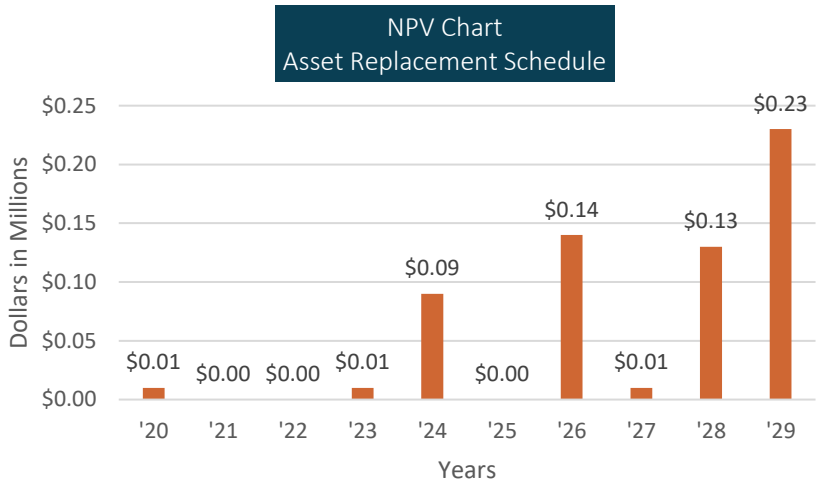
Water Spend*: $2,239

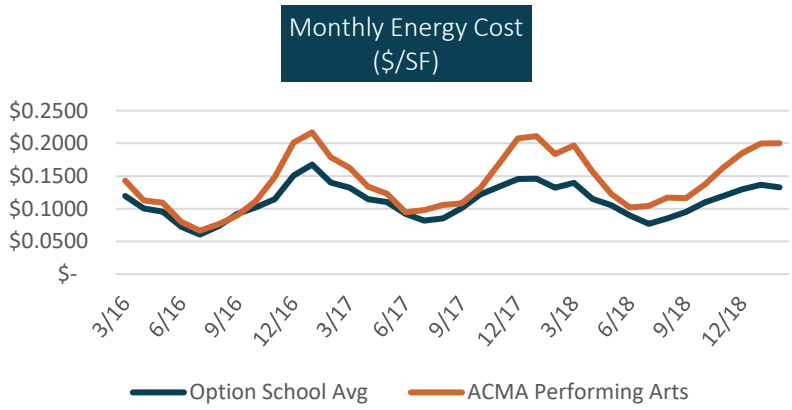
**3/19 – 2/20*

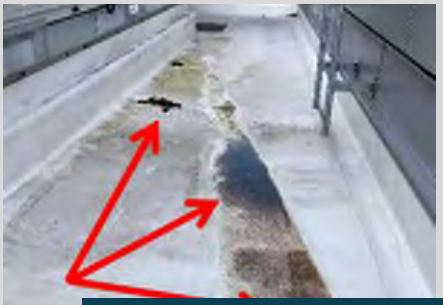
McKinstry
For The Life Of Your Building

Critical Asset Infrastructure – Replacement Priority

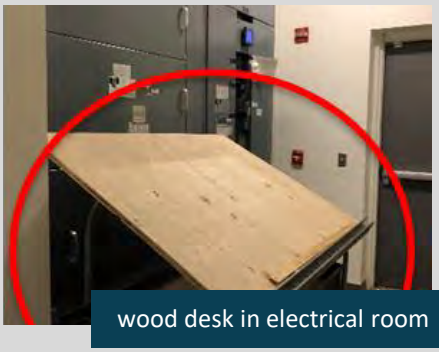
Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Utilities	Storm Sewer Site Work	$10,000	4	1
Mechanical	HVAC-AHU, Test & Balance	$45,770	4	4



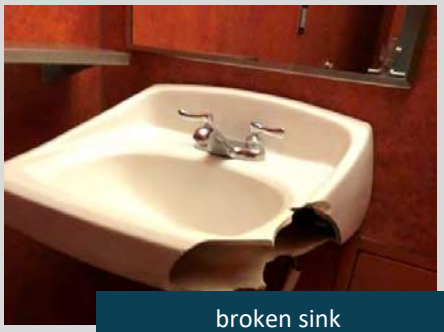




moss build up and drainage issues



wood desk in electrical room



broken sink

General Building Condition

Call out special issues resolved due to walk through, general condition summary, qualitative information

Roof

- Slight moss growth and clogged roof drains
- Repairs around Air Handling units needed

Mechanical/HVAC

- Roof top units are in good condition
- Insulation around refrigerant lines are all in good shape
- Building needs a complete rebalancing (Existing Building Commissioning) project

Electrical

- Lots of burned out lamps throughout facility
- Flammable wood desk in front of main electrical distribution panel. Electrical rooms should not be used as storage.

Plumbing

- Plumbing is in good shape
- One sink needs to be replaced
- All fixtures are manual, low flow. Should be upgraded to touchless

Fire, Life, Safety

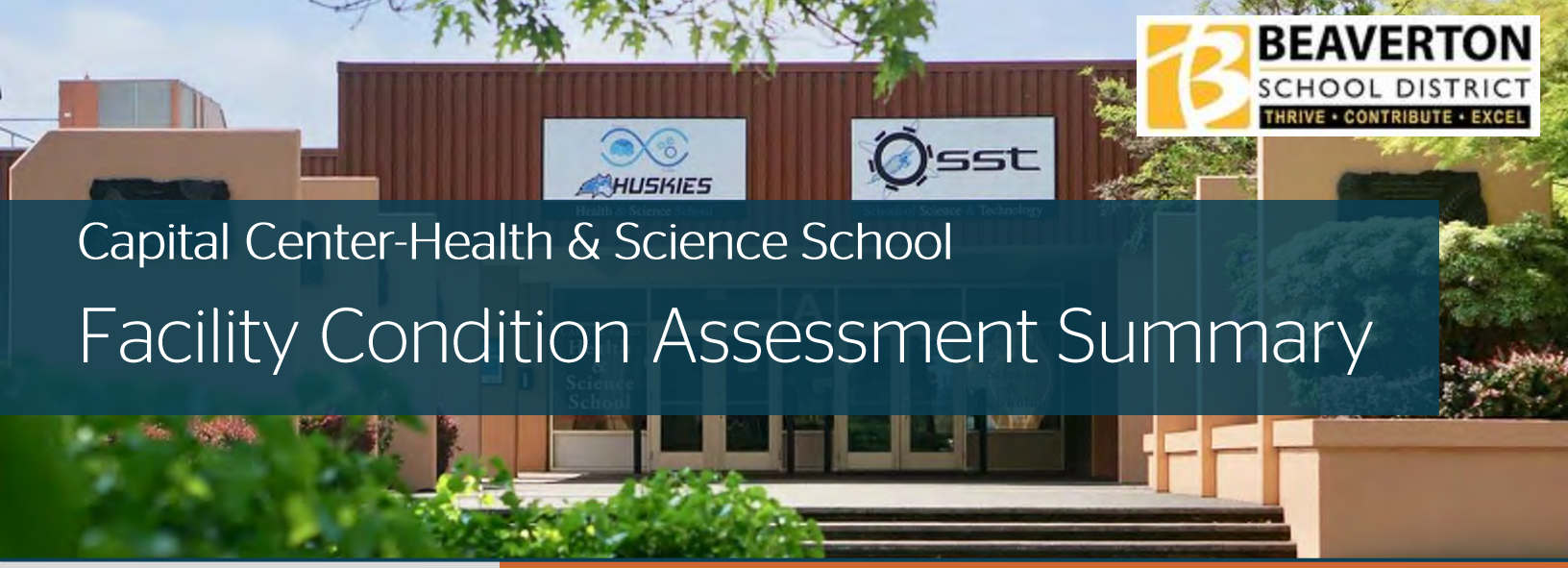
- All storm drain should be cleaned

Interior Finishes

- Carpet worn and aged
- In general, tile floors are heavily worn; recommend repair and maintenance program if they aren't going to be replaced
- Stage is worn and scratched from heavy use. Needs resurfaced and stained

Site Improvements

- Storm sewers need cleaned out



BEAVERTON SCHOOL DISTRICT
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Capital Center-Health & Science School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: Capital Center Health & Science School

Age: 1970

Size (SF): 105,883

Area: 18.55 acres

Assessment Date: 9/24/19

Student Population: 881

School Ratings

Facility Conditions Index: 0.227

Avg Condition Score: 2.60 out of 5

Asset Count: 248

Energy Use Intensity: 70.25

EUI Target (<50 hrs/wk): <29

EUI Target (>50 hrs/wk): <47

Cost Information

NPV of Assets: $25,393,374

Year 1 Asset Replacement Cost: $2,664,750

Current Replacement Value: $53,303,620

Energy Spend*

Electricity: $135,550

Natural Gas: $17,569

Water Spend*: $39,736

**3/19 – 2/20*

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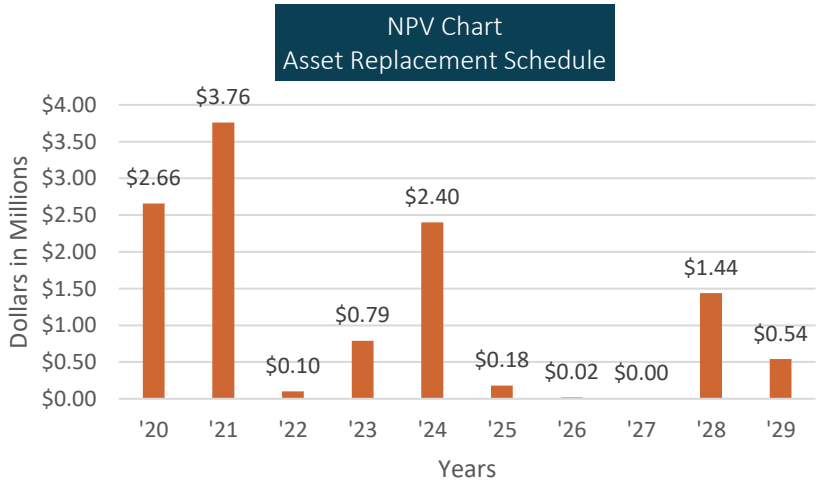
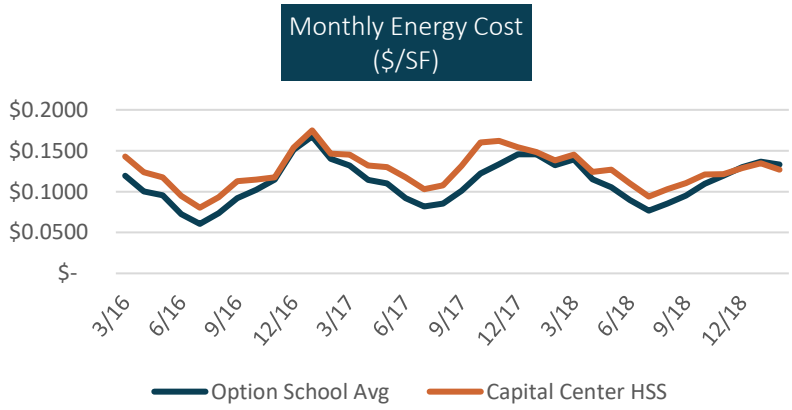
For The Life Of Your Building

Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$3,039,901	S5	NA
Roof	Built-Up	$275,293	5	1
Electrical	Switchboard	$219,184	5	1
Commercial Equipment	Food Service Freezer	$3,000	5	1
Mechanical	HVAC-AHU & Evap	$4,157,210	4	1
Mechanical	Other	$298,360	4	1





moss build up and drainage issues

improper storage

fire door in center of library

parking lot painting

General Building Condition

Call out special issues resolved due to walk through, general condition summary, qualitative information

Roof

- Significant moss growth above cafeteria in built-up section
- Older skylights have damage to casing
- Single Ply roofing is in good shape

Mechanical/HVAC

- Extensive rusting on Exhaust Fan #2
- Walk in cooler and freezer has ice buildup on connections
- Boiler pump is at end of life, has rust and corrosion present
- Kitchen single door warmer and single door freezer not working

Electrical

- Many electrical rooms have improper storage)
- T-8 lighting should be upgrading
- Panel 4F missing access handle

Plumbing

- Water heater in Area 4 has no earthquake strapping
- No drip pan catch basin on water heater or expansion tank in kitchen area
- Water Heaters are nearing the end of their life

Fire, Life, Safety

- Exposed exterior sprinkler pipe very rusty near cafeteria
- Fire door in the center of the library poses a safety hazard
- Air compressor servicing dry fire system has rust and corrosion

Conveyance

- Multiple issues with stair lift since installation

Interior Finishes

- Many interior and exterior doors with windows have glass mesh and are unsafe
- Many Lay-in ceiling tiles are broken and stained

Utilities

- Storm sewer drains need cleaning
- Oil leaking in compartment of the 100 KW generator (Notified maintenance)

Site Improvements

- Asphalt near cafeteria is in poor condition
- Minor cracking evident in multiple locations around parking lot and pedestrian paving
- Parking lot at rear of building needs updated stripping

International School of Beaverton

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: *International School of Beaverton*

Age: 1944

Size (SF): 75,585

Area: 15.45 acres

Assessment Date: 7/16/19

Student Population: 847

School Ratings

Facility Conditions Index: 0.237

Avg Condition Score: 3.46 out of 5

Asset Count: 398

Energy Use Intensity: 46.52

EUI Target (<50 hrs/wk): <29

EUI Target (>50 hrs/wk): <47

Cost Information

NPV of Assets: $23,322,293

Year 1 Asset Replacement Cost: $9,573,178

Current Replacement Value: $40,362,390

Energy Spend*

Electricity: $62,891

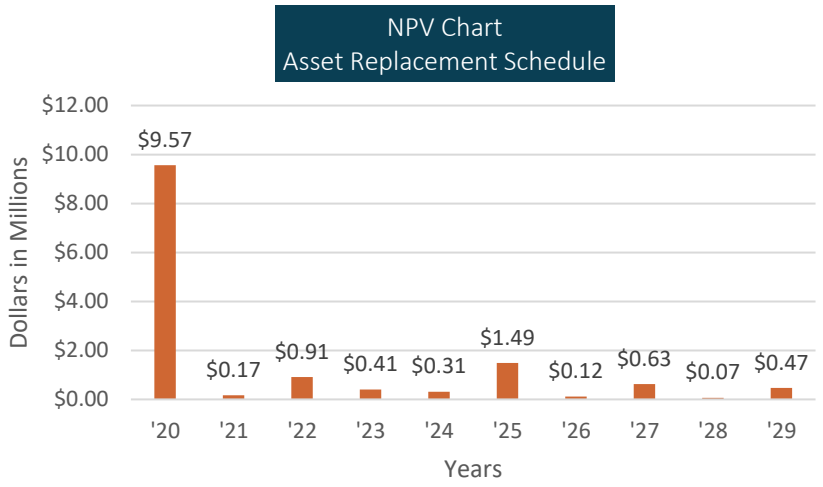
Natural Gas: $15,219

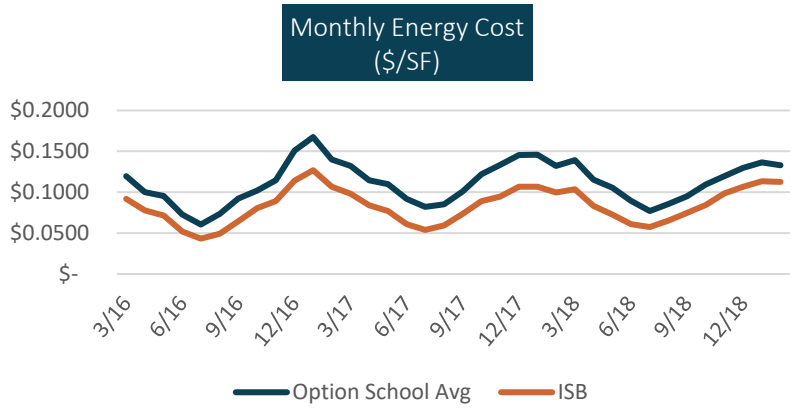
Water Spend*: $14,753

**3/19 – 2/20*

Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$5,063,439	S6	NA
Roof	Built-Up	$1,105,000	5	1
Electrical	Switchboards, Panels	$727,800	5	1
Mechanical	HVAC – Condensing Unit	$614,336	5	1
Mechanical	HVAC- Heat Pump	$252,539	5	1
Mechanical	Other	$583,943	4	2
Exterior Enclosures	Walls, Windows	$318,818	4	1





moss build up and bubbling

Leaking Valves

leaking hot water heater

Clogged Storm Drains

General Building Condition

Call out special issues resolved due to walk through, general condition summary, qualitative information

Roof

- Moss build-up and bubbling on Built-Up portion. Recommend replacement.

Mechanical/HVAC

- Un-insulated refrigerant lines on old section of the split unit
- Modular building HVAC units very old and have failed caulking
- AHU 1 & 2 cycle on and off.
- Leaking, corrosion and rust around boilers
- Rust on Condensing units, deteriorating pipe wrap and organic growth on back of AHU 1, 2 & 3
- Rust and signs of corrosion on heat pumps on roof
- Exhaust fan broken on main office restroom

Electrical

- Upgrade remaining T8 to LED both interior and exterior

Plumbing

- Need shower station/eye wash in science labs – been on order for 3 years
- Water heaters leaking, corroded and LCD malfunctioning
- Missing earthquake valve at exterior gas piping

Fire, Life, Safety

- Sprinkler systems appear to have had issues with leaks

Interior Finishes

- Wall finishes show some cosmetic damage but generally in good condition
- Lay-in ceiling tile in Kitchen does not have moisture resistant ceiling tiles
- Carpet in modulars and in office are in poor condition

Conveyance

- Elevators are in great condition

Utilities

- Recommend increasing surveillance coverage
- Storm drain by portables clogged causing a lake. Need to be cleaned

Site Improvements

- Parking lot surfaces are cracking and paint is fading

BEAVERTON SCHOOL DISTRICT
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BEAVERTON SCHOOL DISTRICT
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Merlo Station Community High School

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: *Merlo Station Community High School*

Age: 1993

Size (SF): 51,125

Area: 4.2 acres

Assessment Date: 9/25/19

Student Population: 128

School Ratings

Facility Conditions Index: 0.173

Avg Condition Score: 2.03 out of 5

Asset Count: 150

Energy Use Intensity: 59.5
EUI Target (<50 hrs/wk): <29
EUI Target (>50 hrs/wk): <47

Cost Information

NPV of Assets: $9,344,042

Year 1 Asset Replacement Cost: $172,036

Current Replacement Value: $26,137,656

Energy Spend*

Electricity: $45,806

Natural Gas: $8,393

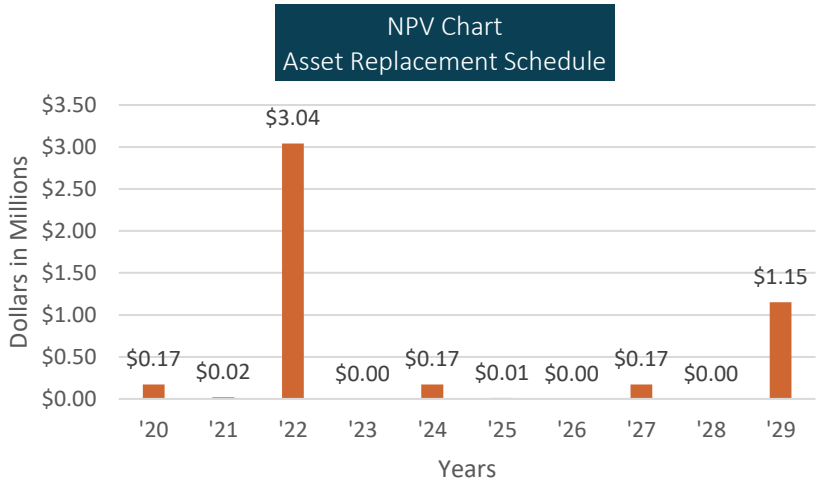
Water Spend*: $5,654

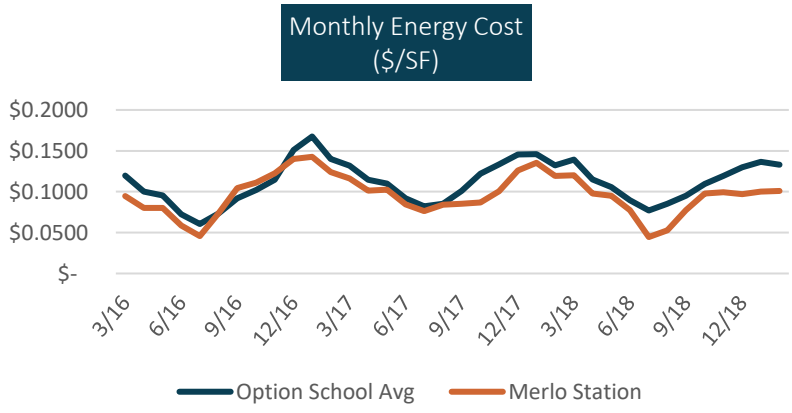
**3/19 – 2/20*

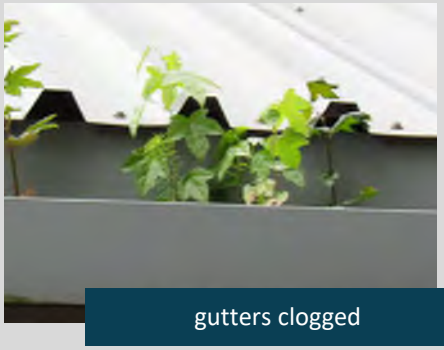
McKinstry
For The Life Of Your Building

Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$2,446,331	S4	NA
Exterior Enclosure	Aluminum Windows	$97,393	4	1
Mechanical	HVAC Test & Balance	$74,643	4	1







gutters clogged

improper storage

multiple water leak stains

parking lot striping

General Building Condition

Call out special issues resolved due to walk through, general condition summary, qualitative information

Roof

- Gutters and drains clogged with saplings and debris near trees

Mechanical/HVAC

- Most units are new and in great condition
- Exhaust fans in science room are in poor condition
- Building could use a test and rebalance (Existing Building Commissioning) project

Electrical

- Improper storage in electrical room near transformer
- T-8 lighting – some rooms are over lit and only half the lights are on

Plumbing

- In kitchen, garbage disposal missing safety guard
- Water Heater in custodial office has no drainage pan
- Sewer “burps” sewer gas in science area

Fire, Life, Safety

- Remove vegetation from storm drains and clean all

Interior Finishes

- Ceiling tiles are stained and damaged in many areas; recommend spot replacement
- Windows in some doors have wire mesh in them
- Some wear in carpet in high traffic offices

Utilities

- Storm drains need cleaning and vegetation removed

Site Improvements

- Parking lot needs re-striping
- Grass and moss growth on pedestrian paving
- Landscape needs trimming

Terra Nova School of Science & Sustainability

Facility Condition Assessment Summary

QUICK FACTS

General Information

School: *Terra Nova School of Science & Sustainability*

Age: 1938

Size (SF): 11,800

Area: 3.83 acres

Assessment Date: 6/25/19

Student Population: 84

School Ratings

Facility Conditions Index: 0.349

Avg Condition Score: 4.12 out of 5

Asset Count: 67

Energy Use Intensity: 56.37

EUI Target (<50 hrs/wk): <29

EUI Target (>50 hrs/wk): <47

Cost Information

NPV of Assets: $3,113,299

Year 1 Asset Replacement Cost: $468,181

Current Replacement Value: $6,032,750

Energy Spend*

Electricity: $20,533

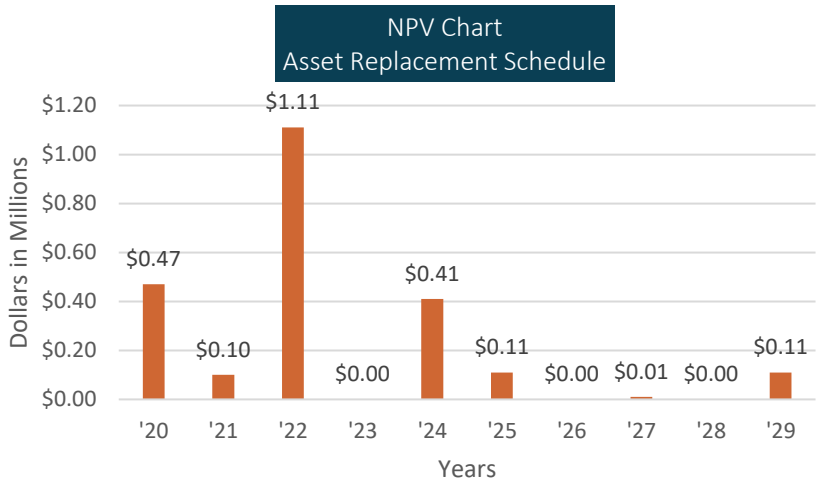
Natural Gas: $1,594

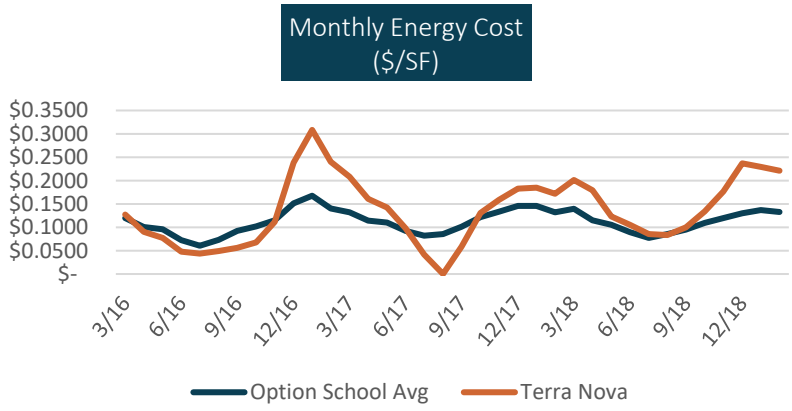
Water Spend*: $4,796

**3/19 – 2/20*

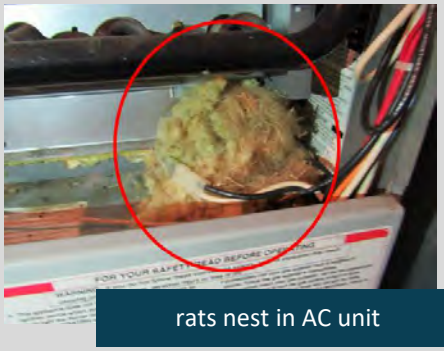
Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural – Main Building	Seismic	$1,016,334	S4	NA
Electrical	Switchboards, Panels	$166,690	5	1
Mechanical	HVAC – Unit Ventilator	$136,090	5	1
Mechanical	Other	$129,061	5	1
Plumbing	Water Heater	$16,612	5	1
Site Work	Parking lots, Ped Paving	$53,960	4	2
Roof	Asphalt	$31,860	4	3





moss build up



rats nest in AC unit

corroded hot water heater

Parking lot in poor repair

General Building Condition

Call out special issues resolved due to walk through, general condition summary, qualitative information

Roof

- Moss build-up, water puddling on rooftop. Recommend moss removal, seal, and drain cleaning

Mechanical/HVAC

- Gas line on roof has fallen off the support blocks
- Rats nest in Trane unit serving gym
- Building's control system is pneumatic and obsolete
- AC unit on roof missing economizer motor cover
- Building needs a complete rebalancing (Existing Building Commissioning)
- No chemical fume hoods or proper ventilation in science rooms

Electrical

- Shop area needs electrical system upgrade. Insufficient service
- T-8 & T-12 lighting should be upgrading
- Emergency Exit signage should be upgraded
- Improper storage of supplies in gym mechanical room near electric panels
- Site and parking lot lighting is very poor and uses old, inefficient technology

Plumbing

- Health room is lacking an eye wash station
- No pan at base of water heater in water heater closet
- No earthquake strapping or pan and rusted out water heater in Corridor B custodian closet
- Water Heater near room 102 is rusted out and leaking, need replaced
- Kitchen sinks in room 106 and 104 have frequent leaks, need repaired

Fire, Life, Safety

- Fire extinguishers are behind in their monthly inspections

Interior Finishes

- Restroom stalls are very dated and inefficient
- Walls have cosmetic damage and showing signs of aging
- Asbestos tile in south classrooms, aged and worn
- Ceiling tile damage throughout building
- Fixed furnishings are old and very worn

Exterior Enclosures

- Exterior windows are mostly single pane
- Some exterior windows have metal mesh that is a safety hazard

Utilities

- Storm sewer is clogged and in need or cleaning
- Storm sewer basins in front of S side of building blocked and cause localized flooding

Site Improvements

- Parking lots need to be resealed and restriped
- Area leading to picnic table incline is too steep causing a safety hazard

BEAVERTON SCHOOL DISTRICT
THRIVE • CONTRIBUTE • EXCEL

Administration Center

Facility Condition Assessment Summary

QUICK FACTS

General Information

***School**: Administration Center*

Age: 1972

Size (SF): 35,995

Area: 3.27 acres

Audit Date: 10/23/19

Student Population: NA

School Ratings

Facility Conditions Index: 0.233

Avg Condition Score: 3.49 out of 5

Asset Count: 101

Energy Use Intensity: 110.74
EUI Target: NA

Cost Information

NPV of Assets: $7,610,362

Year 1 Asset Replacement Cost: $628,631

Current Replacement Value: $18,120,603

Energy Spend*

Electricity: $74,586

Natural Gas: $11,516

Water Spend*: $12,312

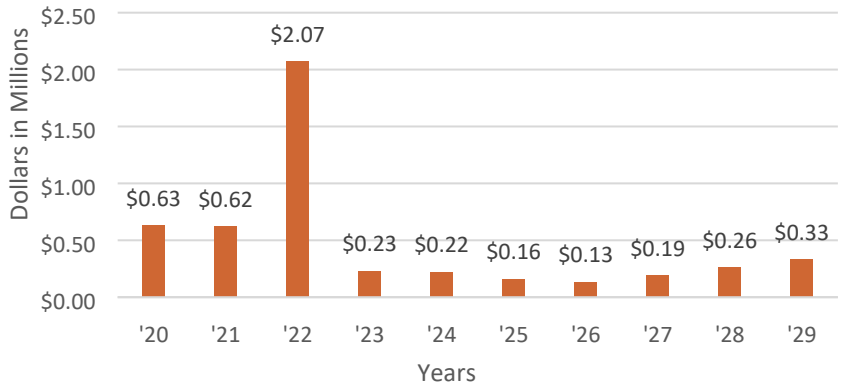
**3/19 – 2/20*

McKinstry
For The Life Of Your Building

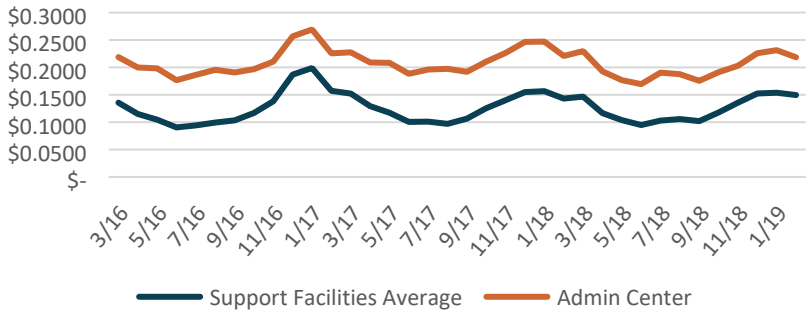
Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural – Main Building	Seismic	$1,722,361	S4	NA
Mechanical	HVAC – AHU, Controls	$154,327	5	1, 2
Site Work	Parking Lots	$153,232	5	1
Plumbing	Domestic Water Dist. & Sanitary Waste	$191,493	4	5
Mechanical	RTU, A/C, Heat Pump	$470,737	4	2-4
Electrical	Alarms, Lighting	$142,180	4	1, 2
Furnishings	Fixed Furnishings	$215,970	4	1
Interior Finishes	Carpet and Tile	$213,396	4	2, 3

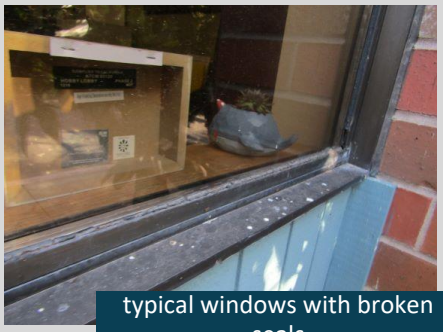
NPV Chart
Asset Replacement Schedule



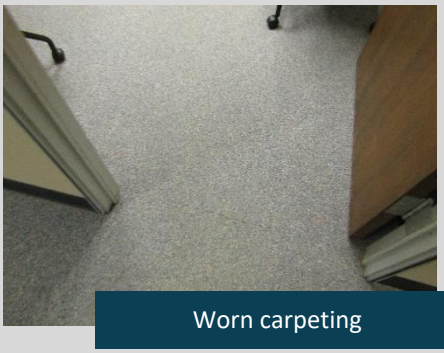
Monthly Energy Cost
($/SF)



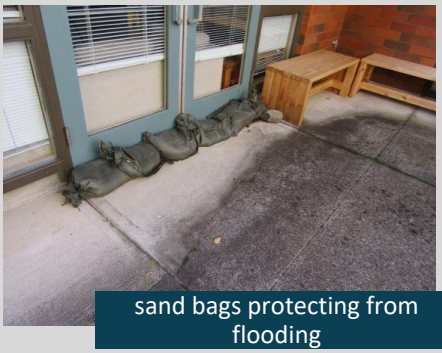
many RTU's over 20 years old



typical windows with broken seals



Worn carpeting



sand bags protecting from flooding

General Building Condition

Call out special issues resolved due to walk through, general condition summary, qualitative information

Roof

- New roof installed in 2018, good condition

Mechanical/HVAC

- Majority of the rooftop equipment is approximately 20 years old. Replacements will be needed in the near future
- Server room equipment is 10 years old and well maintained

Electrical

- Most panels are 1970's and 1980's era, fair condition, no immediate needs
- T-8 lighting from 1998 throughout. Should be considered for LED upgrade project
- Lighting controls should be upgraded

Plumbing

- Original distribution piping for domestic water and waste from 1972. No reported or detected deficiencies. The system is 50 years old and should be considered for upgrade
- Water heating systems typically have 4-8 years of remaining life

Fire, Life, Safety

- Inergen chemical suppression system serving the data center is in good to fair condition and regularly serviced
- Fire and intrusion alarm systems are from 1998 and some parts are obsolete. Upgrade recommended

Interior Finishes

- High wear and staining on carpet in high traffic areas
- Ceramic tiles in restrooms is original

Exterior Enclosures

- Exterior double pane windows have failing seals
- South facing windows for IT should be replaced or provide heat guard
- Exterior wall panel siding has new paint

Utilities

- Storm sewer cannot keep up during heavy rains. Sandbags are often used to prevent flooding in the building at the north entrance.
- LED Parking Lighting

Site Improvements

- Aligatoring throughout the parking lot. Parking lot resurface project should be performed in conjunction with storm sewer renovation.

BEAVERTON SCHOOL DISTRICT
THRIVE • CONTRIBUTE • EXCEL

Aloha Admin Branch

Facility Condition Assessment Summary

QUICK FACTS

General Information

***School**: Special Education – Aloha Office*

Age: 1950/1975

Size (SF): 6,179

Area: 2.86 acres

Audit Date: 11/13/19

Student Population: NA

School Ratings

Facility Conditions Index: 0.129

Avg Condition Score: 3.26 out of 5

Asset Count: 43

Energy Use Intensity: 19.42
EUI Target: NA

Cost Information

NPV of Assets: $1,506,274

Year 1 Asset Replacement Cost: $10,000

Current Replacement Value: $5,034,200

Energy Spend*

Electricity: $8,379

Natural Gas: $0

Water Spend*: $410

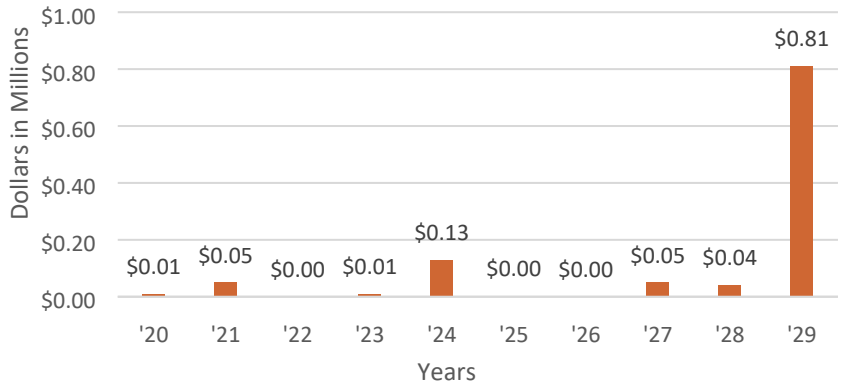
**3/19 – 2/20*

McKinstry
For The Life Of Your Building

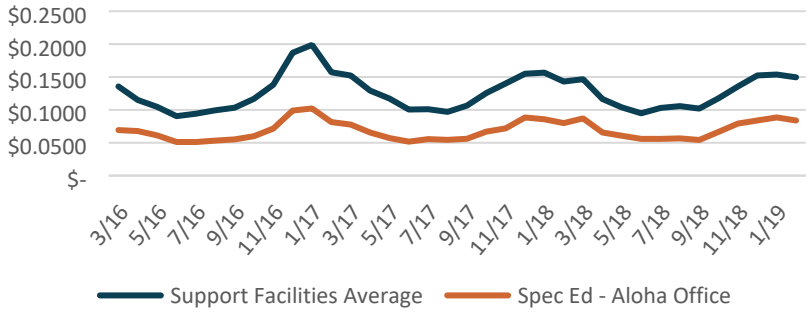
Critical Asset Infrastructure – Replacement Priority

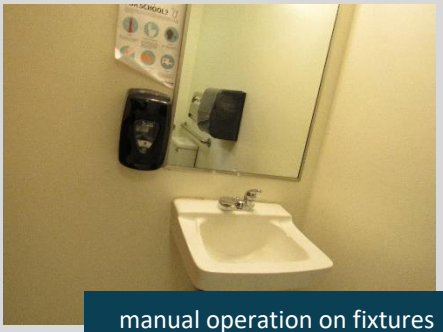
Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Exterior Enclosures	Aluminum Windows	$38,100	5	2
Mechanical Utilities	Storm Sewer	$10,000	4	1
Mechanical	Exhaust Fan	$24,200	4	2, 4
Interior Finishes	Carpet	$61,290	4	5

NPV Chart
Asset Replacement Schedule



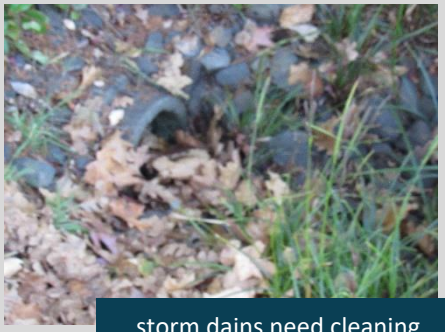
Monthly Energy Cost
($/SF)





manual operation on fixtures

single pane windows



storm dains need cleaning

General Building Condition

Call out special issues resolved due to walk through, general condition summary, qualitative information

Roof

- Single ply membrane roof in fair condition. No active leaks detected or reported

Mechanical/HVAC

- Majority of HVAC was installed ten years ago. In relatively good condition
- Exhaust systems are old and should be considered for replacement

Electrical

- T-8 lighting throughout. Potential for upgrade to LED
- Panels are original to building, but in working order
- Lighting control should be upgraded if system is changed to LED

Plumbing

- Plumbing fixtures are in fair condition, no automatic fixtures
- Water heater is only four years old

Fire, Life, Safety

- No sprinkler system
- Fire extinguishers are up to date on inspections

Interior Finishes

- Interior paint is in fair condition, no major needs at this time
- Carpets make up a majority of the flooring surface. Typical condition is poor and will most likely require replacement with next bond cycle

Exterior Enclosures

- Single pane windows, some with BB gun damage. Opportunity for upgrade for energy savings

Utilities

- Storm drains require cleaning

Site Improvements

- Trip hazards from settling should be grinded

McKinstry For The Life Of Your Building

BEAVERTON SCHOOL DISTRICT THRIVE • CONTRIBUTE • EXCEL

Maintenance Center

Facility Condition Assessment Summary

QUICK FACTS

General Information

***School**: Maintenance Center*

Age: 1971

Size (SF): 34,428

Area: 6.54 acres

Audit Date: 10/23/19

Student Population: NA

School Ratings

Facility Conditions Index: 0.240

Avg Condition Score: 3.00 out of 5

Asset Count: 52

Energy Use Intensity: 71.63
EUI Target: NA

Cost Information

NPV of Assets: $3,787,384

Year 1 Asset Replacement Cost: $279,460

Current Replacement Value: $10,768,153

Energy Spend*

Electricity: $14,487

Natural Gas: $8,532

Water Spend*: $5,289

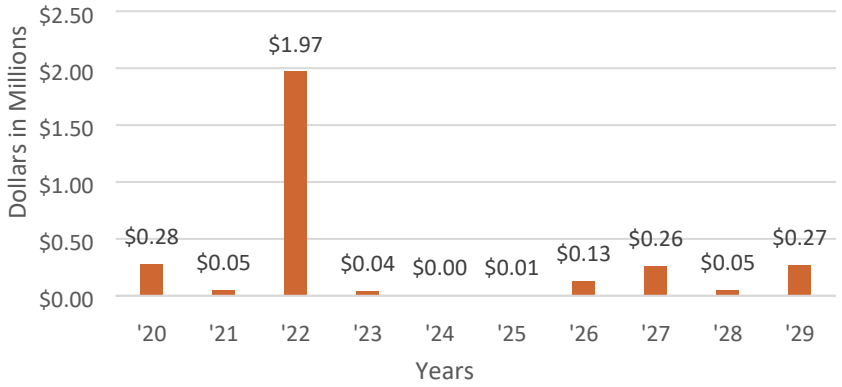
**3/19 – 2/20*

McKinstry
For The Life Of Your Building

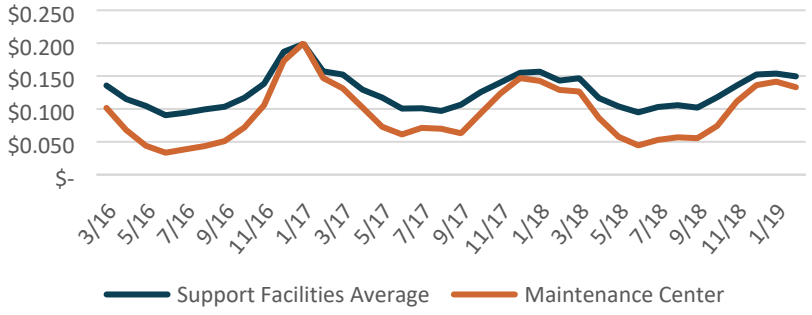
Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$1,023,512	4	NA
Mechanical	HVAC – AC, Controls, Condensing Unit	$121,289	5, 4	1
Electrical	Alarms and Lighting	$117,217	4	1
Roof	Metal	$812,820	4	3

NPV Chart
Asset Replacement Schedule



Monthly Energy Cost
($/SF)



metal roof is worn

upgrade to low-flow fixtures

moisture buildup in panes

General Building Condition

Call out special issues resolved due to walk through, general condition summary, qualitative information

Roof

- Metal roof is original from 1971, occasional leaks with sheet metal screws popping in place. Consider for replacement or refurb

Mechanical/HVAC

- Majority of air conditioning systems are at the end of their useful life and in poor condition
- Control system should be upgraded with new air conditioning

Electrical

- Many panels have been upgraded with internal tenant improvements
- T-8 lighting in fair condition. Potential for LED upgrade

Plumbing

- Distribution systems are original, 1971, but no leaks detected or reported
- Plumbing fixture are in poor condition. Opportunity for upgrade to water saving fixtures

Fire, Life, Safety

- No sprinkler system, fire alarm is in fair condition
- Fire extinguishers are all up to date on inspections

Interior Finishes

- Interior finishes are in fair to poor condition, however, suitable for the building use

Exterior Enclosures

- Moisture build up between double panes on many windows

BEAVERTON SCHOOL DISTRICT
THRIVE • CONTRIBUTE • EXCEL

Transportation 5th St North

Facility Condition Assessment Summary

QUICK FACTS

General Information

***School**: Transportation Center 5th St N*

Age: 1977

Size (SF): 5,139

Area: 3.43 acres

Audit Date: 12/9/19

Student Population: NA

School Ratings

Facility Conditions Index: 0.231

Avg Condition Score: 3.14 out of 5

Asset Count: 44

Energy Use Intensity: 46.97
EUI Target: NA

Cost Information

NPV of Assets: $1,253,052

Year 1 Asset Replacement Cost: $10,000

Current Replacement Value: $2,465,846

Energy Spend*

Electricity: $2,580

Natural Gas: $1,210

Water Spend*: $485

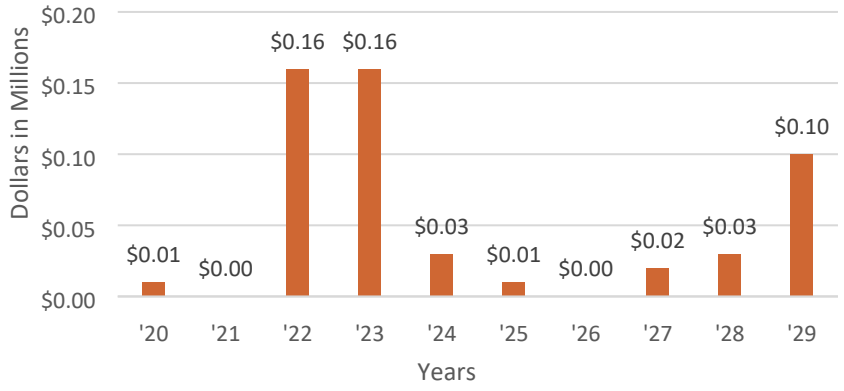
**3/19 – 2/20*

McKinstry
For The Life Of Your Building

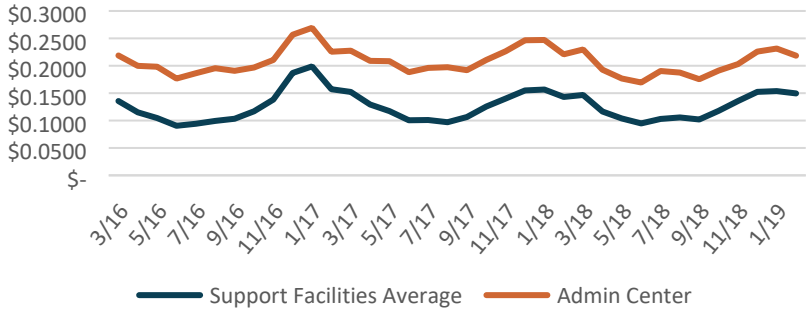
Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$143,541	S4	NA
Roof	Built-Up	$3,041,012	4	4
Site Work	Storm Sewer	$10,000	4	1
Interior Finishes	Carpet	$358,430	4	5

NPV Chart
Asset Replacement Schedule



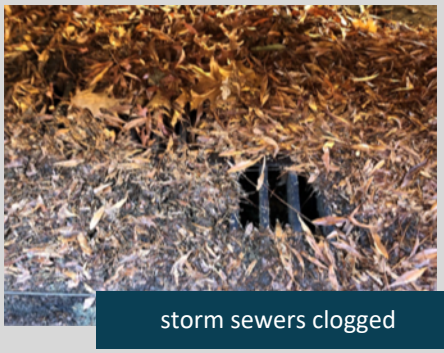
Monthly Energy Cost
($/SF)



old roof and broken roof hatch

rooftop unit from 1987

lighting system upgrade



storm sewers clogged

General Building Condition

Call out special issues resolved due to walk through, general condition summary, qualitative information

Roof

- Leaks periodically. Nearing end of useful life
- Roof hatch has no lock. Only held in place by small non-metallic rod. Need ladder and a screwdriver to access attic, DHW heater, and roof hatch.

Mechanical/HVAC

- Very old RTU is past its useful like and should be replaced
- Ductwork is well insulated

Electrical

- T-8 and CFL lighting could benefit from upgrading to LED within building
- Outside lighting is HID with Digital timeclocks

Plumbing

- Plumbing fixtures are manual and could benefit from updating
- One toilet frequently backs up and overflows

Fire, Life, Safety

- Fire protection system is good and up to date
- During operating hours parking lot and gates are open to public but building doors are locked. Suggest adding card locks to gates and parking lot access

Interior Finishes

- Some furnishings need to be re-finished/repainted or replaced.
- In general, carpet is worn and at or near end of life

Utilities

- Storm sewer drains need to be cleaned out

Site Improvements

- Parking lot needs repainted and there are some cracks throughout the lots

BEAVERTON SCHOOL DISTRICT
THRIVE • CONTRIBUTE • EXCEL

Transportation 5th St South

Facility Condition Assessment Summary

QUICK FACTS

General Information

***School**: Transportation Center 5th St S*

Age: 1965

Size (SF): 25,800

Area: 2.94 acres

Audit Date: 10/23/19

Student Population: NA

School Ratings

Facility Conditions Index: 0.349

Avg Condition Score: 4.02 out of 5

Asset Count: 89

Energy Use Intensity: 59.76
EUI Target: NA

Cost Information

NPV of Assets: $7,358,079

Year 1 Asset Replacement Cost: $2,356,640

Current Replacement Value: $12,379,614

Energy Spend*

Electricity: $21,604

Natural Gas: $7,933

Water Spend*: $3,025

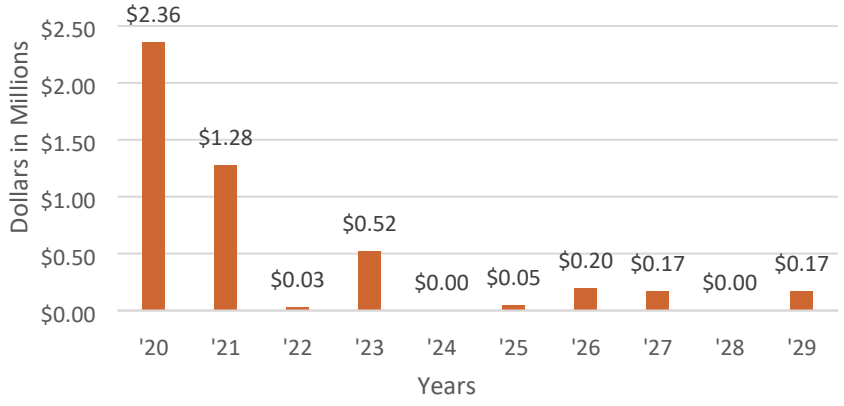
**3/19 – 2/20*

McKinstry
For The Life Of Your Building

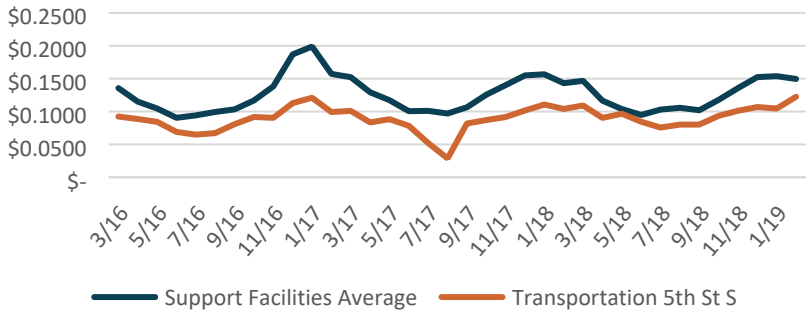
Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$1,234,530	S5	NA
Mechanical	HVAC-AHU, Chiller, Controls, etc	$889,708	5, 4	1
Plumbing	Fixtures, Pump, Water Heater	$315,962	5, 4	1-3
Interior Finishes	Ceiling Tile, Carpet	$186,520	5	1
Mechanical	HVAC-AHU	$250,000	4	4
Fire Protection	Sprinklers	$96,750	4	1
Roof	Built-Up	$722,400	4	1
Electrical	Swtchbrd, Panels, Lighting	$205,354	5, 4	1

NPV Chart
Asset Replacement Schedule



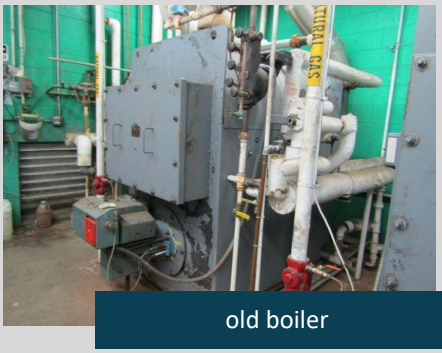
Monthly Energy Cost
($/SF)



blistering roof

corroded cooling tower fins

bad exhaust fan belts



old boiler

General Building Condition

Call out special issues resolved due to walk through, general condition summary, qualitative information

Roof

- Blistering and many areas of patching

Mechanical/HVAC

- Severe corrosion on fins of cooling tower
- Multiple supply fans with new motors but with poor is missing belts or powered down
- Boilers are beyond life expectancy and should be upgraded
- Storage tank for boiler is beyond life and should be upgraded
- The Boiler room through the wall exhaust fan does not operate
- Chiller #2 is not operational

Electrical

- T-8 lighting should be upgraded

Plumbing

- Water heater in storage room is blocked in by storage items. Minimum clearance requirements not met

Exterior Enclosures

- Single pane windows seals are failing, and caulking is bad
- Double pane windows seals are bad

Interior Finishes

- Carpet is in poor shape and needs replacement
- Fixed furnishings are worn and aged

Utilities

- Exterior site lighting should be upgraded from CFL, Halogen and Incandescent

McKinstry
For The Life Of Your Building

BEAVERTON SCHOOL DISTRICT
THRIVE • CONTRIBUTE • EXCEL

Transportation and Support Center

Facility Condition Assessment Summary

QUICK FACTS

General Information

***School**: Transportation and Support Center*

Age: 1973

Size (SF): 53,390

Area: 13.84 acres

Audit Date: 11/4/19

Student Population: NA

School Ratings

Facility Conditions Index: 0.168

Avg Condition Score: 2.52 out of 5

Asset Count: 115

Energy Use Intensity: 76.81
EUI Target: NA

Cost Information

NPV of Assets: $7,458,776

Year 1 Asset Replacement Cost: $106,044

Current Replacement Value: $20,794,267

Energy Spend*

Electricity: $57,634

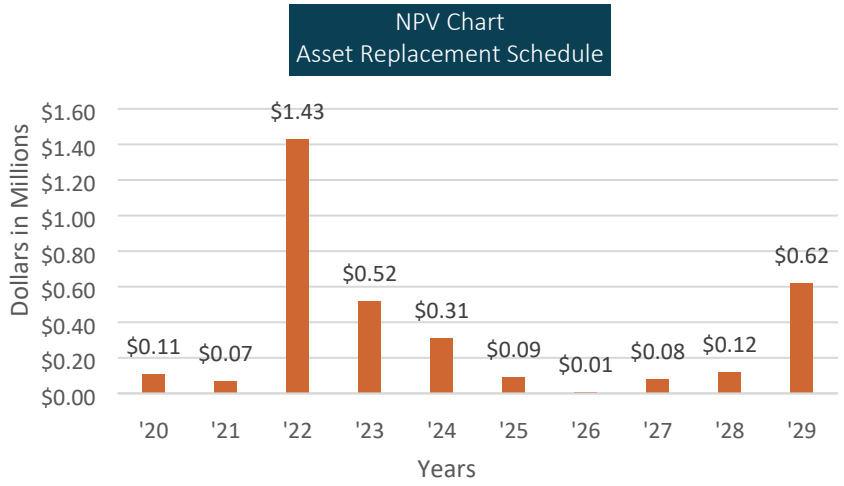
Natural Gas: $11,876

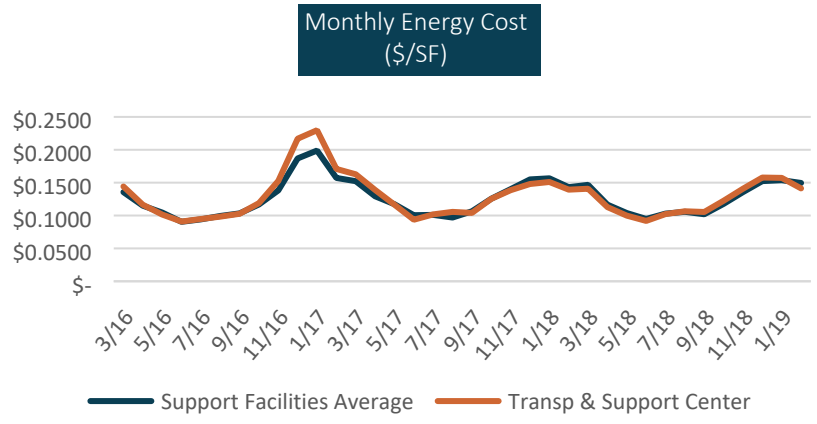
Water Spend*: $25,211

**3/19 – 2/20*

Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$1,349,370	S4	NA
Roof	Single Ply	$322,187	4	3
Exterior Enclosures	Wood Single Pane Windows	$15,738	5	1
Mechanical	RTU, Balance	$127,391	4	1, 2
Mechanical Utilities	Storm Sewer	$15,000	4	1



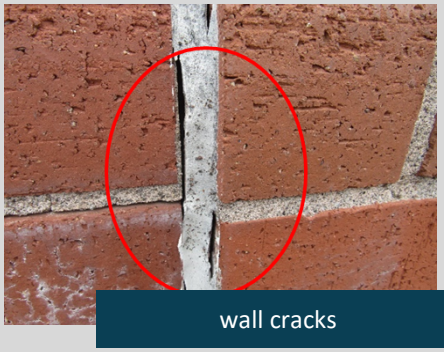


General Building Condition

Call out special issues resolved due to walk through, general condition summary, qualitative information

cracks in single ply roof

locker room in good condition



wall cracks

cracks in walkway

Roof

- Single ply torch down roof area has multiple cracks
- TPO roof in good coverage

Mechanical/HVAC

- Restrooms reported to be ventilated poorly; recommend study to determine adequate additional exhaust
- Exhaust fans are rusty and in poor condition
- Rusted pipe connections on rooftop units service offices and lobby area

Electrical

- Electric panels and ATS in good condition
- T-8 interior lighting should be upgrading to LED

Plumbing

- Plumbing is in decent shape

Fire, Life, Safety

- Storm drains should be cleaned

Interior Finishes

- Minor damage to some ceiling tiles
- In general, interior condition is good

Exterior Finishes

- Some cracks at rear and in seam at front of building
- Some exterior windows are single pane and in poor condition

Site Improvements

- Minor cracks in curb and pedestrian paving

BEAVERTON SCHOOL DISTRICT
THRIVE • CONTRIBUTE • EXCEL

Transportation Center - Allen

Facility Condition Assessment Summary

QUICK FACTS

General Information

***School**: Transportation Center - Allen*

Age: 1969/1975

Size (SF): 9,779

Area: 5.36 acres

Audit Date: 10/23/19

Student Population: NA

School Ratings

Facility Conditions Index: 0.331

Avg Condition Score: 3.92 out of 5

Asset Count: 54

Energy Use Intensity: 56.87
EUI Target: NA

Cost Information

NPV of Assets: $2,330,061

Year 1 Asset Replacement Cost: $477,920

Current Replacement Value: $4,692,258

Energy Spend*

Electricity: $5,738

Natural Gas: $3,647

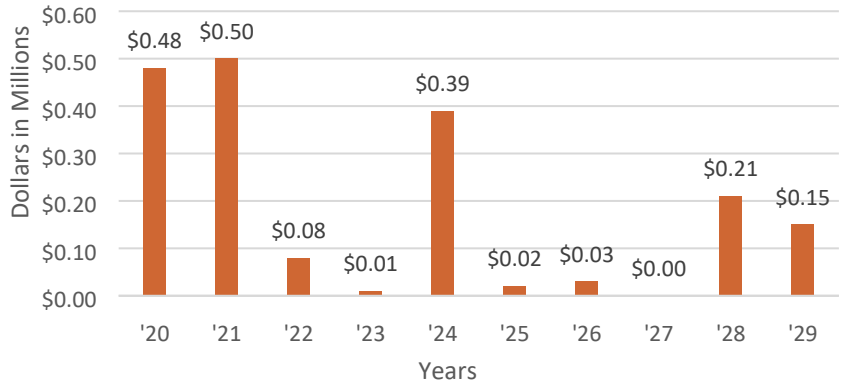
Water Spend*: $810

**3/19 – 2/20*

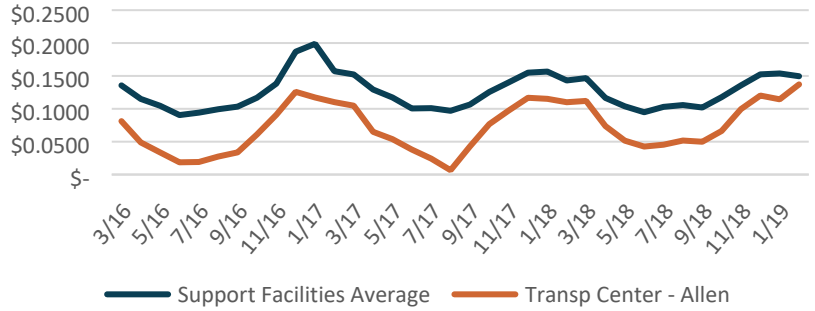
Critical Asset Infrastructure – Replacement Priority

Equipment	Equipment Type	Replacement Cost (NPV)	Condition Score	Remaining Life
Structural	Seismic	$467,925	S5	NA
Site Work	Parking Lots	$235,500	5	1
Electrical	Switchboard, Panel, Lighting	$117,560	5, 4	1
Plumbing	Water Heater, Fixtures, Dom Water Dist.	$95,873	5,4	1-3
Mechanical	HVAC	$85,477	5, 4	1-3
Roof	Built-Up, Metal	$346,760	4	5
Interior Finishes	Carpet, Tile	$20,932	4	1

NPV Chart
Asset Replacement Schedule

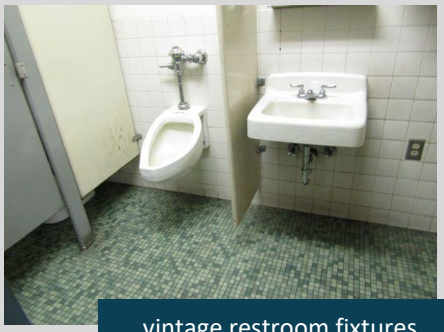


Monthly Energy Cost
($/SF)

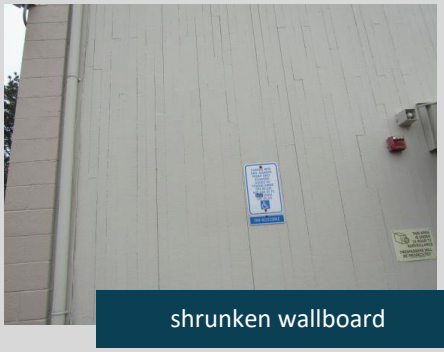


metal roof

refrigeration lines insulation



vintage restroom fixtures



shrunken wallboard

General Building Condition

Call out special issues resolved due to walk through, general condition summary, qualitative information

Roof

- Metal roof in decent shape with a remaining life of 5 years
- Some moss on built up part of roof
- Minimum insulation in ½ of the ceiling

Mechanical/HVAC

- Refrigeration line insulation is failing on roof top heat pumps
- No safe access to lower roof mounted exhaust fans
- Unit heater is at end of life
- Many heating and cooling issues throughout facility

Electrical

- Electric panel is old and at end of life
- Inside and outside lighting is old and should be upgraded to LED

Plumbing

- Hot water heater at end of life
- All plumbing fixtures and water distribution system are vintage, and need replaced

Fire, Life, Safety

- Intrusion alarm system is at end of life and should be replaced
- During operating hours parking lot and gates are open to public but building doors are locked. Suggest adding card locks to gates and parking lot access

Interior Finishes

- Wall in office areas need painted
- In general, carpet and tile flooring are worn and at or near end of life

Exterior Enclosures

- Single pane exterior windows need replaced
- Exterior wall panel siding has shrunk and warped over time. Are freshly painted
- Severe cracking in SE corner of exterior masonry walls

Site Improvements

- Parking lot has aligatoring throughout
- Fresh stripping throughout parking lot
- Numerous areas of sinkage, broken and cracked asphalt

Maintenance Facilities

- Structure and in-ground hydraulic lifts are deteriorating and at end of life
- Repair bays are cramped and lack sufficient space for proper maintenance
- 1/3rd of hydraulic floor lifts are unusable due to leaks, failed parts and age
- 2/3rd of vehicle lifts lack safety stops to prevent unplanned retraction
- Technicians must use jack stands to prevent unwanted lowering of buses
- Portable bus lifts have limited use due to constricted layout and size of bays

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APPENDIX E

SEISMIC ASSESSMENT REPORT (EXECUTIVE SUMMARY)

KPFF Consulting Engineers, April 2019

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SEISMIC ASSESSMENTS FOR THE BEAVERTON SCHOOL DISTRICT

(VOLUME 1 OF 4)

KPFF PROJECT NO. 10021800125

APRIL 12, 2019

SUBMITTED TO:

AARON BOYLE, CONSTRUCTION OPERATIONS SUPERVISOR
BEAVERTON SCHOOL DISTRICT – FACILITIES
16550 SW MERLO ROAD
BEAVERTON, OR 97003

SUBMITTED BY:

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SEISMIC ASSESSMENTS FOR THE BEAVERTON SCHOOL DISTRICT

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Executive Summary

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Seismic Assessments
for the
Beaverton School District

Executive Summary

Project Intent

In 1995, the Beaverton School District performed a Lateral Force Investigation of their school district facilities. The 1995 report and analysis was based on the provisions of the 1993 Edition of the Oregon Structural Specialty Code using seismic UBC Zone 3. In 2000, 2010 and 2013, reports were completed which summarized the status of the progress since the 1995 Lateral Force Investigation report. In September of 2013, a Next-In-Line Seismic Assessment was completed for seven schools based on ASCE-31. These schools were Cooper Mountain, Beaver Acres, Cedar Mill, ACMA, Beaverton HS, Aloha HS and William Walker.

The purpose of this report is to provide the Beaverton School District with an updated summary of how each campus is expected to perform during a seismic event according to ASCE 41-13. The current report also satisfies the requirement of section 2 (4), chapter 248, Oregon Laws 2005 which notes:

> *"Subject to available funding…the local school district board…shall conduct such additional seismic safety evaluations of building as each of those boards considers necessary. The boards shall conduct the evaluations for life safety as set forth in the American Society of Civil Engineers Standard for Seismic Evaluation of Existing Buildings (SEI/ASCE 31-03), 2003 Edition, or in any later edition of that standard allowed for seismic safety evaluation use under a rule adopted by the State Department of Geology and Mineral Industries or using a stricter standard selected by the board that conducts the survey."*

The information in this report can be used to prioritize future seismic improvements within the district and to step toward meeting the goal of the 2017 Oregon Revised Statute (ORS) 455.400 which notes:

> *"Subject to available funding, all seismic rehabilitations or other actions to reduce seismic risk must be completed before January 1, 2032."*

Seismic Assessment Process

Seismic assessments included a review of available structural drawings, walkthroughs of the buildings and preliminary seismic evaluations to determine likely seismic deficiencies.

ASCE 41-13, *Seismic Evaluation and Retrofit of Existing Buildings*, was utilized as this was the current standard at the time of the campus evaluations. ASCE 41-13 was developed around 2013 and was a combination of two preceding ASCE documents, ASCE 31-03 and ASCE 41-06. Both of these documents have FEMA and ATC predecessors dating back to the 1990s. ASCE 41-17 was recently released and is beginning to be utilized. ASCE 41-17 utilizes a similar checklist style of evaluations.

We do not expect the content included in this report to significantly change based on the updates included in ASCE 41-17.

The Tier 1 checklists from ASCE 41-13, *Seismic Evaluation and Retrofit of Existing Buildings*, were used as a guide for the seismic assessments of all Beaverton School District Campuses. These checklists assist in identifying seismic deficiencies of a structure. A full Tier 1 evaluation was not completed for each school as this assessment is intended to be a higher-level review. Checklists for each building are included in the Appendix of this report, where appropriate.

A list of building type definitions used in ASCE 41-13 is provided in Table 1 for reference.

ASCE 41 Building Types	
Abbreviation	Description
W1	Wood Light Frame
W1A	Multi-Story, Multi-Unit Residential Wood Frame
W2	Wood Frame, Commercial and Industrial
S1	Steel Moment Frame with Stiff Diaphragm
S1A	Steel Moment Frame with Flexible Diaphragm
S2	Steel Braced Frame with Stiff Diaphragm
S2A	Steel Braced Frame with Flexible Diaphragm
S3	Steel Light Frame
S4	Dual System with Backup Steel Moment Frame and Stiff Diaphragm
S5	Steel Frame with Infill Masonry Shear Wall and Stiff Diaphragm
S5A	Steel Frame with Infill Masonry Shear Wall and Flexible Diaphragm
C1	Concrete Moment Frame
C2	Concrete Shear Wall with Stiff Diaphragm
C2A	Concrete Shear Wall with Flexible Diaphragm
C3	Concrete Frame with Infill Masonry Shear Wall and Stiff Diaphragm
C3A	Concrete Frame with Infill Masonry Shear Wall and Flexible Diaphragm
PC1	Precast Concrete or Tilt-Up Concrete Shear Wall with Flexible Diaphragm
PC1A	Precast Concrete or Tilt-Up Concrete Shear Wall with Stiff Diaphragm
PC2	Precast Concrete Frame with Shear Wall
PC2A	Precast Concrete Frame Without Shear Wall
RM1	Reinforced Masonry Bearing Wall
RM1A	Reinforced Masonry Bearing Wall with Stiff Diaphragm
URM	Unreinforced Masonry Bearing Wall with Flexible Diaphragm
URMA	Unreinforced Masonry Bearing Wall with Stiff Diaphragm

TABLE 1: ASCE 41-13 BUILDING TYPE ABBREVIATION DESCRIPTIONS

Damage Control is the performance level target for Beaverton School District which is between Life Safety and Immediate Occupancy. The intent for the Damage Control Performance Level is to limit damage to the building beyond what would be expected for the Life Safety Performance Level. Damage Control is the recommended performance level for Risk Category III buildings, which is the code required Risk Category for new school buildings.

Since there are not specific checklists for the Damage Control Performance Level, ASCE 41-13 uses the Life Safety Checklists as a baseline with a variance on certain criteria through the checklists.

These assessments are high level and used the Tier 1 checklists as guidance. A complete Tier 1 evaluation was beyond the scope of this seismic assessment and was not performed for this report. There are a number of items in the checklists that are marked as unknown. These items should be confirmed during a complete Tier 1 evaluation before implementing a retrofit plan. Should any of these structures be chosen for a seismic rehabilitation grant application, comprehensive ASCE 41 evaluations will be required to be completed. The results of comprehensive evaluations are anticipated to indicate retrofit work within the cost per square foot estimates provided in this assessment.

Not all nonstructural deficiencies found were listed for each campus. Typical deficiencies, not specifically listed, are fall prone contents and tall/narrow contents (furniture, file cabinets, etc.) and MEP bracing/anchorage, including kitchen equipment (double stacked ovens).

Hazards due to slope failure are unlikely to exist at any of the campuses but this can only be confirmed by a qualified geotechnical engineer. We also recommend that liquefaction potential be confirmed with a geotechnical engineer as this hazard could affect building foundations and slab-on-grade structures. Note that all probable costs provided in this report assume liquefaction is not present.

Estimated Probable Costs

Estimated probable costs per square foot for seismic rehabilitation of discovered deficiencies are provided for each site. Both structural and nonstructural deficiencies listed for each site are included in the estimate. The dollar per square foot amounts assume that seismic rehabilitation is not occurring in conjunction with other upgrade work and includes an allotment for repairing architectural finishes and features after the structural work is complete. These costs are based on previous seismic rehabilitation studies of other campuses of similar building construction types and ages. These estimates are not fully developed cost estimates and are intended to provide the Beaverton School District with a rough estimate of probable costs. These estimates do not include soft costs that could be up to an additional +/- 30%.

Non-seismic related structural deficiencies observed on site are also listed. These items are listed under “Additional Structural Observations”. The costs to repair these items are not included in the seismic cost per square foot estimates.

Organization of the Report

Each campus is numbered and grouped based on Campus Type. Each campus type is color-coded throughout the report for ease of reference.

Campus Type	Campus Number
Elementary Schools (including K-8)	01 - 34
Middle Schools	35 - 43
High Schools	44 - 49
Option Schools	50 - 54
Support Facilities	55 – 60

We have created individual reports for each campus. These reports should be used in conjunction with this executive summary as background information.

The appendices include the completed checklists that were used as a guideline for determining deficiencies for each campus and the campus risk plans. The appendices are as follows:

- **Appendix A:** Elementary School Tier 1 Checklists
- **Appendix B:** Middle Schools Tier 1 Checklists
- **Appendix C:** High School Tier 1 Checklists
- **Appendix D:** Option School Tier 1 Checklists
- **Appendix E:** Support Facility Tier 1 Checklists
- **Appendix F:** Campus Risk Zone Plans
    - Risk Zone Plans were prepared for those campuses that do not meet the Life Safety Performance Objective. These plans show color-coded zones that indicate the expected seismic performance level across the campus. Campuses with multiple additions and alterations over a long period of time typically have a larger variety of expected seismic performances.

There are five campuses that KPFF has recently completed full ASCE 41 Tier 1 evaluation reports, strengthening schemes and cost estimates for. These schools are:

- 03 – Beaver Acres Elementary School (ASCE 41-13 for SRGP Winter 2017 and Fall 2018)
- 06 – Cedar Mill Elementary School (ASCE 41-17 for SRGP Fall 2018)
- 08 – Cooper Mountain Elementary School (ASCE 41-17 for SRGP Fall 2018)
- 44 – Aloha High School (ASCE 41-13 for awarded SRGP Winter 2017/currently under design)
- 45 – Beaverton High School (ASCE 41-13)

There are seven campuses that were constructed recently enough that they are considered "benchmark buildings" according to ASCE 41-13 and automatically comply with the Damage Control Performance Level due to the year and type of construction. Checklists were not necessarily completed for these campuses:

- 14 – Hazeldale Elementary School (constructed in 2018)
- 27 – Sato Elementary School (constructed in 2017)
- 32 – Vose Elementary School (constructed in 2017)
- 34 – William Walker Elementary School (constructed in 2018)
- 41 – Timberland Middle School (constructed in 2017)
- 46 – Mountainside High School (constructed in 2017)
- 50 – Arts & Communication ACMA (to be constructed in 2019, 2009 Performing Arts Center)

Beaverton School District

Map of Campuses

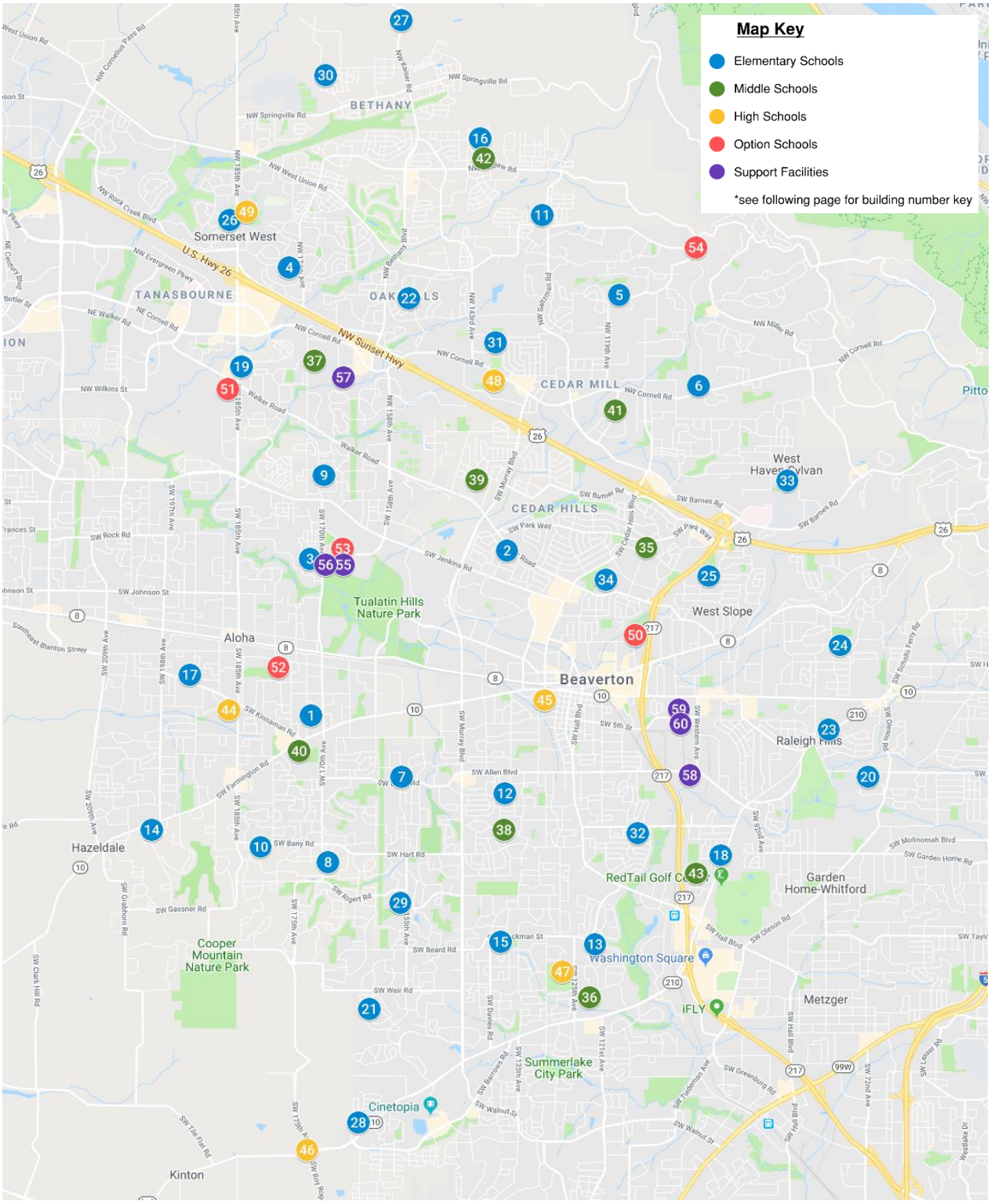


FIGURE 1: MAP

Beaverton School District

Building Key

TYPE	#	CAMPUS NAME
ELEMENTARY SCHOOLS	01	Aloha-Huber Park (K-8)
	02	Barnes
	03	Beaver Acres
	04	Bethany
	05	Bonny Slope
	06	Cedar Mill
	07	Chehalem
	08	Cooper Mountain
	09	Elmonica
	10	Errol Hassell
	11	Findley
	12	Fir Grove
	13	Greenway
	14	Hazeldale
	15	Hiteon
	16	Jacob Wismer
	17	Kinnaman
	18	McKay
	19	McKinley
	20	Montclair
	21	Nancy Ryles
	22	Oak Hills
	23	Raleigh Hills (K-8)
	24	Raleigh Park
	25	Ridgewood
	26	Rock Creek
	27	Sato
	28	Scholls Heights
	29	Sexton Mountain
	30	Springville (K-8)
	31	Terra Linda
	32	Vose
	33	West Tualatin View
	34	William Walker

TYPE	#	CAMPUS NAME
MIDDLE SCHOOLS	35	Cedar Park
	36	Conestoga
	37	Five Oaks
	38	Highland Park
	39	Meadow Park
	40	Mountain View
	41	Timberland
	42	Stoller
	43	Whitford
HIGH SCHOOLS	44	Aloha
	45	Beaverton (with Merle Davies)
	46	Mountainside
	47	Southridge
	48	Sunset
	49	Westview
OPTION SCHOOLS	50	Arts & Communication ACMA
	51	Capital Center - Health & Science
	52	International School ISB
	53	Merlo Station Community High
	54	Terra Nova School of Science &
SUPPORT FACILITIES	55	Administration Building
	56	Maintenance Building
	57	Transportation Main
	58	Transportation Allen
	59	Transportation 5th St. North
	60	Transportation 5th St. South

Results

The ASCE 41-13 performance standards are listed below in order of highest performance to lowest performance. Both structural and nonstructural performance objectives are ranked separately, as they are considered separately in ASCE 41.

Structural Performance Objectives:

- S-1: Immediate Occupancy
  - Very limited structural damage has occurred.
  - Risk of life-threatening injury as a result of structural damage is very low.
  - Minor repairs might be required, but not generally to re-occupy.
  - Continued use of the building will not be limited by its structural condition.
- S-2: Damage Control Range (district's goal)
  - Half way between Immediate Occupancy and Life Safety.
- S-3: Life Safety
  - Significant damage to the structure will occur but some margin against partial or total collapse will remain.
  - Some structural elements will be severely damaged, but this damage will not result in large falling debris hazards, either inside or outside the building.
  - Injuries might occur during the earthquake; however, the overall risk of life-threatening injury as a result of structural damage is expected to be low.
  - It should be possible to repair the structure; however, for economic reasons, this repair might not be practical.
  - Although the damaged structure may not be an imminent collapse risk, it would be prudent to implement structural repairs or install temporary bracing before re-occupancy.
- S-4: Limited Safety Range
  - Half way between Life Safety and Collapse Prevention.
- S-5: Collapse Prevention
  - Little to no lateral strength or stiffness to resist lateral loads.
  - Large permanent drifts to the building where doors may not open.
  - Structural collapse possible in aftershock events thus not safe to occupy after event.
  - Cost to repair structure will likely outweigh demo/replacement.
- S-6: < Collapse Prevention
  - Possible partial or full collapse of structure.
  - Non-collapsed areas have minimal reserve capacity and significant residual drift.
  - Full structural collapse probable in aftershock or wind event.
  - Building will likely require full demo/rebuild.

Nonstructural Performance Objectives:

- N-A: Operational
  - Cladding: Connections may yield, but no loss of weather tightness.
  - Partitions: Only minor drywall cracking or hairline cracks in CMU.
  - Ceilings: Negligible damage – no loss of functionality.

    - Parapets: Only minor damage, no loss of strength or permanent deflections.
    - Doors: Minimal to no damage – all doors remain operational.
- N-B: Position Retention (district's goal)
    - Cladding: Connections may yield with minor cracking and minimal leaks possible.
    - Partitions: Minor cracking in drywall or CMU, limited permanent racking.
    - Ceilings: Minor spalling of ceiling tiles or gyp. Minimal loss of ceiling tiles.
    - Parapets: Minor damage – possible residual deformation.
    - Doors: Minor damage, some doors may stick.
- N-C: Life Safety
    - Cladding: Extensive distortion of cladding system, likely failure of weather tightness. No panels fall off structure.
    - Partitions: Significant cracking/damage including permanent racking, no partitions fall.
    - Ceilings: Likely damage to ceilings system including loss of some panels. Possible damage to adjacent systems due to movement. Egress possibly limited by damage.
    - Parapets: Extensive damage and significant permanent deformation. Possible falling of minor debris. No significant failure/dislodgement.
    - Doors: Damage across all door systems possible. Most doors will stick and some doors may have significant residual deformation causing them to jamb and be unusable.
- N-D: Hazards Reduced
    - Cladding: Extensive distortion of cladding system including possible broken windows and failure of connections to structure.
    - Partitions: Permanent racking of walls including possible failure of bracing connections leading to partial or full failure of walls.
    - Ceilings: Extensive damage to ceiling systems including loss of significant number of tiles and light fixtures. Movement of ceiling could cause extensive damage to adjacent systems.
    - Parapets: Failure of parapets including possible collapse and falling debris.
    - Doors: Damage across door systems likely with significant number of doors being jammed and unusable.
- N-E: < Hazards Reduced
    - Cladding: Damage of the cladding system including possible panels becoming detached from the structure.
    - Partitions: Damage including possible collapse of partitions.
    - Ceilings: Possible full failure of ceiling system including significant falling debris inhibiting egress.
    - Parapets: Significant failure of parapets including likely collapse with falling debris.
    - Doors: Most doors are jammed or extensively damaged due to movement of building. Most if not all doors are unpassable.

The district's goal of Damage Control for the Structural Performance Objective and Position Retention for the Nonstructural Performance Objective meets the ASCE 41-13 Basic Performance Objective for Existing Buildings (BPOE) for Risk Category III buildings, which schools fall under.

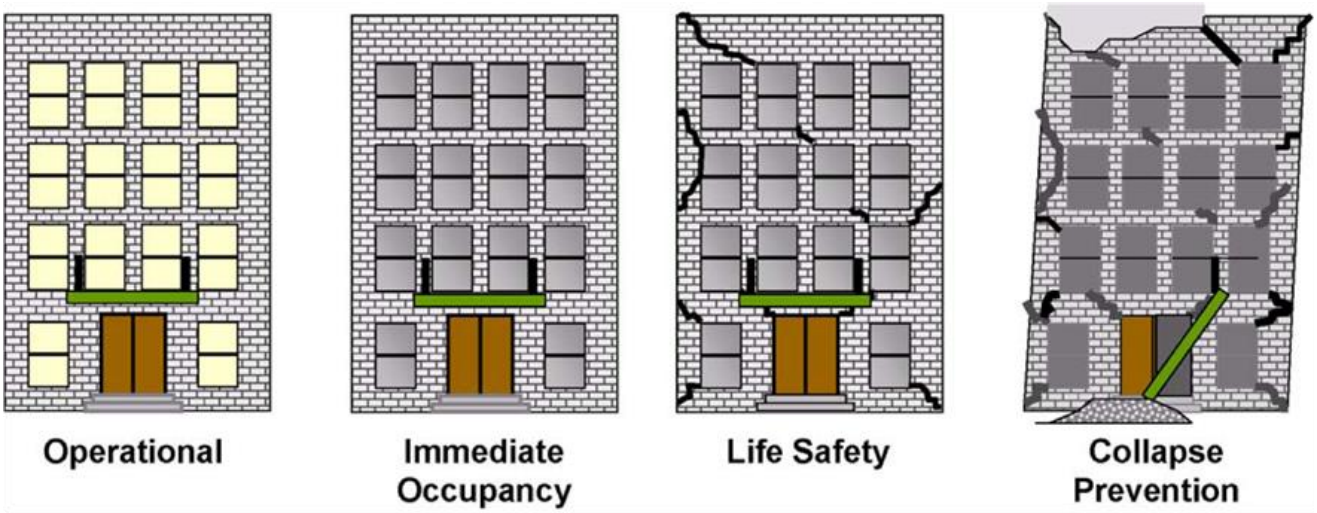


FIGURE 2: EXPECTED DAMAGE PER PERFORMANCE LEVEL

Each campus was given a score based on its seismic vulnerabilities. This score indicates how it would likely perform during a seismic event based on the ASCE 41-13 performance objectives. The scoring ranges are below in Tables 2 and 3.

Structural Performance Objectives and Score Ranges					
S-1	S-2	S-3	S-4	S-5	S-6
Immediate Occupancy	Damage Control Range	Life Safety	Limited Safety Range	Collapse Prevention	< CP
100-91	90-81	80-71	70-61	60-51	50-41

TABLE 2: STRUCTURAL PERFORMANCE OBJECTIVES AND SCORE RANGES

Nonstructural Performance Objectives and Score Ranges				
N-A	N-B	N-C	N-D	N/A
Operational	Position Retention	Life Safety	Hazards Reduced	< Hazards Reduced
100-91	90-81	80-71	70-61	60-51

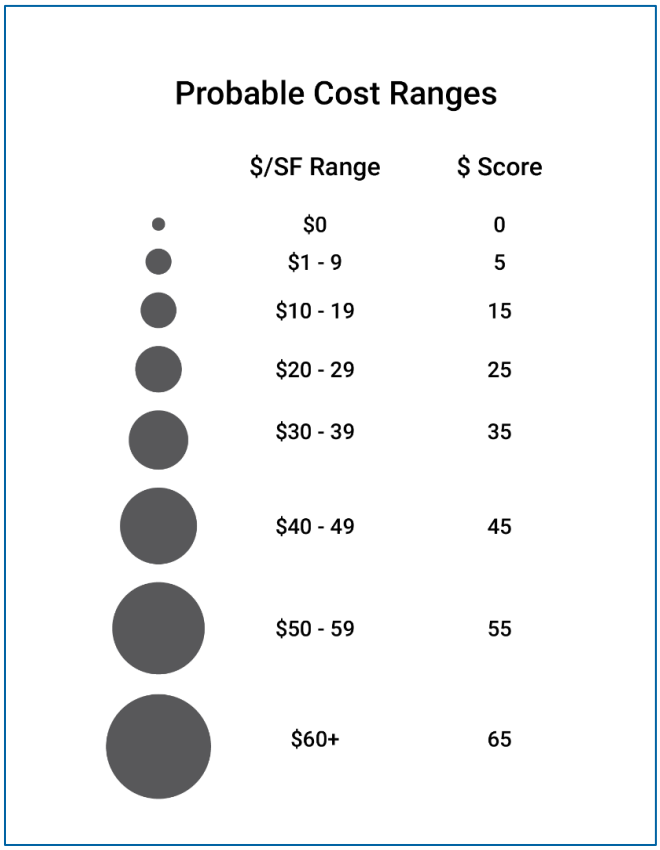
TABLE 3: NONSTRUCTURAL PERFORMANCE OBJECTIVES AND SCORE RANGES

A structural score of 70 indicates that a building is very close to meeting the LS performance objective, but there are likely minor deficiencies preventing that designation. A structural score below 50 indicates that a portion of a building is seismically vulnerable to collapse. Typically, structural and nonstructural vulnerabilities correlate.

The following figures show the results of each school grouped by campus type. There is a trend line from the top left of the chart to the bottom right. The bubble size indicates the relative probable cost to seismically upgrade the building to the district's standard (Damage Control for the structural performance and Immediate Occupancy for the nonstructural performance).

The district's goal "zone" has been indicated by a green dashed perimeter. The Life Safety "zone" has been indicated by a yellow dashed perimeter. The orange "zone" indicates campuses that scored below Life Safety, but above "Collapse Prevention". The red "zone" indicates campuses that scored below Collapse Prevention.

The probable costs were based on set cost ranges and are shown in Table 4. Each campus was assigned a probable cost "score" based on the expected range of construction costs.



Probable Cost Ranges

$/SF Range	$ Score
$0	0
$1 - 9	5
$10 - 19	15
$20 - 29	25
$30 - 39	35
$40 - 49	45
$50 - 59	55
$60+	65

TABLE 4: PROBABLE COST RANGES

For each campus type, there is a table and figures as listed below on the following pages:

- Table indicating campus structural, nonstructural and probable cost scores.
- Figure showing the structural performance versus nonstructural performance versus probable cost for each campus.
    - The probable cost is indicated by the bubble size shown in Table 4.
    - Figure 3 defines the performance objective zones for this type of chart.
    - Figure 20 shows all 60 campuses on the same chart with campus type indicated by color.
- Figure showing the structural performance versus probable cost for each campus.
    - Figure 4 defines the performance objective zones for this type of chart.
    - Figure 21 shows all 60 campuses on the same chart with each campus type indicated by color.
- Figure showing the probable cost for each campus.

A few notes to keep in mind when reviewing the scores:

- 02: Barnes ES – The 2007 addition brought down the $/SF range based on overall SF. The $/SF cost of the original building would be in the $45/SF range.
- 17: Kinnaman ES – It was unclear if the CMU wall in the play area was reinforced. This stood out to be a deficiency that could be easily addressed.
- 25: Ridgewood – The most significant repair for this school would be out-of-plane bracing for gymnasium walls, corridors and end classroom wing walls.
- 36: Conestoga ES – The cost for this school mainly accounts for blocking of the diaphragm. Further analysis might prove this school to meet the Damage Control objective as is.
- 37: Five Oaks ES – The most significant repair for this school would be wall to roof diaphragm connections.
- 38 Highland Park MS, 39: Meadow Park MS and 43: Whitford MS – A significant stand-alone repair for these schools would be to strengthen or just replace the entry canopies.
- 40: Mountain View MS – Replacing/strengthening of the tectum roof in the gym should be the priority at this school.
- 45: Beaverton HS – The $/SF number at this school is based on a large overall building square footage. There is a significant portion of the building with $/SF costs that would be higher than the $65/SF range.
- 51: Capital Center – The most significant repair for this building would be strengthening of the in-plane shear connections from the diaphragm to the concrete shear walls.
- 52: International School ISB – The most significant repair for this building would be strengthening the URM parapets around the old front entry and the roof trusses in the gymnasium. The 2005 addition brought down the $/SF range based on overall SF. The $/SF cost of the previous additions would be in the $45/SF range.
- 54: Terra Nova School of Science & Sustainability – The most significant repair for this building would be strengthening the out-of-plane walls at the gymnasium.

We found the lowest performing schools (either holistically or partially, starting with the lowest) to be:

- 33: West Tualatin View ES – This school has a gymnasium that is supported by concrete pilasters with single wythe unreinforced masonry infill. The masonry infill is a falling hazard during a seismic event.
- 45: Beaverton HS – A considerable portion of this school is URM. There have also been a number of undocumented additions to the original building causing the probable cost estimate risk to be relatively high.
- 23: Raleigh Hills (K-8) – This school has many additions and alterations with multiple deficiencies.
- 12: Fir Grove ES – This school lacks shear walls and contains unbraced/unanchored masonry walls that need bracing.
- 52: International School ISB – This school has many additions and alterations with multiple deficiencies.
- 18: McKay ES – This school has many additions and alterations with multiple deficiencies.
- 24: Raleigh Park – This school stood out to have a significant hazard since most interior corridor walls were CMU that do not extend to the roof diaphragm. The Tectum roof diaphragm has been mostly strengthened, but there are a number of interior falling hazards from heavy walls that are unbraced.
- 35: Cedar Park MS, 38: Highland Park MS, 40: Mountain View MS and 43: Whitford MS – These schools are almost identical. While some have been partially seismically upgraded, they still contain significant deficiencies particularly around the concrete gymnasium, cafeteria and wrestling rooms. The classroom wings do not have shear walls.

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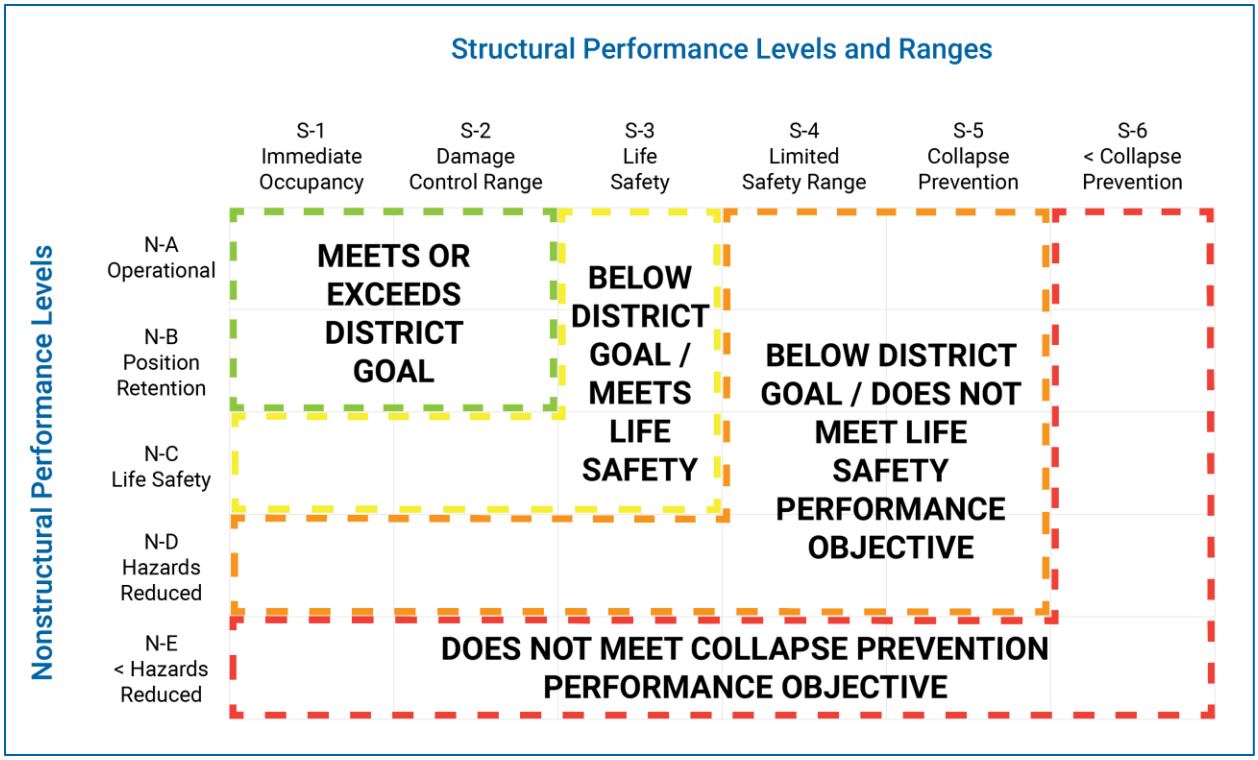

FIGURE 3: STRUCTURAL VS. NONSTRUCTURAL VS. PROBABLE COST ZONES

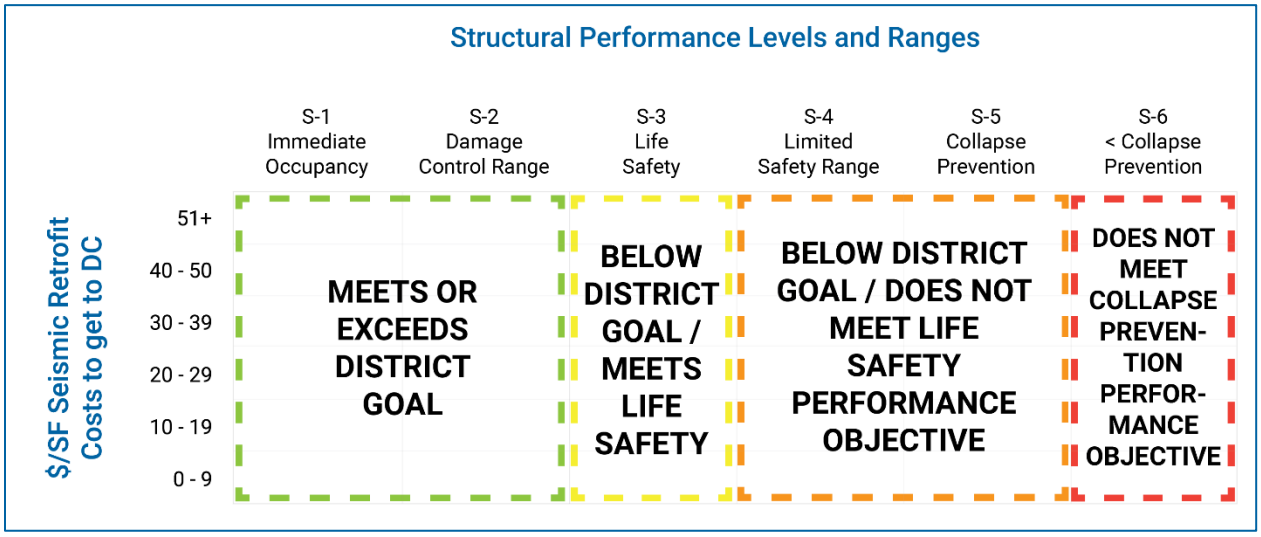

FIGURE 4: STRUCTURAL VS. PROBABLE COST ZONES

TYPE	#	Facility Name	Structural Score	Nonstructural Score	$/SF to get to District's Goal
ELEMENTARY SCHOOLS	01	Aloha-Huber Park (K-8)	80	75	5
	02	Barnes	51	61	25
	03	Beaver Acres	52	61	45
	04	Bethany	58	60	35
	05	Bonny Slope	80	75	5
	06	Cedar Mill	55	63	55
	07	Chehalem	67	66	25
	08	Cooper Mountain	64	67	45
	09	Elmonica	62	63	25
	10	Errol Hassell	65	63	25
	11	Findley	68	78	15
	12	Fir Grove	48	55	35
	13	Greenway	63	63	25
	14	Hazeldale	95	95	0
	15	Hiteon	62	65	25
	16	Jacob Wismer	70	70	5
	17	Kinnaman	66	65	25
	18	McKay	49	59	35
	19	McKinley	52	62	35
	20	Montclair	69	65	15
	21	Nancy Ryles	67	78	25
	22	Oak Hills	69	66	15
	23	Raleigh Hills (K-8)	47	58	45
	24	Raleigh Park	50	61	45
	25	Ridgewood	56	61	25
	26	Rock Creek	66	66	25
	27	Sato	95	95	0
	28	Scholls Heights	69	78	15
	29	Sexton Mountain	67	72	35
	30	Springville (K-8)	85	85	0
	31	Terra Linda	69	66	25
	32	Vose	95	95	0
	33	West Tualatin View	45	52	45
	34	William Walker	95	95	0

TABLE 5: ELEMENTARY SCHOOL CAMPUS SCORES

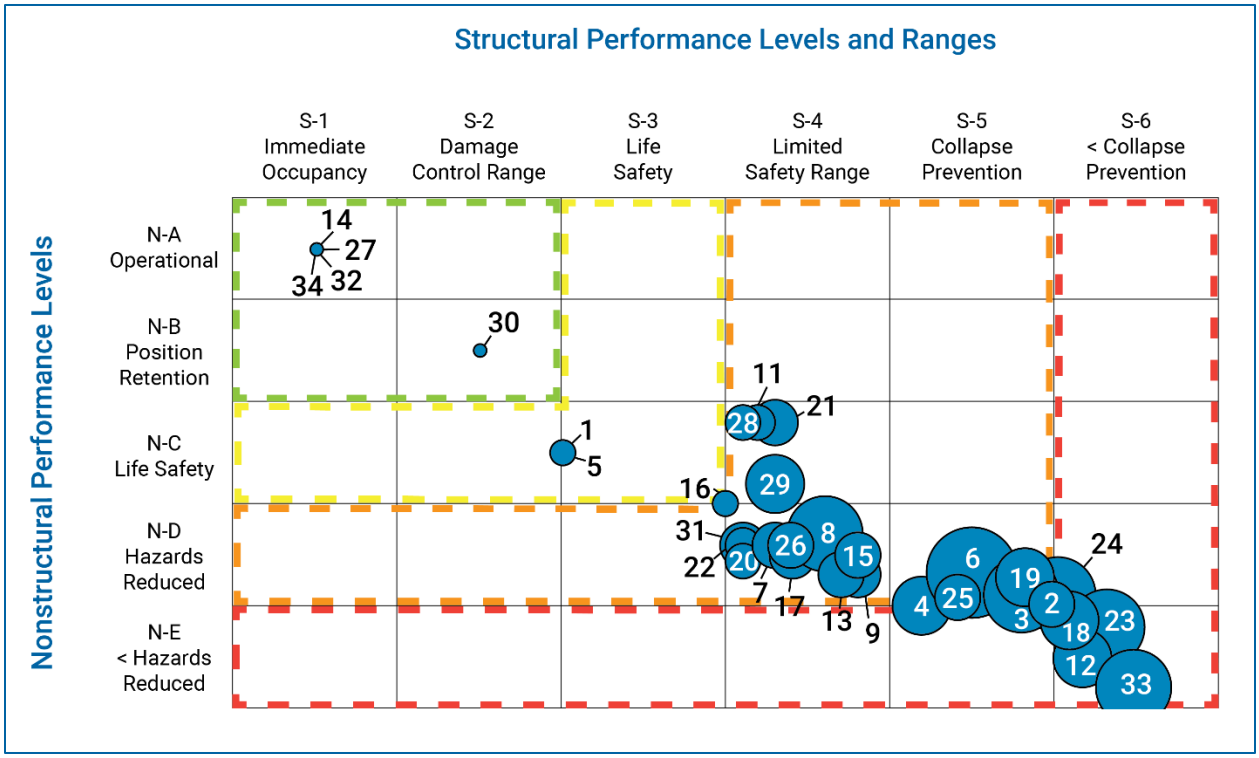

FIGURE 5: ELEMENTARY SCHOOLS
STRUCTURAL VS. NONSTRUCTURAL VS. PROBABLE COST

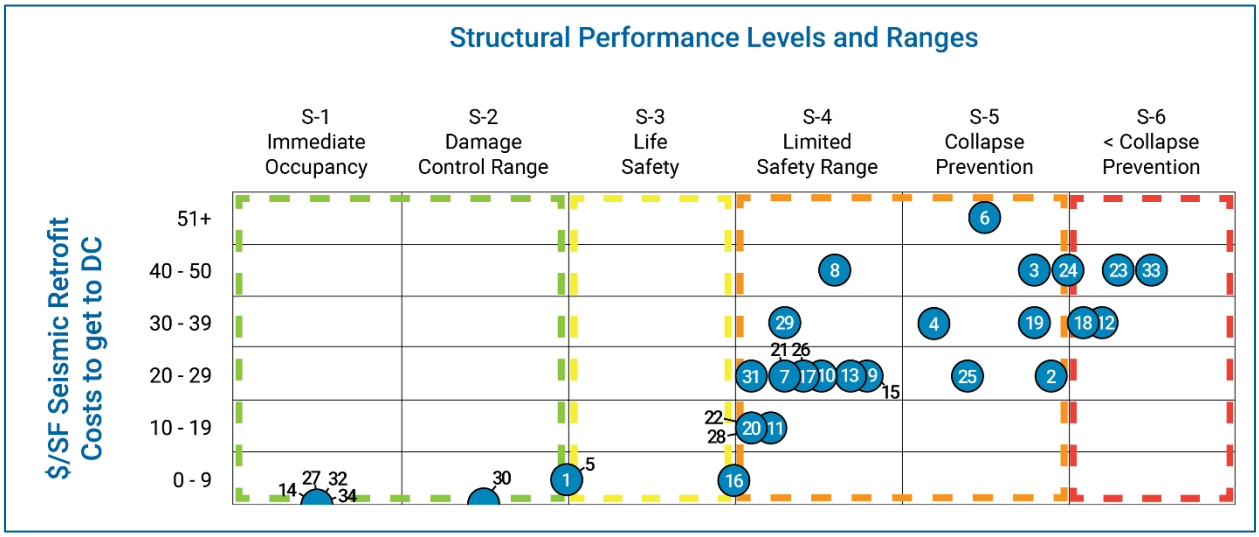

FIGURE 6: ELEMENTARY SCHOOLS
STRUCTURAL VS. PROBABLE COST

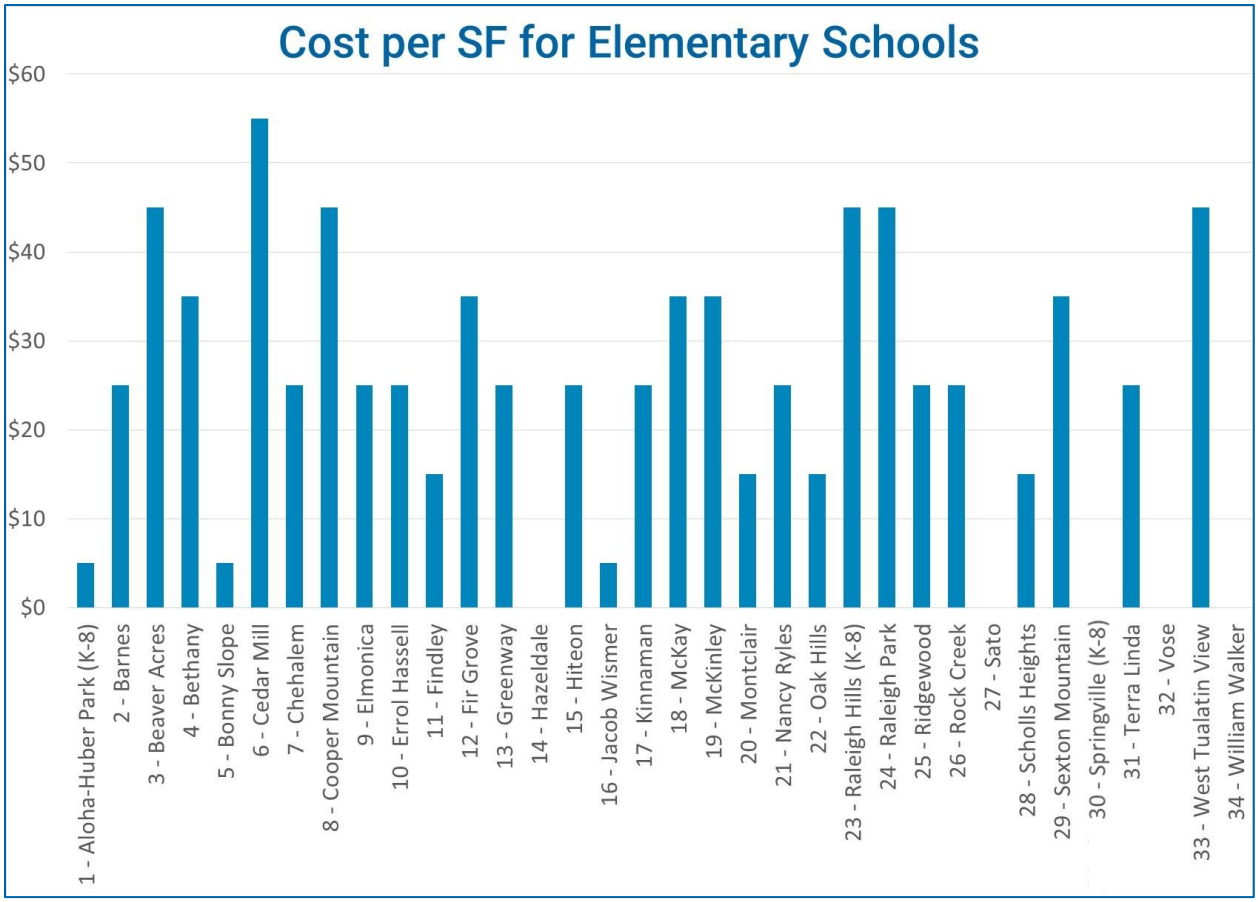

FIGURE 7: ELEMENTARY SCHOOLS PROBABLE COST

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TYPE	#	Facility Name	Structural Score	Nonstructural Score	$/SF to get to District's Goal
MIDDLE SCHOOLS	35	Cedar Park	50	65	45
	36	Conestoga	70	78	25
	37	Five Oaks	55	62	35
	38	Highland Park	50	65	45
	39	Meadow Park	54	65	35
	40	Mountain View	50	65	35
	41	Timberland	95	95	0
	42	Stoller	70	78	25
	43	Whitford	50	65	45

TABLE 6: MIDDLE SCHOOL CAMPUS SCORES

FIGURE 8: MIDDLE SCHOOLS PROBABLE COST

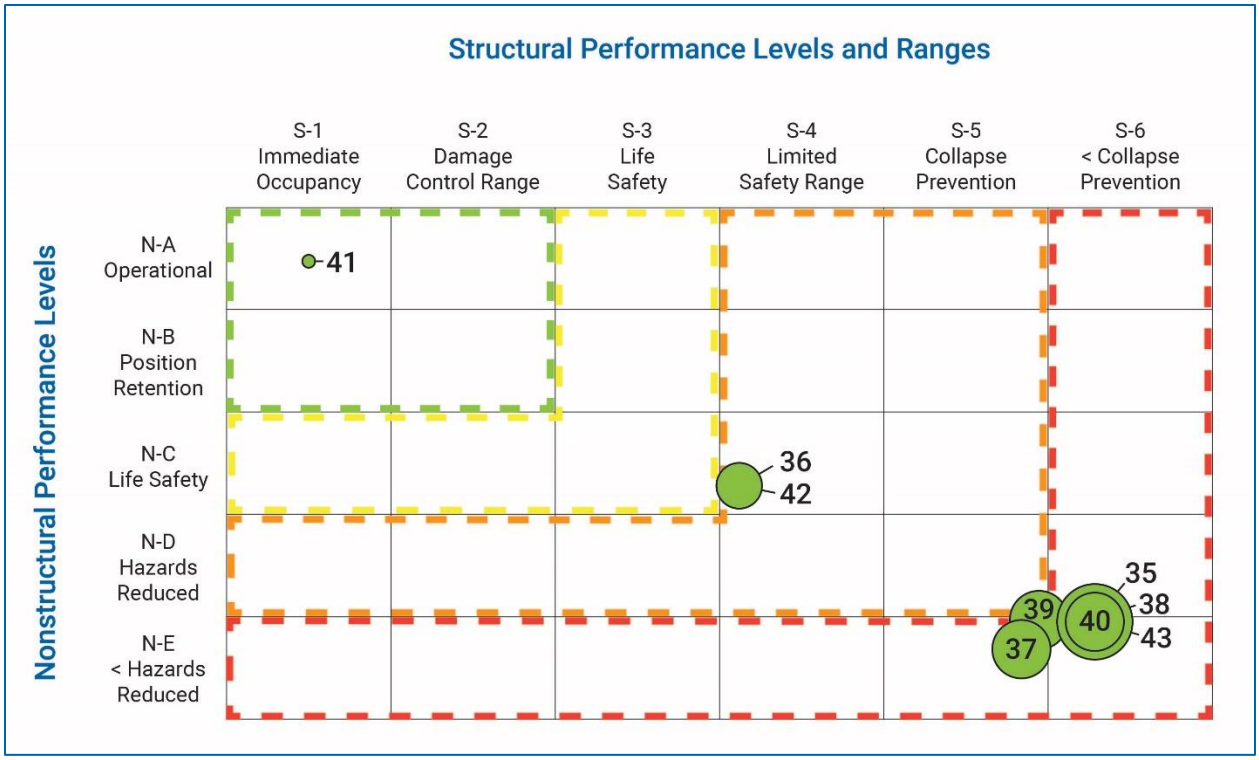

FIGURE 9: MIDDLE SCHOOLS
STRUCTURAL VS. NONSTRUCTURAL VS. PROBABLE COST

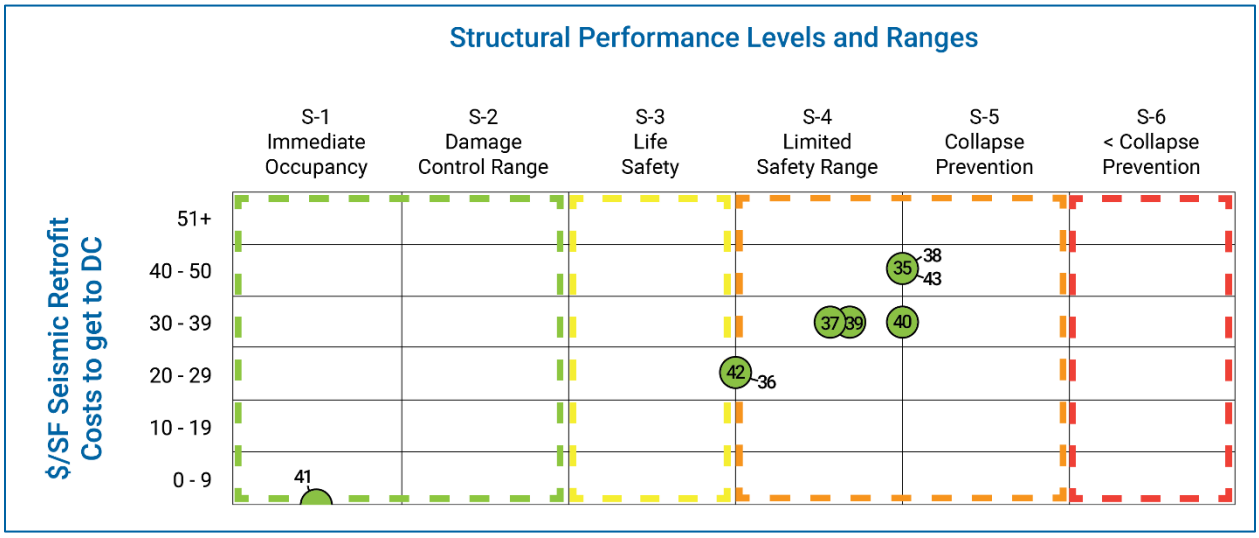

FIGURE 10: MIDDLE SCHOOLS
STRUCTURAL VS. PROBABLE COST

TYPE	#	Facility Name	Structural Score	Nonstructural Score	$/SF to get to District's Goal
HIGH SCHOOLS	44A	Aloha	63	65	25
	45A	Beaverton High School (Main)	45	60	65
	45B	Beaverton High School (Cafeteria)	75	75	15
	45C	Merle Davies	69	69	15
	46	Mountainside	95	95	0
	47	Southridge	70	70	15
	48	Sunset	55	55	55
	49	Westview	68	68	25

TABLE 7: HIGH SCHOOL CAMPUS SCORES

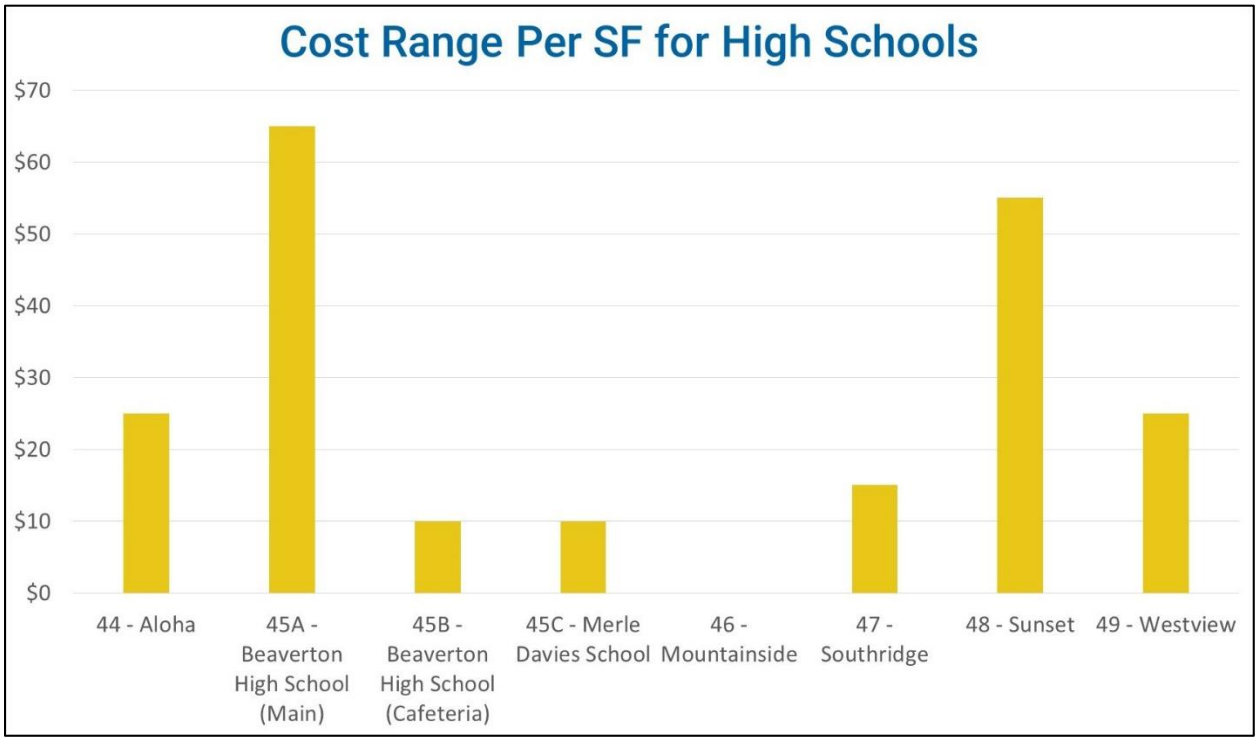

FIGURE 11: HIGH SCHOOLS PROBABLE COST

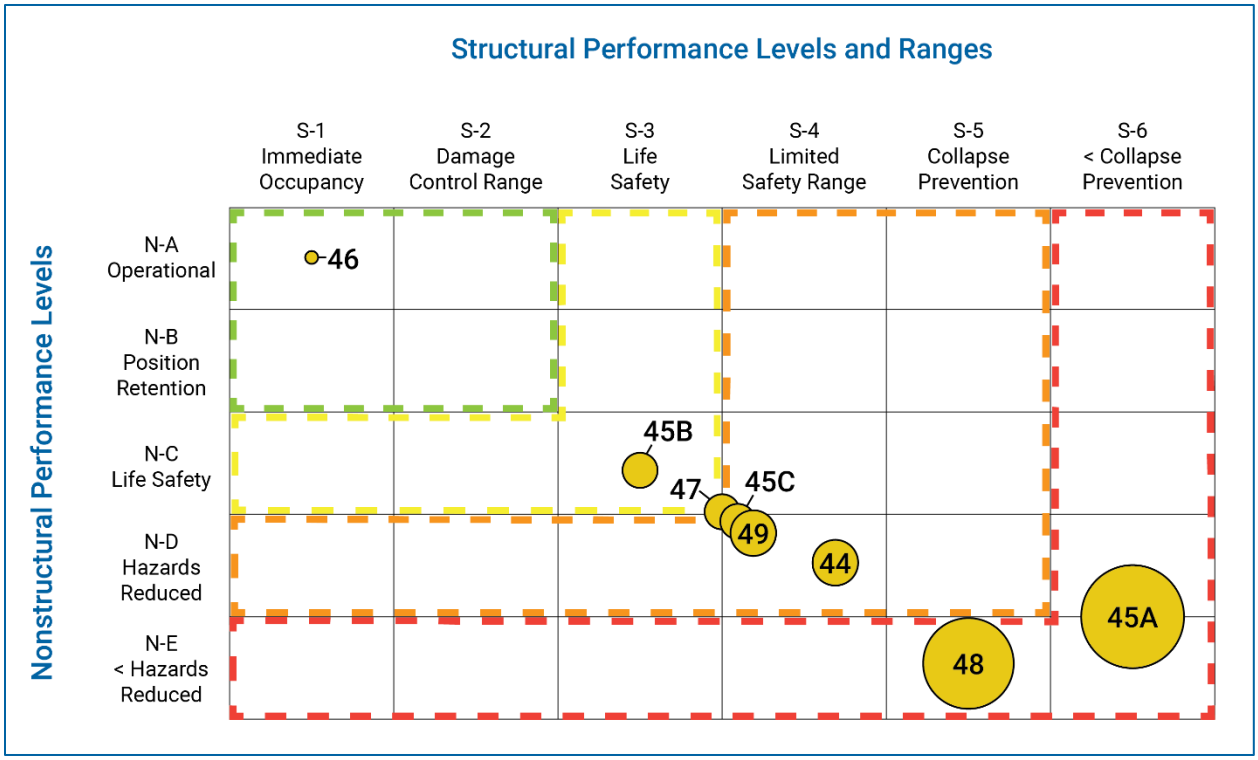

FIGURE 12: HIGH SCHOOLS
STRUCTURAL VS. NONSTRUCTURAL VS. PROBABLE COST

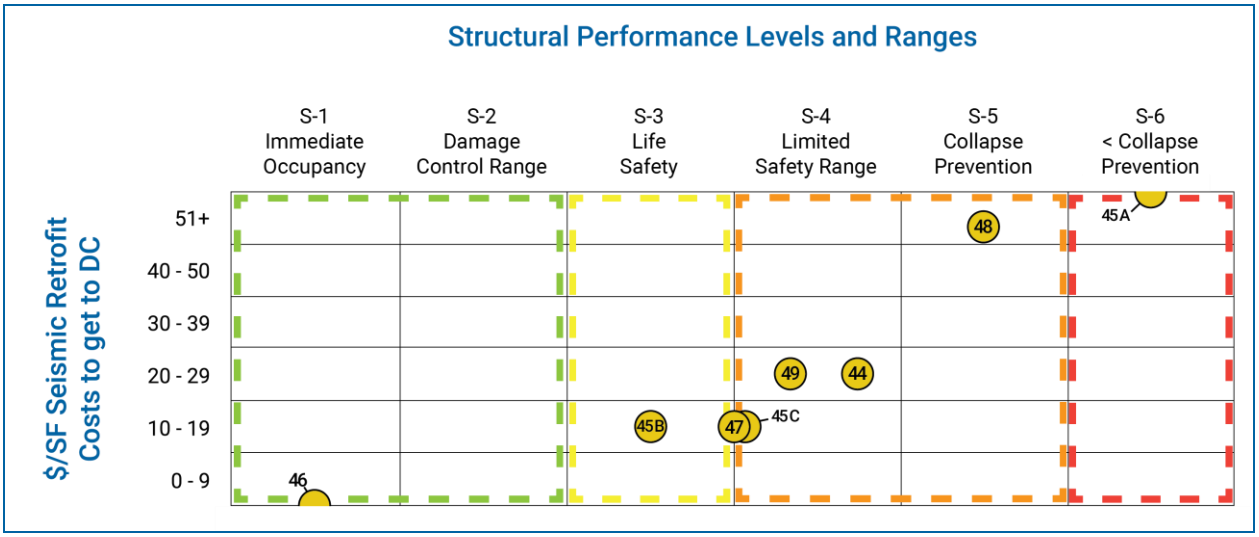

FIGURE 13: HIGH SCHOOLS
STRUCTURAL VS. PROBABLE COST

TYPE	#	Facility Name	Structural Score	Nonstructural Score	$/SF to get to District's Goal
OPTION SCHOOLS	50A	Arts & Communication ACMA (Main Building)	95	95	0
	50B	ACMA (Performing Arts Building)	85	85	0
	51	Capital Center - Health & Science School	58	60	15
	52	International School ISB	48	58	35
	53	Merlo Station Community High	69	65	15
	54	Terra Nova School of Science & Sustainability	62	55	45

TABLE 8: OPTION SCHOOL CAMPUS SCORES

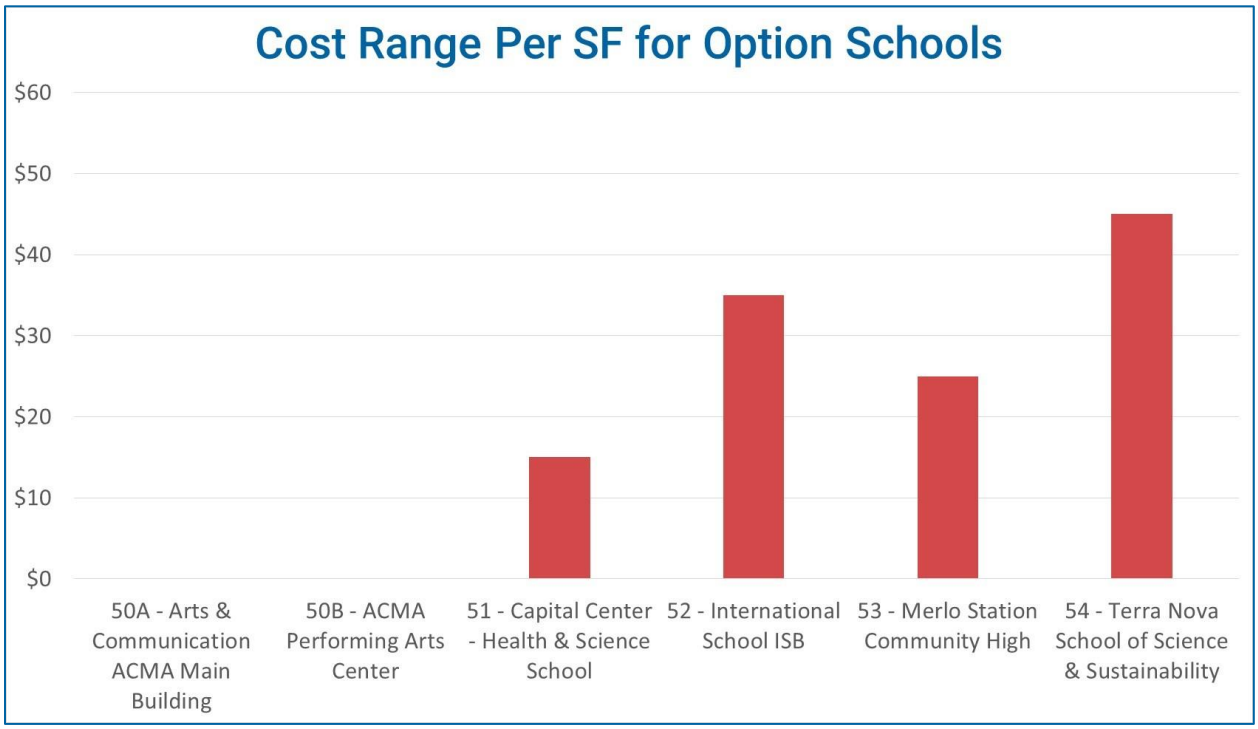

FIGURE 14: OPTION SCHOOLS PROBABLE COST

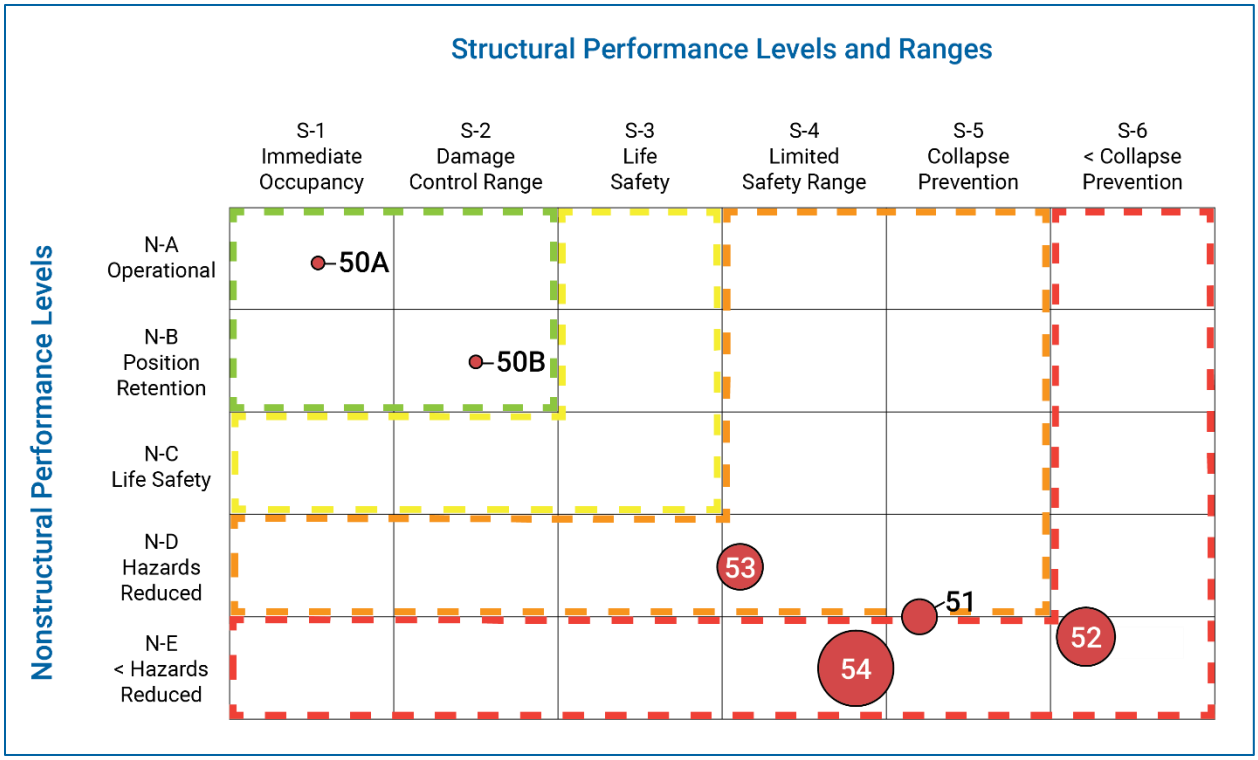

FIGURE 15: OPTION SCHOOLS
STRUCTURAL VS. NONSTRUCTURAL VS. PROBABLE COST

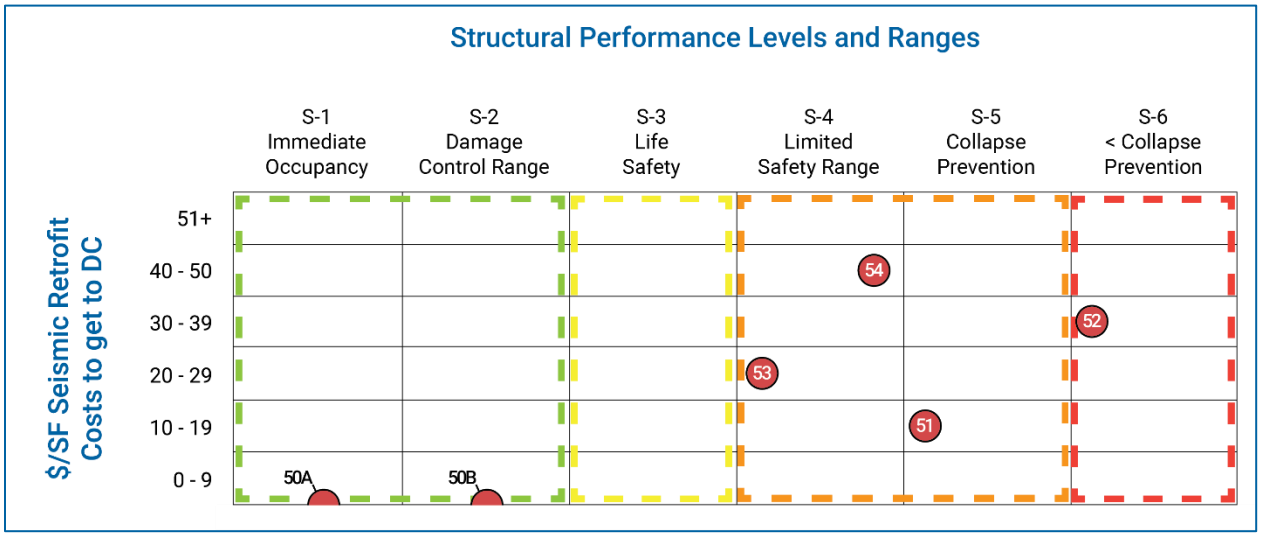

FIGURE 16: OPTION SCHOOLS
STRUCTURAL VS. PROBABLE COST

TYPE	#	Facility Name	Structural Score	Nonstructural Score	$/SF to get to District's Goal
SUPPORT FACILITIES	55	Administration Building	68	66	25
	56	Maintenance Building	67	60	25
	57	Transportation Main	67	61	15
	58	Transportation Allen	58	69	25
	59	Transportation 5th St. North	68	69	15
	60	Transportation 5th St. South	58	68	25

TABLE 9: SUPPORT FACILITY CAMPUS SCORES

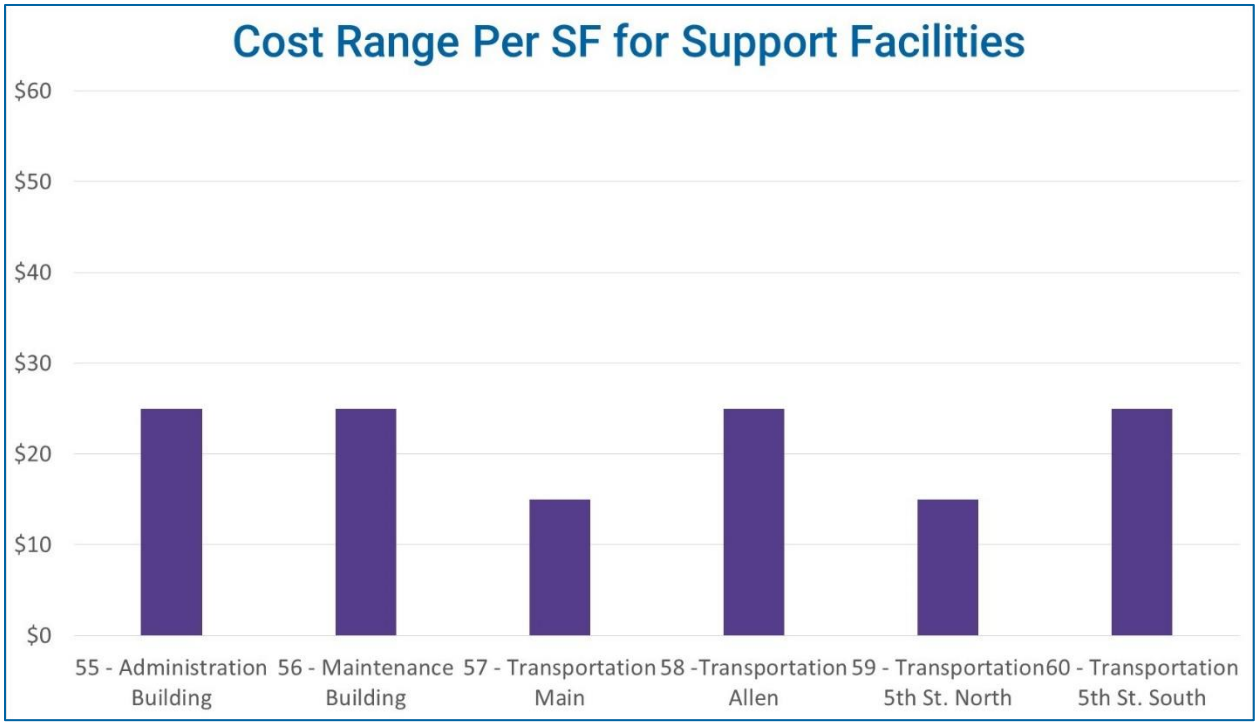

FIGURE 17: SUPPORT FACILITIES PROBABLE COST

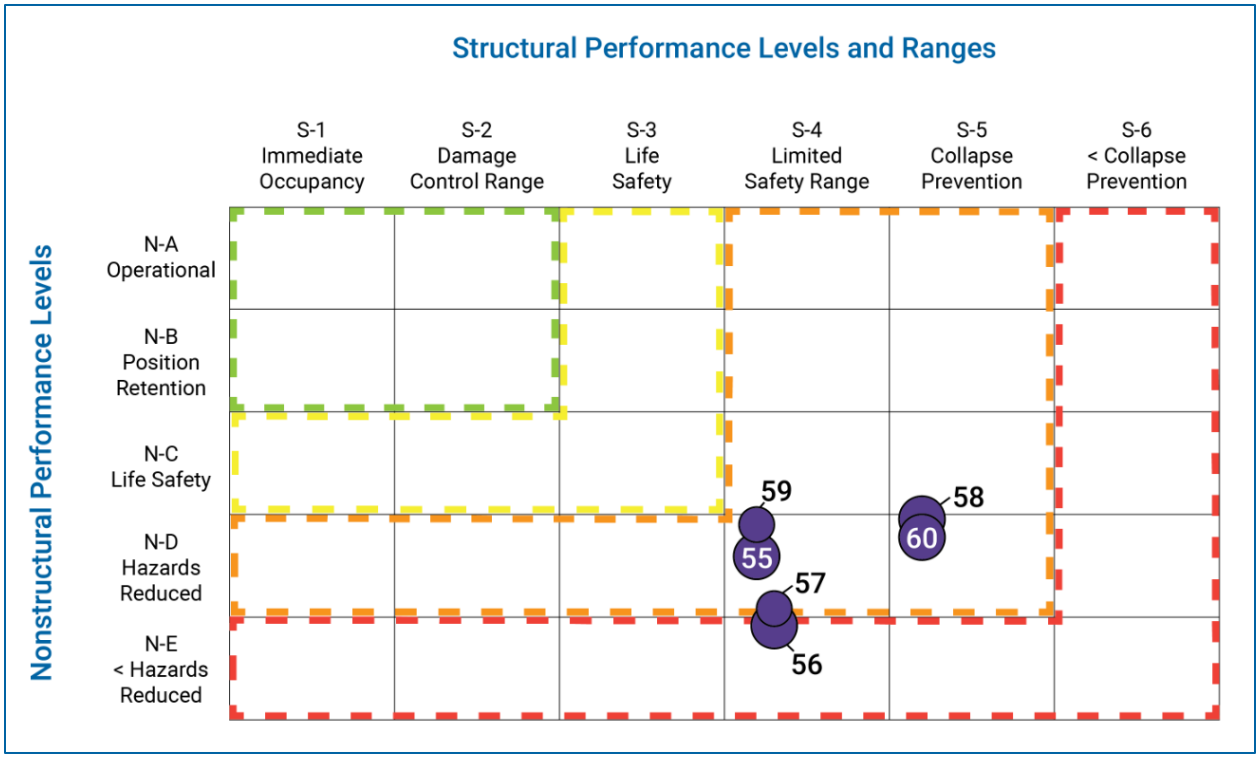

FIGURE 18: SUPPORT FACILITIES
STRUCTURAL VS. NONSTRUCTURAL VS. PROBABLE COST

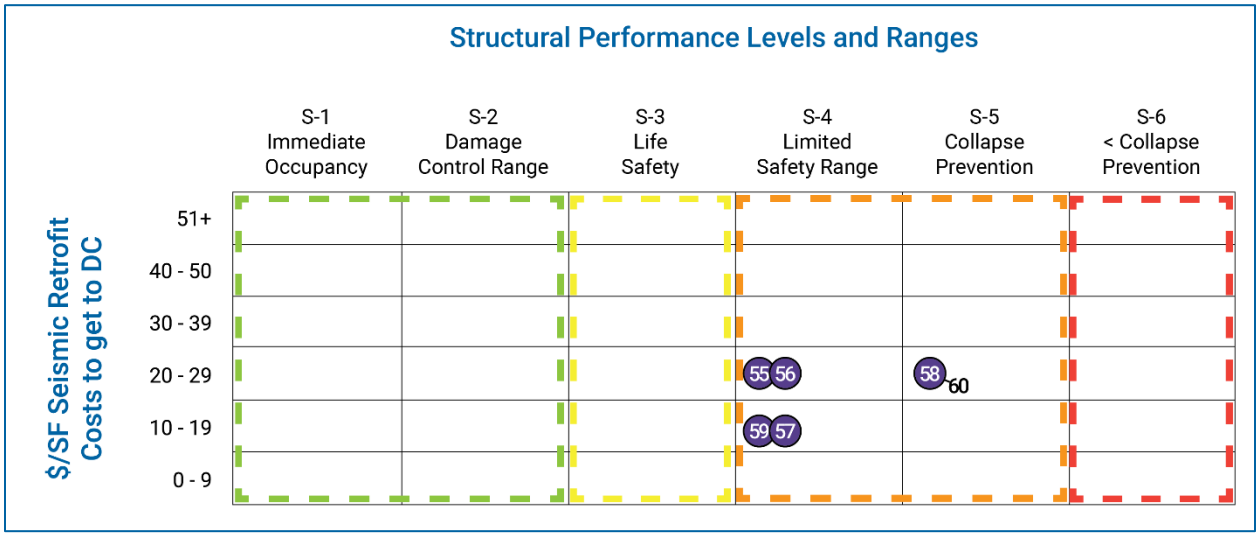

FIGURE 19: SUPPORT FACILITIES
STRUCTURAL VS. PROBABLE COST

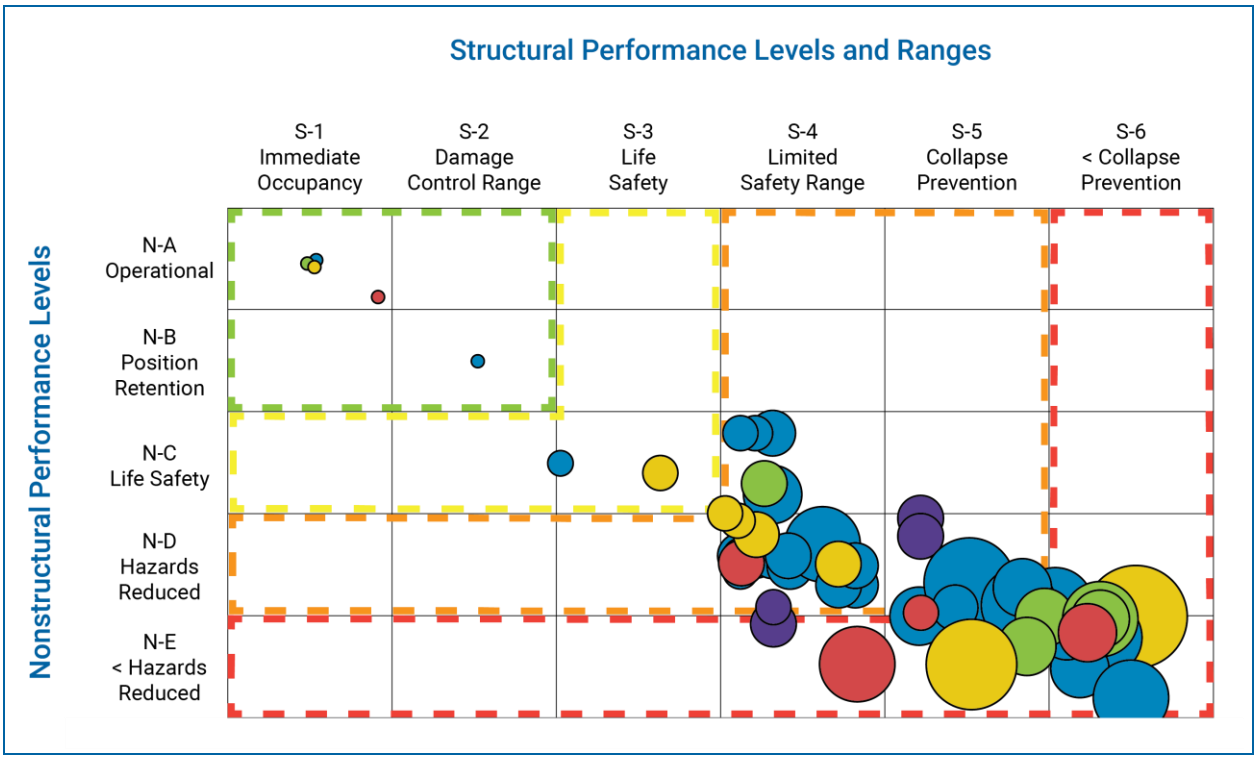

FIGURE 20: ALL CAMPUSES
STRUCTURAL VS. NONSTRUCTURAL VS. PROBABLE COST

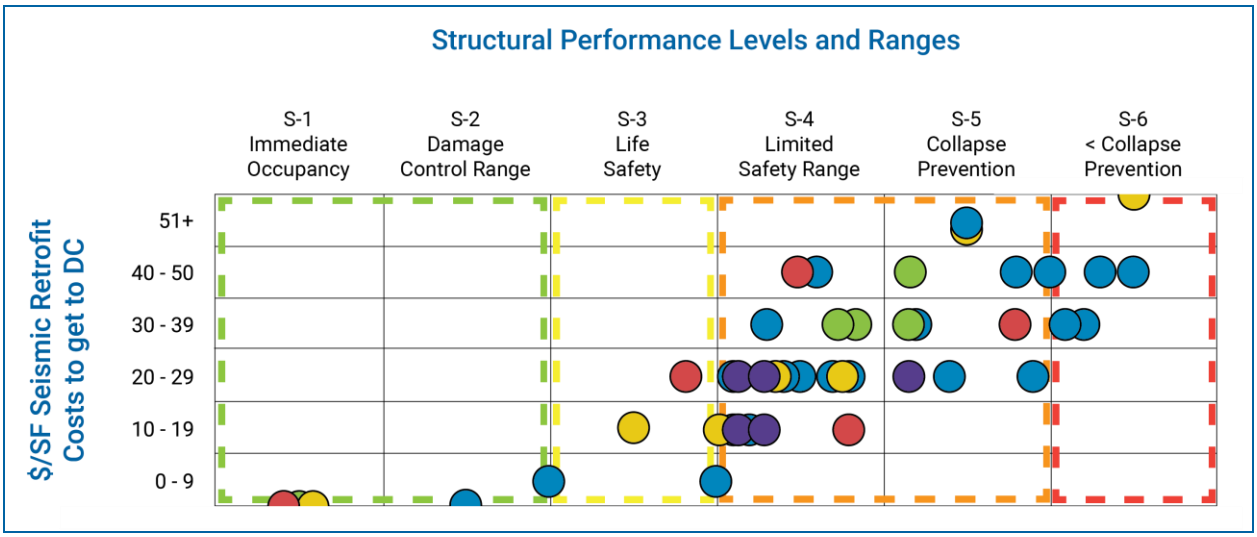

FIGURE 21: ALL CAMPUSES
STRUCTURAL VS. PROBABLE COST

Tables 10 through 13 group the facilities based on the structural performance scores into the four performance zones:

- **Red Zone:** Less than Collapse Prevention Performance Level
- **Orange Zone:** Limited Safety Range & Collapse Prevention Performance Level
- **Yellow Zone:** Life Safety Performance Level
- **Green Zone:** District's Goal Zone - Damage Control Range & Immediate Occupancy Performance Level

The following tables indicate the $/SF costs (as shown in previous tables), the facility square footage and the total cost to reach the district goal. It is important reiterate the following about the $/SF and total costs indicated below:

- The $/SF costs assume that seismic rehabilitation is not occurring in conjunction with other upgrade work and includes an allotment for repairing architectural finishes after the structural work is complete.
- These costs are based on previous seismic rehabilitation studies of other campuses of similar building construction types and ages and do **NOT** include escalation past 2018/2019.
- These estimates are **NOT** fully developed cost estimates and are intended to provide the Beaverton School District with a ROUGH estimate of probable costs.
- These estimates do **NOT** include soft costs that could be up to an additional +/- 30%.
- These estimates do **NOT** include other MEP or architectural upgrades that might occur during a seismic rehabilitation project.

	School #	Facility Name	Structural Score	$/SF *	Square Footage	Total $ to get to District's Goal *
< Collapse Prevention	33	West Tualatin View	45	45	43,447	$ 1,955,115
	45A	Beaverton HS (Main Building)	45	65	233,844	$ 15,199,860
	23	Raleigh Hills (K-8)	47	45	56,647	$ 2,549,115
	12	Fir Grove	48	35	60,666	$ 2,123,310
	52	International School ISB	48	35	75,585	$ 2,645,475
	18	McKay	49	35	48,736	$ 1,705,760
	24	Raleigh Park	50	45	45,166	$ 2,032,470
	35	Cedar Park	50	45	117,054	$ 5,267,430
	38	Highland Park	50	45	116,892	$ 5,260,140
	40	Mountain View	50	35	133,942	$ 4,687,970
	43	Whitford	50	45	116,962	$ 5,263,290
					Total for < Collapse Prevention Campuses =	**$ 48,689,935**

TABLE 10: < Collapse Prevention Costs
***Reference cost estimate notes on this page**

	School #	Facility Name	Structural Score	$/SF *	Square Footage	Total $ to get to District's Goal *
Limited Safety Range & Collapse Prevention	02	Barnes	51	25	75,900	$ 1,897,500
	03	Beaver Acres	52	45	79,507	$ 3,577,815
	19	McKinley	52	35	61,265	$ 2,144,275
	39	Meadow Park	54	35	116,682	$ 4,083,870
	06	Cedar Mill	55	55	41,055	$ 2,258,025
	37	Five Oaks	55	35	143,039	$ 5,006,365
	48	Sunset	55	55	253,727	$ 13,954,985
	25	Ridgewood	56	25	54,059	$ 1,351,475
	04	Bethany	58	35	49,913	$ 1,746,955
	51	Capital Center	58	15	105,883	$ 1,588,245
	58	Transportation Allen	58	25	9,779	$ 244,475
	60	Transportation 5th St. South	58	25	25,800	$ 645,000
	09	Elmonica	62	25	50,734	$ 1,268,350
	15	Hiteon	62	25	78,972	$ 1,974,300
	54	Terra Nova School	62	45	11,800	$ 531,000
	13	Greenway	63	25	54,991	$ 1,374,775
	44	Aloha	63	25	260,677	$ 6,516,925
	08	Cooper Mountain	64	45	54,821	$ 2,466,945
	10	Errol Hassell	65	25	60,345	$ 1,508,625
	17	Kinnaman	66	25	80,837	$ 2,020,925
	26	Rock Creek	66	25	51,505	$ 1,287,625
	07	Chehalem	67	25	54,316	$ 1,357,900
	21	Nancy Ryles	67	25	71,119	$ 1,777,975
	29	Sexton Mountain	67	35	67,318	$ 2,356,130
	56	Maintenance Building	67	25	21,390	$ 534,750
	57	Transportation Main	67	15	47,000	$ 705,000
	11	Findley	68	15	72,052	$ 1,080,780
	49	Westview	68	25	281,183	$ 7,029,575
	55	Administration Building	68	25	35,995	$ 899,875
	59	Transportation 5th St. North	68	15	5,139	$ 77,085
	20	Montclair	69	15	38,526	$ 577,890
	22	Oak Hills	69	15	49,890	$ 748,350
	28	Scholls Heights	69	15	68,941	$ 1,034,115
	31	Terra Linda	69	25	51,636	$ 1,290,900
	45C	Merle Davies	69	15	39,000	$ 585,000
	53	Merlo Station High	69	25	51,125	$ 1,278,125
	16	Jacob Wismer	70	5	72,863	$ 364,315
	36	Conestoga	70	25	128,179	$ 3,204,475
	42	Stoller	70	25	143,788	$ 3,594,700
	47	Southridge	70	15	256,070	$ 3,841,050
		Total for Limited Safety & Collapse Prevention Range =				**$ 89,786,445**

TABLE 11: Limited Safety Range & Collapse Prevention Costs
***Reference cost estimate notes on Page 29**

	School #	Facility Name	Structural Score	$/SF *	Square Footage	Total $ to get to District's Goal *
Life Safety	01	Aloha-Huber Park (K-8)	80	5	106,046	$ 530,230
	05	Bonny Slope	80	5	80,405	$ 402,025
	45B	Beaverton HS (Cafeteria)	75	15	30,172	$ 452,580
					Total for Life Safety Range =	**$ 1,384,835**

TABLE 12: Life Safety Costs
***Reference cost estimate notes on Page 29**

	School #	Facility Name	Structural Score	$/SF	Square Footage	Total $ to get to District's Goal
Damage Control Range & Immediate Occupancy	30	Springville (K-8)	85	**These schools meet the District's Goal and do not need to be seismically retrofitted.**		
	50A	Arts & Communication ACMA (Main Building)	95			
	50B	ACMA (Performing Arts Building)	85			
	14	Hazeldale	95			
	27	Sato	95			
	32	Vose	95			
	34	William Walker	95			
	41	Timberland	95			
	46	Mountainside	95			
					Total for Damage Control Range & Immediate Occupancy =	**$ 0**

TABLE 13: Damage Control Range & Immediate Occupancy Costs

Total to meet District's Goal = $ 139,861,215

***Reference cost estimate notes on Page 29**

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APPENDIX F

ENROLLMENT FORECAST REPORT

Portland State
Population Research
Center, May 2019

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BEAVERTON SCHOOL DISTRICT
ENROLLMENT FORECASTS
2019-20 TO 2028-29

Portland State
Population Research Center

MAY, 2019

BEAVERTON SCHOOL DISTRICT
ENROLLMENT FORECASTS
2019-20 TO 2028-29

Prepared By

Population Research Center

Portland State University

MAY, 2019

Project Staff:

Charles Rynerson, Research Associate

Joshua Ollinger, Graduate Research Assistant

CONTENTS

TABLES AND CHARTS

EXECUTIVE SUMMARY

This report presents the results of a demographic study conducted by the Portland State University Population Research Center (PRC) for the Beaverton School District (BSD). The study includes analyses of District population, housing and enrollment trends and forecasts of district-wide and individual school enrollments for the 2019-20 to 2028-29 school years.

Consistent with previous PRC reports, historic and forecast enrollment figures include general education students, and not students in Pre-Kindergarten, Self-Contained Special Education, Alternative, and Early College programs.

Population, Housing, and Employment Trends

- There were 3,103 births to BSD residents in 2017, the smallest annual total since 1996, and 19 percent fewer than the peak in 2007.
- From 2014 to 2018, permits were issued in BSD for over 3,300 single family homes and nearly 2,400 apartment units, not including senior housing and accessory dwelling units.
- The Portland Metropolitan area's seasonally adjusted unemployment rate was 3.8 percent in March 2019, matching the national rate.
- Employment in the Portland tri-county area (Multnomah, Washington, and Clackamas counties) is projected to grow by 12.7 percent from 2017 to 2027.

District-wide Enrollment Trends

- BSD enrolled 38,891 K-12 students in fall 2018, an increase of 38 students (0.1 percent) from fall 2017.
- K-12 enrollment grew by 2,694 students (seven percent) over the seven years from 2008-09 to 2015-16. However, small increases in 2016-17 and 2018-19 and a one year decline in 2017-18 amounted to a K-12 loss of three students in the most recent three years.

- Elementary (K-5th) enrollment reached a peak of 18,350 students in 2015-16. Annual losses in the subsequent three years resulted in a decline of 678 students (3.7 percent), with district-wide K-5 enrollment in 2018-19 falling to the lowest total since 2009-10.

- Fall 2018 elementary cohorts (1st-5th) grew compared to fall 2017 (K-4th), for a net gain of 172 students. The K-5 enrollment loss was attributable to a small kindergarten class (2,774 students in 2018-19) replacing a large 5th grade class (3,076 in 2017-18).

- Fall 2018 middle (6th-8th) grades enrollment was the largest in District history. Since 2008-09, there has been net growth of 1,131 students (14 percent), in 6th-8th grade enrollment.

- Fall 2018 high school (9th-12th) grades enrollment was also the largest ever. Five consecutive years of enrollment growth have led to a net gain total of 821 students (seven percent) since 2013-14 and 1,039 (10 percent) since 2008-09.

District-wide Middle Series Enrollment Forecasts

- In the *Middle Series* forecast, overall K-12 enrollment is expected to decrease by 966 students (two percent) in the next 10 years, although K-12 enrollment initially increases slightly in 2019-20 and 2020-21.

- K-5th grade enrollment declines through 2024-25 before reaching a plateau and slight recovery, ending the 10 year forecast with nearly 600 fewer students (three percent).

- After relative stability through 2021-22, grade 6-8 enrollments decline sharply in 2022-23 followed by additional decreases through 2028-29. Over the ten year forecast period grades 6-8 decline by 420 students (four percent).

- In contrast to K-8, high school enrollments grow by 568 students (five percent) through 2023-24 before declining, leading to a 46 student increase (one percent) over the ten-year period.

District-wide Low Series Enrollment Forecasts

- The *Low Series* forecast depicts a scenario under which the District experiences very little growth due to net migration, resulting in significant enrollment losses following the recent ongoing birth downturn. K-12 enrollment falls by 2,166 students (six percent) over the 10 year period.

- K-5th grade enrollments decline steadily, resulting in 1,267 fewer students (seven percent) over the 10 year forecast.

- Middle school enrollments also decline each year, leading to 745 fewer students (eight percent) in 10 years.

- After an initial gain of 537 students through 2022-23, high school enrollments decline, ending the 10 year forecast horizon with a net loss of 154 students (one percent).

District-wide High Series Enrollment Forecasts

- The *High Series* forecast includes more growth due to net migration, leading to more cohort growth and a greater recovery in births. Even so, the recent birth downturn leads to K-5 enrollment loss of 289 students (two percent) between 2018-19 and 2023-24, and relatively small K-12 growth of 421 students (one percent) over the 10 year period.

- High school grades continue to grow initially, adding 730 students (six percent) by 2023-24. Toward the end of the forecast smaller cohorts reach high school, resulting in a 335 student (three percent) loss in 9th-12th grade enrollment from 2023-24 to 2028-29.

Table 1 and Chart 1 summarize the district-wide K-12 forecasts under all three scenarios. Table 2 reports the Middle Series forecast by school level (K-5, 6-8, 9-12). Details of the enrollment forecasts are found in Table 10 on page 33 and in Appendix A for the District, and in Table 11 on pages 36-38 for each school. Individual school forecasts are consistent with the district-wide Middle Series forecast.

Table 1

Historic and Forecast K-12 Enrollment

Low, Middle, and High Series

Beaverton School District

	LOW		MIDDLE		HIGH	
School Year	**Enroll-ment[1]**	**5 year growth**	**Enroll-ment[1]**	**5 year growth**	**Enroll-ment[1]**	**5 year growth**
2008-09	36,200		36,200		36,200	
2013-14	37,876	1,676	37,876	1,676	37,876	1,676
2018-19	38,891	1,015	38,891	1,015	38,891	1,015
2023-24 (fcst.)	38,006	-885	38,605	-286	39,257	366
2028-29 (fcst.)	36,725	-1,281	37,925	-680	39,312	55
AAEG 2018-19 to 2028-29*	*-0.6%*		*-0.3%*		*0.1%*	

**Note: Average Annual Enrollment Growth.*

Source: Historic enrollment, Beaverton School District; Enrollment forecasts, Population Research Center, PSU, May 2019.

Chart 1

BSD K-12 Enrollment History and Forecasts

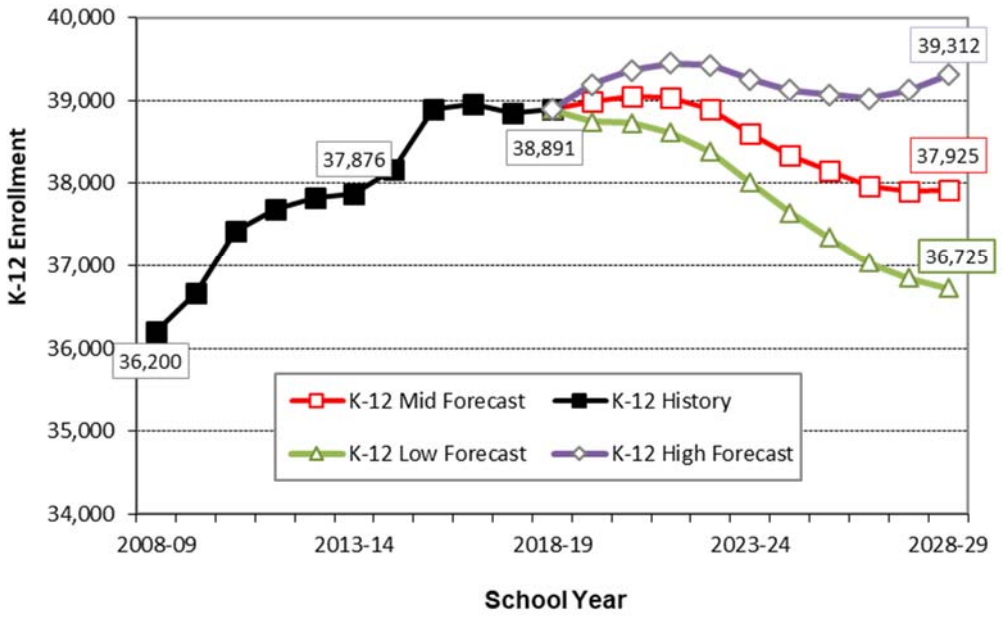


Table 2

Historic and Middle Series Forecast Enrollment
by School Level (K-5, 6-8, 9-12)
Beaverton School District

	Actual			Forecast	
	2008-09	**2013-14**	**2018-19**	**2023-24**	**2028-29**
District Total	**36,200**	**37,876**	**38,891**	**38,605**	**37,925**
5 year change		***1,676***	***1,015***	***-286***	***-680***
		5%	***3%***	***-1%***	***-2%***
K-5	17,151	17,987	17,672	17,025	17,080
5 year change		*836*	*-315*	*-647*	*55*
		5%	*-2%*	*-4%*	*0%*
6-8	8,248	8,870	9,379	9,172	8,959
5 year change		*622*	*509*	*-207*	*-213*
		8%	*6%*	*-2%*	*-2%*
9-12	10,801	11,019	11,840	12,408	11,886
5 year change		*218*	*821*	*568*	*-522*
		2%	*7%*	*5%*	*-4%*

Population Research Center, PSU. May 2019.

INTRODUCTION

This report presents the results of a demographic study conducted by the Portland State University Population Research Center (PRC), summarizes BSD enrollment history and local area population, housing, and economic trends, and presents forecasts for a 10 year horizon from 2019-20 to 2028-29. Information sources include the U.S. Census Bureau, birth data from the Oregon Center for Health Statistics, city and county population estimates produced by PRC, and housing development data from the cities and counties.

The Beaverton School District has the third largest enrollment among Oregon school districts. It serves nearly all of the City of Beaverton and smaller portions of the cities of Tigard, Hillsboro, and Portland. The 2010 Census shows that a majority of the District's residents live in unincorporated Washington County, in communities such as Aloha, Oak Hills, Cedar Mill, and Bethany.

Following this introduction are sections presenting recent population, employment, housing, and enrollment trends. Next are the results of the district-wide enrollment forecasts and individual school forecasts, and a description of the methodology used to produce them. The final section contains a brief discussion of the nature and accuracy of forecasts. Appendices contain details of the three district-wide forecasts and a profile containing a summary of population, housing, social and economic estimates from the Census Bureau's American Community Survey.

POPULATION, EMPLOYMENT, AND HOUSING TRENDS

The Beaverton School District is entirely within Washington County, which is part of the Portland-Vancouver-Beaverton metropolitan area (MSA). Between 2000 and 2010, total population within the BSD grew by 18 percent, from 214,592 persons to 253,198. This growth rate was similar to that of Washington County overall and higher than the MSA's 15 percent growth. Table 3 includes PRC's 2018 estimates for the cities and county served by BSD. Between 2010 and 2018, the cities of Beaverton, Hillsboro, and Tigard, as well as the MSA as a whole, all showed slower annual growth rates compared with the 2000 to 2010 period.

Table 3

City and Region Population, 2000, 2010, and 2018

				Avg. Annual Growth Rate	
	2000	**2010**	**2018**	**2000-2010**	**2010-2018**
City of Beaverton[1]	76,129	89,803	97,000	*1.7%*	*1.0%*
BSD Portion	*74,981*	*88,350*	N/A	*1.6%*	--
City of Hillsboro[2]	70,186	89,803	101,920	*2.5%*	*1.6%*
BSD Portion	*4,682*	*7,540*	N/A	*4.8%*	--
City of Portland[3]	529,121	586,776	648,740	*1.0%*	*1.3%*
BSD Portion	*1,015*	*969*	N/A	*-0.5%*	--
City of Tigard[4]	41,223	48,035	52,785	*1.5%*	*1.2%*
BSD Portion	*6,987*	*7,436*	N/A	*0.6%*	--
BSD Unincorporated	126,927	148,903	N/A	*1.6%*	--
BSD Total	214,592	253,198	N/A	*1.7%*	--
Washington County	445,342	529,710	606,280	*1.7%*	*1.7%*
Portland-Vancouver-Beaverton MSA[5]	1,927,881	2,226,009	2,491,885	*1.4%*	*1.1%*

1. A portion of the City of Beaverton's population growth was due to the annexation of 2,075 persons between 2000 and 2010, and 382 persons between 2010 and 2018.

2. A portion of the City of Hillsboro's population growth was due to the annexation of 497 persons between 2000 and 2010, and 271 persons between 2010 and 2018.

3. A portion of the City of Portland's population change was due to the annexation of 8 persons between 2000 and 2010, and 2 persons between 2010 and 2018.

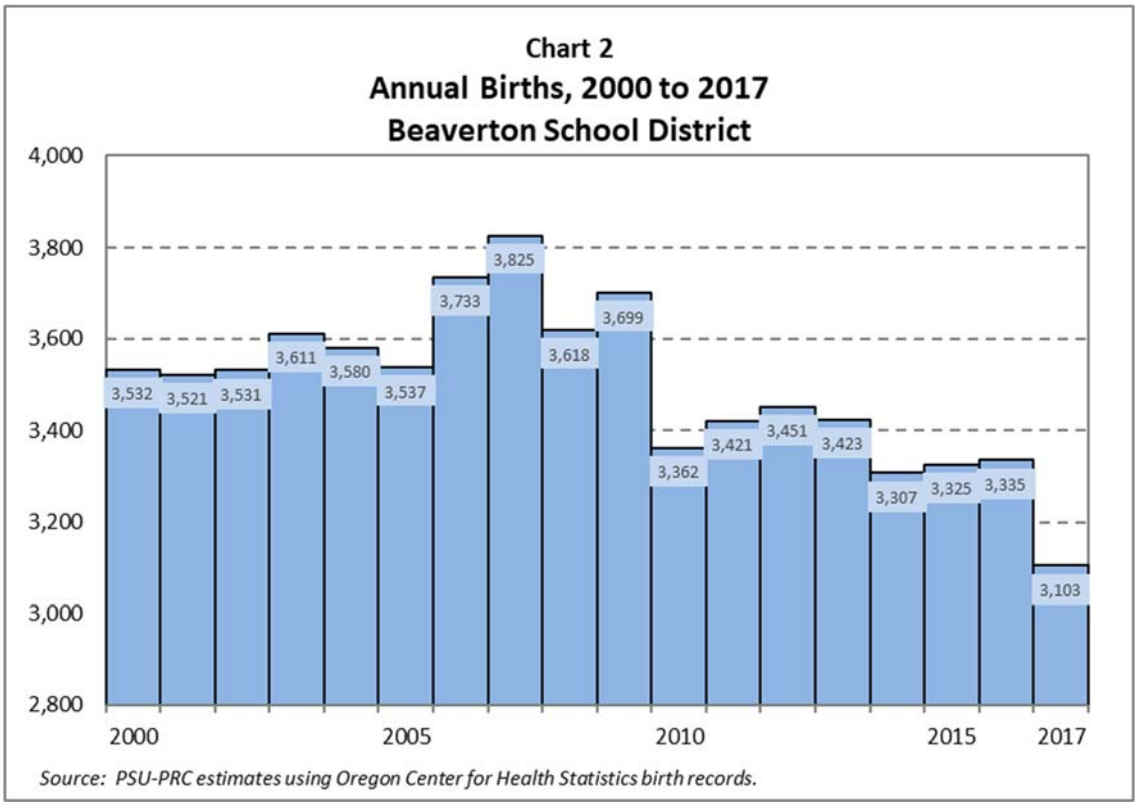
4. A portion of the City of Tigard's population growth was due to the annexation of 1,119 persons between 2000 and 2010, and 56 persons between 2010 and 2018.

5. Portland-Vancouver-Beaverton MSA consists of Clackamas, Columbia, Multnomah, Washington, Yamhill (OR) and Clark and Skamania (WA) Counties.

Sources: U.S. Census Bureau, 2000 and 2010 Censuses; Portland State University Population Research Center Estimates, July 1 2018 estimates (MSA includes estimates for Clark and Skamania Counties extrapolated from Washington Office of Financial Management April 1 2018 estimates)

Births

The number of births to women residing within the District peaked in 2007, just as it did in the U.S. and in Oregon. Chart 2 shows that births within the BSD between 2010 and 2016 fluctuated within the 3,300 to 3,450 range before falling to 3,103 in 2017. Births in calendar year 2017 reached new 21st Century lows in BSD (fewest since 1996), Oregon (fewest since 1995), and the U.S. (fewest since 1987).[1] In the "Enrollment Forecasts" section of this report we will examine the relationship between births, migration, and subsequent school enrollments.



Employment

Population growth in the BSD depends to a great extent on the strength of the Portland-Vancouver-Hillsboro Metropolitan Statistical Area (MSA) economy. Although there are 0.93 jobs in BSD for every employed resident, recent data show that nearly three out of four residents

[1] "Births: Final Data for 2017." National Vital Statistics Report, Volume 67, Number 8, National Center for Health Statistics; *Oregon Vital Statistics Annual Report 2017 Volume 1*, Oregon Health Authority, Center for Health Statistics.

commute outside of the District to work. About 52 percent of employed BSD residents have a Washington County workplace, while 32 percent work in Multnomah County and 8 percent in Clackamas County. Among cities in the region, the City of Portland is the leading workplace destination with 31 percent of BSD workers, followed by the cities of Beaverton (18 percent), Hillsboro (15 percent), and Tigard (7 percent).[2]

The MSA lost over 64,000 jobs (6 percent) between 2008 and 2010, causing in-migration to slow to a trickle. By 2013 employment totals had slowly recovered to their pre-recession peak level and the MSA added another 151,000 jobs (14 percent) between 2013 and 2018.[3] The Oregon Employment Department estimates that the MSA's seasonally adjusted unemployment rate held steady at 3.8 percent in March 2019; the same as the nation and lower than Oregon (4.4 percent).[4]

The Oregon Employment Department prepared 10 year employment projections in June 2018.[5] Following are highlights for the Portland area:

> Employment in the Portland tri-county area (Multnomah, Washington, and Clackamas counties) is projected to grow by 12.7 percent from 2017 to 2027, faster than the statewide average of 12 percent. Healthcare support occupations will grow the fastest in this region, with an increase of 21.4 percent, followed by computer and mathematical occupations, with an increase of 19.6 percent. Production occupations have the slowest growth rate at 4.6 percent, followed by office and administrative support occupations at 6.8 percent.[6]

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[2] U.S. Census Bureau, LED Origin-Destination Database (2015). Commute shed report for residents of BSD. Includes workers at firms covered by unemployment insurance (excludes most agricultural jobs and self-employed. https://onthemap.ces.census.gov/.

[3] "Current Employment Estimates," Oregon Employment Department. https://www.qualityinfo.org/ed-ceest. Retrieved on January 7, 2019. Average annual non-farm employment in the Portland-Vancouver-Hillsboro MSA was 1,043,900 in 2008, 979,700 in 2010, 1,045,100 in 2013, and 1,196,100 in 2018.

[4] "Employment in the Portland Metro Area: March 2019," May 2, 2019. Oregon Employment Department. https://www.qualityinfo.org/documents/10182/73818/Employment+in+Portland+Metro+Area?

[5] Projections are available at https://www.qualityinfo.org/projections.

[6] "Health Care, Computer Occupations Lead Portland Tri-County Employment Projections" State of Oregon Employment Department, September 6, 2018.

The Oregon Employment Department estimates that the non-seasonally adjusted unemployment rates in March 2019 were 3.6 percent in Washington County and 3.8 percent in the City of Beaverton.[7]

Housing

Table 4 presents housing and household characteristics for BSD compiled from the decennial censuses of 1990, 2000, and 2010. The figures are based on our aggregation of census block data to approximate the District boundaries. While there were large increases in the number of housing units and households (occupied housing units) each decade, neither the share of households with children nor the average number of persons per household changed significantly.

Table 4
Beaverton School District
Housing and Household Characteristics, 1990, 2000 and 2010

				Change	
				'90 to '00	'00 to '10
	1990	2000	2010	Number	Number
Housing Units	64,448	89,483	106,225	25,035	16,742
Households	61,052	84,841	100,138	23,789	15,297
Households with children under 18	21,749	30,695	34,671	8,946	3,976
share of total	*36%*	*36%*	*35%*		
Households with no children under 18	39,303	54,146	65,467	14,843	11,321
share of total	*64%*	*64%*	*65%*		
Household Population	152,044	213,359	251,198	61,315	37,839
Persons per Household	2.49	2.51	2.51	0.02	-0.01

Source: U.S. Census Bureau, 1990, 2000 and 2010 Censuses; data aggregated to BSD boundary by Portland State University Population Research Center.

Table 5 reports the number of housing units authorized by building permits in each BSD attendance area over a five year period. Nearly half of the District's new single family home development in the past five years has occurred in the Stoller Middle School area, primarily within the North Bethany area served by Sato Elementary, Springville K-8, and Westview High School.

[7] Washington County Economic Indicators, April 2019 (March Data). Oregon Employment Department. Retrieved at https://www.qualityinfo.org/documents/10182/96541/Washington+County+Economic+Indicators

While the number of single family permits peaked in 2016 in the Stoller MS/Westview HS area, they continued to outpace other secondary school areas in both 2017 and 2018. At the southern end of the District, Scholls Heights (Conestoga MS/Mountainside HS) emerged as the elementary area with the largest number of new single family permits in 2017 and 2018 due to development in the River Terrace area of the City of Tigard.

The Stoller MS area has also seen several apartment complexes completed or underway in recent years, in both Sato Elementary and Springville K-8. But the largest number of multi-family units permitted in the BSD between 2014 and 2018 have been in the Five Oaks Middle School area. They include large developments such as Merlo Village (Beaver Acres ES), Baseline 158 (Elmonica ES), and Amberglen West (McKinley ES) that have been completed and are now occupied, as well as others still under construction, the largest being a 197 unit apartment development in Amberglen (McKinley ES) permitted in 2018.

Table 5

New Housing Units Authorized by Building Permits 2014 to 2018 by Attendance Area

Single Family Units

Elementary Area	2014	2015	2016	2017	2018	Total
Aloha-Huber Park (K-8)	17	18	24	2	9	**70**
Barnes	57	71	4		1	**133**
Beaver Acres	11	20	18	8	5	**62**
Bethany		3	1			**4**
Bonny Slope	29	30	89	77	34	**259**
Cedar Mill	21	21	23	14	4	**83**
Chehalem	2	1	2	8	8	**21**
Cooper Mt.	18	11	1	3	21	**54**
Elmonica			27	2	1	**30**
Errol Hassell	11		1	6		**18**
Findley	46		51	29		**126**
Fir Grove				2	1	**3**
Greenway			1		4	**5**
Hazeldale	53	68	16	6	3	**146**
Hiteon	49	37	6	4	6	**102**
Jacob Wismer	11	55	58	11		**135**
Kinnaman	1	1	2	5	3	**12**
McKay	4	3			6	**13**
McKinley	55	5				**60**
Montclair	18	8	18	6		**50**
Nancy Ryles	7					**7**
Oak Hills	2	25	25	19		**71**
Raleigh Hills (K-8)	4	5	2	5	1	**17**
Raleigh Park	7	9	6	4	1	**27**
Ridgewood	3	3	7	2	8	**23**
Rock Creek	17	1		1		**19**
Sato	32	200	172	135	52	**591**
Scholls Hts.		5	36	149	93	**283**
Sexton Mtn.	10	9	3	5		**27**
Springville (K-8)	113	125	237	148	83	**706**
Terra Linda	1	3	5			**9**
Vose	6	5	7	2	4	**24**
West T.V.	8	65	11	21	5	**110**
William Walker	2	1		2		**5**
District Total	**615**	**808**	**853**	**676**	**353**	**3305**

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Table 5 (cont.)

New Housing Units Authorized by Building Permits 2014 to 2018 by Attendance Area

Single Family Units

Middle School Area	2014	2015	2016	2017	2018	Total
Cedar Park	66	126	137	117	52	**498**
Conestoga	55	45	43	153	101	**397**
Five Oaks	83	43	69	12	15	**222**
Highland Park	28	20	4	16	27	**95**
Meadow Park	59	99	30	19	1	**208**
Mountain View	68	70	21	19	7	**185**
Stoller	219	381	518	324	135	**1577**
Whiteford	37	24	31	16	15	**123**
District Total	**615**	**808**	**853**	**676**	**353**	**3305**
High School Area						
Aloha	93	107	61	27	18	**306**
Beaverton	64	147	29	42	22	**304**
Mountainside	37	26	42	159	119	**383**
Southridge	77	52	30	12	20	**191**
Sunset	125	118	229	137	38	**647**
Westview	219	358	462	299	136	**1474**
District Total	**615**	**808**	**853**	**676**	**353**	**3305**

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Table 5 (cont.)

New Housing Units Authorized by Building Permits 2014 to 2018 by Attendance Area

Multiple Family Units

Elementary Area	2014	2015	2016	2017	2018	Total
Aloha-Huber Park (K-8)				32		**32**
Barnes						**0**
Beaver Acres	312				2	**314**
Bethany						**0**
Bunny Slope						**0**
Cedar Mill	9					**9**
Chehalem			87			**87**
Cooper Mt.						**0**
Elmonica	13			209		**222**
Errol Hassell						**0**
Findley						**0**
Fir Grove						**0**
Greenway						**0**
Hazeldale						**0**
Hiteon						**0**
Jacob Wismer						**0**
Kinnaman		18	25			**43**
McKay						**0**
McKinley		262	31	50	197	**540**
Montclair		8				**8**
Nancy Ryles				96		**96**
Oak Hills						**0**
Raleigh Hills (K-8)	117	44				**161**
Raleigh Park						**0**
Ridgewood	18					**18**
Rock Creek				40		**40**
Sato	18	231	111	11	20	**391**
Scholls Hts.						**0**
Sexton Mtn.	14					**14**
Springville (K-8)	68	16			84	**168**
Terra Linda						**0**
Vose						**0**
West T.V.						**0**
William Walker				230		**230**
District Total	**569**	**579**	**254**	**668**	**303**	**2373**

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Table 5 (cont.)

New Housing Units Authorized by Building Permits 2014 to 2018 by Attendance Area

Multiple Family Units

Middle Area						
Cedar Park	27					**27**
Conestoga				96		**96**
Five Oaks	325	262	31	291	199	**1108**
Highland Park	14		87			**101**
Meadow Park				230		**230**
Mountain View		18	25			**43**
Stoller	86	247	111	51	104	**599**
Whitford	117	52				**169**
District Total	**569**	**579**	**254**	**668**	**303**	**2373**
High Area						
Aloha	325	18	25	241	2	**611**
Beaverton	135	44	87	230		**496**
Mountainside	14			96		**110**
Southridge		8				**8**
Sunset	9					**9**
Westview	86	509	142	101	301	**1139**
District Total	**569**	**579**	**254**	**668**	**303**	**2373**

Source: Individual records from Construction Monitor, Inc., processed and geocoded by PSU-PRC. Does not include senior housing or accessory dwelling units.

ENROLLMENT TRENDS

The BSD enrolled 38,891 general education K-12 students in fall 2018, an increase of 38 students (0.1 percent) from fall 2017. K-12 enrollment grew by 2,694 students (seven percent) over the seven years from 2008-09 to 2015-16. However, small increases in 2016-17 and 2018-19 and a one year decline in 2017-18 amounted to a K-12 loss of three students in the most recent three years.

Elementary grades enrollment has declined since 2015-16, when kindergarten enrollment and K-5th grade enrollment both reached all-time highs. K-5 enrollment reached a peak of 18,350 students in 2015-16. Annual losses in the subsequent three years have resulted in a decline of 678 students (3.7 percent), with district-wide K-5 enrollment in 2018-19 falling to the lowest total since 2009-10.

While K-5 enrollment in fall 2018 was lower compared to fall 2017, cohort growth was positive. For example, there was net growth of 58 students from the fall 2017 1st grade class to the fall 2018 2nd grade class. All fall 2018 elementary cohorts (1st-5th) grew compared to the fall 2017 cohorts (K-4th), for a net gain of 172 students. The enrollment loss was attributable to a small kindergarten class (2,774 students in 2018-19) replacing a large 5th grade class (3,076 in 2017-18).

In contrast to the elementary grades enrollment, the 2018-19 middle (6th-8th) grades enrollment was the largest in District history. Middle grades enrollment increased by 25 students in fall 2018, for a total of 9,379 students. Since 2008-09, there has been net growth of 1,131 students (14 percent), in 6th-8th grade enrollment.

The 2018-19 high school (9th-12th) grades enrollment was also the largest ever. Five consecutive years of enrollment growth have led to a net gain total of 821 students (seven percent) since 2013-14 and 1,039 (10 percent) since 2018-19.

Table 6 includes the enrollment history for the District by grade level annually for the past 10 years, from 2008-09 to 2018-19. The figures at the bottom of Table 6 summarize growth by elementary, middle and high school grade level groups for five and 10 year periods.

Table 6

Beaverton School District, Enrollment History, 2008-09 to 2018-19

Grade	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
K	2,775	2,754	2,913	2,858	2,844	2,778	2,764	2,966	2,751	2,876	2,774
1	2,886	3,105	2,977	3,056	3,062	3,082	3,011	3,019	3,020	2,781	2,949
2	2,873	2,916	3,115	3,001	3,046	3,027	3,064	3,096	3,045	2,986	2,839
3	2,935	2,903	2,943	3,125	2,946	3,034	3,033	3,080	3,079	2,994	2,987
4	2,849	2,910	2,924	2,936	3,114	2,977	3,042	3,063	3,098	3,089	3,023
5	2,833	2,857	2,946	2,941	2,940	3,089	3,004	3,126	3,080	3,076	3,100
6	2,785	2,837	2,894	2,993	2,969	2,954	3,109	3,066	3,150	3,134	3,095
7	2,749	2,822	2,840	2,894	2,970	2,962	3,005	3,136	3,121	3,142	3,142
8	2,714	2,746	2,833	2,847	2,908	2,954	2,953	2,998	3,085	3,078	3,142
9	2,836	2,814	2,925	2,967	2,893	2,907	2,959	3,013	3,041	3,161	3,166
10	2,760	2,828	2,807	2,802	2,843	2,870	2,877	2,960	2,994	3,009	3,148
11	2,618	2,740	2,738	2,588	2,639	2,665	2,708	2,724	2,810	2,793	2,820
12	2,587	2,437	2,573	2,673	2,659	2,577	2,635	2,647	2,684	2,734	2,706
Total	**36,200**	**36,669**	**37,428**	**37,681**	**37,833**	**37,876**	**38,164**	**38,894**	**38,958**	**38,853**	**38,891**
Annual change		*469*	*759*	*253*	*152*	*43*	*288*	*730*	*64*	*-105*	*38*
		1.3%	*2.1%*	*0.7%*	*0.4%*	*0.1%*	*0.8%*	*1.9%*	*0.2%*	*-0.3%*	*0.1%*
K-5	17,151	17,445	17,818	17,917	17,952	17,987	17,918	18,350	18,073	17,802	17,672
6-8	8,248	8,405	8,567	8,734	8,847	8,870	9,067	9,200	9,356	9,354	9,379
9-12	10,801	10,819	11,043	11,030	11,034	11,019	11,179	11,344	11,529	11,697	11,840

	5 Year Change: 2008-09 to 2013-14		**5 Year Change: 2013-14 to 2018-19**		**10 Year Change: 2008-09 to 2018-19**	
	Change	**Pct.**	**Change**	**Pct.**	**Change**	**Pct.**
K-5	836	*5%*	-315	*-2%*	521	*3%*
6-8	622	*8%*	509	*6%*	1,131	*14%*
9-12	218	*2%*	821	*7%*	1,039	*10%*
Total	**1,676**	***5%***	**1,015**	***3%***	**2,691**	***7%***

**Note: Enrollments do not include students in Pre-Kindergarten, Self Contained Special Education, Alternative, and Early College programs.*

Source: Beaverton School District

Private and Home School Enrollment

The Census Bureau's American Community Survey (ACS) provides an estimate of private school enrollment among BSD residents based on a question about school enrollment by level and by type (public or private). The current ACS estimate from surveys conducted between 2013 and 2017 is that 6,111 BSD K-12th grade students were enrolled in private schools, a 12.8 percent share of all K-12th grade students, with a margin of error of plus or minus 1.3 percent.[8]

Another difference between BSD enrollment and child population can be attributed to home schooling. Home schooled students living in the District are required to register with the Northwest Regional Educational Service District (NWRESD), though the statistics kept by the NWRESD are not precise because students who move out of the area are not required to drop their registration. Students who enroll in public schools after being registered as home schooled are dropped from the home school registry. In 2017-18 there were 1,619 BSD residents registered as home schooled, up from 1,212 in 2016-17 and 1,202 in 2015-16.[9] Other Washington County districts had similar large increases between 2016-17 and 2017-18, perhaps due to changes in record keeping. Even at the higher level, the 1,619 students account for less than four percent of BSD 1st-12th grade residents.

Inter-District Transfers and Open Enrollment

Under Oregon's traditional inter-district transfer (IDT) rules, students who want to attend a public school outside of their resident district have to gain approval from their home district and the district that they want to attend, and that approval must be renewed each year. Beginning in the 2012-13 school year, Oregon adopted a new Open Enrollment policy under which students may transfer without approval of their home district to a district that designates available spaces at its schools. Once the student was admitted to the new district, they did not need to reapply annually. The BSD has not admitted new students through Open Enrollment and the number of incoming non-residents through IDTs and outgoing BSD residents through IDTs and Open Enrollment has

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[8] U.S. Census Bureau 2013-2017 American Community Survey, Table S1401. The margin of error of the numeric estimate at the 90 percent confidence level is plus or minus 637; the margin of error of the share is plus or minus 1.3 percent.

[9] Northwest Regional Education Service District, *Annual Reports*.

been negligible, having little or no impact on district-wide enrollment. The open enrollment statute contained a sunset provision, effective July 1, 2019. Therefore, districts will not enroll new students through open enrollment in 2019-20.[10]

Neighboring Districts

Table 7 compares several facts about BSD demographics and enrollment trends to three neighboring school districts (Hillsboro, Tigard-Tualatin, and Portland). BSD is similar to the school districts of Hillsboro and Tigard-Tualatin in that all three had enrollment growth rates lower

Table 7
Selected School Districts
Demographic and Enrollment Highlights, 2000 to 2017

	Beaverton	Hillsboro	Tigard-Tualatin	Portland
Enrollment growth, **2000-01 to 2010-11**	11%	14%	8%	-12%
Enrollment growth, **2010-11 to 2017-18**	6%	-1%	1%	6%
Latino enrollment, **2017-18**	24%	37%	27%	16%
Population growth, **2000 to 2010**	18%	20%	16%	8%
Population under age 5, **2000**	7.6%	8.7%	7.1%	5.7%
Population under age 5, **2010**	7.1%	7.8%	6.9%	5.6%
Population age 5 to 17, **2000**	18%	20%	18%	14%
Population age 5 to 17, **2010**	18%	19%	18%	12%
Population rural, **2010**	0.4%	10.4%	0.1%	0.8%
Median Household Income **2013-17**[1]	$75,572	$77,181	$66,506	$66,254
Median Household Income - MOE	+/-1,408	+/-1,612	+/-2,425	+/-1,158
Median Value of Home **2013-17**[1]	$355,400	$287,600	$343,000	$390,600
Median Value of Home - MOE	+/-4,045	+/-4,017	+/-5,490	+/-3,121

Data assembled by PSU Population Research Center (PRC) from several sources: U.S. Census Bureau; enrollment reports from PRC; OR Dept. of Education; U.S. Dept. of Education.

1. U.S. Census Bureau, 2013-17 American Community Survey (ACS) 5 Year Estimates. Table B19013, Median Household Income; Table B25077, Median Value of Owner-Occupied Housing Units. In 2017 inflation adjusted dollars. ACS data needs to be interpreted along with margins of error (MOE).

[10] The Oregon Department of Education has more information about transfers between districts at https://www.oregon.gov/ode/schools-and-districts/Pages/transfers-between-districts.aspx

between 2010 and 2017 than previously experienced from 2000 to 2010. Furthermore, the three school districts also had similar school age population proportions. BSD is most similar to the Tigard-Tualatin S.D. in its Latino Enrollment and median value of its owner-occupied single family homes. BSD has a relatively high median household income not statistically different from Hillsboro. However, under the Census Bureau's urban and rural classification BSD is more than 99 percent urban population, comparable to Tigard-Tualatin and Portland.

Enrollment at Individual Schools

Year-to-year changes at individual schools can result from program changes or boundary changes that do not reflect demographic trends. However, as the District saw elementary enrollment decline between fall 2017 and fall 2018, 13 of the District's 34 neighborhood elementary schools had significant losses of more than 20 students, while only six saw significant growth of more than 20 students. There were 15 elementary schools with one year enrollment changes of 20 students or fewer. The largest growth among elementary schools occurred at Nancy Ryles (+66), Sato (+94), and Springville K-8 (+50). The largest losses occurred at Beaver Acres (-79) and at Fir Grove (-62).

Having only three grades, middle schools are subject to annual fluctuation in enrollment due to the size of incoming 6th grade and outgoing 8th grade classes. Most of the enrollment changes between fall 2017 and fall 2018 at the middle schools with the largest increases (Cedar Park +59, Mountain View +77, and Stoller +72) and the largest decrease (Five Oaks -46) were attributable to the size of incoming and outgoing cohorts.

All high schools experienced boundary changes between the 2016-17 and 2017-18 school years, and enrollment changes in 2018-19 continued to be influenced by those changes. In particular, Mountainside High School opened in 2017-18 with grades 9 and 10, adding 11th grade in 2018-19.

Total enrollment at each of the District's schools and changes over the most recent five years are shown in Table 8.

Table 8
Enrollment History for Individual Schools, 2013-14 to 2018-19

	Historic Enrollment						5 year change 2013-14 to 2018-19	
School	**2013-14**	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**Number**	**Percent**
Aloha-Huber Park (K-8)	942	993	1012	976	921	926	-16	*-2%*
Barnes	754	743	677	631	621	634	-120	*-16%*
Beaver Acres	759	742	771	743	702	623	-136	*-18%*
Bethany	526	519	553	554	530	534	8	*2%*
Bonny Slope	622	655	643	622	638	650	28	*5%*
Cedar Mill	310	339	386	408	418	428	118	*38%*
Chehalem	487	488	514	494	476	471	-16	*-3%*
Cooper Mt.	488	494	487	508	505	469	-19	*-4%*
Elmonica	575	589	610	650	714	757	182	*32%*
Errol Hassell	499	468	488	453	466	441	-58	*-12%*
Findley	805	820	826	778	726	685	-120	*-15%*
Fir Grove	502	508	502	470	447	385	-117	*-23%*
Greenway	416	407	362	380	353	332	-84	*-20%*
Hazeldale	444	420	506	495	430	440	-4	*-1%*
Hiteon	667	673	679	657	646	638	-29	*-4%*
Jacob Wismer	760	730	739	702	755	725	-35	*-5%*
Kinnaman	688	699	670	682	665	630	-58	*-8%*

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Table 8 (cont)

Enrollment History for Individual Schools, 2013-14 to 2018-19

	Historic Enrollment						5 year change 2013-14 to 2018-19	
School	**2013-14**	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**Number**	**Percent**
McKay	386	351	348	292	280	283	-103	*-27%*
McKinley	649	632	650	619	603	575	-74	*-11%*
Montclair	394	358	387	366	331	307	-87	*-22%*
Nancy Ryles	523	554	570	616	576	642	119	*23%*
Oak Hills	550	560	552	562	548	552	2	*0%*
Raleigh Hills (K-8)	515	555	550	577	550	531	16	*3%*
Raleigh Park	422	403	395	354	369	353	-69	*-16%*
Ridgewood	421	422	446	448	414	399	-22	*-5%*
Rock Creek	533	530	582	598	573	578	45	*8%*
Sato	0	0	0	0	502	596	596	--
Scholls Heights	553	535	546	525	516	521	-32	*-6%*
Sexton Mt.	536	486	513	506	495	526	-10	*-2%*
Springville (K-8)	795	881	987	1113	771	821	26	*3%*
Terra Linda	417	404	407	393	360	332	-85	*-20%*
Vose	718	676	685	613	617	647	-71	*-10%*
West Tualatin View	294	322	350	349	353	331	37	*13%*
William Walker	532	494	475	470	455	431	-101	*-19%*
Elementary Totals	**18,482**	**18,450**	**18,868**	**18,604**	**18,326**	**18,193**	**-289**	***-2%***

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Table 8 (cont.)

Enrollment History for Individual Schools, 2013-14 to 2018-19

	Historic Enrollment						5 year change 2013-14 to 2018-19	
School	**2013-14**	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**Number**	**Percent**
Cedar Park	861	882	893	890	872	931	70	*8%*
Cedar Park Summa	74	125	112	116	93	65	-9	*-12%*
Conestoga	861	859	853	893	959	964	103	*12%*
Five Oaks	860	812	799	818	831	785	-75	*-9%*
Highland Park	731	766	814	781	820	794	63	*9%*
Highland Park Summa	51	84	71	93	76	54	3	*6%*
Meadow Park	568	638	681	698	682	668	100	*18%*
Meadow Park Summa	166	162	167	150	128	126	-40	*-24%*
Mountain View	825	848	842	836	811	888	63	*8%*
Stoller	1,022	1,038	1,008	1,086	1,090	1,162	140	*14%*
Stoller Summa	296	325	407	404	394	352	56	*19%*
Whitford	562	557	586	627	608	607	45	*8%*
Whitford Summa	124	99	96	88	81	85	-39	*-31%*
Middle School Totals	**7,001**	**7,195**	**7,329**	**7,480**	**7,445**	**7,481**	**480**	***7%***
Aloha	1,999	1,989	1,937	1,899	1,774	1,773	-226	*-11%*
Beaverton	1,568	1,649	1,692	1,773	1,644	1,513	-55	*-4%*
Mountainside	0	0	0	0	873	1,350	1,350	--
Southridge	1,666	1,615	1,581	1,598	1,440	1,401	-265	*-16%*
Sunset	1,946	2,020	2,124	2,228	2,068	2,019	73	*4%*
Westview	2,406	2,450	2,553	2,576	2,484	2,364	-42	*-2%*
High School Totals	**9,585**	**9,723**	**9,887**	**10,074**	**10,283**	**10,420**	**835**	***9%***
ACMA	713	727	718	713	684	699	-14	*-2%*
Community School	182	182	164	164	161	151	-31	*-17%*
Health and Sciences School	695	678	702	697	721	740	45	*6%*
Intl. School of Beaverton	868	869	884	870	882	862	-6	*-1%*
Rachel Carson Env. Science	176	182	181	180	178	182	6	*3%*
School of Science and Tech.	174	158	161	176	173	163	-11	*-6%*
Options School Totals	**2,808**	**2,796**	**2,810**	**2,800**	**2,799**	**2,797**	**-11**	***0%***
District Totals	**37,876**	**38,164**	**38,894**	**38,958**	**38,853**	**38,891**	**1,015**	***3%***

Source: Beaverton School District

ENROLLMENT FORECASTS

District-wide Long-range Forecast Methodology

To ensure that enrollment forecasts are consistent with the dynamics of likely population growth within the District, we combine the grade progression enrollment model with a demographic cohort-component model used to forecast population for the District by age and sex. The components of population change are births, deaths, and migration. Using age-specific fertility rates, age-sex specific mortality rates, age-sex specific migration rates, estimates of recent net migration levels, and forecasts of future migration levels, each component is applied to the base year population in a manner that simulates the actual dynamics of population change. In addition to the middle series, or most likely, population and enrollment forecasts, we also prepared high and low series forecasts with alternative assumptions about future net migration.

The 2000 and 2010 Census results were used as a baseline for the population forecasts. By "surviving" the 2000 population and 2000s births (estimating the population in each age group that would survive to the year 2010) and comparing the "survived" population to the actual 2010 population by age group, we were able to estimate the overall level of net migration between 2000 and 2010 as well as net migration by gender and age cohort. The net migration data was used to develop initial net migration rates, which were used as a baseline for rates used to forecast net migration for the 2010 to 2030 period.

We estimated the number of births to women residing within the District each year from 1999 to 2017, using data from the Oregon Department of Human Services, Center for Health Statistics. Detailed information including the age of mothers is used to calculate fertility rates by age group for both 2000 and 2010.

The total fertility rate (TFR) is an estimate of the number of children that would be born to the average woman during her child-bearing years based on age- specific fertility rates observed at a given time. The TFR for BSD decreased from 2.00 in 2000 to 1.80 in 2010. Based on national trends and BSD births observed through 2017, we adjusted the 2010 age-specific fertility rates, decreasing rates for women under 30 and increasing rates for women age 30 and older. These adjustments result in a decrease in TFR to 1.48 in 2020. However, this is extremely low fertility;

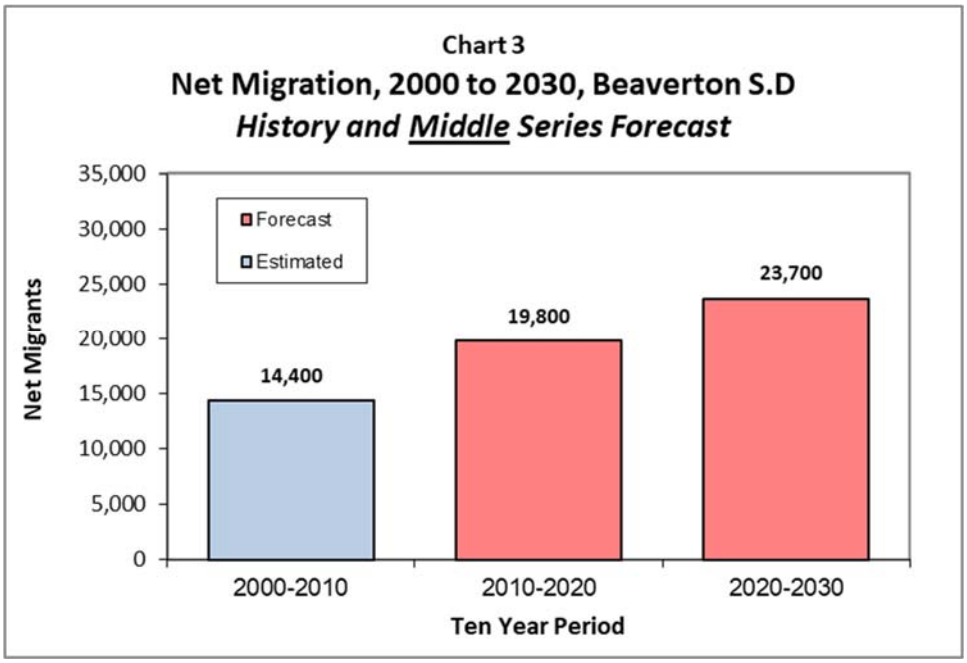
we expect a slight increase in TFR to 1.60 by 2025. The same set of future fertility rates were used in all three forecast scenarios, but the number of births varies slightly between scenarios due to differences in the populations of women in child-bearing ages.

School enrollment is linked to the population forecast in two ways. First, the kindergarten and first grade enrollments at the time of the most recent census (the 2009-10 school year) are compared to the population at the appropriate ages counted in the census. The "capture rate," or ratio of enrollment to population, is an estimate of the share of area children who are enrolled in BSD schools. Assumptions for capture rates based on census data are used to bring new kindergarten and first grade students into the District's enrollment. We estimate that the kindergarten capture rate is close to 0.80, indicating that 20 percent of BSD kindergarten age residents may be enrolled in private or charter schools, or home schooled.

The other way that historic population and enrollment are linked is through migration. Annual changes in school enrollment by cohort closely follow trends in the net migration of children in the District's population. Once the students are in first grade, a set of baseline grade progression rates (GPRs) are used to move students from one grade to the next. Grade progression rates are the ratio of enrollment in an individual grade to enrollment in the previous grade the previous year. Baseline rates, usually 1.00 for elementary grades, represent a scenario under which there is no change due to migration. Enrollment change beyond the baseline is added (or subtracted, if appropriate) at each grade level depending on the migration levels of the overall population by single years of age.

District-wide Population Forecasts

Although the population within the District is forecast to continue to grow, the average annual growth rate is expected to decline. The District added about 23,000 fewer residents in the 2000s than in the 1990s. Most of the difference was due to a lower level of positive net migration (more people moving in than moving out). Natural increase (births minus deaths) has also contributed less to population growth since 2000 due to an aging population and lower fertility. Net migration in the 2010 to 2020 and 2020 to 2030 periods are forecast to be somewhat higher than in the 2000 to 2010 period. Chart 3 shows the 2000 to 2010 estimates and 2010 to 2030 forecasts of BSD population growth attributable to net migration under the middle series. Forecasts of net migration under the high and low series are presented in charts in Appendix A.



The middle series forecast for 2030 population in the BSD is 329,648, an increase of 76,450 persons from the 2010 Census (1.3 percent average annual growth). School-age population (5 to 17) is forecast to increase at a slower rate than overall population. The 2,463 person growth in school-age population between 2010 and 2030 amounts to 5 percent in the 20 year period (0.3 percent average annual growth). These middle series district-wide population forecasts by age group are presented in Table 9. The high and low population forecasts by age group are included in Appendix A.

Table 9

Population by Age Group, Middle Series Forecast

Beaverton School District, 2000 to 2030

	2000 Census	2010 Census	2020 Forecast	2030 Forecast	2010 to 2030 Change Number	2010 to 2030 Change Percent
Under Age 5	16,362	18,090	16,148	18,975	885	*5%*
Age 5 to 9	16,091	17,848	17,820	18,102	254	*1%*
Age 10 to 14	14,820	16,892	19,200	17,796	904	*5%*
Age 15 to 17	8,581	10,170	11,328	11,475	1,305	*13%*
Age 18 to 19	4,971	5,390	6,556	6,998	1,608	*30%*
Age 20 to 24	15,119	15,434	17,951	20,406	4,972	*32%*
Age 25 to 29	19,043	21,027	23,082	26,531	5,504	*26%*
Age 30 to 34	18,842	20,415	20,512	23,679	3,264	*16%*
Age 35 to 39	18,647	20,176	22,703	25,378	5,202	*26%*
Age 40 to 44	18,376	18,916	21,414	21,620	2,704	*14%*
Age 45 to 49	16,690	18,466	20,498	23,069	4,603	*25%*
Age 50 to 54	13,684	17,274	18,077	20,571	3,297	*19%*
Age 55 to 59	9,082	15,558	17,698	19,538	3,980	*26%*
Age 60 to 64	6,151	12,313	15,944	16,673	4,360	*35%*
Age 65 to 69	4,872	8,078	14,269	16,228	8,150	*101%*
Age 70 to 74	4,302	5,394	11,180	14,237	8,843	*164%*
Age 75 to 79	3,995	4,122	7,047	12,217	8,095	*196%*
Age 80 to 84	2,643	3,523	4,495	8,752	5,229	*148%*
Age 85 and over	2,321	4,112	5,399	7,403	3,291	*80%*
Total Population	**214,592**	**253,198**	**291,322**	**329,648**	**76,450**	***26%***
Total age 5 to 17	39,492	44,910	48,348	47,373	2,463	*5%*
share age 5 to 17	*18.4%*	*17.7%*	*16.6%*	*14.4%*		

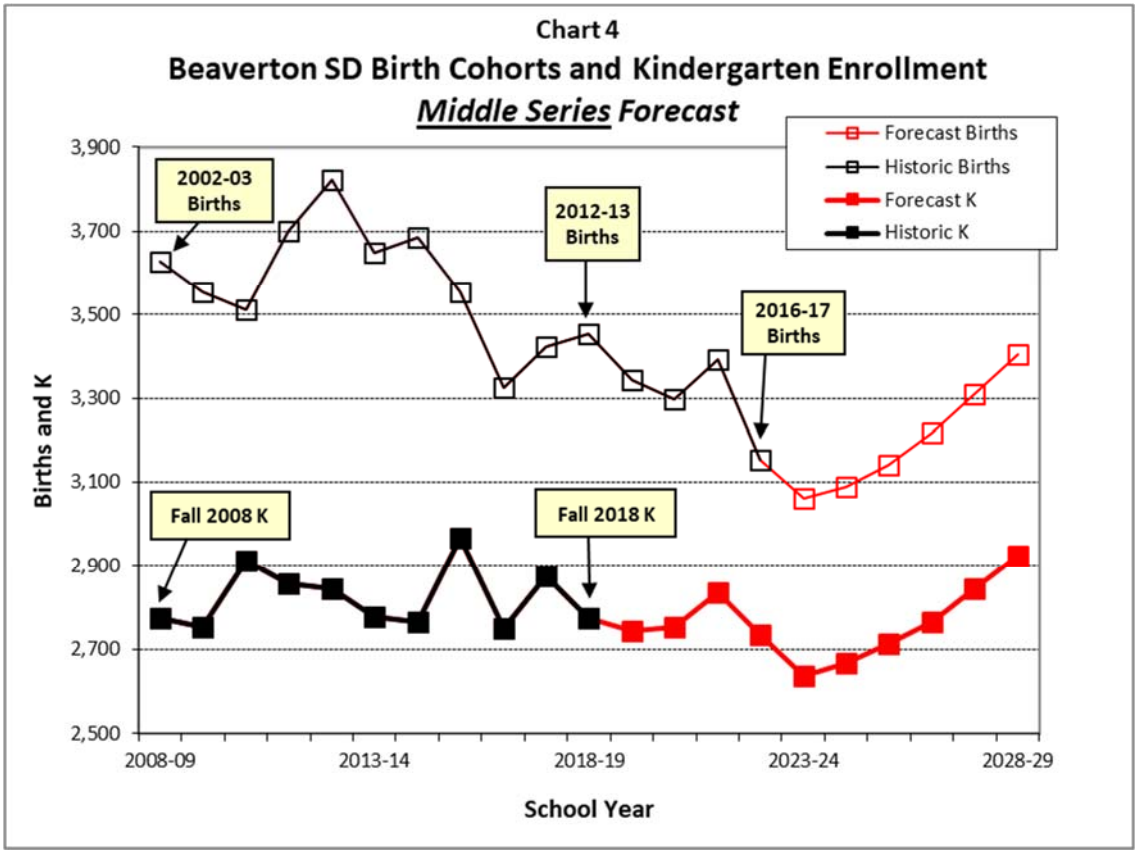
		2000-2010	2010-2020	2020-2030
Population Change		**38,606**	**38,124**	**38,326**
Percent		*18%*	*15%*	*13%*
Average Annual		*1.7%*	*1.4%*	*1.2%*

Source: U.S. Census Bureau, 2000, and 2010 Censuses; data aggregated to BSD boundary by Portland State University Population Research Center. PSU-PRC Forecasts, 2020 and 2030.

District-wide Enrollment Forecasts

Chart 4 compares the historic and forecast number of births to District residents with the historic and forecast number of BSD kindergarten students under the middle series. Births are compiled by kindergarten cohorts (September to August). The difference between lagged births and BSD kindergarten enrollment represents a combination of net migration and the kindergarten capture rate; many children move into and out of the District between birth and age five and not all District residents attend BSD kindergartens. Although kindergarten enrollments have fallen in most of

the years shown in the chart, the decline has not been as steep as the decline in births. Beginning in fall 2015, when full day kindergarten was fully implemented, the gap between kindergarten enrollment and previous births to BSD residents has been narrower than in years preceding 2015. In the four years from fall 2015 to fall 2018 the ratio of kindergarten to births has averaged 0.83, compared with an average of 0.77 in the eight years from fall 2007 to fall 2014.



In the *Middle Series* forecast, overall K-12 enrollment is expected to decrease by 966 students (two percent) in the next 10 years although K-12 enrollment initially increases slightly in 2019-20 and 2020-21 before declining through the forecast horizon. K-5th grade enrollment steadily declines through 2024-25 before reaching a plateau and slight recovery, ending the 10 year forecast with nearly 600 fewer K-5 students (three percent). The K-5th grade enrollment decline makes up over 60 percent of the total loss in student enrollment. After relative stability through 2021-22, grade 6-8 enrollments decline sharply in 2022-23 followed by additional decreases through 2028-29. Over the ten year forecast period grades 6-8 decline by 420 students (four percent). In contrast to K-8, high school enrollments grow by 568 students (five percent) through 2023-24 before declining, leading to a 46 student increase (one percent) over the ten-year period.

The *Low Series* forecast depicts a scenario under which the District experiences very little growth due to net migration, resulting in significant enrollment losses following the recent ongoing birth downturn. K-12 enrollment falls by 2,166 students (six percent) over the 10 year period. K-5th grade enrollments also decline steadily, resulting in 1,267 fewer students (seven percent) over the 10 year forecast. Similar to K-5, middle school enrollments also decline each year, leading to 745 fewer students (eight percent) in 10 years. After an initial gain of 537 students through 2022-23, high school enrollments decline, and end the 10 year forecast horizon with a net loss of 154 students (one percent).

The *High Series* forecast includes more growth due to net migration, leading to more cohort growth and a greater recovery in births. Even so, the recent birth downturn leads to K-5 enrollment loss of 289 students (two percent) between 2018-19 and 2023-24, and relatively small K-12 growth of 421 students (one percent) over the 10 year period. While elementary and middle grades lose enrollment in the first five years of the forecast, high school grades continue to grow, adding 730 students (six percent) by 2023-24. Toward the end of the forecast, the smaller cohorts reach high school, resulting in a 335 student (three percent) loss in 9th-12th grade enrollment between 2023-24 and 2028-29.

Table 10 contains annual district-wide forecasts by school level under the three scenarios for the District. Detailed annual forecasts by individual grades are included in Appendix A.

Table 10

Beaverton S.D. Enrollment Forecasts by School Level, 2019-20 to 2028-29

		LOW SERIES FORECAST						FORECAST CHANGE		
Grade	Actual 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2028-29	2018-19 to 2023-24	2023-24 to 2028-29	2018-19 to 2028-29
K-5	17,672	17,352	17,131	16,976	16,897	16,591	16,405	-1,081	-186	-1,267
6-8	9,379	9,364	9,344	9,336	9,108	9,070	8,634	-309	-436	-745
9-12	11,840	12,032	12,257	12,301	12,377	12,345	11,686	505	-659	-154
Total	**38,891**	**38,748**	**38,732**	**38,613**	**38,382**	**38,006**	**36,725**	**-885**	**-1,281**	**-2,166**
Annual change		*-143*	*-16*	*-119*	*-231*	*-376*	*-256*			
		-0.4%	*0.0%*	*-0.3%*	*-0.6%*	*-1.0%*	*-0.7%*			

		MIDDLE SERIES FORECAST						FORECAST CHANGE		
Grade	Actual 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2028-29	2018-19 to 2023-24	2023-24 to 2028-29	2018-19 to 2028-29
K-5	17,672	17,499	17,346	17,282	17,273	17,025	17,080	-647	55	-592
6-8	9,379	9,407	9,396	9,403	9,192	9,172	8,959	-207	-213	-420
9-12	11,840	12,079	12,302	12,347	12,429	12,408	11,886	568	-522	46
Total	**38,891**	**38,985**	**39,044**	**39,032**	**38,894**	**38,605**	**37,925**	**-286**	**-680**	**-966**
Annual change		*94*	*59*	*-12*	*-138*	*-289*	*-136*			
		0.2%	*0.2%*	*0.0%*	*-0.4%*	*-0.7%*	*-0.3%*			

		HIGH SERIES FORECAST						FORECAST CHANGE		
Grade	Actual 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2028-29	2018-19 to 2023-24	2023-24 to 2028-29	2018-19 to 2028-29
K-5	17,672	17,618	17,523	17,511	17,562	17,383	17,836	-289	453	164
6-8	9,379	9,449	9,460	9,489	9,300	9,304	9,241	-75	-63	-138
9-12	11,840	12,129	12,378	12,450	12,561	12,570	12,235	730	-335	395
Total	**38,891**	**39,196**	**39,361**	**39,450**	**39,423**	**39,257**	**39,312**	**366**	**55**	**421**
Annual change		*305*	*165*	*89*	*-27*	*-166*	*11*			
		0.8%	*0.4%*	*0.2%*	*-0.1%*	*-0.4%*	*0.0%*			

**Note: Enrollments do not include students in Pre-Kindergarten, Self Contained Special Education, Alternative, and Early College programs.*

Population Research Center, Portland State University, May 2019.

Individual School Forecasts

Forecasts for individual schools are prepared under the assumption that current (2018-19) boundaries and grade configurations remain constant. The only exceptions to this are that the Summa Programs at Cedar Park and Highland Park Middle Schools are being phased out, having only 8th grade in 2019-20 and no enrollment after 2019-20. Although school districts may respond to enrollment change in various ways that might alter the status quo, such as attendance area boundary changes, opening new schools, or offering special programs, the forecasts do not incorporate any such changes, and are not constrained by school capacities.

To forecast enrollment at neighborhood schools, we first forecast the number of residents in each school attendance area. Information guiding the forecasts includes five years of historic enrollment by place of residence, recent building permits, residential development data compiled by BSD staff, and residential capacity estimates from Metro.[11]

The resident forecasts are top-down, with K-12 forecasts for the six high school attendance areas done first and component elementary school areas (whole or part) done next. Kindergarten residents for high school attendance areas are forecast each year based on birth cohorts and trends in shares of district-wide kindergarten, adjusted for the level of expected future housing growth. At the elementary attendance area level the relationship between kindergarten students and births fluctuates widely, so kindergarten residents within elementary areas are forecast based on recent trends and are controlled to the larger high school attendance area forecasts. Grades 1-12 enrollments are forecast using grade progression rates (GPRs) based on recent cohort change, again adjusted for housing growth at the high school and elementary school levels.

The resident forecast for each neighborhood school relies on its attendance area resident forecast and assumptions about its capture rate of attendance area residents at the entry grade (kindergarten, sixth, or ninth grade). These entry grade rates are based on recent trends. For example, an elementary school with a forecast of 100 BSD kindergarten residents and a kindergarten capture rate of 0.95 would be expected to enroll 95 neighborhood students. Forecasts of residents at other grades are based on GPRs.

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[11] See *Urban Growth Report*, Appendix 2, Buildable Lands Inventory, Metro, December 13, 2018. Linked from https://www.oregonmetro.gov/public-projects/2018-growth-management-decision.

Most neighborhood schools also enroll a small number of students from outside of their attendance areas. Our default assumption is that entry grade enrollments will continue to remain at their fall 2018 levels. Enrollment of non-residents at subsequent grades are based on GPRs. Final forecasts for individual schools are derived by combining resident and non-resident enrollments and are consistent with the district-wide *Middle Series* forecasts.

Table 11 presents annual enrollment forecasts for each school.

Table 11
Enrollment Forecasts for Individual Schools, 2019-20 to 2028-29

School	Actual 2018-19	Forecast 2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	Change 2018-19-2028-29
Aloha-Huber Park (K-8)	926	906	885	875	854	834	824	824	818	821	828	-98
Barnes	634	605	587	593	590	583	588	589	588	585	588	-46
Beaver Acres*	623	612	602	587	582	572	586	585	585	585	591	-32
Bethany	534	530	517	506	501	485	486	483	484	483	490	-44
Bonny Slope	650	664	674	685	702	698	683	687	688	687	693	43
Cedar Mill	428	440	442	434	425	416	410	407	405	404	409	-19
Chehalem	471	468	462	439	441	426	419	414	412	412	417	-54
Cooper Mt.	469	456	444	442	435	424	431	431	431	430	436	-33
Elmonica*	757	768	777	776	775	766	744	741	737	735	745	-12
Errol Hassell	441	442	437	445	439	435	435	431	426	422	425	-16
Findley	685	652	620	605	593	587	585	585	587	583	585	-100
Fir Grove	385	367	361	355	351	350	352	351	351	354	358	-27
Greenway	332	328	320	311	304	299	301	301	299	297	299	-33
Hazeldale	440	445	454	457	493	512	519	546	574	595	615	175
Hiteon	638	629	621	604	587	579	576	573	570	568	573	-65
Jacob Wismer	725	717	697	691	679	653	661	652	644	636	640	-85
Kinnaman	630	584	558	551	539	527	529	525	525	524	531	-99

**These figures reflect the 2018-19 attendance boundaries. They do not include a proposed adjustment for Elmonica, Beaver Acres and McKinley elementary schools, which was under consideration at the same time as the development of this forecast.*

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Table 11 (cont.)

Enrollment Forecasts for Individual Schools, 2019-20 to 2028-29

School	Actual 2018-19	Forecast 2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	Change 2018-19-2028-29
McKay	283	261	263	251	261	265	246	244	243	241	242	-41
McKinley*	575	567	560	562	572	560	557	554	553	554	562	-13
Montclair	307	299	300	292	297	294	293	291	289	288	289	-18
Nancy Ryles	642	644	636	657	648	627	612	603	599	595	598	-44
Oak Hills	552	553	560	563	563	562	542	534	531	527	532	-20
Raleigh Hills (K-8)	531	542	556	561	553	545	538	530	525	527	529	-2
Raleigh Park	353	340	323	315	322	315	307	304	303	304	305	-48
Ridgewood	399	384	371	376	375	369	374	374	375	378	382	-17
Rock Creek	578	569	572	565	560	545	550	547	547	547	554	-24
Sato	596	632	673	698	710	727	726	738	756	771	792	196
Scholls Heights	521	524	536	547	561	569	580	586	591	593	599	78
Sexton Mt.	526	532	533	530	532	525	504	494	491	490	496	-30
Springville (K-8)	821	858	868	878	884	885	875	880	888	892	905	84
Terra Linda	332	338	332	322	322	320	311	307	304	301	301	-31
Vose	647	640	627	621	623	590	582	581	581	579	583	-64
West Tualatin View	331	328	309	303	300	294	295	293	291	290	293	-38
William Walker	431	415	405	399	394	381	378	375	373	373	376	-55
Elementary Totals	**18,193**	**18,039**	**17,882**	**17,796**	**17,767**	**17,519**	**17,399**	**17,360**	**17,364**	**17,371**	**17,561**	**-632**

**These figures reflect the 2018-19 attendance boundaries. They do not include a proposed adjustment for Elmonica, Beaver Acres and McKinley elementary schools, which was under consideration at the same time as the development of this forecast.*

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Table 11 (cont.)
Enrollment Forecasts for Individual Schools, 2019-20 to 2028-29

School	Actual 2018-19	Forecast 2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	Change 2018-19-2028-29
Cedar Park	931	941	968	976	968	948	925	927	909	906	903	-28
Cedar Park Summa	65	29	0	0	0	0	0	0	0	0	0	-65
Conestoga	964	950	923	929	931	957	957	959	945	959	972	8
Five Oaks	785	791	784	809	761	747	732	743	735	739	732	-53
Highland Park	794	793	809	807	775	764	743	742	725	735	729	-65
Highland Park Summa	54	27	0	0	0	0	0	0	0	0	0	-54
Meadow Park	668	651	666	658	642	639	627	620	605	613	610	-58
Meadow Park Summa	126	140	159	150	139	139	136	135	131	133	132	6
Mountain View	888	897	896	857	814	792	761	758	742	748	741	-147
Stoller	1,162	1,223	1,244	1,285	1,300	1,327	1,332	1,321	1,304	1,318	1,323	161
Stoller Summa	352	351	344	359	359	365	363	366	359	363	365	13
Whitford	607	604	592	587	543	536	523	525	512	511	511	-96
Whitford Summa	85	97	107	104	98	96	93	94	94	92	92	7
Middle School Totals	**7,481**	**7,494**	**7,492**	**7,521**	**7,330**	**7,310**	**7,192**	**7,190**	**7,061**	**7,117**	**7,110**	**-371**
Aloha	1,773	1,737	1,690	1,731	1,752	1,733	1,726	1,649	1,602	1,564	1,522	-251
Beaverton	1,513	1,476	1,499	1,447	1,453	1,441	1,402	1,372	1,346	1,272	1,246	-267
Mountainside	1,350	1,759	1,846	1,846	1,821	1,829	1,837	1,821	1,844	1,842	1,837	487
Southridge	1,401	1,363	1,431	1,444	1,434	1,371	1,350	1,284	1,232	1,214	1,155	-246
Sunset	2,019	1,988	2,056	2,073	2,057	2,061	2,039	2,000	1,988	1,950	1,917	-102
Westview	2,364	2,335	2,347	2,378	2,495	2,556	2,618	2,692	2,741	2,790	2,794	430
High School Totals	**10,420**	**10,658**	**10,869**	**10,919**	**11,012**	**10,991**	**10,972**	**10,818**	**10,753**	**10,632**	**10,471**	**51**
ACMA	699	705	704	705	689	686	684	684	684	684	684	-15
Community School	151	150	147	137	137	137	137	137	137	137	137	-14
Health and Sciences School	740	752	756	771	773	776	776	776	776	776	776	36
Intl. School of Beaverton	862	848	864	856	859	859	859	859	859	859	859	-3
Rachel Carson Env. Science	182	178	174	174	174	174	174	174	174	174	174	-8
School of Science and Tech.	163	161	156	153	153	153	153	153	153	153	153	-10
Options School Totals	2,797	2,794	2,801	2,796	2,785	2,785	2,783	2,783	2,783	2,783	2,783	-14
District Totals	**38,891**	**38,985**	**39,044**	**39,032**	**38,894**	**38,605**	**38,346**	**38,151**	**37,961**	**37,903**	**37,925**	**-966**

Population Research Center, Portland State University, May 2019.

FORECAST ACCURACY

PRC previously prepared forecasts for the District in 2002, 2008, and 2012. The 2008 and 2012 series included forecasts for the 2018-19 school year. In Table 12, actual BSD enrollment by grade level in fall 2018 is compared with the forecasts that were prepared in 2012 and in 2008. As a measure of average error for grade levels, the mean absolute percent error (MAPE) is included in the tables.

The district-wide forecasts prepared in 2012 and 2008 both predicted K-12 total enrollments higher than the actual fall 2018 enrollment. Those forecasts anticipated neither the prolonged downturn in births nor the delay in the housing recovery following the recession. The largest error in each series was in the projected elementary grades enrollment. The 2008 mid-range forecast predicted 1,644 (9.3 percent) more K-5th grade students than actual fall 2018 enrollment. The 2012 K-5 enrollments forecast for 2018-19 were closer to actual enrollment but still high by 961 students (5.4 percent).

The most accurate forecast for 2018-19 was the low range forecast prepared 11 years ago. Overall K-12 enrollment was just 77 students (0.2 percent) below actual enrollment, with school level errors of +325 (1.8 percent) for K-5th grade, -431 (-4.6 percent) for 6th-8th grade, and +29 (0.2 percent) for 9th-12th grade.

Table 12

Fall 2018 Enrollment Compared to Previous Forecasts by Grade Level

		7 year forecast[1]			11 yr Low-range forecast[2]			11 yr Mid-range forecast[2]			11 yr High-range forecast[2]		
Grade	**Actual**	**Fcst.**	**Diff.**	**Error**	**Fcst.**	**Diff.**	**Error**	**Fcst.**	**Diff.**	**Error**	**Fcst.**	**Diff.**	**Error**
K	2,774	3,018	244	*8.8%*	2,781	7	*0.3%*	3,013	239	*8.6%*	3,247	473	*17.1%*
1	2,949	3,113	164	*5.6%*	3,062	113	*3.8%*	3,306	357	*12.1%*	3,549	600	*20.3%*
2	2,839	3,071	232	*8.2%*	3,057	218	*7.7%*	3,290	451	*15.9%*	3,520	681	*24.0%*
3	2,987	3,135	148	*5.0%*	3,048	61	*2.0%*	3,267	280	*9.4%*	3,488	501	*16.8%*
4	3,023	3,126	103	*3.4%*	3,035	12	*0.4%*	3,240	217	*7.2%*	3,448	425	*14.1%*
5	3,100	3,170	70	*2.3%*	3,014	-86	*-2.8%*	3,200	100	*3.2%*	3,392	292	*9.4%*
6	3,095	3,235	140	*4.5%*	3,034	-61	*-2.0%*	3,174	79	*2.6%*	3,325	230	*7.4%*
7	3,142	3,170	28	*0.9%*	3,010	-132	*-4.2%*	3,119	-23	*-0.7%*	3,235	93	*3.0%*
8	3,142	3,176	34	*1.1%*	2,904	-238	*-7.6%*	3,085	-57	*-1.8%*	3,273	131	*4.2%*
9	3,166	3,190	24	*0.8%*	3,039	-127	*-4.0%*	3,233	67	*2.1%*	3,432	266	*8.4%*
10	3,148	3,267	119	*3.8%*	3,127	-21	*-0.7%*	3,243	95	*3.0%*	3,362	214	*6.8%*
11	2,820	2,932	112	*4.0%*	2,929	109	*3.9%*	3,023	203	*7.2%*	3,130	310	*11.0%*
12	2,706	2,871	165	*6.1%*	2,774	68	*2.5%*	2,863	157	*5.8%*	2,963	257	*9.5%*
Total	**38,891**	**40,474**	**1,583**	***4.1%***	**38,814**	**-77**	***-0.2%***	**41,056**	**2,165**	***5.6%***	**43,364**	**4,473**	***11.5%***
MAPE[3]				***4.2%***			***3.2%***			***6.1%***			***11.7%***

1. *Forecast for 2018-19 by PSU-PRC, baseline 2011-12 enrollment, March 2012.*
2. *Forecast for 2018-19 by PSU-PRC, baseline 2007-08 enrollment, October 2008.*
3. *Mean absolute percent error for individual grades K-12.*

APPENDIX A

DISTRICT-WIDE POPULATION FORECASTS AND ENROLLMENT FORECASTS

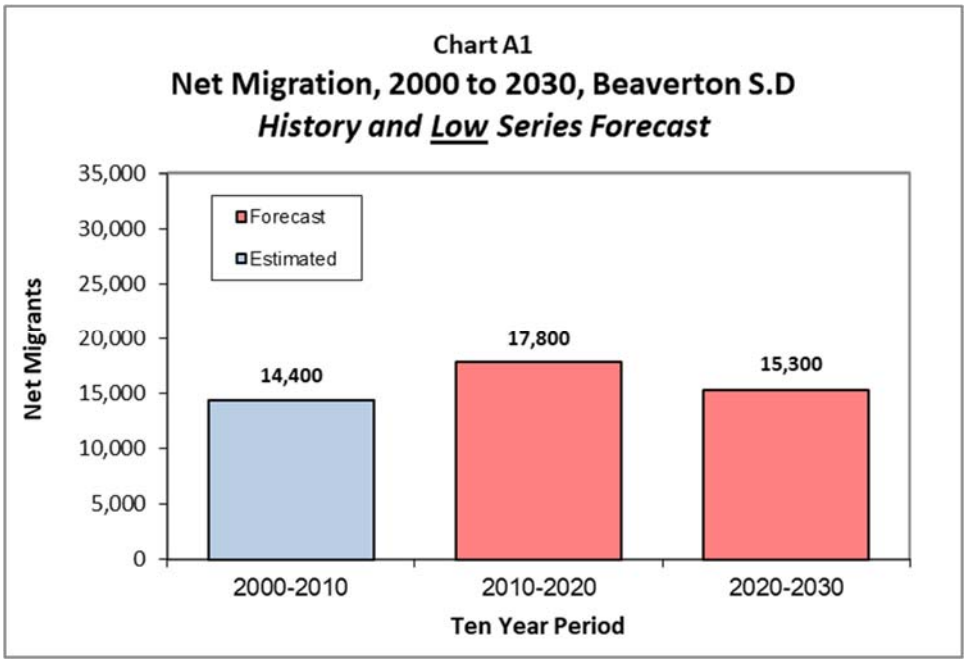
Chart A1
Net Migration, 2000 to 2030, Beaverton S.D
History and Low Series Forecast
Forecast
Estimated
Net Migrants
35,000
30,000
25,000
20,000
15,000
10,000
5,000
0
14,400
17,800
15,300
2000-2010
2010-2020
2020-2030
Ten Year Period

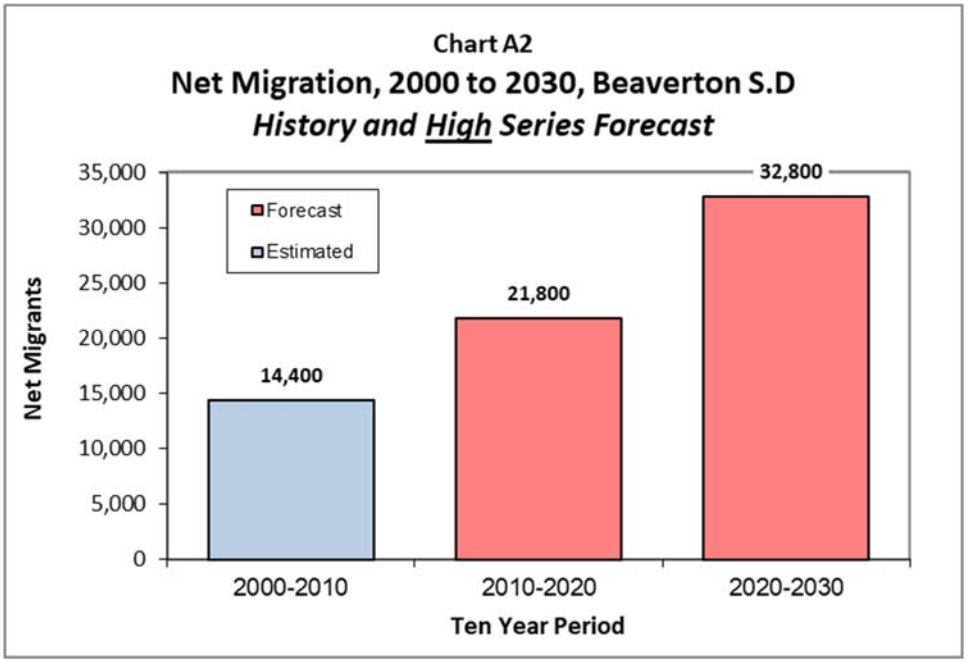
Chart A2
Net Migration, 2000 to 2030, Beaverton S.D
History and High Series Forecast
Forecast
Estimated
Net Migrants
35,000
30,000
25,000
20,000
15,000
10,000
5,000
0
14,400
21,800
32,800
2000-2010
2010-2020
2020-2030
Ten Year Period

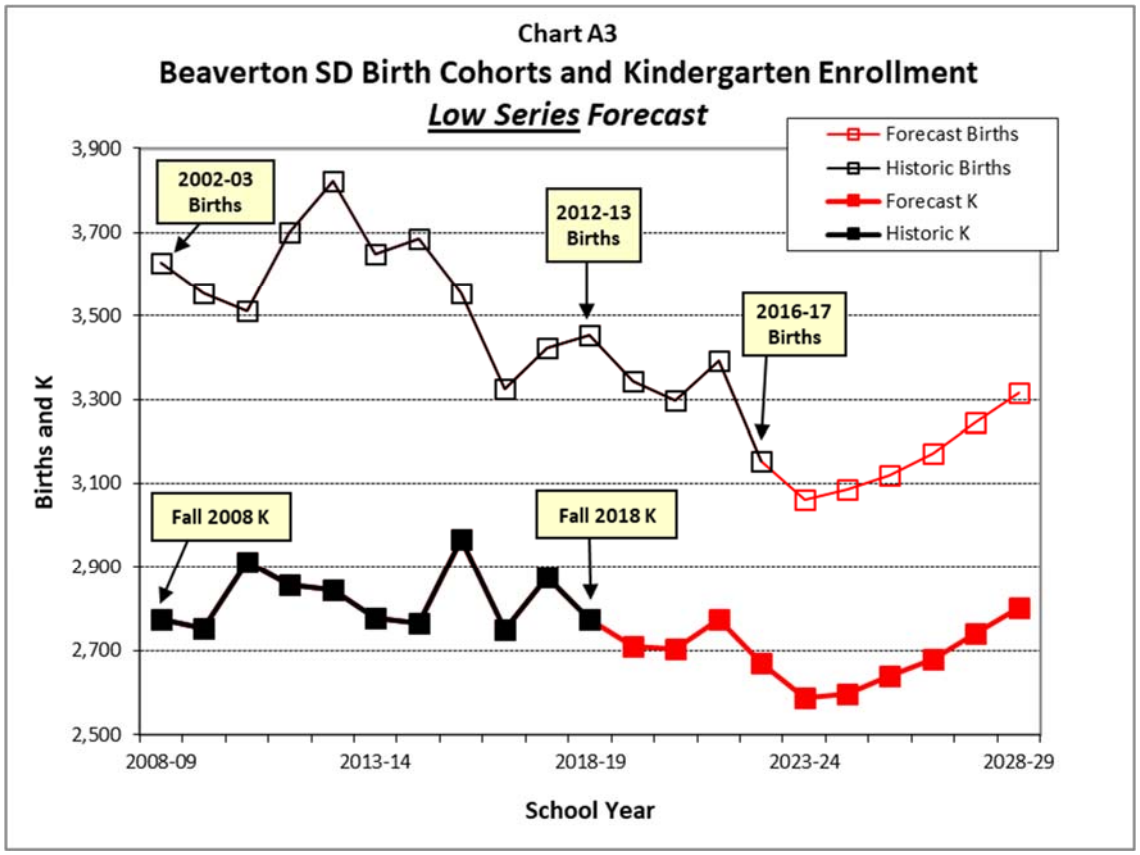
Chart A3
Beaverton SD Birth Cohorts and Kindergarten Enrollment
Low Series Forecast
Forecast Births
Historic Births
Forecast K
Historic K
2002-03 Births
2012-13 Births
2016-17 Births
Fall 2008 K
Fall 2018 K
Births and K
3,900
3,700
3,500
3,300
3,100
2,900
2,700
2,500
2008-09
2013-14
2018-19
2023-24
2028-29
School Year

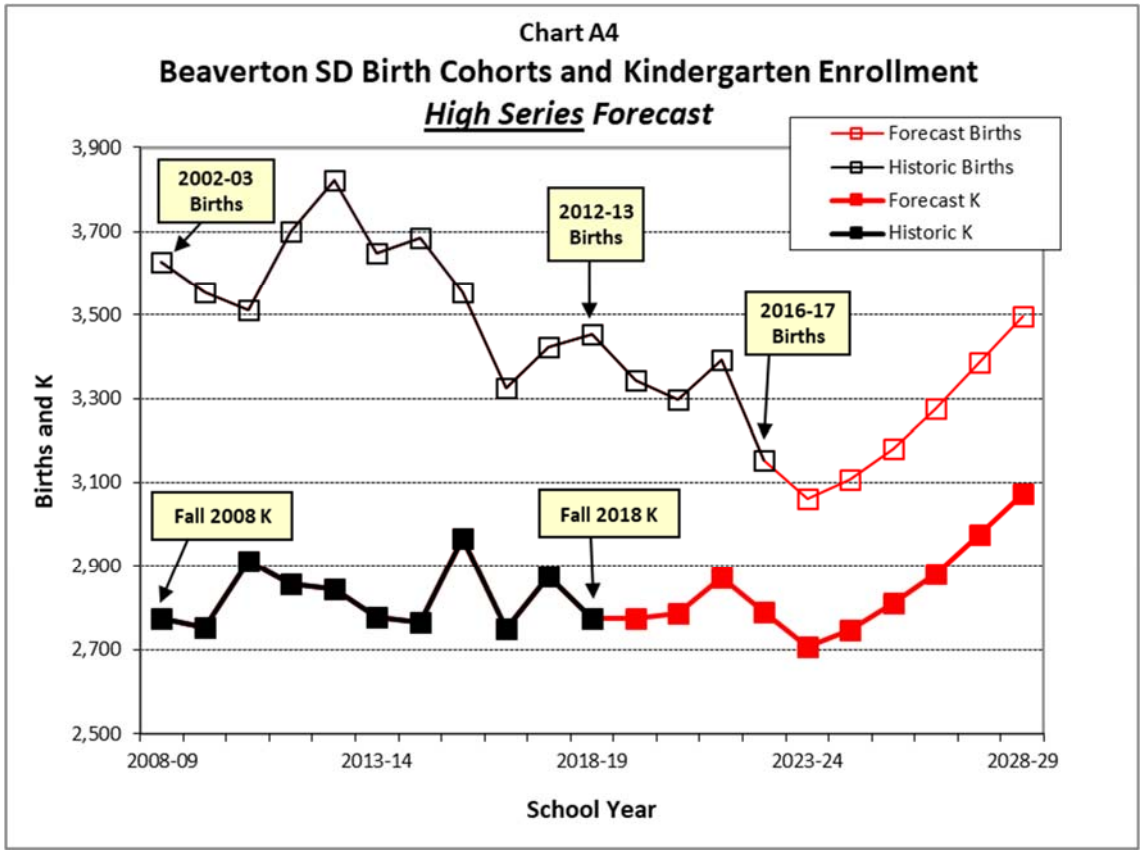
Chart A4
Beaverton SD Birth Cohorts and Kindergarten Enrollment
High Series Forecast
Forecast Births
Historic Births
Forecast K
Historic K
2002-03 Births
2012-13 Births
2016-17 Births
Fall 2008 K
Fall 2018 K
Births and K
3,900
3,700
3,500
3,300
3,100
2,900
2,700
2,500
2008-09
2013-14
2018-19
2023-24
2028-29
School Year

Table A1

Population by Age Group, Low Series Forecast
Beaverton School District, 2000 to 2030

	2000 Census	2010 Census	2020 Forecast	2030 Forecast	2010 to 2030 Change	
					Number	Percent
Under Age 5	16,362	18,090	15,942	17,933	-157	*-1%*
Age 5 to 9	16,091	17,848	17,676	17,440	-408	*-2%*
Age 10 to 14	14,820	16,892	19,121	17,316	424	*3%*
Age 15 to 17	8,581	10,170	11,290	11,326	1,156	*11%*
Age 18 to 19	4,971	5,390	6,441	6,734	1,344	*25%*
Age 20 to 24	15,119	15,434	17,789	19,871	4,437	*29%*
Age 25 to 29	19,043	21,027	22,793	24,126	3,099	*15%*
Age 30 to 34	18,842	20,415	20,272	21,923	1,508	*7%*
Age 35 to 39	18,647	20,176	22,510	24,377	4,201	*21%*
Age 40 to 44	18,376	18,916	21,287	21,040	2,124	*11%*
Age 45 to 49	16,690	18,466	20,445	22,527	4,061	*22%*
Age 50 to 54	13,684	17,274	18,082	20,192	2,918	*17%*
Age 55 to 59	9,082	15,558	17,708	19,219	3,661	*24%*
Age 60 to 64	6,151	12,313	15,916	16,494	4,181	*34%*
Age 65 to 69	4,872	8,078	14,178	16,018	7,940	*98%*
Age 70 to 74	4,302	5,394	11,097	13,971	8,577	*159%*
Age 75 to 79	3,995	4,122	6,977	11,907	7,785	*189%*
Age 80 to 84	2,643	3,523	4,414	8,478	4,955	*141%*
Age 85 and over	2,321	4,112	5,349	7,133	3,021	*73%*
Total Population	**214,592**	**253,198**	**289,288**	**318,025**	**64,827**	***22%***
Total age 5 to 17	39,492	44,910	48,087	46,082	1,172	*2%*
share age 5 to 17	*18.4%*	*17.7%*	*16.6%*	*14.5%*		

		2000-2010	2010-2020	2020-2030
Population Change		**38,606**	**36,090**	**28,738**
Percent		*18%*	*14%*	*10%*
Average Annual		*1.7%*	*1.3%*	*1.0%*

Source: U.S. Census Bureau, 2000, and 2010 Censuses; data aggregated to BSD boundary by Portland State University Population Research Center. PSU-PRC Forecasts, 2020 and 2030.

Table A2

Population by Age Group, High Series Forecast
Beaverton School District, 2000 to 2030

	2000 Census	2010 Census	2020 Forecast	2030 Forecast	2010 to 2030 Change	
					Number	Percent
Under Age 5	16,362	18,090	16,237	19,905	1,815	*10%*
Age 5 to 9	16,091	17,848	17,910	18,702	854	*5%*
Age 10 to 14	14,820	16,892	19,312	18,221	1,329	*8%*
Age 15 to 17	8,581	10,170	11,424	11,795	1,625	*16%*
Age 18 to 19	4,971	5,390	6,773	7,693	2,303	*43%*
Age 20 to 24	15,119	15,434	18,113	21,088	5,654	*37%*
Age 25 to 29	19,043	21,027	23,405	28,939	7,912	*38%*
Age 30 to 34	18,842	20,415	20,754	25,180	4,765	*23%*
Age 35 to 39	18,647	20,176	22,792	26,282	6,106	*30%*
Age 40 to 44	18,376	18,916	21,490	22,239	3,323	*18%*
Age 45 to 49	16,690	18,466	20,551	23,617	5,151	*28%*
Age 50 to 54	13,684	17,274	18,138	20,996	3,722	*22%*
Age 55 to 59	9,082	15,558	17,745	19,941	4,383	*28%*
Age 60 to 64	6,151	12,313	16,016	16,973	4,660	*38%*
Age 65 to 69	4,872	8,078	14,320	16,565	8,487	*105%*
Age 70 to 74	4,302	5,394	11,231	14,593	9,199	*171%*
Age 75 to 79	3,995	4,122	7,118	12,510	8,388	*203%*
Age 80 to 84	2,643	3,523	4,560	9,033	5,510	*156%*
Age 85 and over	2,321	4,112	5,471	7,637	3,525	*86%*
Total Population	**214,592**	**253,198**	**293,359**	**341,910**	**88,712**	***30%***
Total age 5 to 17	39,492	44,910	48,646	48,718	3,808	*8%*
share age 5 to 17	*18.4%*	*17.7%*	*16.6%*	*14.2%*		

		2000-2010	2010-2020	2020-2030
Population Change		**38,606**	**40,161**	**48,550**
Percent		*18%*	*16%*	*17%*
Average Annual		*1.7%*	*1.5%*	*1.5%*

Source: U.S. Census Bureau, 2000, and 2010 Censuses; data aggregated to BSD boundary by Portland State University Population Research Center. PSU-PRC Forecasts, 2020 and 2030.

Table A3

Beaverton School District, LOW SERIES Enrollment Forecasts, 2019-20 to 2028-29

	Actual	Forecast									
Grade	**2018-19**	**2019-20**	**2020-21**	**2021-22**	**2022-23**	**2023-24**	**2024-25**	**2025-26**	**2026-27**	**2027-28**	**2028-29**
K	2,774	2,710	2,704	2,773	2,670	2,589	2,596	2,641	2,681	2,741	2,803
1	2,949	2,822	2,762	2,741	2,831	2,716	2,634	2,641	2,687	2,727	2,789
2	2,839	2,963	2,845	2,784	2,763	2,854	2,738	2,655	2,662	2,709	2,749
3	2,987	2,824	2,956	2,838	2,778	2,757	2,847	2,732	2,649	2,656	2,703
4	3,023	3,000	2,844	2,977	2,858	2,798	2,777	2,867	2,751	2,668	2,675
5	3,100	3,033	3,020	2,863	2,997	2,877	2,817	2,796	2,886	2,770	2,686
6	3,095	3,140	3,086	3,073	2,913	3,049	2,927	2,866	2,845	2,936	2,818
7	3,142	3,104	3,164	3,109	3,096	2,935	3,072	2,949	2,888	2,867	2,958
8	3,142	3,120	3,094	3,154	3,099	3,086	2,926	3,062	2,940	2,879	2,858
9	3,166	3,214	3,202	3,175	3,237	3,180	3,167	3,003	3,142	3,017	2,954
10	3,148	3,143	3,200	3,188	3,161	3,223	3,166	3,153	2,990	3,128	3,004
11	2,820	2,942	2,971	3,025	3,013	2,988	3,047	2,993	2,980	2,826	2,957
12	2,706	2,733	2,884	2,913	2,966	2,954	2,930	2,987	2,934	2,922	2,771
Total	**38,891**	**38,748**	**38,732**	**38,613**	**38,382**	**38,006**	**37,644**	**37,345**	**37,035**	**36,846**	**36,725**
Annual change		*-143*	*-16*	*-119*	*-231*	*-376*	*-362*	*-299*	*-310*	*-189*	*-121*
		-0.4%	*0.0%*	*-0.3%*	*-0.6%*	*-1.0%*	*-1.0%*	*-0.8%*	*-0.8%*	*-0.5%*	*-0.3%*
K-5	17,672	17,352	17,131	16,976	16,897	16,591	16,409	16,332	16,316	16,271	16,405
6-8	9,379	9,364	9,344	9,336	9,108	9,070	8,925	8,877	8,673	8,682	8,634
9-12	11,840	12,032	12,257	12,301	12,377	12,345	12,310	12,136	12,046	11,893	11,686

	5 Year Change: 2018-19 to 2023-24		**5 Year Change: 2023-24 to 2028-29**		**10 Year Change: 2018-19 to 2028-29**	
	Growth	**Pct.**	**Growth**	**Pct.**	**Growth**	**Pct.**
K-5	-1,081	*-6%*	-186	*-1%*	-1,267	*-7%*
6-8	-309	*-3%*	-436	*-5%*	-745	*-8%*
9-12	505	*4%*	-659	*-5%*	-154	*-1%*
Total	**-885**	***-2%***	**-1,281**	***-3%***	**-2,166**	***-6%***

**Note: Enrollments do not include students in Pre-Kindergarten, Self Contained Special Education, Alternative, and Early College programs.*

Population Research Center, Portland State University, May 2019

Table A4

Beaverton School District, MIDDLE SERIES Enrollment Forecasts, 2019-20 to 2028-29

	Actual	Forecast									
Grade	**2018-19**	**2019-20**	**2020-21**	**2021-22**	**2022-23**	**2023-24**	**2024-25**	**2025-26**	**2026-27**	**2027-28**	**2028-29**
K	2,774	2,744	2,753	2,837	2,735	2,638	2,666	2,712	2,766	2,845	2,925
1	2,949	2,854	2,815	2,824	2,912	2,807	2,708	2,736	2,784	2,839	2,920
2	2,839	2,985	2,882	2,843	2,852	2,941	2,835	2,735	2,763	2,812	2,867
3	2,987	2,845	2,981	2,878	2,839	2,848	2,937	2,831	2,731	2,759	2,808
4	3,023	3,020	2,870	3,007	2,903	2,864	2,873	2,962	2,856	2,755	2,783
5	3,100	3,051	3,045	2,893	3,032	2,927	2,887	2,896	2,986	2,879	2,777
6	3,095	3,156	3,106	3,100	2,945	3,087	2,980	2,939	2,948	3,040	2,931
7	3,142	3,118	3,181	3,131	3,125	2,969	3,112	3,004	2,963	2,972	3,064
8	3,142	3,133	3,109	3,172	3,122	3,116	2,961	3,103	2,996	2,955	2,964
9	3,166	3,227	3,215	3,190	3,255	3,204	3,197	3,038	3,184	3,074	3,032
10	3,148	3,155	3,212	3,200	3,175	3,240	3,189	3,182	3,024	3,169	3,060
11	2,820	2,953	2,981	3,035	3,024	3,000	3,061	3,013	3,007	2,857	2,994
12	2,706	2,744	2,894	2,922	2,975	2,964	2,940	3,000	2,953	2,947	2,800
Total	**38,891**	**38,985**	**39,044**	**39,032**	**38,894**	**38,605**	**38,346**	**38,151**	**37,961**	**37,903**	**37,925**
Annual change		*94*	*59*	*-12*	*-138*	*-289*	*-259*	*-195*	*-190*	*-58*	*22*
		0.2%	*0.2%*	*0.0%*	*-0.4%*	*-0.7%*	*-0.7%*	*-0.5%*	*-0.5%*	*-0.2%*	*0.1%*
K-5	17,672	17,499	17,346	17,282	17,273	17,025	16,906	16,872	16,886	16,889	17,080
6-8	9,379	9,407	9,396	9,403	9,192	9,172	9,053	9,046	8,907	8,967	8,959
9-12	11,840	12,079	12,302	12,347	12,429	12,408	12,387	12,233	12,168	12,047	11,886

	5 Year Change: 2018-19 to 2023-24		**5 Year Change: 2023-24 to 2028-29**		**10 Year Change: 2018-19 to 2028-29**	
	Growth	**Pct.**	**Growth**	**Pct.**	**Growth**	**Pct.**
K-5	-647	*-4%*	55	*0%*	-592	*-3%*
6-8	-207	*-2%*	-213	*-2%*	-420	*-4%*
9-12	568	*5%*	-522	*-4%*	46	*0%*
Total	**-286**	***-1%***	**-680**	***-2%***	**-966**	***-2%***

**Note: Enrollments do not include students in Pre-Kindergarten, Self Contained Special Education, Alternative, and Early College programs.*

Population Research Center, Portland State University, May 2019

Table A5

Beaverton School District, HIGH SERIES Enrollment Forecasts, 2019-20 to 2028-29

	Actual	Forecast									
Grade	**2018-19**	**2019-20**	**2020-21**	**2021-22**	**2022-23**	**2023-24**	**2024-25**	**2025-26**	**2026-27**	**2027-28**	**2028-29**
K	2,774	2,775	2,787	2,873	2,789	2,708	2,747	2,812	2,880	2,977	3,075
1	2,949	2,887	2,855	2,867	2,954	2,867	2,784	2,825	2,891	2,961	3,060
2	2,839	3,000	2,922	2,889	2,902	2,990	2,901	2,818	2,859	2,926	2,997
3	2,987	2,859	3,003	2,925	2,892	2,905	2,993	2,904	2,821	2,862	2,929
4	3,023	3,034	2,890	3,036	2,957	2,924	2,937	3,026	2,936	2,852	2,893
5	3,100	3,063	3,066	2,921	3,068	2,989	2,955	2,968	3,058	2,967	2,882
6	3,095	3,169	3,126	3,129	2,981	3,131	3,050	3,016	3,029	3,121	3,028
7	3,142	3,132	3,202	3,158	3,161	3,012	3,163	3,081	3,047	3,060	3,153
8	3,142	3,148	3,132	3,202	3,158	3,161	3,012	3,163	3,081	3,047	3,060
9	3,166	3,240	3,238	3,222	3,293	3,248	3,251	3,098	3,253	3,169	3,134
10	3,148	3,167	3,230	3,228	3,212	3,283	3,238	3,241	3,089	3,243	3,160
11	2,820	2,966	2,998	3,057	3,055	3,040	3,108	3,065	3,068	2,924	3,070
12	2,706	2,756	2,912	2,943	3,001	2,999	2,985	3,051	3,009	3,012	2,871
Total	**38,891**	**39,196**	**39,361**	**39,450**	**39,423**	**39,257**	**39,124**	**39,068**	**39,021**	**39,121**	**39,312**
Annual change		*305*	*165*	*89*	*-27*	*-166*	*-133*	*-56*	*-47*	*100*	*191*
		0.8%	*0.4%*	*0.2%*	*-0.1%*	*-0.4%*	*-0.3%*	*-0.1%*	*-0.1%*	*0.3%*	*0.5%*
K-5	17,672	17,618	17,523	17,511	17,562	17,383	17,317	17,353	17,445	17,545	17,836
6-8	9,379	9,449	9,460	9,489	9,300	9,304	9,225	9,260	9,157	9,228	9,241
9-12	11,840	12,129	12,378	12,450	12,561	12,570	12,582	12,455	12,419	12,348	12,235

	5 Year Change: 2018-19 to 2023-24		**5 Year Change: 2023-24 to 2028-29**		**10 Year Change: 2018-19 to 2028-29**	
	Growth	**Pct.**	**Growth**	**Pct.**	**Growth**	**Pct.**
K-5	-289	*-2%*	453	*3%*	164	*1%*
6-8	-75	*-1%*	-63	*-1%*	-138	*-1%*
9-12	730	*6%*	-335	*-3%*	395	*3%*
Total	**366**	***1%***	**55**	***0%***	**421**	***1%***

**Note: Enrollments do not include students in Pre-Kindergarten, Self Contained Special Education, Alternative, and Early College programs.*

Population Research Center, Portland State University, May 2019

APPENDIX B

POPULATION, HOUSING, SOCIAL, AND ECONOMIC PROFILE

Population, Housing, Social and Economic Profile
Beaverton School District 48J, Oregon

	2008-2012			2013-2017			Compare
	Estimate	CV *	Margin of Error (+/-)	Estimate	CV *	Margin of Error (+/-)	Statistically Different?
POPULATION							
Total population	256,471		2,054	275,885		2,071	**
Percent under 18 years	*24.8%*		*0.4%*	*23.7%*		*0.4%*	**
Percent 65 years and over	*9.8%*		*0.3%*	*11.7%*		*0.2%*	**
Median age (years)	35.4		0.4	36.4		0.4	**
Percent white alone, non-Latino	*68.5%*		*0.9%*	*65.1%*		*0.6%*	**
HOUSING							
Total housing units	106,884		893	110,028		857	**
Occupied housing units	100,573		933	105,021		934	**
Owner occupied	58,642		998	60,544		937	**
Percent owner-occupied	*58.3%*		*0.9%*	*57.6%*		*0.9%*	
Renter occupied	41,931		1,091	44,477		1,095	**
Vacant housing units***	6,311		630	5,007		582	**
Vacancy rate	*5.9%*		*0.6%*	*4.6%*		*0.5%*	**
Average household size	2.54		0.02	2.61		0.02	**
Renter households paying more than 30 percent of household income on rent plus utilities	*47.7%*		*2.0%*	*48.5%*		*1.8%*	
SOCIAL							
Age 25+ with a bachelor's degree or higher	*45.9%*		*0.9%*	*48.4%*		*0.9%*	**
Foreign-born population	49,229		1,799	54,877		1,701	**
Percent foreign-born	*19.2%*		*0.7%*	*19.9%*		*0.6%*	
Age 5+ language other than English at home	58,641		2,219	68,828		1,948	**
Percent language other than English	*24.6%*		*0.9%*	*26.6%*		*0.7%*	**
ECONOMIC							
Median household income (2017 dollars)	$69,483		$1,211	$75,572		$1,408	**
Per capita income (2017 dollars)	$36,378		$762	$37,576		$675	**
Percent of persons below poverty level	*10.5%*		*0.8%*	*10.0%*		*0.8%*	

** Green, yellow, and red icons indicate the reliabilty of each estimate using the coefficient of variation (CV). The lower the CV, the more reliable the data. High reliability (CV <15%) is shown in green, medium reliability (CV between 15-30% - be careful) is shown in yellow, and low reliability (CV >30% - use with extreme caution) is shown in red. However, there are no absolute rules for acceptable thresholds of reliability. Users should consider the margin of error and the need for precision.*

*** Indicates that the two estimates are statistically different based on results of z-test taking into account the difference between the two estimates as well as an approximation of the standard errors of both estimates.*

**** Vacant units include those for sale or rent, those sold or rented but not yet occupied, those held for seasonal, recreational, or occasional use, as well as other vacant such as homes under renovation, settlement of an estate, or foreclosures.*

Source: U.S. Census Bureau, American Community Survey 5 year estimates. Surveys are collected over a 60 month period. Estimates represent average characteristics over the entire period. Tabulated by Population Research Center, Portland State University, with additional calculations from source data as needed.

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APPENDIX G

FUTURES STUDY (MAIN DOCUMENT)

ECONorthwest,
Mahlum, Getting Smart,
& Sapient Solutions
Fall 2017

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Futures Study

Quality Education in a Changing World

Beaverton School District | Fall 2017

ECONorthwest
ECONOMICS • FINANCE • PLANNING

mahlum

GETTING SMART
Think. Learn. Innovate.

Sapient Solutions

Table of Contents

Acknowledgements

This report was prepared for the Beaverton School District by a team of consultants led by ECONorthwest. For ECONorthwest, Terry Moore (project director) and Alexandra Reese (project manager) are the reports primary authors. Robert McCracken (Beaverton School District) and Frank Angelo (Angelo Planning Group) were key coordinators and reviewers for the District. Many organizations and people contributed significantly to its content.

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LeeAnn Larsen, Zone 5
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Summary

The Why and How of this Study

In 2014, the Beaverton School District passed what was at the time the largest capital bond program for school construction in the history of Oregon. That program will fund facility needs for the next 8–10 years.

The District is now evaluating its needs beyond that period. It is conducting an evaluation unlike any it has done previously. This evaluation, the *Futures Study*, looks at how District facilities and services might evolve over the next 20–50 years.

The District assumes that Washington County will continue to grow: there will be more economic activity, development, housing, people, and students. The growth generates a need (demand) for educational services. To deliver those services, the District must have (supply) both programs and facilities. Thus, this Study explores possible futures by focusing on three categories of driving forces:

1. **Growth of Enrolled Students.** The demand and need for facilities is a function of the number of students the District must serve, their characteristics, and their location.
1. **Education Models.** In this Study, an education model refers to the curriculum, teaching methods, supporting technology, and student schedule (when they are in the classroom by time of day, day of the week, and season).
1. **Facility Needs.** The ultimate output of this project is a thoughtful description of new facilities that might be needed: What types, where, and when?

These forces interact. For example, facility needs will change given different assumptions about development and operations (e.g., new methods for delivering educational services, new forms of school facilities, or new partnerships for sharing facilities). This Study tries to describe some of the important interactions by creating four *scenarios* for future conditions (Chapter 5) that are built from different assumptions about these forces (Chapters 3 and 4). That analysis is a necessary foundation for the main purpose of the Study: to describe what these forces and long-run changes might imply about actions (programs, policies, and investment decisions) the District will be considering over the next 5–10 years (Chapter 6).

Findings

More Students

All recent planning efforts in the Portland metropolitan area expect the region to grow, and expect Washington County and the Beaverton area to grow at rates faster than the regional average.

This Study's expected-growth forecast is that, over the next 50 years, K-12 enrollment in the District will increase by about 15,000 students, from roughly 40,000 to 55,000 students. The Study's high-growth forecast estimates that the District will add almost 19,000 students (a result of assumptions of (1) higher economic and household growth, and (2) adding two years of pre-kindergarten education). District-wide growth in enrollment will occur faster at first: about two-thirds of the forecasted growth for 50 years happens in the first 20 years. Sub-areas of the District grow at different rates: more urbanized areas in the central part of the

District have slow growth (in some cases, the number of school-aged children declines); less-developed areas in the north, east, and southeast (primarily in Urban Reserve areas) account for most of the growth.

Changing Education Models

The types of education models that the District adopts in the future will impact the amount of space required per student, and the characteristics of that space. Current discussion about education models suggest future direction: early learning, college and career readiness, new school models, blended and online learning, personalized learning, and competency-based education.

The precise mix of education models that the District adopts is unpredictable. But many of them require more team space and flexible space, and different models are likely, both sequentially and simultaneously. Those likelihoods lead to a more certain conclusion about new facilities: they should be designed to be easily adaptable for different uses.

Possible Futures

Four scenarios describe how different forces affecting education in the District might change over the next 50 years. Four forces of change shape each scenario: student enrollment, District funding, competition for students, and the flexibility of the District's education and facility models.

The scenario evaluations suggest that the District is, all things considered, set up relatively well for the future. If funding levels stay comparable to those of the last 10–20 years, the District can probably continue to deliver K-12 education services to students in typical suburban facilities, *assuming* it can shift boundaries to maximize the use of existing facilities. A continuation of the status quo may not, however, be enough for the District to thrive. Making investments in universal pre-K and personalized or other specialized education would require investments beyond the projected resources of the District.

Summary of Scenario Definitions

Future Conditions	Scenario 1: Business as Usual	Scenario 2: High Growth	Scenario 3: Increased Innovation	Scenario 4: Constrained Funding
Enrollment Growth	Expected	High	Expected	Expected
Funding per Student	Expected	Expected	Expected	Low
External Competition	Expected	Expected	High	Expected
Flexibility of Education and Facility Models	Expected	Expected	High	High

Source: ECONorthwest

Implications

Chapter 6 of this Study goes into detail about the possible implications of the scenarios for District programs, policies, and facility investments. It groups those implications into two broad categories: (1) Planning and Policy (with sub-categories for Land Use Regulation and Growth, Education Models and Technological Innovation, Funding, Property and Facilities, Engagement and Partnerships) and (2) Facility Management. The first category is more general and sometimes focuses on longer-run and more speculative policy choices. The second category goes deeper into suggestions about facility management that can be implemented now and over the next 5 years.

1. Introduction

1.0 Introduction

This Study takes a long-run (50-year) look at forces that will affect the ability of the Beaverton School District to carry out its mission:

Engage our students in rigorous and joyful learning experiences that meet their individual needs so they may thrive, contribute, compete, and excel.

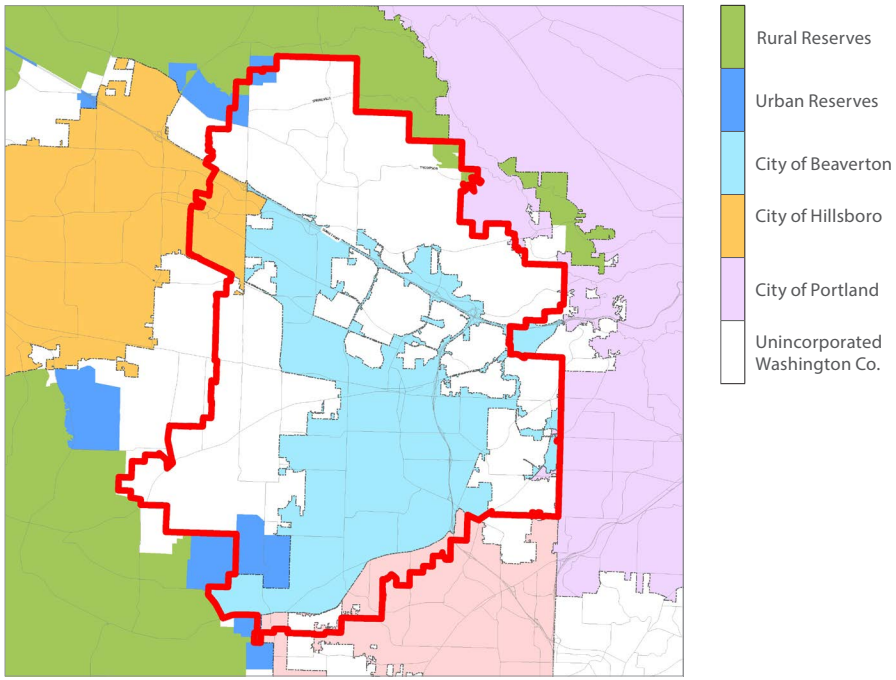
The Study considers changes in (1) the number and location of students, (2) the educational models and technologies by which education will be delivered, and (3) the type, size, number, and location of facilities necessary to support those students, educational models, and technologies. The purpose of the study is not to propose new policy, but to inform future discussion by the Beaverton School Board of Directors and Administration about policies related to educational models and facilities—particularly about the capital improvement planning for facilities.

In 2014, the Beaverton School District passed, what was at the time, the largest capital bond program for school construction in the history of Oregon. That program will fund facility needs for the next 8–10 years.[1]

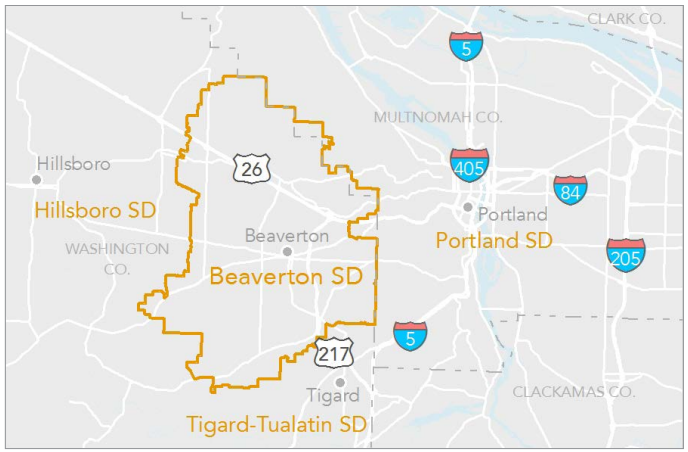
The District is now evaluating its needs beyond that period. It is conducting an evaluation unlike any it has done previously. This *Futures Study* looks at how District facilities and services might evolve over the next 20–50 years.

[1] See: https://www.beaverton.k12.or.us/district/bond-measure-information

Exhibit 1-1. Beaverton School District Context Maps



Source: Beaverton School District



Source: ECONorthwest

Beaverton Schools at a Glance

The unified Beaverton School District was founded in July 1960. It educates more than 40,000 students in 53 schools, the third-largest school district in Oregon. Beaverton schools are dedicated to providing outstanding, challenging educational opportunities that prepare all students to be college and career ready. (Beaverton School District website)

The Beaverton School District serves one of Oregon's fastest growing regions. That growth was at its highest during the 1990s, as Nike, Intel, and the regional economy expanded, drawing families to the District. From 1990 to 2000, the total population of the District grew by 40%, compared to 20% for the state as a whole. Growth slowed during the subsequent recession, but exceeded rates for the State.

As this Study shows, the District will likely continue to grow at a relatively rapid rate. Changes in the type and location of families and their expectations around education will require the District to craft new and innovative facility solutions to serve them.

The District assumes that Washington County will continue to grow: there will be more economic activity, development, housing, people, and students. The District wants to know: How many students will it have? Where will they live? What education programs, technology, and facilities will it deliver to them? The *Futures Study* explores these questions by focusing on three categories of driving forces:

1. **Growth of Enrolled Students.** The demand and need for facilities is a function of the number of students the District must serve and their characteristics. How many students are likely to live in the District in the future? Where will they locate, and how will their numbers and locations affect decisions about facility investment?
2. **Education Models.** In this Study, an education model refers to the curriculum, teaching methods, supporting technology, and student schedule (when they are in the classroom by time of day, day of the week, and season). What educational models and trends should the District pay attention to? Technology, classroom techniques, and staff and facility management techniques are changing rapidly and likely to change even faster in the future. A longer-run view considers how these factors might change and, in doing so, impact the number, type, and location of facility space required.
3. **Facility Needs.** The ultimate output of this project is a thoughtful description of new facilities that might be needed: What types, where, and when? How might those needs change given different assumptions about development and operations (e.g., new methods for delivering educational services, new forms of school facilities, or new partnerships for sharing facilities)?

This report is not a policy document. It is a planning study that provides data and analysis to inform future discussion among the District Board, its staff, partner agencies, parents, and the general public about how to deliver quality education to District students. In particular, the Board and staff believe that this long-run (50-year) look at the future will provide information relevant to the investment decision the District must make for a mid-run horizon (10 years).

This 50-year look at potential changes to forces that could substantially change how education is defined and delivered make this report different from the long-range facility plans required by state law. The District already has such a facilities plan and is implementing much of it through the 2014 Bond Program. This report will be a background document that provides context for the District's next facilities plan.

This report has five additional chapters, supported by several appendices:

- **Chapter 2, Approach to the Study**: The methods used for creating and evaluating the facility requirements of different growth scenarios.
- **Chapter 3, Forecasts of Students**: Estimates of the number of school-aged children and students, by age/grade level, by location, from now until 2065.
- **Chapter 4, Educational Models**: Descriptions of different programs—education models—the District might use to deliver education to its students and what those models might imply about the size and design of facilities.
- **Chapter 5, Scenario Evaluation**: Description of four potential futures (scenarios) for the District, as characterized by enrollment, funding, competition for students, and education model and facility policy.
- **Chapter 6, Implications for Facility Planning**: Implications of the results of the scenario evaluation for decisions the District will be making in the next five to ten years about educational models and facility improvements.
- **Chapter 7, Supporting Information**: A list and brief description of technical reports that provide more information about the data, analysis, and conclusions relating to the three main driving forces evaluated in this Study:
  - Appendix A, Demographics and Development (written by ECONorthwest)
  - Appendix B, Education Models (written by Getting Smart)
  - Appendix C, Facility Evaluation (written by Mahlum Architects)

2. Study Framework

2.0 Study Framework

That the future is uncertain is a truism. No one who worked on this Study believes it is possible to accurately predict over a 50-year period the likely amount and type of future growth in Washington County. They do believe, however, that a thoughtful identification and consideration of key forces affecting future growth will improve District decision-making in the interim.

This Study explores a range of possible futures using *scenarios*, which are different combinations of key driving forces that suggest different futures for District facility investment. The main forces that define the four scenarios evaluated are student enrollment, District funding, education model innovation, and the flexibility of District facility policy.

This chapter describes the *framework* for the *Futures Study*. Chapters 3–5 and the appendices provide detail on data and methods.

2.1 Overview of Long-Run Scenario Planning

Humans have tried to forecast the future for millennia. They have achieved varying levels of success. Forecasts of scientific phenomena—such as the day, hour, and location of a solar eclipse—are astoundingly accurate. Forecasts of activities that involve human behavior, such as recessions, are not.

The rapidity of technological change adds to the difficulty of forecasting. One cannot predict with certainty what technologies will come to fruition and how they will shape the world.

Rapid change has not been the historical norm for education in the U.S. For 200 years, until very recently, K-12 education meant primarily: 10–40 students of the same age sitting in desks, facing

What You See May Not Be What You Get

In 1898, urban planning experts met in New York to discuss the Great Manure Crisis that threatened NYC, London, and other major metropolitan areas: the huge number of horses on the streets were producing so much manure that the *Times* newspaper predicted, "In 50 years, every street in London will be buried under nine feet of manure." Attendees could not come up with a solution at this conference; Carl Benz had just invented the first gasoline engine, but it had barely penetrated the market. Just 15 years after the conference, automobiles largely replaced horse-drawn vehicles, putting an end to the crisis.

a blackboard or whiteboard, looking at books, and listening to a single teacher lecturing on the topic being studied, with summers off. In the last 20 years, however, a combination of new technologies, performance measurement, competition, and fiscal limitations have accelerated change. Bigger changes seem likely, but they could go in many directions.

Scenario planning is a planning tool that acknowledges and responds to uncertainty. Planners identify drivers of change that will impact the future (e.g., technology), and then create several stories of how the future might look based on different trends for those drivers. Those stories are called scenarios. The purpose of developing multiple scenarios is to understand different paths forward and how one can shape those paths and their outcomes.

2.2 Scenario Planning in This Study

This *Futures Study* uses scenarios to consider possible futures for the Beaverton School District and what those futures imply about choices the District may make now and into the future. This study focuses on possible futures and implications for school district facilities.

This Study creates and evaluates scenarios in three steps:

1. **Identify the primary forces of change.** Chapter 1 briefly described the three broad categories of forces:
   - *Changes in school enrollment.* The number of school-aged children that enroll in the District is the primary driver of demand for new facilities. Chapter 3 and Appendix A describe the methods used to forecast school enrollment. In summary, ECONorthwest started with data, assumptions, and models it had developed to create long-run demographic and development forecasts for Washington County's Transportation Future Study (WCTFS) and then converted those forecasts into number of enrolled students in the District by age and location.
   - *Changes in educational models and technologies.* How the District provides education services has direct implications for the number and type of facilities required. Some models require more collaborative space in addition to classrooms, thus increasing facility demand. Other models, such as online learning, move students out of the classroom, thus decreasing facility demand. Technology is critical to the adoption of many of these options. Chapter 4 and Appendix B describe how educational models and technologies might change and how that might affect the number and type of facilities needed.
   - *Changes in facilities.* Facilities are the focus of this Study. Chapter 5 and Appendix C provide more detail on the number of facilities required by type and by area for each scenario. These sections also provide detail on facility characteristics and system-wide costs.
2. **Create scenarios based on different combinations of assumptions about those forces.** Each force in Step 1 could change in many ways. It is beyond the capacity of this Study (or any study) to consider all the ways in which each force might change and all the combinations of those changes. The Study must limit the number of combinations (scenarios) to enable a meaningful discussion of how they compare and what one can

learn from those similarities and differences. The construction of scenarios must (1) have an understandable theme, and (2) result in substantially different scenarios to more clearly illustrate facility differences. Chapter 5 describes the four scenarios used in this Study.

3. **Describe the potential implications of the scenarios on the District's investment and policy decisions.** This Study is *not* a policy document—it does not make policy. Its purpose is to inform future discussions (short-term and long-term) about facility needs and decisions about facility investments. Chapter 6 contains the consultants' ideas about those implications.

Students at the Maker Space at Scholls Heights Elementary.

3. Forecasts of Students

3.0 Forecasts of Students

The number, type, and location of new school facilities depend directly on the number and location of students. A forecast of enrollment is fundamental to an investigation of future facility needs and options.

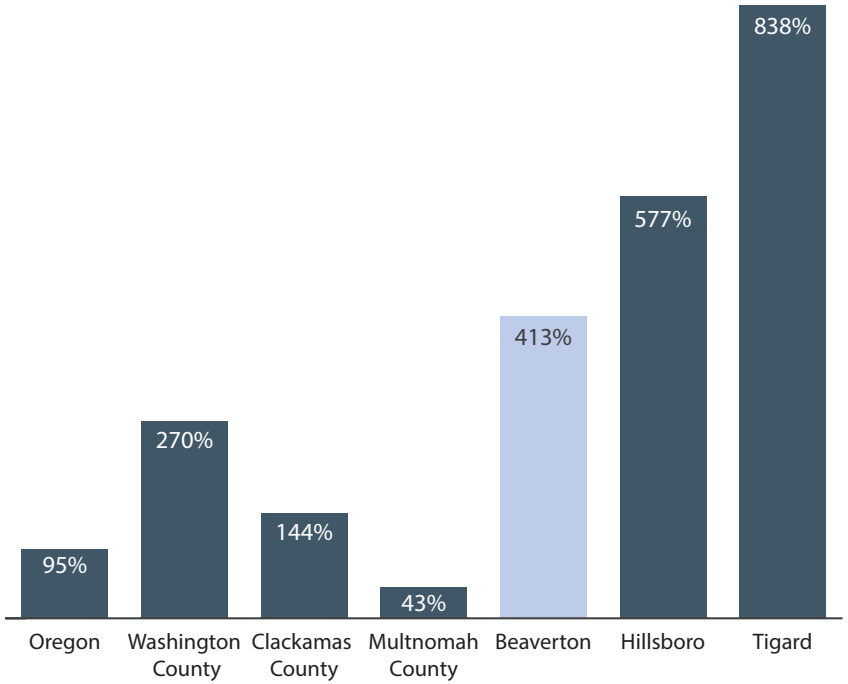
This Study's expected-growth forecast is that over the next 50 years, K-12 enrollment in the District will increase by about 15,000 students, from roughly 40,000 to 55,000 students. The Study's high-growth forecast estimates that the District will add almost 19,000 students. District-wide growth in enrollment will occur faster at first: about two-thirds of the forecasted growth for 50 years happens in the first 20 years. Sub-areas of the District grow at different rates. This chapter shows and explains the differences.

3.1 Context

The need for school facilities derives directly from the number of students the District must serve. How many students are likely to live within the District in the future?

Some context helps in answering that question. The service area of Beaverton School District is located mainly in the City of Beaverton and includes a sizable portion of urban, unincorporated Washington County and small portions of some adjacent cities (Tigard, Portland, and Hillsboro). Exhibit 3-1 compares historical and relative population growth for jurisdictions in and around the District boundaries. Over the last 50 years, the rates of growth in the Beaverton area (Beaverton, Hillsboro, and Tigard) have been among the fastest in the Portland metropolitan area. Washington County has grown faster than other counties that compose the Portland region, and the Portland region has grown faster than the state.

Exhibit 3-1. Percent Change in Population, Jurisdictions in and around the District, 1970–2016



Source: Population Research Center, Portland State University

Note: Exhibit 1-1 shows that the boundaries of the Beaverton School District include (1) almost all of the City of Beaverton, and (2) small parts of the Cities of Hillsboro and Tigard, and that about half of the land in the District is in Washington County but not in a city. Thus, though Exhibit 3-1 does not give an estimated growth rate for the District, its does illustrate how much faster all the jurisdictions that compose it are growing than other counties in the region and the state.

All recent planning efforts in the Portland metropolitan area expect the region to grow and expect Washington County and the Beaverton area to grow at rates faster than the regional average. Those expectations are based on many factors, including the dominance of Washington County in high-tech industry, the quality of life and services the County offers (including the quality of K-12 education in the Beaverton School District), and the relative availability of buildable compared to Multnomah County (land that is vacant and serviceable at a reasonable cost).

Students are members of households. The number of households in a region grows slowly and predictably if there is no in-migration. But household growth in Oregon is less predictable—about 70% of Oregon's population growth has come from in-migration over the last 50 years.

In-migration rates vary for many reasons, including national and local economic conditions, perceptions about the region's desirability as a place to live and work, and the relative cost of living. Because housing and transportation are the biggest costs in most household budgets, local policies about patterns of land development have an influence on not only the amount of household growth but also its location.

Just describing all the variables that influence household growth is difficult; specifying the direction and magnitude of their influences on one another is much harder. Harder still is making long-run predictions of growth for small areas (like the Beaverton School District). One can easily hypothesize dozens of changes in society, demographics, technology, the economy, the environment, and government institutions that could be combined in millions of ways.

In the last 10 years, the planning profession has paid more attention to a fundamental dilemma: technology and globalization can lead to very big effects on the economy and the environment in the long-run, but the ability to predict the long-run future with confidence is limited. In response to faster and bigger change, the profession is shifting from *single predictions* of a future (with high and low variations) to *multiple simulations* of futures.

3.2 Forecasting Methods

These considerations influenced the forecasting methods used in this Study. In summary, this Study creates "expected growth" and "high growth" forecasts of student enrolled in District schools, and disaggregates those forecasts by (1) age and grade of student, (2) subareas of the District, and (3) year (in five-year increments, for 50 years).

The development of each forecast occurred in two phases:[2]

- *Estimate school-aged children living in District boundaries.* The Study based this estimation on a forecast that Washington County developed using MetroScope[3] for Washington County Transportation Futures Study (WCTFS). This forecast estimated the future number, type, location, and composition (e.g., size and age of household head) of households in the District. The Study then used Census data on the average number of school-age children in households of different sizes in Washington County

[2]Appendix A provides additional documentation to describe our methods, including further detail to explain these steps.
[3]Metroscope is a regional model of development maintained by Metro, the regional planning agency.

to estimate the number of children living in those households. The high-growth forecast has more school-aged children than the expected-growth forecast which comes primarily from two assumptions: (1) more population growth, in general, in the District (driven by assumptions about more economic growth and an accompanying residential growth); and (2) a District decision to provide earlier (pre-K) education to an age-group not currently in District schools.

- *Convert school-aged children to students enrolled in the District, by grade, by location.* The Study used "capture rates" for District schools to get from population to enrollment. It calculated a capture rate for each school in the District by dividing the number of children enrolled in a given school by the number of appropriately aged children living in the attainment area of said school. The Study then multiplied the number of appropriately aged children in each attendance area by the capture rate of the school in that attendance area to estimate enrollment.

3.3 Forecasts of Student Enrollment: Expected-Growth Scenario

Future residential development patterns directly affect the number and location of new school-aged children and the new facilities they require. To forecast future residential development, by type and location, this Study used conversations with regional and county planners and a model of the relationships among population and employment growth and new development. The models used to make detailed forecasts of growth were based on some key assumptions, including some about how and when different parts of the District would develop and why.

In the **Bethany area**, Washington County planning staff expect Urban Reserves to be brought into the Urban Growth Boundary and zoned for significantly higher-density residential development than currently exists. They expect about 4,000 new housing units to be built in the North Bethany area, which extends into the northern tip of the Sunset/Cedar Mill area. They expect this development will be largely complete by 2035.

The County expects the remainder of the **Sunset/Cedar Mill area** and all of the **Cedar Hills/Garden Home** area to see infill development in older neighborhoods.

The **Cooper Mountain/Sexton Mountain** area contains two areas expected to see significant development in the next ten years. City planners expect the southern tip of the area, River Terrace, will add about 2,500 new housing units. Only a portion of this growth will occur in BSD boundaries; the rest will occur in Tigard School District boundaries. City planners expect the area immediately north of that, South Cooper Mountain, to add another 3,000 units, mostly within the next ten years.

Most of the **Aloha/Elmonica** area consists of older neighborhoods with scattered infill potential. The one exception is the Amberglen area, where County planners expect intense development and up to 6,000 new units of mostly multi family housing, some of which will be in the Hillsboro School District. On the map of student growth from 2015–2065 (Exhibit 3-5), Amberglen is the dark area in the northwest of the Aloha/Elmonica area. Amberglen currently is mostly in industrial and office uses.

In 2015, the District had 38,889 enrolled students in K-12 (kindergarten through high school). This Study forecasts that over the next 50 years, enrollment in the District will grow by 14,444 students to a total of 53,333 K-12 students. About two-thirds of that growth happens in the next 20 years.

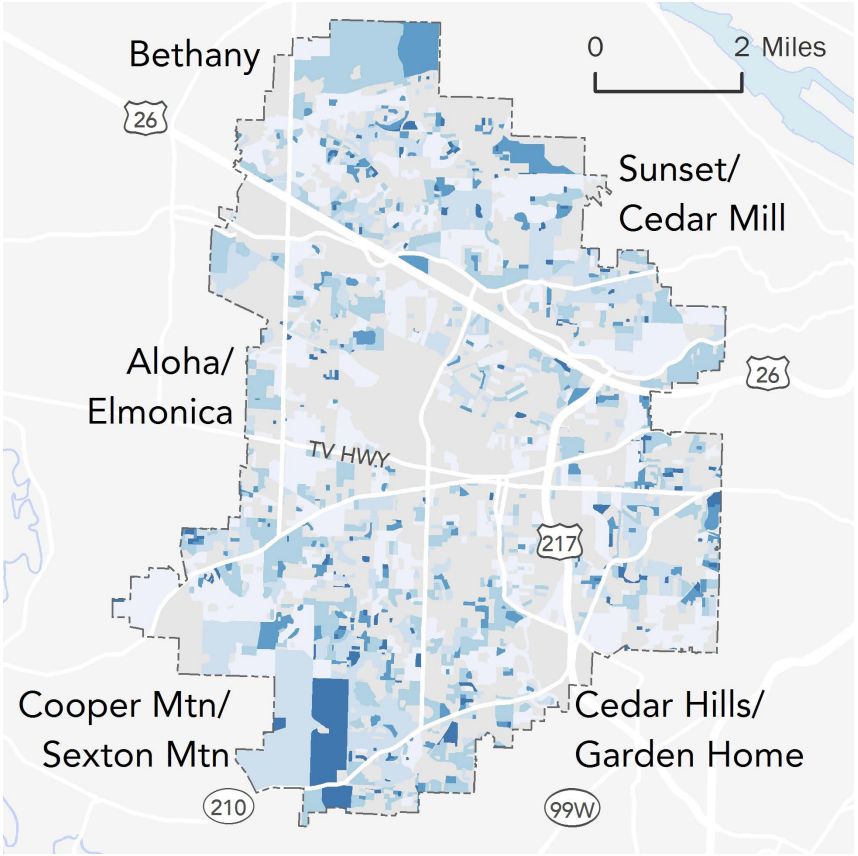
Exhibit 3-2 through 3-5 show *growth* in K-12 school-aged children in the District for four periods. The first three exhibits show different time slices of growth between 2015 and 2065: from (1) 2015 to 2025; (2) 2025 to 2035; and (3) 2035 to 2065. The fourth sums up all the growth from those three periods to show total growth between 2015 and 2065. The exhibits show *school-aged children*[4] *per square mile.*[5] The blue shading indicates the amount of growth; darker blue means more growth. [6]

Legend

Growth per sq. mi.

- 5 - 150
- 151 - 300
- 301 - 700
- 701 - 1,500
- > 1,500
- Negative or no growth

Exhibit 3-2. Projected Growth in Number of K-12 School-aged Children per Square Mile, Beaverton School District, 2015–2025



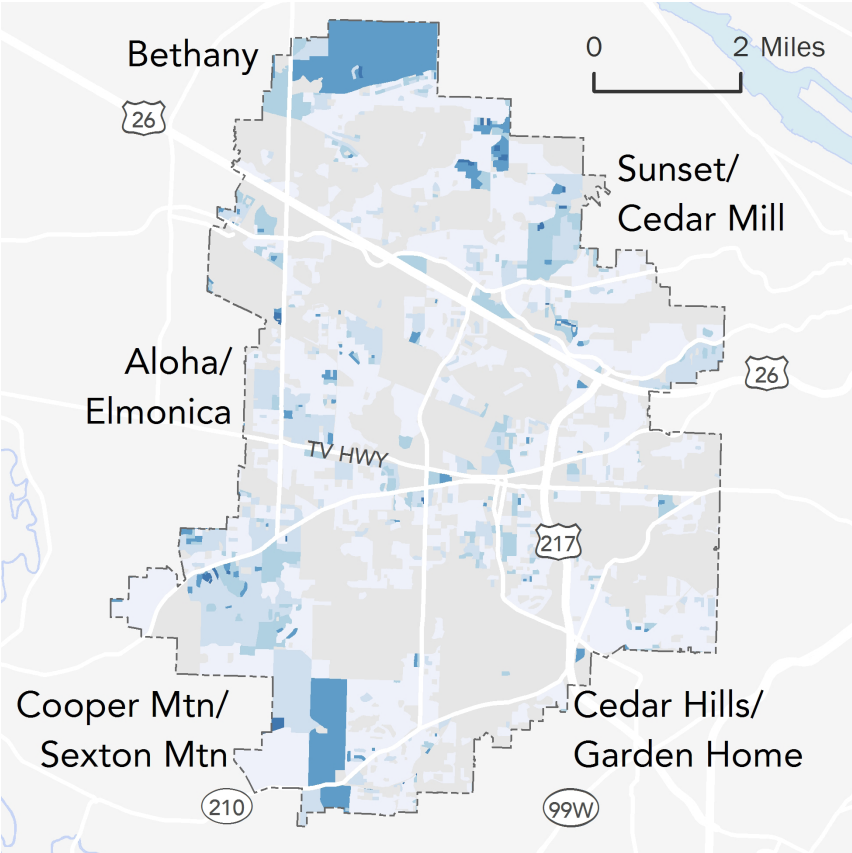
Source: ECONorthwest

[4]The number of students is highly correlated with the number of school-aged children, but it is not identical. Some school-aged children that live in the District do not attend District schools; some students attending District schools do not live in District boundaries. For purposes of forecasting, more and better data are available about households and their composition (e.g., age of household members) than are available about students by District. Thus, this Study uses school-aged children for its forecasts of growth. As a gross and approximate average, the relationship between the number of school-aged children (K-12) that live in the Beaverton District to the number of students enrolled in the District is about 90%.

[5]The data are based on U.S. Census data for "block groups." Boundaries of blocks and block groups are set so that they have about the same amount of population. Thus, urban block groups are small and undeveloped block groups at the urban fringe are large. Showing the absolute number of new school-aged children by block group would over emphasize increases at the urban fringe. Thus, the data were converted to "per square mile," but they are still displayed based on block group boundaries.

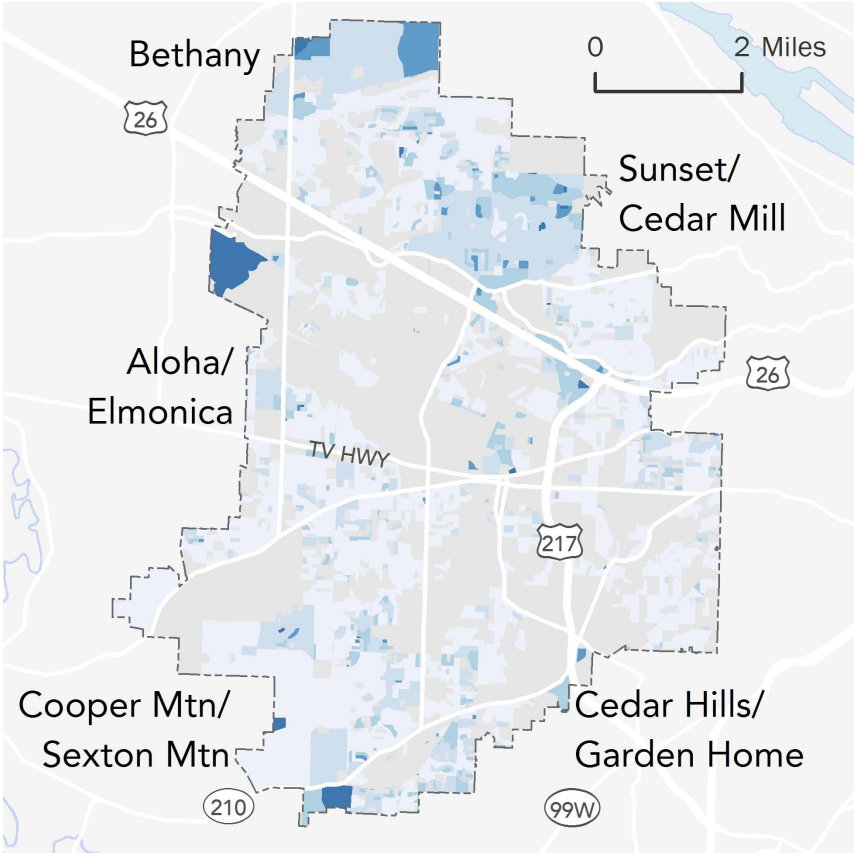
[6]Appendix A contains more detail (e.g., tables showing forecasted growth of school-aged children by age, year, and location). Chapter 7 explains how to get that appendix.

Exhibit 3-3. Projected Growth in Number of K-12 School-aged Children per Square Mile, Beaverton School District, 2025–2035



Source: ECONorthwest

Exhibit 3-4. Projected Growth in Number of K-12 School-aged Children per Square Mile, Beaverton School District, 2035–2065



Source: ECONorthwest

Exhibits 3-2 to 3-4 illustrate that growth is not uniformly distributed over time or space:

- District-wide growth in enrollment will occur faster at first. Exhibits 3-2 and 3-3 cover only 10 years of growth each (2015–25 and 2025–35); Exhibit 3-4 covers 30 years of growth. About two-thirds of the forecasted growth for 50 years happens in the first 20 years. One way to get a feeling for that difference in growth is to ask, how many years does it take for the District to add another 1,000 school-aged children? Between now and 2035 it takes, on average, about two years. Between 2035 and 2065 it takes, on average, about six years.
- More urbanized areas in the central part of the District have slow growth (in some cases, the number of school-aged children declines). Less developed areas in the north, east, and southeast (primarily in Urban Reserve areas) account for most of the growth.

These patterns were not unexpected by the District staff and Board. A key reason for this Study was the District's expectation of a future mismatch between the locations of existing schools and the homes of future school-aged children. For example, the Cedar Hills/Garden Home area has the largest share of students in 2015. Although it will add students over the course of the next 50 years, its share of students will drop by almost a quarter. In contrast, enrollment in schools in the Cooper Mountain/Sexton Mountain area will grow much faster than the District overall, due largely to the recently opened Mountainside High School. Its enrollment more than doubles over the 50-year forecast period. This Study examines that issue more in Chapters 5 and 6.

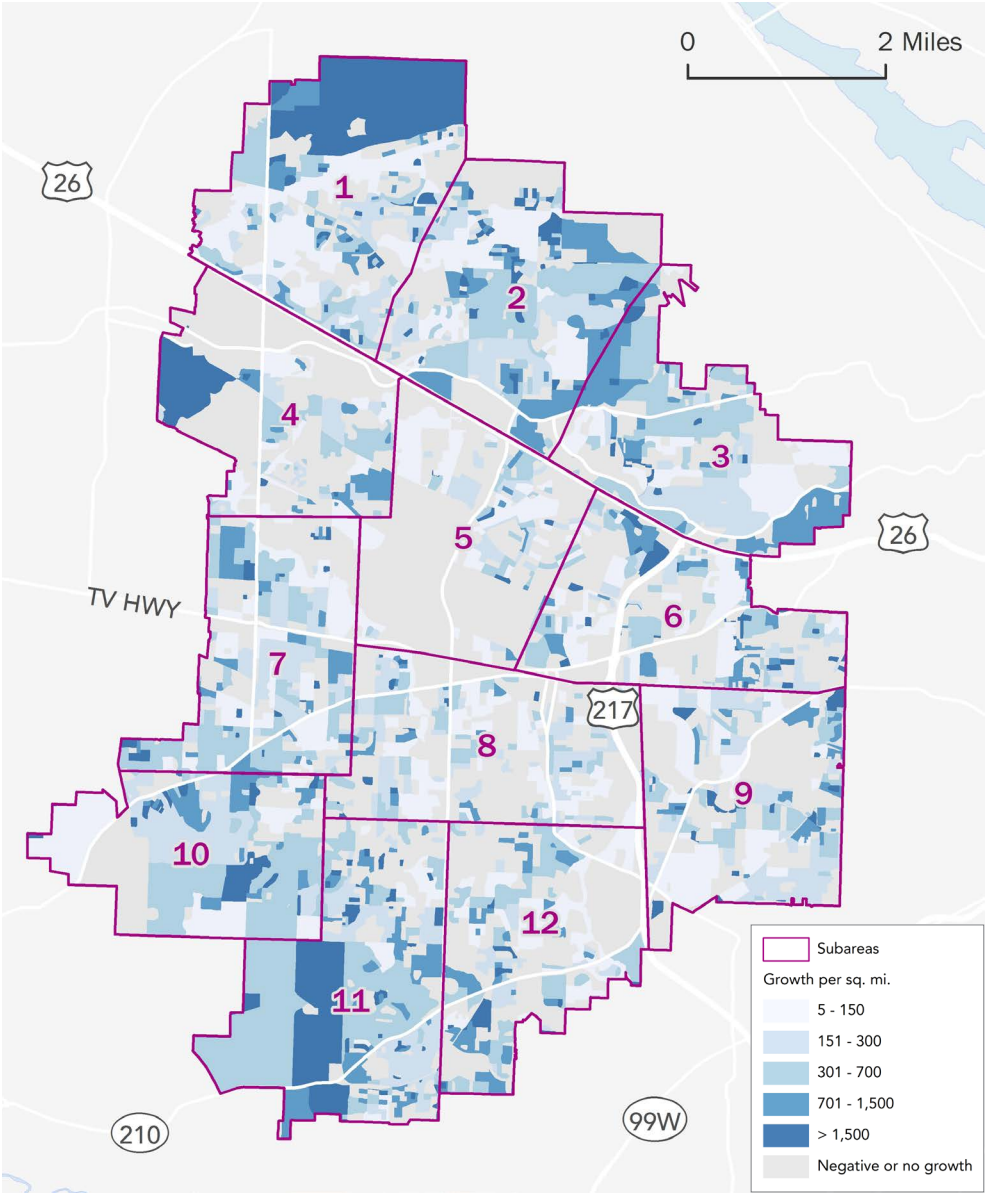
Exhibit 3-5 sums up all the growth shown in Exhibits 3-2, 3-3, and 3-4. It shows total (cumulative) growth in school-aged children for 50 years, from 2015 to 2065.

In an attempt to make the growth and its implications understandable, the consultant team overlaid a rough grid on the District map, dividing it in 12 areas (labeled 1 to 12) that are roughly square and about the same size (on the order of four to five square miles each). The boundaries are arbitrary: they have no cultural, political, and technical basis; they are just another way of illustrating where in the District our forecasts suggest growth will occur.

The table in Exhibit 3-5 summarizes all the information in Exhibits 3-2–3-5. Its 12 rows correspond to the 12 analysis areas on the map. It has four columns corresponding to the four time periods in Exhibits 3-2–3-5. The shading in each column indicates each area's relative ranking on the amount of growth during each period; darker shades indicate a higher ranking (i.e., more growth).[7]

[7]In analytical terms, for each period the 12 areas get allocated into one of four quartiles (three areas to each quartile) based on their ranking, which is based on their forecasted amount of growth during the period.

Exhibit 3-5. Projected Growth in Number of K-12 School-aged Children per Square Mile, Beaverton School District, 2015–2065



Source: ECONorthwest

Relative Amount of Growth in Number of School-aged Children (K-12), for 12 Analysis Zones, for Various Periods, 2015–2065

Area #	2015–'25	2025–'35	2035–'65	2015–'65	Total Growth
1					3,835
2					2,206
3					1,567
4					971
5					-384
6					1,028
7					1,263
8					319
9					567
10					1,808
11					4,851
12					512

Shading in each column indicates each area's relative ranking on the amount of growth during each period (darker shades = higher ranking = more growth).

Among the things the table illustrates:

- Together, areas 11 and 1 account for 47% of the growth in school-aged children in the District. Both of them are one of the three biggest growth areas in every analysis period.
- Over 40% of the growth in school-aged children between 2015 and 2016 occurs north of Sunset Highway (areas 1, 2, and 3). Almost half is expected in the areas on the District's eastern border, south of Sunset Highway (areas 4, 7, 10, 11). Together, these seven areas account for about 60% of the land in the District, but about 90% of the growth in school-aged children.
- Area 5 has negative growth. Together, areas 5, 8, 9, and 12 cover about one third of the District's area but account for only 6% of the growth in school-aged children.
- The timing of growth varies by area. Some grow consistently (e.g., areas 1, 2, 3, 11). Some grow more later (e.g., areas 4 and 6). Some bounce around (e.g., areas 6, 7, 9, and 12).

3.4 Forecasts of Student Enrollment: High-Growth Scenario

ECONorthwest created a second growth forecast: one that simply assumed more economic activity, which would create more jobs, which would attract more households, which would increase the number of school-aged children.

If more households in the District were the only source of new enrollment, the effects on the increases in District enrollment would be on the order of 10% or less. But another source of enrollment growth is possible—even likely. The District may choose (as some school districts around that country already have) to offer education to school-aged children *before* kindergarten. A large volume of research from many fields emphasizes the key role of early learning in future success in the school and workplace.

In other words, there are not more children in the District, but there are more school-aged children because the definition of "school-aged" has been expanded. If, as an example, the District chose to provide two years of pre-K education, that would be equivalent to adding two grade levels to the existing 13 grade levels (K-12). That increases school-aged children to be served by roughly 15%.

Higher growth (more school-aged children, students, and demand for space) gets incorporated into two scenarios in Chapter 5. Scenario 2 assumes universal pre-K and applies elementary school ratios of students to school-aged children to estimate almost 4,600 new pre-K students enrolled in 2065. Scenario 3 assumes that only half the eligible age group choose to attend District facilities (about 2,300 new pre-K students enrolled in 2065).

3.5 Comparisons to Other Forecasts

A common method for assessing a forecast is to compare it to (1) prior forecasts of the same variable for the same area, or (2) related and accepted regional forecasts of economic (employment) and demographic (population and household) growth. The consultants reviewed three forecasts that are relevant:

- Washington County's Transportation Futures Study (WCTFS) is the most recent and detailed forecast of employment, population, and development in Washington County, and the

only one that goes out 50 years. Because this *Futures Study* for the Beaverton School District relies on data and models from the WCTFS for its forecast, the forecasts in the Study are entirely consistent with the ones in the WCTFS.

- Metro, the regional planning authority, develops the region's official forecasts of population, employment, and development. The WCTFS used Metro's forecast as its base, so there is a direct relationship between the forecast developed for this Study and the Metro forecast.
- In 2012, Portland State University (PSU) did a forecast of students for the Beaverton School District. The difference in forecasts for 2025 (the last year of the PSU forecast) is 472 students, about 1% of total estimated enrollment in that year. Over the period of overlap for the two forecasts, PSU estimated an average annual growth rate of 0.9%, compared to this Study's estimate of 1.2% per year.

Beaverton High School graduates.

4. Education Models

4.0 Education Models

The types of education models that the District adopts in the future will impact the amount of space required per student and the characteristics of that space. Current discussion about education models suggest future directions: early learning, college and career readiness, new school models, blended and online learning, personalized learning, and competency-based education.

The precise mix of education models that the District adopts is unpredictable. But many of them require more team space and flexible space, and different models are likely, both sequentially and simultaneously. Those likelihoods lead to a more certain conclusion about new facilities: they should be designed to be easily adaptable for different uses.

Healthy communities require healthy local schools. They not only provide education for students but also are hubs for culture and community development. Going forward, school districts will expand the options, opportunities, and services they provide. What learning will look like 50 years from now is more speculation than prediction, but there are many forces that will shape education service delivery.

Technological change is the most important driver of these forces (see Appendix B for others). Technological innovation will continue to shape the economy and, in turn, the conditions for which school districts must prepare students. The jobs and workplaces of tomorrow will look very different from those of today. The economy will continue to get more competitive: students will need to be agile, have high emotional intelligence, and be adept at project-based work to succeed. This competition will emphasize *early learning*, *college and career readiness*, and *new school models*.

Technological innovation will also change how students learn. Districts will use technology, like *blended and online learning environments*, to facilitate *personalized learning*. If each student can learn at his or her pace, then districts can also offer *competency-based education*, which allows students to progress by mastery of content rather than age cohort. These innovations will upend a standard teaching model that is centuries old: classrooms of students grouped by age, all of whom are learning a single standardized curriculum.

Although these trends affect districts everywhere, their responses vary and will continue to. There is no single package of education models that will work for all districts. This chapter provides an overview of six education models that the consulting team considered in its creation of scenarios (Chapter 5):

- Early learning
- College and career readiness
- New school models
- Blended and online learning
- Personalized learning
- Competency-based education

4.1 Early Learning

Early learning refers to the formal and informal experiences, activities, and supports for children from birth through age eight that are designed to improve their health, social-emotional, and cognitive outcomes. Preschool, pre-K, and childcare programs are the most common and visible early learning programs. More recently, two other early learning opportunities are gaining attention:

- **Infant and toddler development programs**, which typically aim to improve parent-child interactions and toddler health
- **Pre-K through 3rd education programs**, which create alignment between early learning programs and the primary grades.

Historically, preschool and pre-K programs have required families to pay tuition. That trend is changing. Oregon and other states have expanded free, public pre-K programs. Research around the importance of early education (and the gap that is already set in place by kindergarten for those students without access to strong early learning opportunities—either at home or at preschool) point to the need for publicly funded options for families. The Oregon Legislature enacted the Preschool Promise program in 2015, which provides funding to school districts, private providers, and community-based programs to expand the number of preschool slots across the State.

4.2 College and Career Readiness

College and career readiness refers to the content knowledge, skills, and habits that students must possess to be successful in quality postsecondary education or training programs. A student who participates in a program for college or career readiness can qualify for entry-level, credit-bearing college courses without the need for remedial or developmental coursework. These programs typically fall into one of three categories:

- **Early College** refers to programs that blend high school and college content into a single program. Early college students can complete up to two years of college credit and earn an associate's degree as part of their high school curriculum. Research shows that a greater percent of students in early college schools finish high school and complete college credentials.[8]
- **Dual-Credit Programs** allow high school students to enroll in college courses for both high school and college credit.
- **Career and Technical Education (CTE)** programs provide technical skills training to high school students. Some schools provide this training in specialized on-site facilities. Others have community partnerships that allow students to access this training off-site in partner facilities.

4.3 New School Models

Examples of new school models that have emerged over the last 20 years:

- **Charter Schools** are public schools that families choose for their children. These schools have charters to which they are accountable; they are free from many of the regulations imposed on standard district schools.
- **Microschools**, broadly defined, are schools with small populations (normally fewer than 100 students). Typically, public microschools have a more specific definition as a "school within a school." In this context, microschool concepts can be as simple as a principal supporting teacher-leaders in trying a new approach, such as delivering content in an interdisciplinary, blended, project-based environment.
- **Community Schools** are places and partnerships between schools and community resources that provide students a package of integrated academic, health, and social services.

[8]See http://www.air.org/sites/default/files/AIR_ECHSI_Impact_Study_Report-_NSC_Update_01-14-14.pdf

4.4 Blended and Online Learning

New technology has created the ability for any student with an internet connection to learn any subject at any time. While it may feel far-fetched, there are examples both nationally and internationally of access to online learning resources causing a radical shift in how students learn. In traditional school environments, blended and online learning have allowed districts, schools, and teachers to expand and customize the learning experience. The two learning models differ in their shares of online vs. in-person learning:

- **Blended Learning**[9] occurs when schools combine the best of face-to-face and online learning in a blended environment. Students in blended learning environments have more control over the path, time, place, and pace of their learning. In formal programs, they normally do some of their learning independently, online, and in a place of their choosing, but do the rest in a supervised, brick-and-mortar learning environment.
- **Online Learning**[10] refers to teacher-led education that takes place over the internet, using a web-based educational delivery system that connects a teacher and student who are separated geographically.

4.5 Personalized Learning

According to the U.S. Department of Education's National Education Technology Plan, "personalized learning" refers to programs that are designed to meet each student's individual needs for content and pace. Good personalized learning also includes daily engagement with powerful learning experiences, flexibility in path and pace, and the application of data to inform the individual learning trajectory of each student.

The personalization of the learning experience means that districts can provide education services in more diverse settings. Blended and online learning are examples. Others include project-based learning, place-based education, and internships.

4.6 Competency-Based Education

The term "competency-based education"[11] refers to a systems model in which (1) teaching and learning models emphasize advancement through content mastery, and (2) schools provide timely and differentiated support for individual advancement. When executed well, a competency-based structure provides the flexibility and personalization required to support each individual in the attainment of his or her highest potential.

[9] As defined by the Christensen Institute for Disruptive Innovation: https://www.christenseninstitute.org/blended-learning-definitions-and-models/
[10] As defined by http://www.kpk12.com/reports/
[11] As defined by Competency Works: https://www.competencyworks.org/

5. Scenario Evaluation

5.0 Scenario Evaluation

Four scenarios describe how different forces affecting education in the District might change over the next 50 years. Four forces of change shape each scenario: student enrollment, District funding, competition for students, the flexibility of the District's education and facility models. Each scenario explores a different combination of assumptions about these forces and suggests how the District could respond so that it continues to deliver high-quality facilities to its students.

The scenarios imply that the District is moving in a positive direction. The question is not how will it survive, but how will it thrive. The scenarios suggest some challenges and opportunities for the District to address as it explores this question. Those challenges and opportunities fall into five categories, which flow into Chapter 6, Implications: land use regulation and growth, education and technological innovation, funding, property and facilities, and engagement and partnerships.

Scenarios facilitate an exploration of challenges and opportunities the District might face over the next 50 years and their implications for the District's short-term facility planning. This chapter defines scenarios and evaluates their impacts on the type, location, and costs of facilities. It creates a snapshot of facilities 50 years in the future. The next chapter takes a practical step back toward the present: it discusses possible implications of the evaluation for decisions the District will make about facility investments over the next 5 to 10 years.

This chapter has four sections:

1. **Principles**
   What are the purpose statements that guide District policy decisions and, in turn, the development of scenarios?
2. **Overview of the Scenarios and Evaluation Methods Used in This Study**
   What are the four scenarios explored in the Study?
3. **Specification and Evaluation of the Scenarios**
   What assumptions about driving forces define each scenario, and how do the scenarios play out in terms of facilities?
4. **Summary Comparison of Opportunities and Challenges**
   How do the scenarios compare to one another on key dimensions?

5.1 Principles

The District has four "Pillars of Learning:" principles that guide its strategic plan and policy decisions. These principles are broad; none directly addresses school facilities.

This Study assumes that the District will only adopt education and facility policies that are consistent with these principles. The consultant team attempted to develop scenarios that satisfy District principles. Scenarios 1–3 do so with different combinations of education and facility models. Scenario 4 does not fully satisfy the principles because it is designed to test the District's ability to provide services in a funding crisis.

5.2 Overview of the Scenarios and Evaluation Methods Used in This Study

A scenario is a snapshot of what the District might look like (students, learning models, facilities) in 50 years. That future is shaped by a set of external conditions over which the District has little or no control (enrollment growth, funding per student, and external competition) and by internal conditions that the District does control (especially educational and facility policies). This section provides an overview of the scenario definitions and the methodology used to evaluate them.

Scenario Definitions

This Study uses four scenarios to explore the long-run future of educational needs and facility delivery in the District. Each makes the simplifying assumption that all student growth and relocation, and all facility building to accommodate those students, happen overnight.

Our Pillars of Learning

WE Expect Excellence

- **WE** teach students knowledge and skills for our evolving world.
- **WE** seek, support, and recognize our worldclass employees.

WE Innovate

- **WE** engage students with a variety of relevant and challenging learning experiences.
- **WE** create learning environments that promote student achievement.

WE Embrace Equity

- **WE** build honest, safe, and inclusive relationships with our diverse students and their families.
- **WE** provide needed support so that every student succeeds.

WE Collaborate

- **WE** work and learn in teams to understand student needs and improve learning outcomes.
- **WE** partner with the community to educate and serve our students.

Thus, each scenario examines the question: If all the students that are expected to be in the District 50 years from now were here tomorrow—and given assumptions about funding, District education model policy, and certain external forces—what facilities would the District build to accommodate those students?

This Study defines each scenario by assumptions about expected, low, or high levels for four categories of future conditions:

- **Student enrollment**: How many students will attend a District school? (See Chapter 3 and Appendix A for more information about growth in school-aged children and enrollment.)
- **District funding**: How much funding will the District have from both its operating levy and capital bonds? (See sidebar at right.)
- **Competition for students**: How stiff is the competition for school-aged children in the District from other public and private schools?
- **District policy flexibility**: Can the District adopt education or facility policies that differ from those in place today? (See Chapter 4 and Appendix B for more information about educational models.)

Forecasting District Bond Revenues

ECONorthwest estimated total capital funding available to the District from 2015–2065 using historical data from the District on annual, per student bond revenues and the student forecasts presented in Chapter 3.

ECONorthwest used students as the independent variable, as opposed to assessed value. Creating a forecast of assessed value would require assumptions about the value of new development in each year of the forecast period. Assumptions about the amount and value of development, and public taxation and fee policy, could vary widely. Over 50 years, predictions of assessed value would be little more than guesses, and the best guesses would be for assessments that would be highly correlated with population growth, which correlates with student growth.

ECONorthwest estimated annual bond revenues per student by summing the present value of bonds issued over a specific time period, dividing that total by the average number of students during that time period, and dividing that figure by the number of years in the time period. ECONorthwest used bond issues from 2000–2014 as a basis for its forecasts. The 2014 bond issue funded eight years of capital projects, so this analysis used a time period of 22 years. ECONorthwest calculated the average number of students using BSD enrollment data for 2000 and the forecast data for 2020 and 2025.

ECONorthwest then multiplied the annual, per student bond revenue by the projected number of students each year to estimate the total bond revenues that would be available to BSD from 2015–2065 under base-case conditions. The bond revenues vary among scenarios, in accordance with the number of students. Because the Study makes the simplifying assumption that "all growth (and, thus, all need for new and upgraded facilities) occurs overnight," it does not attempt to model the details of the timing of new bonds. That assumption would be compatible with an assumption, over time, that bond revenues are approved and available on a schedule that allows the District to construct new facilities to match growth.

According to BSD, the District uses one-third of all bond revenues for modernization or upgrades. Therefore, ECONorthwest assumed only two-thirds of forecast bond revenues were available for replacement or new schools.

Exhibit 5-1 summarizes the scenario definitions. The top row lists the four scenarios as column headings. The left column lists as row headings the "Future Conditions" that define characteristics. The orange boxes highlight the difference in a future condition that is the primary difference between one scenario and the other three. The difference is by row: for example, Scenario 2 has "high" enrollment growth; the other three have "expected" growth.

Exhibit 5-1. Summary of Scenario Definitions

Future Conditions	Scenario 1: Business as Usual	Scenario 2: High Growth	Scenario 3: Increased Innovation	Scenario 4: Constrained Funding
Enrollment Growth	Expected	High	Expected	Expected
Funding per Student	Expected	Expected	Expected	Low
External Competition	Expected	Expected	High	Expected
Flexibility of Education and Facility Models	Expected	Expected	High	High

Source: ECONorthwest

Expected means "a continuation of what is happening now and recent trends." For example, the use of "expected" education model in Scenario 1 does not mean that the District will not move toward more flexible education models; it means that the District will not make radical changes to current practices or trends. *Low* or *high* are relative to *expected*.

Scenario 1, Business as Usual, is defined by "expected" future conditions for all four conditions. It differs from the other scenarios in that it holds education model and facility policy as expected, and all others allow high flexibility.

Scenarios 2, 3, and 4 are variations of the base case: enrollment, funding, competition, or policy flexibility can be low or high relative to the expected outcome under Scenario 1. Scenarios 2, 3, and 4 all allow a change from expected in two characteristics. One characteristic, the flexibility of education model and facility policy, is rated as high (i.e., more flexible than expected under Scenario 1) for all three scenarios. The District will need to adapt these policies to respond to the opportunities and challenges presented by other factors (e.g., lower than expected funding per student). Additionally, Scenarios 2, 3, and 4 each vary a different second characteristic (enrollment, funding, or competition) to isolate the impacts of a change in that characteristic.

Overview of Scenario Evaluation Methods

The definition of each scenario suggests the context in which the District must build and maintain facilities to deliver education services. The evaluation of each scenario is defined by the *facility model* the District adopts and the *cost of that model relative to expected funding*. The Study used a five-step method to develop facility models for the scenarios. This section describes those criteria generally; the facility models for each scenario provide detail on those criteria.

Step 1: Evaluate Need

How many seats will the District need to add under each scenario? The consultant team did an extensive assessment of demographics and development to create enrollment projections by attendance area. It compared these projections by attendance area to information about the capacity of each school in the District *today*. That comparison allowed a calculation of the *surplus or deficit of seats for each school in 2065* (assuming, for starters, that no new facilities or expansions are built).

The consultant team distributed option school students from the Summa Program and Rachel Carson School to the schools where those programs live. Exhibit 5-2 shows all District schools, by type. This map will be a useful reference for the rest of Chapters 5 and 6.

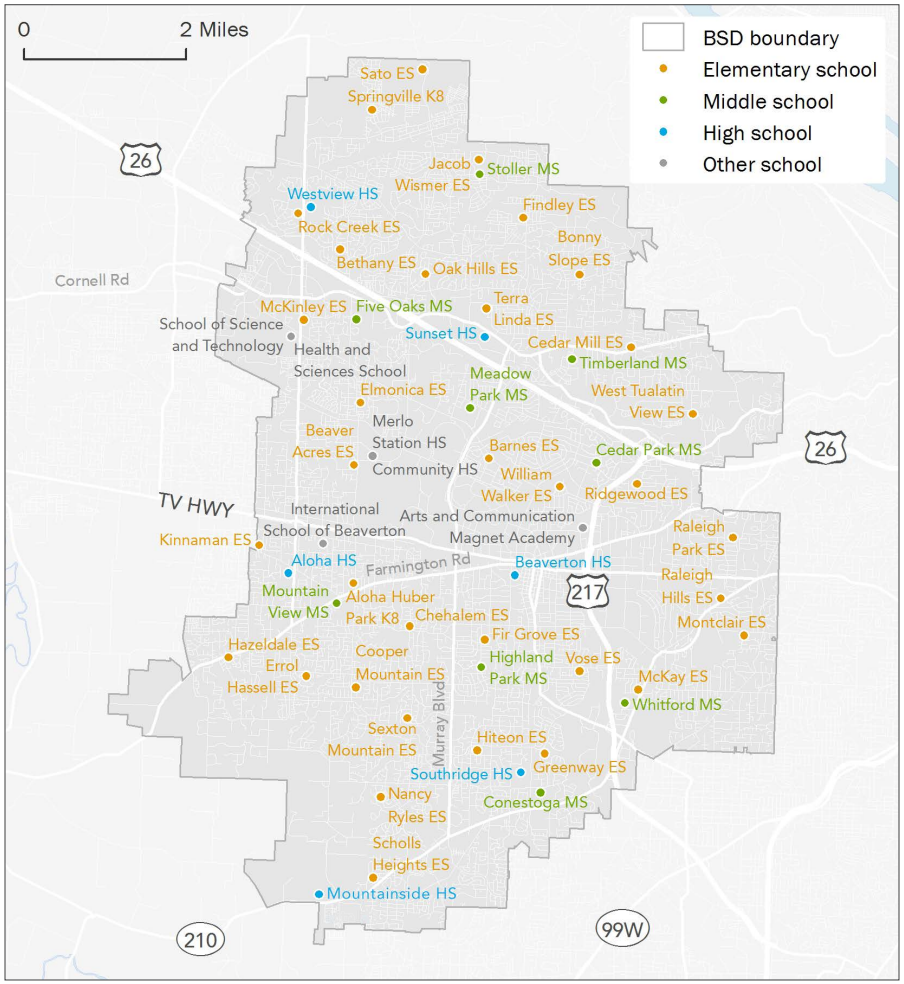
Step 2: Replace Schools

Regardless of how many new students come to the District over the next 50 years, the District will need to replace schools that are too old to be efficiently maintained. Older schools in the District are typically smaller than newer schools; thus, the replacement of these facilities typically adds some new seats to the District's total.

The Study assumes that the District builds all new schools at target student capacities: elementary, 750; K-8, 750 (includes 500 for elementary levels and 250 for middle levels); middle, 1,100; high, 2,200. It assumes that the District right-sizes option schools that have their own facilities to fit projected enrollment.

The consultant team used three criteria to determine if and when to replace schools: (1) Does the scenario allow replacements? (2) What is the school age? (3) What is the permanent and portable capacity of that school?

Exhibit 5-2. Beaverton School District Schools



Step 3: Shift Students

The distribution of students across the District looks different in 50 years:

- The highest growth areas are in the periphery of the District where regional and County forecasts expect new development to occur. Since those areas have little or no residential development today, the existing schools in those areas do not have sufficient capacity to serve expected enrollment in 2065.
- The lower growth areas are where high concentrations of District students live today. Thus, schools in some areas of the district—particularly those on the eastern side—have a surplus of capacity to serve expected enrollment in 2065.

In short, there is a mismatch between the location of school capacity and enrollment in 2065.

This Study makes a key assumption: *that the District will shift attendance areas boundaries when appropriate to balance capacity.* For Scenarios 1–3, the Study places two restrictions on how much the District can change attendance area boundaries. It assumes that the District will strive to not require either: (1) K-5 students to cross highways 26 or 217 if they do not do so already, or (2) any student to travel past a school that is at capacity to attend another school farther away. For Scenario 4, it assumes that the District will transport students as far as necessary to get them to a school that has capacity.

Step 4: Add or Remove Capacity

There is no scenario in which the District can accommodate all new students by a combination of (1) replacing old schools with new, larger schools, and (2) shifting students to neighboring schools. The District must add capacity to accommodate new students. Scenarios 1–3 build new schools *at target capacity* to accommodate new students. Scenario 4, because of assumed financial constraints, adds portables at existing schools.

Step 5: Evaluate Costs

The Study quantitatively evaluates the capital cost of each model and qualitatively describes the impact of that model on operations costs. It uses land acquisition and building costs for elementary, middle, and high schools from BSD. They reflect recent acquisition and development costs.[12]

This Study simplifies the analysis by implicitly assuming all the student growth happens overnight and asks the question: What facilities would the District have to build to accommodate all that growth? Thus, the Study does not need to make any inflation adjustments and presents all costs and revenues in 2017 dollars. Based on research, it assumes the same costs per student for replacement/redevelopment of schools and new schools.

5.3 Specification and Evaluation of Scenarios

Descriptions of each scenario follow. Each first defines the scenario and then discusses (1) the education model, (2) the facility model, and (3) the opportunities and challenges.

[12] Beaverton School District, April 2017, "Bond Program Status Report," available at: https://www.beaverton.k12.or.us/depts/facilities/Bond%20Accountability%20Committee/2017/4.26.17/Report%20to%20BAC%20-%20March%202017.pdf

Scenario 1: Business as Usual

This Scenario explores the impacts on the District of extending current education models and facility policies forward 50 years. It is defined by expected enrollment growth, competition from other education institutions, and education model and facility policy innovation. These choices increase inflation-adjusted cost per student because the cost of land acquisition increases. Two factors drive this cost increase: (1) a land supply limited by the urban growth boundary, and (2) an assumption that a primarily suburban model of school development continues.

Education Model

This Scenario assumes that the District will continue its current rate of innovation and response to new developments in the field of learning. In the near term, the District will continue to advance current innovative programs, such as the Future Ready Initiative, PCC partnerships, and internship programs. Over the long term, the District will move toward two education models:

- **Blended Learning** refers to a formal education program in which students learn both face-to-face in a supervised learning environment away from home and online. This model allows students some control over time, place, path, and pace. All components of each student's learning path within a course or subject are connected to provide an integrated learning experience.
- **Personalized Learning** is a model that paces learning to a student's needs, learning preferences, and unique interests. It includes daily engagement with powerful learning experiences, flexibility in path and pace, and the application of data to inform the individual learning trajectory of each student.

The Study assumes that this package of education models does not impact the average amount of space per student by facility type.

Facility Model

This Scenario assumes the District will continue to build schools like those it builds today. Exhibit 5-3 summarizes key characteristics of those facilities.

Exhibit 5-3. Scenario 1 Facility Characteristics

	Elementary	Middle	High
Target Capacity Size	750	1,100	2,200
Site, Acres	10	20	40
Building, Square Feet	92,000	167,000	320,000
Site Cost Per Acre	$675,000	$675,000	$675,000
Total Land Cost	$6,750,000	$13,500,000	$27,000,000
Building Per Square Feet Cost	$449	$367	$568
Total Cost	$38,575,000	$61,371,000	$181,735,000

Source: ECONorthwest with data from BSD

Exhibit 5-4 describes key assumptions used in each step of facility model development for this Scenario and the results of those steps. It moves sequentially through the steps to show the work. That means Step 4 reverses some of the school replacements assumed in Step 2, as the District does not in fact need the capacity.

This Scenario does allow the District to shift school boundaries so that it can use existing schools before adding new ones. Since most of the population growth will likely occur in the north and south of the District, school boundaries will likely need to shift to the northwest or southwest. Those shifts would cause schools to be in the periphery of their respective attendance areas.

Under Scenario 1, the District would need to **replace 25 schools and build 3 new schools. The total cost of this model would be $1.8 billion dollars.** Given this Study's estimate that total bond revenues for new construction would be around $2.2 billion in this scenario, **the District *could* afford to deliver facilities under this scenario.** Doing so assumes that the District can: (1) continue to collect an average of $1,375 per student in bond revenues each year, (2) dedicate two thirds of those bond revenues toward new construction, and (3) acquire land for new facilities at an average price of $675,000 per acre.

Discussion of the Results

The main benefit of a business-as-usual approach to facility development is that it already has the general support of the community. Therefore, the District can expect residents—unless their average service preferences or economic circumstances shift significantly—to support future capital bonds.

An ongoing concern of the District, and one reason for this Study, is that acquiring land for new schools could get increasingly expensive. Exhibit 5-4 provides some perspective. Yes, $17 million is a lot of money, and the real number (depending on market conditions and public policy) could easily be higher. But the cost of land is only 1% of the cost of new buildings because most of the new buildings are replacements of schools on sites the District already owns. Doubling the land cost would double its share to 2% and still leave the District well within the funding estimate.

Exhibit 5-4. Scenario 1 Facility Model Steps and Results

Key Assumptions for Each Step	Elementary	K–8	Middle	High	Option	Total
Step 1: Evaluate Need						
Evaluate existing school capacity (permanent and portable seats)	19,833	2,630	9,536	12,972	2,497	47,468
Calculate 2065 enrollment under normal growth scenario	21,437	4,521	9,836	13,933	3,607	53,333
Capacity Deficit	**(1,604)**	**(1,891)**	**(300)**	**(961)**	**(1,110)**	**(5,865)**
Step 2: Replace Schools						
Replace ES, MS, and HS at target capacity; replace option schools at necessary capacity						
Replace if built before 1966	11	1	4	2	2	20
Replace if built between 1966 and 1986, and 100 seats under target capacity	8	0	0	0	1	9
Total Replaced Schools	**19**	**1**	**4**	**2**	**3**	**29**
Step 3: Shift Students						
Do not allow students to cross Hwys 26 or 217, unless already doing so						
Do not allow students to travel past an at-capacity school to attend one further away						
Step 4: Add/Remove Capacity						
Eliminate school replacement from Step 2, if built before 1966 and 1986, and the District does not need the extra capacity	**(3)**	0	0	0	0	(3)
Eliminate school if District does not need the capacity in that area	**(1)**	0	0	0	0	(1)
Add new schools for ES, MS, and HS at target capacity	2	0	0	1	0	3
Total replaced plus new schools	**17**	**1**	**4**	**3**	**3**	**28**
Step 5: Evaluate Costs						
Land acquisition cost for new schools	$18,225,000	$0	$0	$37,125,000	$0	$55,350,000
Building cost for replacement and new schools	655,775,000	38,575,000	245,484,000	545,205,000	278,486,000	1,763,525,000
Total Cost	**$674,000,000**	**$38,575,000**	**$245,484,000**	**$582,330,000**	**$278,486,000**	**$1,818,875,000**

Source: ECONorthwest with data from BSD

Scenario 2: High Growth

This Scenario considers the District response to an increase in enrollment (demand) that is beyond the base case (Scenario 1). This increase will come from two sources: (1) higher-than-expected population growth (based on the Washington County Futures Study high-growth scenario), and (2) the addition of early childhood education. Under this scenario, the amount of external competition for students remains as expected. This scenario allows the District to choose facility models that diverge from those of today.

Education Model

The addition of **publicly provided, early childhood learning** is the big change in education model in this scenario. Research indicates that students with access to early childhood learning opportunities, either at home or at pre-school, perform stronger than those without access. This difference suggests the need for publicly funded early childhood education options. This scenario explores the impact on the District of offering early childhood learning opportunities.

Early learning refers to the formal and informal experiences, activities, and support systems for children from birth through age eight that are designed to improve their health, social-emotional, and cognitive outcomes, thus providing a stronger foundation for future success. While pre school, pre-K, and child care programs are the most common and visible early learning programs, increasingly educators are addressing two other key areas: infant and toddler development (through programs that typically address parent-child interactions and infant-toddler health) and pre-K–3 education, which creates stronger alignment between early learning programs and the primary grades. This scenario focuses on the provision of pre school to all District children ages 3 and 4.

This Study assumes that the District would need to house pre-K students in elementary schools. Elementary schools would maintain a target capacity of 750 students, but, they would need to be larger to accommodate the additional space required for pre-K students. So the consultant estimates that each elementary school would need to add 6,000 square feet to each elementary school to accommodate a pre-K program.

Facility Model

This Scenario assumes the District will, for the most part, continue to build schools like those it builds today. Exhibit 5-5 summarizes key characteristics of those facilities.

Exhibit 5-5. Scenario 2 Facility Characteristics

	Elementary	Middle	High
Target Capacity Size	750	1,100	2,200
Site, Acres	10	20	40
Building, Square Feet	92,000	167,000	320,000
Site Cost Per Acre	$675,000	$675,000	$675,000
Total Land Cost	$6,750,000	$13,500,000	$27,000,000
Building Per Square Feet Cost	$449	$367	$568
Total Cost	$41,266,000	$61,371,000	$181,735,000

Source: ECONorthwest with data from BSD

Exhibit 5-6. Scenario 2 Facility Model Steps and Results

Key Assumptions for Each Step	Elementary	K-8	Middle	High	Option	Total
Step 1: Evaluate Need						
Evaluate existing school capacity (permanent and portable seats)	19,833	2,630	9,536	12,972	2,497	47,468
Calculate 2065 enrollment under normal growth scenario	26,567	6,108	10,485	15,367	3,884	62,411
Capacity Deficit	**(6,734)**	**(3,478)**	**(949)**	**(2,395)**	**(1,387)**	**(14,943)**
Step 2: Replace Schools						
Replace ES, MS, and HS at target capacity; replace option schools at necessary capacity						
Replace if built before 1966	11	1	4	2	2	20
Replace if built between 1966 and 1986, and 100 seats under target capacity	8	0	0	0	1	9
Total Replaced Schools	**19**	1	4	2	3	29
Step 3: Shift Students						
Do not allow students to cross Hwys 26 or 217, unless already doing so						
Do not allow students to travel past an at-capacity school to attend one further away						
Step 4: Add/Remove Capacity						
Eliminate school replacement from Step 2, if built before 1966 and 1986, and the District does not need the extra capacity	0	0	0	0	0	0
Eliminate school if District does not need the capacity in that area	0	0	0	0	0	0
Add new schools for ES, MS, and HS at target capacity	10	0	1	1	0	12
Total replaced plus new schools	**29**	**1**	**5**	**3**	**3**	**41**
Add 6,000 SF capacity at existing (not-replaced) ES to accommodate additional pre-K space						
Number of schools with added pre-K capacity	12					
Total added SF of pre-K space	**72,000 SF**					
Step 5: Evaluate Costs						
Land acquisition cost for new schools	$91,125,000	$0	$16,875,000	$37,125,000	$0	$145,125,000
Building cost for replacement and new schools	1,196,714,000	41,266,000	306,855,000	545,205,000	299,882,000	2,389,922,000
Total Cost	**$1,320,134,000**	**$41,266,000**	**$323,730,000**	**$582,330,000**	**$299,882,000**	**$2,567,342,000**

Source: ECONorthwest with data from BSD

The one exception is elementary schools. Pre-K students require additional space, which the consultant team estimates equate to the addition of 4 classrooms plus additional circulation and ancillary to the typical elementary school, or about 6,000 square feet of space. The Study assumes the District makes 6,000 6,000 square feet additions to elementary schools not replaced in this scenario at a cost of $449 per square foot.

Exhibit 5-6 describes key assumptions used in each step of facility model development for this Scenario and the results of those steps. It moves sequentially through the steps to show the work. That means Step 4 reverses some of the school replacements assumed in Step 2, as the District does not in fact need the capacity.

Under Scenario 2, the District would need to **replace 29 schools and build 12 new schools. The total cost of this model would be $2.6 billion dollars.** Given forecast bond revenues for new construction of $2.4 billion dollars, **the District could not afford to deliver facilities under this scenario, although the gap would be relatively small.** There are a number of strategies the District could use, such as increasing the capacity of new schools, increasing class sizes, or co-locating schools on the same grounds, which would help close the gap. Chapter 6 discusses these options in greater detail.

Discussion of the Results

There are two benefits associated with this model. The first is that it accommodates universal pre-K, which has been shown to improve education outcomes. The second is that it takes a business-as-usual approach to the types of facilities it builds. Since the community supports these types of facilities, the District can expect residents—unless their average service preferences or economic circumstances shift significantly—to support future capital bonds.

There are two challenges with this model. The first is that it assumes the District can make cost-effective additions to the 12 elementary schools that it does not replace. That is a blanket assumption that may not be true given a school's site size, existing building configuration, or other amenities. The District may need to turn to community partnerships for off-site pre-K facilities in neighborhoods where the schools cannot accommodate the building addition or reduce the number of students.

A second challenge with this model is that it increases per-student operating costs. The addition of pre-K slightly decreases the required student-to-teacher ratio for elementary schools. Facility additions to existing elementary schools that require pre-K students to travel between buildings compound the staff impact. The District would almost certainly need to increase its operating levy.

Scenario 3: Increased Competition

Increased competition for students might come from more microschools, charter schools, innovative programs at neighboring districts, private schools, or alternative learning paths. Under the best of circumstances, the District could retain its share of the school-aged population, but Getting Smart estimates that it could lose up to 30% of its current share based on its review of the performance of other districts. The scenario assumes that the District maintains its share of student by adopting innovative education models. Under this scenario, enrollment and funding are as expected and education model and facility policies are flexible.

Education Model

A **competency-based approach** is central to a highly innovative education system. In this approach, students make progress based on content mastery rather than age cohort. A competency-based approach enables **personalized learning** to provide flexibility and support to ensure mastery of the highest standards possible. With a clear and calibrated understanding of proficiency, learning can be tailored to each student's strengths, needs, and interests and can enable students to choose what, how, when, and where they learn.

Competency-based learning allows students to graduate early or transition into work-based or early college settings. The transition to other settings will increase the demand for District-provided **online learning, career and technical education, internships, and dual-enrollment programs**. The school may choose to form partnerships to offer these types of specialized programs, or it may do so through specialized District Schools and programs.

Specialized District schools or programs may take the form of charter schools, innovation schools, fully online schools, microschools, or specialized programs within a neighborhood school.

This model also includes several models discussed under other scenarios in this chapter: **personalized learning, blended learning,** and **early learning**.

This Scenario impacts facility demand for both elementary and high schools. The Study assumes that the District needs to house pre-K students in elementary schools. Elementary schools maintain a target capacity of 750, but they must be larger to accommodate the additional space required for pre-K students. The consultant team estimates that each elementary school must add 6,000 square feet to accommodate a pre-K program. The Study assumes that the addition of off-campus programs for high school students decreases BSD *high school facility demand* by 5–10%. It does, however, assume higher costs for more specialized facilities.

Facility Model

This Scenario assumes the District changes its facility model from that of today. Exhibit 5-7 summarizes key characteristics of those facilities.

Exhibit 5-7. Scenario 3 Facility Characteristics

	Elementary	Middle	High
Target Capacity Size	750	1,100	2,200
Site, Acres	8.5	17.5	37.5
Building, Square Feet	89,600	167,000	320,000
Site Cost Per Acre	$208,800	$208,800	$208,800
Total Land Cost	$1,774,800	$3654,000	$7,830,000
Building Per Square Feet Cost	$471	$386	$596
Total Cost	$42,199,300	$64,430,600	$190,822,100

Source: ECONorthwest with data from BSD

Like Scenario 2, this Scenario requires larger elementary school facilities to accommodate pre-K. Unlike other scenarios, this one assumes that the District provides a greater diversity of school facilities to accommodate more diverse programs. It is impossible to know precisely what these new facilities will look like, but the education model appendix provides some compelling examples of unique K-12 facilities that exist today. This Study deals with this uncertainty by adding a blanket increase of 5% to the building cost of replacement and new facilities. Exhibit 5-8 shows the results.

The Overview of Scenario Evaluation Methods describes the steps used to determine the number of facilities the District would need to build and the cost of those facilities. Exhibit 5-8 describes key assumptions used in each step of facility model development for this Scenario and the results of those steps. It moves sequentially through the steps to show the work. That means Step 4 reverses some of the school replacements assumed in Step 2, as the District does not in fact need the capacity.

Under Scenario 3, the District would need to **replace 33 schools and build 4 new schools. The total cost of this model would be $2.4 billion dollars.** There is a small gap between the model cost and forecast bond revenues available for new construction ($2.3 billion), which means the District could likely afford to build this model. This does assume that the District can effectively reduce demand for space among high school students by 5%. If it does not, then it will need to accommodate several hundred additional students. It could do so by increasing school capacity in replacement schools or new option school programs.

Discussion of the Results

There are several benefits associated with this model. The first is that it accommodates some pre-K, which research demonstrates improves education outcome. The second is that it provides students more diverse learning options (e.g., CTE, high-tech). The third is that it replaces more facilities, which improves access to these opportunities.

There are several challenges with this model. The first is that it is barely affordable, given projected bond revenues. The District would need to either make a case to increase the tax rate or be more selective about which schools receive capital funds to support innovation.

Exhibit 5-8. Scenario 3 Facility Model Steps and Results

Key Assumptions for Each Step	Elementary	K-8	Middle	High	Option	Total
Step 1: Evaluate Need						
Evaluate existing school capacity (permanent and portable seats)	19,833	2,630	9,536	12,972	2,497	47,468
Calculate 2065 enrollment under normal growth scenario	23,455	4,814	9,836	13,933	3,607	55,645
Capacity Deficit	**(3,622)**	**(2,184)**	**(300)**	**(961)**	**(1,110)**	**(8,177)**
Step 2: Replace Schools						
Replace ES, MS, and HS at target capacity; replace option schools at necessary capacity						
Replace if built before 1986	21	1	6	3	4	35
Total Replaced Schools	**21**	1	6	3	4	35
Step 3: Shift Students						
Do not allow students to cross Hwys 26 or 217, unless already doing so						
Do not allow students to travel past an at-capacity school to attend one further away						
Step 4: Add/Remove Capacity						
Eliminate school replacement from Step 2, if built before 1966 and 1986, and the District does not need the extra capacity	(1)	0	0	0	0	(1)
Eliminate school if District does not need the capacity in that area	(1)	0	0	0	0	(1)
Add new schools for ES, MS, and HS at target capacity	4	0	1	1	0	4
Total replaced plus new schools	**23**	**1**	**6**	**3**	**4**	**37**
Add 6,000 SF capacity at existing (not-replaced) ES to accommodate additional pre-K space						
Number of schools with added pre-K capacity	11					
Total added SF of pre-K space	**66,000 SF**					
Step 5: Evaluate Costs						
Land acquisition cost for new schools	$36,450,000	$0	$16,875,000	$37,125,000	$0	$36,450,000
Building cost for replacement and new schools	996,590,000	43,330,000	386,640,000	572,466,000	311,865,000	2,310,891,000
Total Cost	**$1,064,124,000**	**$43,330,000**	**$386,640,000**	**$572,466,000**	**$311,865,000**	**$2,378,425,000**

Source: ECONorthwest with data from BSD

A second challenge is that this model does not provide equal access to pre-K. It assumes that pre-K is optional, and only 50% of children in the District attend District pre-K. If the pre-K program is successful, more parents may wish to enroll their children. In that case, the District would need to either turn those parents away, divert capital funds from other projects, or implement management strategies that increase facility efficiency (discussed in Chapter 5 implications).

This model shares two additional challenges with Scenario 2. First, this model assumes the District can make cost-effective additions to elementary schools that it does not replace. That is a blanket assumption that may not be true given a school's site size, existing building configuration, or other amenities.

Second, it increases per-student operating costs. The addition of pre-K slightly decreases the required student-to-teacher ratio for elementary schools. Facility additions to existing elementary schools that require pre-K students to travel between buildings compound the staff impact. The District would almost certainly need to increase its operating levy.

Playground at Rock Creek Elementary.

Scenario 4: Constrained Funding

Although the District has historically been successful in securing funding for school bonds to build facilities, the continuation of that funding is not guaranteed. This scenario explores how the District might operate in a constrained funding environment.

The scenario assumes that the District only receives sufficient funds for deferred maintenance, a reality for some districts in the U.S. It allows education models and facility policies to flex accordingly. The lack of any new money for building new facilities is admittedly an extreme scenario, but it is useful as a bookend for considering what happens if funding gets tight.

Education Model

The District can adopt a combination of the following education models or management practices to reduce the cost of education:

- Intentionally increasing **off-site partnership for dual-enrollment and CTE**
- Renting space for **low-amenity option schools**
- **Renting District facilities** to other partners for complementary activities
- Implementing **high-utilization practices**, such as flexible scheduling and year-round schooling

Facility Model

This Scenario assumes economic conditions in the District change and the District will be unable to pass a capital bond for new facilities. Therefore, the District will be unable to invest in permanent facilities and will only spend on portables, as it tries to accommodate growth in school-aged children. Yes, this is an aggressive and unlikely case, but it reflects a real situation for many districts across the U.S. And it is prudent for the District to explore how such a drastic turn of events could impact its ability to serve students.

Exhibit 5-9 summarizes key characteristics of portable facilities. It shows maximum portable capacity based on a typical school. Many older schools may be on smaller sites, which would reduce their portable capacity. This Study does not do a site-by-site evaluation to address capacity variations.

Exhibit 5-9. Scenario 4 Facility Characteristics

	Elementary Portable Classroom	Middle Portable Classroom	High Portable Classroom
Max Portable Classrooms Per School	6	14	16
Capacity Per Portable Classroom	19	21	23
Capacity Per School, Portables Only	114	294	368
Cost Per Portable Classroom	$125,000	$125,000	$125,000

Source: ECONorthwest with data from BSD

Exhibit 5-10. Scenario 4 Facility Model Steps and Results

Key Assumptions for Each Step	Elementary	K-8	Middle	High	Option	Total
Step 1: Evaluate Need						
Evaluate existing school capacity (permanent and portable seats)	19,833	2,630	9,536	12,972	2,497	47,468
Calculate 2065 enrollment under normal growth scenario	21,437	4,521	9,836	13,933	3,607	53,333
Capacity Deficit	(1,604)	(1,891)	(300)	(961)	(1,110)	(5,865)
Step 2: Replace Schools						
Do not replace schools						
Step 3: Shift Students						
Allow students to travel as far as necessary to reach a school with capacity						
Step 4: Add/Remove Capacity						
Add portables to maximize capacity, as specified in the 2010 BSD Facility Plan	80	14	66	76	11	247
Replace added portables at the 20 year mark	80	14	66	76	11	247
Total new plus replaced portables	**160**	**28**	**132**	**152**	**22**	**494**
Step 5: Evaluate Costs						
Total Cost	**$20,000,000**	**$3,500,000**	**$16,500,000**	**$19,000,000**	**$2,750,000**	**$61,750,000**

Source: ECONorthwest with data from BSD

The Overview of Scenario Evaluation Methods describes the steps used to determine the number of facilities the District would need to build and the cost of those facilities. Exhibit 5-10 describes key assumptions used in each step of facility model development for this Scenario and the results of those steps.

Unlike the other models, this model is for *portables* (as opposed to permanent facilities). The model shows that the District could build up to 247 new portables, which would max out its portable capacity for existing facilities. Since the lifespan of a portable is only 20–25 years, the model shows that the District also needs to replace those portables during the scenario time period.

The total cost of the model is $61.7 million dollars. With no capital bond, the District must fund the purchase of portables with operating revenues. Operating revenues total about $500 million per year, so the portable cost comprises a relatively small portion of operating revenues. What this math does not take into consideration is the added maintenance expenses associated with older facilities. The spike in repair and maintenance would further eat away at the operating budget.

Discussion of the Results

The only benefit of this model is its cost. But that low capital cost comes with some major challenges for the District.

The first challenge is that this model does not accommodate all students. Almost 600 students do not have a seat. The District would need to increase its portable allowance, increase class sizes, shift more students into off-campus learning options, or adopt capacity-reducing management strategies to accommodate all students.

Those who do have seats face additional challenges:

- Students in the western half of the District need to travel east past one or more at-capacity schools to attend a school.
- The District must accommodate almost 1,500 elementary school-aged children (enough to fill two elementary schools) in middle school facilities.
- The District must accommodate almost 400 middle-school children in high-school facilities.
- The District must move almost 900-option school children to other facilities.
- This model also has negative implication on operating costs:
- The presence of thirty-six schools over 100 years old increases maintenance costs.
- The addition of portables increases utility costs and labor costs (students traveling between buildings require more supervision).
- The District must pay more in transportation costs to bus children across the District.

5.4 Summary Comparisons of Opportunities and Challenges

Exhibit 5-11 summarizes some of the results in Exhibits 5-7 to 5-10 to allow a side-by-side comparison of the four scenarios.

Exhibit 5-11. Scenario Summary

Key Assumptions for Each Step	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Capacity Deficit in Terms of Seats				
ES	(1,604)	(6,734)	(3,622)	(1,604)
K-8	(1,891)	(3,478)	(2,184)	(1,891)
MS	(300)	(949)	(300)	(300)
HS	(961)	(2,395)	(961)	(961)
Option	(1,110)	(1,387)	(1,110)	(1,110)
Total Capacity Deficit	**(5,865)**	**(14,943)**	**(8,177)**	**(5,865)**
Capacity Added to Eliminate Deficits				
Replaced Schools Plus New Schools				
ES	17	29	23	0
K-8	1	1	1	0
MS	4	5	6	0
HS	3	3	3	0
Option	3	3	4	0
Total Replaced Plus New Schools	**28**	**41**	**37**	**0**
Added Pre-K Capacity				
Number Of Schools with Added Pre-K Capacity	0	12	11	0
Total Added Square Feet of Pre-K Space	**0**	**72,000**	**66,000**	**0**
New Portables Plus Replacement After 20 Years				
ES	0	0	0	160
K-8	0	0	0	28
MS	0	0	0	132
HS	0	0	0	152
Option	0	0	0	22
Total Replaced Plus New Portables	**0**	**0**	**0**	**494**
Total Cost	**$1,818,875,000**	**$2,567,342,000**	**$2,378,425,000**	**$61,750,000**

Scenario 4 is the outlier: it assumes restricted funding and the inability to develop any new facilities. It is an unlikely scenario. In contrast, Scenarios 1 through 3 are similar, in that they all have revenues for new construction (some more than others), and they all have been designed so that new facility costs are not significantly higher than projected revenues. A comparison of Scenarios 1 through 3 probably yields more relevant insights for near-term planning.

Scenarios 1 through 3 have relatively similar K-8, middle school, high school, and option school needs. They diverge notably in the number of elementary schools required because of (1) increased growth (Scenario 2), and (2) the addition of pre-K (Scenarios 2 and 3). The District could accommodate both changes, but doing so would require some changes to current policies and standards. These issues and their implications are discussed more below, and in Chapter 6.

Some of the opportunities and challenges suggested by the scenarios seem obvious; others were not. This Study convened a Futures Work Group and district staff to help think about the impacts of the scenarios. The results reported here reflect their thinking.

The results of the scenario evaluations show that the District is, all things considered, set up relatively well for the future. **If funding levels stay comparable to those of the last 10–20 years, the District can probably continue to deliver K-12 education services to students in typical suburban facilities, *assuming* it can shift boundaries to maximize the use of existing facilities.**

Westview High School

That last assumption about school boundaries is critical. Chapter 3 illustrates that the majority of the District's growth in school-aged children is at its periphery. Though it only loses population in some areas and only for some time periods, it already has excess facility capacity in some central areas because of changes that have already occurred. If it chooses not to use that capacity because school boundaries would have to change to fill it (and because changing and expanding boundaries for schools in areas with low student density will mean greater travel distances for some students), then

it will have to build more new facilities in other places. Given the amount and location of expected growth for school-aged children, the only way to fully use existing capacity is to change school boundaries.

Those changes are difficult for any school district. Our opinion is that those changes are easier for residents to accept when there is a lot of preparation and a long lead time. That point is true for all public facilities. A typical mistake made by municipalities and service districts is to avoid talking about the hard change because the problem is not bad enough yet, and then to deal with it precipitously when the situation is deemed a crisis. That path gives households no time to adjust and fails to take advantage of the fact that people's situations change and they move. When new people consider moving in, they do so with the knowledge that change is planned, and they can make their decisions accordingly.

The District should start planning now. Most of the projected new students will come in the next 20 years, which means the District would need to start planning attendance boundary changes, land acquisitions, and new school developments in its next facility planning process. **Maintaining a business-as-usual approach to school development would require substantial investments in planning and land acquisition over the short term.**

A continuation of the status quo may not, however, be enough for the District to thrive. A review of education trends (Chapter 4 and Appendix B) suggests that districts across the U.S. are adopting new education models, such as universal pre-K and personalized learning. For BSD to remain competitive, it may need to provide pre-K and specialized programs—both the services and facilities—across the District.[13] Although Scenarios 1 and 2 suggest that the District could almost undertake these initiatives with current resources, that arithmetic does not take into consideration some very real costs:

- **Universal pre-K would require substantial changes to the District's current portfolio of facilities, and soon.** Under a high-growth scenario, it would require making space for 4,600 pre-K students by 2055—the equivalent of six new elementary schools. Building six new schools would be difficult. A more realistic approach to accommodating this growth would be to increase class sizes, partner with other institutions, or phase in pre-K with the construction of new facilities.
- **Specialized programs could take a variety of forms, many of which require more resources.** School within a school, CTE, independent study, and other nontraditional programs require more one-on-one and small-group attention from teachers, more administrative oversight, and more space for students.
- **Making investments in universal pre-K and personalized or other specialized education would require investments above and beyond the projected resources of the District.** If the District thinks it may want to explore these opportunities, it should start having conversations with the teaching and learning staff and the community at large now. Those conversations should discuss questions like: What programs do we want to offer

[13]This report has talked about changes to the educational model in terms of competitiveness. Fundamentally, however, providing better education by improving educational models may *just be the right thing to do.*

our students? What would those programs require in terms of facility and operating expenditures? How much are we willing to pay? What trade-offs might we want to make?

If the District does not get the level of growth projected by the State, County, and other experts, it will need to have a very different conversation with staff and the community. **Lower growth is a real possibility.** For example, national trade barriers or an unfriendly business climate could curb the expansion of Nike, Intel, or other major employers that bring jobs and residents. Worse, those employers could contract or leave, reducing the tax base and, thus, the operating revenues for the District. That effect may, in turn, reduce residents' willingness to pay for new school facilities. Prudent planning includes some consideration of priorities for future services and investments to ease a transition to a more restricted budget, if economic conditions warrant it.

Chapter 6 discusses the implications of these scenarios on District planning activities and policy choices in greater detail.

The Futures Workgroup Weighs In

Members of the Futures Workgroup met to discuss the scenarios and the opportunities and challenges they implied for the District. The opportunities and challenges broadly fell into five themes, which became the structure for Implications.

- Land Use Regulation and Growth
- Education and Technological Innovation
- Funding
- Property and Facilities
- Engagement and Partnerships

6. Implications for District Policy

6.0 Implications for District Policy

This chapter discusses the implications of the scenario evaluation on District actions. It groups those implications into two broad categories: (1) Planning and Policy (with sub categories for Land Use Regulation and Growth, Education Models and Technological Innovation, Funding, Property and Facilities, Engagement and Partnerships) and (2) Facility Management. The first category is more general and sometimes about longer-run and more speculative policy choices. The second category goes deeper into suggestions about facility management that can be implemented now and over the next five years.

In 50 years, the type and location of schools in Beaverton School District will not look just like any single scenario explored in this study. No person or method can predict with confidence that far out. Changes in the local economy, land use regulation, development patterns, technology, State and District policies, and many other factors will change and interact in unpredictable ways.

So why put so much effort into developing detailed pictures of what the District *could* look like? Because the process of thinking about and discussing possible futures leads to better decisions *now*. The District can design and implement resilient policies that will work under a range of potential future conditions and prepare to quickly pivot when something unexpected happens.

In a work session to explore the implications of the scenario work, the consultant team and Futures Workgroup identified over 40 opportunities and challenges facing the District. They categorized these opportunities and challenges under the following themes:

- Land Use Regulation and Growth
- Education Models and Technological Innovation
- Funding
- Property and Facilities
- Engagement and Partnerships

This chapter discusses the *implications of those opportunities and challenges for District actions*. The consulting team found it difficult to talk about policy *implications* without getting into policy *suggestions*. Thus, many of the implications start with the phrase, "The District should…" (rather than the fuzzier, "The District might want to consider…") The District staff and Board should interpret the implications in that context: they are the consultants' ideas about what they see as implications for policy—it is clearly the responsibility of the District staff and Board to decide on which, if any, of the suggestions it may make sense to pursue. In other words, this chapter provides *options* for the District to consider in light of the scenarios, *not recommendations* of a specific package of policies for adoption.

This chapter discusses implications under two main headings. Section 6.1 addresses the high-level planning and policy implications that emerged from the opportunities and challenges in each of the five themes. Section 6.2 dives deeper in the focus of this Study (facilities) to provide suggestions about facility management actions the District could take now and over the next few years.

6.1 Planning and Policy Implications

Land Use Regulation and Growth

The location of students in the future is uncertain, so the District should continue to keep a close eye on growth and development. The two growth forecasts show different amounts and locations of household growth, which results in different numbers of school-aged children, which means different needs (demand) for facilities. The best ways to deal with that uncertainty about future development are to:

1. Monitor actual and forecasted growth so it does not arrive as a surprise. The District should work with local agencies, such as Metro, the City of Beaverton, and Washington County, to monitor short- and long-term trends that may impact future growth and development. Doing so will enable the District to evaluate the resilience of its facility plans.
2. Try to influence local policies about accommodating growth.

The District should partner with local governments to ensure land use planning and regulation adequately provide for new school facilities. Projected growth in the District will increase demand for school facilities, and the physical design of those facilities is likely to change. The development of existing Urban Reserves will create new pockets of demand for school facilities. These pockets are in areas not currently serviced fully by infrastructure and public facilities. Serving them will require the development of new school facilities (likely elementary (K-5) or K-8), unless the District opts to redefine "neighborhood schools."

More infill and denser development is likely in the District, which will push the District to continue its transition from a suburban to an urban school district. What does that look like? Broadly, it means multi story schools with less parking and smaller footprints. It may also mean building community partnerships with organizations and businesses that can provide off-site facilities for student activities.

The District and the community at large will best be served if the District and local governments work together now to adequately plan for these changes in development. In its facilities plans, the District can say that local governments *should* set aside land in Urban Reserves for schools or enact laws to allow development fees to support schools.[14] But it cannot enact these changes without local government action.

Therefore, the District should proactively work with local government to align on land set-aside requirements for new developments, identify land acquisition opportunities for the District, and revisit zoning code development standards for public schools (e.g., reduce parking requirements). The Metro Code Urban Growth Management Functional Plan requires that Comprehensive Plan provisions for new urban areas include a "provision for the amount of land and improvements needed, if any, for public school facilities sufficient to serve the area added to the UGB in coordination with affected school districts."[15]

[14]Oregon allows local governments and special districts to charge system development charges (impact fees) for water, wastewater, stormwater, transportation, and recreation facilities, but not for schools, police, or fire facilities. Previous efforts to expand the law to include these other facilities have failed. About 30 states use impact fees; about 10 allow them for school facilities.

[15][1] Section 3.07.1120 Planning for Areas Added to the UGB. (c) 5, page 60

Education Models and Technological Innovation

The District needs more information about short- and mid-term teaching and learning needs and goals before it starts its 2020 Facility Plan update.

Schools function best when designed for specific teaching and learning outcomes. Community goals and needs are changing, and District staff would like to know more about them in advance of the long-range Facility Plan update. The Futures Workgroup recommended that the District reach out to its teaching and learning staff and the community at large to discuss current and future graduate profiles, education models, and other service and facility needs. The conversation should start with goals—who are the students of the future and what will they need to learn to be successful? It can then move on to needs—what does the District need to do to enable student success?

To stay competitive, the District should stay on the cutting edge of education model trends and provide a range of education options for its students and teachers.

The District is currently positioned as a leader in quality education in the State/region. To maintain that commitment to excellence, the District will need to be aware of the expanding universe of education models and stay committed to ongoing research and awareness while providing a variety of choices for families and students that start early and include a combination of, and connection to, community services.

The District should actively manage education model change.

All education model trends point to substantial change in what, how, and where students learn—and these changes will impact what and how District teachers teach. Change can be difficult for every organization and individual. The District will need to actively manage this change *with* staff to build awareness, desire, knowledge, ability, and reinforcement.[16]

Funding

The District has the advantage of a history of local support for capital bond issuances.

The District has historically been successful in securing funding for school bonds to expand, acquire and repurpose, and build new facilities. If economic conditions do not deteriorate, *if* the District can continue to bond at the same capacity, *and* purchase land at a reasonable rate for new schools, *and* education model trends do not increase per capita facility needs, the District can likely continue to build facilities similar to those of today. That is a long list of necessary conditions, and it leaves little room for error. Barring a radical reduction in how the District delivers facilities, the District will need to continue to issue bonds at regular intervals.

To remain competitive, the District should increase its capital and operating funds.

There are several dominant trends in education models that will likely require a higher investment per student: universal pre-K, personalized learning, and more CTE programming. All three trends

[16]The ADKAR Model, https://www.prosci.com/adkar/adkar-model

will likely increase the facility space per student and decrease the student to teacher ratio. The latter two will also require more investments in technology and other specialized equipment. The District could attempt to contain costs by partnering with other organizations to provides facilities and instruction, but the development and maintenance of these relationships would still require a substantial operating investment by the District.

To remain competitive, the District will probably need to increase its capital and operating revenues. In the short- to medium-term, the District could go to voters to seek an increase in the regular capital bond issuance and operating levy beyond current rates. To be successful, the District will need to make a strong case to the community, which points to the need for more community engagement. In the long-term the District could work with state legislatures to develop a more stable funding mechanism for Oregon Schools.

Property and Facilities

Boundary adjustments will be ongoing and inevitable: be clear about that fact and the process the District will use to address it.

Regardless of which education and facility model changes occur in the future, the District will need to adjust school boundaries as the District population grows and changes. Talking with the community about moving children from one school attainment area to another is difficult and could be long, complex, and labor-intensive. The District, its students, and their parents will be better able to address these changes if all parties are clear about their necessity, and about the schedule and process by which that necessity will be addressed. Information in this Study can help the District signal where change is likely to occur many years in advance of the need for such change.

A strategic approach to property acquisition would improve the 10-year facility planning process.

The District will need to build new facilities as more people move into the District, both increasing densities through infill development and expanding service demand through urban reserve development. With the exception of the Urban Reserves, there are few large tracts of vacant land available for development in the District. The District will need to be strategic about how it acquires land for new facilities. Two strategies to consider are: (1) opportunistically acquire land in projected growth areas as parcels become available, and (2) work with local governments to ensure school facilities are part of land-use planning for urban reserve development.

The elimination of portables would require new models or additional investment.

All scenarios allowed the continued use of existing portables at schools that did not get replaced. If the District intends to phase out portables, it will need to adopt education or facility models that reduce per student facility demand or build new capacity.

All education model trends point to the need for facilities with flexible use spaces.

The schools that the District builds today may serve students 100 years from now. This study reinforced the certainty that education models will change substantially in the future—technology will become a bigger part of the learning experience, students will need more group and independent learning spaces, districts may

offer more option schools or specialized facilities, and community partnerships may diversify the types of uses in a school facility. All of these changes imply a need for flexible facilities that can accommodate different education models, and perhaps even different users (e.g., nonprofits, business incubators).

Engagement and Partnerships

The District may explore strategic partnerships to provide both education services and facility space.

Community partnerships can improve the quality of education for all students. Education model research suggests that students, particularly older ones, will continue to seek out diverse learning opportunities outside of the traditional classroom. The District could partner with employers and nonprofits to provide programming and facilities for mentorship, internships, workshops, or other educational experiences to enrich the learning experience.

The District will need to consider both the location and design of partner facilities early in the partnership exploration process. Facilities must be accessible to District students. The design of the facilities must ensure students have access and security. The availability of meeting and individual workspace would also be a plus. These factors have been a challenge for the District in its exploration of partnerships in the past.

Effective staff and community engagement and strategic partnerships are key to success.

The District cannot optimize its facilities without effective engagement and partnership. The District can:

- Engage with local governments to keep on top of growth and development trends and ensure that, when new developments happen, local governments engage the District in the acquisition of appropriate sites.
- Engage in ongoing dialogues with the community, including students, about what students need and want from their education, how facilities can improve the educational experience, and what investments the community will support to improve on education services and facilities.
- Work with teachers and other District staff to create a culture of innovation, which not only tolerates change but *welcomes* it.
- Partner with other organizations to provide educational opportunities outside of the classroom.

There are a lot of opportunities for the District to get engaged both internally (there is always opportunity in any organization for more collaboration across departments) and externally. The most important takeaway is that it start that engagement soon and keep doing it often.

6.2 Property and Facility Capacity Management Implications

Section 6.1 describes possible implications for policy at a high level, organized in broad themes. It covered everything except the details of facility management, and some of what it covered would not be something on which the Facility Department would be lead (e.g., educational models). But the Facility Department is clearly responsible for facility management, which is an area with the most immediate and potentially large effects on the need for future facilities. This section (6.2) dives deeper in the focus of this Study (facilities) to provide suggestions about facility management actions the District could take now and over the next few years.

Section 6.2 starts by providing a list of Potential Strategies (and more-specific actions), organized into four categories:

- Facilities
- Delivery and Programs
- Partnerships
- Enrollment and Demographics

That categorization is suggestive, not rigid. Strategies and actions may fall under more than one category. Some of the strategies overlap with the broader ones described in Section 6.2. Multiple strategies can be implemented in many combinations.

The next subsection, *Application Areas*, attempts to provide some concrete and understandable policy directions despite all the complexity. It does so by grouping facility-management strategies into four levels of application:

- Building-level applications
- Site-level applications
- District-level applications
- Early learning applications

The District may consider some of the strategies described in this section as sub-optimal, or even undesirable. They are not recommendations: they are ideas that can help answer questions as the District later addresses issues related to facility capacity and location. They may not align with the District's educational goals or with current District standards (such as minimum site size requirements and classroom and facility target sizes). They are, however, potential responses to the changes in enrollment, educational models, technology, and facilities that this Study addresses.

This Study evaluated strategies and actions as district-wide approaches. They may not, however, apply to all schools or conditions, and may not address growth in the specific areas of need. Some strategies (e.g., increasing target class sizes or increasing the number of portables) will add capacity throughout the District, including in areas where high growth is not projected. This may result in busing or boundary adjustments to distribute capacity.

Potential Strategies

Facilities

- Replace or add to buildings (to capacity targets)
- Locate multiple facilities on a single site (may require changing site parameters)
- Maximize efficiency of existing sites

- Acquire property for other things (i.e. fields)
- Lease space (commercial type)
- Use of facilities in adjacent districts (if under-enrolled)
- Adjust boundaries (school, District)

Delivery and Programs

- Change grade level on sites to address grade level specific issues (ES to MS)
- Change grade configurations
- Increase target capacity of schools
- Increase class size
- Use of delivery models that also manage enrollment (blended, career/college, dual enrollment, etc.)
- Split shift schedule with or without year-round school model

Partnerships

- Postsecondary high school and middle school (such as career and technical education, advanced placement, other)
- Parks department (fields, other)
- Transportation (high school parking)

Enrollment / Demographics

- Work with jurisdictions to modify zoning (although decreasing residential density does not align with current jurisdictional policies and goals, this strategy may be viable over the long-term span of this study)

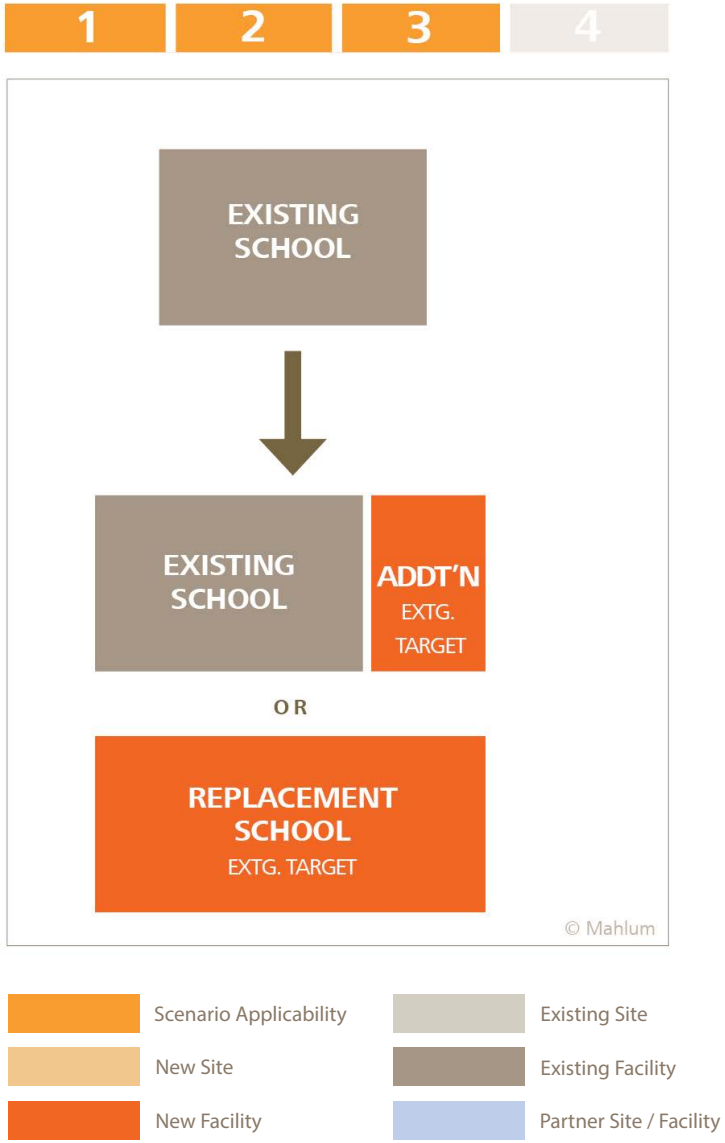
Application Areas

Some of the following strategy applications are already embedded in the definition and evaluation of the four scenarios in Chapter 5. Others are new alternative options aimed at modifying the outcomes of the scenarios.

Key for Diagrams on Following Pages

Please note that these diagrams are *illustrative only* and do not indicate proposed changes.

Building-Level Applications

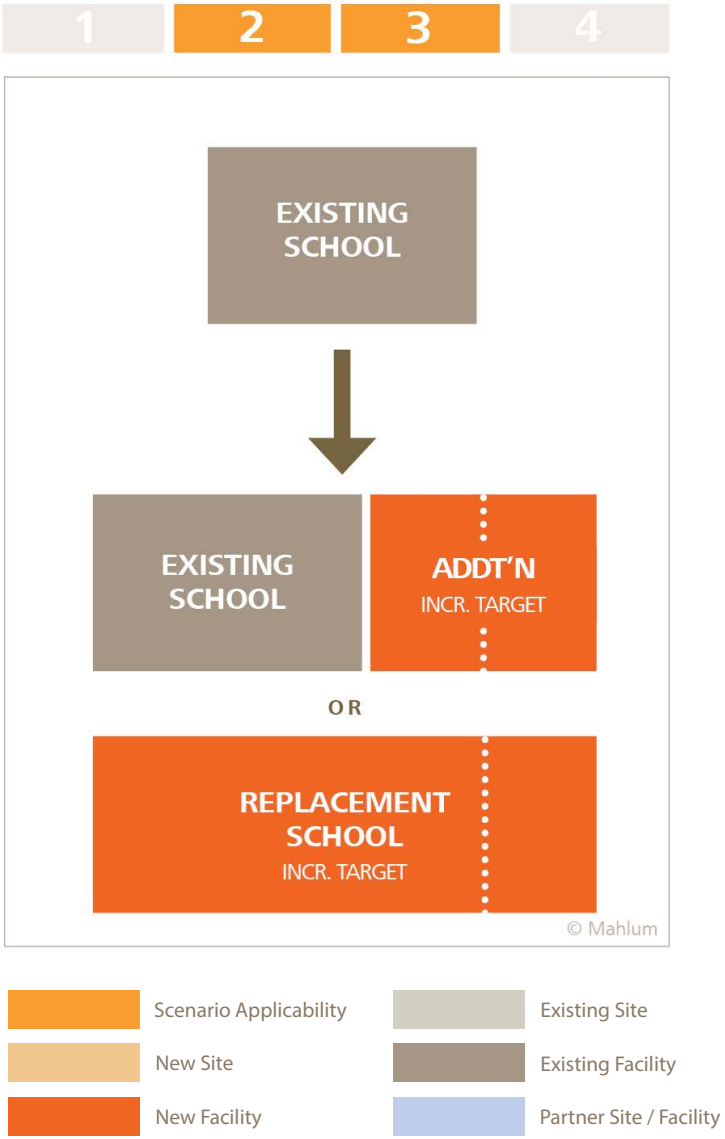


Replace or Add to Existing Schools to Achieve District Target Capacity

The District could add capacity to existing schools that are under target capacity by building either (1) a replacement facility (when warranted due to building age or condition) or (2) a building addition. Current targets are 750 seats at the elementary level, 1,100 seats at the middle school level, and 2,200 seats at the high school level.

Potential Opportunities

Twenty-six of the District's 34 existing elementary schools are under the target capacity of 750, including portable capacity. Increasing (to 750 seats) the capacity of all existing elementary schools that are more than 50 seats below target capacity (17 schools) would increase approximately 3,800 seats districtwide. This would provide a total elementary capacity of approximately 25,300 seats and meet the projected enrollment need in the expected growth forecast (Scenarios 1 and 4). Not all existing schools that are under target capacity may be good candidates for replacement. Some may have been recently constructed and still be in good condition; others are not located in high-growth areas. Twelve elementary schools are both under target capacity and over 50 years old.

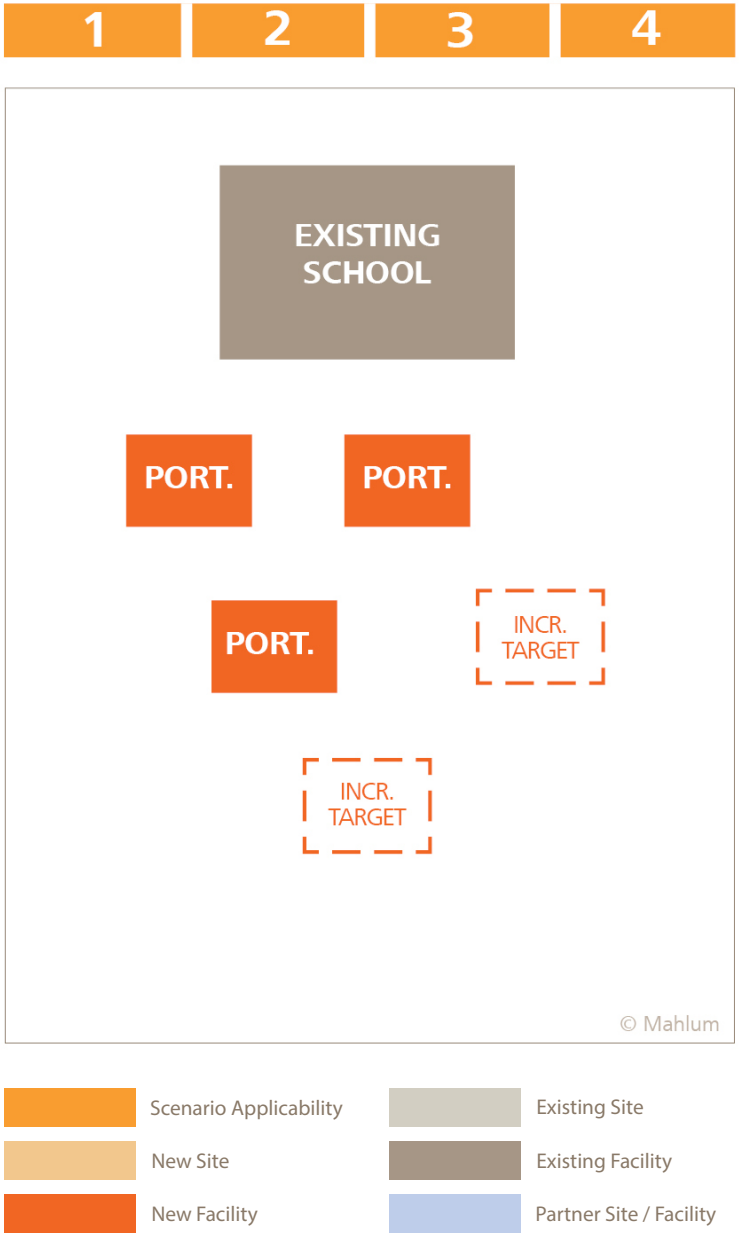


Replace or Add to Existing Schools to Achieve *Increased* Target Capacity

The District could *increase its target capacities* and then add capacity to existing schools that are under target capacity by building either (1) a replacement facility (when warranted due to building age or condition) or (2) a building addition. This will result in larger and more expensive new school facilities (more classrooms = more square footage = higher cost).

Potential Opportunities

Increasing all existing elementary facilities in the District to a facility capacity target of 800 seats would provide approximately 1,700 additional seats districtwide (above and beyond the 3,800 added from increasing facilities to 750). This would provide a total elementary capacity of 27,000 seats, which is very close to the projected enrollment need in Scenario 3. Not all existing schools under target capacity may be good candidates for replacement.



Add Portables to Existing Schools

Add capacity to existing schools that are under target capacity by adding portable (modular) classroom buildings. That could mean adding portable classrooms to reach the existing District maximum per site (six for elementary sites, 14 for middle school sites, and 16 for high school) or changing allowable maximums and adding even more.

Not all school sites have open areas to accommodate portables on site; additions may require using parking or field areas. Existing infrastructure and support facilities (cafeterias, gymnasiums, and restrooms) may not be able to accommodate all of the increased student enrollment from added portables. Adding capacity via portables may locate seats in areas of the District that are not high-growth. This could ultimately require busing to evenly distribute enrollment demand across the entire district. Further analysis on a school-by-school basis would be required.

Portables are typically purchased and installed with operational funds and would not impact the District's capital funding. Thus, the use of modular classrooms may add to any difficulties with operational budgets.

Potential Opportunities

Adding the maximum number of portable classrooms allowed by the District, while maintaining facility capacity targets and including any existing portables, results in an increased capacity of approximately 1,200 seats at the elementary level. A similar strategy at the middle and high school levels results in increased capacities of approximately 600 seats and 400 seats, respectively.

Going to currently allowed limits at all schools (even to those where the addition will cause the school to exceed its target capacity) provides a total of approximately 2,200 seats at the elementary level. A similar strategy at the middle and high school levels results in increased capacities of approximately 1,700 seats at each level. An even greater capacity increase could be realized with the use of portables with adjustments to District standards. This could be achieved by increasing the allowable number of portables per school or the target capacity of portable classrooms.

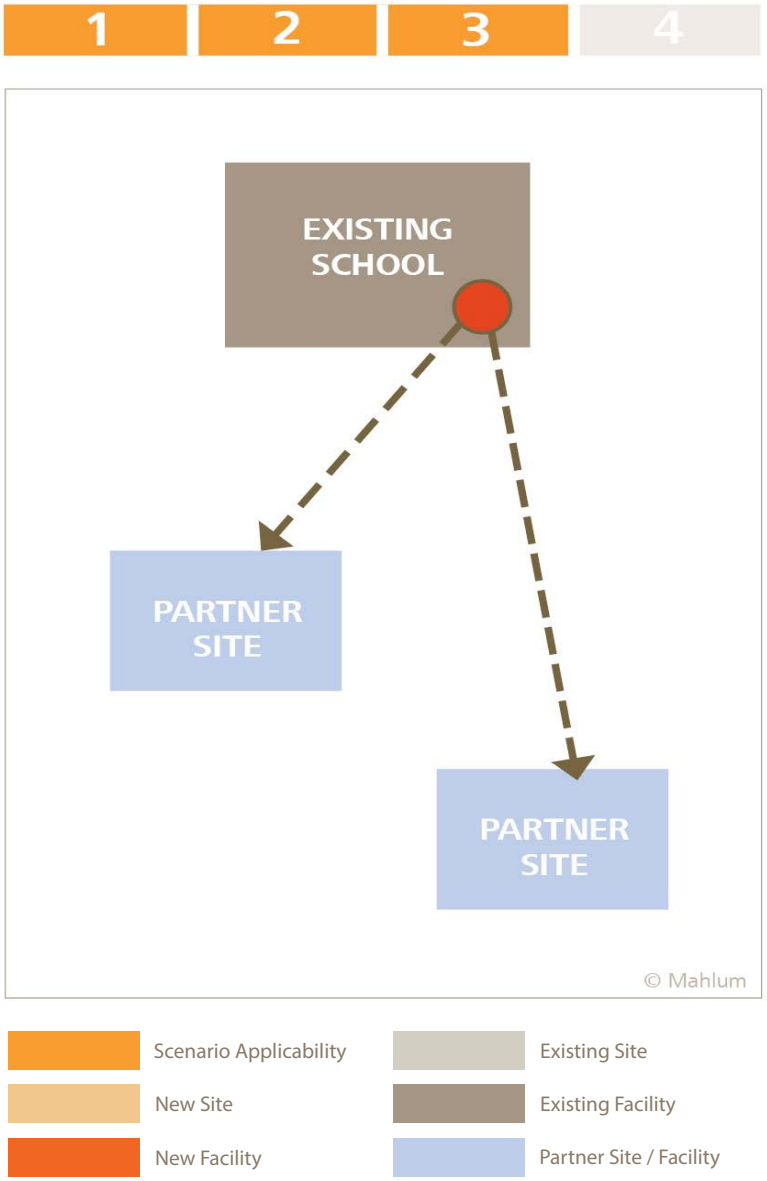
Modular classroom buildings are an affordable and flexible method for increasing the number of seats at a given school site. The use of modular buildings must be balanced, however, with site considerations and issues of educational quality, safety, and equity between schools. There is a growing body of research indicating a positive relationship between the quality of a school facility and student achievement.

Change Building Configuration to Reduce Footprint

Many of the District's older school facilities are one-story buildings, particularly at the elementary level. Changing a facility from one story to two or three stories reduces the size of the building footprint and has the potential to increase site utilization.

Potential Opportunities

Changing from a one-level configuration to a two-level configuration typically provides a 27–32 percent reduction in the building footprint. Changing from a two-level configuration to a three-level configuration provides a smaller footprint reduction. The impact of changing building configuration is dependent on the specific characteristics of each site. Further analysis on a site-by-site basis would be required to determine if this strategy would improve site utilization.

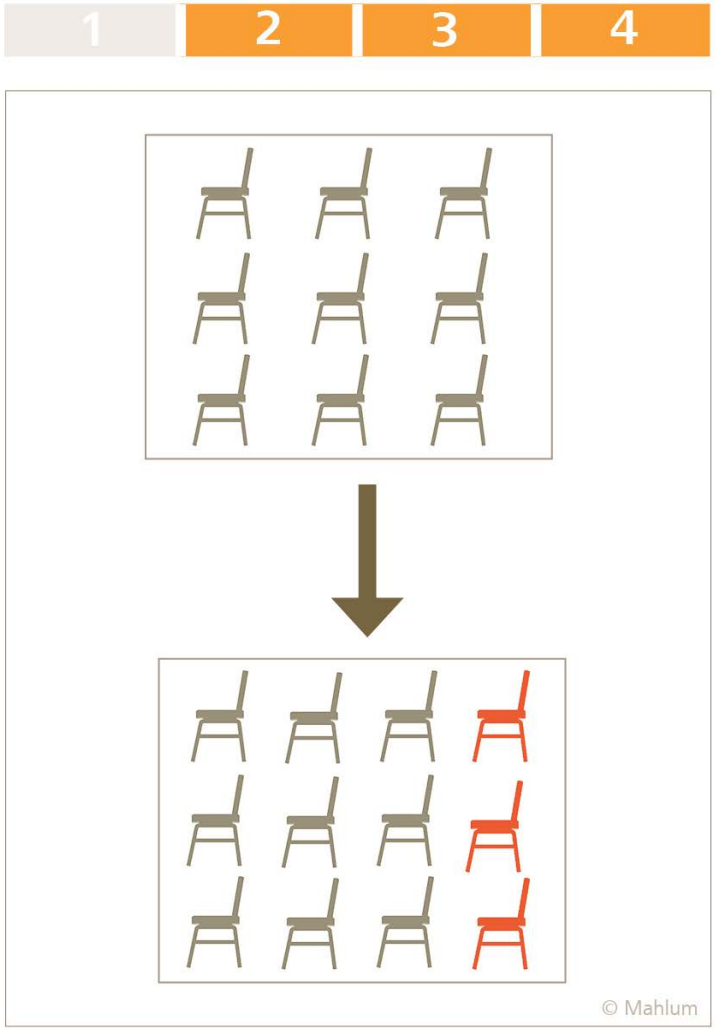


Move Enrollment Off-Site (Partnerships)

The District could look for off-site locations using partnerships. Educational models that aim at enhanced college and career readiness (such as dual enrollment, career and technical education, and internships) are logical candidates for this option. This strategy is most applicable for high school students and potentially a small percentage of middle school students. Partners could include local businesses and postsecondary educational facilities.

Potential Opportunities

Approximately 5% of high school enrollment could be accommodated through off-site partnership programs. This increases the functional capacity of all other facilities and would reduce seat demand in the range of 700 to 770 seats, depending on which enrollment forecast is used. This strategy requires careful scheduling to ensure that 5% of students are off-campus at any given time and has transportation and/or location considerations. Although this strategy may be applicable for some middle school students, it is assumed that the percentage of students would not be large enough to impact capacity at a district-wide level.



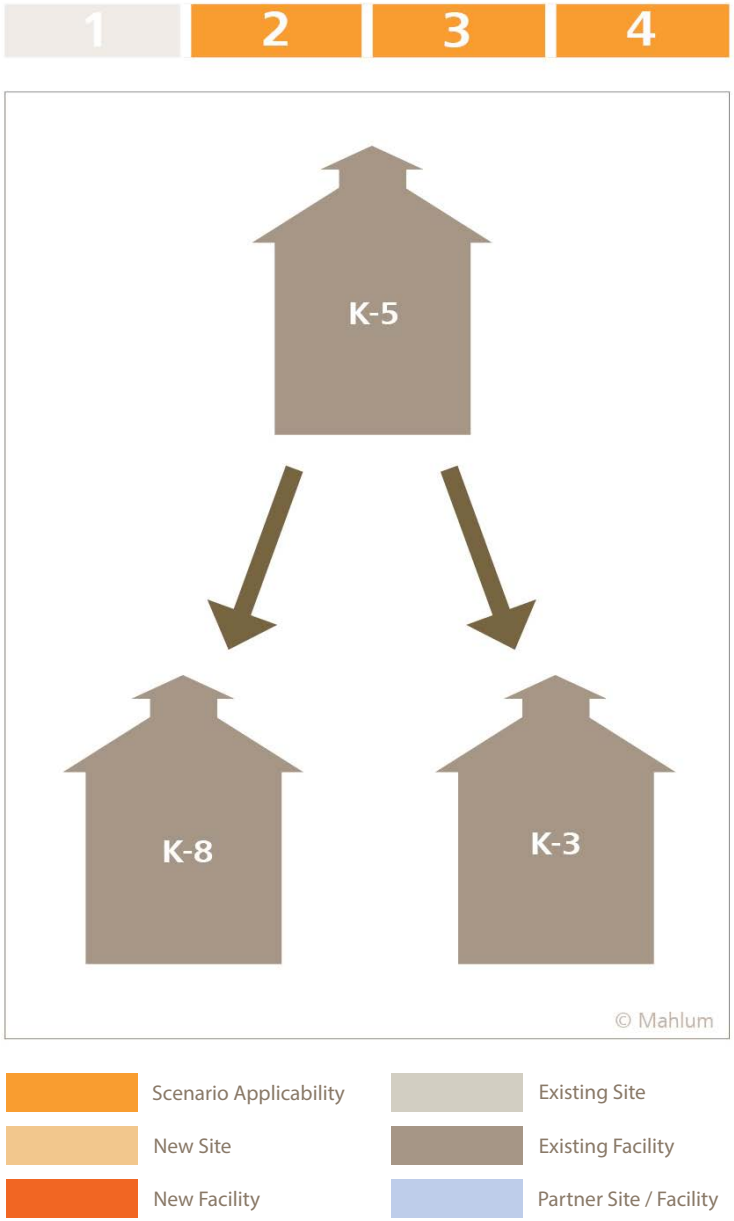
Scenario Applicability
New Site
New Facility
Existing Site
Existing Facility
Partner Site / Facility

Increase Target Class Size

Existing District targets are 25 students per classroom for elementary and middle school and 30 students per classroom for high school. Increasing those targets increases facility capacity without any physical changes to the building (or any capital expenditure). The strategy may not align with District educational goals, and it may require busing to distribute enrollment demand.

Potential Opportunities

Increasing the elementary school classroom capacity to 29 students per classroom would provide an estimated 3,400 additional seats in existing District facilities. This would accommodate projected elementary growth through 2065, in the expected growth forecast (not including preschool or high growth). Accommodating projected middle and high school growth for the expected growth forecast would require an increase in classroom capacity from 25 to 27 seats at the middle school level (providing an estimated 830 additional seats) and from 30 to 32 seats at the high school level (providing an estimated 1,300 additional seats).



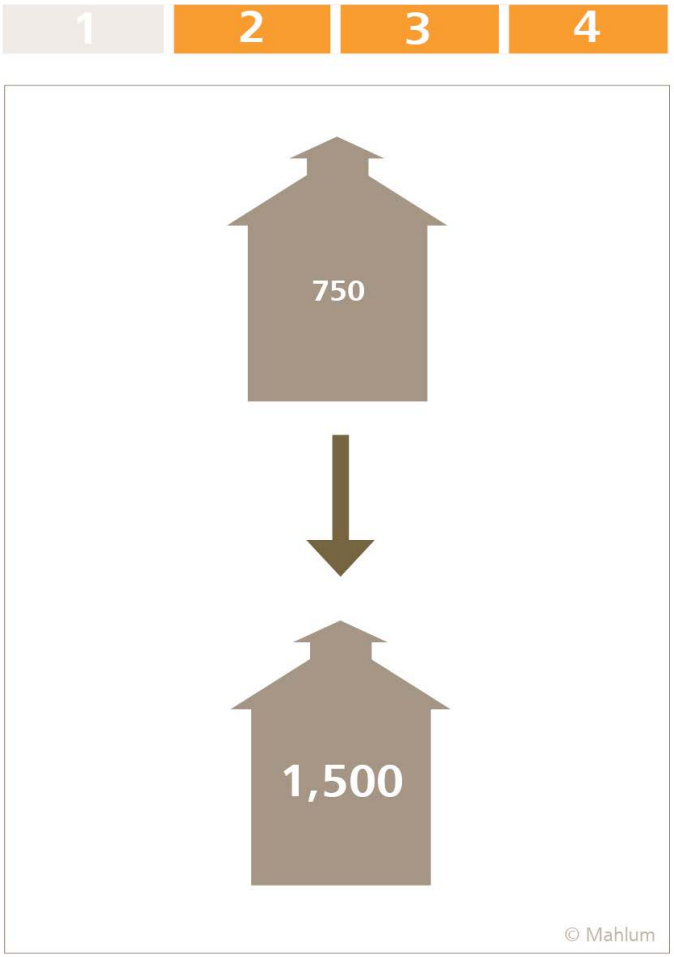
Shift Grade Configurations to Increase Facility Utilization

Shifting grade configurations (e.g., combining elementary and middle schools into K-8) can increase utilization in an underenrolled facility or provide additional capacity in an overenrolled facility.

Potential Opportunities

Utilization increases from this strategy would need to be determined on a school-by-school basis, but some rough estimates are possible.

- A 750-seat elementary school with a projected enrollment of 500 K-5 students could be shifted to accommodate grades K-8 to get enrollment closer to 750, potentially without adjusting school catchment areas (with operating cost implications, because it is less cost effective to provide middle school offerings).
- A 750-seat elementary school with a projected enrollment of 950 K-5 students could be shifted to accommodate grades K-3 or K-4 to reduce enrollment, with fifth grade students moving to the middle school, if space is available (or grade 4-5 students could be housed in a separate "upper elementary" facility).
- Existing schools significantly below capacity targets could have fewer grades, as an alternative to increasing the facility to target size, if projected enrollment warranted this strategy.



Scenario Applicability
New Site
New Facility
Existing Site
Existing Facility
Partner Site / Facility

Increase Facility Utilization

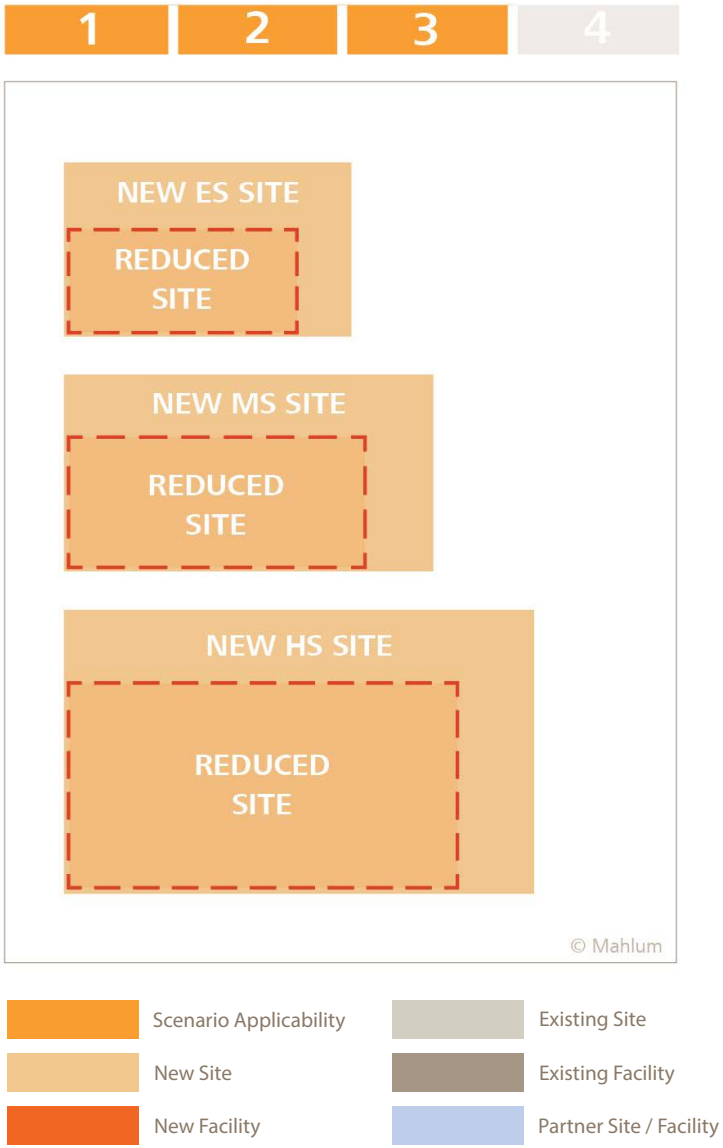
Utilization could be increased by programmatic changes at the District level, such as split-shift scheduling, year-round school, or other efficiency measures. At the high school level, increasing utilization during regular school hours may also be possible by increasing the number of periods that classrooms are used (such as "zero hour" and "seventh hour" periods) and providing locations other than classrooms for teacher planning periods, so that classrooms can be used by other teachers during that time.

Potential Opportunities

Split-shift scheduling has the potential to double the capacity of a school, by increasing school hours to accommodate two separate school schedules per day. This strategy would require significant operational changes and create a variety of issues for students, teachers, and families.

At a smaller scale, at the high school level, the District could add periods at the beginning and end of each day. Utilization increases will vary depending on each school's schedule, enrollment, and number of classrooms and would need to be determined on a school-by-school basis.

Site-Level Applications

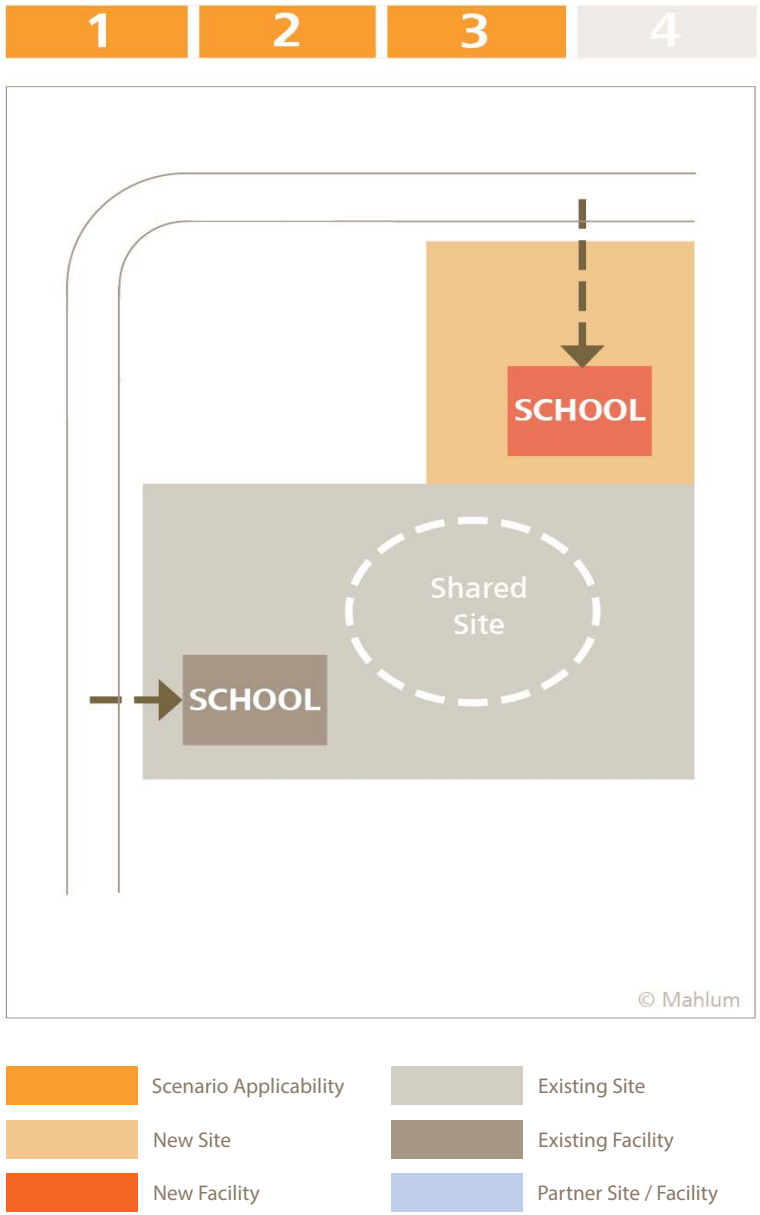


Acquire New School Sites

Purchase property in projected high-growth areas within the District (in the northwest and southwest areas of the District) to build new school facilities. Options include (1) acquiring sites at the District's current target site sizes (7–10 acres for elementary sites, 15–20 acres for middle school sites, and 35–40 acres for high schools) or (2) adjusting District site requirements and acquiring sites at reduced target site sizes.

Potential Opportunities

This strategy relies on the availability of sites in appropriate areas and at the appropriate size and configuration, and it may require adjustment to District standards. Large sites within the District are currently limited and expensive. Sites are expected to become even more difficult to acquire as the population continues to grow over the next 50 years. It is likely that multiple adjacent properties would have to be purchased to create a large enough site, and the use of eminent domain may be required.

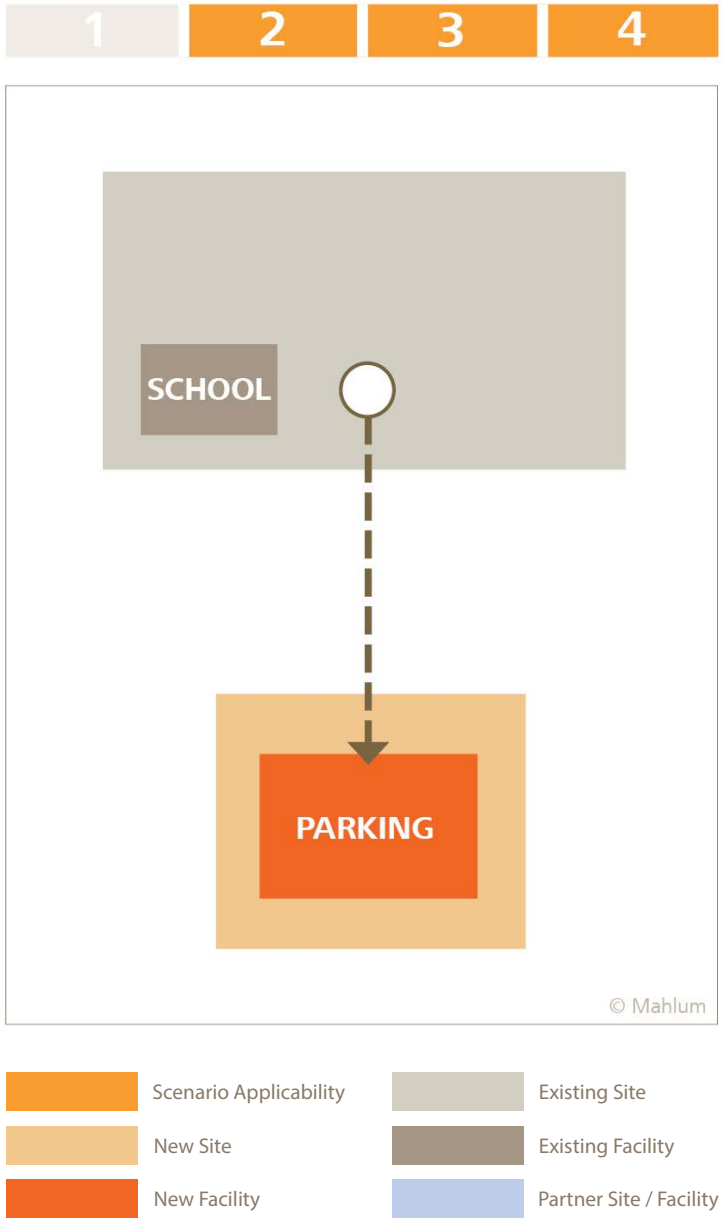


Acquire Adjacent Property to Expand Existing School Sites

The resulting bigger site could allow expansions and new configurations that would not otherwise be possible, and it could be easier and more cost-effective than trying to acquire land for new sites. For example, a strategic property addition to an existing school site could increase the site capacity enough to allow co-location with another facility (shown at left). Another possibility would be to add smaller parcels to an existing school site to allow shifting of site functions and therefore provide room for the existing facility to increase capacity through an addition or replacement.

Potential Opportunities

This strategy relies on the availability of sites in specific locations, but it provides flexibility in terms of site size, potentially increasing usable site inventory.

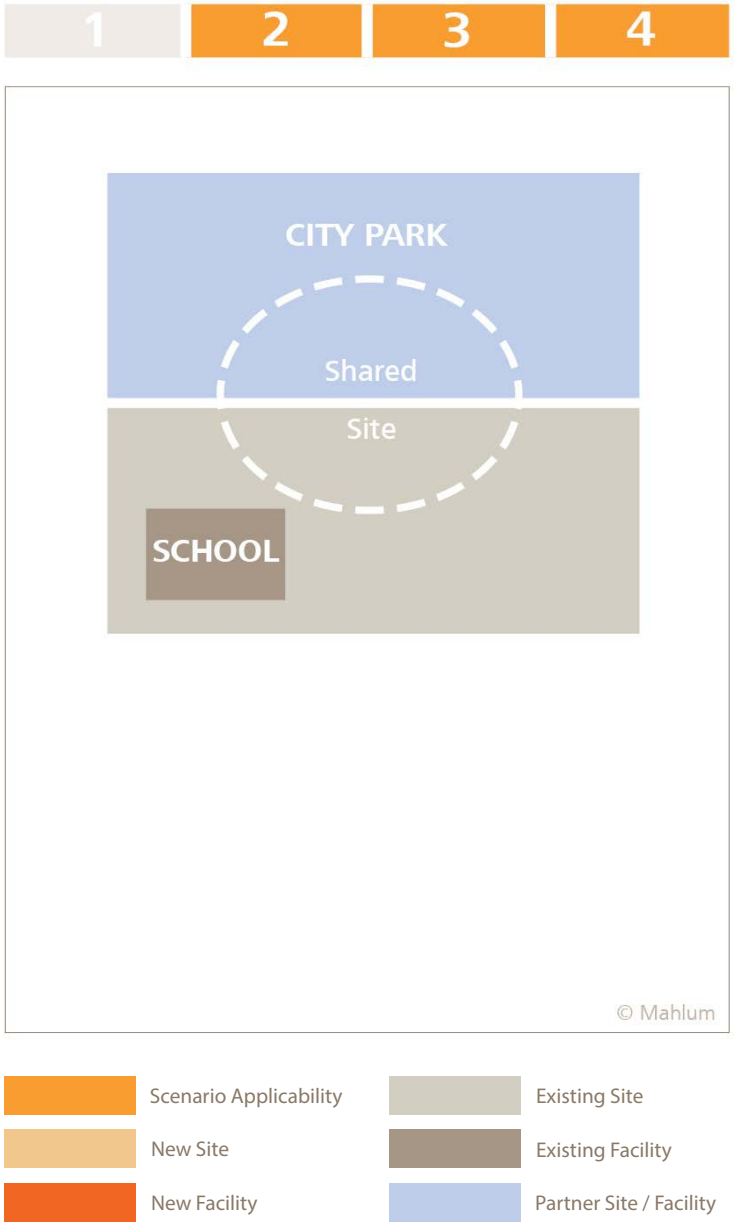


Disperse Site Functions

Use adjacent or proximate sites to provide space to relocate existing site functions, freeing up space on the site for increased facility capacity. Parking is the primary function that could be located on a remote site, with the possibility of athletic fields at the high school level. Options include (1) acquiring smaller properties near existing District sites in order to relocate school functions, and (2) leasing sites near existing District sites in order to relocate school functions.

Potential Opportunities

This strategy requires adjustments to District site standards and can only be utilized where specific site conditions apply, including a site configuration that would allow facility expansion if parking was relocated and an available adjacent or proximate site. (This strategy can only be used in Scenario 4 if leasing property because the scenario assumes there are no capital funds available.)

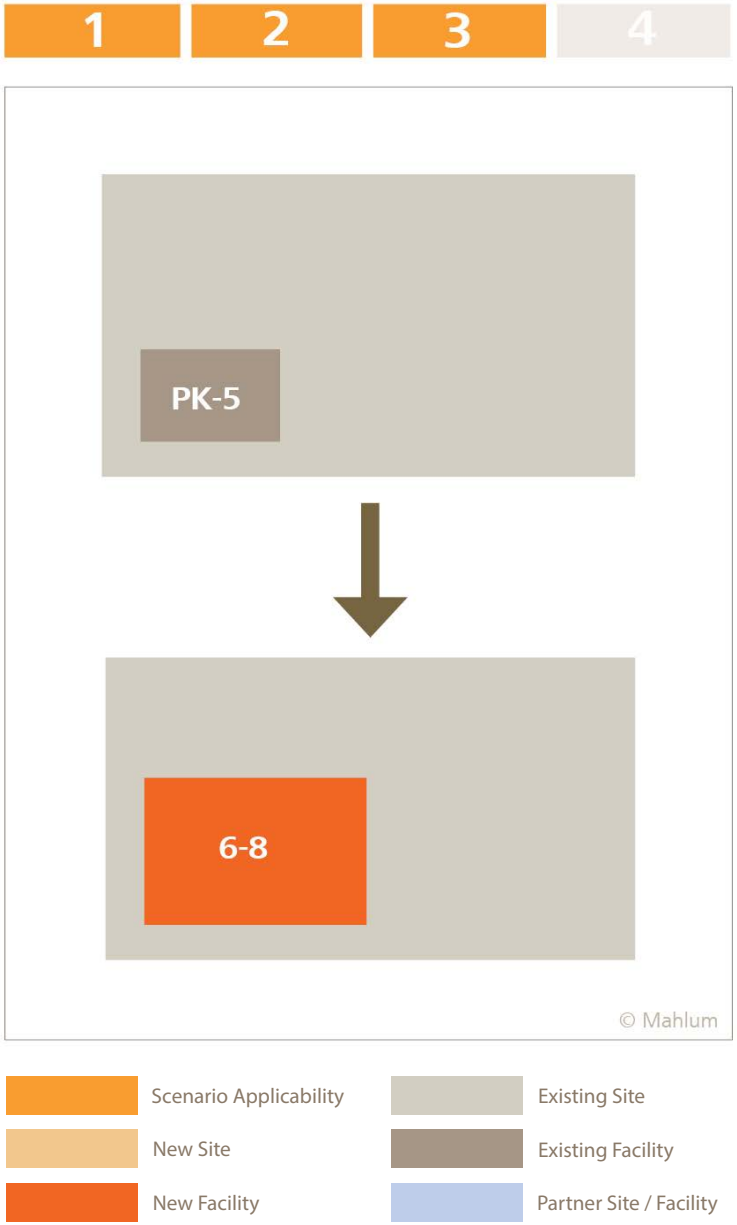


Share Site Functions: Partnership

The District could create partnerships that allow use of adjacent or proximate sites for school functions. For example, locating a school site adjacent to a city park allows a potential partnership for shared use (shown above). Or a school might share the use of nearby parking lots not otherwise used during the school hours (e.g., church parking). The District's long-standing partnership with the Tualatin Hills Parks and Recreation District already implements this strategy at several sites. Expanding this partnership, as well as looking for new partners, can increase opportunities for shared use.

Potential Opportunities

This strategy allows the use of sites smaller than District standards. It may require adjustments to District site standards and can only be utilized where specific site adjacencies exist.

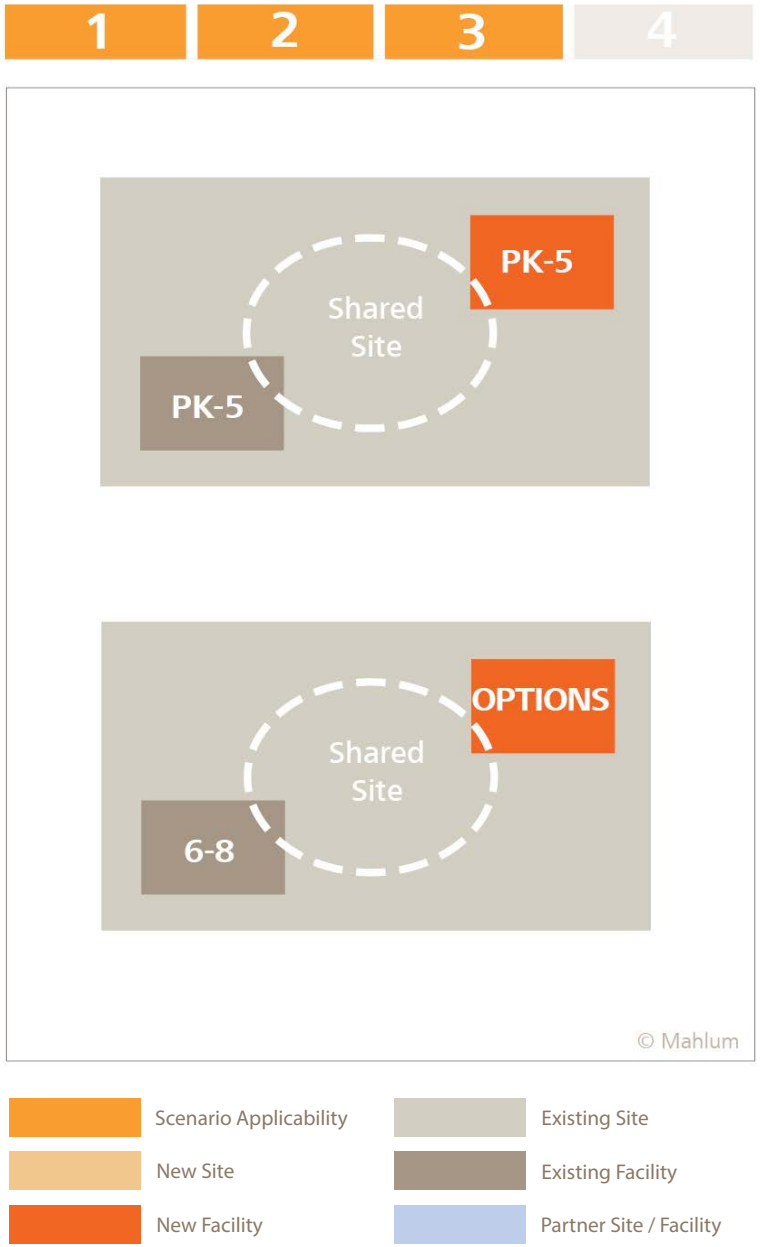


Change Site Function: Grade Level

The District could, on sites that are large enough, replace an existing lower-capacity facility with a higher-capacity facility (e.g., replace an existing elementary school with a middle school, or a middle school with a high school.

Potential Opportunities

The District has two existing elementary school sites (Raleigh Park ES (15.5 acres) and Rock Creek ES (17.4 acres)) large enough to meet site size standards for middle schools (15-20 acres). Shifting would increase the site capacity from 750 seats to 1,100 seats on each site. Three other elementary school sites are 12 or more acres in size and could be used for middle schools with some adjustment to District site requirements. The District has one existing middle school site (Five Oaks, 32.2 acres) close to the 35-acre minimum District standard for a high school site. This site could potentially be used to house a high school, with some adjustment to District requirements.

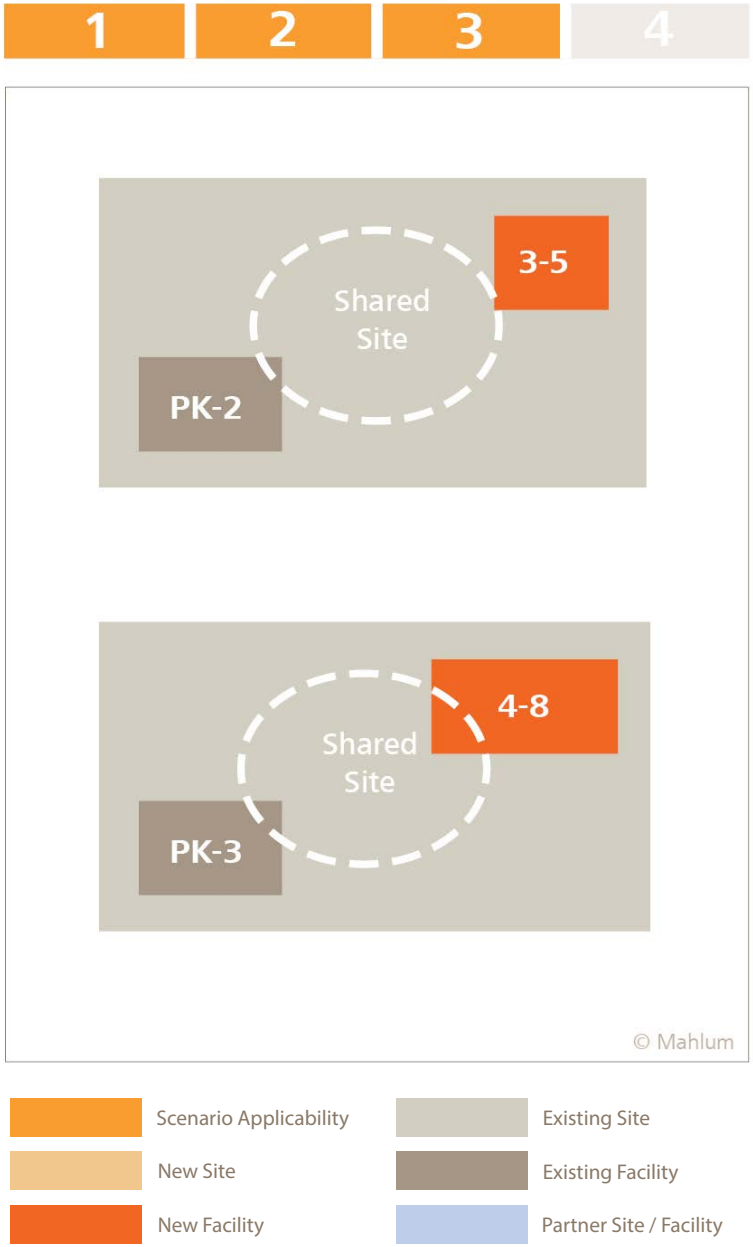


Co-location on Existing Sites: Separate Facilities

The District could locate an additional, separate school facility on sites that currently have one facility, if those sites can accommodate it. Options include (1) locating a second elementary school (K-5 or PK-5) on a site with an existing (or replaced) elementary school, resulting in a 750-seat increase in site capacity; and (2) locating an options school on a site with an existing (or replaced) elementary, middle, or high school (site capacity increase depends on the capacity of the option school, which can vary).

Potential Opportunities

The District has several elementary school sites that appear large enough to allow co-location with another facility, in some cases with replacement of the existing school in a more efficient configuration. These sites (identified in Appendix C on Facilities) range from 8 to 17 acres and are located throughout the District. The ability to accommodate co-location would need to be verified with more detailed analysis on a site-by-site basis. Several existing middle school and high school sites in the District may also accommodate co-location of an additional school facility. This strategy may require modification of the District's site standards, such as parking requirements, number of fields, and sizes of play areas. It is likely to require shared use of site amenities by the co-located schools.



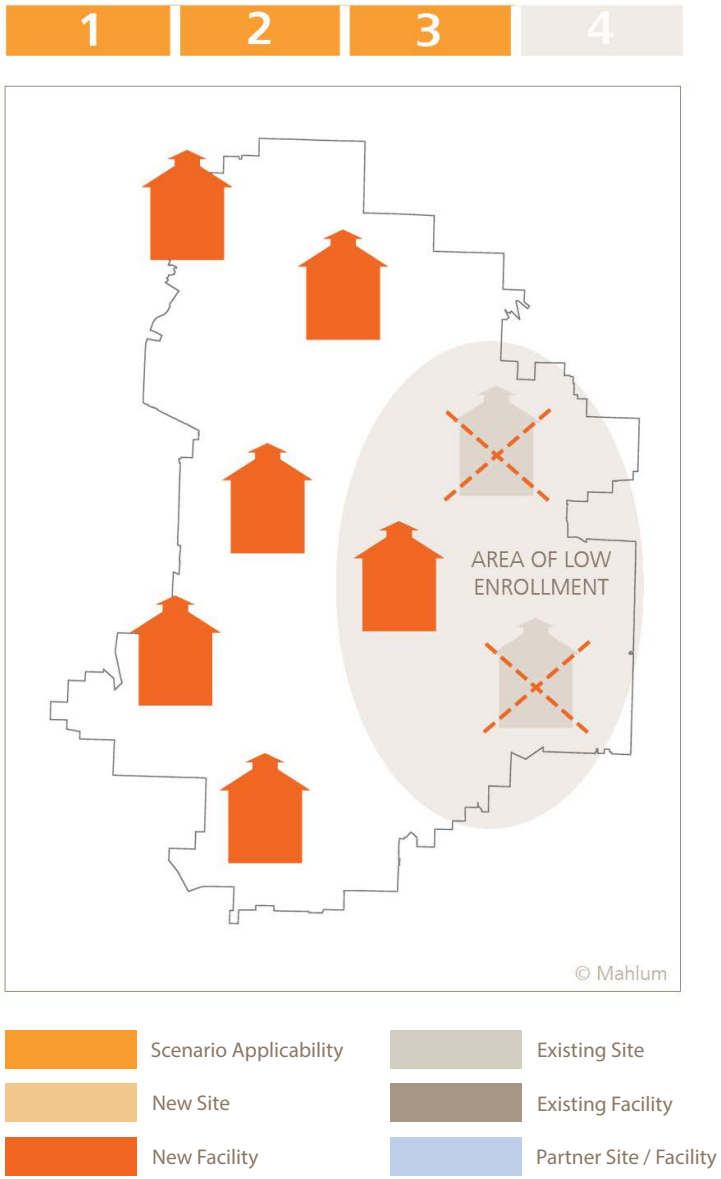
Co-location on Existing Sites: Expanded Facilities

The District could expand an existing school into multiple facilities on sites that currently have one facility, if those sites can accommodate it. Options include (1) locating a second elementary facility on site and splitting grade levels between the existing (or replaced) facility and a new facility, creating a PK-2 facility and a 3-5 facility (increases site capacity to 1,000 or more); and (2) shifting or expanding grade levels or functions on an existing elementary site, such as a PK-3 facility and a 4-8 facility (increase in grade levels and site capacity to 1,400 or more) or an alternative program facility.

Potential Opportunities

This strategy may work with sites that have some extra space, but not enough to accommodate an additional separate school facility. The ability to accommodate co-location will need to be verified with more detailed analysis on a site-by-site basis. This strategy may require modification of the District's site standards, such as parking requirements, number of fields, and sizes of play areas. It is also likely to require shared use of site amenities by the co-located schools.

District-Level Applications



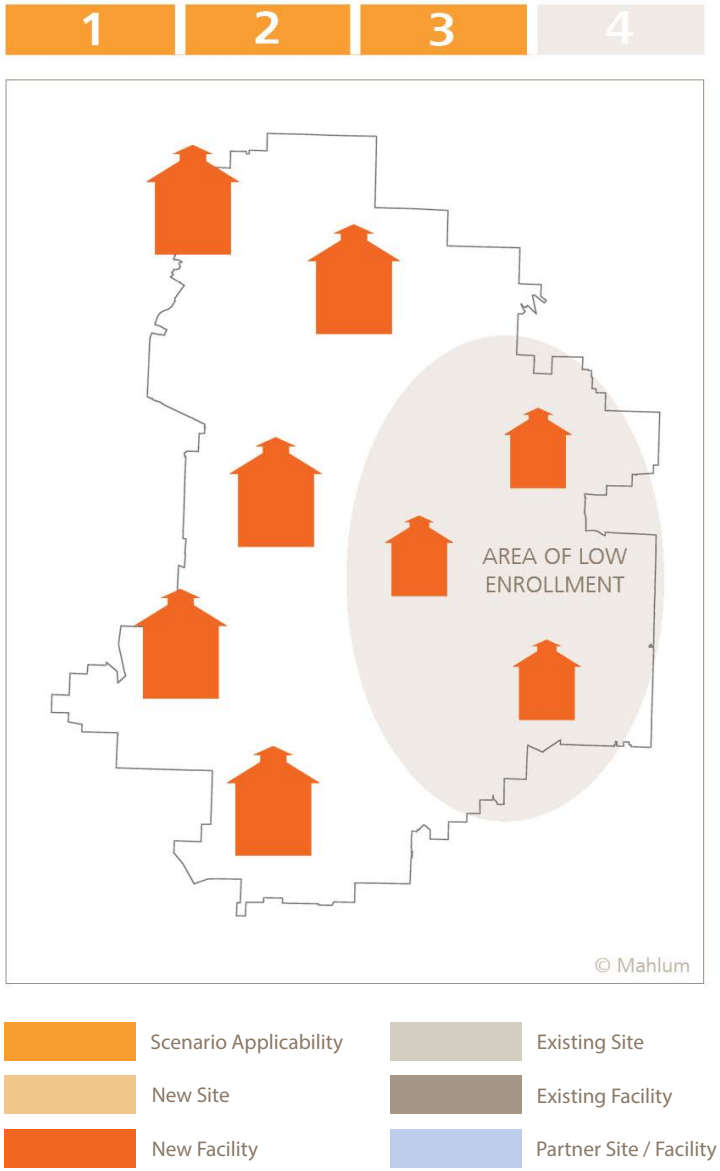
Replace at Target Size and Consolidate Schools

There are several approaches to school replacement in areas of lower enrollment. One strategy (used in Scenarios 1-3) involves replacing some school facilities at the target size of 750, but only the number of facilities required to meet projected enrollment would be replaced, and other schools in lower enrollment areas would be closed. These facilities and sites could be repurposed for other District functions as needed.

Potential Opportunities

Although this strategy makes sense from an operational standpoint, it reduces the number of neighborhood schools and has the potential to increase travel distances for many District students. In addition, school closure is usually not a desirable option for families in the affected area and can lead to a complex and contentious process for changing policy.

This diagram is illustrative only and does not indicate a proposed change.



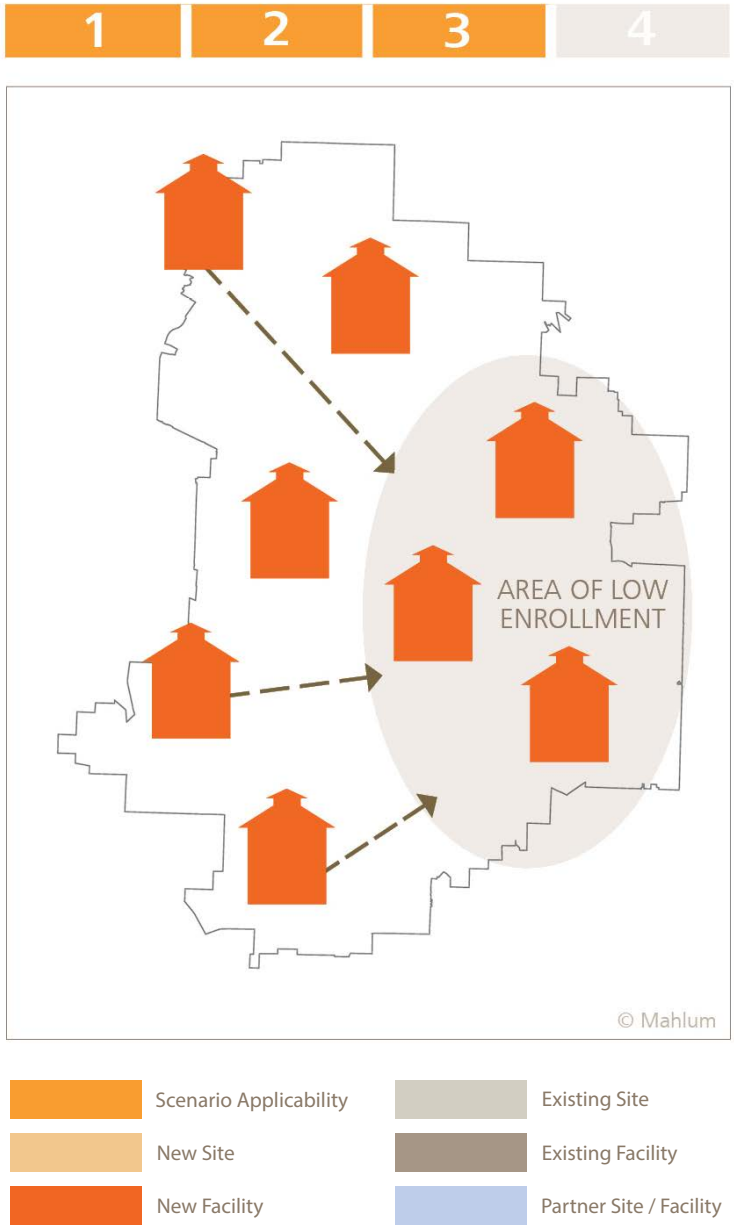
Replace at Appropriate Size to Meet Enrollment Need

A second strategy to address areas of lower enrollment is for the District to replace all or most school facilities in these areas, but at a reduced size and capacity that aligns with projected enrollment. Facilities would be designed to expand to the District target capacity of 750 students in the future, if needed. Site configuration and access would be planned to accommodate a future addition and core instructional and support areas in each facility, such as the gymnasium, cafeteria, library, and administration, which would be sized to accommodate the full target capacity. This strategy allows all of the District's neighborhood schools to be retained, without building unnecessary space.

Potential Opportunities

Replacement schools should be built within a capacity range that is large enough to provide an appropriate learning environment and operational efficiency. Schools below 300 to 350 students are typically considered not able to meet this criterion, but this range should be established by the District.

This diagram is illustrative only and does not indicate a proposed change.



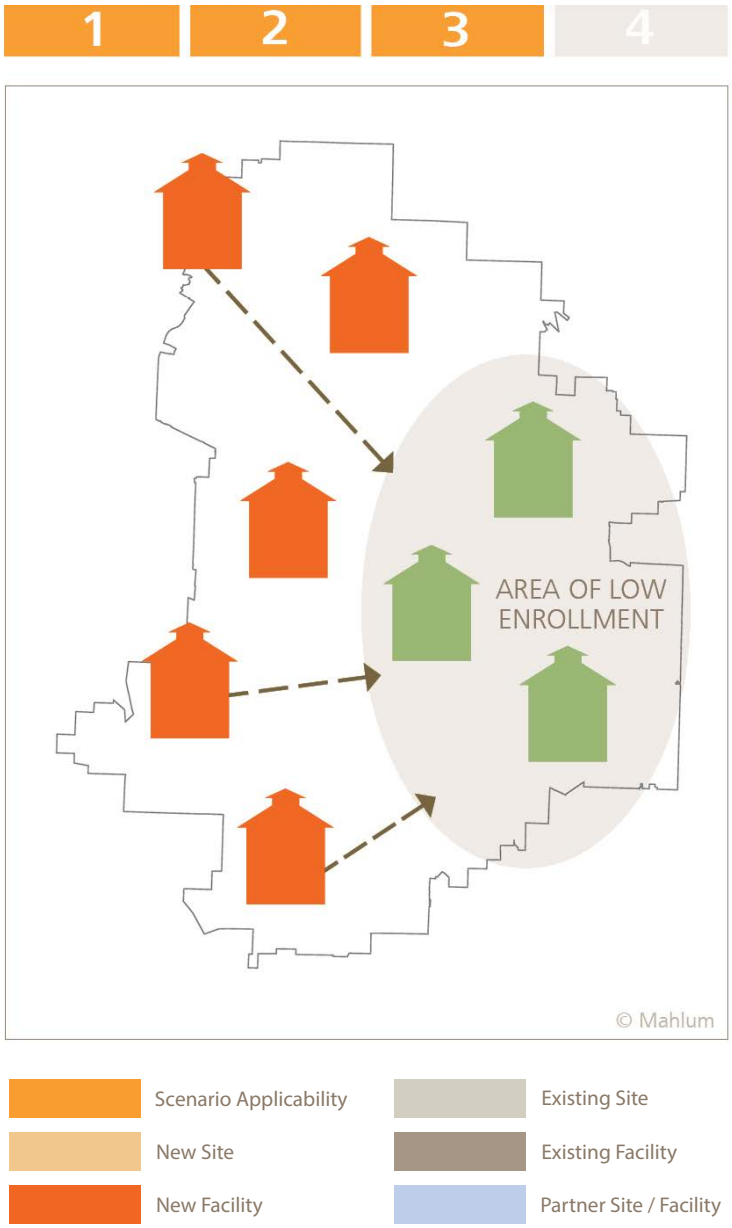
Replace at Target Size and Shift Enrollment (Boundaries/Busing)

A second strategy to address areas of lower enrollment is for the District to replace all school facilities throughout the District at target capacity. The resulting excess facility capacity in areas of lower enrollment could be used to accommodate unhoused students from areas of higher enrollment.

Potential Opportunities

This strategy allows all of the District's neighborhood schools to be retained and all new facilities to meet the District's target capacity. It would, however, probably require significant shifting of school catchment areas and increased busing of students. This could be done, for example, by (1) shifting students incrementally to the next closest school and then shifting displaced students from that school to the next closest school, until capacity is reached throughout the District (reduces travel distances, but affects more students) or (2) shifting students from over-enrolled schools to under-enrolled schools. The latter affects a smaller number of students, but would require longer travel distances, including the potential for some students to be passing one school on the way to their assigned school. Both approaches would probably involve some students crossing major arterials, such as Highway 26 and 217.

This diagram is illustrative only and does not indicate a proposed change.



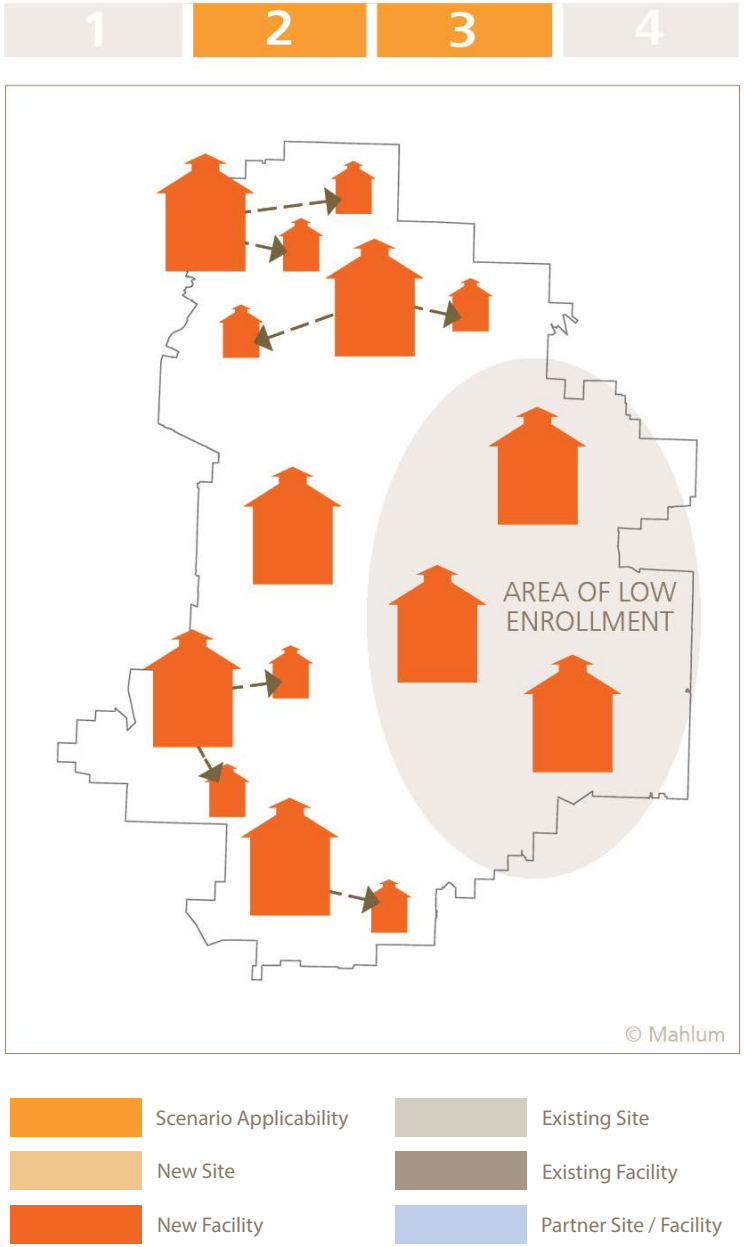
Replace at Target Size and Create Magnet Programs

The District could replace all school facilities throughout the District at target capacity, but create magnet programs at facilities in areas of lower enrollment, particularly at the elementary level. The District already has several successful magnet programs at the middle and high school levels, such as the Arts and Communication Magnet Academy and the School of Science and Technology. These programs attract students from all over the District and can reduce capacity need in higher enrollment areas, potentially without requiring busing

Potential Opportunities

This strategy would require some boundary adjustments. Providing facilities with both magnet programs and neighborhood programs would reduce busing requirements by accommodating students living in lower enrollment areas while also providing some capacity relief in higher enrollment areas.

This diagram is illustrative only and does not indicate a proposed change.



Create Additional Small Schools

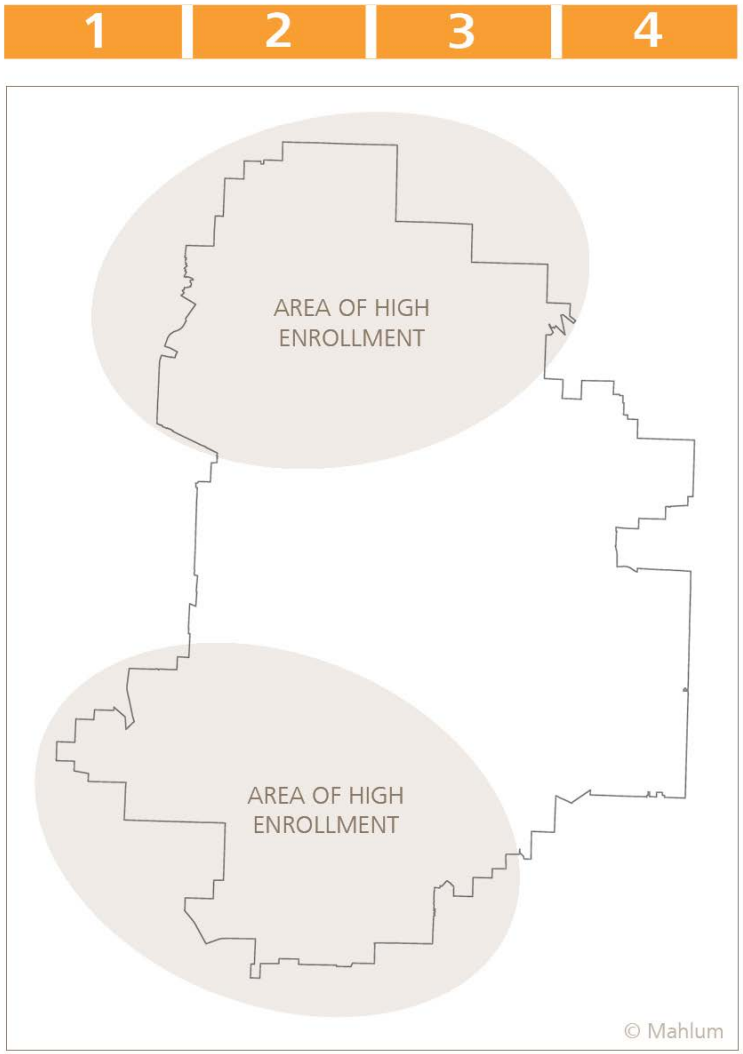
The District could create smaller schools throughout the District, particularly in areas with high levels of projected enrollment and limited site acquisition options, in conjunction with other strategies to provide additional capacity in high-need areas. This strategy would be particularly useful in areas with limited existing facilities and site acquisition options.

Potential Opportunities

These small schools could vary in size, depending on capacity need, program goals, and available sites and facilities. They could be independent programs, connected to nearby neighborhood school programs, or connected to each other. Some examples:

- Distributed microschools with capacities of 25 to 100 students per school and a centralized program run by the District; located on new residential-sized sites that could be easier for the District to acquire
- Additional options programs, including elementary-level options programs, with capacities of 100 to 300 students per school; co-located facilities on existing school sites with available space.

This diagram is illustrative only and does not indicate a proposed change.



Scenario Applicability
New Site
New Facility
Existing Site
Existing Facility
Partner Site / Facility

Modify Zoning to Reduce Enrollment and Parking Requirements

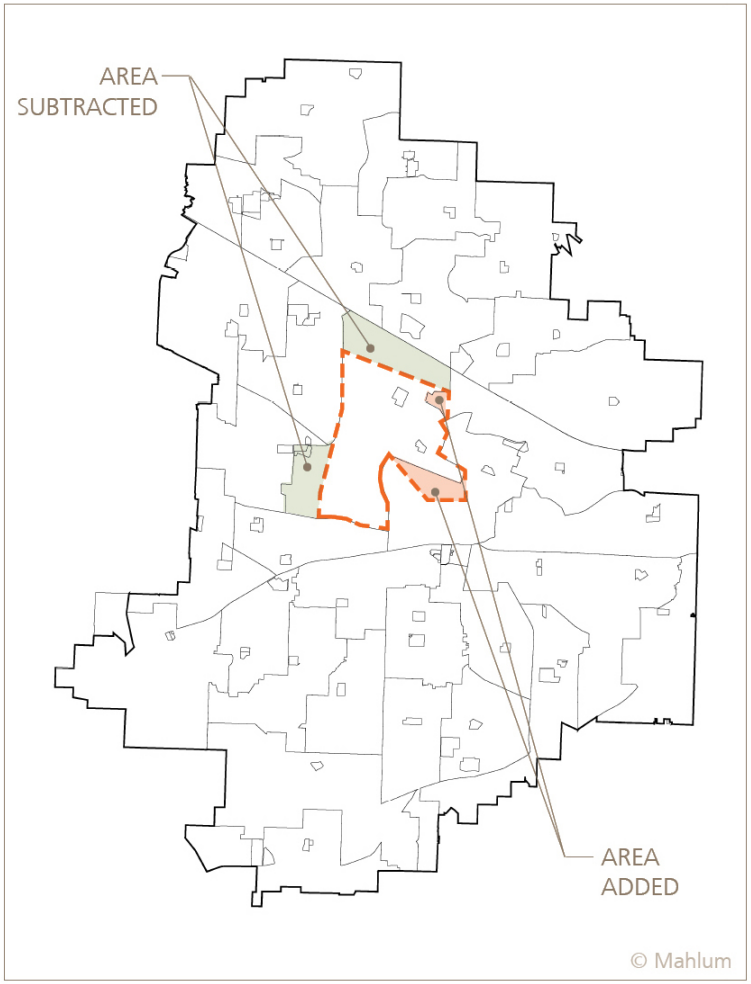
This strategy involves working with local jurisdictions to adjust zoning requirements in areas of projected high enrollment to reduce population increases and therefore potential enrollment growth. This strategy could be considered if the District does not have other alternatives to accommodate growth within the District. Although decreasing residential density does not align with current jurisdictional policies and goals, this strategy may become more viable over the long-term span of this study.

Potential Opportunities

Various zoning and policy adjustments can be made to help reduce enrollment growth, including: (1) changing allowable densities of multifamily areas, and (2) limiting or eliminating incentives for developers to develop new housing in high-growth areas. Working with jurisdictions to reduce parking requirements for schools can help reduce school site sizes, allowing the purchase of smaller sites for new facilities and potentially increasing the capacity for building additions at some existing sites.

This diagram is illustrative only and does not indicate a proposed change.

1 | 2 | 3 | 4



Scenario Applicability
New Site
New Facility
Existing Site
Existing Facility
Partner Site / Facility

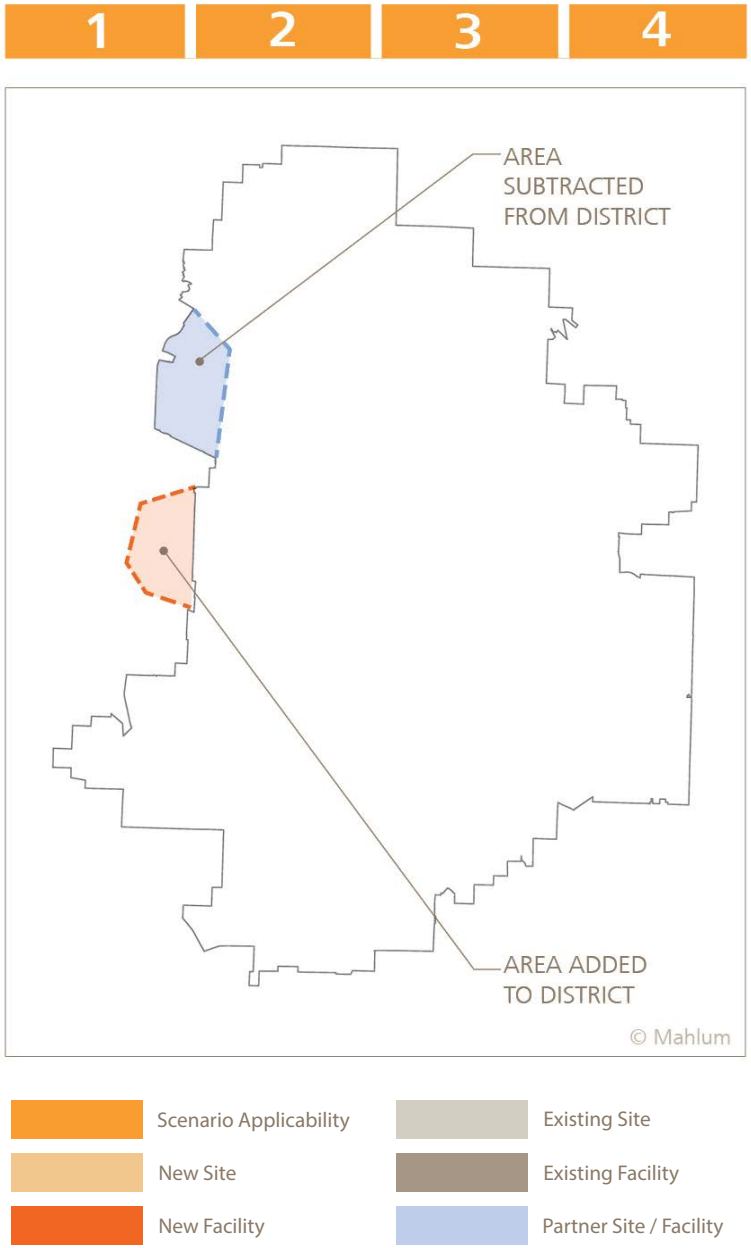
Adjust School Attendance Boundaries Areas

Adjustments to school attendance boundaries are a recurring necessity for growing school districts. Although it can be a complex and politically charged process, it is an inevitable part of managing enrollment and facilities in a fiscally responsible way.

Potential Opportunities

All four planning scenarios assume boundary adjustments will be implemented as necessary to improve enrollment balance and use existing facilities as efficiently as possible. However, expanding boundary adjustment parameters, such as acceptable travel distances, can increase efficient utilization of existing facilities beyond what would be possible using current standards. This will likely be required if the District does not have adequate funding to build new facilities (Scenario 4), but can also be used in other scenarios as well.

This diagram is illustrative only and does not indicate a proposed boundary change.



Adjust District Boundaries

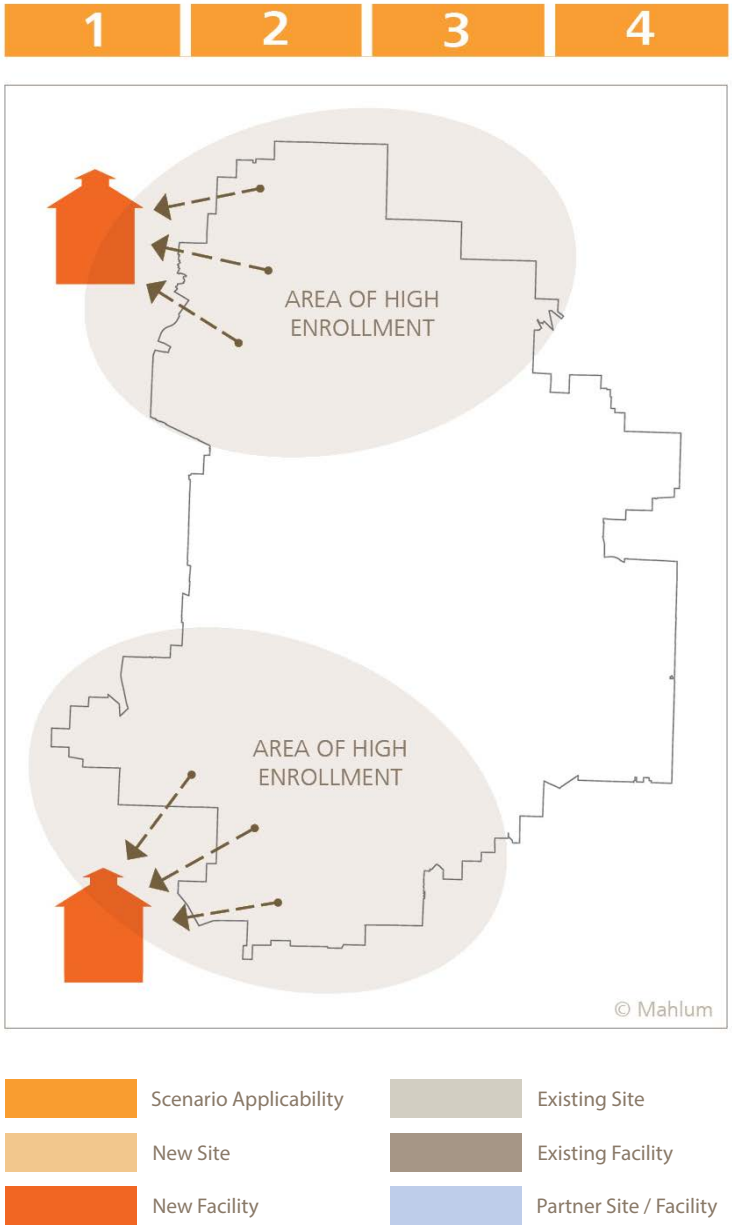
Adjusting the District's boundaries requires working with adjacent school districts to shift enrollment between districts in a way that benefits both entities. It is a complex process. A variety of impacts must be evaluated, including impacts to current and future students, property owners, and alignment with both Districts' strategic and long-range plans.

The Beaverton School District is bounded by Portland Public Schools to the north and east, Hillsboro School District to the west, and the Tigard-Tualatin School District to the south. A recent land exchange with the Hillsboro School District (2015-16) resulted in boundary shifts in the southwest corner of the District, so that planned communities in South Hillsboro and South Cooper Mountain could each be served by one school district.

Potential Opportunities

Future land exchanges may be considered by the District as a method to reduce enrollment pressures in high growth areas when other alternatives to accommodate growth are not available.

This diagram is illustrative only and does not indicate a proposed boundary change.



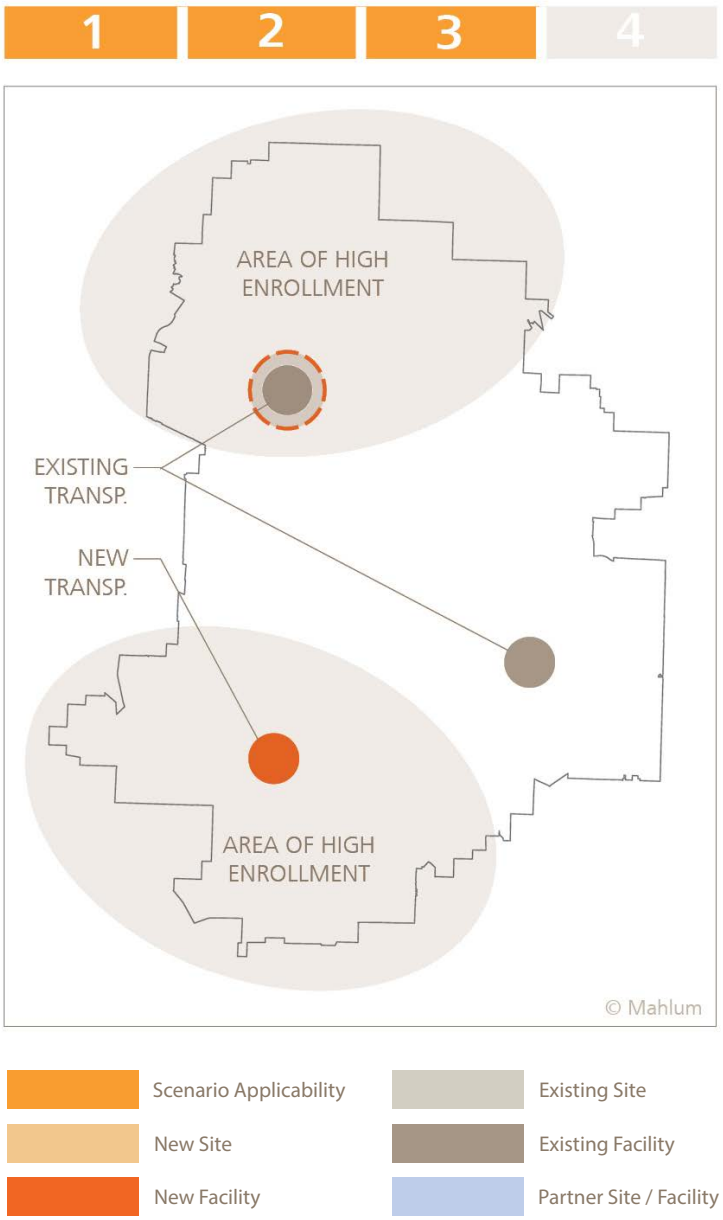
Locate Schools Outside District Boundary

Another strategy that involves working with neighboring school districts to accommodate enrollment growth is to site District school facilities outside of the District boundary, but within the urban growth boundary (UGB). This strategy would primarily be applicable at the elementary school level and would increase the available area for potential site acquisition in the places where it is needed most.

Potential Opportunities

The ability to locate school adjacent to high growth areas could provide a significant capacity increase in these areas with minimal impact in terms of boundary adjustments and busing requirements. There are a number of ways a school facility could be implemented, which would need to be developed in conjunction with the neighboring school district. There are also opportunities for sharing support facilities.

This diagram is illustrative only and does not indicate a proposed change.



Expand Support Facilities

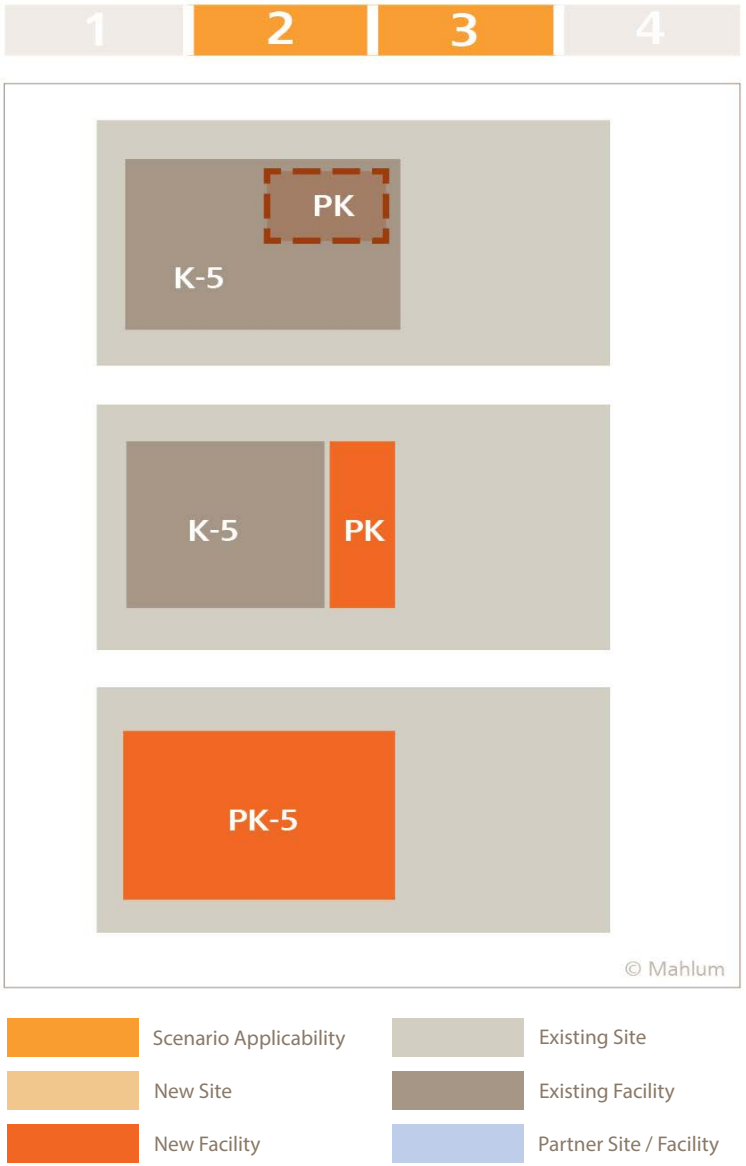
Projected growth in the District over the next 50 years will impact District support functions, such as administration and transportation. Administrative needs may be able to be accommodated in existing facilities, but needs must be considered as the District grows. Transportation will be directly impacted by enrollment growth, as well as the potential for significant increases in the percentage of student bus riders with some facility management strategies.

Potential Opportunities

As most growth is projected on the west side of the District, expanding transportation facilities in this area should be considered. Possibilities include expansion of the existing Transportation and Support Center in the north, and/or a new facility in the southern part of the District.

This diagram is illustrative only and does not indicate a proposed change.

Early Learning Applications

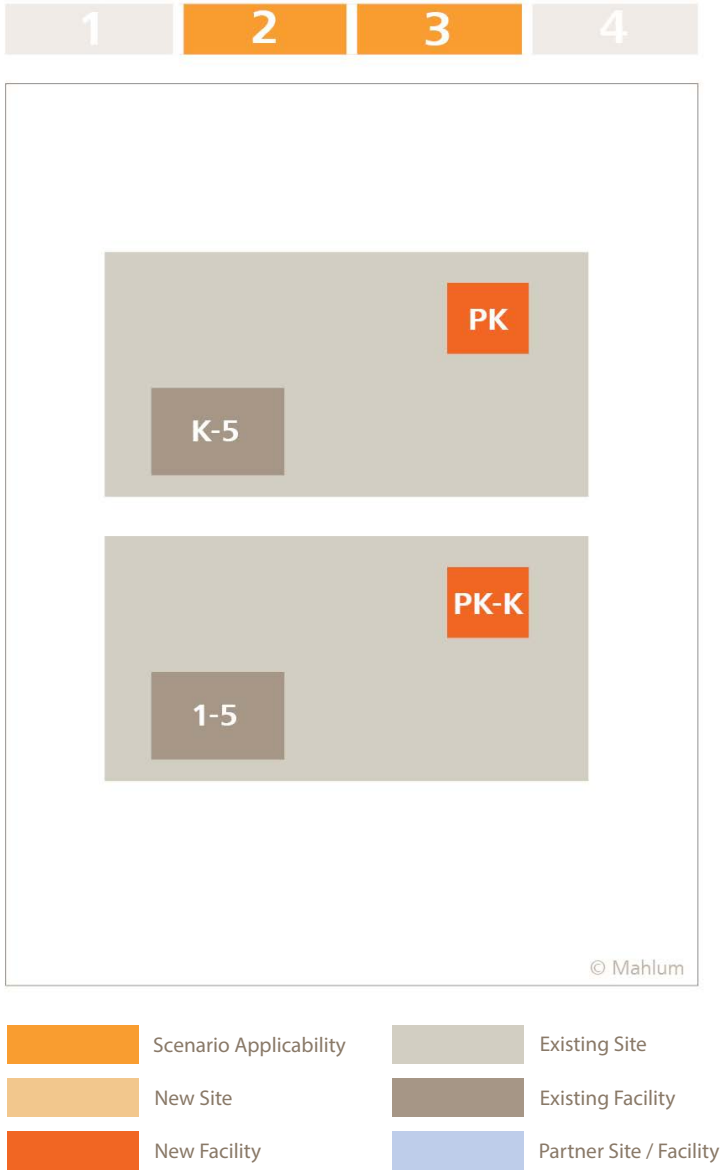


Locate Preschool Classrooms within Each Elementary School

This strategy provides the strongest connection between preschool and elementary grades and is included in Scenarios 2 and 3. It assumes the District's 750-seat target facility capacity is maintained as a maximum.

Potential Opportunities

For existing elementary schools that are at or close to target capacity, existing classrooms can be modified to accommodate preschool. This will result in some capacity reduction because preschool classrooms have a maximum capacity of 17–20 seats, rather than the 25-seat elementary target. For existing elementary schools that are below target capacity, preschool classrooms can be added with a building addition, as site and building configuration allows. This will result in a capacity increase in the facility. For new or replacement facilities, schools will be designed with both preschool and elementary classrooms. In order to reach the target capacity of 750 students, these facilities will have an estimated four more classrooms than a typical K-5 school, due to the lower capacity in preschool classrooms.

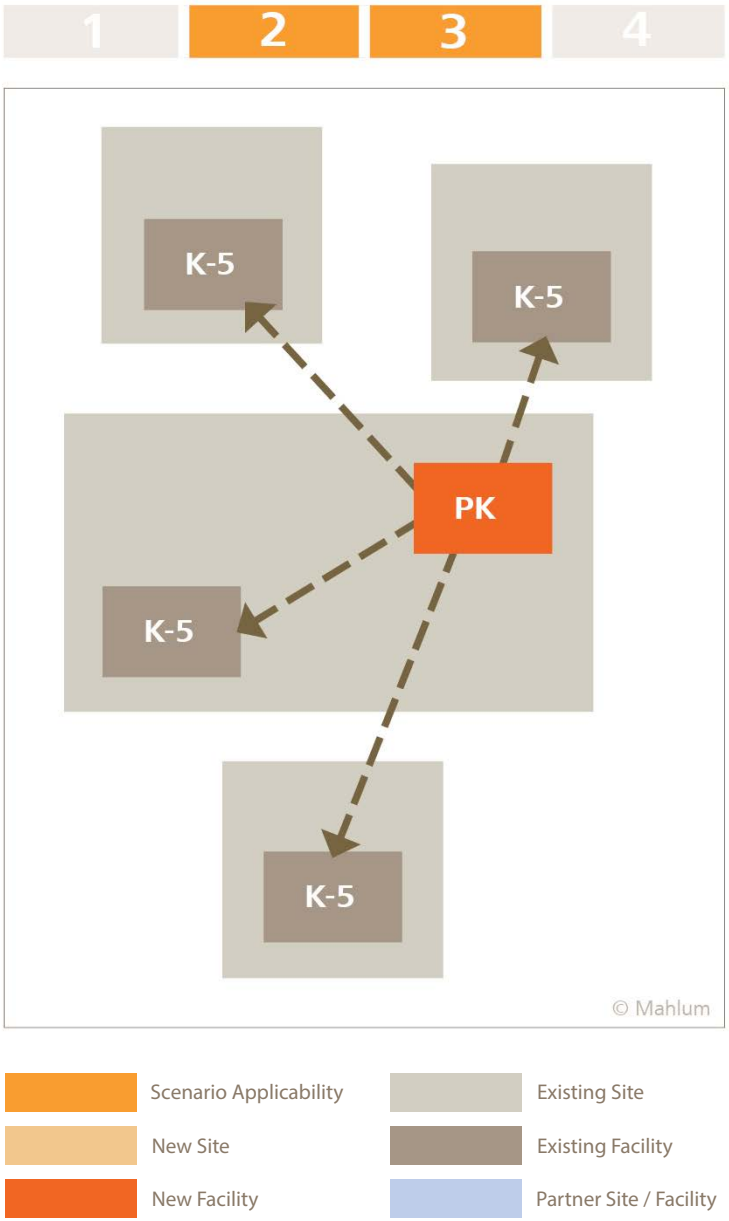


Create Separate Preschool Facilities on Each Elementary School Site

Another strategy for implementing early learning includes locating separate preschool (or preschool and kindergarten) facilities on elementary school sites that can accommodate it (co-location). This allows a close connection between preschool and elementary grades, without impacting the capacity of the elementary facility.

Potential Opportunities

This strategy allows District elementary schools to maintain a 750-seat target capacity for housing K-5 students, rather than displacing elementary classrooms to accommodate preschool. Preschool classrooms would have remote access to large specialized instruction spaces located in the elementary school, such as the gymnasium. Preschool facilities would be built on-site at an appropriate capacity to align with elementary grade level sizes. Preschool capacity for a 750-student elementary school is estimated at approximately 250 students. This would increase the total site capacity to as much as 1,000 seats. This strategy cannot be accommodated at every elementary school because of site constraints, but could be used to increase site capacity at some school sites.



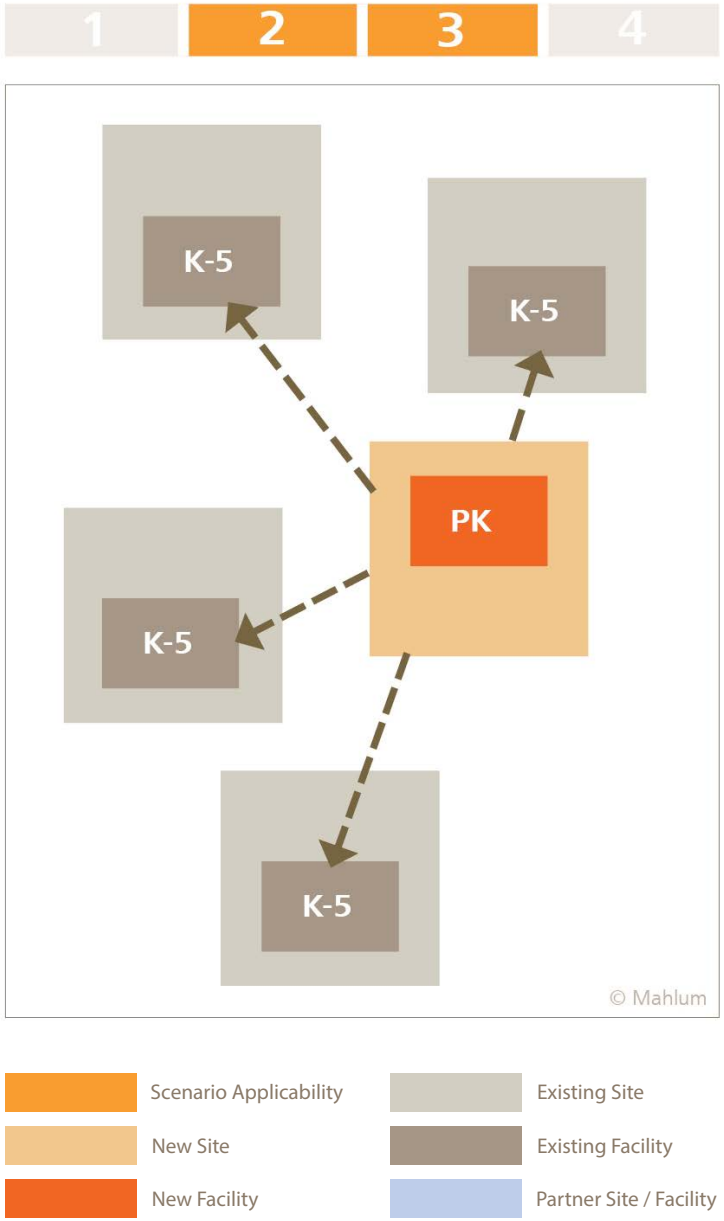
Co-locate Satellite Preschool Facility on an Existing Site

For existing elementary sites that have space, preschoolers would feed into kindergarten at the on-site elementary, as well as other nearby elementary schools.

Potential Opportunities

This strategy eliminates the capacity impact of preschoolers on District elementary schools, while still providing this important program. This strategy would be ideal for sites that can accommodate a separate on-site preschool facility, but still want to maintain a 750-seat elementary capacity in their existing facility. It is also potentially applicable districtwide, as it doesn't rely on having preschool space at every elementary site, which is not available.

Co-location on existing sites, where available, does not require the District to acquire new sites to accommodate preschool. Co-location provides higher utilization of available large elementary sites and larger, centralized preschool facilities can provide operational efficiencies and a more diverse and robust program. However, it is important to note that there are academic trade-offs. It can be more difficult to align preschool and early elementary programs if preschool classrooms are not located on the same site.



Build Satellite Preschool Facility on a New Site

The District could build larger, centralized preschool facilities on separate, dedicated sites throughout the District. Preschoolers would feed into kindergartens in nearby elementary schools.

Potential Opportunities

This strategy eliminates the capacity impact of preschoolers on District elementary schools, while still providing this important program. This strategy would be ideal for sites that can't accommodate a separate on-site preschool facility, but still want to maintain a 750-seat elementary capacity in their existing facility. This strategy has academic trade-offs, similar to the previous strategy. Options include:

- Build new preschool facilities on new sites acquired by the District (sites to be acquired would have reduced site size requirements).
- Repurpose existing District facilities that are significantly underutilized or have been closed due to shifting enrollment patterns.
- Lease space in non-District facilities to house District preschool programs.