BOARD OF EDUCATION
Portland Public Schools
Study Session
April 16, 2012

Board Auditorium
Blanchard Education Service Center
501 N. Dixon Street
Portland, Oregon 97227

Note: *Those wishing to speak before the School Board must sign the citizen comment sheet prior to the start of the regular meeting. No additional speakers will be accepted after the sign-in sheet is removed, but citizens are welcome to sign up for the next meeting. While the School Board wants to hear from the public, comments must be limited to three minutes. All citizens must abide by the Board's Rules of Conduct for Board meetings.*

Citizen comment related to an action item on the agenda will be heard immediately following staff presentation on that issue. Citizen comment on all other matters will be heard during the "Remaining Citizen Comment" time.

This meeting may be taped and televised by the media.

STUDY SESSION AGENDA

1.	**CITIZEN COMMENT**	5:00 pm
2.	**UPDATE: MARYSVILLE**	5:20 pm
3.	**UPDATE: LONG RANGE FACILITIES PLAN**	5:50 pm
4.	**BUDGET DISCUSSION:** Young Women's Leadership Academy and Boise Elliott/Humboldt	6:20 pm
5.	**BREAK**	7:00 pm
6.	**CONTINUED BUDGET DISCUSSION**	7:20 pm
7.	**ADJOURN**	9:00 pm

The next meeting of the Board will be a Regular Meeting on **Monday, April 23, 2012, at 5:00pm,** here in the Board Auditorium.

Portland Public Schools Nondiscrimination Statement

Portland Public Schools recognizes the diversity and worth of all individuals and groups and their roles in society. All individuals and groups shall be treated with fairness in all activities, programs and operations, without regard to age, color, creed, disability, marital status, national origin, race, religion, sex, or sexual orientation.
Board of Education Policy 1.80.020-P

PORTLAND PUBLIC SCHOOLS
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INFORMATIONAL REPORT TO THE BOARD

MARYSVILLE K-8 INSURANCE REBUILD PROJECT

Board Committee Meeting Date: 4/16/2012 **Executive Committee Lead:** C.J. Sylvester, COO

Department: Office of School Modernization **Staff Lead:** James Owens, Director-Capital Operations

District Priority: Design and Implement Capital Improvement Plan

I. ISSUE STATEMENT

This report provides an update on the status of the planned public improvements at the Marysville K-8 School which was approved by Board Resolution in November, 2011.

II. BACKGROUND

The design to rebuild the damaged portion of the school has been completed and the construction documents have been submitted to the City of Portland for permitting. The solicitation for the construction phase work was issued on April 4th and bids are due on May 1, 2012. Fourteen (14) regional construction contractors were pre-qualified for this work and are reviewing the documents. Following contract award, construction phase work is anticipated to commence in May with substantial completion in October 2012. The school will be ready for student occupancy following winter break in January 2013.

During the design phase there were several issues which surfaced that might influence the scope and budget for the work. Here is a summary;

Seismic upgrades. The submitted plans included seismic improvements required per building code, however, the City of Portland's Building Department has concluded that they cannot require seismic code improvements to the undamaged portion of the school and are recommending in the strongest possible language the District make "voluntary" improvements instead. Under the agreement with the District's Insurance Company, McLarens Young International, they will only reimburse the District for code required upgrades. The scope of this work was not included in the Board approved insurance rebuild project. However, given what staff has learned, making the recommended seismic improvements to the undamaged portion of the school during the construction phase of the project will result in a safer, more seismically resistant school building. The estimated additional construction cost to make the needed seismic improvements is

$165.000. This work is currently included in the construction documents prepared by the project's architect, DLR Group, and is included in the construction solicitation package as an "add alternate"

Potable water line replacement. The existing galvanized water lines in the burned portion of the building were undamaged by the fire, but are significantly deteriorated. This condition has reduced available water flow and increased the propensity for leaks. Approximately $50,000 has been allocated to replace these lines. The existing lines within the unburned portion shall remain as there is little financial advantage to replacing these lines at this time.

IT Upgrades. The IT department has identified several areas of improvement needed to bring the Marysville School closer to parity with other schools that have been improved over the past few years. These improvements include additional data drops in classrooms, wireless access throughout the school facility, integrated clock/bell/speaker systems, and additional motion detectors in corridors to better protect valuable IT equipment, Qualifying improvements in these areas are reimbursed by the Federal E-Rate program at a ratio equal to our Title 1 Free and Reduced lunch rate which at the Marysville School is 82%. After reimbursement, total out of pocket expenses for the District are anticipated to be approximately $26,000.

Gym expansion. The solicitation documents included an "add alternate" item to fully expand the gym, add telescoping bleachers, a bike shelter, storm drain improvements and several trees. The engineers estimate for this work is approximately $500,000 and will likely exceed the project budget unless another funding source is identified. If so, the work can be included in the basic construction contract award. Staff is not aware of any specific fundraising efforts. When the contract award recommendation is made, at a future Board meeting in May, staff will identify specific recommendations regarding the gym expansion and seismic upgrade add alternates.

III. RELATED POLICIES/BEST PRACTICES

8.80.015-P Capital Improvements – Process for the completion of capital projects.

IV. FISCAL IMPACT

The additional costs associated with the added seismic scope will be funded from Fund 405. In addition to the $300,000 previously committed to support the rebuild project, the $165,000 estimate for the seismic improvement would result in a total contribution of $465,000 from Fund 405. Adequate funds in Fund 405 exist for this purpose.

The cost for the water line improvements and information technology are expected to be compensated through existing Project contingency funds, a portion of which will ultimately be reimbursed by E-Rate funding as noted above.

V. COMMUNITY ENGAGEMENT

Community updates have been provided on an ongoing basis both in writing and through community meetings. A construction "ground breaking" event is scheduled for Saturday, June 2nd.

VI. BOARD OPTIONS

Defer the seismic, waterline and IT improvements.

VII. STAFF RECOMMENDATION

Proceed with planning and constructing the needed seismic improvements in the undamaged section of the school and provide funding from Fund 405.

Proceed with the planning and construction of the replacement water system within the unburned portion of the School and upgraded information technology for the entire school facility, funded by project Contingency funds.

VIII. TIMELINE FOR IMPLEMENTATION/EVALUATION

The District contract with the DLR Group was amended to include the design details necessary to incorporate the expanded scope improvements into the construction documents. Based on the expected value of the bids, staff will present an award recommendation during a Board meeting on May 14, 2012.

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SUPERINTENDENT'S RECOMMENDATION TO THE BOARD AND STAFF REPORT

LONG RANGE FACILITY PLAN ADVISORY COMMITTEE UPDATE

Board Meeting Date: April 16, 2012

Executive Committee Lead: CJ Sylvester, COO

Department: Facilities and Asset Management

Staff Lead: Robert Alexander, Program Director, Planning and Asset Management

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I. ISSUE STATEMENT

This report is an update to the Board of Education for three Long Range Facility Plan Advisory Committee (Committee) meetings #5, #6, and #7 held March 13, 2012, March 20, 2012 and April 3, 2012.

II. BACKGROUND

The Superintendent in December, 2011 convened a 39 member committee to recommend a Plan for possible consideration by the Board of Education in May, 2012. The Committee represents a broad cross section of the community including representatives of parents, students, PTA, unions, business interests, architects and neighborhood associations. This Plan, while not a plan for a specific bond, will lay the groundwork for evaluating the need for resources over a 10 year period. It will also meet the requirements in Oregon Revised Statutes 195.110 requiring an updated Plan.

The March 13, 2012 meeting was held at Sunnyside Environmental School where the Committee discussed results of Guiding Principles which they developed further in small groups. They also heard reports on school utilization - capacity formula/enrollment balancing; alternatives to construction and efficient use of school sites. The March 20, 2012 meeting at Markham had Issue Papers on Special Program Considerations: Pre-K - head start, teen parent service, on-line learning Universal access; historic preservation, sustainability; and capital investments - tools, bonds and partnerships. It featured small group exercises on enrollment utilization and condition of facilities. The April 3, 2012 meeting at Faubion included Issue Papers on Capital Tools, Accessibility, Sustainability, and Principles of Historic Stewardship. There have also been developed a series of "tools" which map issues for Committee consideration including enrollment, capture rate, utilization and enrollment, and facility condition index among other items. These are all posted on the website for access and use by the Committee and the public.

The Committee has added one additional meeting for a total of nine, to provide more time to develop and discuss the financing scenarios. The April 10, 2012 meeting will be an exercise to garner Committee direction on those funding scenarios for long term financing alternatives to finance components of the Plan and finalize the Guiding Principles. The final meeting, April 24, 2012, will be further development of scenarios and perhaps a recommended scenario to address the long term needs of the district.

III. RELATED POLICIES/BEST PRACTICES

The following Board policies will inform and direct the Plan creation:

1. Resolution 3986 - Criteria to Determine the Order of Rebuilding and Renovation of PPS School Buildings to Create 21st Century Schools, Adopted: 10/13/2008;

2. Resolution 3987 - Adopting Guiding Principles to Use for Developing and Implementing a 21st Century School Facilities Plan, Adopted: 10/13/2008;
3. Resolution 4042 - Establish a New Fund, Fund 405, the 21st Century Capital Project Fund, Adopted: 2/23/2009;
4. 8.80.010-P - High Performance Facility Design, Adopted: 6/1971, Amended: 8/12/2002.

IV. FISCAL IMPACT

The Long Range Facility Plan will assist the Board in reviewing future capital program alternatives to support school capital investment. The Plan will provide a framework for efficient and effective ways to allocate resources with a sustainable investment strategy.

V. COMMUNITY ENGAGEMENT

The Committee is working to maximize public engagement through use of website, video and video summaries of each meeting, as well as public comment periods during each meeting. Meetings are being publicized in a series of outreach meetings held on key topics which relate to the Plan as well as the Facilities. These meetings are held in schools throughout the district.

Separate outreach events have included an *Advanced Learning Symposium* which was held February 22, 2012. It was an all-day session for teachers and members of the Committee attended. In addition, a session on *Accessibility & Universal Design* was held on March 8, 2012, to discuss accessibility to key programs throughout the district by all learners. *Earthquakes and Schools* was held March 14, 2012, which discussed seismic activity in our region, implications for older buildings, seismic retrofits and additional work that needs to be done. The results of each of these sessions, as well as other sessions, are posted on PPS.org with the Long Range Facility Plan button.

VI. TIMELINE FOR IMPLEMENTATION/EVALUATION

The updated Long Range Facility Plan is proposed to be presented to the Board in draft form May 14, 2012, and for final consideration May 29, 2012.

ATTACHMENTS

A. Issue Papers:
   1) 5.1 Efficient Use of School Sites
   2) 5.2 Alternatives to Construction
   3) 5.3 School Utilization
   4) 6.1 Capital Investment – Tools, Bonds, Partnerships
   5) 6.2 Principles of Accessibility & Beyond
   6) 6.3 Sustainability Principles of Design
   7) 6.4 Principles of Historic Stewardship
   8) 7.1 Ten-Year Capital Improvement Plan
   9) 7.2 Other Program Considerations

B. Guiding Principles - Draft

ISSUE PAPER #5.1
EFFICIENT USE OF SCHOOL SITES

BACKGROUND

A LRFP needs to address current school sites to understand first, if there are adequate sites within the district to meet long term needs and next are these sites of adequate size and distribution to meet long term projections. This evaluation is required to provide assurance that there is a sufficient inventory of properties relative to enrollment demands, and that they are being used effectively to address school needs. School sites must provide space for: the building, exterior instruction, play(hard, soft and covered), intramural/athletic activities, parking, pedestrian and vehicular circulation. Site area may need to meet other regulatory requirements including: property line set-backs, easements, fire separations, fire truck access, environmental restrictions (wetlands).

RELEVANCE FOR FACILITIES PLAN

Pursuant to the school facility planning statute, ORS 195.110:

(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:

(E) An analysis of:

(ii) 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 – multi-story buildings and multiple uses of school sites – but does not more precisely define them. This provides the District discretion in determining what efficiency measures to consider.

This paper describes some of the measures the District has and can consider in making more efficient uses of its school facility sites.

ELEMENTS OF EFFICIENT USE OF SCHOOL SITES

Multi-story buildings

The District makes extensive use of multi-story buildings. Currently 53 of the Districts 88 active school sites have two or more stories. Local building codes previously restricted younger students (K thru 2nd grade) from being taught on floors above or below the main floor. However, these codes have been revised to remove this restriction when certain conditions are satisfied such as installing fire sprinkler systems. The District currently has numerous K5 and K8 multi-story buildings without sprinkler systems which restrict the flexibility of interior use. At the same time, multi-story buildings provide significantly more student capacity using the same footprint as a single-story building. As land costs increase, multi-story buildings become more cost-effective to build and operate.

Land costs in the District have risen significantly in the last 20 years. Therefore, the District has recently made it a practice to construct multi-story buildings when new schools are built. Rosa Parks Elementary School is a good example of this.

Shared use & Partnerships

Another effective way of maximizing the use of a school site is to share the use with other organizations. It was found during multiple school facility design workshops that community members support the partnership between the District and Portland's Parks & Recreation Department, 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.

District school facilities are "community assets" that are used in a variety of ways by families and community groups.

There are other shared use partnerships that the District has and can enter into and develop. Some natural pairings include those with the City of Portland and other educational (e.g., Portland Community College) and community service providers (e.g., Boys & Girls Clubs, YMCA, etc.)

There may also be opportunities for District schools to share sites with other District functions and facilities. This includes schools and school programs that share buildings on a site and have their own buildings but share the site itself. In Portland, Abernethy Elementary School and the Environmental Middle School shared buildings on a southeast Portland school site until the middle school grew to a point where it needed to move to its own site nearby. In Forest Grove, Fern Hill Elementary School and Neil Armstrong Middle School were constructed on the same site. Their buildings are separate but they share fields and other outdoor space. North Clackamas School District also has co-located schools: Sunrise Middle School and Clackamas High School, and Happy Valley Elementary and Middle Schools, which opened in 2008 and 2009.

A related form of schools sharing sites is the K-8 model, which effectively combines two schools – an elementary school and a middle school. The District now has 30 K-8 schools in active use.

Finally, there are several partnerships that support career-technical education which benefits both students and the community. The District looks for opportunities to develop and enhance these relationships as part of its strategic framework.

Modular classrooms

Modular classroom buildings are an affordable and flexible method for responding to fluctuations in school enrollment and increasing the efficient use of a school site. The modular buildings used by the District typically consist of two classrooms which will accommodate approximately 25 students per classroom.

The use of modular buildings 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 modular buildings are classified and regulated according to zoning code; building setbacks from lot lines required by the code.

:: Fire safety – access roads and proximity to hydrants

:: Core facilities – the ability of the school's core facilities (e.g., cafeteria, gym, restrooms, etc.) to accommodate additional enrollment.

Other issues to consider when making decisions about using modular buildings 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 be assumed that permanent classrooms always provide a better learning environment than modular classrooms. But, because modular buildings are designed to be semi-permanent, they often lack some of the architectural quality and special features or amenities that permanent classrooms have. These differences may make a difference in student achievement. When some schools have more modular buildings than others, there is the potential to foster inequality between schools.

Student & Staff parking

Required vehicle parking standards are a local zoning code issue that can add to the need for larger school sites. The following strategies can be used to mitigate requiring larger sites:

1. Reimbursing the local transit agency for allowing the students to ride for free;
2. Providing better bicycle storage facilities on campus;
3. Making shared parking arrangements with various organizations in the neighborhood.

The transit and bicycle measures require schools that are well-connected to their service area by transit and bicycle routes. While all of these measures could reduce the demand for parking spaces on the school site, 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, which may not be available at all school sites.

School Site Size

School site sizes in the District are established and unlikely to change. There are several options to reduce the space on a school site dedicated to non-educational uses, such as field and playground space or parking. However, the following factors should be considered in making these types of decisions:

Good walking, biking, and transit access should be available to reduce the demand for vehicle parking. Otherwise, there is the risk that parking will overflow into the surrounding neighborhood, which can create livability issues and complaints from residents.

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 a consideration.

School sports and extracurricular activities have consistently been a highly regarded value of families in the District. 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.

Swing Space

Due to the extensive work required to upgrade many schools to achieve modern learning environments, entire schools will need to temporarily relocate into different facilities while construction is completed. These facilities that will temporarily house displaced students are called "swing space". In some instances, currently vacant school buildings might serve this purpose. For example, after the fire at Marysville K8 in 2009, the students temporarily relocated to Rose City Park while the District pursued funding for partial reconstruction of Marysville.

Stabilization for swing space occupancy should include providing adequate heat, preventing water intrusion, increasing accessibility and providing some minimal level of safety and security measures. Several of the District's vacant school buildings would require minimal upgrades to temporarily accommodate students. For example, Rose City Park, Kellogg and Marshall.

The number of available swing space sites directly impacts the volume of construction that can take place at any given time. It can also limit the student throughput of a given geographic area. A primary objective is to limit the maximum travel time for any student to the extent feasible.

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 any desirability to work on-site around the existing buildings. This analysis would also include construction "phasing" or sequencing the work during periods when students are absent.

A site will primarily be judged as a swing space candidate location if it has adequate enrollment capacity, is within the geographical location constraints, and is compatible with the grade configuration. Capacity will match existing enrollment or the site will have capacity to accommodate additional modular buildings.

Given the total number of District facilities requiring major renovation or replacement, swing space will be required for many years to complete the transformation to modern learning environments.

SUMMARY

There are a variety of ways in which the District makes efficient use of its school sites including use of modular classrooms, building multi-story schools, sharing use of school sites for both District and other public/community agencies, locating schools on smaller sites, alternative parking arrangements and use of swing sites.

However, the District must consider specific site conditions and the values and demands of the community when evaluating these options. Site conditions such as steep slopes, wetlands and development code regulations that establish use standards for school buildings and modular classrooms, etc. are also important considerations. Community values may include providing enough parking for volunteers, connected and safe walking paths, biking, transit access, providing fields for sports, extracurricular activities and shared uses with the Parks and Recreation Department and other community service providers.

ISSUE PAPER #5.2
ALTERNATIVES TO CONSTRUCTION

BACKGROUND

The LRFP will address other ways to accommodate programmatic growth or change that would not necessitate new construction or renovation. A variety of methods can be employed to alleviate the need for new or expanded sites. These can include: bussing students around the District to increase utilization at under enrolled schools, making boundary changes to improve student distribution, scheduling year-round school, allowing split shifts, sharing space with other districts, creating magnet schools to attract students to facilities with declining enrollment, consideration of different grade configurations to alleviate pressure in overcrowded facilities or locating modular buildings on existing over-crowded sites. This paper explores the implications of some of these strategies.

RELEVANCE FOR FACILITIES PLAN

Pursuant to the school facility planning statute, ORS 195.110, PPS must study alternatives to building new schools or performing major renovations when planning how to accommodate projected enrollment.

(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:

(E) An analysis of:

(i) The alternatives to new school construction and major renovation

As with making more efficient use of school sites, the statute does not specify what alternatives must be studied. This "white paper" explores program changes, the use of modular classrooms, and public/private partnerships as alternatives to new construction and major renovation. Some of these

ideas overlap with the statute's requirement that the efficient use of school sites also be analyzed. Please see Issue Paper #4 for that discussion.

ELEMENTS OF ALTERNATIVES TO CONSTRUCTION

Program changes

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:

1. Year-round schedule
2. Double shift schedule.

Year-round school schedules have been shown, in some school Districts, to have educational benefits. However, with all the students attending at same time, there is not a significant difference in the school's capacity. In fact, it has the potential to make ordinary maintenance and repair along with capital improvements more difficult because there are few extended periods of time when the school is unoccupied (as compared to schedules in which classes are not held during the summer). Major maintenance and renovations would require closing a school and transporting students temporarily to another location. See Issue Paper #4.1 for the discussion on "Swing Sites".

A double shift schedule essentially splits the students into two groups: one that attends during the morning shift and one during the afternoon shift. Of these programming options, the double shift has the potential to free up the greatest amount of school capacity; theoretically, this could make 50% more capacity available during each shift. However, this schedule can create challenges for working parents coordinating care as well as interfere with extracurricular and "after-school" activities.

Given our current school building portfolio along with projected 10-year enrollments, it is not necessary at this time for the District to consider altering the existing 9-month school schedule.

Vacant & Leased Buildings

The District maintains a portfolio that includes former schools that are currently being leased, used as swing sites or are vacant. Given the projected growth of the District's student enrollment, these "underutilized" school facilities can be considered for "reactivation" to serve students again. While there are capital costs associated with modernizing and improving these buildings, the costs are significantly less than constructing new capacity or doing a major renovation at the existing site. And since the District owns the property, there are no land costs. The inventory includes five administrative sites, four of which could be used as schools. There are nine facilities that are currently closed, eight of which could be used as schools. Three of which are being actively marketed, three are swing sites and two of which are leased to other entities outside PPS.

Building Status	Number	Square Footage
Administrative	4	335,035
Closed Facilities	6	157,832

Facilities Leased to Others	2	73,490

- Administrative – Several buildings across the District are used for administrative purposes including Rice and Marshall sites.
- Closed – The PPS building inventory also includes vacant school sites. Some of these schools may be potential "swing" sites to house students while repair or renovation work is being performed at active school sites or used for interim administrative purposes.
- Leased Sites – Leased sites are previously-closed school buildings the District leases to generate long-term revenue. These sites are usually leased by tenants for consecutive years. The Kenton and Edwards sites are examples. The District generated $ 1.5 million in lease revenue that contributed to the General Fund in FY 2010-2011.

The current inventory of vacant and leased buildings suggests an ability to accommodate anticipated increases in student enrollment over the next ten years.

Modular Buildings

Modular classrooms offer solutions both for making more efficient use of a school site (Issue Paper #4.1) and providing a substitute to constructing new permanent buildings. Modular classrooms offer flexibility in responding to changes in enrollment and cost less than permanent buildings to purchase and operate. Table 1 shows the number of Modular classrooms in use in the district in September 2011, and the corresponding student capacity that these portables provide.

Table 1. Modular Classrooms in PPS, September 2011

	Number of Modular Buildings	Student Capacity*
K5 Schools	26	1,398
K8 Schools	31	1,549
Middle Schools	4	163
High Schools	6	427
Total	67	3,537

*Based on 34 square feet per student for elementary students and 30 square feet per middle and high school students

As discussed in Issue Paper #4.1, modular classrooms tend to 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. When some schools have many more portables than others, this potentially creates inequality— the potential for lower performance and achievement related to more portable classrooms and fewer permanent classrooms.

Public/private partnerships

There may be opportunities for public/private partnerships to support District programs in lieu of new construction or major renovations. For example, PPS recently leased a portion of the ground floor of an affordable family housing development in NW Portland for an early childhood learning program. In general, lease arrangements are made on a case by case basis to support educational programs objectives.

The Ramona Early Learning Program does not have a library, gymnasium, or cafeteria, which is not unusual for alternative programs or private schools but is unusual for PPS schools. However, the last elementary school that PPS opened – Rosa Parks School in North Portland – was constructed in collaboration with the Boys & Girls Club and is sited adjacent to a Portland Parks & Recreation gymnasium with agreements in place for mutual use and benefit.

The District's Career Technical Education programs have historically, and will in the future, have robust partnerships with industry both in the schools and with internships at industry partner sites.

SUMMARY

Program changes, use of modular classrooms, vacant buildings and public/private partnerships can provide additional capacity and may influence the extent of major renovations.

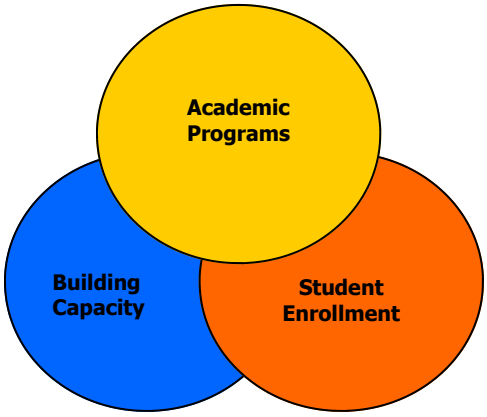
It is important for the District to explore options for increasing the amount of school capacity without having to make major capital investments. It is requested that the Committee indicate whether these strategies have potential as alternatives to new capacity improvements and major renovation from a community perspective, and whether there are other strategies to suggest.

ISSUE PAPER #5.3
SCHOOL UTILIZATION

BACKGROUND

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 utilization planning 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 student use and the number of students anticipated in the future. This paper focuses on student assignment and building capacity components of school utilization.

School Utilization Components



In simplest terms, utilization is the portion of a building's space that is assigned to students. So 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. In this paper, we will examine:

- Student assignment policies and practices that influence school enrollment,
- Current school size target enrollment ranges to meet program goals,
- A new model for assessing building capacity based on instructional use, and
- Trends in school utilization expected in the next decade

We will also propose a set of recommendations for responding to future over- and under- utilization issues.

RELEVANCE FOR FACILITIES PLAN

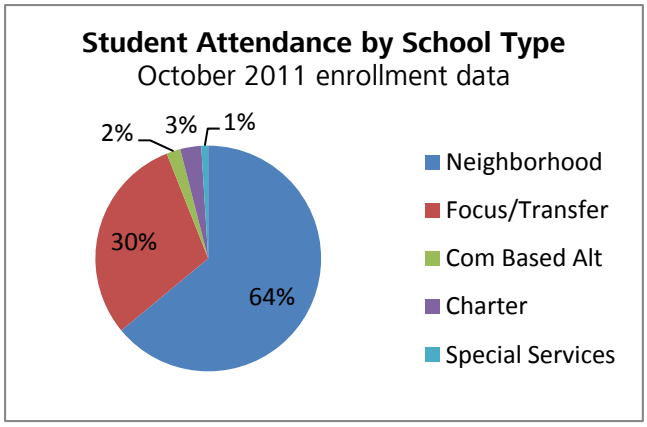
State law (ORS 195.110) requires large school districts with K-12 enrollment more than 2,500 students to develop long range facilities plans. School facility plans must contain "objective criteria to be used by an affected city or county to determine whether adequate capacity exists to accommodate projected development". Once a large school district's long range facilities 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.

PPS Board Resolution No. 3986, criteria to determine the order of rebuilding and renovation of PPS school building to create 21st century schools, identified enrollment as a key criteria by which to assess capital investment in district schools: "right size" schools by "analyzing transfer patterns and making adjustments, evaluating boundary changes to balance enrollment between adjacent schools, and increasing the physical capacity of the school".

The instructional space and core facilities of every school should be sufficient to support the district's desired enrollment size that will support the delivery of the best educational model. The district overall has sufficient facility space for the forecast 50,399 students of 2021. However many individual schools do not have adequate space for their forecast enrollment of 2021. One of the tasks of the district's enrollment balancing process and long range facilities plan is to ensure adequate space and capacity for the number of students needed for the district's desired program, so that every student has access to a high quality education regardless of race or class.

STUDENT ASSIGNMENT PRINCIPLES

Portland Public Schools provides a guaranteed school for every grade K-12 student based upon their home address. PPS also provides a number of options for students to attend other schools, including other district neighborhood and focus (or magnet) schools, independently operated charter and alternative schools, and schools designed to meet individual students' specialized learning needs. The chart below shows the current distribution of K-12 students by type of school attended.



The Portland model of both guaranteed neighborhood schools and a robust choice portfolio is somewhat unique when compared with other similarly sized school districts. In general, suburban districts offer fewer choice options, while other urban districts are more likely to offer choices and use lotteries to assign students instead of neighborhood guarantees.

At the individual school level, attendance at either neighborhood or choice schools can vary greatly. For example, 87% of high school students who live in the Wilson neighborhood attend that school, while 22% of the high school students in Jefferson neighborhood are enrolled there. Enrollment planning assumes that current patterns of attendance continue to occur. However, space availability, special program locations and other factors can modify neighborhood "capture rates" significantly. For example, in 2006, 62% of the K-5 grade students in the Abernethy neighborhood attended that school instead of other public school choices. By 2011, the neighborhood "capture" rate for Abernethy increased to 73%. Likewise, it is anticipated the Middle College Program at Jefferson will result in increased capture rate modifications as will any full modernization/expansion of existing schools wherever they may occur in the District.

In recent years, Portland has limited choice into other neighborhood schools, reduced the size of Benson (an all-choice technical high school) and approved the start-up of new charter schools. All of these changes are tracked by district staff and PSU demographers and included in annually updated enrollment forecasts. Annual enrollment changes are also analyzed each fall through an enrollment

data analysis process, which incorporates historic, current and forecast enrollment data with demographic characteristics and transfer patterns. The results of the analysis include:

- A list of schools with projected enrollment significantly greater or lesser than school capacity,
- An assessment of the degree to which forecast enrollment may inhibit delivery of an adequate and effective academic program and/or cost efficient use of a school, and
- Options to address identified enrollment issues, including:
  a. enrollment changes through transfer limits or boundary adjustments,
  b. program changes, which may include different grade configurations,
  c. facility modifications to increase capacity, and
  d. opening or closing schools.

In recent years, PPS has seen increased enrollment across the district. This trend is expected to continue and it is likely that more schools will be operating at or above enrollment capacity. These schools will have to offer educational programs with less space per student to do so. At the same time, some schools continue to see declining enrollment, or are operating in buildings with such small capacity that they could never reach enrollment targets for educational programs. Schools in these categories (see Exhibit B) would be considered for the types of changes listed above.

Each of the options listed above have the potential for positive and negative academic and operational impacts. Facility changes are often seen as solutions of last resort because of the cost of adding new capacity. However, enrollment or program changes have the potential to be disruptive to a school community, and may have a negative impact on student achievement.[1] Enrollment and facility planning staff meet with regional administrators and other district leaders to refine the analysis, including potential risks and benefits, before developing enrollment action plans which are shared with the Superintendent and School Board annually. The 2011 enrollment analysis list for elementary, middle and K-8 schools is attached to this paper as Exhibit B, for reference. (Note: The utilization rate used for this analysis was based on teachers assigned to a school divided by the number of classrooms in the building. A different method for calculating utilization is proposed later in this paper.)

A community engagement process is conducted at each school subject to changes due to over or under-utilization. The process allows stakeholders to provide input on the risks and benefits of each potential solution, both for the school in question and for nearby schools, before a single option is selected by the Superintendent and recommended to the School Board for approval.

SCHOOL SIZE TARGETS

While school building size is often a reflection of the educational models in place at the time a school was constructed, school size targets are based on current thinking regarding the number of students needed to meet a district's program goals. Targets are based on existing resources and staffing ratios, and are not meant to serve as program ideals, but rather as ranges for planning purposes. School size targets may vary through the years, as educational program models and funding levels change. While larger schools are more efficient from a staffing and operations perspective, they may not provide the personalized school climate and learning supports that are available at smaller schools. The following enrollment targets were developed for the 2011-12 school year.

[1] Douglas Ready, Valerie Lee & Kevin G. Welner, Educational Equity and School Structure: School Size, Overcrowding, and Schools-Within-Schools http://nepc.colorado.edu/files/1882.pdf (2004)

2011-12 PPS School Size Target Ranges*

School type	Floor	Target	Ceiling
Elementary	300	450	100% utilization
K-8	350	500	100% utilization
Middle	450	600	100% utilization
High	1200	1350	100% utilization

*Does not include focus, alternative and special schools

It is generally assumed that schools with enrollment near the target size are able to provide a full academic program. However, schools with enrollment near or below the target "floors" may not be able to offer a full program without supplemental funding. Target "ceilings" are based on classroom capacity, not program size. Different enrollment targets exist for district focus, alternative and special schools.

STUDENT CAPACITY MODELS

It has been several years since PPS consistently estimated the student capacity of its schools. There are a wide variety of student capacity models used by other districts, within and outside of Oregon.

In anticipation of the 2012 Long Range Facility Plan update, a committee of district staff including high school, middle school, and K-8 administrators evaluated capacity models for applicability and suitability for district uses. This group of educators felt any district capacity method should:

- Be flexible;
- Be based on physical space and adaptable to school program and configuration;
- Understand program space requirements;
- Describe a reasonable number of students per classroom;
- Acknowledge annual changes in teacher/student ratio; and
- Begin to inform educational specification standards.

A list of all the capacity models evaluated can be found in Exhibit D. Most of the models identified were excluded from further review due to the degree of complexity, and failure to account for program variations and special programs such as Special Education, Head Start and ESL.

For the purposes of this paper, the PPS committee focused on three different models: net area, instructional space and number of classroom models. A description of each is found below. The schools represented by the committee members were used for testing the models. The bar chart below provides the result of these tests.

- **Net area model** divides the net area of the school building (entire building minus SPED and ESL classrooms) by a square foot per student factor to determine student capacity;
- **Instructional area model** divides instructional areas (spaces with teachers assigned to them) by a square foot per student factor to determine the student capacity of each space; and
- **Number of classrooms model** applies a student per classroom ratio to all regular classrooms to determine student capacity.

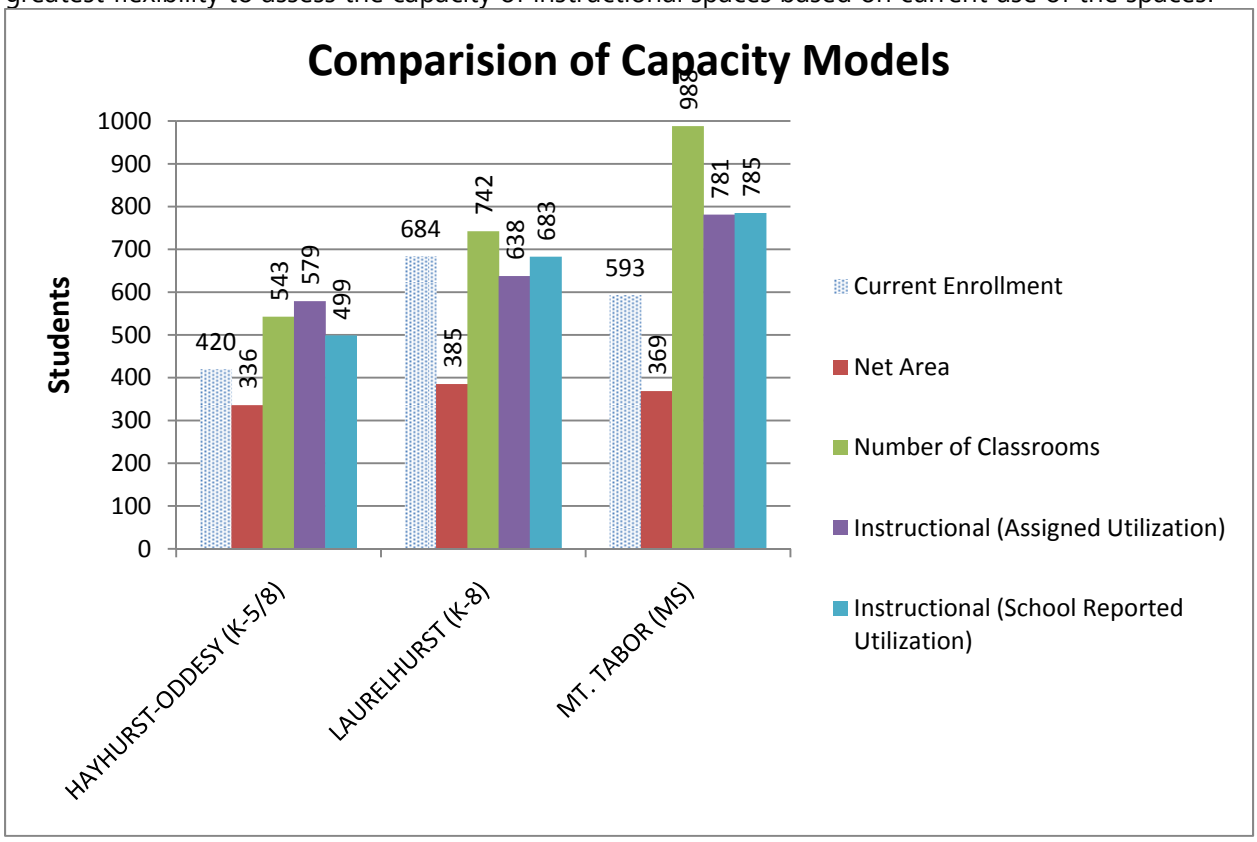
All of the models either subtract or discount classrooms used for special education purposes noting that the student capacity of these spaces is different than "regular" classroom areas. Most models identify gymnasiums as having student capacity primarily for older grades.

The district's current assessment of space utilization within each school is the ratio of full time equivalent (FTE) teachers per classroom. This is referred to as the school's utilization rate and was one of the primary measures of space need in recent enrollment balancing activities within the district. While this is a useful tool for district-wide assessment of space utilization it does not account for the variation in sizes of classrooms or the frequency of the room use or use of classrooms by other special programs (SPED or ESL).

The primary strengths and weakness of these models are identified below. See Exhibit D for more detail of each model.

Model	Strengths	Weaknesses
Net Area	• Easy to apply and understand • Little information needed • Accounts for strain additional classrooms put on core facilities	• Does not account for SPED and ESL student capacity needs • Cannot gauge variability of common spaces between schools • Does not account for program space needs
Instructional	• Allows flexibility of instructional space • Easy to understand	• Identification of instructional spaces takes time to evaluate
Number of Classrooms	• Easy to calculate	• Does not account for variability in size and type of classrooms within and among school buildings • Does not account for program space needs

The PPS committee evaluating capacity formulas believed the instructional model provided the greatest ability to estimate student capacity while simultaneously giving building administrators the greatest flexibility to assess the capacity of instructional spaces based on current use of the spaces.



The instructional model allows for a determination of design capacity (all *potential* instructional spaces being used 100% of the school day) and a functional capacity (design capacity minus the instructional spaces being used for non-instructional purposes – office space, resource rooms, space leased to other users). The determination of functional capacity is best performed at the individual school level. Determining what percentage of a school day instructional spaces are being used (utilization) can be done by assigning a school-wide utilization factor to all instructional spaces or by having building administrators identify how often instructional spaces are being used.

The utilization rate identifies how much of the functional capacity is being used. Most schools do not operate at 100 percent of the available student capacity. Teacher planning periods, specialized classrooms used by a portion of school students (e.g. science labs, art rooms) mean that not all instructional spaces are used every period of every day. However, the program needs of each school may require the use of traditional instructional spaces for non-instructional uses such as resource rooms, counselors, therapists, etc.

The functional capacity and utilization of instructional spaces identified by school principals and administrators provides the most accurate assessment of how each school program makes use of available instructional space. PPS staff recommends the student capacity identified by each school principal be the capacity information used for school utilization and planning purposes. Annual updates of student capacity using the instructional model should be conducted to note changes in school programs and utilization of spaces. As the use of a student capacity model for the district is new, the model should be evaluated within a short period of time (2 years) to determine the need for changes to the model that more accurately reflect the student capacity of district schools.

Any student capacity model adopted by the district should only be developed for the purposes of comparing student capacity to future enrollments and any target enrollments established by the district. As noted above, the identification of enrollment and capacity disparities should be a signal of the need to engage in the enrollment balancing process. If the right size of a school program requires the need for a school enrollment greater than the physical space allows as suggested by a capacity model, this may suggest the need for capital investment in the school to provide the space needed to accommodate the program.

TRENDS IN SCHOOL UTILIZATION

Throughout the next decade, PPS is expected to add about 3,600 students above current district enrollment (using the medium growth scenario forecast of the PSU enrollment forecasts). If the Long-Range Facility Planning Committee agrees, using the instructional capacity model described above, staff will be developing school-by-school utilization analysis this spring, which will be an essential tool for future enrollment and facility planning.

As noted, instructional capacity calculations are based on current program space requirements, and are subject to change based on program needs. For example, in the past several years, PPS has converted kindergarten curriculum from a half-day model to a full-day program. As a result, the need for kindergarten space has nearly doubled across the district: Schools that in the past could accommodate 50 kindergarten students in one classroom—25 in the morning program and 25 in the afternoon program—now need two classrooms for the same purpose.

Other changes that impact utilization include the district-wide increase in numbers of students who receive additional services for language-instruction or disabilities, and the trend of inviting partner organizations into schools to provide mentoring, counseling and other supports. When considered together, it is clear that school utilization is an evolving measure, and that our facilities as currently configured may not be "right-sized" to meet the needs of future students.

SUMMARY

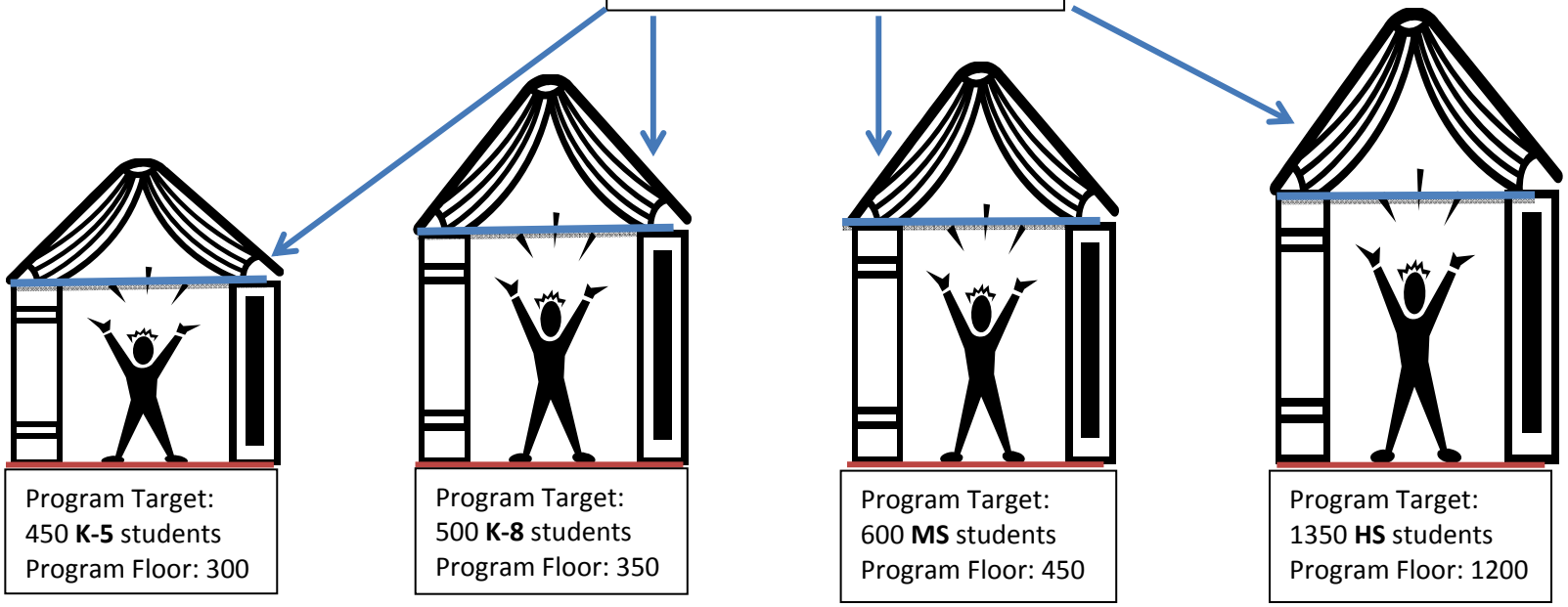
We recommend that the long range facility plan advisory committee endorse:

- The district's data analysis and enrollment balancing process as the mechanism by which to identify discrepancies between school enrollments, program sizes, and student capacities;
- Consistent application of an instructional student capacity model district-wide on an annual basis;
- Incorporation of each schools' utilization of available student capacity into the long range facility plan;
- A thorough consideration of program space needs when the district's capacity model is updated;
- The use of target program size as the primary determinant of the physical size of each school when new capacity is added;
- Frequent evaluation of desired program size against student capacity at every school;
- Identification of facility expansion as one of several options to accommodate district established program size after available student assignment options have been explored;
- Permanent facility expansion should strive to provide parity of common spaces amongst school types; and
- Non-permanent facility expansion such as the addition of modular buildings should be considered to support temporary enrollment fluctuations

EXHIBIT A

2011-12 SCHOOL SIZE TARGETS

CAPACITY CEILING: 100% classrooms used



Program Target: 450 **K-5** students Program Floor: 300	Program Target: 500 **K-8** students Program Floor: 350	Program Target: 600 **MS** students Program Floor: 450	Program Target: 1350 **HS** students Program Floor: 1200

Program targets are based upon existing resources and staffing ratios, and are applied to each neighborhood/comprehensive school. The numbers for each school configuration represent the estimated students needed to provide adequate staffing and programming across all grade levels. Schools below **program floors** have enrollment patterns significantly below these thresholds, especially those that are not able to generate at least 2 sections per grade level. These schools will be reviewed for potential program, boundary and/or grade level changes. If none of those options result in sustainable enrollment, closure may be considered.

Capacity ceiling is 100% utilization: the same number of teachers as classrooms in a building. Schools with utilization patterns consistently above this threshold will be considered for program, boundary, grade level and/or facility changes.

An annual **enrollment data analysis** will be conducted each fall to determine schools above and below target school sizes. Focus schools are subject to different enrollment and capacity evaluation. Regional administrators, principals and other school stakeholders will be consulted to prioritize schools for possible changes.

Priority considerations:
- Has growth been occurring over multiple years and grade levels?
- To what degree are support programs being moved to non-traditional spaces to accommodate all students?
- Are class sizes above district average at multiple grade levels?
- Is the school receiving academic supports through Academic Priority Zone, School Improvement Grants other programs?

Exhibit B

Enrollment Data Analysis Preliminary 2011 Grades PK-8 **DRAFT FOR DISCUSSION**

School Information				2011 Prelim data		2010 Data				
Cluster	School	Grade Structure	Class-rooms	School Enroll	Utili-zation	School Enroll	Utili-zation	Capture Rate	Enroll change	Notes, Priority options
Cleveland	Abernethy	K-5	21	455	93%	421	88%	68%	34	
Cleveland	Buckman	K-5	29	490	84%	497	84%	87%	-7	
Cleveland	Duniway	K-5	25	425	81%	442	79%	86%	-17	
Cleveland	Grout	K-5	27	359	77%	361	76%	58%	-2	
Cleveland	Hosford	6-8	34	534	82%	548	86%	55%	-14	
Cleveland	Lewis	K-5	19	363	111%	396	107%	70%	-33	Full but stable; monitor
Cleveland	Llewellyn	K-5	23	545	105%	485	90%	75%	60	High growth continues; program changes in 2011-12, possible boundary change in 2013-14
Cleveland	Sellwood	6-8	33	488	62%	474	67%	75%	14	
Cleveland	Whitman	K-5	25	360	70%	347	78%	72%	13	
Cleveland	Winterhaven	K-8	16	347	87%	352	91%		-5	
Cleveland	Woodstock	K-5	26	491	88%	466	85%	59%	25	
Franklin	Arleta	K-8	29	423	77%	428	79%	61%	-5	
Franklin	Atkinson	K-5	23	450	102%	484	101%	70%	-34	Full but stable; monitor
Franklin	Bridger	K-8	23	397	100%	365	106%	43%	32	Utilization change due to new staffing
Franklin	Creston	K-8	18	379	99%	345	104%	44%	34	Moved off priority list due to enrollment growth
Franklin	Glencoe	K-5	25	454	76%	480	100%	65%	-26	
Franklin	Kelly	K-5	27	570	111%	509	100%	78%	61	Growth in neighborhood and immersion; expand into annex, consider other options next year for implementation in 2013-14
Franklin	Lane	6-8	38	440	58%	400	61%	67%	40	Middle school discussion next year
Franklin	Lent	K-8	33	577	102%	561	112%	80%	16	Modulars in 2011; monitor enrollment
Franklin	Marysville	K-8	26	363	84%	404	93%	60%	-41	Consider expanding boundary as part of rebuild, relief to Harrison Park
Franklin	Mt.Tabor	6-8	32	593	82%	581	81%	63%	12	
Franklin	Richmond	K-5	29	663	90%	612	90%		51	Growth expected; next year consider impact at Mt. Tabor MS
Franklin	Sunnyside	K-8	27	608	100%	580	99%	74%	28	
Franklin	Woodmere	K-5	22	398	92%	393	97%	67%	5	
Grant	Alameda	K-5	31	782	107%	774	103%	88%	8	Consider boundary change to adjacent schools; implement in 2012-13
Grant	Beaumont	6-8	36	482	59%	455	54%	63%	27	discussions
Grant	Beverly Cleary	K-8	33	674	83%	604	80%	63%	70	High growth; monitor
Grant	da Vinci Arts	6-8	32	462	69%	464	70%		-2	
Grant	Irvington	K-8	29	485	81%	529	85%	70%	-44	Possible inclusion in Alameda discussion
Grant	Laurelhurst	K-8	28	680	108%	704	106%	79%	-24	Monitor enrollment
Grant	Sabin	PK-8	22	392	81%	362	60%	49%	30	Moved off priority list due to enrollment growth; ACCESS classrooms not counted; include in Alameda discussion; Address Beaumont guarantee for implmentation in 2012-13

Blue highlight = enrollment above 100% utilization Yellow highlight = enrollment below program target floor

Student Database Extract as of October 3, 2011

Enrollment Data Analysis Preliminary 2011 Grades PK-8 **DRAFT FOR DISCUSSION**

School Information				2011 Prelim data		2010 Data				
Cluster	School	Grade Structure	Class-rooms	School Enroll	Utili-zation	School Enroll	Utili-zation	Capture Rate	Enroll change	Notes, Priority options
Jefferson	Beach	PK-8	34	582	79%	561	90%	50%	21	Jefferson cluster: Multiple, interrelated enrollment issues and opportunities; Planning to beginning in 2011-12 with implementation of any changes likely to begin in 2013-14; Vernon grade increase from Rigler in 2011, include in Rigler discussion
Jefferson	Boise-Eliot	PK-8	35	389	64%	390	71%	65%	-1	
Jefferson	Chief Joseph	K-5	19	485	95%	408	95%	54%	77	
Jefferson	Faubion	PK-8	19	435	99%	401	116%	58%	34	
Jefferson	Humboldt	PK-8	22	220	59%	230	82%	46%	-10	
Jefferson	King	PK-8	34	292	61%	288	62%	40%	4	
Jefferson	Ockley Green	K-8	34	270	56%	310	59%	34%	-40	
Jefferson	Vernon	PK-8	30	504	82%	376	73%	41%	128	
Jefferson	Woodlawn	PK-8	29	443	93%	478	98%	42%	-35	
Lincoln	Ainsworth	K-5	26	568	101%	551	105%	93%	17	Modulars in 2011; monitor enrollment
Lincoln	Bridlemile	K-5	25	470	81%	463	84%	89%	7	
Lincoln	Chapman	K-5	26	563	98%	522	81%	81%	41	High growth; monitor
Lincoln	Forest Park	K-5	21	491	102%	507	99%		-16	Full but stable; monitor
Lincoln	Skyline	K-8	14	276	95%	281	107%	71%	-5	Isolated; small but stable; Address W. Sylvan guarantee for implementation in 2012-13
Lincoln	West Sylvan	6-8	55	848	64%	850	62%	82%	-2	
Madison	Creative Science	K-8	23	357	83%	305	79%		52	Moved off priority list due to enrollment growth
Madison	Harrison Park	K-8	38	753	112%	751	110%	72%	2	Consider program change in 2011-12, boundary change planning aligned with Marysville decisions for implementation in 2013-14
Madison	Lee	K-8	25	458	100%	457	107%	71%	1	Full but stable; monitor
Madison	Rigler	K-8	28	528	107%	588	121%	64%	-60	Grade change to Vernon in 2011; consider boundary change, grade reconfiguration for implementation in 2012-13
Madison	Roseway Heights	K-8	41	589	69%	551	74%	65%	38	Possible inclusion in Alameda and/or Rigler discussion
Madison	Scott	K-8	26	522	124%	533	134%	65%	-11	Smaller classes at lower grades; consider program changes; possible inclusion in Rigler discussion
Madison	Vestal	K-8	25	420	107%	451	106%	58%	-31	Full but stable; monitor
Roosevelt	Astor	K-8	22	492	111%	445	110%	64%	47	Full and growing; monitor
Roosevelt	Cesar Chavez	K-8	27	455	88%	477	98%	60%	-22	
Roosevelt	George	6-8	27	360	79%	365	86%	49%	-5	Middle school discussion next year
Roosevelt	James John	K-5	26	402	90%	394	96%	61%	8	
Roosevelt	Peninsula	K-8	28	358	76%	361	83%	56%	-3	
Roosevelt	Rosa Parks	K-5	25	407	88%	434	96%	68%	-27	
Roosevelt	Sitton	K-5	22	333	102%	307	97%	55%	26	Growth across 4 grades; monitor
Wilson	Capitol Hill	K-5	19	372	89%	351	92%	78%	21	
Wilson	Gray	6-8	28	422	72%	428	69%	72%	-6	Middle school discussion next year
Wilson	Hayhurst	K-8	22	422	84%	396	82%	72%	26	
Wilson	Jackson	6-8	38	540	68%	584	72%	89%	-44	
Wilson	Maplewood	K-5	16	335	98%	350	97%	78%	-15	
Wilson	Markham	K-5	24	384	86%	376	90%	67%	8	
Wilson	Rieke	K-5	17	419	99%	356	99%	80%	63	High growth; monitor
Wilson	Stephenson	K-5	20	335	69%	324	73%	93%	11	

Blue highlight = enrollment above 100% utilization Yellow highlight = enrollment below program target floor

Student Database Extract as of October 3, 2011

EXHIBIT C: **School Enrollment Change Options**

OPTION	Description	Best Conditions for this Option	Option Benefits	Option Concerns
Boundary Change	Shift the boundary line between two or more schools to change the number of neighborhood students assigned there	One or more nearby schools are overcrowded/under-enrolled (depending on the problem); nearby schools offer similar program, services, same HS feeder patterns and no transportation challenges	Doesn't destabilize special programs; applies to only new students (in most situations); predictable set of criteria for decision	Actual impact can vary from projection; takes years to implement fully; historic allegiance to existing boundaries; forum to air biases
Program Change	Move a stand-alone program, such as self-contained SPED, immersion or partner service to a different location	Boundary changes are not feasible; space is available for program at another school; change does not create hardship for vulnerable population	Doesn't take years to implement; impacts students (in most cases) who live in other neighborhoods	Potential hardship for vulnerable population; destabilize effectiveness of program
Grade Reconfiguration	Change the grade structure of a school in order to increase or reduce the overall enrollment	Current grade configuration is not large enough/too large to be sustainable AND is not enabling adequate achievement results for students; change does not underenroll/overcrowd nearby schools, change HS feeder pattern or cause a transportation burden	Improved conditions to increase student achievement; keeps neigborhood intact	Entire school staff/program impacted; potential facility & licensure issues; forum to air biases
Facility Change	Modify the school facility to add more classroom space, including installing modulars	Relief for overcrowding when other changes are not feasible; enrollment size is adequate; site is appropriate for change; funds are available	Keeps neighborhood/ program intact	Expensize, non-instructional solution; core space usually unchanged--remains overcrowded
School Closure	End the current educational program of a school	Current grade configuration and attendance boundary are not large enough to be sustainable AND are not enabling adequate achievement results for students; no other change is feasible to improve conditions without destabilizing other schools; change does not overcrowd nearby schools, change HS feeder pattern or cause a transportation burden	Improve conditions for academic achievement; long-term cost savings from consolidation	Loss for a school community; massive system impacts; no assurance that achievement will increase for students; short-term transition costs; increased transportation need

EXHIBIT D – DESCRIPTION OF CAPACITY MODELS

Net Area Model

The net area model first determines a permanent capacity as the gross square footage of a school facility and then subtracts the square footage of special education (SPED) classrooms (based on an average school district size for SPED classrooms) and then divides by a square footage per student factor. In the application of the net area model to PPS schools, the gross area per student ratios identified in the educational adequacy assessment conducted by Magellan consulting in 2008 were used as they reflected current space allocation: (150 SF per K-5student; 155 SF per K-8 student; 213 SF per middle school student; and 175 SF per high school student. The formula also reduces the capacity of modular (portable) classrooms by 20 percent to accommodate the additional burden placed on core resources (cafeteria, kitchens, libraries). The determination of SPED classroom space applied the number of self-contained times the average classroom size in the school.

Formula:

Step 1.

$$Gross\ Building\ Area\ (SF) -\ Special\ Education\ Area\ = Net\ Area\ (SF) \div \frac{SF}{student} = permanent\ capacity$$

Step 2.

$$Permanent\ Capacity + Adjusted\ Modular\ Capacity = Total\ Student\ Capacity$$

Number of Classrooms Model

The number of classrooms model multiples the number of "regular" classrooms (non-SPED, ESL, Head start) times a district established classroom size (number of students per classroom). In the absence of district policy on students per classroom, this analysis multiplied the number of classrooms by the district average for number of students per classroom per school type (K-5, K-8, middle, high school).

I applied a couple different versions of the Number of Classrooms Model: 1). multiply the school's average number of students per classroom by the number of "regular" classrooms (non SPED or ESL); 2). multiply the District's average number of students per classroom (by school type) by the number of "regular" classrooms.

Instructional Model

This instructional model applies a square foot per student figure (varies by type of instructional space – see below) to every identified instructional space to determine the student capacity of each instructional space. The sum of the student capacity for all instructional spaces is the student capacity for the school. Typically the instructional model does not assign gymnasiums, music rooms and band choir rooms in elementary schools with student capacity as an instructor is not typically assigned to these spaces. Nor does the model typically assign capacity to SPED and ESL spaces. This analysis assigns capacity to these spaces recognizing the variation in programs between elementary schools. Student capacity was not assigned to computer labs as instructors are not often assigned to these spaces.

Formula:

$$\sum(Instructional\ space \times SF\ per\ student\ ) + = Total\ Student\ Capacity$$

Square feet per student figures used in the PPS analysis of the instructional model:

SF/Student	*K-5*	*K-8*	*Middle School*	*High School*
Classrooms	34	34	30	30
Industrial Arts	67	67	67	67
Science Labs	41	36	36	42
Home Economics	41	36	36	42
Music Room	56	56	56	33
Band Room	56	56	56	33
Art	39	39	39	42
Dance				
Self-contained SPED	75	75	75	75
SPED Learning Center	40	40	40	40
Gymnasium	125	125	125	125
Computer Lab	33	33	33	30
SPED Life Skills	60	60	60	60

Other models considered in this white paper:

Facility Models (Net Area)

- Beaverton School District

Number of Classrooms Model

- Using PPS District Average by School Type
- California SAB 50-02

Instructional Space Model

- Using PPS classroom area data and square feet per student developed by Magellan Consulting (2007)
- Washoe County NV

Exhibit E: Additional Student Assignment Resources

District enrollment policies and directives

Student transfers (policy): http://www.pps.k12.or.us/files/board/4_10_051_P.pdf
Student transfers (admin directive): http://www.pps.k12.or.us/files/board/4_10_054_AD.pdf

Student assignment to neighborhood schools (policy):
http://www.pps.k12.or.us/files/board/4_10_045_P.pdf

Boundary changes (admin directive): http://www.pps.k12.or.us/files/board/4_10_049_AD.pdf

Residency (admin directive): http://www.pps.k12.or.us/files/board/4_10_047_AD.pdf

Educational options (policy): http://www.pps.k12.or.us/files/board/6_10_022_P.pdf

Enrollment balancing website:
http://www.pps.k12.or.us/departments/enrollment-transfer/enrollment-balancing.htm

Recent enrollment and transfer articles:
2012 transfers (Portland Tribune):
http://www.portlandtribune.com/news/story.php?story_id=132874265623295200
2012 transfers (Oregonian):
http://www.oregonlive.com/portland/index.ssf/2012/02/portlands_five_biggest_high_sc.html
http://www.oregonlive.com/portland/index.ssf/2012/02/superintendent_portland_public.html

Superintendent's Advisory Committee on Enrollment and Transfer (SACET):
http://www.pps.k12.or.us/departments/enrollment-transfer/6531.htm

ISSUE PAPER#6.1
CAPITAL INVESTMENT – TOOLS, BONDS, PARTNERSHIPS

BACKGROUND

The majority of operating funds for public schools in Oregon are allocated by the state under a funding formula that is primarily based upon the number of students enrolled in each school district. Three-quarters of Portland Public Schools (PPS) general fund budget comes via the state school fund (SSF), which is funded by local property taxes and by state appropriations.

PPS General Fund 2011-12			
Beginning Fund Balance/Reserves	$	31,541,461	7%
SSF - Local Property Tax	$	178,446,000	38%
SSF - State Appropriation	$	161,808,270	35%
Local - Local Option Levy	$	54,567,485	12%
Local - Gap	$	18,795,000	4%
Multnomah ESD	$	6,795,000	1%
Federal Funding	$	7,000	0%
Other	$	16,500,491	4%
Total	$	468,460,707	

Direct local funding is only 16% for PPS and the district's ability to raise local funding is limited in terms of the amount that can be levied and the arcane rules about property tax limitations that currently reduce the actual collections because of a decline in market value of residential property.

The main source of capital funding for schools in Oregon is voter-approved bonds. School districts typically borrow money to build or improve schools and repay the borrowing with special property tax money. In recent years, the federal government has provided very limited capital funds to school districts for specific purposes as part of national economic stimulus efforts.

RELEVANCE FOR FACILITIES PLAN

Pursuant to the school facility planning statute, ORS 195.110:

(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:

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

OPERATING FUNDS AND CAPITAL FUNDS

Building a new school and making substantial improvements to an existing school building are examples of capital expenses. Paying the salary of teachers or principals is an example of an operating expense. Paying the electric bill for a school is an operating expense; replacing the wiring is a capital expense. Patching the roof is an operating expense; replacing the roof is a capital expense.

Oregon law dictates how school districts and other local governments manage their funds. The Oregon Revised Statutes and the Oregon Constitution make special provisions for "capital funds" for school districts that define how they can be raised and how they can be used.

One rule is that capital funds may be used only for capital expenses. They may not be used for operating expenses such as teacher salaries or a school's electric bill. Another rule (from the Oregon Constitution) is that taxes to pay for capital expenses are not capped by property tax limitation measures that restrict taxes that pay for operating expenses.

While capital funds may not be used for operations, operating funds may be used for capital expenses. Thus, it is legal to spend operating funds to build or improve school buildings. For example, a school district like PPS, without a capital bond in place, may choose to use operating budget dollars to pay for unavoidable capital needs. However, that reduces the amount of funding that is available to pay for teachers.

Since the passage of property tax measures in 1990 and 1997, funding for schools has not kept pace with inflation. As a result, in Portland Public Schools class sizes have increased, course offerings in art, music and physical education (among others) have been reduced, and maintenance on buildings is at a minimum.

As a consequence, it is increasingly difficult to allocate operating funds for capital uses. Currently, Portland Public Schools uses some of its operating money for urgent building needs that could be paid for with capital money if it was available. That could free operating funds for much-needed preventive maintenance.

CAPITAL BONDS

Any capital bond has to be voter-approved and is repaid with an additional local property tax. PPS may seek approval in May or November in any year, because of the voter turnout rules for other elections.

General Obligation (GO) Bonds are a familiar school capital financing instrument. Typically, a school district determines a total dollar amount of need, and then asks for voter authorization of debt in that amount. The total bond debt is typically long-term; twenty or twenty-five years is a common repayment period. The district then sells these long-term GO bonds, and services (pays back) the debt with taxes collected annually from district property owners. The calculation for this tax is based on Assessed Value (AV) of property. AV is not precisely predictable each year, so tax rates must be adjusted annually in order to generate the required debt service amount. In Portland, the AV grows by a statutory 3% maximum each year. This produces a relatively predictable basis.

Long-term debt instruments are very useful when a large amount of funds is needed in a short period of time, and when the ability to repay necessitates many years of payments. Mortgages are a familiar example of this. Characteristics of this long-term amortization model include access to most of the funds at the outset and lower regular payments. Characteristics of this model also include longer repayment time, higher total interest costs, and a long-term obligation that may limit additional borrowing until the debt is retired.

PPS has substantial capital needs. It is unrealistic to finance all of the work with one bond issue: both because the cost would be too high for tax payers, and because PPS could not manage all of the work in that time frame. So it makes more sense to consider a series of bond issues over a similar thirty period. The debt can be structured to ensure that most of the debt is repaid in the short-term which has two advantages: interest costs are lower, so the majority of taxpayer dollars goes into capital projects; and subsequent bond issues can be proposed without increasing the annual rate to taxpayers.

To illustrate the lower interest costs, consider the following two examples of an $83 million financing need. Under the traditional structure a school district capital program is financed with 25 year GO bonds. If the capital program needs to spend $83 million over three years and the taxpayers agree to repay that amount over 25 years, at 4.3% interest per year, the annual debt service is about $5,500,000. Over 25 years, the total repayment is approximately $137,500,000. Of that total, $83 million will go to the building program, and $54.5 million will go to interest payments.

If this example of a capital program was financed with 5 year GO bonds and taxpayers agree to repay the $83 million over 5 years, at 4.3% interest per year, the annual debt service is about $18,800,000. Over 5 years, the total repayment is approximately $94,000,000. Of that total, $83 million will go to the building program, and $11,100,000 will go to interest payments.

AN EXAMPLE OF CREATIVE FINANCING AND TAKING ADVANTAGE OF PARTNERSHIPS: ROSA PARKS SCHOOL

Rosa Parks School is an example of creative financing which attracted foundation and grant funding while blending not-for-profit, private for-profit investors and public dollars to support housing & community development goals while simultaneously moving forward on the educational mission of the school district.

Rosa Parks School, which opened in 2006, is located on the New Columbia development in North Portland. The total project cost was $20.2 million. PPS partnered with the Housing Authority of Portland (HAP), now known as HomeForward, to pull together complex and very creative financing for this project. Boys & Girls Club provides before- and after-school programs to students in this

neighborhood and agreed to become partners with a built-in space for its use at the site and joint use of shared space with the school.

$18.2 million of funding was provided through a number of special purpose financial entities – with funding from Boys & Girls Club (14%), HAP (15%), New Market Tax Credits (NMTC) (21%) and PPS (48%). PPS and Boys & Girls Clubs lease the school from one of the special purpose financial entities for 7 years (the term of the tax credits) and then have an option to purchase the property. The remaining $2 million was the cost of a gymnasium, which was built at the adjacent community center and funded by Portland Parks & Recreation. See Exhibit A.

This is an example of many features that PPS has been urged to consider in capital projects: community partnerships (City, HAP, Boys & Girls Clubs), private fundraising, and creative financing (NMTC). The good news is that on a $20.2 million project PPS share of the cost is $8.8 million, which is remarkable. And the district gets to use the facility for six years at a modest annual cost before having to pay for it.

However, even with this extensive third-party financing there is still a significant cost to the school district. PPS has to come up with $8.8 million and the other features of this partnership are not replicable in all locations: there are limited numbers of partners who can raise this level of capital and with whom PPS would want to commit to a long-term partnership; tax credits are only applicable in certain zip codes; the HAP donation was a function of the urgent need and special nature of this HOPE VI redevelopment; and City of Portland funding for co-located facilities won't always be possible.

PPS COMMITMENT TO PARTNERSHIPS AND CREATIVE FINANCING

PPS is committed to exploring ways to fund future school construction or renovation in similar ways where this is possible. Three of the projects included in the May 2011 capital bond had already identified potential examples that are indicative of this intent. The Faubion School project included a partnership with Concordia University, the Jefferson Middle College project is a partnership with Portland Community College, and the planning project for Lincoln High School would likely involve Portland State University, the Portland Development Commission and possibly other partners for development of the LHS site.

OTHER SOURCES OF CAPITAL FUNDS

In addition to capital bonds, there are some additional sources of capital funding: including Construction Excise Tax, Cool Schools Funds (Senate Bill 1149), state grants; but these are limited both in amount and in how they can be used. Last year (FYE 6/30/11) PPS received $1.36 million in CET funds. PPS annual proceeds under SB1149 is currently around $900,000 and can only be used for certain energy-related projects. State grants are very limited too and may fund no more than $500,000 to any school district in any biennium. In Oregon, unlike California, Washington and Alaska for example, the state does not provide any support or additional funding for districts that approve capital bonds beyond these limited grants. Likewise, the federal government does not have a regular program to provide capital funds for school districts; recent federal stimulus funds were a limited exception.

In FY 2012-13 PPS will use CET funds to (a) service the short-term debt that supports its current capital activity, the replacement of oil-fired boiler burners in 47 schools, and the purchase of Rosa Parks School, and (b) partially fund its Capital Asset Renewal Plan that will fund capital maintenance in PPS schools. PPS can use $1.2 million of SB 1149 funds towards the $9.1 million cost of the boiler burner project. And PPS has applied for grants to partially offset the cost of adding modular

classrooms at several sites. All of these funding sources will help towards the cost of these projects but PPS will need additional capital for the majority of the costs of each of these projects.

SUMMARY

PPS needs to renovate or replace essentially all of its school buildings. The cost of this work in current prices is in the range of $2.5 - $3 billion. PPS will take advantage of every additional funding source (such as those described above) that is available but these will come nowhere close to the amount of funding that is required. **The only source of capital that will allow PPS to do what is needed is voter-approved capital bonds**.

ISSUE PAPER#6.2
PRINCIPLES OF ACCESSIBILITY & BEYOND

BACKGROUND

Portland Public Schools (PPS) has a goal of full program accessibility for each building, providing all-inclusive access to programs, activities, and services. However, the goal of accessibility is more than just providing barrier-free structures, and its achievement is far more challenging than simply adhering to standards and codes. By implementing the principles of universal design, PPS can attain the goal of full program accessibility while also providing thoughtful, inclusive learning environments that convey equity, safety, independence, dignity and added benefits for all users.

RELEVANCE FOR FACILITIES PLAN

Pursuant to the school facility planning statute, ORS 195.110:

(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:

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

Appreciation for both the context and complexity of accessibility should inform the efforts of everyone engaged in the development and operation of our schools. The Architectural Barriers Act of 1968 was the first law that mandated accessibility standards for education facilities. Section 504 of the Rehabilitation Act of 1973 and the Education for All Handicapped Children Act of 1975, which was amended and renamed the Individuals with Disabilities Education Act (IDEA) of 1990, guaranteed students with disabilities the right to equal educational opportunities. The American with Disabilities Act (ADA) of 1990 requires public places and publicly funded projects to provide physical and programmatic accessibility to people with disabilities.

Universal design, however, is a worldwide movement that approaches the design of the environment, products, and communications to be usable by all people without adaptation. Known elsewhere in the world as design for all, life-span design, and inclusive design, universal design consists of seven governing principles calling for designed environments that are equitable, flexible, intuitive, perceptible, safe, easy, and accommodating. These principles should be applied to evaluate existing PPS buildings, guide the design process when adaptation is required, and educate both designers and users about the characteristics of more usable learning tools and environments.

In future capital work, the district minimum standard shall be the General ADA Guidelines and Standards outlined in the 2009 PPS Facility Assessment as amended and updated from time to time.

The following Principles of Universal Design were developed by The Center for Universal Design in collaboration with a consortium of universal design researchers and practitioners across the United States. Use or application of the Principles in any form by individual or organization is separate and distinct from the Principles and does not constitute or imply acceptance or endorsement by The Center for Universal Design of the use or application.

1. QUITABLE USE

The design is useful and marketable to people with diverse abilities.

a) Provide the same means of use for all users: identical whenever possible; equivalent when not.
b) Avoid segregating or stigmatizing users.
c) Provisions for privacy, security, and safety should be equally available for all users.
d) Make the design appealing to all users.

2. FLEXIBILITY IN USE

The design accommodates a wide range of individual preferences and abilities.

a) Provide choice in methods of use.
b) Accommodate right- or left- handed access and use.
c) Facilitate the user's accuracy and precision.
d) Provide adaptability to the user's pace.

3. SIMPLE AND INTUITIVE

Use of the design is easy to understand, regardless of the user's experience, knowledge, language skills, or current concentration level.

a) Eliminate unnecessary complexity.
b) Be consistent with user expectations and intuition.
c) Accommodate a wide range of literacy and language skills.
d) Arrange information consistent with it's importance.
e) Provide effective prompting and feedback during and after task completion.

4. PERCEPTIBLE INFORMATION

The design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities

a) Use different modes (pictorial, verbal, tactile,) for redundant presentation of essential information.
b) Provide adequate contrast between essential information and its surroundings.
c) Maximize "legibility" of essential information.
d) Differentiate elements in ways that can be described (i.e., make it easy to give instructions or directions).
e) Provide compatibility with a variety of techniques or devices used by people with sensory limitations.

5. TOLERANCE FOR ERROR

The design minimizes hazards and the adverse consequences of accidental or unintended actions.

a) Arrange elements to minimize hazards and errors: most used elements, most accessible: hazardous elements eliminated, isolated or shielded.
b) Provide warnings of hazards and errors.
c) Provide fail safe features.
d) Discourage unconscious action in tasks that require vigilance.

6. LOW PHYSICAL EFFORT

The design can be used efficiently and comfortably and with a minimum of fatigue.

a) Allow user to maintain a neutral body position.
b) Use reasonable operating force.
c) Minimize repetitive actions.
d) Minimize sustained physical effort.

7. SIZE AND SPACE FOR APPROACH AND USE

Appropriate size and space is provided for approach, reach, manipulation, and use regardless of user's body size, posture.

a) Provide a clear line of sight to important elements for any seated or standing user.
b) Make reach to all components comfortable for any seated or standing user.
c) Accommodate variations in hand and grip size.
d) Provide adequate space for the use of assistive devices or personal assistance.

BACKGROUND PLANNING AND DESIGN PRINCIPLES

The following planning and designing principles should be considered when building or renovating school facilities.

Provide versatile classroom spaces.
Classrooms that provide a variety of choices in the physical environment are important to meet the wide range of educational requirements for all students, and for helping all students become successful learners.
For example, students may sometimes benefit from greater physical and acoustical separation between activities to reduce distractions. An appropriate arrangement includes a large common classroom area, an alcove off the classroom, and a small room adjacent to the classroom that is acoustically isolated, but visible from the common classroom area. Modular furniture can also provide versatility.

Use universal design.
Accommodate, to maximum extent possible, people with diverse mobility, agility, and perceptual acuity.

Minimize travel distances.
Physical education, music, art, the library, food services, and elevators should be centrally located to provide reasonable travel distances for all students.

Arrange all classrooms in clusters by age groups and provide a variety of instructional spaces for use by all students.
All students benefit from instruction in a variety of size groups and appropriate spaces are required for all students. Provide appropriate size spaces for various size group activities, ranging from larger group spaces where more than one class can join together to spaces for a typical class size, to spaces for small group instruction and individual instruction.

Provide for parental involvement.
Parental involvement is critical for all students. Provide rooms for parents to plan for and participate in meetings and for volunteer work to be supported.

Maintain student dignity.
Accommodations should avoid separating students from their peers in instructional settings, drawing unusual attention to them, or limiting their educational opportunities. Accessible features should be integrated, to allow all students to participate fully in group activities.

Provide accessible outdoor play areas.
Design natural features so that all students may use them.

Enhance classroom acoustics.
Minimizing background noise, providing classroom amplification, and acoustically appropriate material can positively impact all students.

Improve indoor air quality

Controlling humidity, providing outdoor air, and eliminating contaminants is critical to ensuring successful learning.

SUMMARY

Portland Public Schools accommodates, to the maximum extent possible people with divers mobility, agility and perceptual acuity. To achieve this guiding principal the principles of Universal Design is incorporated into the design of our facilities. They are:

Equitable Use: The design is useful and marketable to people with diverse abilities.

Flexibility in Use: The design accommodates a wide range of individual preferences and abilities.

Simple and Intuitive: Use of the design is easy to understand, regardless of the user's experience, knowledge, language skills or current concentration level.

Perceptible Information: The design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities.

Tolerance for Error: The design minimizes hazards and adverse consequences of accidental or unintended actions.

Low Physical Effort: The design can be used efficiently and comfortably and with a minimum of fatigue

Size and Space for Approach and Use: Appropriate size and space is provided for approach, reach, manipulation, and use regardless of user's body size, posture.

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ISSUE PAPER#6.3
SUSTAINABILITY PRINCIPLES OF DESIGN

BACKGROUND

Portland Public Schools (PPS) has worked to incorporate sustainable practices – ones that preserve resources and minimize environmental impact – in its daily operations and into future design plans. PPS is Portland's second largest property-owner and one of the city's largest employers. Heeding this, the Portland Public Schools Board of Education attends to the environmental, social and economic future of Portland as it sets policies and practice. These three pillars of sustainability shall be integrated into all facilities decisions.

RELEVANCE FOR FACILITIES PLAN

Upholding these pillars begins by following the logic of the waste hierarchy: reduce, reuse, recycle. PPS practices this in regard to solid waste and materials, as well as towards energy usage through a methodology of: behavior adaptation, efficiency improvements and, finally, energy generation.

Pursuant to the school facility planning statute, ORS 195.110:

(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:

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

In future capital work, the district shall extend this thinking through the design, construction and operation of high performance buildings and educating building occupants on maximizing the

environmental performance of every PPS building. Whole building systems, the construction process, building materials and furnishings will be designed to conserve environmental and financial resources for the life of building projects. And, as with all district action, social equity interests will play a critical role in the successful implementation of these principles. PPS buildings serve the present and future; as such, all plans should take into account the resources available for at least seven generations[1].

PPS needs to develop resource savings techniques that are easy to understand and operate. Systems must be simple and easy for teachers/staff/students to understand the resource-saving technique. Without this level of continual training of teachers, staff and students, the facilities team will be forced to address these improvements with either a "hands-on" approach, or remotely via technology. PPS is committed to involving students, families, teachers and community partners in all aspects of the following principles.

1. WHOLE SYSTEM DESIGN

SUPERINSULATED, PASSIVE SCHOOLS

Building designs will consider the integration of all building systems to increase passive building performance.

a) Integrate passive design elements with active building systems in the design of new or remodeled buildings, to the maximum extent feasible. Starting with optimal building orientation in new construction and well-insulated shells in all major work, buildings shall take advantage of natural ventilation, sunlight, shading and thermal masses to regulate interior temperatures and help maintain comfortable environments year-round. All spaces shall take advantage of daylighting opportunities.
b) Use low-tech infrastructure that supports high-tech learning environments.
c) Attain minimum LEED silver certification, or equivalent, for all major renovations; achieve minimum LEED gold certification, or equivalent, for new construction. Use the Living Building Challenge's holistic approach as aspirational guidelines for all design and planning.

2. LONGEVITY

DURABLE, PRACTICAL, HANDSOME MATERIALS

Facilities will be designed to ensure long-term, effective performance.

a) Specify durable materials and systems that require minimal maintenance, non-toxic upkeep and are sensitive to the earth's limited resources.
b) Design building layout and building systems to provide flexibility for shifting populations and program needs throughout generations.
c) Plan walls, load-bearing and otherwise, that consider the potential need for school reconfiguration or expansion in the future.
d) Establish a culture of understanding and ownership for how users interact and relate with the building.

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[1] Clarkson, Linda, Vern Morrissette, and Gabriel Régallet. "Our Responsibility to the Seventh Generation." *IISD.org*. International Institute for Sustainable Development, 1992. Web. <http://www.iisd.org/pdf/seventh_gen.pdf>.

3. CONSTRUCTION & DESIGN

LONG LIVES, GOOD INVESTMENTS

The design process will use sustainable practices.

a) Collaborate with students, teachers and school communities during the design phase of each major renovation or modernization project. To the extent feasible, use the construction process as a learning laboratory for students.
b) Before deconstruction, balance potential lifecycle savings of new construction with the embodied energy investment in existing buildings and the lifecycle savings of those buildings if renovated.
c) Respect and preserve historic elements unique to neighborhoods.
d) Use high-quality salvaged or reused materials, to the extent practical, in order to limit the use of virgin materials during construction.
e) Utilize local materials, equipment and labor when possible to limit ecological footprints and help sustain local economies.
f) Install materials in a way that makes repair minimally invasive and facilitates the ability to salvage them for future use or decommission them in an earth-conscious manner.

4. BUILDING ENVIRONMENTS

HEALTHY CLASSROOMS: INSIDE & OUT

Buildings will provide healthy, productive learning environments that support education and curriculum, while facilitating the next generation's education on environmental stewardship.

a) Design for daylight opportunities with windows that not only minimize electric lighting requirements but give students a visual connection to nature.
b) Select heating and air conditioning equipment that ensure good air quality and year-round comfort while minimizing acoustic impact.
c) Incorporate acoustic standards into building designs to ensure acoustically neutral learning environments.
d) Include low-cost features such as signage to support education about sustainable building features and resource conservation. Also consider Window Boxes incorporated throughout the building to provide students, employees and visitors a direct view of what is behind the walls, ceiling and floors with displays both audio and text explaining content, when feasible. In addition, use tracking displays that show how much actual resources or energy is being saved and/or used. Include information that describes past performance to give the new information more meaningful context. In addition to making details and information visible, also post questions that encourage students and teachers to consider, create and innovate regarding building environments and performance.
e) Allow building occupants flexibility in the amount of lighting and visual distraction within each space.

5. ENERGY EFFICIENCY

LOWER BILLS, LARGER SAVINGS

Buildings will include capacity-appropriate, energy-efficient systems.

a) Choose HVAC systems influenced by long-term environmental and lifecycle costs.
b) Minimize need for air-conditioning by maximizing cross-ventilating and night flush opportunities.
c) Prioritize rehabilitation of original windows over replacement to reduce waste while recognizing embodied energy and historic value. Balance heating efficiency, daylighting, environmental impact and lifecycle cost when considering replacement windows; rehabilitate existing buildings to uphold the building's historic integrity.
d) Design lighting plan and fixtures to provide sufficient direct and indirect lighting levels for the space's activity needs.
e) Construct building envelopes that operate in tandem with the ventilation systems; insulate existing buildings in all locations targeted as both cost-effective and performance-enhancing. Balance the cost of insulation against lifecycle HVAC costs.
f) Select electronic equipment that meets or exceeds Energy Star ratings, when applicable.

6. SITE IMPROVEMENTS

MORE OUTDOORS

Schools and their grounds will be interconnected to increase opportunities for learning indoors and out.

a) Provide access to outdoors including views to nature from the classroom, and outdoor learning opportunities through gardens, learning patios and covered play areas.
b) Integrate biophilic design principles into school and campuses to encourage children's natural connection to nature and the outdoors.
c) Select exterior lighting that is "night sky" and neighbor friendly.
d) Eliminate unnecessary paved surfaces throughout school sites.

7. ENERGY GENERATION

RENEWABLE INVESTMENTS

Pursue and invest in renewable energy generation equipment when feasible and/or required.

a) Select renewable energy generation equipment based on the conditions appropriate for the site, in a manner that maximizes the energy produced for the amount invested.
b) Pursue partnerships, tax credits and incentives to expand opportunities for energy generation on school grounds.
c) Explore opportunities to partner with renewable energy manufacturers, designers, engineers and researchers to incorporate new technologies, materials and systems that both meet or exceed goals; and provide teachers and students' opportunities to experience and learn with cutting edge practices and technologies.

8. WATER AND WASTE

CLEANER WATER TO THE RIVERS

School facilities will incorporate water-conservation and waste-reducing infrastructure.

a) Identify opportunities to implement greywater reuse systems such as in toilets or for irrigation.
b) Identify opportunities to manage stormwater on-site including reuse of stormwater as greywater.
c) Select plants and landscaping that require low-upkeep and no irrigation after establishment.
d) Install infrastructure that supports the reuse of materials (e.g. dishwashers to support reusable trays).
e) Furnish buildings with consistent, easy-to-recognize recycling and compost receptacles.

9. TRANSPORTATION

FEWER ENGINES RUNNING

Minimize fossil fuel expenditures for student and staff commutes.

a) Encourage bicycle and pedestrian travel through grounds layout and building design.
b) Site and building design should provide safer, more efficient pick-up and drop-off areas for students to minimize vehicle congestion and idling.
c) Ensure students and staff have access to covered, well-lit bike parking.

10. INFORMATION FEEDBACK

SMARTER BUILDINGS

Building system performance will be effectively measured, monitored and modified.

a) Provide access to building performance data and the opportunity for classroom curriculum use in order to inform and educate users in resource use and conservation.
b) Automate building use data for building managers to streamline maintenance and ensure optimal system performance.

SUMMARY

High performance buildings is not only about conserving resources but also about maximizing the performance of the building occupants, our students. Portland Public Schools works to incorporate sustainable practices into the design of renovation projects, new schools and its daily operations. The three pillars of sustainability: environmental, social and economics are integrated into the design of our facilities.

ISSUE PAPER#6.4
PRICIPLES OF HISTORIC STEWARDSHIP

BACKGROUND

Many Portland Public School buildings are historically significant and they are often integral to the fabric and character of Portland's neighborhoods. These historic buildings help to make our communities more livable as well as instilling civic pride and a sense of place. By maintaining these buildings we also maintain the original fabric of the community they serve, which preserves this culture of place. Historic rehabilitation within Portland Public Schools is a primary consideration and key component to thoughtful, sustainable, cost effective development.

RELEVANCE FOR FACILITIES PLAN

Pursuant to the school facility planning statute, ORS 195.110:

(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:

> *(C) Description of physical improvements needed in existing schools to meet the minimum standards of the large school district*
> *(E) An analysis of:*
> > *(i) The alternative to new school construction and major renovation*

The best practices of "reduce, reuse, recycle" can be applied to our historic school buildings. Among all the energy-saving, environmentally sensitive strategies that can be employed, reuse is the most sustainable. In regards to issues such as solid waste disposal, energy conservation, embodied energy,

recycling, walkable neighborhoods, community-centered education, and the local economy, maintaining and rehabilitating historic school buildings is a high priority strategy.

By investing in our existing heritage, the goals of PPS become consistent with the goals of the City of Portland as a whole, which is highly regarded as a model livable city of sustainable development.

1. PROTECTION AND COLLABORATION

Seek out expertise and guidance to protect historically significant school buildings.

a) Inform and consult with the State Historic Preservation Office (SHPO) to avoid inadvertent impacts to historic properties (in accordance with Oregon Revised Statute 358.653). Impacts may be the result of construction projects, as well as the transfer of properties out of public ownership.
b) Build a strong relationship with the Portland Landmarks Commission, which provides leadership and expertise on maintaining and enhancing Portland's historic and architectural heritage.
c) Work with other local preservation partners and gain community collaboration in decision-making.
d) Prioritize maintenance and repair to avoid deterioration of historic buildings.
e) Utilize the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Structures to develop an approach to maintain and improve the condition of historic schools.

2. RECOGNITION OF HISTORIC CONTEXT & ARCHITECTURAL CHARACTER

Acknowledge the significant relationships between people, buildings and the surrounding physical landscape as well as the social and economic forces that shape them.

a) Appreciate that historic buildings are the memory of a place conveying significance, meaning and value. The 2009 PPS Historic Assessment includes the cultural meaning of the building within its context.
b) Instill pride by acknowledging local and national designations. The school district includes Portland Landmarks (Benson, Duniway and Woodstock), contributing resources to NRHP Historic Districts (Irvington, Abernethy and MLC), and contributing buildings to City of Portland Conservation Districts (Kenton, Woodlawn, Irvington and Jefferson).
c) Preserve, rehabilitate and reuse features of older and historic buildings which cannot be duplicated.
d) Prioritize repairing and maintaining original windows to the extent feasible over replacement. Prioritize restoring the character lost in original window replacements. Windows are frequently the most character defining feature of an older or historic building. The energy savings and environmental impact of replacement windows should be analyzed prior to decision-making.
e) Recognize that nearly all PPS school buildings are over 50 years old, while approximately half of our school buildings are considered eligible for the National Register of Historic Places (NRHP) nomination. Approximately 68 of PPS buildings were recorded at the reconnaissance level by the City of Portland beginning in the 1980's.

3. MODERNIZATION OF HISTORIC SCHOOLS

Adapt to current educational and cultural goals while meeting modern building standards.

a) Reflect current needs of all students to meet the challenges of the global economy.
b) Strengthen and expand the uses of each school as central to community.
c) Implement accessibility upgrades and universal design elements to ensure access and inclusivity for all students, staff, families and community members.
d) Require energy efficient upgrades to ensure cost effectiveness and contribute to sustainability.
e) Seismically improve buildings for life safety and to protect these resources.

4. EXISTING IS SUSTAINABLE

Reuse is more environmentally responsible than new construction[1].

a) Evaluate and balance the potential lifecycle savings of new construction with the embodied energy investment of existing historic buildings.
b) Require full feasibility studies of renovating older and historic schools by design professionals with historic renovation expertise prior to considering demolition of school buildings. Investing in historic school buildings saves construction and demolition debris from landfills.
c) Recognize that building reuse conserves energy.
d) Deconstruct buildings when necessary (versus demolition) to reduce waste.
e) Require salvage and reuse of historic features, many of which are irreplaceable.

5. TEACHING THE VALUES OF REUSE

Students, parents and teachers cultivate the sense of ownership that naturally results from reuse and rehabilitation, galvanizing the community as a whole.

a) Recognize that historic district designations and historic rehabilitation help to maintain and increase property values over time.[2]
b) Acknowledge that historic rehabilitation creates more local jobs than new construction, with a greater proportion of construction costs in labor and less in materials.[3]
c) Recognize that neighborhood schools encourage walking and biking in a city that values walkable neighborhoods.
d) Require feasibility studies which include environmental impacts to compare reuse options of historically significant buildings as compared to new construction.

SUMMARY

Portland Public Schools recognizes the importance of historic buildings and their place in our community. Their renovation supports the sustainability goals of the District while supporting local communities and preserving our history.

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ISSUE PAPER#7.1
TEN-YEAR CAPITAL IMPROVEMENT PLAN

BACKGROUND

A Capital Construction Improvement Plan is a comprehensive plan that addresses major capital improvements including modernization, major alterations and other improvements to District facilities as described here. Typically funded through one or more general obligation bonds (GO Bonds), requiring a ballot measure(s) that voters approve, a large capital construction program is the primary means to address needed improvement work throughout school districts in Oregon.

RELEVANCE FOR FACILITIES PLAN

Pursuant to the school facility planning statute, ORS 195.110:

(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:
(F) Ten-year capital improvement plan

The statute requires consideration of a capital plan to address needed capital improvements to school district facilities. This paper describes some of the planning considerations to develop the plan. For purposes of defining terminology, Article XI, Section 11k of the Oregon Constitution defines "capital costs" as costs of land and other assets having a useful life of more than one year, including costs associated with acquisition, construction, improvement, remodeling, furnishing, equipping, maintenance or repair. "Capital costs" does not include costs of routine maintenance or supplies.

CAPITAL ASSET RENEWAL (CAR) PLAN

The CAR Plan is a strategy designed to extend the useful life of District facilities, ensure public capital investments are properly preserved and reduce deferred maintenance costs. In 2011, the School Board adopted a CAR policy to provide for life-cycle renewal of major building components the District has invested in over the last several years, or will invest in the future, replacing components when they come to the end of their useful life. These include Rosa Parks and Forest Park Schools as well as for any newly modernized or renovated buildings in the future. Major building components include, but are not limited to, items like roof replacements; boiler upgrades; major mechanical, electrical and plumbing upgrades; and athletic facilities.

CAPITAL CONSTRUCTION IMPROVEMENT PLAN (CIP)

In addition to the CAR Plan, a comprehensive CIP can be designed around building improvements and extension of the useful life for facility systems. Here are the Long Range Facilities Plan Advisory Committee guiding principles which are intended to guide the CIP development.

GOAL 1: Effective Educational Environments Serving All Students

GOAL 2: Safe and Accessible Facilities that Meet Students' Basic Needs

GOAL 3: Support of Academic Program Needs through Optimal School Utilization

Guiding Principle A: Strong Partnerships among Schools, Neighborhoods and Communities

Guiding Principle B: Sustainability

Guiding Principle C: Fiscal Responsibility

Guiding Principle D: Inclusive Facilities

CIP groupings for scope and budget alignment allow PPS staff and community members to use common terminology for capital improvement work. Each category describes work scopes that achieve specific objectives relative to the improvements themselves:

A. Program capacity improvements – Work scopes that result in increased student capacity at a particular school site, such as:
    1. Expansion to accommodate current or anticipated student enrollment or program growth (if District's enrollment balancing process cannot provide needed space).
    2. Includes combination of core facility upgrades such as the library, cafeteria, gymnasium, restrooms, main office as well as additional classrooms. Expansion of the core facilities results when they are inadequate to support the number and size of instructional spaces and/or program space requirements.
    3. Provision of facilities to support PreK early learners.
    4. Provision of facilities to support child care for student parents.
    5. Provision of facilities to provide wrap-around social and educational supports for students and their families, as appropriate.

B. Educational facility improvements – Work scopes that improve educational adequacy and provide a more modern learning environment, such as:
    1. Classroom updates to support teaching, learning and a rigorous program such as media and technology labs, science labs and equipment, music and visual and performing arts rooms -- according to the needs at each school.
    2. Interior space improvements and/or additions.
    3. Auditorium, gymnasium, cafeteria and media center (library) upgrades and additions.
    4. Science room upgrades and additions.
    5. Addition of covered play areas and structures, expansion of multi-purpose rooms and gymnasiums to assist in compliance with expanded Physical Education requirements for grades K-8, effective 2017.
    6. Special Education (SPED) classroom upgrades – upgrade existing SPED classroom space or building new classroom space to accommodate SPED classroom activity.
    7. Cafeteria equipment and expansion of kitchen, serving line and seating capabilities.
    8. Campus Wide Technology Improvements – Upgrades to other campus infrastructure such as School-wide bell/clock systems, exterior audio, multi-media (audio/visual, interactive technologies, etc.) in gymnasiums, theaters, cafeterias, auditoriums, offices, and common areas.
    9. Signage – Address a common digital or other technology signage allowing for broadcast of messaging from a centrally managed system leveraging the PPS network infrastructure.
    10. Video Surveillance – Address a common video surveillance system to allow for 24/7 passive monitoring of all facilities from a centrally managed system leveraging the PPS network infrastructure.
    11. Furniture, fixtures and equipment in schools.
    12. Head Start and pre-K classroom and support space improvements.
    13. Athletic Facilities – Upgrade or develop outdoor play areas and fields.
    14. Outdoor Learning Environments and School Gardens – Develop or improve outdoor learning spaces including classrooms, patios and learning gardens.

C. Physical facility improvements – Work scopes that address needed capital improvements or extension of useful life for individual building systems, such as:
    1. Structural: Make seismic improvements using most recent design criteria.
    2. Exterior enclosure: Structural and fascia issues such as water-related deterioration, masonry rehab, dry rot/mold, windows, doors and below-ground elements. Like kind replacement of windows that have structurally deteriorated beyond repair. Address deficiencies using most recent audits.
    3. Roofing: Both partial and full reroofing improvements that may include seismic elements if needed.
    4. Interior: Finish upgrades, flooring, ceiling grid & wall coverings
    5. Conveyances (stairs, ramps & elevators): Upgrades as needed and appropriate. Address deficiencies using most recent audits and universal design concepts.
    6. Plumbing: Interior and exterior pipe upgrades, restroom upgrades.
    7. Mechanical (HVAC): Mechanical upgrades of heating/ventilating systems. Implement direct digital control technology to enhance energy effectiveness.

8. Fire & Life Safety: Fire alarm panel upgrades, building sprinkler system additions and upgrades.
9. Electrical: Replace and upgrade interior lighting, and supplement exterior lighting where safety issues have been identified.
10. Communications & Security (Technology): Wired and wireless infrastructure improvements. Access control improvements to allow building and specific door access via a centrally managed badge/key card access system.
11. Specialties (e.g. cabinets, stage equipment & bleachers): Inspection program items. Upgrade as needed and appropriate. Signage improvements for monument and way finding.
12. Special Demolition & Hazardous Material – Abatement of asbestos containing materials.
13. Site work – Paving & storm drain management improvements. Playground equipment, structural improvements to covered play and hard surface area improvements. Paths of travel, outdoor classrooms, learning gardens and site landscaping.

Note: ADA/Universal design requirements are incorporated into the individual building system components. For example, addition of elevators to multi-story buildings is included in the "Conveyances" category. Also, entrance ramps adjacent to building entrances are included in the "Site" category. See Issue Paper # 6.2 entitled "Principles for Accessibility & Beyond" for more details.

Building code compliance is assumed in all design and construction work. For example, many upgrades are driven based on certain existing conditions such as the requirement to provide fire sprinkler systems throughout a building when more than 50% of the building is being altered. In some instances these requirements are not identified until plan review by the City of Portland.

D. Land acquisition – Any land requirements to support District plans.
E. Ancillary facilities – Those items necessary to support non- school facilities (BESC, nutrition services, transportation, warehousing, etc.). Lower priority at present. However, ancillary facilities should be considered as part of any capital improvement plan as they exist to support District schools and student needs.
F. Bond costs – Debt service, financing and legal costs, PPS staff & consultant costs to manage at program level.

CIP FUNDING

A comprehensive capital improvement plan over a 40 year period might look something like this:

	Bond Funding Block Options				
	A	**B**	**C**	**D**	**E**
Bond Category	2012	2020	2028	2036	2044
Program Capacity	20%	20%	20%	20%	20%
Educational Facility	10%	20%	25%	25%	20%
Physical Facility	20%	20%	20%	20%	20%
Land	0%	0%	0%	0%	0%
Ancillary	0%	0%	25%	50%	25%
Bond costs	$5M	$5M	$5M	$5M	$5M
Total	**$AM**	**$BM**	**$CM**	**$DM**	**$EM**

Each funding block option would allocate project budget to categories at each selected site. Over the period 2012 thru 2052 all schools and ancillary facilities would have some investment based on this type of allocation assuming bond program "refresh" every eight years. There are both 4 year and 6 year options as well.

Block funding option budgets would be based on voter approved capital construction bond measures using a variety of debt instruments including general obligation (GO) bonds. Funding would likely be constrained based on cost per thousand of assessed property value.

OTHER PLANNING CONSIDERATIONS

A. School enrollment considerations
   School size (enrollment) targets for each school level should inform the District's updated 2012 Long Range Facility Plan. School size targets are based on the district's current thinking regarding the number of students needed to provide staffing levels that support robust district program goals. School size target also suggest a program floor and ceiling that identifies the minimum number of students to provide district program goals. *Current* suggested enrollment targets, floors and ceilings are as follows:

School Level	Program Target	Program Floor	Program Ceiling
K-5	450	300	600
K-8	500	350	675
Middle	600	450	675
High	1,350	1,200	1,500

Each school and high school cluster currently has different *capture rates* (students residing in a school boundary that attend their neighborhood school). Ten year enrollment projections include *low, medium and high forecast*. The school size targets identified above reflect target program size based on *current demographics*. *Changes to capture rates, enrollment projections, demographics, staffing funding formulas and/or program requirements could revise target levels to more robust program levels. Projecting into the future, the district needs to make determinations about these various factors as they influence the program capacity desired when district schools undergo modernization and renovation.*

B. Student capacity considerations
Using the proposed "Instructional Model" to determine capacity, District staff will annually measure actual enrollment and divide by capacity to derive "utilization" for each school. For example, if K-5 school X has an enrollment of 435 students and a capacity of 457 students then the utilization would be 435/457 or 95%. Schools exceeding certain utilization thresholds might be considered for new capacity addition projects that would result in increased capacity after other non-capital options (e.g. enrollment balancing) have been exhausted. See Whitepaper 5.3.

C. Life-Cycle Costing
The District is looking at maximizing life-cycle costing as it relates to facility improvements. This means that the initial design and construction must consider and support the District's ability to operate the facility in as cost-effective a manner as feasible over the expected extended life of the building.

D. Standardize Physical Facilities Across Schools
Every school needs to provide an appropriate, culturally relevant environment for students to succeed regardless of race or class. The District needs to define a standard physical facility template (educational specification) for delivery of educational opportunity and then work over time to ensure that all schools have the ability to meet this standard. All the while recognizing and supporting the ethnic and racial diversity of our students and community by creating welcoming environments that reflect that diversity.

E. Leverage partnerships

Public and private providers of educational, health, social and culturally relevant ("wrap-around") services benefit students and parents by coordinated delivery. To the extent District facilities provide space for the inclusion of these providers, student needs are better met as are their opportunities to succeed. Often these service providers have different space requirements than are typically afforded through the conversion of classrooms. The District's educational specifications should identify how wrap-around services can be incorporated into schools where such services are needed.

The District intends to pursue partnerships with other entities; both public and private, to leverage PPS resources while maximizing efficiency and realizing economies of scale and innovative solutions.

F. Land needs

Pursuant to the school facility planning statute, ORS 195.110:
(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:
(B) Identification by the city or county and by the large school district of desirable school sites.

The District acquired most of its school sites during the early to mid-20th Century and is well established in City of Portland land use plans. Based on projected enrollment over the next ten years, there does not appear to be a need for additional land to build new schools. However, significant housing development in areas of the district with a low density of school sites may require the need to provide additional capacity at school facilities. Currently, the District's schools fall into the following ranges:

School Level	Building Size (1,000 SF)	Site Size (acres)
K-5	15+ to 80+	>1 to <12
K-8	36+ to 110+	>2 to <10
Middle	25+ to 212+	>5 to <37
High	69+ to 391+	>4 to <22

<u>K-5 Schools</u>

Site size	1 to 12 acres
Site features	Covered Play area – 2 basketball courts
	Soft play area with play equipment
	Soccer field size grass area
	Room for two double modular buildings (4 classrooms)
Typical enrollment	450 students (range from 300 to 600 students)

<u>K-8 Schools</u>	
Site size	2 to 10 acres
Site features	Covered Play area – 2 basketball courts
	Soft play area with play equipment
	Soccer field size grass area
	Room for three double modular buildings (6 classrooms)
Typical enrollment	450 students (range from 300 to 675 students)
<u>Middle Schools</u>	
Site size	5 to 37 acres
Site features	Covered Play area – 4 basketball courts
	Football/soccer field(s)
	Baseball/softball field(s)
	Room for four double modular buildings (8 classrooms)
Typical enrollment	600 students (range from 450 to 675 students)
<u>High Schools</u>	
Site size	4 to 22 acres
Site features	Football/soccer stadium
	Track with bleachers
	Baseball/softball field(s)
	Tennis Courts
	Room for six double modular buildings (12 classrooms)
Typical enrollment	1350 students (range from 1200 to 1500 students)

Similar guidelines are not proposed for focus/option program schools. Generally, individual focus/option programs tend to have fewer students than traditional programs at the same grade level. This allows flexibility in siting the programs. Siting possibilities include offering focus/option programs in existing schools, in stand-alone schools but in smaller buildings on smaller sites, or in leased buildings.

G. Estimating models

The District uses Portland Metro area cost estimates to develop preliminary costs for capital improvements. Rider Levett Bucknall's (RLB's) USA Report profiles "hard construction" cost estimates on a quarterly basis. For first quarter 2012 their cost ranges are:

School type	Low	High
Elementary (PreK-8)	$180/SF	$235/SF
High Schools (9-12)	$190/SF	$250/SF

Note: costs vary as a consequence of factors such as site conditions, standards of specification, market conditions, etc. RLB's values represent "hard construction" costs based on dollars per square foot of gross floor area. They do not include costs of demolition, hazardous material

abatement or exterior site work (walkways, outdoor learning areas, play fields/equipment, parking, exterior signage, storm drain systems, lighting, athletic facilities, etc.).
In addition to the "hard construction" costs of the building combined with site specific costs, four other cost components are added to reflect full capital improvement costs at a project level;

A. "Soft" cost estimates – costs associated with architectural/engineering design, permitting, systems development charges, project management, etc. are added as a percentage of "hard construction" costs. 27% is used although this figure can vary based on specific project requirements.

B. "Contingency" cost estimates – costs associated with unknowns such as unforeseen conditions, jurisdiction requirements, design error/omission and changes in work scopes. Typically 10% is used for new construction and 15% is used for major alterations/modernizations.

C. "Site" cost estimates – when preparing project estimates using the gross square footage method, additional consideration must be taken for other scope components. Site improvements such as upgraded play fields, parking, storm drain, lighting improvements, etc. need to be factored into project scoping and budget estimates.

D. Furniture, Fixtures & Equipment (FF&E) cost estimates – Furthermore, necessary furniture, fixtures & equipment (FF&E) items need to be added. District estimating methodologies strive to account for a complete & usable facility to ensure readiness for student & staff use.

Here is an example of how a "full modernization" (major renovation of existing school building) of a K-8 school might look assuming the school is 80,000 gross square feet, on a 100,00 square foot site and the RLB value of $207/SF (midrange) is selected:

Hard cost building = 80,000 s.f. X $207/s.f. = $16,560,000

Hard cost site = 100,000 s.f. X $8/s.f. = $800,000

Soft cost = 27% of the hard costs or $17,360,000 X 0.27 = $4,687,200

FF&E = $12/s.f. = $960,000

Subtotal = $17,360,000 + $4,687,200 + $960,000 = $23,007,200

Contingency = 15% of the Subtotal or $23,007,200 X 0.15 = $3,451,080

Total project cost = $Subtotal + $Contingency = $26,458,280

In this example while the "hard construction" cost per gross square foot is $207, the total project cost per gross square foot is $331.

SUMMARY

PPS has identified a significant backlog of improvement needs based on capacity shortfalls, physical facility deficiencies and outdated teaching and learning environments.

Clearly the magnitude of the facilities requirements suggests that a series of voter-approved capital ballot measures are most suited to effect necessary improvements. Given the District's student growth projection (medium range), configuring schools to provide target program enrollment requires further analysis and action.

Using the "Instructional Model" to determine student capacity at the individual building level in conjunction with target program enrollments should inform planning efforts to configure schools. In some instances, consolidation of schools can and should be considered.

ISSUE PAPER#7.2
OTHER PROGRAM CONSIDERATIONS

BACKGROUND

Like many urban school districts, Portland Public Schools (PPS) offers programs and special services beyond K-12 general education instruction to support students whose needs are not met in traditional school settings. PPS also partners with Multnomah County, Portland Parks and Recreation, and other "wrap-around" service providers to give students access to health clinics, dental services, and before and after school care. Providing these services have shown to improve student readiness and achievement.

RELEVANCE FOR FACILITIES PLAN

State law requires large school districts with K-12 enrollment of more than 2,500 students to develop long range facility plans. School facility plans must include "descriptions of physical improvements needed in existing schools to meet the minimum standards of the large school district". Districts are also required to "…identify school facility needs based on population growth projections…" per ORS 195.110(9)(a).

The Portland State University Portland Public Schools Enrollment Forecast, completed in November 2011, estimates over 4,500 additional students enrolled at PPS by 2022 (PSU "medium" range forecast over 2010 enrollment). While this enrollment increase in itself poses the potential need for new or modified district facilities, PPS will also experience increases in population of students with special needs.

Additionally upcoming state mandated requirements for Physical Education (2017) and recent full-day Kindergarten legislation will significantly increase the need for District facility space for these programs.

The district currently provides alternative education options, community based programs, charter schools and special services including Special Education, English as a Second Language, and online learning. The district also partners with agencies that provide Head Start, full and half-day Kindergarten, and Pre-Kindergarten programs. These programs typically have space and facility requirements that were not anticipated during the era of design and construction of most PPS facilities.

EARLY LEARNERS AND CHILDCARE

Many PPS schools offer on-site early learning programs and before and after school childcare. These programs have shown results in improved school readiness of children entering Kindergarten. The space and equipment needs of these spaces are often such that they cannot be accommodated in general education classrooms.

EARLY LEARNERS AGENDA

The PPS Office of Early Learners recently completed a Birth-to Five School Readiness Plan that seeks to expand partnerships with wrap-around service providers to broaden access to services and programs for students and parents with an aim to expanding the number of low income Pre-K children and families served ensuring children enter first grade "school ready". The plan calls for the development of school based early learners education consortiums with community non-profit and health and human service partners over the next five years. Current early learner programs are scattered throughout 26 PPS school sites. The plan suggests the centers be co-located in vacant one story schools, under-enrolled schools and/or school sites that have already initiated collaborative community partnerships in north, northeast and southeast (high poverty) regions of the district. The plan also calls for the development of full-day Kindergarten classrooms in all of the District's K-5 and K-8 schools.

HEADSTART

Head Start is a federally-funded program primarily for low-income children designed to provide social competence by providing educational and family support services. PPS; the Community Action Organization; Albina Head Start; Friendly House and Neighborhood House provide federal Head Start and Oregon Pre-K services to low income four and five year olds and their families throughout Multnomah County. Community Action and Albina Early Head Start also provide Early Head Start services for children through age three. PPS provides classroom space in nine PPS facilities and serves 836 low-income three and four year old children and their families. Full and half-day programs are offered September through June.

PPS's program has existed since the 60's and in the past had Federal money that allowed for the purchase of modular classrooms for PPS campuses to support the various classrooms. These funds are no longer available. When space is available, PPS also has placed Head Start programs in interior classroom spaces, and use modular classrooms for older student grades.

Historically school capacity has limited the number of Head Start classrooms PPS can provide. PPS anticipates that the demand for Head Start programs will continue to grow.

TEEN PARENT SERVICE (TPS)

PPS's Teen Parenting Services (TPS) provides counseling and support to students who are pregnant or parenting. In 2010-11, 174 students (out of a total of 350 pregnant or parent students District-wide) were served by the program which provides on-site childcare services to teen parents through the District's Early Head Start programs and other alternative childcare providers at various locations. The 2010-11 graduation rate for high school seniors for whom child care was provided was 100%. In comparison, the graduation rate for all TPS seniors was 55%.

PRE-KINDERGARTEN

Nine PPS schools (ten including the Early Learners Academy at The Ramona) offer free Pre-Kindergarten (Pre-K) programs. Most schools provide one classroom for Pre-K students. Additional Pre-K programs are available at other schools for a fee. The PSU enrollment forecast for PPS does not estimate the number of Pre-K student for 2010. The current program serves 410 four-year olds.

KINDERGARTEN

Every PPS elementary and K-8 school currently offers full-day Kindergarten. Ninety-eight (98%) of Kindergarten students in the district are in a full-day program. State funding for Kindergarten only covers half-day Kindergarten. Thirty-four PPS schools offer a full-day Kindergarten program at no cost to parents. Twenty-seven schools offer half-day programs with parents paying for the additional half-day if desired.

Kindergarten enrollment in the district uses 162 classrooms, 161 of which are for full-day programs. In 2003 only 56% of the 3,546 Kindergarten students were enrolled in full-day programs.

The PSU student enrollment forecast for PPS estimates an increase of 192 Kindergarten students by 2022. The District's goal is to maintain Kindergarten class size at 25 students per classroom. When class size increases beyond 25 Kindergarten students, schools either devote another classroom to the Kindergarten program or the District provides an educational assistant to the classroom.

SUN PROGRAM

The Schools Uniting Neighborhoods (SUN) Program offers a variety of before and after school and summer educational and family activities. The SUN program utilizes a variety of school spaces to include gyms, classrooms, cafetoriums, and outdoor play areas. Thirty-two (32) PPS schools have SUN programs cooperatively paid for by the City, County, and PPS.

SPECIAL SERVICES

Special services administered by the District include the Community Transition Center that supports young adults as they transition to life after high school, the Pioneer Program that serves children with behavioral and medical needs, and a small number of other programs designed for students with different needs. In 2011, 502 students were enrolled in special services. In 2003-04 the

administration of many special services programs[1] was transferred to the Multnomah Educational Service District (M.E.S.D.) causing a 77% decrease from the number of students reported in special service programs in 2001-02.

INTEGRATED STUDENT SUPPORT (SPECIAL EDUCATION)

The provision of Special Education services by public school districts is required by several statutes. Section 504 of the Rehabilitation Act of 1973 is a federal civil rights statute that prohibits discrimination against persons with disabilities. Section 504 applies to recipients of federal funds, including public schools. The Americans with Disabilities Act of 1990 (ADA) extends the protections of Section 504 without regard to federal funding. The ADA also applies to public schools. Some students with disabilities qualify for special education services and supports under the Individuals with Disabilities Education Act (IDEA).

PPS is responsible for evaluating the eligibility of school age students for special education services and developing an individualized education plan (IEP) for each student. In 2011, 14% of all PPS students received services through the District's Special Education (SPED) program (see table 2 for more detail).These percentages have remained constant for a number of years.

The PPS SPED continuum provides program support for students in grades K-5 in a single school when possible. The continuum approach recognizes the differing level of supports for the various levels of need for SPED students and provides program supports accordingly. A majority of these students receive full or part-time instruction throughout the day for cognitive or remedial learning assistance. Classroom modifications for this instruction are usually minor, but the number of students per classroom is often less than general education classrooms. Currently most schools provide at least one room (learning center) for this purpose.

SPED classrooms providing students with staff support for behavioral and medical conditions require more substantial modifications and increased area per student and often require a self-contained special education classroom. There are 86 self-contained classrooms in PPS schools. They are distributed as follows.

Table 1. Self-contained classrooms in PPS

School Level	*Number of Self-Contained Classrooms*
K-5	21
K-8	28
MS	14
HS	23

[1] Hospital Programs (Emanuel, Oregon Health Science University, Oregon State and Shriners Hospitals); M.E.S.D. Functional Living Skills; Portland Early Intervention Program (PeiP) and Columbia Regional Programs (Autism, Deaf and Hard of Hearing, Orthopedic and Vision Services).

SPED program administrators have indicated the need for additional and/or larger classrooms. The PSU enrollment forecast for PPS cannot provide an estimate of the number of SPED students in 2022. However, PPS SPED program staff indicate that an average of 200 additional SPED students have been added in each of the last two years.

ENGLISH AS A SECOND LANGUAGE (ESL)

The English as a Second Language program is mandated by federal law (Title III of the Elementary and Secondary Education Act of 2001) and requires each school to develop and implement high-quality instructional programs to prepare all students for an all English instruction setting.

Table 2. PPS 2011 Special Education[1] (SPED) and Limited English Proficiency (LEP)[2]

School Level	SPED		LEP	
	Students	Percent[3]	Students	Percent[3]
Elementary	3,726	14%	3,317	12.5%
Middle	740	14%	208	4%
High School	1,324	12%	584	5.4%
Focus/Alternative Programs	154	9%	8.	5%
Community Based Programs	251	22%	90	7.8%
Special Services (C.T.C., DART Pioneer Program)	359	72%	5	1%
Charter Schools	205	13%	24	1.6%
Grand Total	6,759	14%	4,236	9%

[1] Special Education (SPED) is the count of students at each school with records flagged indicating participation in Individualized Education Plans (IEP), that is Special Education program students. (source: eSIS)

[2] Limited English Proficient (LEP) is the count of students eligible to receive English as a Second Language (ESL) or Bilingual Services.

[3] Percent of school level

Any significant renovation or rebuild of existing school buildings needs to either incorporate classrooms for SPED and ESL instruction or the flexibility to provide instructional spaces in the future on an as-needed basis.

EDUCATION OPTIONS

Alternative education options can be either district operated or community-based. A central component of the mission of Portland Public Schools is to "support all students in achieving their very highest educational and personal potential." Education Options mission is to "provide educational options for all youth that empower, engage, and prepare them for college, work training, and citizenship while serving as a vanguard for systemic educational change." The District is committed to providing an appropriate learning environment for all students. These options are developed to meet the needs of a specific student population. Alternative education options can be either a program of a school or an independent school. To meet student's needs, alternative education options generally offer something different from or in addition to the regular curriculum and may offer something different from regular school hours.

In 2011, PPS enrolled over 1,600 students in alternative programs primarily housed in PPS facilities. This represented a 5.8% increase over the last 10 years. These programs include the ACCESS program, Head Start Early Childhood Education, the Metropolitan Learning Center (MLC) and the Teen Parent Program.

Portland Public Schools' Alternative Education Options has contracted with approximately 15 community-based education agencies or organizations in the Portland area to serve students who have dropped out or are at risk of dropping out of PPS schools. Students must be referred to the program by the students' school, community agencies, or through self-referral. More than 1,000 students were enrolled in community-based programs, primarily housed in non-PPS facilities.

FOCUS SCHOOLS AND IMMERSION PRGRAMS

The district offers a number of focus programs and schools including 12 language immersion programs enrolling over 2,400 students and 10 focus/alternative programs enrolling over 2,300 students. Some programs are housed within existing schools (e.g. the Access program in Sabin School) or entirely within a school (e.g. Sunnyside Environmental School). These programs often employ different curricula and may require different space needs than a more traditional general education model.

PHYSICAL EDUCATION

In 2007, the Oregon Legislature enacted House Bill 3141, which calls for a minimum of 150 minutes of weekly physical activity for students in grades Kindergarten through fifth, and 225 minutes for students in grades 6-8. School districts are required to provide students with a specified amount of physical activity starring in the 2017-18 school year. To meet this requirement, PPS will need to evaluate the adequacy of existing facilities to meet the needs of the District's enrollment in 2017 and 2022, the 10-year capital plan horizon.

HEALTH AND DENTAL CLINICS – WRAP AROUND SERVICES

The Multnomah County Health Department operates school-based health centers at 10 schools (six high schools and four elementary schools). The Children's Dental Center is located in Creston School serving over 2,500 students a year. Demand for these services continues to rise and opportunities to bring additional partners and service providers into PPS facilities continues to grow. PPS strongly

supports wrap-around services such as these and the partners that provide them. Future design and construction activities must consider these opportunities and investments on a case-by-case basis.

ONLINE AND BLENDED LEARNING

Many students have learning needs beyond what a traditional classroom can offer. Currently, PPS uses online resources primarily to meet the needs of students who must recover to recover course credits to stay on track for graduation. Last year PPS students earned over 1,200 semester credits with online independent study supported by the District.

Online learning has often involved independent study by students. As this form of study progresses in PPS, students will have a highly qualified teacher to guide them. The teacher may or may not be located at their school site. In the future these services will be extended to homebound, home-schooled students and students who by choice want to be full-time online learners. With the growing digital resources available to teachers, they may choose to provide more and more learning resources online to students. Online learning is one strategy for PPS to meet the milestone targets of on-track to graduate and on-time graduation.

Online learning does not have to be separate from face-to-face classes. "Blended learning" is the integration of face-to-face and online learning to help enhance the classroom experience and extend learning through the innovative use of information and communications technology. Blended strategies enhance student engagement and learning through online activities to the course curriculum, and improve effectiveness and efficiencies by reducing lecture time. The "flipped classroom" has students get the content outside of class (online) and come to class to apply it, discuss it, or get support from a skilled teacher.

The design of schools in the future need to create spaces for teachers and students that preserve the ability to interact with each other and provide easy access to online content. The technology is a tool they will use along with face-to-face (or virtual) discussions, community-based activities, multimedia tools, and individual research. Virtual learning spaces need to provide places for learners to get support from teachers and other learners. Teachers and places for interaction are essential to quality 21st century learning.

An individual school or district-wide could provide dedicated space for students and teachers who, because of learning needs, choose to be primarily virtual learners. The Virtual Learning Space should have conference rooms, tools for multimedia creation, video conferencing equipment, and collaboration tools. Technology and ancillary support resource needs to allow for students who may bring in their own devices and want to access these tools and resources. With this in mind the District must strive to provide ubiquitous technology support for learning media, networks, district, and personal services.

Students and teachers need to have access to technology anytime and anywhere. Designating a school space for a just a computer lab will limit learning if that is the only place where online or blended learning is supposed to happen. Schools need to have flexible collaborative spaces with a robust infrastructure and technology for sharing learning via multimedia. Students who don't have technology tools at home will need to have access supported by the school as a matter of equity.

For more in depth information:

PPS board report and other resources http://www.pps.k12.or.us/departments/education-options/6477.htm
International Organization for K-12 Online Learning
http://www.inacol.org/research/promisingpractices/index.php

SUMMARY

PPS offers and hosts a variety of programs and partners designed to support the needs of students and families with the goal of helping every student succeed. It is clear the increased success and demand for these programs will foster space needs in the future that must be designed and integrated district-wide into the overall program delivery of each PPS school.

Portland Public Schools Guiding Principles

Draft 4-2-2012

GOAL 1: Provide effective educational environments serving all students

Facilities should support student success equitably. Portland Public Schools will create effective, accessible and inclusive learning environments that help all students achieve. School buildings will nurture and inspire learning while challenging and supporting students, teachers, parents and community who together will encourage learning beyond building walls—into the community and around the world. All students are included regardless of national origin, race, gender, economic background, sexual orientation, disabilities, first language, or other distinguishing characteristic.

GOAL 2: Provide safe and accessible facilities to meet students' basic needs

Facilities reflect the importance of education in the community. Portland Public Schools will provide buildings where the quality of the building environment contributes to positive relationships and productive learning. Basic use of school buildings include adequate access, security, protection from fire and seismic hazards. Basic needs for learning include reasonable building temperature and adequate light, air quality and acoustics.

GOAL 3: Support of academic programs while optimizing school utilization

The physical size of schools should reflect the academic program needs of each school. When enrollment exceeds or falls below optimal student capacity or program size, Portland Public Schools will engage an enrollment balancing process (including but not limited to transfer limitation, attendance boundary changes, grade reconfiguration, school consolidation and facility changes).

Guiding Principle A: Community Partnerships

Schools will thrive when our entire community is invested in their success. Every citizen of Portland is a stakeholder in schools. It is critical to promote a seamless, integrated relationship among stakeholders to support our schools. School facilities will be inclusive and central to the communities and neighborhoods that they serve and open and accessible to *all* for community use.

Methodology:

- Increase engagement by developing this sense of connection between society as a whole and schools.
- Develop partnerships and relationships to increase engagement, ownership, and student and teacher success.

- Develop community assets that support life-long learning and wellness and that help to knit our community together.
- Balance the needs of neighborhood schools and those of focus option schools to best serve the larger PPS student population.
- Provide program support for strong enrollment in response to the desire for small neighborhood schools.
- Encourage and support facilities solutions that enhance community use of school facilities. School spaces (gym, cafeteria, commons, library, performance) should be easily accessible to the community.
- Support enhanced community/ school dual use areas and the resulting increased use and ownership of the schools by the community, including financial partnerships
- Pursue partnerships with other public and or private entities to leverage public resources to maximize efficiency, economies of scale and innovation.
- Work with partners to provide safe and accessible paths of travel to every school.
- PPS historic buildings help to define our communities, make them more livable, and instill civic pride and a sense of place. Honor historically significant buildings and/or their significant building features.

Guiding Principle B: Sustainability

Building designs will integrate high performance systems to achieve the most cost-effective, long-term energy, water and waste solutions while providing flexibility, creating a healthy and productive learning environment while maximizing educational performance.

Methodology:

- Life Cycle Cost —more efficient building systems should be implemented during initial construction and remodeling/modernization/retrofitting efforts that have a payback that is in keeping with the anticipated life of the asset, rather than just considering the lowest first cost for the asset.
- Prioritize procurement of local materials, local contractors, subcontractors, sourcing, and suppliers and make every effort to encourage local manufacturing of critical components.

- Use practices such as reuse of existing buildings, construction waste management, air quality, proper recycling of building materials, water-conservation and waste-reducing infrastructure that will achieve PPS sustainability goals.
- Ensure staff and students understand how systems work and how they can be adjusted to achieve higher performance. The school environment, space, and curricula emphasizes that the student, teachers, facility, community, and surrounding environment are together part of a larger system and affect one another.
- Building design will maximize and integrate the surrounding natural features, natural light, air flow, and other environmental factors that support wellness and conditions for optimal learning.
- Adapt facilities to become flexible, modern, adaptable and resilient—to accommodate changing needs and purposes that extend the useful and effective life of the building. Specifically provide modern learning environments that support individual, small group and teams of students and staff in working and learning together now and in the future.

Guiding Principle C: Fiscal Responsibility

Fully fund the cost of school facilities and their operation. Stay current with preventative maintenance. Budget for total cost of ownership. Public monies shall be leveraged whenever possible through partnerships with other agencies and private enterprises. Commit to transparent and audited financial budgets, forecasts and expenditures.

Methodology:

- Communicate the relationship between facilities investments and the benefits to students and the community
- Include individual school communities in determining improvement plans at their site.
- Leverage potential partnerships that maximize resources e.g. advertising, leasing, business partners
- Whenever possible, the cost to students and families of relocation should be evaluated against cost savings of phased work; accomplish the work all at one time when possible.

- Assess the physical condition of District facilities on an ongoing basis.
- Utilize best practices to ensure significant improvements, renovations or new construction will last 50-75 years with ongoing preventative maintenance.
- Use the facility condition index (FCI) as one metric for determining the need for facility repair, improvement and/or replacement.
- Finance capital asset replacement plan
- Complement normal maintenance with volunteer projects that create and maintain landscaping and facilities

Guiding Principle D: Inclusive Facilities

Provide facilities that support effective, accessible, inclusive learning environments for all students with an emphasis on schools with larger achievement gaps.

Methodology:

- Ensure school campus designs are inclusive and culturally relevant.
- Provide facilities that accommodate a greater degree of wrap-around social services in schools with the highest needs.
- Provide students with an environment that inspires them and is joyful, unique and engaging.
- Provide flexibility for changing curriculum and changing learning needs over time.
- Provide ubiquitous technology support for learning media, networks, district and personal devices.
- Create welcoming environments that reflect and support the racial and ethnic diversity of the student population and community.
- Any new or significantly renovated facility will meet Universal Design guidelines and be fully accessible that are ADA compliant.
- Provide acoustic enhancements.

OPERATING PROCEDURES

- Decisions made using evidence-based best practices and data
- Process and decision-making are transparent
- Process includes student voices