# Table of Contents

## Executive Summary
- Spaces for Educational Innovation 4
- Safety 5
- Sustainability 5
- Effective Use of Underutilized Resources 5
- Resource Equity 5
- Preparing Well Rounded Community Citizens 5
- Support Full Service Community Schools 7
- Modernize & Upgrade Facilities 7
- Enhance Seismic Safety 7
- Sustainability 8
- Efficient Use of Resources 8
- Community Input 8
- Demographics & Enrollment Projections 8

## Needs Assessment
- Full Service Community Schools Support 36
- Educational Programs Support 37
- Quality Community School Development 39
- Seismic Safety Enhancement 40
- Modernizations & Facility Upgrades 42
- Improve Utilization of Underused Assets 45
- Summarized Project List 48

## Appendices
- Information Technology Protocols 52
- Site-Based Outreach & Engagement Protocols 53

## Assets
- Asset Inventory 14
- Grounds 15
- Buildings 16
- Rooms 17
- 2004 Master Plan & Measure B 18

## Guiding Principles
- Align with Strategic Vision 21
- Regional Zone Approach 22
- Data-Driven Decision Making 22
- Efficient & Effective Spending 23
- Ongoing Community Engagement & Input 23
- Sustainability 23

## Planning Context
- History & Culture 27
- Geology & Climate 28
- Demographics 28
- Safety 31
- Enrollment Projections 32
Facilities Planning and Management
Timothy White, Assistant Superintendent
Tadashi Nakadegawa, Director of Facilities

OUSD Board of Education
Alice Spearman — District 7
Christopher Dobbins — District 6
David Kakishiba — District 2
Gary Yee — District 4
Jody London — District 1
Jumoke Hinton Hodge — District 3
Noel Gallo — District 5

Superintendent
Anthony Smith

Partners
MKThink
ZFA Structural Engineers
Nutrition Services and Center for Ecoliteracy
KyotoUSA/HELiOS Project
GKKWorks
SGI Construction Management
The 2012 Facilities Master Plan will direct capital projects in the Oakland Unified School District for the next 5-10 years. Written together by Facilities staff, education planning experts, and the OUSD community, the plan charts a path of ongoing improvement to support the District’s strategic vision for a Full Service Community School District that serves children, youth, and their families.

Building on the success of the 2004 Master Plan and the Measure B bond that funded it, the 2012 Facilities Master Plan will direct sustainable and efficient use of resources in support of Full Service Community Schools, facility modernizations, and seismic safety upgrades.

Projects proposed in the 2012 Facilities Master Plan will be financed principally by a general obligation bond. The financing from this bond will be augmented by additional funds from State programs and initiatives wherever possible so that voter-supported debt is leveraged to make the greatest possible impact.
Board of Education Priorities

Spaces for Educational Innovation

OUSD facilities must support forward-looking educational models — hands-on-learning, Science, Technology, Engineering and Math (STEM), and other innovative methods.

Safety

Students at and around school sites must be safe from risk, including earthquakes, crime, and automobile accidents.

Sustainability

School sites should be high performing buildings that use energy and water efficiently while contributing to the quality of Oakland’s built environment.

Effective Use of Underutilized Resources

Underutilized OUSD assets should be used to support the District’s educational mission through leveraged partnerships, community use, and the application of consistent guidelines for leases and co-location.

Resource Equity

OUSD must bring an equity-centered strategy to facility investments. Improvements should support quality school options in every Oakland neighborhood.

Preparing Well Rounded Community Citizens

School facilities should support the entire student: schools must have space for arts and music so that students can embrace culture and creativity, as well as athletic facilities for students to develop teamwork and leadership skills.
OUSD FACILITIES • BY THE NUMBERS

SITES

NUMBER OF SITES

100
Includes seven administration and adult education sites, nine sites partially or completely occupied by charter schools, and not including eight Child Development Centers.

TOTAL ACRAGE

525

LAND USE

OUSD SITE FOOTPRINT COMPARISON TO LAKE MERRITT

It would take the equivalent of three and a half Lake Merritts to encompass the total acreage owned by OUSD.

BUILDINGS

TOTAL BUILDING SQUARE FEET

5,841,891

TOTAL NUMBER OF PORTABLES

680
Includes CDC’s and Adult Education portable buildings. Does not include semi-permanent modular units.

COMMUNITY

HEALTH CLINICS

14

SCHOOL GARDENS

74

CLASSROOM RESOURCES AND TECHNOLOGY

TELEVISIONS

1,413

INTERACTIVE WHITE BOARDS

194

LCD PROJECTORS

407
Facilities Master Plan Goals

Support Full Service Community Schools

The District’s Strategic Vision: Community Schools, Thriving Students provides a framework for the creation of a “Full Service Community District that serves the whole child, eliminates inequity, and provides each child with excellent teachers for every day.” For facility planners, this means working closely with networks of administrators, teachers, and community partners to identify and prioritize projects that support innovative educational programs such as STEM (Science, Technology, Engineering and Math) and create places like campus-based health centers that provide “wrap-around” services to students and their families.

Modernize & Upgrade Facilities

Modernization projects address the kinds of “brick & mortar” needs that are required to keep old buildings functioning at a high level of performance. These needs include building system upgrades to heating, roofing, and plumbing systems, as well as sustainability upgrades that reduce energy and water consumption. The prioritization of these kinds of projects draws on demographic analyses to anticipate projected capacity needs and align with Oakland’s population of school-age children.

Enhance Seismic Safety

Although all OUSD school facilities meet California building codes, the ever-evolving understanding of structural performance during earthquakes means that there are opportunities to reinforce and improve the seismic safety of OUSD buildings. Accordingly, the 2012 Facilities Master Plan lays out a framework through which buildings with a higher vulnerability can be upgraded in conjunction with other projects to support Full Service Community Schools or modernizations.
Sustainability

A guiding principle for all projects will be to minimize the District's consumption of resources. To achieve this goal for sustainability, the Facilities Master Plan will include strategies to improve energy efficiency, produce energy where possible, and conserve water.

Projects may include insulation improvements, solar panel installation, and rainwater catchments. Projects will follow best practices recommended by the Collaborative for High Performance Schools (CHPS). Sustainable design and construction offer the opportunity to not only improve the environment and protect the earth, but also to reduce costs and make the District more self-sufficient.

Efficient Use of Resources

All resources will be used in service of Oakland's children, youth, and families. School sites will be highly used by school programs, community partners, and the neighborhoods around them. Other sites will be creatively utilized to generate maximum benefit for the District and its students.

Community Input

Stakeholder input from students, parents, teachers, and administrators is critical to the Facilities Master Plan and the project prioritization process. Individuals may contribute their input via an online survey available at the Facilities Master Plan website (www.ousd.k12.ca.us/facilitiesplan), or participate in public engagement meetings.

Demographics & Enrollment Projections

Facilities Planning and Management is working closely with the District’s Research, Assessment and Data division (RAD) and Oakland planners to project and anticipate future facility needs. Census, enrollment, and development project data are incorporated into this analysis.
Key Demographics

Oakland Student-Age Population (5-17)
2000: 71,467
2010: 57,021

Historic Annual Population Growth Rate
2000-2010

Estimated Annual Population Growth Rate
2010-2015 (projected)

Full Service Community Schools Support

Projects to support Full Service Community Schools include the creation of new health centers, improving the quality of classrooms for students with special needs, making specialty classrooms for innovative school programs, and initiatives for school transformations from the Quality School Development Group.

Examples of potential projects:
- Grade expansion from 6-8 to 6-12 at Madison Middle School (A Quality School Development Initiative)
- West Oakland STEM Corridor
- Sustainable Fremont High School Plan
- CDCs at various campuses

Seismic Safety Enhancements

Following a comprehensive seismic evaluation of OUSD building structures in 2011, corrective work projects are planned to improve the safety conditions at facilities with high and moderate vulnerability.
Modernizations and Facility Upgrades

Portable Reduction
The District’s long-term goal is to use permanent facilities to accommodate district enrollment goals and provide students with healthier learning environments.

Examples of potential projects:
• Replace old portables at Whittier Campus (Greenleaf Elementary) with new permanent building
• Replace old portables at Glenview Elementary School with new permanent building
• Substantially reduce number of portables district-wide

Building System Upgrades
Building system upgrades include improvements to mechanical and structural elements of permanent buildings that require periodic maintenance and replacement over time.

Examples of potential projects:
• Roofing replacements and upgrades district-wide to protect facilities and improve comfort
• Automation controls, security systems, and alarm upgrades district-wide to improve efficiency of operation and maintenance

Nutrition Services Master Plan
The Nutrition Services Master Plan will “create a road map for comprehensive reform of school food in the District... we have reached the point where change can’t continue without drastic change in our facilities.” From “Rethinking School Lunch Oakland” study by Nutrition Services and the Center for Ecoliteracy (www.ecoliteracy.org).

Examples of potential projects:
• New Central Kitchen facility at Foster Campus
• Renovation of School Cooking Kitchens at 17 sites district-wide
• New community kitchens at 14 sites district-wide

Site and Grounds Upgrades
Upgrades to grounds will focus on improving the playgrounds, fields, and other outdoor elements of campuses.

Examples of potential projects:
• Replace Turf fields at OUSD High Schools
• Schoolyard Initiative Projects at Sobrante Park Elementary School and other campuses district-wide
• Educational garden upgrades district-wide

Solar and Energy Efficiency Programs
These projects would enable the District to cut down on utility operating costs through reducing energy needs and on-site electricity generation. These projects include enhanced insulation and the installation of photovoltaic systems on appropriate sites.

Examples of potential projects:
• Photovoltaic panel installation at as many as 17 sites district-wide with support of the California Solar Initiative
• Energy efficiency enhancements district-wide
• Stormwater remediation

Improve Utilization of Underused Assets

Facilities Planning & Management will also pursue projects that increase asset utilization to generate revenue or reduce costs.

Examples of potential projects:
• Administrative facility redevelopment
• Re-configuration of inactive school sites for training, teacher housing, or special academies
• Optimization of active school sites to support community partner hosting
The 2012 Facilities Master Plan addresses all OUSD site grounds, permanent buildings, and portable classrooms. From a real estate perspective, this portfolio of assets is an enormously valuable resource of remarkable geographic breadth and architectural diversity. With over 500 acres in holdings, the District is among the largest landowners in the City of Oakland.

Managing these assets in support of children, youth, and their families requires a strategy rigorous enough to efficiently direct long term planning yet flexible enough to accommodate changing needs as the District continues to evolve and flourish.

This Facilities Master Plan considers sites, buildings, and rooms as distinct levels of analysis and planning.

Sites are the properties owned by the District. They have a fixed geographic location and consist of grounds, buildings and portables. Each site is found in one of three Regions for administrative purposes: Region 1 in West Oakland, Region 2 in Central Oakland, and Region 3 in East Oakland.
Asset Inventory

As of 2011-2012 School Year

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<td>202 classrooms</td>
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<td><strong>9-12</strong></td>
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<td><strong>Admin + Adult</strong></td>
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<td>10 acres</td>
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* Includes facilities being used by K-8 programs
** Includes facilities being used by 6-12 programs
Grounds

The grounds of any particular site are critical to the effective performance of a school; there are several specific uses considered for master planning.

Playgrounds

Playgrounds, gardens, and sports fields make up a central component of daily life for students. For younger grades, quality playgrounds are not only structures for physical exercise, but also places where students explore social interactions and flex their imaginations. OUSD schools should have safe, modern playground environments.

Gardens

Many OUSD schools — at all levels — are embracing gardens as a central component of their educational pedagogy. Additionally, many of these teaching gardens serve as hubs for partnerships with community based organizations and neighborhood groups.

Athletic Fields and Courts

Oakland schools have athletic fields and courts for baseball, basketball, football, soccer, track and field, and other sports. Maintaining these site amenities requires work with a variety of surfaces and materials such as grass, paving, and turf to ensure that they provide quality environments for competition and play.

Transportation

Students, teachers, and administrators use a variety of methods to get to school. For drivers, parking lots provide convenient access to the campus. These spaces must be organized with the safety of children and emergency vehicle access in mind.

For those that walk, bike, or take public transit to school, paths and sidewalks create a comfortable pedestrian experience. Additionally, infrastructure
like “bump-outs,” bike racks, and traffic calming strategies can dramatically improve the campus experience for those not in cars.

Buildings

Oakland Unified School District owns 328 permanent buildings across the district, totaling 5,251,383 square feet. The majority of these structures are classroom buildings, but there are also gymnasiums, theaters, multi-use spaces, cafeterias, kitchens, and administration buildings. OUSD’s portfolio of buildings spans a century: Oakland Tech’s main building was built in 1913 and the Downtown Educational Complex is due to complete construction in 2013.

Each building’s construction method, materials, location, and age contribute to specific building performance characteristics. These characteristics can impact the educational environment, such as when modern electrical systems enable new computer systems or poor acoustics disrupt classes. These characteristics also impact the District’s annual operating costs, as buildings with better insulation and automatic indoor climate controls will generally have a lower cost to heat and cool.
Due to fluctuating enrollment and desired growth, OUSD has 680 portable classroom buildings in addition to its permanent structures. Some of these portable classrooms have issues such as poor air ventilation and light quality due to fewer windows. Portables also take up space on sites that could be used for other amenities such as play structures. Nonetheless, many teachers have adapted to their portables and use them for effective teaching. Their relatively low cost and rapid installation also gives the District greater flexibility regarding capacity at specific sites.

Rooms

Ultimately, classrooms are the key facility component that allow teachers to deliver educational programs to their students. Ensuring that these classrooms are high-quality learning environments — of an appropriate size and enhanced with modern amenities — is a primary goal of the 2012 Facilities Master Plan.

Other room types used by students, such as resource rooms, gyms, theaters, and cafeterias, have special characteristics that require attention and updates over time. Opening community access to kitchens, for example, is a new priority addressed in the OUSD Nutrition Services Master Plan, which is discussed in more detail on page 44.

While not as numerous as instructional spaces, quality office and administration spaces are equally important due to their effect on the function and effectiveness of OUSD administrators and staff. Much as a healthy learning environment contributes to the positive performance of students and teachers, optimized working space can help maximize the performance of administrators and staff who organize schools and the district at large.
In 2006, Oakland voters approved a $435 million bond measure, which has funded the majority of OUSD school facilities projects over the past 6 years. The District secured an additional $55 million by tapping into State and Federal programs that match local funding sources for use on specific types of school improvement projects. Using these resources, OUSD’s Board of Education initiated well over 100 projects that would not have been possible without the support of the Oakland community. To ensure that the allocation of funds aligned with the guidelines set forth in the Bond, project implementation has been monitored by an independent Citizens’ Bond Oversight, which publishes an annual report on the ongoing process.

Projects included site improvements, repairs, modernizations, and new construction. Many of these addressed critical needs at aging facilities by restoring and enhancing physical conditions. In these ways, OUSD has been using this opportunity to improve the quality and safety of learning environments for thousands of Oakland's children.

In an attempt to incorporate technology into the curriculum, many facilities have introduced tech support systems and infrastructure. As directed by voters, the District has also worked to address existing issues with auditoriums and multi-purpose rooms, as well as sports facilities and playground space.

Some examples of projects funded by Measure B include:

- New classroom buildings at Jefferson Elementary, Markham Elementary, Montclair Elementary, Cox Elementary
- New construction at Woodland Elementary, La Escuelita
- Modernization at Prescott Elementary
- Restoring the Performing Arts Center at Castlemont High School
- Gym/classrooms at Urban Promise Academy

**Downtown Educational Complex**

*New State-of-the-Art Education Center*

“The long-awaited [Downtown Educational Complex] will contain the new state-of-the-art La Escuelita Elementary School, Met West High School, combined Child Development Centers and a community health clinic. The design vision is for an integrated campus that fosters an enhanced teaching and learning environment for K-12 students on just 5.7 acres.”

*Source: OUSD, 2009-2010 Measure B Independent Citizens’ Bond Oversight Committee Annual Report*
• Portables replaced with permanent building
• New playgrounds and courts
• Building system upgrades
• Photovoltaic panels installed
• All classrooms optimized for daylighting
• Displacement ventilation for healthy indoor air quality

Jefferson Elementary School Campus
Before & After Modernization

Chabot Elementary School Campus
High-Performance Modernization

“Indoor potable water use is being reduced by employing high-efficiency plumbing fixtures. Generous daylight and photocell light sensors reduce the need for artificial lighting. An energy management system and solar control, low-e glazing, and radiant-heating system will further contribute to the project's energy efficiency.” This project was the first to receive state funds for High Performance through the Proposition 1D bond measure.

In order to address the Board’s priorities and transform a Needs Assessment into actionable projects, Facilities Planning & Management will be directed by a set of Guiding Principles. These standards will ensure that projects align with the District’s strategic vision and support the mission of creating “a Full Service Community District that serves the whole child, eliminates inequity, and provides each child with excellent teachers for every day.”

Align with Strategic Vision

At the most basic level, aligning with the District’s strategic vision means consistently weighing how facility projects will impact the education of students in OUSD schools. The vision of the Strategic Plan is an educational framework that supports the whole child through leveraged partnerships with community organizations, philanthropic groups, and city and state authorities. Accordingly, school facilities that enable these partnerships will make it easier to provide these wrap-around services that support educational efforts.

To fully embrace this shift in thinking, it will be critical for Facilities Planning & Management to work closely with regional networks, led by the Regional Executive Officers, to build a continually
evolving framework for site evaluation and needs assessment projects. A cycle of re-evaluation and project definition will simultaneously provide focus for the facilities division and flexibility to respond to evolving conditions and needs.

**Regional Zone Approach**

The equity-centered principles that will govern the implementation of the Facilities Master Plan emerge from the work done by the Regional Zone Approach initiative in the course of strategic planning in 2010-2011.

The Regional Zone Approach entails a paradigm shift from looking at facility needs on a short-term, site-by-site basis to the development of a long-term strategy that addresses a network of schools within each region. This regional approach helps ensure an equity-centered approach to resource allocation in neighborhoods across the entire district.

**Data-Driven Decision Making**

Accurate and comprehensive data will inform all decisions made about facilities and projects. OUSD’s facility information, validated by field surveys in 2011 and 2012, is organized into a dynamic database and shared on the OUSD Facilities Master Plan website. Replacing traditional static binders of paper documents, this digital interface allows access to the most up-to-date information at any time in order to make well-informed decisions.
Efficient & Effective Spending

In order to maximize the impact of every dollar spent on facilities in OUSD, projects of various types planned for a single site will be bundled into a project set. When Facilities Planning and Management conducts work on a site, it will make significant, lasting improvements by addressing multiple needs at once rather than addressing them one at a time. These project sets will efficiently meet the fundamental needs at the site itself, as well as the needs of the whole region.

Ongoing Community Engagement & Input

Another guiding principle is the importance of continually soliciting and considering the public’s input on priorities and projects. Facilities representatives will collaborate with the leaders of regional networks to develop an understanding of regional issues, while also following a set of public engagement protocols (page 51) to get input from principals, teachers, parents, and students at individual sites.

Finally, any member of the Oakland school community may use the online survey at the Facilities Master Plan website (www.ousd.k12.ca.us/facilitiesplan) to input information that will be directly connected to the digital database of facility information.

Sustainability

Facilities Planning and Management is committed to sustainable buildings and grounds both for their impact on the environment and on OUSD’s budget. Reducing energy consumption and waste offers an opportunity to leverage capital spending to lower operating expenses while improving Oakland’s urban environment for future generations.

Collaborative of High Performance Schools (CHPS)

To guide the District’s sustainability efforts, Facilities Planning and Management will follow
CHPS guidelines. Using CHPS’s criteria for High Performance Schools, the District is able to benchmark systems to achieve healthy, green campuses. These guidelines also include maintenance and operations benchmarks.

From the CHPS Best Practices Manual:

“High performance school’ refers to the physical facility — the school building and its grounds. Good teachers and motivated students can overcome inadequate facilities and perform at a high level almost anywhere, but a well-designed facility can truly enhance performance and make education a more enjoyable and rewarding experience.

Because schools are complicated structures, high performance design covers a broad and diverse range of disciplines and choices. Building a high performance school does not mean buying and installing the latest, most expensive equipment. Rather, it is a design philosophy focused on choices that improve the learning environment and save resources. Some choices are essential and others are discretionary; it’s important to keep the range of choices in perspective and focus on the key design issues.

Schools are unique buildings that every day house one-fifth of the population [of California]: almost 6 million children and more than 200,000 teachers and support staff. There are few other settings in which 20-30 people occupy such a small space or work on such a wide range of activities as in a school classroom. Occupant density is approximately four times as great as a typical office building, and schools include many ‘special use’ areas all within the same facility, such as laboratories, art studios, industrial shops, duplication facilities, and gymnasiums.

Creating a high performance school is not difficult, but it requires an integrated, ‘whole building,’ team approach to the design process. Key systems and technologies must be considered together, from the beginning of the design process, and optimized based on their combined impact on the comfort and productivity of students and teachers.”

### Criteria Summary

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<td>Natural Ventilation</td>
<td>3-4</td>
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<td>Energy Management Systems</td>
<td>1-2</td>
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</tr>
<tr>
<td>Climate (8)</td>
<td>CLA.1</td>
<td>CLA.1</td>
<td>Climate Change Action</td>
<td>1-3</td>
<td>84</td>
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<tr>
<td>2. Greenhouse Gas Emission Reduction (9)</td>
<td>CLA.2</td>
<td>CLA.2</td>
<td>Cool Neutral</td>
<td>3</td>
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</tr>
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<td>Zero Net Energy</td>
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<td>Materials &amp; Waste Management (18)</td>
<td>MEW.1</td>
<td>MEW.1</td>
<td>Storage and Collection of Recyclables</td>
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<td>1. Recycling (8)</td>
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<td>Minimum Construction Site Waste Management</td>
<td>P</td>
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</tr>
<tr>
<td>2. Construction Waste Management (2)</td>
<td>MEW.3</td>
<td>MEW.3</td>
<td>Conventional Site Waste Management</td>
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<td>Building Remediation - Exterior Non-</td>
<td>4</td>
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<td>1-2</td>
<td>101</td>
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<td>104</td>
</tr>
<tr>
<td>5. Sustainable Materials - Multi Attribute</td>
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<td>MEW.9</td>
<td>Sustainable Materials</td>
<td>1-2</td>
<td>105</td>
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<tr>
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<td>LEI.1</td>
<td>LEI.1</td>
<td>Daylighting</td>
<td>1-4</td>
<td>113</td>
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<tr>
<td>1. Lighting and Daylighting (6)</td>
<td>LEI.2</td>
<td>LEI.2</td>
<td>Visual Comfort</td>
<td>1</td>
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<td>LEI.3</td>
<td>Electric Lighting</td>
<td>1</td>
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<td>LEQ.0</td>
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<td>P</td>
<td>122</td>
</tr>
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<td></td>
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<td>LEQ.1</td>
<td>ASHRAE 62.1 Thermal Comfort Code Compliance and Minimum Control</td>
<td>P</td>
<td>130</td>
</tr>
<tr>
<td></td>
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<td>LEQ.2</td>
<td>Minimum Filtration</td>
<td>P</td>
<td>132</td>
</tr>
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<td>LEQ.3</td>
<td>LEQ.3</td>
<td>Exhaustion Filtration</td>
<td>1-2</td>
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</tr>
<tr>
<td></td>
<td>LEQ.4</td>
<td>LEQ.4</td>
<td>Low Emission Materials</td>
<td>1-4</td>
<td>134</td>
</tr>
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<td></td>
<td>LEQ.5</td>
<td>LEQ.5</td>
<td>District Heating</td>
<td>1</td>
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<td>3. Acoustics (3)</td>
<td>LEQ.6</td>
<td>LEQ.6</td>
<td>Thermal Displacement</td>
<td>2</td>
<td>141</td>
</tr>
<tr>
<td></td>
<td>LEQ.7</td>
<td>LEQ.7</td>
<td>Controllability of Systems</td>
<td>1-4</td>
<td>142</td>
</tr>
<tr>
<td></td>
<td>LEQ.8</td>
<td>LEQ.8</td>
<td>Chemical and Pollution Sources</td>
<td>1-2</td>
<td>144</td>
</tr>
<tr>
<td></td>
<td>LEQ.9</td>
<td>LEQ.9</td>
<td>Mercury Reduction</td>
<td>1</td>
<td>146</td>
</tr>
<tr>
<td></td>
<td>LEQ.10</td>
<td>LEQ.10</td>
<td>Minimum Acoustical Performance</td>
<td>P</td>
<td>147</td>
</tr>
<tr>
<td></td>
<td>LEQ.11</td>
<td>LEQ.11</td>
<td>Improved Acoustical Performance</td>
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</tr>
</tbody>
</table>

History & Culture

The City of Oakland lies on the eastern bank of the San Francisco Bay, covering 78 square miles. Incorporated in 1852, it grew rapidly as the terminus of the first transcontinental railroad and as a major port city on the west coast of the United States. At first, the town was primarily farmland, but in the years following the 1906 San Francisco earthquake, the city blossomed into a regional center in its own right.

The city’s area expanded over the ensuing years as the municipality absorbed surrounding towns, and its population grew in step with the booming industrialization of the East Bay. Oakland emerged as a destination for immigrants from around the world, and the influx of Asian, Latin American, and African American populations transformed the city into a culturally heterogeneous metropolis.

The resulting ethnic and economic diversity set the stage for a tumultuous political atmosphere, which has brought Oakland to the forefront of issues relating to civil rights, immigration, and most recently, corporate accountability. This same melting pot has fostered a rich culture of music, the arts, cuisine, and innovation.
Today the City of Oakland hosts over 50 distinct neighborhoods, and its population, now over 390,000, is among the most diverse of all major cities in the nation. Monthly events such as the Oakland Art Murmur and an outcrop of galleries and studios contribute to Oakland’s growing reputation as a destination for artists. With recent redevelopments happening throughout the city and the revitalization of historical landmarks such as the Fox Theater, Oakland was named by the New York Times as one of the “Top 45 Places to Go in 2012.”

**Geology & Climate**

Oakland’s location on the east bank of the San Francisco Bay lends the city a unique set of environmental conditions. Geologically, Oakland consists of hills in the east, alluvial plains in the west, and foothills in between. The Hayward fault lies directly beneath the city, and the Calaveras and San Andreas are in the immediate area — all of which possess the potential for seismic activity.

Meteorologically, Oakland’s Mediterranean climate features mild, wet winters and dry, warm summers tempered with fog along the coast. Accordingly, the outdoor environment is comfortable and temperate much of the year.

**Demographics**

Of Oakland’s 390,724 residents reported in the 2010 US Census, 57,021 are considered student-aged children (between the ages of 5 and 17). This count is a significant decrease from the Census conducted in 2000, which reported a student-aged population of 71,467. Based on recent birth rates, Oakland’s student-aged population is projected to steadily increase, although slowly, over the next several years.

In terms of the racial makeup of Oakland, the population remains very diverse, with no single group accounting for over 30% of the total.
Planning Context

Climate
Modified Köppen Climate Classification System

- **BSh** Semi-arid, steppe (hot)
- **BSk** Semi-arid, steppe
- **BSkn** Semi-arid, steppe w/summer fog
- **BWh** Arid low latitude desert (hot)
- **BWk** Arid mid latitude desert
- **Csa** Mediterranean/hot summer
- **Csb** Mediterranean/cool summer
- **Csbn** Mediterranean/summer fog
- **Dsb** Cool continental/dry summer
- **Dsc** Cold winter/dry summer
- **H** Highland/Timberline

Sources:
- California Climate Based on the Köppen Classification System
- California Department of Fish and Game (2002a)
- The Köppen System used here is taken from Critchfield (1983).

Historic Annual Population Growth Rate
**2000-2010**

- +5% or more increase
- +1% to +5% increase

Estimated Annual Population Growth Rate
**2010-2015 (projected)**

- +1% to 0% increase
- -.01% to -1% decrease

OAKLAND SAFETY CONCERNS

SCHOOL SAFETY

OAKLAND STUDENTS WHO FEEL SAFE AT SCHOOL

SAFE 40%

NOT SAFE 60%

CRIME

TOTAL CRIMES in 2011

29,393

http://www.neighborhoodscout.com/ca/oakland/

CRIME TRENDS

http://www.neighborhoodscout.com/ca/oakland/crime/

National Crime Index

(100 IS SAFEST)

4

http://www.neighborhoodscout.com/ca/oakland/

Ratio of Homicide Victims Under the Age of 18

1 in 10

http://www.neighborhoodscout.com/ca/oakland/crime/

Anonymous Crime Report Text Message Number

78247

http://www.neighborhoodscout.com/ca/oakland/crime/

Initial Grant Money for the Safe Passage Program

$15 million

http://www.neighborhoodscout.com/ca/oakland/crime/

Percent of Schools with Traffic Safety Programs

40%

http://www.neighborhoodscout.com/ca/oakland/crime/

Accidents

Most Dangerous Intersections for Pedestrians

1. INTERNATIONAL BLVD / 64TH AVE *
2. FRUITVALE AVE / FOOTHILL BLVD
3. 38TH AVE / MACARTHUR BLVD
4. 7TH ST / FRANKLIN ST
5. INTERNATIONAL BLVD / 90TH AVE

* WITHIN 1/4 MILE OF AN OUSD SCHOOL SITE


Individual Incidents Per Block:

(2/14/12 - 3/1/13)


Grant given by the Atlantic Philanthropies to implement its four-year Elev8 Initiative in Oakland’s middle schools.

http://www.neighborhoodscout.com/ca/oakland/crime/

Over the past five years, both property and violent crimes have decreased in Oakland. However, both types of crime have increased since last year.

http://www.neighborhoodscout.com/ca/oakland/crime/


http://www.healthycal.org/archives/6062

Safety

Over the past five years, both property and violent crime in Oakland have dramatically decreased; however, the numbers have started to rise again over the last year.

At the largest elementary schools, about 75% of the students enrolled walk to school. Because of this, there is a high risk of pedestrian/vehicle injury among children. On average, a pedestrian and vehicle collision occurs every day in Oakland; 37% of these collisions involve children.

Pedestrian and Auto Access

Establishing safe routes to schools encourages students to walk or bike rather than be driven to school. This entails addressing hazards in the vicinity of school sites, including inadequate traffic controls, unsafe infrastructure, and poor signage, as well as creating programs that promote walking and bicycling through educational and encouragement incentives aimed at children, parents, and the community.

Public Transportation

Due to budget shortfalls, AC Transit began implementing cutbacks to a number of service areas in 2010, including routes to and from OUSD schools. The region has seen continued service reductions as well as fare increases in the months since, making public transit a less accessible option for many students traveling to school. The issue has been the lack of outside funding for transportation programs compared with past years, which results in a heavier reliance on direct revenue and taxes.
Enrollment Projections

OUSD’s long term enrollment projections (opposite page) were generated by demographers with the District’s Research, Assessment and Data division using the Cohort Survival Ratio (CSR) analysis method.

The forecasts “were calculated using Cohort Survival Ratio (CSR) analysis that compares the number of students in one grade to the number of students in the previous grade during the previous year. This grade progression method depends initially on the actual births and enrollments for previous years, and carries these cohorts through the model to determine the ratio of change from one year to the next. This ratio is then extended out to forecast future enrollments over time.”
OUSD Enrollment Projections

NOTE: Chart below uses medium range projections.

Figures above are projected using birth rates. (Actual enrollment numbers are displayed on the opposite page)

Source: Susan Radke, Demographer - Research Assessment & Data
The assessment of facility needs requires frequent evaluation from multiple perspectives on an ongoing basis. For this Facilities Master Plan, detailed assessments have been conducted by experts in structural engineering, green design, and institutional portfolio management. These evaluations establish a baseline from which OUSD can measure the potential of future projects to make sites and buildings safer, code compliant, and sustainable.

Other assessments come from building users, teaching specialists, and community partners. Ongoing communication and collaboration with regional networks, school communities, and partner organizations are critical to the long term success of this Facilities Master Plan. Part of this plan is to introduce a cycle of ongoing assessment so that decisions about project scope meet the evolving needs of all involved with the District.

For this Facilities Master Plan, facility needs have been broken into three primary categories with an overall estimated budget of $1.5 billion:

- Full Service Community School Support
- Seismic Safety Enhancements
- Modernizations & Facility Upgrades

Needs Assessment
Full Service Community Schools Support

The strategy for the 2012 Facilities Master Plan is directed by OUSD’s strategic vision: Community Schools, Thriving Students: A Five Year Strategic Plan. The District’s goal is that, “All students will graduate from high school. As a result, they are caring, competent, and critical thinkers, fully-informed, engaged, and contributing citizens, and prepared to succeed in college and career.” To support this objective, the mission of the District is thus, “To create a Full Service Community District that serves the whole child, eliminates inequity, and provides each child with excellent teachers for every day.”

From a facilities perspective, advocating this vision means supporting community access to sites, preparing school facilities for non-traditional uses, and supporting educational programs with reconfigurations and renovations.

Wrap-Around Services & Community Partnerships

As Oakland Unified transitions into a Full Service Community District, each school will increasingly collaborate with community-based organizations, city services, and other partners. Supporting these community schools require some changes to facilities, including extended open hours, allowing access to certain rooms and buildings while the rest of a campus is secured, and new spaces designed with special attributes and amenities. These spaces include:

- Dedicated space for Early Childhood Education (Pre-K & Transitional-K)
- Extra storage for after school programs
- Private rooms for family counseling
- Clinics for school health centers
- Evening access to sports and athletics fields
- Garden sheds
- Community kitchens
Access to nutritious, healthy food is critical for the success of students at school. The Facilities Master Plan supports the “Rethinking School Lunch” Nutrition Services Master Plan as well as the creation of gardens where students can learn about and grow nutritious foods.

The Nutrition Services Master Plan, discussed in more detail on page 44, focuses on, “Nutrition Services facilities, since inadequate facilities [are] a primary obstacle to realizing the District’s vision for school food in Oakland.” These facility upgrades include a new green central kitchen, upgrades to existing school kitchens, and creation of community kitchens around the District.

Support for educational programs comes in different forms, depending on the specific needs of each school. Understanding program needs and responding to those needs appropriately requires ongoing dialogue between school administrators, teachers, and facility planners.

STEM programs integrate disciplines that have previously been taught separately into a unified, technology-leveraged curriculum. These classes work best in innovative classrooms that can serve a variety of functions. In some cases, conversion of traditional classrooms to STEM classrooms may require architectural renovations, but in many cases, alternate furniture and fixtures are enough to transform a learning space.

STEM facilities should have infrastructure to accommodate evolving technologies — rather than simply what is new today — so that they can remain effective for many years.
Linked Learning & Academy Models

Linked learning, which establishes technically-focused pathways to fields such as engineering, art, and medicine, requires specialized facilities for career training. These specialized facilities may be shared by multiple schools, and the regional zone approach offers a structure by which facility enhancements at a shared site within a region may improve the educational opportunities for students at neighboring schools.

Special Education

As special education classes increasingly mesh with general education classes, there is a growing need for classrooms that are universally accessible to those with special needs. The District must also ensure that accessible restrooms, dining, and computing resources are readily available. Beyond the physical adjustments needed for students with limited mobility, universal access includes provision of power and electronics infrastructure for modern support technologies.

Information Technology

All OUSD facilities need the digital infrastructure to support state-of-the-art technology in the classroom. Depending on the school, this may mean dedicated computer labs, computers and internet access in each classroom, or storage for mobile computing carts. Each school’s pedagogical approach will dictate the most appropriate IT set-up.

With input from teachers, computing specialists, and OUSD Information Technology services, Facilities Planning & Management has developed a set of protocols (page 50) to ensure that campus facilities are supporting computing and information technology for education.
Quality Community School Development

As part of the District’s ongoing implementation of School Quality Review, the Quality Community School Development (QCSD) group can recommend adjustments to school programs. Facilities Planning & Management is committed to these efforts to support quality schools.

Grade Expansions

When a school program expands from K-5 to K-8, or 6-8 to 6-12, there is a corresponding increase in capacity requirements as well as a need for age-appropriate amenities. For example, most middle schools need larger-scale athletic facilities for sports, and high schools need science labs with more sophisticated equipment.

Transformations

Other transformations, such as the consolidation of multiple schools onto a single site or the relocation of a school from one site to another, have associated facility adjustments. Facilities Planning & Management will coordinate closely with QCSD to anticipate and manage facility concerns associated with these transformations.

Needs Assessment
Seismic Safety Enhancement

No OUSD building, in its present condition, poses an imminent hazard. All buildings in the Oakland Unified School District conform to state building codes and have been approved by the California Division of the State Architect (DSA). Nonetheless, advances in structural engineering now allow the District to implement seismic safety enhancements on many of OUSD’s older buildings.

California Building Code Compliance

All buildings meet the regulatory (code) requirements. However, due to the improved understanding of building performance in earthquakes over the last two decades and lessons learned from major seismic events, California’s engineers and DSA — the body responsible for reviewing school construction — have continually improved the seismic design methods and requirements. Thus, OUSD has taken the initiative to evaluate all of its holdings and select buildings are being identified for seismic retrofit work.

AB300

In 2002, the DSA released the AB300 report sharing the results of a “paper” analysis of the State’s K-12 facilities, which identified buildings that are potential risks based on geographic location and building age. Inclusion in this report did not mean that a building was an imminent hazard, but that further detailed evaluation should be performed. The report highlights that there is a significant state-wide building portfolio which is vulnerable to seismic events. OUSD currently has 71 buildings included on this list after updating for accuracy.

Vulnerability Assessment

In 2011, ZFA Structural Engineers conducted a district-wide survey of all permanent OUSD structures to validate AB300 findings and assess overall seismic vulnerability. The findings suggested that the majority of OUSD’s buildings have a low seismic vulnerability. Unfortunately, some of the buildings determined to have a higher seismic vulnerability are larger structures.

Based on initial assessments of the structures in the building inventory, buildings have been assigned a ranking which fall in the following categories:

- Low Seismic Vulnerability: poses a lower seismic risk; likely to achieve Life Safety through a structural collapse prevention performance objective
- Moderate Seismic Vulnerability: poses a moderate seismic risk level between low and higher ratings
- Higher Seismic Vulnerability: poses a higher seismic risk; unlikely to achieve Life Safety through a structural collapse prevention performance objective

A building’s ranking is generally determined by the following criteria, which includes factors such as structural systems and date of construction, although...
assignments for buildings have and may be further modified based on more detailed assessment.

Low Seismic Vulnerability:
1. Wood-framed buildings, less than 2 stories and no “long span” conditions
2. Buildings built after 1984

Moderate Seismic Vulnerability:
1. Wood-framed buildings over two stories
2. Steel-framed buildings – two stories and under
3. Concrete shear wall buildings with rigid diaphragms, built after 1978

Higher Seismic Vulnerability:
1. Steel-framed buildings – three stories and above
2. Concrete shear wall buildings with rigid diaphragms, built before 1978
3. Concrete shear wall buildings with flexible diaphragms
4. Concrete moment-resisting (de facto or not)
5. Precast concrete buildings
6. Masonry buildings

Seismic Retrofit Implementation

The District has begun seismic retrofit projects on five buildings at three campuses with the work expected to be completed during the summer of 2012. The projects are eligible for Proposition 1D funding, and the construction cost to the District is offset by matching funds from the State.
Modernizations & Facility Upgrades

More than half of OUSD's buildings are older than 50 years, and all buildings require periodic modernization to continue to operate at a high level of performance.

Although modernizations and facility upgrades are focused on “bricks and mortar” issues dealing with sites' physical condition, they also support a school’s ability to serve as a Full Service Community School. For example, more advanced security systems may facilitate after-school use of key rooms and better functioning plumbing enables more types of community use.

Building System Upgrades

The 2004 Facilities Master Plan and Measure B helped repair schools with the most critical needs, but many schools require additional projects to sustain high performance for coming years. Some of the simplest types of upgrades are the most critical to school facility performance. These kinds of projects include:

- Heating/ventilation/air conditioning systems (HVAC)
- Roofing/waterproofing
- Plumbing
- Electrical
- Accessibility upgrades
- Technology infrastructure
- Security systems
- Fire alarm upgrades

Portable Reductions

OUSD has 680 portable classrooms, 21% of the total number of classrooms in the district. Although many teachers have adapted portables into effective learning environments, permanent buildings generally offer more efficient energy-use operation, and classrooms in permanent buildings usually have superior air, light and acoustic quality.
A long term goal of the District is to reduce its dependence on portables and focus investment on permanent buildings to support higher quality classrooms. To this end, the District plans to implement projects that include removing portable entirely or replacing them with permanent structures.

**Site & Grounds Upgrades**

Landscaping, paving, and the installation of site amenities like sun shades have traditionally been part of site and grounds upgrades, and where necessary, these types of needs will be addressed.

Over the last 10 years, however, educators have increasingly embraced gardens at schoolyards as educational tools for a variety of subjects. Additionally, gardens can be centers for community partnerships, and the management of many gardens is shared between partner organizations and the schools themselves.

Site and grounds upgrades will also address issues of community access. As Full Service Community Schools increasingly collaborate with partner organizations and neighborhood users, site improvements can address access and security concerns that emerge from evolving patterns of facility use.

Collaboration between Facilities Planning & Management and the distinct communities involved at each school will help the District develop a list of potential projects that are most needed by students, parents, teachers, and administrators.
Solar & Energy Efficiency

Solar and energy efficiency projects reduce resource consumption and help make Oakland a greener district. They also help reduce operational costs. Therefore, projects that address this need therefore provide an opportunity to use capital spending to reduce recurring annual expenses.

In partnership with the HELiOS Project, which assesses solar suitability for school districts with support from the US Department of Energy, OUSD has developed a Solar Master Plan that identifies sites ideal for solar projects based on environmental conditions, school energy use patterns, and eligibility for state funding through the California Solar Initiative.

Energy efficiency projects also include efforts to reduce energy consumption, such as the installation of window shades, insulation, and automated control systems that optimize heating and cooling to reduce waste.

Light Pollution Reduction

Facilities projects will also strive to reduce light pollution by incorporating designs and technologies that minimize light trespass beyond the building site. Implementing sustainable lighting design reduces energy use, limits the negative impact on school site neighbors, and improves the view of the night skies.
Improve Utilization of Underused Assets

OUSD’s administrative functions are conducted in the central administration building at 1025 Second Avenue and satellite offices around the district. In most cases, the administrative offices are adapted ad hoc from spaces designed for other uses – often former school sites.

From a real estate perspective, some of these administrative sites lie upon the District’s most valuable holdings. Following the Board of Education’s priority that facilities be effectively utilized in service of children, youth, and their families, the Facilities Master Plan includes direction to pursue opportunities that leverage eligible, revenue-generating properties to support district finances.

Initial steps to improve the utilization of these underused assets consists of three primary components:

1. Identify underused assets that have market value.
2. Relocate district activities from these sites and lease, sell or pursue alternate uses through lease-lease-back arrangements or similar agreements.
3. Develop a long-term strategy for housing administrative staff that supports key adjacencies and provides facilities for decentralized functions (such as parking.)

Reutilization projects should consider demographic and enrollment projections – OUSD must retain the flexibility to accommodate growing student populations across the district. In every case, projects involving alternate property uses must directly or indirectly support the OUSD strategic vision for a Full Service Community District.
Nutrition Services Master Plan

Together with the Center for Ecoliteracy, OUSD Nutrition Services has produced a report, *Rethinking School Lunch Oakland*, that charts a new future for school food in the district. The plan addresses “ten interrelated dimensions of school food operations, including facilities, finances, food and health, wellness policy, teaching and learning, the dining experience, procurement, waste management, professional development, and marketing and communications.”

Regarding facilities, the biggest needs of the Nutrition Services Master Plan are a new central kitchen, improved on-site kitchens, and community kitchens with public access to school facilities.

The largest single project would be the creation of a new Central Commissary. Currently, three Central Kitchens prepare 73% of the district’s meals — a total of 6.6 million meals a year; they cook and package lunches and breakfasts that are then transported and reheated in cabinets at other sites. As stated in the *Rethinking School Lunch Oakland* report, “the chief Central Kitchen, at Prescott Elementary School, was designed to serve 8,000 meals a day [and] is currently preparing 20,000.” In addition to handling a larger volume of meals than they were equipped for, many of the Central Kitchens have old and nonfunctional equipment that are in need of replacement.

The construction of a new Central Commissary would eliminate the need to renovate a large number of existing kitchen facilities and cut operational costs by enabling food deliveries to be made to a single location.

The *Rethinking School Lunch Oakland* Nutrition Services Master Plan also recommends transforming 17 kitchens to facilitate on-site preparation, the creation of 14 community kitchens where the public can use school cooking facilities, and the upgrade of 58 finishing kitchens to higher standards than they currently meet. In addition, there are plans to develop a 1.5 acre District Farm/Garden next to the Central Commissary.

Source: Center for Ecoliteracy, http://ecoliteracy.org
“School food reform is not separate from school reform; it’s part of the basic work we have to do in order to correct systematic injustice, pursue equity, and give our children the best future possible. We are committed to building a school district that provides quality education and equitable outcomes for all children — and to make this goal a reality, we have to create conditions that allow children to grow and to learn at high levels. This starts with taking care of our students’ most basic needs, such as nutrition, so they can develop and reach their full potential.”

- Superintendent Tony Smith

Source: Center for Ecoliteracy, http://ecoliteracy.org
Summarized Project List

Some project types are defined by specific buildings and sites, such as seismic safety upgrades and photovoltaic panel installations supported by the California Solar Initiative. Other project types, such as roofing, heating, security system upgrades, portable replacements or community kitchens, have a set scope within each region and at each grade level — prioritization of specific sites within each region and grade level will take place through a cycle of ongoing evaluation.

This page summarizes all types together to show the potential scope of all projects that would address needs identified throughout the District.

total estimated cost: $1.5 B

Full Service Community Schools Support

Includes Quality School Developments projects, Childhood Development Center replacements, Health Centers, and specialty classrooms.

<table>
<thead>
<tr>
<th>Level</th>
<th># of Projects</th>
<th>Budget</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary School Sites</td>
<td>9</td>
<td>$129,300,000</td>
<td># of projects based on number of schools affected</td>
</tr>
<tr>
<td>Middle School Sites</td>
<td>4</td>
<td>$65,000,000</td>
<td>aggregated with HS building system upgrades</td>
</tr>
<tr>
<td>High School Sites</td>
<td>0</td>
<td>*</td>
<td>** exact # dependent on programmatic decisions</td>
</tr>
<tr>
<td>Other (CDCs, Health Clinics, etc...)</td>
<td>33**</td>
<td>$55,500,000</td>
<td></td>
</tr>
<tr>
<td>STEM</td>
<td>6**</td>
<td>$200,000,000</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>52</td>
<td>$449,800,000</td>
<td></td>
</tr>
</tbody>
</table>

Seismic Safety Enhancements

<table>
<thead>
<tr>
<th>Level</th>
<th># of Projects</th>
<th>Budget</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary School Buildings</td>
<td>37</td>
<td>$118,800,000</td>
<td># of projects based on number of buildings retrofit</td>
</tr>
<tr>
<td>Middle School Buildings</td>
<td>32</td>
<td>$103,200,000</td>
<td></td>
</tr>
<tr>
<td>High School Buildings</td>
<td>42</td>
<td>$111,000,000</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>111</td>
<td>$333,000,000</td>
<td></td>
</tr>
</tbody>
</table>
### Building System Upgrades
Includes modernizations, roofing, heating, security, and automation controls projects.

<table>
<thead>
<tr>
<th>Level</th>
<th># of Projects</th>
<th>Budget</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary School Buildings</td>
<td>157</td>
<td>$233,600,000</td>
<td>Potential projects at all sites and buildings</td>
</tr>
<tr>
<td>Middle School Buildings</td>
<td>81</td>
<td>$120,500,000</td>
<td></td>
</tr>
<tr>
<td>High School Buildings</td>
<td>67</td>
<td>$99,700,000</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>305</td>
<td>$453,900,000</td>
<td></td>
</tr>
</tbody>
</table>

### Nutrition Services Master Plan
Includes renovation of school kitchens, creation of new community kitchens, and new central commissary.

<table>
<thead>
<tr>
<th>Level</th>
<th># of Projects</th>
<th>Budget</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooking Kitchen Renovations</td>
<td>18</td>
<td>$10,500,000</td>
<td></td>
</tr>
<tr>
<td>New Community Kitchens</td>
<td>14</td>
<td>$14,000,000</td>
<td></td>
</tr>
<tr>
<td>Central Kitchen (at Foster campus)</td>
<td>1</td>
<td>$19,100,000</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>33</td>
<td>$43,600,000</td>
<td></td>
</tr>
</tbody>
</table>

### Portable Replacement
Projects defined as portables removed.

<table>
<thead>
<tr>
<th>Level</th>
<th># of Projects</th>
<th>Budget</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary School Sites</td>
<td>94</td>
<td>$83,100,000</td>
<td></td>
</tr>
<tr>
<td>Middle School Sites</td>
<td>47</td>
<td>$41,500,000</td>
<td></td>
</tr>
<tr>
<td>High School Sites</td>
<td>63</td>
<td>$55,400,000</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>204</td>
<td>$180,000,000</td>
<td></td>
</tr>
</tbody>
</table>

### Site and Grounds Upgrades
Includes athletic fields, paving, playgrounds, and gardens.

<table>
<thead>
<tr>
<th>Level</th>
<th># of Projects</th>
<th>Budget</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary School Sites</td>
<td>35</td>
<td>$17,000,000</td>
<td>Estimated number of projects based number of sites requiring upgrades</td>
</tr>
<tr>
<td>Middle School Sites</td>
<td>9</td>
<td>$7,000,000</td>
<td></td>
</tr>
<tr>
<td>High School Sites</td>
<td>6</td>
<td>$10,000,000</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>54</td>
<td>$34,000,000</td>
<td></td>
</tr>
</tbody>
</table>

### Solar & Energy Efficiency
Projects defined at the site level.

<table>
<thead>
<tr>
<th>Level</th>
<th># of Projects</th>
<th>Budget</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary School Sites</td>
<td>21</td>
<td>$14,700,000</td>
<td></td>
</tr>
<tr>
<td>Middle School Sites</td>
<td>16</td>
<td>$19,400,000</td>
<td></td>
</tr>
<tr>
<td>High School Sites</td>
<td>9</td>
<td>$17,700,000</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>46</td>
<td>$52,000,000</td>
<td></td>
</tr>
</tbody>
</table>

### Improve Utilization of Underused Assets
These cost-neutral or revenue generating projects are not included in the pie chart. Projects at inactive sites TBD.

<table>
<thead>
<tr>
<th>Type</th>
<th># of Projects</th>
<th>Budget</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrative Sites</td>
<td>4</td>
<td>-$10,000,000 (revenue)</td>
<td></td>
</tr>
<tr>
<td>Community access to active sites</td>
<td>70</td>
<td>$4,000,000</td>
<td></td>
</tr>
<tr>
<td>Alternate use for inactive sites</td>
<td>TBD</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>74</td>
<td>-$6,000,000 (revenue)</td>
<td></td>
</tr>
</tbody>
</table>
Appendices
Information Technology Protocols

General Purpose Room

- 4-5 drops with 2 electrical plugs per drop along 3 walls WITHOUT whiteboard
- 1 drop with 2 electrical plugs along 1 wall WITH whiteboard
- Electrical power for up to 15 computers with LCD screens
- Wireless access for specialty rooms e.g. science labs

Computer Lab

- 4-5 drops with 2 electrical plugs per drop along all 4 walls
- Electrical power for up to 36 computers with LCD screens
- Optional: sub-floor electrical power and jacks throughout room for flexible computer arrangements

Library

- Drops and electrical power for up to 15 computers with LCD screens
- Optional: sub-floor electrical power and jacks for flexible computer arrangements

Office

- Support for VOIP phones

Servers & School-wide I.T. Infrastructure

- Conveniently located wireless access point shelf
- Well-ventilated wiring closet; should support no more than 3 servers

Mobile Laptop Carts

- Built-in charging capabilities
- Wireless access
- Secure, accessible storage room on every floor
Site-Based Outreach & Engagement Protocols

The Facilities Master Plan will introduce a standard project engagement protocol to guide facilities staff and school communities in effective collaboration on specific projects.

By implementing this protocol, community stakeholders will have a clear understanding of project goals, timelines, and opportunities to provide their input.

PROJECT ENGAGEMENT PROTOCOL

<table>
<thead>
<tr>
<th>Projects such as:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Modernization and Facility Upgrades</td>
</tr>
<tr>
<td>• Portable Replacements</td>
</tr>
<tr>
<td>• Solar and Energy Efficiency Projects</td>
</tr>
<tr>
<td>• Seismic Safety Enhancements</td>
</tr>
<tr>
<td>• Site Optimization for School Program Projects</td>
</tr>
</tbody>
</table>

Appendices 53
For more information, updates, and an online survey to provide your input:

www.ousd.k12.ca.us/facilitiesplan