La Habra City School District

21st Century Vision for Learning Spaces – Study Session

February 28, 2013

Work Study Objectives

- Recap Phase 1 improvement goals

- Present status update on proposed roofing package, surveyor selection and pending contract approval, and E-Rate application and contractor response

- Review vision for District technology implementation including trends demonstrating the critical need for integrating new devices as well as major research findings

- Present proposed Middle School Academy Vision to address needs of 21st Century learning spaces

- Discuss draft educational specifications

- Review funding sources and uses established by the District's Facilities Assessment & Implementation Plan

- Review next steps and project schedule milestones to be incorporated into the District's Master Schedule

Phase 1 Goals

- Phase 1 projects were established via a community process and incorporated into the Facilities Assessment & Implementation Plan prepared in February, 2012 and adopted by the Board of Trustees in July, 2012

- Phase 1 improvements primarily include reconfiguration and modernization of middle school facilities to support the District's Academy-focused educational program

- These Academies are a visual sign to the community of the physical and academic improvements to District schools and will help stimulate growth in the District's Average Daily Attendance (ADA)

- Improvements may also allow the District to capture additional homeschooled students, enhance GATE program activities and resources, and support more individualized instruction

- Each Academy site will receive an improved Academy Center, improvements to select learning spaces (e.g. classrooms, lab facilities, art/engineering studios, etc) and an improved entrance

- Phase 1 also includes a dedicated source of funds for critical roofing upgrades, deferred maintenance, energy management improvements, technology devices and infrastructure

Roofing Project

- The District's Director of Maintenance, Operations, and Facilities, with support from CFW, has completed a survey of roofing conditions that includes:

  - ✓ Site walks and roofing inspection to prioritize critical infrastructure repair needs

  - ✓ Assessment of CMAS (California Multiple Award Schedule) products from roofing manufacturers for standardized prices which have been assessed to be fair, reasonable and competitive

  - ✓ Establishing project components to meet CMAS contract requirements

- Roofing system projects require installation of a standing seam metal roof at sloped areas and membrane roofing at flat areas

- Existing roofing, flashing, gutters, and downspouts will be removed and replaced, roof structures will be repaired where needed, and new crickets/tapered insulation will be provided where needed

- The Plan budgeted $875,000 for Phase 1 roofing improvements; this will supply approximately 52,000 square feet of new or improved roofing systems

- District Standards and a CMAS bid proposal will be presented to the Board March 12 and the final bid package will be presented for Board approval March 28 in order to allow for this project to initiate work during the District's April 6-14 spring break

Roofing Schedule

- A Roofing Project schedule will be incorporated into the District Master Schedule

- Project work will take place in two phases to minimize disruption to school facilities and includes construction during the District's spring and summer breaks

ID	Task Name	Duration	Start	Finish	Predec
1	Finalize Roofing manufacturer	1 day	Fri 2/22/13	Fri 2/22/13	
2	Complete standard Specifications for District Standards	5 days	Mon 2/25/13	Fri 3/1/13	1
3	Complete CMAS material package	5 days	Mon 2/25/13	Fri 3/1/13	1
4	Finalize Budget	5 days	Mon 2/25/13	Fri 3/1/13	1
5	Assemble Board package	1 day	Mon 3/4/13	Mon 3/4/13	2,3,4
6	Transmit Board package to District	1 day	Tue 3/5/13	Tue 3/5/13	5
7	Assemble Bid Documents	8 days	Mon 3/4/13	Wed 3/13/13	4
8	Set up advertisement for Roofing projects	3 days	Tue 3/5/13	Thu 3/7/13	5
9	Present District Standards and CMAS proposal to Board	1 day	Tue 3/12/13	Tue 3/12/13	8
10	1st Bid publication	1 day	Thu 3/14/13	Thu 3/14/13	9,7
11	2nd Bid Publication	1 day	Thu 3/21/13	Thu 3/21/13	10
12	Bid Opening	1 day	Tue 3/26/13	Tue 3/26/13	11
13	Bid Analysis	1 day	Wed 3/27/13	Wed 3/27/13	12
14	Board meeting to approve Roofing Bid Package	1 day	Thu 3/28/13	Thu 3/28/13	13
15	Notice of Award from District to Roofiing Contractor	3 days	Fri 3/29/13	Tue 4/2/13	14
16	Phase 1 construction (Spring Break, April 6-14)	5 days	Mon 4/8/13	Fri 4/12/13	15
17	Phase 2 construction (Summer Break, June 8 - August 121)	50 days	Mon 6/10/13	Fri 8/16/13	16
18	Close-Out	20 days	Mon 8/19/13	Fri 9/13/13	17

Surveyor & E-Rate RFPs

- CFW prepared and advertised a Request for Proposals ("RFP") for land surveying services necessary to prepare initial project documents at the District's middle schools

- A total of 16 firms requested RFP documents, four responses were received by the February 8 response deadline, and two of these responded adequately to all required documentation; based on sufficient experience with similar projects, the District and CFW made a recommendation to accept the proposal from Penco Engineering to complete required surveying work

- CFW will assist the District's staff to finalize the required contract for Board action at its March 12 meeting

- CFW also assisted District staff to assemble RFPs for services to upgrade wired and wireless internet at the middle schools, pursuant to the Federal E-rate grant program

- The associated RFPs were published February 8, a mandatory job walk was held February 22, and proposal responses are due to the District on March 11 at 9am

- E-rate grant applications must be submitted by March 15, and accordingly a recommended firm will be brought to the Board for approval at its March 12 meeting

Technology Vision

- The technology implementation effort will provide improvements consistent with the three core goals identified by the District's Plan:
  - ✓ Support academic achievement goals
  - ✓ Maximize technology expenditures covered by Measure "O" bonds and enhance the sustainability of the General Fund
  - ✓ Use technology to transform the functionality of school sites
- In support of this vision, the technology program will provide La Habra students with the digital tools to support learning and academic achievement while engaging students in a collaborative learning environment

"The future is here. It's just not widely distributed yet."

- William Gibson

"We are preparing students for jobs that don't yet exist

...using technologies that haven't been invented

...to solve problems we don't even know are problems yet."

- Former U.S. Secretary of Education, Richard Riley

Change in Learning Environment

- Changes to the learning environment are challenging long held beliefs in education about the function of classrooms and traditional approaches to learning:

> "The world potential market for copying machines is 5000 at most."
> – IBM to the founders of Xerox, 1959

> "Who the hell wants to hear actors talk?"
> – H.M. Warner, Warner Brothers, 1927

> "The phonograph has no commercial value at all."
> – Thomas Edison, 1880s

> "We don't like their sound, and guitar music is on the way out."
> – Decca Recording Co, rejecting the Beatles, 1962

Our Own Cherished Beliefs…

- Hour-long classes & seat time requirements
- Students grouped by age
- Paper textbook as primary supplement
- Limited testing feedback and reports (midterm and final)
- Lecture-based teaching

Source: Federal Communications Commission

Change in Learning Environment

- New technologies have dramatically changed the expectations for learning environments and now transform the capabilities as well as uses of traditional classroom spaces

- The following comparisons further illustrate changing needs:

  - ✓ The design of schools today versus the design of schools in 1950

  - ✓ The older technology in computer labs versus the newer technology in our pockets

  - ✓ The technology in the "cloud" versus the technology in our pockets

Change in Learning Environment

- Today's students expect to be able to create, consume, edit, and share information with others instantly; the average teen:

  - ✓ Is a Digital Native (life = technology)
  - ✓ Sends 2,272 texts per month
  - ✓ Watches 16.5 hours of TV per week
  - ✓ Spends 5.5 hours each week on the computer
  - ✓ Plays games for 3.5 hours per week
  - ✓ Prefers texting, IM, and blogs over e-mail

- Yet most 21st century learners receive a 20th Century Education

  - ✓ 76% of teachers have never used wikis, blogs, or podcasts in their classroom
  - ✓ 63% of teachers have never allowed students to create something new with technology
  - ✓ 61% of teachers have never used digital storytelling

"Our current expectations for what our students should learn in school were set fifty years ago to meet the needs of an economy based on manufacturing and agriculture. We now have an economy based on knowledge and technology"

- Bill Gates

Research Findings

The Horizon Report

The Horizon Report, a 2012 nationwide study of technology transformation in school districts indicates six common factors of change:

1. Education paradigms are shifting to include **online learning**, hybrid learning and collaborative models

2. The abundance of resources and relationships made easily accessible via the Internet is increasingly challenging us to **revisit our roles** as educators

3. As the cost of technology drops and school districts revise and open up their access policies, it is becoming increasingly common for students to **bring their own mobile devices**

4. People expect to be able to work, learn, and study **whenever and wherever** they want

5. Technology continues to profoundly affect the way we work, collaborate, communicate, and **succeed**

6. There is a new emphasis in the classroom on more challenge-based, **active learning**
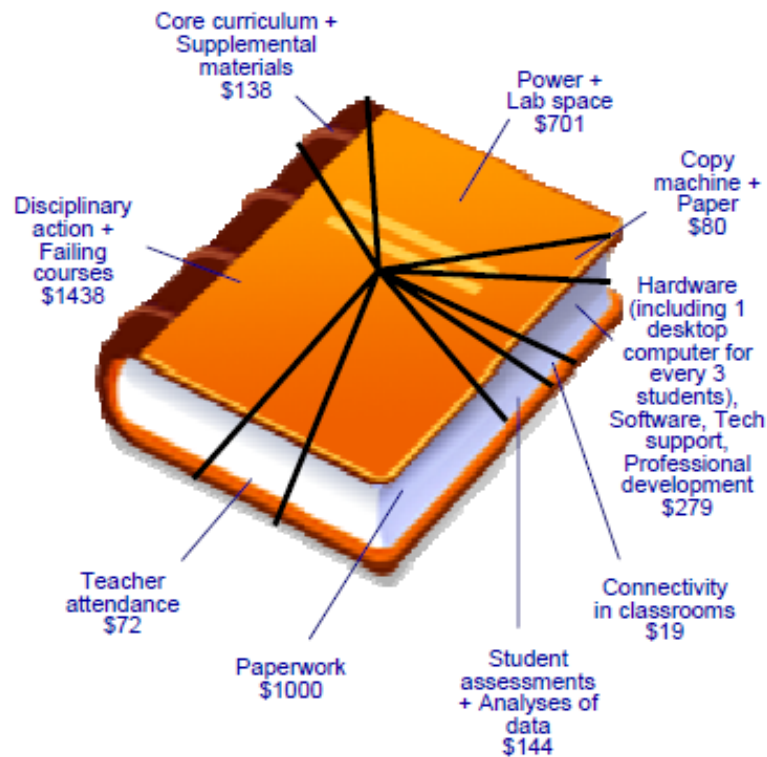
Project RED Report

Project RED, a 2010 nationwide study of school districts implementing 1:1 technology programs, identifies an average cost savings of $456 per student per year:

Cost savings (per student per year)	
Reduced dropout rate	$30
Increased teacher attendance	$13
Reduced copy machine/printing cost	$40
Computer-based formative assessments	$44
Administrative paperwork reduction	$95
Decreased disciplinary actions	$20
End-of-course failures	$107
Use of online or digital classroom materials	$31
Use of digital textbooks	$17
Online professional development	$17
Power savings over desktops	$16
Space savings	$15
More efficient data collection	$11
Total	**$456**

Research Findings

TODAY'S DIGITAL CONVERSIONS TO A 1:1 TABLET + MOBILE ON THE DEVICE

TRADITIONAL LEARNING: $3,871/student/year

- Core curriculum + Supplemental materials $138
- Power + Lab space $701
- Copy machine + Paper $80
- Disciplinary action + Failing courses $1438
- Hardware (including 1 desktop computer for every 3 students), Software, Tech support, Professional development $279
- Teacher attendance $72
- Connectivity in classrooms $19
- Paperwork $1000
- Student assessments + Analyses of data $144

* Source: Chapter 9 of the Project RED report, The Technology Factor: Nine Keys to Student Achievement and Cost Effectiveness

NEW LEARNING : $3,837/student/year

- Core curriculum + Supplemental materials $90
- Power + Lab space $670
- Copy machine + Paper $40
- Disciplinary action + Failing courses $1311
- Hardware (including 1 tablet for every student) + Software + Tech support + Professional development $375
- Teacher attendance $59
- Connectivity in classrooms + Mobile on the device $263
- Paperwork $940
- Student assessments + Analyses of data $89

* Source: Project RED report data was used for all estimates except the cost of tablets, which we estimate at $250 per tablet, and the cost of Mobile on the device, which we estimate at $18/month.

Source: Federal Communications Commission

Desired Outcomes

Student Achievement

- Prepare students for tomorrow's workforce
- Increased engagement/interest
- Close the achievement gap
- Increase equity/access to tech

Classroom Transformation

- Online assessments
- Extend learning beyond classroom walls
- Support differentiated instruction
- Increased student ownership

Operational

- Structures/orders technology costs
- Digital textbooks
- Cost associated with: paper, copying, etc.

Policy Considerations

- In 2012, the U.S. Department of Education unveiled a five-year strategy to transition American schools to digital textbooks

- Adoption of Common Core Standards and implementation by the 2014-15 school year will require technology access improvements for project-based learning and online assessments

- The District has established a Technology Innovation Committee to coordinate its pioneering efforts to provide new digital learning tools throughout the district, ultimately seeking a one-to-one (1:1) learning environment in future years

- Measure "O" bond funds have been allocated to provide a portion of funds required, and may be used for certain equipment, hardware and infrastructure improvements, subject to bond counsel approval

- Additional funding from previous unspent bond proceeds, philanthropic events, and government subsidy programs such as E-Rate will be required to complete implementation

"Do we want kids walking around with 50-pound backpacks and every book in those backpacks costing 50, 60, 70 dollars and many of them being out of date?

Or, do we want students walking around with a mobile device that has much more content than was even imaginable a couple years ago and can be constantly updated? I think it's a very simple choice."

\- Secretary of Education
Arnie Duncan
Digital Learning Day
(February 1, 2012)

Academy Facility Vision

- The District's Plan allocates funding for improvements to campus entry and identification; these improvements immediately identify the unique and innovative approach of each Academy site to parents, students, and prospective transfers

- Upon entering **Washington Middle School** one may see:

  - ✓ Prominent signage welcoming you to "Washington Middle School: Technology Science and Math Academy"

  - ✓ Showcase displays of student "creations" as well as awards won by students who participate in regional math and science competitions

  - ✓ Wall mounted TV displays rotating pictures and video from student participation in these events

- Upon entering **Imperial Middle School** one may see:

  - ✓ Prominent signage welcoming you to "Imperial Middle School Academy of the Arts"

  - ✓ Wall mounted TV displays rotating video of student performances, art projects, music creations, and upcoming community events

  - ✓ Shelving and showcases displaying sculptures, paintings, drawings and photographs created by students

Academy Facility Vision

- At the center of the campus each site will provide an "Academy Center" (often and formerly known as a library) that serves as a statement of the exceptional educational program taking place throughout the campus as well as a demonstration to visiting parents

- When one enters this large open room, they first notice a huge flat display on the wall showing graphics, video, and audio from the topics being studied throughout the Academy; as a result, the room is noisy, active, and unlike a quiet library of the past

- Appropriate furniture – flexible and comfortable – is placed throughout and the large open physical spaces make the room feel bright and active; some students sit in stools along a "Technology Wall" as they read and share what they are learning


Open, bright environments

Use of flexible and comfortable furnishings

Avoid repeating 20th century library concepts

Academy Facility Vision

- A Resource Teacher (Teacher on Special Assignment) sits at an open and inviting table and facilitates learning and collaboration throughout the Academy Center, including:

  - ✓ Leading small group sessions on responsible computer use, safety, security, and information reliability (today's equivalent to a Dewey decimal lesson)

  - ✓ Preparing labs and structured activities for students who may only come to the school for a few hours each week in support of a homeschooling curriculum

  - ✓ Helping students make up tests, complete projects, and learn to use software to design, create, and manipulate digital works of art or engineering

- One to one workrooms provide a space for homeschooling meetings or student collaboration

- Hardbound books are on carts with wheels and the size of the collection has been reduced because students can access many books on their digital device

- Fixtures and finishings contribute to the Academy theme (e.g. sculptures, paintings, wall diagrams)
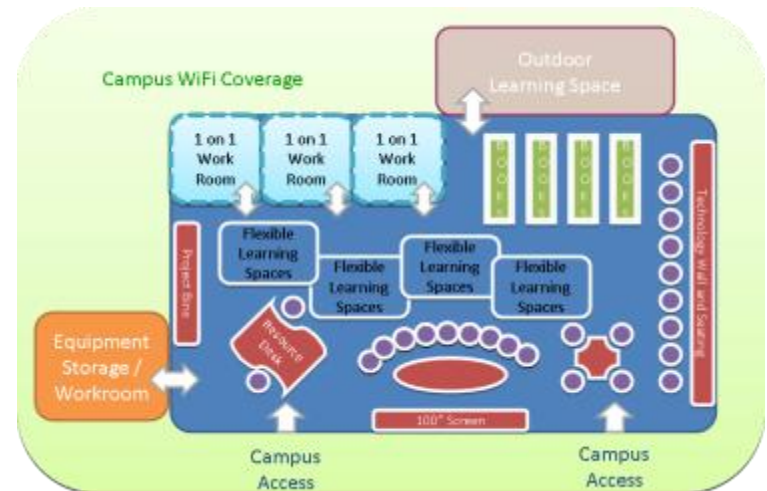
Academy Facility Vision

- Classroom improvements should focus on the furniture and equipment needs of a 21st century "learning space"

- Wireless connectivity allows every student to have simultaneous and uninterrupted access from any room; lab, art, or engineering spaces may be equipped with video displays and cameras that allow teachers and students to observe and interact with projects

- Furniture is flexible and modular, allowing for traditional settings as well as group collaboration

Examples of modern learning space furnishings

Educational Specifications

- The Board may wish to adopt criteria to guide the design and modernization of Academy facilities and other learning spaces in the form of updated Educational Specifications ("Ed Specs")

- Basic Ed Specs for facilities are required by Education Code sections 14001 and 14030, though school districts have wide latitude in the design of their schools as long as they adhere to certain quantifiable minimums for various school site attributes, including site acreage and classroom square footage

- Ed Specs outline essential educational concepts and detailed facility requirements so that the "form" of school facilities effectively follows the "function" required by the educational program

- These specifications help to anticipate activities and costs associated with the modernization of school facilities and provide direction to design team members

- A review of Ed Specs at similar K-8 districts has been conducted and a set of recommended specifications for 6-8 middle school sites has been drafted for the Board's review

- These Ed Specs are within 10% of State guidelines for comparably sized school facilities and summarize the approximate square footage required for various education uses

Educational Specifications

- Standard classrooms are typically 960 square feet, per State guidelines

- Traditional libraries may have more than 900 square feet prescribed for book stacks and textbook storage, though many schools throughout the State are repurposing these space requirements to more adequately reflect the digital learning environment

- An upgraded Art Room (Imperial) or Engineering Design Center (Washington) may incorporate an adjoining digital workspace for integration of high-tech applications

Draft Middle School Ed Specs

		Proposed		
		Sq. Ft.	Units	Total Sq. Ft.
Classrooms				
1	Standard Classroom	960		-
2	Special Ed/RSP	960	3	2,880
3	RSP	480	1	480
Academy Center				
4	Resource Desk	100	1	100
5	One to One Workrooms	100	3	300
6	Technology Wall	200	1	200
7	Storage Room	100	1	100
8	Flexible Learning Lounge	1,600	1	1,200
9	Book Stacks	600	1	400
10	Resource Wall	100	1	100
Science Labs				
11	Science Lab	1,300	1	1,300
12	Prep/Work Room	200	1	200
Academy Support Facilities				
13	Art Room or Design Center	1,200	1	1,200
14	Digital workspace	300	1	300
15	Work/Storage Rm	150	1	150

Sources and Uses

- Estimated Sources and Uses (Phase I – 2013-16):

Estimated Sources	Est. Amount	Total
Measure "O" GO Bond Issuance		
Series A (2013)	$ 6,275,425	
Est. Building Fund Interest	$ 25,430	
Less Cost of Issuance expenses	$ (90,092)	
Total Estimated Sources		**$6,210,764**

Estimated Uses	Est. Amount	Total
Technology Infrastructure & Devices	$ 1,600,000	
Roofing Project	$ 875,000	
Energy Management & Deferred Maintenance	$ 1,200,000	
Middle School Academy Facilities	$ 1,981,500	
Program Reserve/other projects*	$ 554,264	
Total Estimated Uses		**$6,210,764**

* Estimates establish minimum required cost and assume close adherance by design team to scope of work; program reserve to provide for expanded scope or unanticipated needs

Timeline of Next Steps

March 2013
- Board to approve contract for Surveyor Mar 12; surveys of Imperial and Washington to commence
- Board to approve E-rate proposals Mar 12
- Board to approve Ed Specs for Academy facilities, District Standards for materials and equipment
- Board to review master budget, schedule, and timeline to guide design and construction

April 2013
- Board to consider any changes and freeze final master budget schedule, and timeline
- Project detail package to be prepared and submitted for District's Architect
- District Architect to proceed with Schematic Design for Phase 1 projects

Mar. 2013 – Jun. 2013

Now – Jun 2013
- CFW to facilitate ongoing meetings with District to establish implementation program parameters
- CFW to assist District in identifying additional projects that do not require DSA (Division of the State Architect) approval and coordinate summer construction activities
- Semi-annual Citizens Oversight Committee meeting to be held late June

Note: The above program timeline is preliminary and subject to change.

Appendix:

Middle School Academy Center
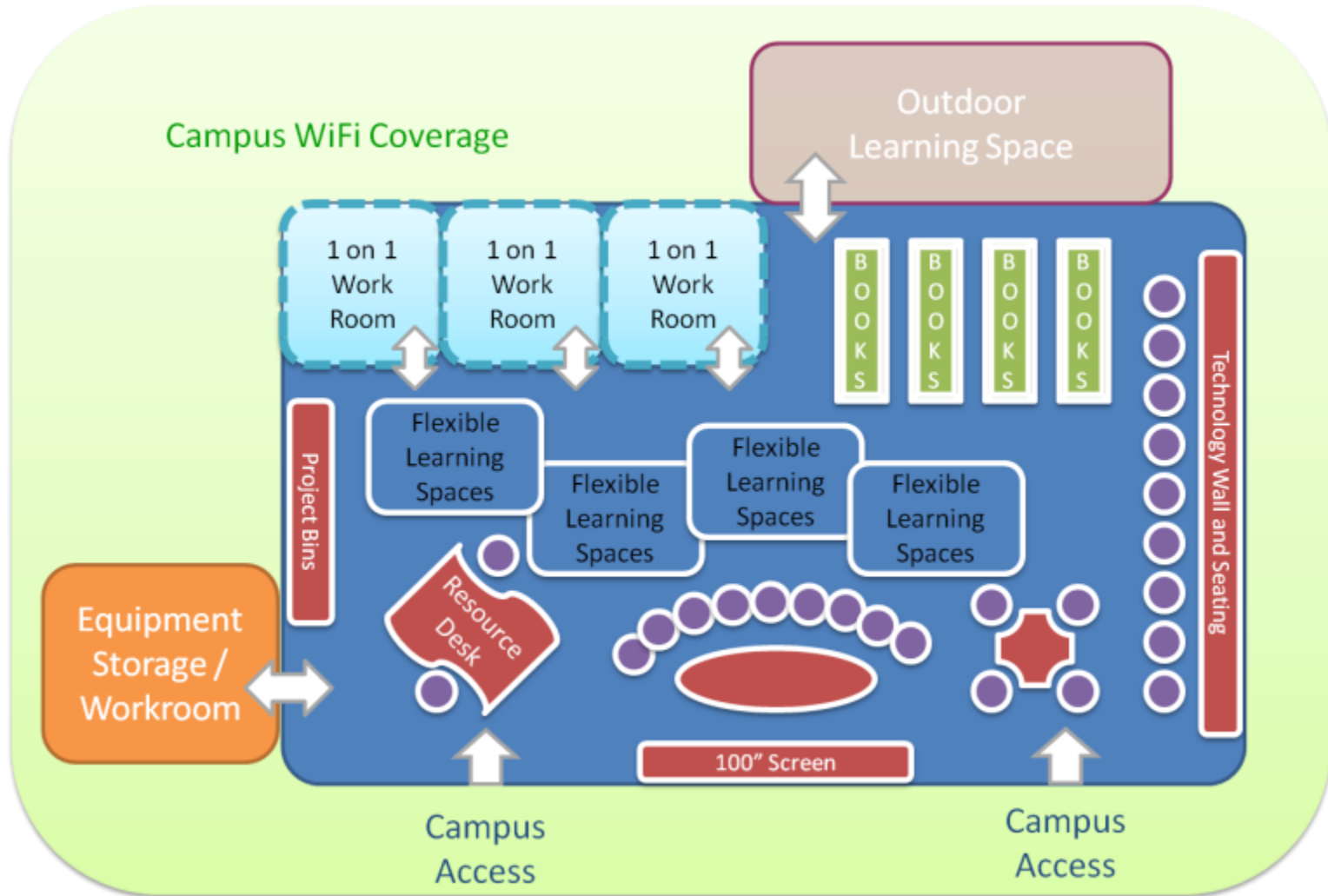
New Dana MS Media Center, Hawthorne

- Reduced size book stacks acknowledge transition to digital media

- Technology bar for quick access to information

Marysville Getchell HS, Marysville, Wa.

- 21st Century learning requires flexible, open, and comfortable learning spaces

Liechty MS Media Center, Los Angeles

- This is NOT a 21st Century learning space

- This space is a 20th Century room built in the 21st Century

Flexible Furnishings

Flexible Furnishings

Flexible Furnishings

Flexible Furnishings