



**PROGRAM VISION & STANDARDS | SECTION 4**

LPA

CREATING SUSTAINABLE PLACES AND SPACES THAT ENRICH THE LIVES OF THOSE WHO USE THEM

## 4.1 PROGRAM VISION & STANDARDS EDUCATIONAL PHILOSOPHY

### 21<sup>ST</sup> CENTURY LEARNING ENVIRONMENTS

Flexible and adaptable learning environments encourage teaching and learning that is responsive to the needs of the student and the instructor. These agile classrooms should be technology-rich and have flexibility in their configurations to allow for a variety of instructional methods and programs that promote the idea that learning happens everywhere.

AUHSD has adopted a philosophy that blends pedagogy, technology and space to create more interactive and flexible learning environments. Furniture will support quick transitions between lecture, team project, and discussion teaching modes for more active engagement. Design of technology will promote sharing, leveraging both vertical and horizontal surfaces for display using projection and interactive surfaces. The spaces will take advantage of new media, both personal and in-room technology, to allow quick ownership change for student and instructor to vary class requirements.

This philosophy supports greater personalized learning and collaborative, project-based instruction to greater align educational needs to relevant programs and facilities that prepare students to be college and career ready. The following strategies are included in this Master Plan:



### GENERAL CLASSROOMS

Space in a typical 960 SF classroom must be used effectively. Storage shall be mobile and lockable. New furniture shall be lightweight and agile, using stackable, movable, and/or collapsible tables to promote collaboration. The instructor work station will be smaller and not predetermined, with more than one ‘front’ of the classroom. With larger class sizes than the norm, these spaces should allow for 40 students in a variety of configurations within the existing infrastructure.

### LEARNING CENTER

A 1,330 SF Learning Center for RSP/MM faculty to work and hold meetings will be provided at each campus. As a result, only 2 JHS and 3 HS classrooms will be designated RSP/MM, as the RSP/MM student is mainstreamed with instructor support.

### SPECIAL EDUCATION

Specific classroom and support spaces have been programmed for the District special education programs including: LHS, SH, Autism, Bridges, Adult Transition, and ED programs. All other programs are mainstreamed and supported through the Learning Center.



### STEM/STEAM AND PROJECT-BASED INSTRUCTION

The District has a robust CTE Career Pathways program. Each of the 8 high schools define their specialty programs from the 13 pathways supported by the District, with additional support from ROP programs. Creating more adequately sized and designed space for these programs is necessary. The 8 junior high schools do not currently feed directly into specific programs at the high school. But all believe that more robust spaces designed to support the creation, exploration and construction of project based instruction in support of the STEAM initiative would enrich their existing programs. The educational specification has 6-8 proposed studios (varies based on enrollment) for each School to program based on their vision. This could allow for better future alignment in career pathway choice between the junior and high school environments.

### ILC (Independent Learning Center)

This successful educational model has been prototyped at Anaheim High School and will now be located at 7 AUHSD campuses. The ILC is the basis for the re-envisioned CDS and Polaris programs at the Trident Center.



# 4.1 PROGRAM VISION & STANDARDS EDUCATIONAL PHILOSOPHY

## 21st CENTURY LEARNING ENVIRONMENTS

### STUDENT UNION

Many AUHSD students arrive before school and stay late into the day for sports and after-school activities. The creation of a central collaborative space for students to access technology, create team projects, and socialize in a safe and protected environment was strongly desired. In support of these ideas, the Student Union would ideally be formed by co-locating the Library/Media Center, Student Dining and Nutrition Services and ASB. Given the existing infrastructure, the implementation of this idea varies greatly by School site.

### LEARNING COURTS

Educational schoolyards are a shift in the way we think about and use the gift of land on our AUHSD campuses. Learning happens everywhere, therefore the space between buildings must provide collaborative social space as well as usable instructional space for the student. Ecology, stormwater management and can also be used to demonstrate sustainable strategies based on scientific principles being taught in the classroom.

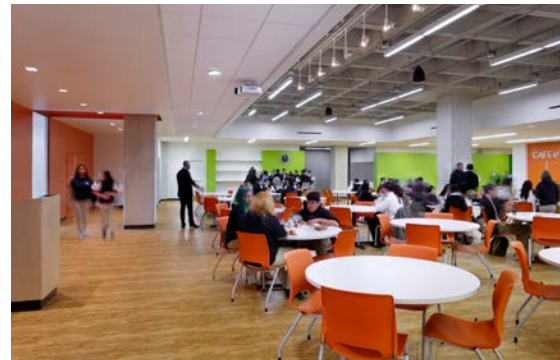
### LIBRARY/MEDIA CENTER + INNOVATION LAB

The new Library must support student collaboration and group work; private study; computing equipment; access to reserved material; content-creation tools; and support for the varied roles of the new librarian and IT support. Like the classrooms, the furniture landscape will be different and support the new zones of this more social 'ecosystem'. Traditionally AUHSD Schools have had 2 or more non-scheduled computer labs. With access to technology in every space, the Innovation Lab at the Library becomes the single non-scheduled space at each campus.

### NUTRITION SERVICES

Currently, the District's central kitchen prepares all the food and distributes to each school site for final preparation and distribution to students. Most campuses use either a 'speed line' or a multi-window queue, or a combination of the two. In most cases, the serving lines have taken the majority of space formerly used as the student cafeteria, creating a strong need for large lunch shelters, covered dining space, and/or expanded MPR's. Given the existing infrastructure, the implementation varies greatly by School site.

Given the role of the Central Kitchen to provide healthy and nutritious food for each campus, better facilities that meet health department standards must be part of the infrastructure.



## 4.2

## PROGRAM VISION & STANDARDS

### EDUCATIONAL PROGRAM STANDARDS

#### BACKGROUND

In 1994, California Department of Education (CDE) formalized regulations governing standards on the design and construction of new school facilities. Included in those standards are requirements for the submittal of educational specifications (Facility Standards) – see California Code of Regulations, Title 5, Section 14034. The requirements are delineated in the Education Code Section 39101 (c) and California Code of Regulations, Title 5, Section 1403 (a). Specific School design standards are contained in California Code of Regulations, Title 5, Section 14001, 14010 and 14030.

#### 2009 CDE Changes

In 2009, CDE added a Plan Summary form for those projects applying for new construction funds from the State Allocation Board for a new school or additions to an existing school. In July 2010, all Facility Standards were required to be approved by the District's governing Board and submitted to CDE as part of any application for funding.

#### PURPOSE OF THIS DOCUMENT

The purpose of Facility Standards are to ensure the following:

- **A Common Baseline**  
To guide a consistent approach in developing each school master plan proposed improvements.
- **Common Goals**  
To engage District stakeholders in a participatory process in developing their vision.
- **Outcome Focused**  
To serve to document educator's intent for program delivery and goals.
- **Equitable Quality**  
To be used for assessing existing facilities and budgeting project for a long term financial plan.
- **Continuous Improvement**  
As a tool for the reevaluation, adjustment and measurement of the plan over time.
- **Implementation**  
Even though this document represents a district-wide guideline, it is important that when these guidelines are implemented, that the administrators, faculty, students and community at each site are allowed to validate their site-specific program needs. If a school design team has suggestions on how to improve or tailor this document for their site-specific needs, these suggestions should be brought to the Facilities Department's attention prior to designing it. It is understood that the degree of consistency between the site-specific solutions and the district-wide educational specifications may vary from site to site.

Adjacencies shown in the diagrams following were determined for the ideal program placement but may vary from site to site based on existing conditions or programmatic specific solutions. Once projects are released to proceed into the next phase of design, a school site committee shall be formed to analyze the impact of site specific constraints and program specific needs. This analysis may result in solutions that deviate from the Educational Specifications described in this document. The design team should inform the Facilities Department of any significant deviations identified or proposed prior to the presentation of these solutions or options to the school site or committee members.

#### CONTENTS

Provided in this section are space programs for Junior High and High Schools. The programs identify the square footages that are used in the Master Plans and are used in determining area takeoffs for the cost estimates.

The purpose of the programs are to provide a guideline and basis of the master plan assumptions used in the proposed project recommendations for new construction or reconfiguration. The programs are based on an assumed school size in order to determine the adequate size of the core spaces such as the Administration, Library / Media Center, Multipurpose Room and other student support spaces.

## 4.2 PROGRAM VISION & STANDARDS EDUCATIONAL PROGRAM STANDARDS

These programs are to be used as a guideline and are not typical for each school. For specific site projects refer to the individual school master plan in Section 7. The Programs shown here are net areas only. Programs shown in Section 7 on the Summary page include a circulation factor on top of the net area.

Note that the Junior High School educational program standard depicted in the following pages reflects a **1,200** student program and the High School educational program standard depicts a **2,000** student program. Additional teaching spaces required in larger student programs have been reflected in the proposed master plans accordingly.

One of the main purposes of the Educational Program Standards is to describe clearly and concisely the various learning activities in each space, the spatial relationships and special features to support these activities. The following categories are described for each space program component described here in:

### A. Space Program

- Itemizes each space and allocates square footage figures for new construction and existing spaces proposed to be reconfigured
- These areas are goals and may not be achievable due to existing site conditions and building limitations

### B. Adjacency Diagram

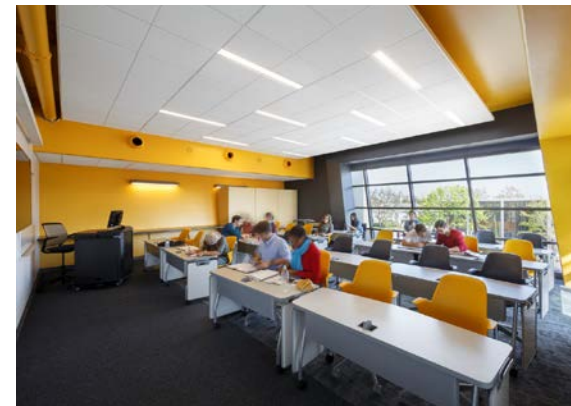
- Shows a graphic representation of the spaces and how they are organized as a group

### C. Program Activities:

- Provides a description of the functional goals of the space
- Describes types of activities and user needs
- Describes how the program is delivered and its schedule, if applicable

### D. Design Objectives:

- Describes specific room characteristics, general shape and feel of the space
- Correlates the qualities of the space with specific program activities

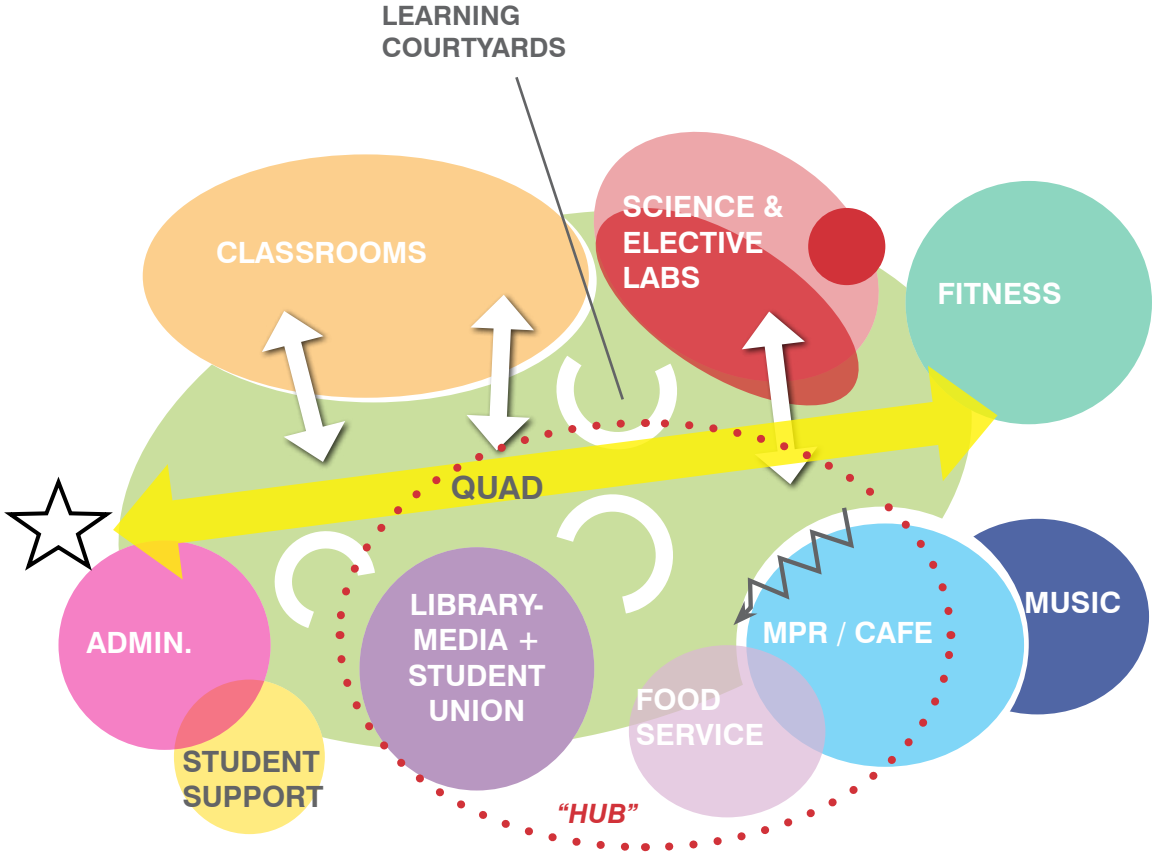


4.2

# PROGRAM VISION & STANDARDS EDUCATIONAL PROGRAM STANDARDS | JUNIOR HIGH

## CAMPUS PLAN

This graphic represents an ideal campus organization, based on input from the staff and administrators. During the master planning work, effort was made to reorganize / reconfigure existing spaces and construct new facilities to support this organizational layout.

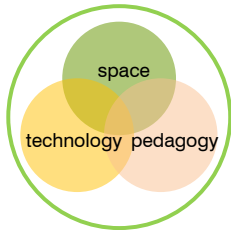


# 4.2 PROGRAM VISION & STANDARDS EDUCATIONAL PROGRAM STANDARDS | JUNIOR HIGH

## CLASSROOMS | CO-LAB

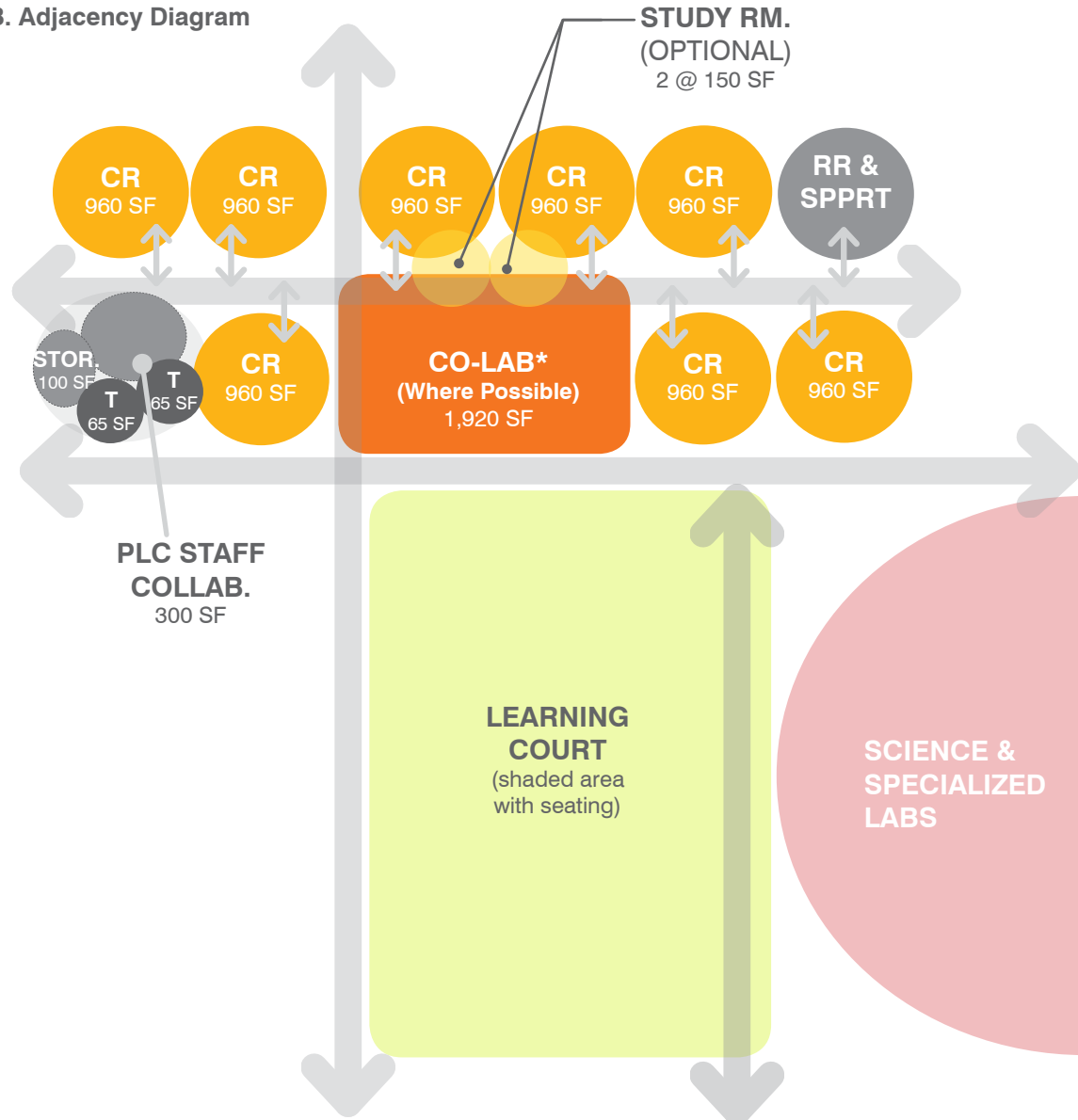
### A. Space Program

Grades 7 & 8	
Classrooms (22 x 960 sf)	21,120 SF
Student Co-Lab (22 x 200 sf)	4,400 SF
PLC Staff Collaboration / Stor. (2 x 400 sf)	800 SF
PLC Staff Restrooms	260 SF
Restrooms	per code
	<hr/>
	<b>&gt;26,580 SF</b>



**NOTE:**  
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### B. Adjacency Diagram





## PROGRAM VISION & STANDARDS

### EDUCATIONAL PROGRAM STANDARDS | JUNIOR HIGH

#### CLASSROOM | CO-LAB

##### C. Program Activities

- Interdisciplinary, learner-centered instruction with full-integration of technology
- Active and passive learning activities
- Large lecture to small group to individual work
- Core subject instruction: Language Arts, Social Studies, Math, Science

##### D. Design Objectives

- Ability to support diverse grouping strategies, encourage interdisciplinary teaching with visibility to adjoining classrooms and shared collaboration areas.
- Ability to open to the outdoor space.
- Classrooms to be organized in a cluster around a central common area (Co-lab).
- The Co-lab area is a flexible space with moveable and group-able furniture that acts like an extension to the Classroom and can be utilized for break-out and small group activities. \*This model will be implemented in new construction or where feasible in existing Classroom configurations. There needs to be adequate supervision from Classroom to the Co-lab. Initiate Co-lab spaces as pilot projects to test the validity of the space and provide training on how to use the space.
- Spaces will be designed with appropriate charging stations, outlets and wireless technology for integration of mobile devices.
- Provide areas of student display.



**4.2**

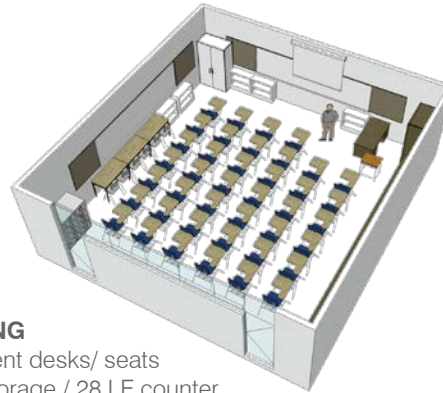
# PROGRAM VISION & STANDARDS EDUCATIONAL PROGRAM STANDARDS | JUNIOR HIGH

## CLASSROOM | FURNITURE & EQUIPMENT

During discussions about 21st Century learning environments, one of the biggest topics is the classroom environment, the evolution of how students learn, the impacts of technology and how facilities can better support diverse learning styles. The consensus from these discussions with District leadership, curriculum leaders, Principals, and school site committees is that the current classrooms need to evolve to adapt to today's student needs. Because students spend the majority of their school day in classrooms, the biggest impact can be made with furniture and equipment.

Today's classroom is about flexibility, agility, and adaptability. Space within the classroom shall be maximized, teacher desk area minimized. Desks/chairs should be easily move-able to allow easy re-configuration. Some furniture with castors, tables with the ability to fold and stack, move-able markerboards, and mobile storage shall be considered.

Technology will also continue to become more mobile, need to be accessible by all students, and integrated into the classroom space. Creating facilities where 'learning happens everywhere', outdoor areas and Co-lab spaces can be used as extensions to the classroom.



- EXISTING**
- 40 student desks/ seats
  - 42 LF storage / 28 LF counter
  - 180 SF dedicated teacher space
  - 30 LF tack / 32 LF whiteboard



**THIS IS NOW**

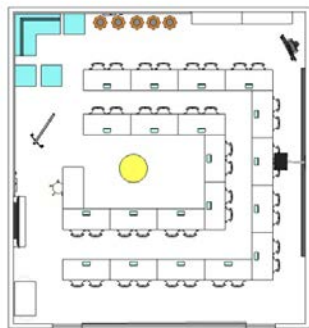


**WHAT IS NEXT?**

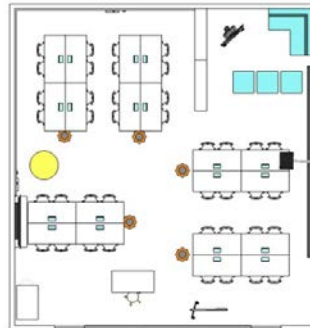
With any change, there must be a cultural shift and proper training for teachers so that they can utilize the furniture and equipment in the most effective manner.



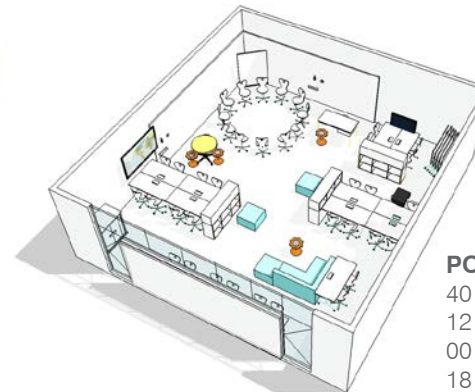
Lecture



Discussion



Break-Out



- POTENTIAL PROPOSED**
- 40 student desks/ seats
  - 12 LF storage / 10 LF counter
  - 00 SF dedicated teacher space
  - 18 LF tack / 50 LF whiteboard

**4.2**

**PROGRAM VISION & STANDARDS  
EDUCATIONAL PROGRAM STANDARDS | JUNIOR HIGH**

**SCIENCE LABS**

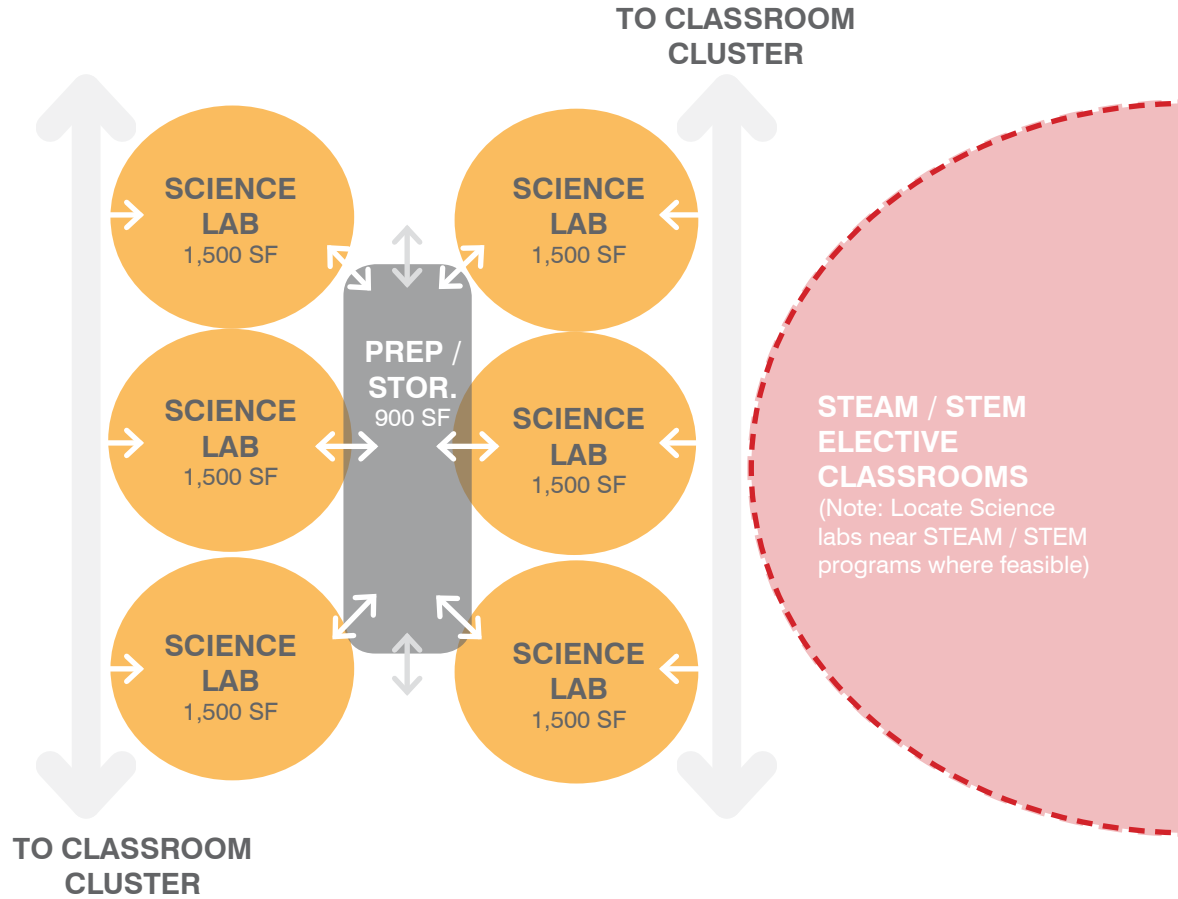
**A. Space Program**

Lab (6 x 1,500 sf)  
Prep Room (6 x 150 sf)

9,000 SF  
900 SF

**9,900 SF**

**B. Adjacency Diagram**



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## PROGRAM VISION & STANDARDS EDUCATIONAL PROGRAM STANDARDS | JUNIOR HIGH

### SCIENCE LABS

#### C. Program Activities

- Hands-on lab experiments
- Small group working sessions
- Full classroom lectures

#### D. Design Objectives

- Distinct lecture and lab space within Classroom
- If possible, coordinate location of other electives with Science Labs to facilitate in STEAM / STEM activities.

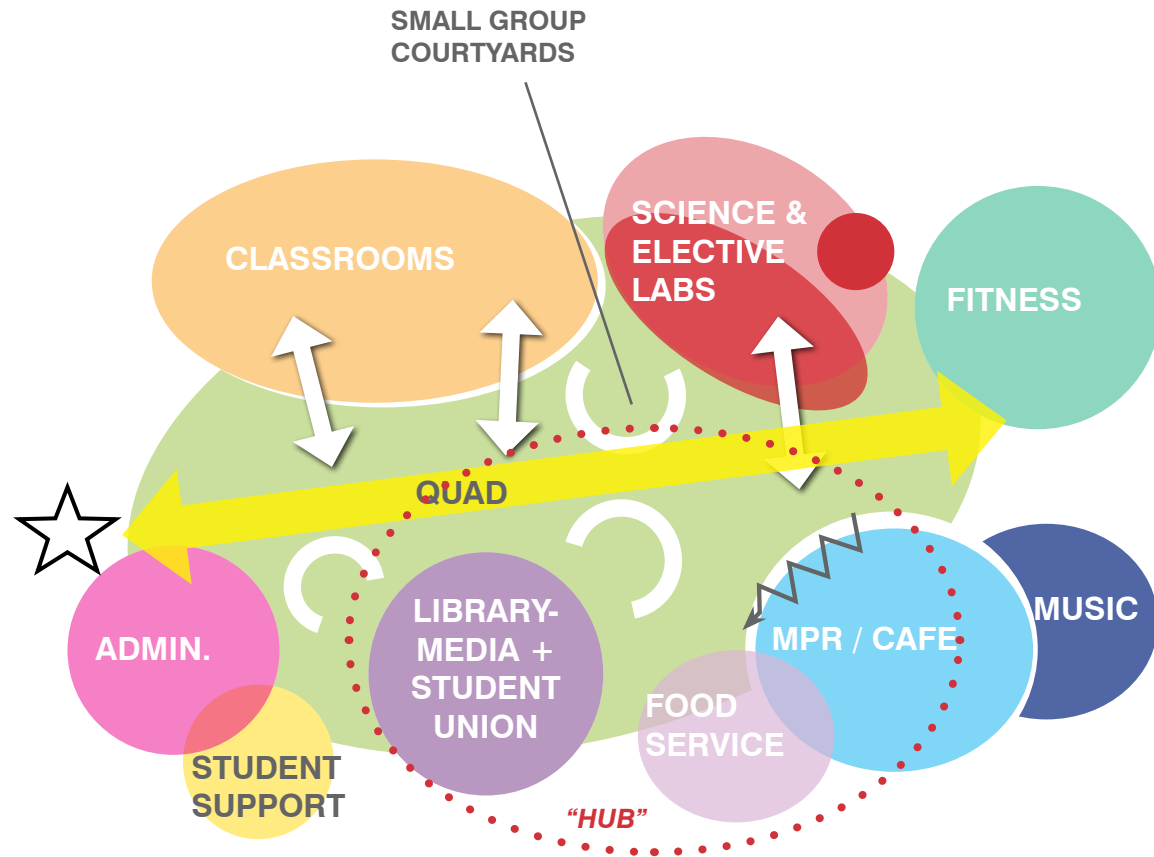


# 4.2 PROGRAM VISION & STANDARDS EDUCATIONAL PROGRAM STANDARDS | JUNIOR HIGH

## OUTDOOR LEARNING OPPORTUNITIES

Enhance site areas with landscaping, hardscape and integrated seat walls along with technology access. Outdoor learning areas can augment indoor learning spaces, allow for break out activities, and student study and collaboration. Areas near Science and Elective Labs can be created to further support curriculum activities, such as a learning garden.

## B. Adjacency Diagram



**4.2**

**PROGRAM VISION & STANDARDS  
EDUCATIONAL PROGRAM STANDARDS | JUNIOR HIGH**

**PBL / STEAM / STEM ELECTIVES**

**B. Adjacency Diagram**

**A. Space Program**

**Applied Arts / Technology**

Project Based Learning Lab (3 x 1,500 sf)	4,500 SF
Storage (3 x 100 sf)	300 SF
Equipment (3 x 100 sf)	300 SF
STEM Lab (Technology, Graphics, Business) (4 x 1,500 sf)	6,000 SF
Storage Room (4 x 200 sf)	800 SF

**Visual Arts**

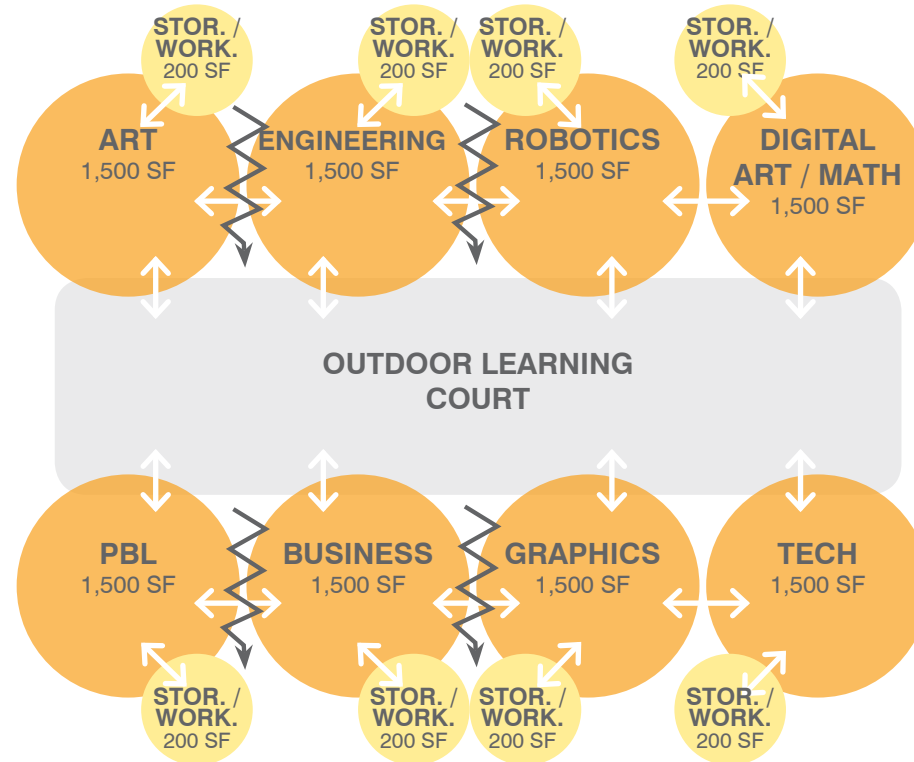
Art 2D / 3D	1,500 SF
Storage / Workroom	200 SF

Restrooms per Code

**>13,600 SF**



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# PROGRAM VISION & STANDARDS

## EDUCATIONAL PROGRAM STANDARDS | JUNIOR HIGH

### PBL / STEAM / STEM ELECTIVES

#### C. Program Activities

##### Visual Arts

- Instructional activities
- Group and individual project based learning
- Discussion of design theory and principles of design
- Sketching of designs
- Presentation of artwork/ Curate an art exhibit
- Build a portfolio
- Presentation of artwork
- 2D drawing/ sketching/ painting /multi-media
- Digital illustration, photo manipulation
- Digital painting
- Logo/ Cover design
- Collages
- Photo/Video composition and editing
- Basis of Lighting
- Research Artists
- Web Design
- Wheel throwing, slab construction
- Color theory, application, and firing process of glazes

##### Applied Arts / Technology

- Graphics
- Technology
- Business
- Photo Composition
- Editing
- Video Camera Handling
- Video Editing
- Basis of Lighting
- Video Composition / Production
- Yearbook
- Studio Production and Control Room
- Film Lab/Editing

##### STEM / STEAM / Project Based Learning (PBL)

- Experiments
- Scientific studies
- Engineering / Robotics
- Construction
- Hands on activities
- Technology integrated learning activities

#### D. Design Objectives

Provide spaces that support the following curriculum goals:

- Spaces are flexible to accommodate changing program needs.
- Varied size spaces, Storage/ Workroom areas blend with Classroom space and are not necessarily separate rooms.
- Lots of transparency with the ability for team teaching.

##### Visual Arts

- Analyze and discuss/ plan and create complex ideas, such as distortion, color theory, arbitrary color, scale, expressive content, and real versus virtual in works of art.
- Analyze works of art to describe personal direction and style.
- Create and demonstrate in their own original works of art an increasing complexity and skill in a variety of media that reflect the student's own personal style.
- Solve a visual/ media arts problem that involves the effective use of the elements of art and the principles of design.
- Prepare a portfolio of original 2D and/ or 3D works of art that reflects refined

craftsmanship and technical skills.

- Develop and refine skills in the manipulation of digital imagery

##### Applied Arts / Technology

- Develop skills in photo development and composition in conjunction with producing their own portfolio
- Understand current technologies, process, and materials.
- Students learn the fundamentals of art and technique.

##### STEAM / PBL

- Integrate and relate Science and Technology with Engineering and Arts with the basis in elements of Mathematics



# 4.2

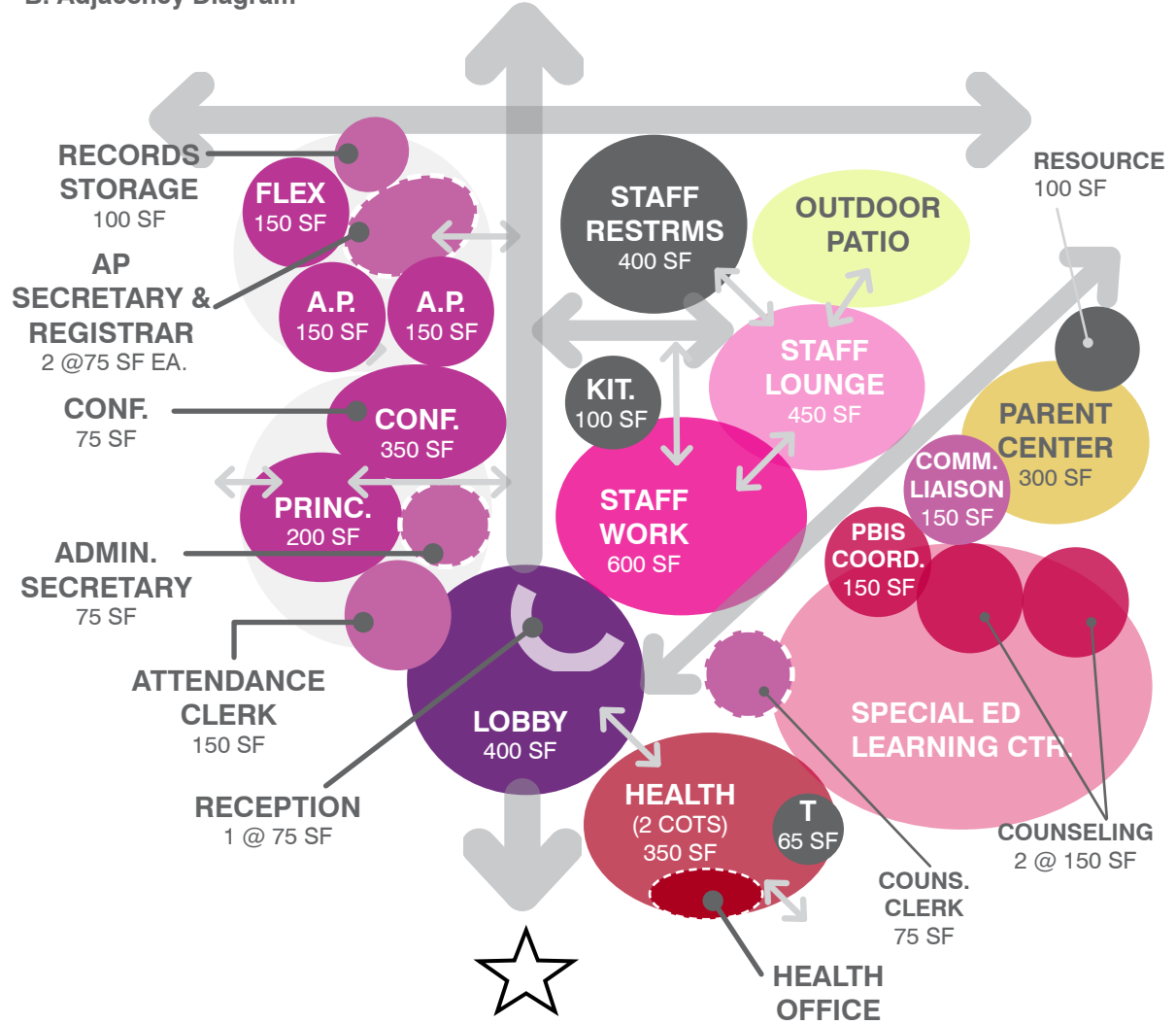
# PROGRAM VISION & STANDARDS EDUCATIONAL PROGRAM STANDARDS | JUNIOR HIGH

## ADMINISTRATION

### A. Space Program

Lobby	400 SF
Reception	75 SF
Principal	200 SF
Assistant Principal (2 x 150 sf)	300 SF
Flex Office	150 SF
Counselor (2 x 150 sf)	300 SF
PBIS Office	150 SF
Attendance Clerk	150 SF
Registrar	75 SF
Clerical (3 x 75 sf)	225 SF
Large Conference	350 SF
Parent Center	300 SF
Resource Room	100 SF
Community Liaison Office	150 SF
Workroom / Copy / Supply	600 SF
Staff Lounge	450 SF
Kitchen	100 SF
Staff Toilets (2 x 200 sf)	400 SF
Records Storage	100 SF
<hr/>	
	<b>4,575 SF</b>
<b>Health</b>	
Exam/ Treatment	350 SF
Toilet	65 SF
<hr/>	
	<b>415 SF</b>

B. Adjacency Diagram



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### ADMINISTRATION

#### C. Program Activities

- Check-in/ Front entry/ 'Welcome Center'
- Administrative duties
- Conference
- Discipline
- Counseling
- Health support
- Staff collaboration
- Attendance, enrollment, supply and records storage
- Parent information

#### D. Design Objectives

- Welcoming Lobby - establish school pride
- Define a clear, single point of entry for campus
- Limited access to 'Private' staff spaces
- Clearly defined 'Public' spaces (lobby and waiting area)
- Centralized Staff Workroom to foster staff collaboration and interaction
- Allow for staff communication and collaboration
- Adequate sized staff lounge and administrative areas
- Adequate storage for record files and office supplies
- Meet CDE standards for health office
- Parent volunteer workroom provides space for parents, an integral part of the learning community
- Area for student artwork display



# 4.2

# PROGRAM VISION & STANDARDS EDUCATIONAL PROGRAM STANDARDS | JUNIOR HIGH

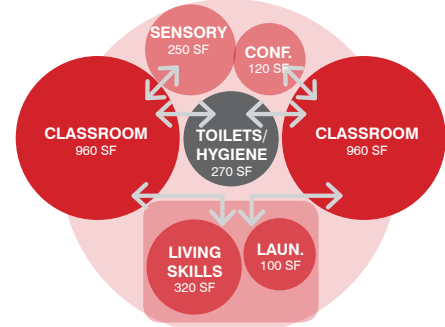
### SPECIAL EDUCATION

#### A. Space Program

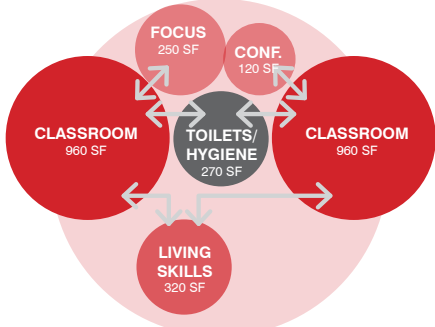
<b>RSP/MM</b>	
Classroom (2 x 960 sf)	<b>1,920 SF</b>
<b>Special Ed (LHS, SH, Autism)</b>	
RSP, MM, DHH, O+M	0 SF
LHS, SH, Autism Classroom (2 x 960 sf)	1,920 SF
Toilets / Hygiene	270 SF
Sensory	250 SF
Living Skills	320 SF
Laundry	100 SF
Conference	120 SF
	<hr/> <b>2,980 SF</b>
<b>Special Education - Bridges</b>	
Classroom (2 x 960 sf)	1,920 SF
Toilets / Hygiene	270 SF
Living Skills	320 SF
	<hr/> <b>2,510 SF</b>
<b>Special Education - Adult Transition</b>	
Classroom (2 x 960 sf)	1,920 SF
Toilets / Hygiene	270 SF
Focus	250 SF
Living Skills	320 SF
Conference	240 SF
	<hr/> <b>3,000 SF</b>
<b>Special Education - ED, VI</b>	
Classroom	960 SF
Focus / Brailist	100 SF
	<hr/> <b>1,060 SF</b>

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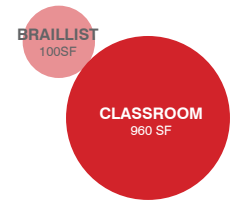
**B. Adjacency Diagram**  
LHS, SH, AUTISM, OH



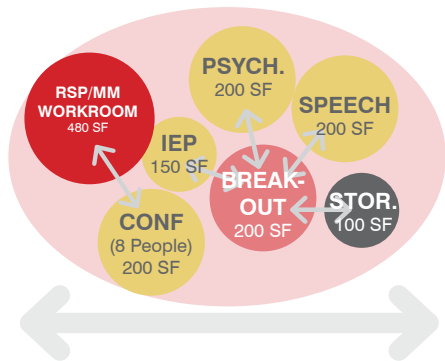
**BRIDGES**



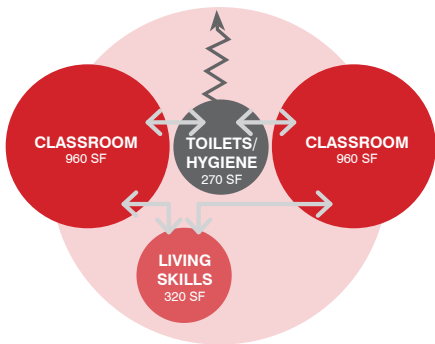
**VI**



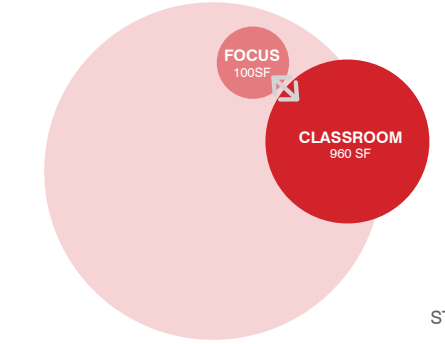
**LEARNING CENTER**



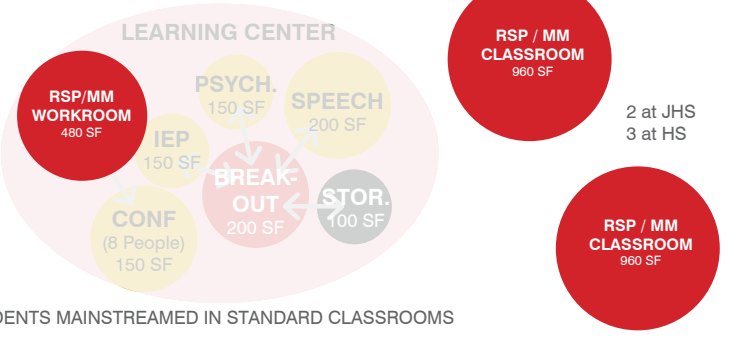
**ADULT TRANSITION**



**E.D.**



**RSP, MM, DHH, O+M**



STUDENTS MAINSTREAMED IN STANDARD CLASSROOMS

4.2

**PROGRAM VISION & STANDARDS  
EDUCATIONAL PROGRAM STANDARDS | JUNIOR HIGH**

**SPECIAL EDUCATION**

	DHH	RSP	(CH) Mild/MOD.	LHS	(Moderate) Autism	(SH) MOD./Severe	E.D.	(Severe Ed) Bridges	Visually Impaired	Orthopedic Handicapped	Sensory Room
Ball Junior High		4	3	1			1				
Brookhurst Junior High		3	1			2				1 (HI)	
Dale Junior High		4	3	1				2 (Bridges)	1 (VH) <small>Classroom Provided</small>	1	1 (OT-PT)
Lexington Junior High		2	1		2						1
Orangeview Junior High		3	2			1					
South Junior High		4	2		2	1					1
Sycamore Junior High		5	3	2							
Walker Junior High		2	2	1			1				

**4.2**

**PROGRAM VISION & STANDARDS  
EDUCATIONAL PROGRAM STANDARDS | JUNIOR HIGH**

**SPECIAL EDUCATION**

**A. Space Program (Continued)**

**Learning Center**

RSP/MM Workstations (6 x 80 sf)	480 SF
Break Out Area	200 SF
IEP Conference	150 SF
Records Storage	100 SF
Speech Office	200 SF
Psychologist Office	200 SF
<hr/>	
	<b>1,330 SF</b>

**C. Program Activities**

- Individualized physical education activities
- Specialized training or technical support for the incorporation of assistive devices
- Aural rehabilitation
- Monitoring of hearing levels
- Development and improvement of language and communication skills
- Consultation
- Tutoring
- Meetings

- The Bridges program needs to be located in a separate, self-contained area, within a fenced in area preferably with an outdoor yard space.

**D. Design Objectives**

- Include a Learning Center at all school sites. Location should be adjacent or near the Main Administration offices. A workroom within this space will provide a 'hub' / work space for staff. In addition, dedicated offices shall be provided for Counselors.
- Two (2) RSP/MM Classrooms shall be provided at Junior High Schools and (3) RSP/MM Classrooms shall be provided at High Schools. In general, locate in centralized areas of campus, dispersed.
- RSP, MM, DHH, O+M program students shall be mainstreamed and integrated into campus to have full inclusion of Special Ed students on.
- Match existing specific programs for all other programs. Reference matrix on previous page for specific programs implemented at each site.
- Instructional support provided by a special education teacher or instructional aide to help students with special needs in their classes.
- Provide more efficient layout and equipment to ease the teachers interaction with the students e.g. larger rooms, break out focus rooms, built in casework and lifts.
- Sensory and Focus Rooms need to have clear supervision from the adjacent Classroom



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# 4.2

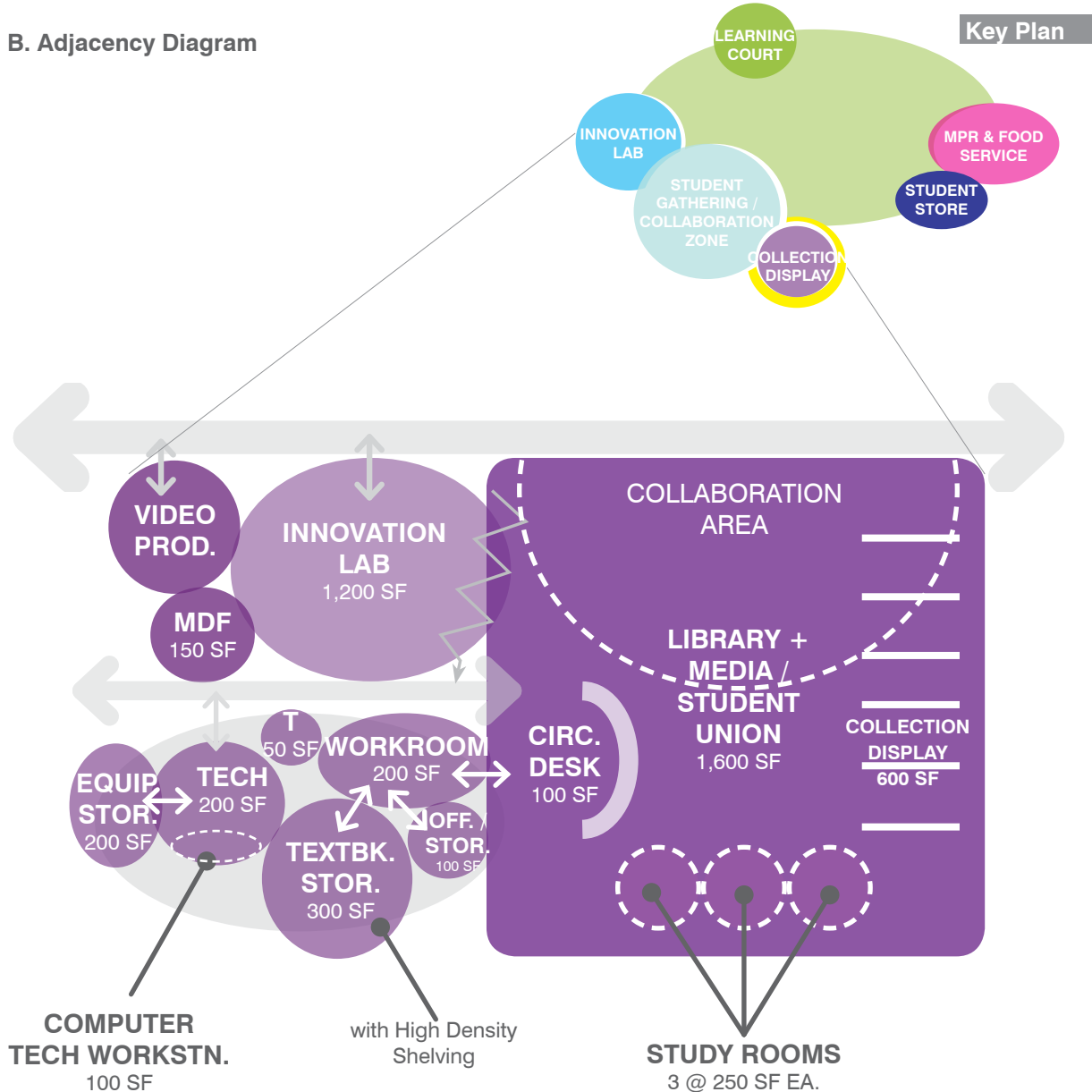
## PROGRAM VISION & STANDARDS EDUCATIONAL PROGRAM STANDARDS | JUNIOR HIGH

### LIBRARY - MEDIA / STUDENT UNION

#### A. Space Program

Circulation Desk	100 SF
Innovation Lab	1,200 SF
Library-Media / Student Union	1,600 SF
Collection Display / Stacks	600 SF
Study Rooms (3 x 250 sf)	750 SF
Workroom	200 SF
Textbook / Tech Storage	300 SF
Tech Office	200 SF
Office / Equipment Storage (2 x 100 sf)	200 SF
Toilet	50 SF
<hr/>	
	<b>5,200 SF</b>

#### B. Adjacency Diagram



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4.2

**PROGRAM VISION & STANDARDS**  
**EDUCATIONAL PROGRAM STANDARDS | JUNIOR HIGH**

**LIBRARY - MEDIA / STUDENT UNION**

**C. Program Activities**

- Student collaboration
- Study and reading
- Circulation of materials and resources
- Display student work
- Research
- Individual quiet study, small and large group activities
- Academic and social interaction
- Community access (if applicable)

**D. Design Objectives**

- The Library-Media Center / Student Union along with Nutrition Services, MPR, and Main Quad areas form the “Campus Hub” for the school. Create a sense of connection and synergy between these spaces.
- Centrally located to promote staff, student and community interactions.
- The library-media center / student union should be a welcoming, comfortable, informal, stimulus-rich, well-lit environment that supports multiple concurrent activities.
- Innovation Lab, located within the Library-Media center to support computer-based programs, on-line learning and virtual instruction. Space can also be utilized for staff development and training.
- Provide dedicated space for MDF / IDF.
- Tech equipment storage needs to be secured.

**E. Design Guidelines**

Design for 3.3 SF per pupil plus 600 SF per California Department of Education standards.

- Reading and Stacks:
- Referenced from the “Standards and Guidelines for Strong School Libraries” by the California School Library Association.
    - Recommended Exemplary Quantitative Standards:

Pleasure Reading	32 - 45 SF per seat
Computing	36-45 SF per workstation



# 4.2

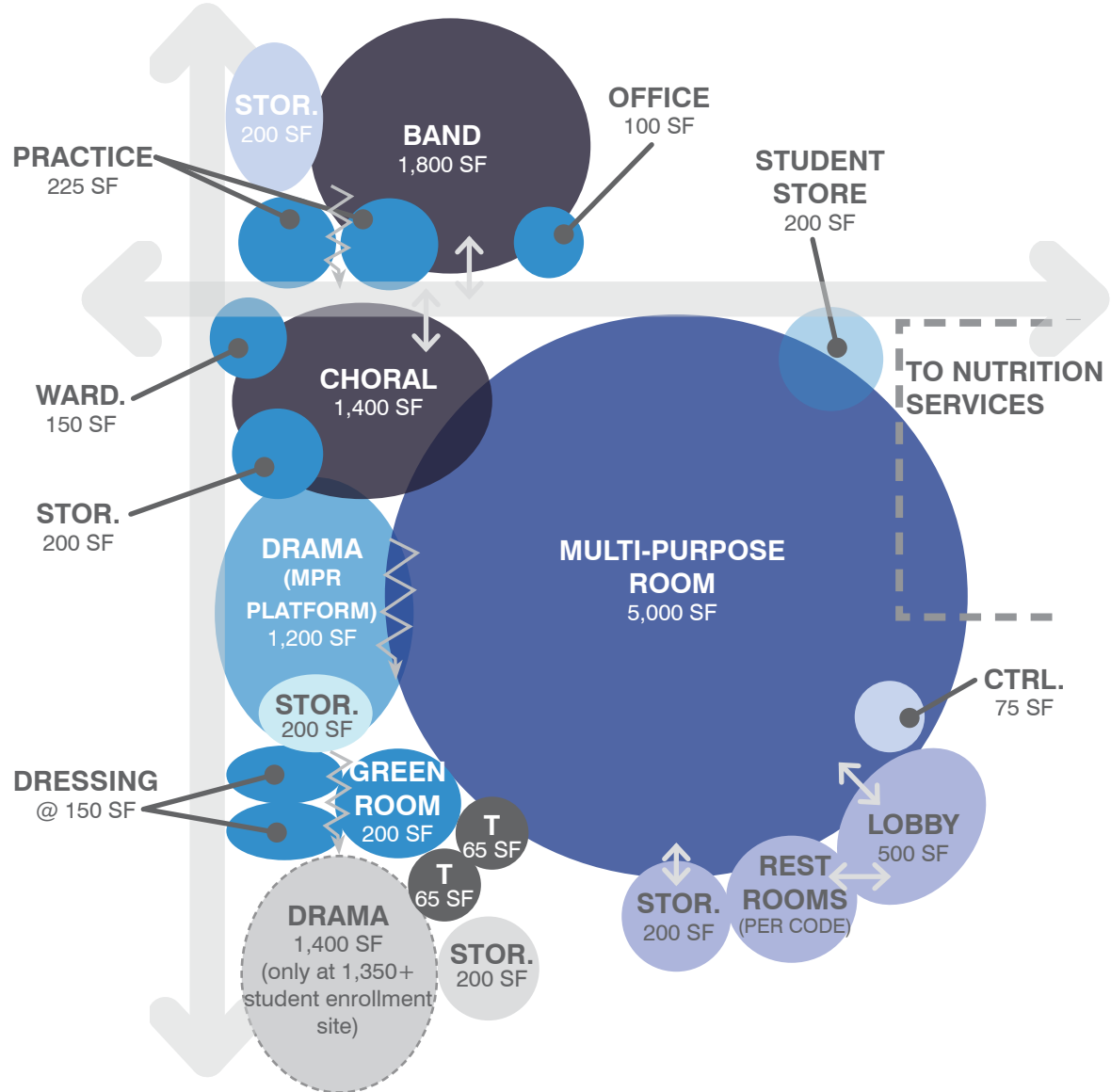
# PROGRAM VISION & STANDARDS EDUCATIONAL PROGRAM STANDARDS | JUNIOR HIGH

## MULTI-PURPOSE / PERFORMING ARTS

### A. Space Program

Lobby	500 SF
Multi-Purpose Room	5,000 SF
Student Store	200 SF
Table/Chair/Equipment Storage (3x200sf)	600 SF
Music Platform/ Drama	1,200 SF
Dressing Room/Green Room (2 x 150 sf)	300 SF
Toilet (2 x 65 sf)	130 SF
Instrumental Room	1,800 SF
Storage	200 SF
Practice Room (2 x 225 sf)	450 SF
Choral Room	1,200 SF
Wardrobe	150 SF
Performing Arts Office	100 SF
Restrooms (2 x 200 sf)	400 SF
<b>TOTAL</b>	<b>12,230 SF</b>

### B. Adjacency Diagram



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## PROGRAM VISION & STANDARDS

### EDUCATIONAL PROGRAM STANDARDS | JUNIOR HIGH

#### MULTI-PURPOSE / PERFORMING ARTS

##### C. Program Activities

- Instructional activities
- Assemblies and large group performances and presentations
- Student Dining
- Fitness Activities
- Music Classes
- Community Use

##### D. Design Objectives:

- The Multi-Purpose Room along with the Library-Media / Student Union, Nutrition Service, and Main Quad components of the campus make up the campus 'hub'. Create a sense of connection and synergy between these spaces.
- The ideal placement of the MPR should be on the perimeter of the campus, adjacent to parking to enable community joint-use opportunities.
- Provide quality sound, lighting and acoustic systems and built-in control room functions.

##### D. Design Guidelines:

- Approximately 5.3 SF/student, minimum 5,000 SF (CDE recommendation) for the Multi-purpose Room.





# 4.2 PROGRAM VISION & STANDARDS

## EDUCATIONAL PROGRAM STANDARDS | JUNIOR HIGH

### NUTRITION SERVICES

#### A. Space Program

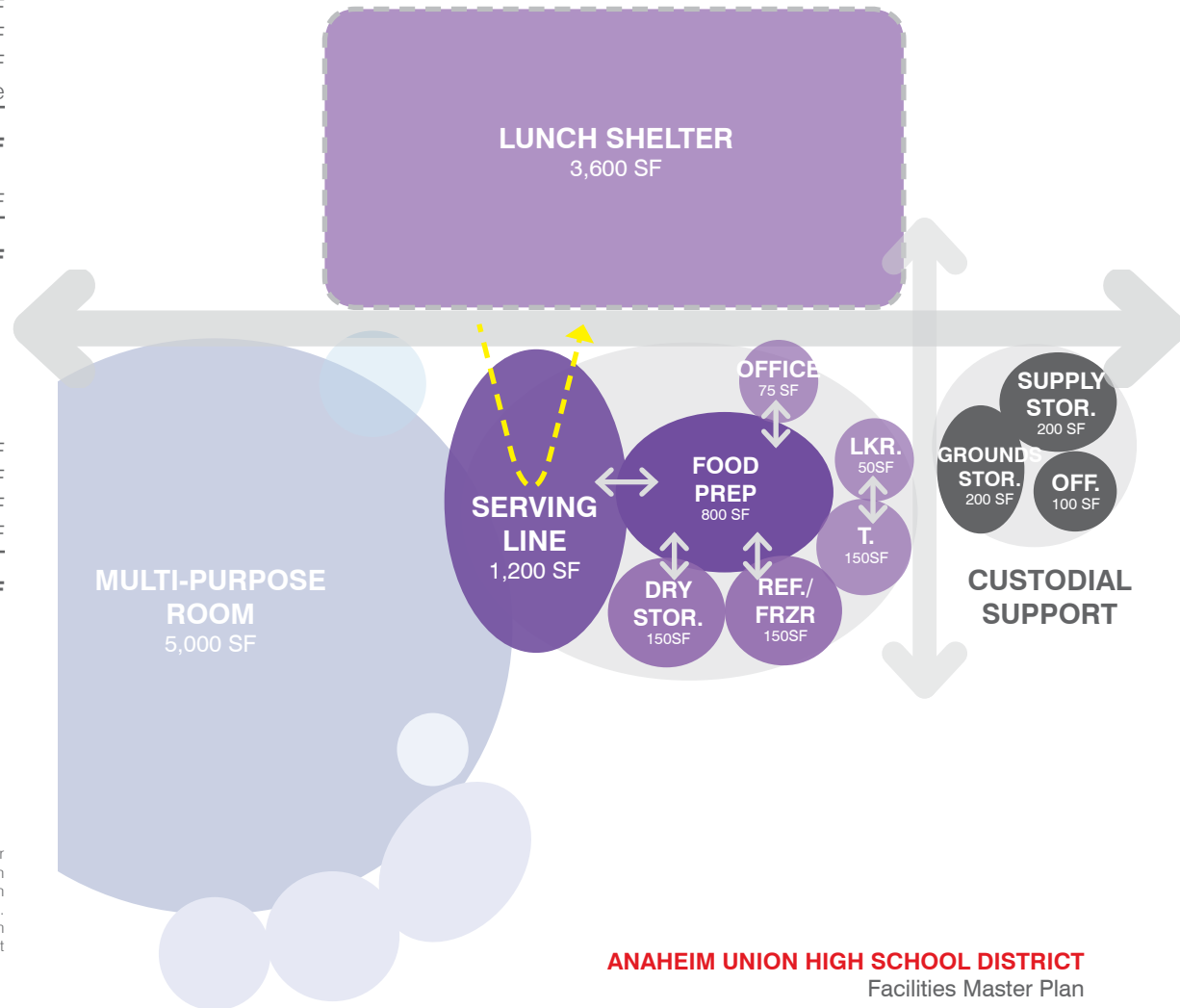
Serving Kitchen/ Food Prep	800 SF
Dry Storage	150 SF
Refrig. / Freezer	150 SF
Serving Line	1,200 SF
Office	75 SF
Changing Room	50 SF
Toilet	75 SF
Restrooms	per code
<hr/>	
	<b>&gt;2,500 SF</b>
Lunch Shelter	3,600 SF
<hr/>	
	<b>&gt;6,100 SF</b>

### B. Adjacency Diagram

### CUSTODIAL SUPPORT SERVICES

#### A. Space Program

Head Custodian	100 SF
Supply Storage	200 SF
Ground Storage	200 SF
Custodial Closets	250 SF
<hr/>	
	<b>750 SF</b>



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## 4.2 PROGRAM VISION & STANDARDS

# EDUCATIONAL PROGRAM STANDARDS | JUNIOR HIGH

### NUTRITION SERVICES / CUSTODIAL SERVICES

#### C. Program Activities

- Nutrition services
- Food cooking and preparation
- Food serving
- Student and faculty dining
- Custodial services provides storage for custodial equipment and supplies

#### D. Design Objectives:

- Nutrition Services along with the Multi-purpose Room, Library-Media / Student Union and Main Quad components of the campus make up the campus 'hub'. Create a sense of connection and synergy between these spaces.
- Provide adequate queuing and serving area dedicated for nutrition services, separate from the Multi-Purpose Room (MPR). Optimize circulation, efficiency of service and flow.
- Food serving area must be adjacent to Kitchen.
- Student queuing into the serving area should be located off a covered area to protect students from the weather and sun. There should be clear views into the serving room to better manage flow.
- The Federal Government is moving towards implementing more scratch cooking at schools. The District Central Kitchen and on-site kitchens will need to move towards supporting the implementation of this.
- Access to restrooms should be adjacent to the lunch area.
- Provide covered area with sun and rain protection for students to eat.
- Custodial closets should be dispersed throughout campus for ease of cleaning staff access.

#### D. Design Guidelines:

- Approximately 4 SF/student for the Lunch Shelter area



# 4.2

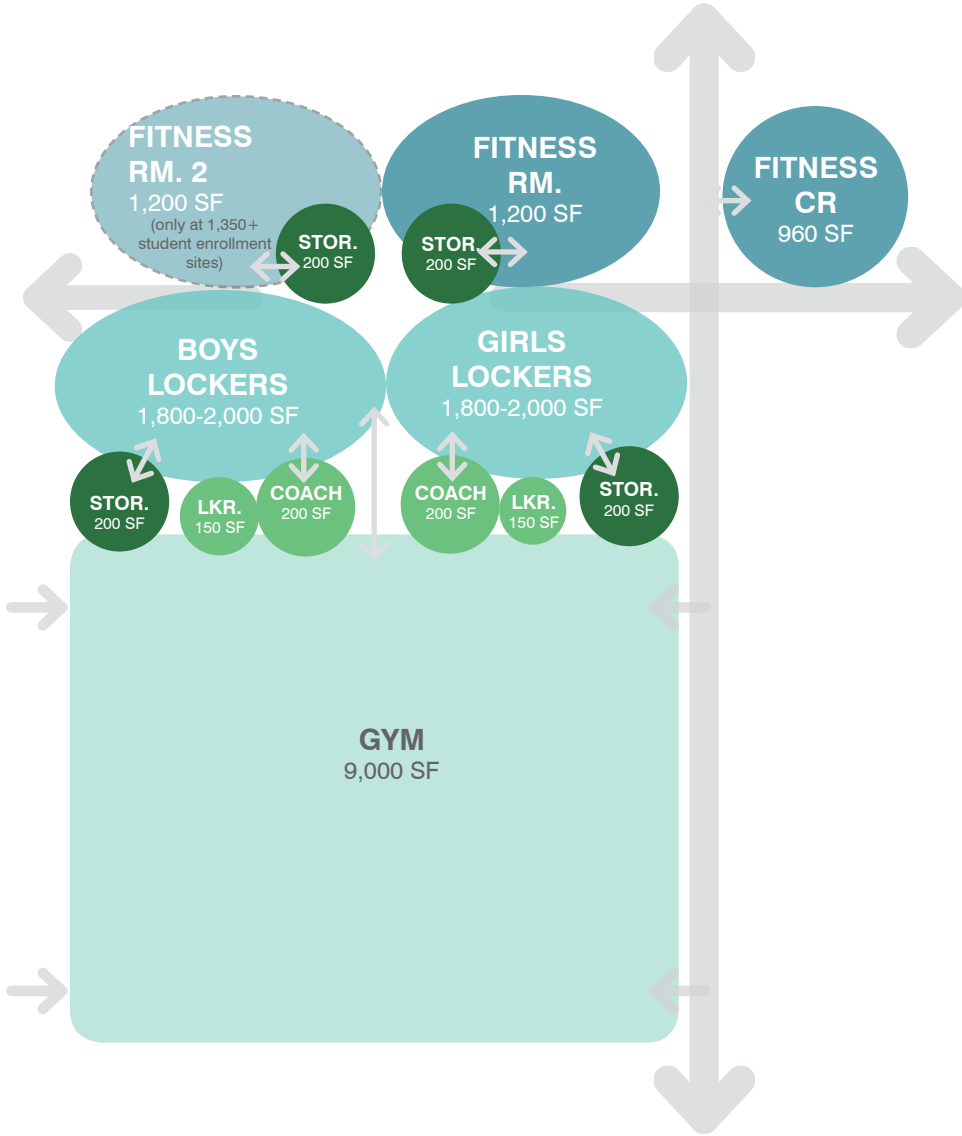
# PROGRAM VISION & STANDARDS EDUCATIONAL PROGRAM STANDARDS | JUNIOR HIGH

### PHYSICAL EDUCATION

#### A. Space Program

Gymnasium	9,000 SF
Storage	800 SF
Fitness Studio (Dance, Fitness)	1,200 SF
Fitness/ PE Classroom	960 SF
Boys Locker Room	1,800 SF
Girls Locker Room	1,800 SF
Coaches Office	400 SF
Coaches Locker Room	300 SF
Restrooms	per code
<hr/>	
	<b>&gt;16,260 SF</b>

#### B. Adjacency Diagram



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## PROGRAM VISION & STANDARDS

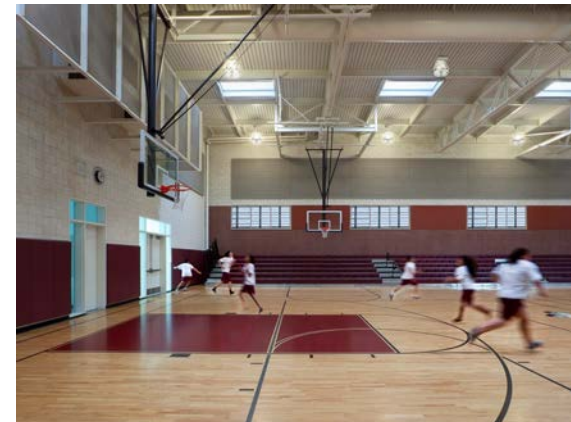
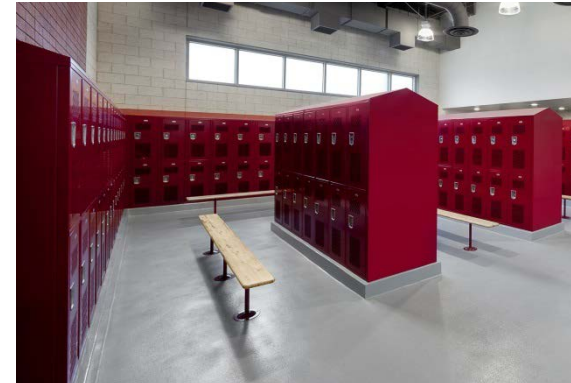
### EDUCATIONAL PROGRAM STANDARDS | JUNIOR HIGH

#### C. Program Activities

- Instructional activities
- Assemblies and large group performances and presentations
- Community Use
- Physical Education and Athletics
- Health instruction
- Testing

#### D. Design Objectives

- Space should display school pride and spirit
- Provide proper sound system in Gym
- Motorized bleachers
- Adequate number and size of lockers to accommodate student backpacks
- Safety and security is priority in Locker Rooms
- Clear supervision in locker rooms
- Storage of equipment
- Locate Gym facilities near parking
- Provide public restrooms. Keep in mind sight lines
- Proper ventilation
- Sports flooring in Fitness Room or proper Dance Flooring if space is designed to accommodate specific Dance program



4.2

**PROGRAM VISION & STANDARDS**  
**EDUCATIONAL PROGRAM STANDARDS | HIGH SCHOOL**

**CAMPUS PLAN**

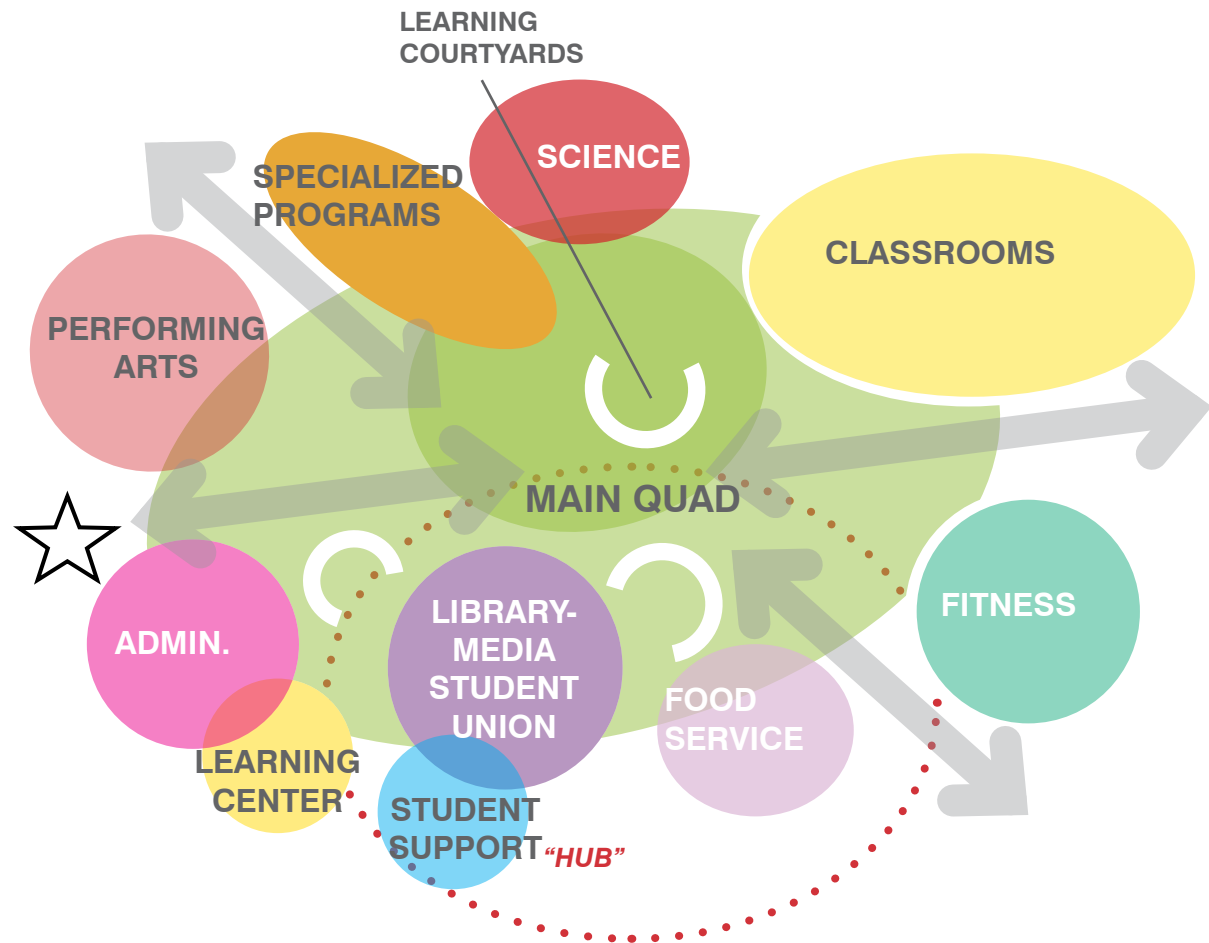
This graphic represents an ideal campus organization, based on input from the staff and administrators. During the master planning work, effort was made to reorganize / reconfigure existing spaces and construct new facilities to support this organizational layout.

**OUTDOOR LEARNING OPPORTUNITIES**

Enhance site areas with landscaping, hardscape and integrated seat walls along with technology access. Outdoor learning areas can augment indoor learning spaces, allow for break out activities, and student study and collaboration. Areas near Science and Elective Labs can be created to further support curriculum activities, such as a learning garden.



**B. Adjacency Diagram**



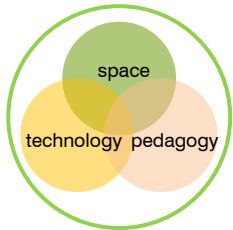
# 4.2 PROGRAM VISION & STANDARDS EDUCATIONAL PROGRAM STANDARDS | HIGH SCHOOL

## CLASSROOMS | CO-LAB

### A. Space Program

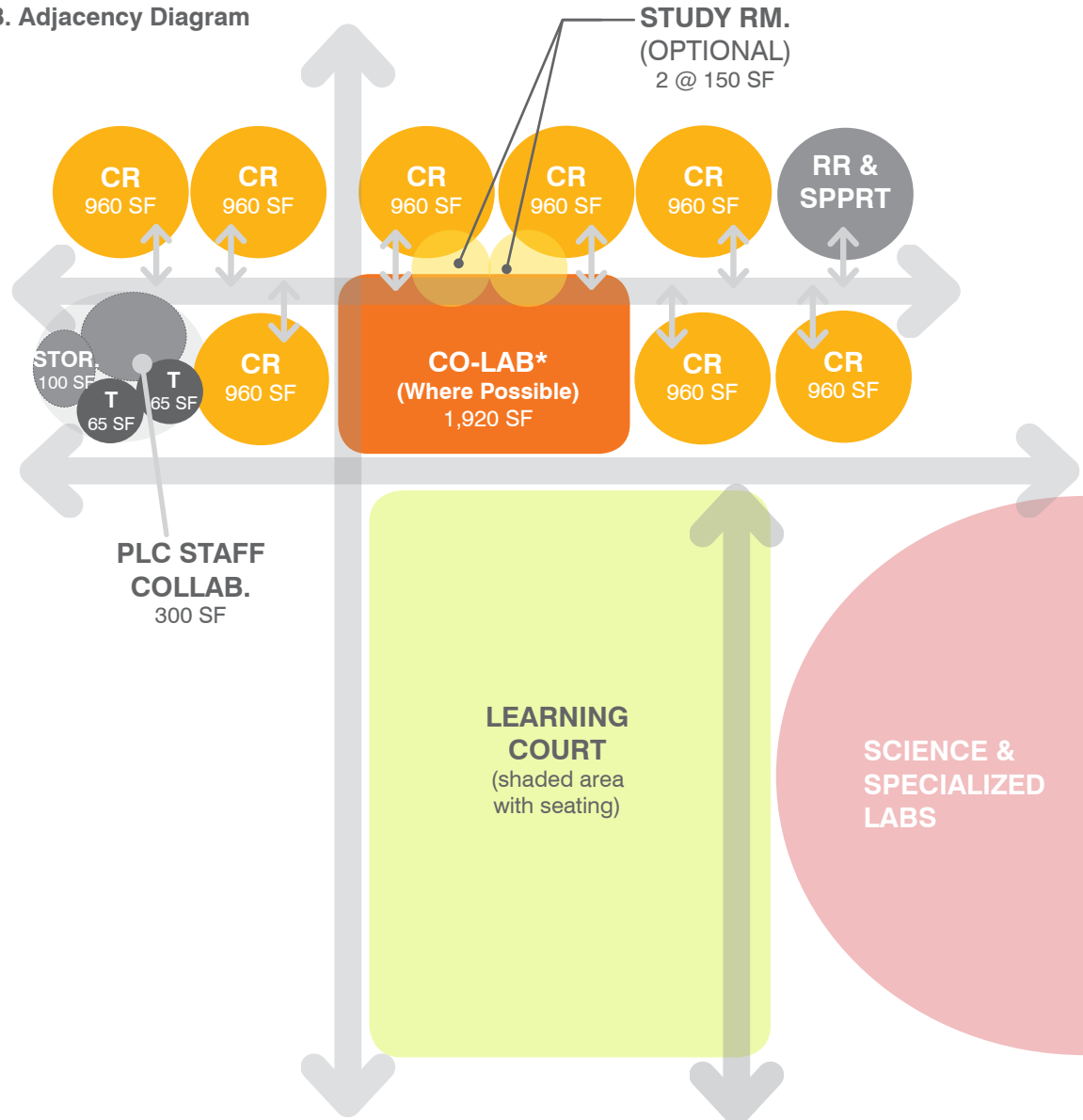
Classrooms (44 x 960 sf)	42,240 SF
Student Co-Lab (44 x 240 sf)	10,560 SF
PLC Staff Collaboration / Stor. (9 x 300 sf)	800 SF
PLC Staff Restrooms (18 x 65 sf)	1,170 SF
Storage (9 x 100 sf)	900 SF
Restrooms	per code

**>55,670 SF**



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### B. Adjacency Diagram



**4.2**

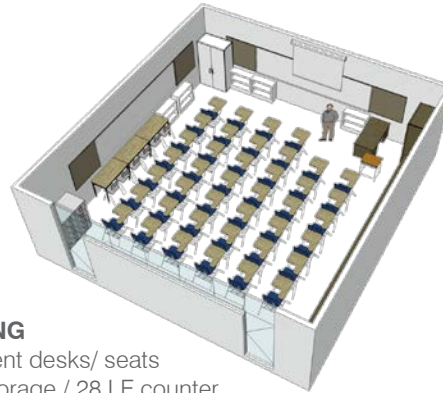
# PROGRAM VISION & STANDARDS EDUCATIONAL PROGRAM STANDARDS | HIGH SCHOOL

## CLASSROOM | FURNITURE & EQUIPMENT

During discussions about 21st Century learning environments, one of the biggest topics is the classroom environment, the evolution of how students learn, the impacts of technology and how facilities can better support diverse learning styles. The consensus from these discussions with District leadership, curriculum leaders, Principals, and school site committees is that the current classrooms need to evolve to adapt to today's student needs. Because students spend the majority of their school day in classrooms, the biggest impact can be made with furniture and equipment.

Today's classroom is about flexibility, agility, and adaptability. Space within the classroom shall be maximized, teacher desk area minimized. Desks/chairs should be easily move-able to allow easy re-configuration. Some furniture with castors, tables with the ability to fold and stack, move-able markerboards, and mobile storage shall be considered.

Technology will also continue to become more mobile, need to be accessible by all students, and integrated into the classroom space. Creating facilities where 'learning happens everywhere', outdoor areas and Co-lab spaces can be used as extensions to the classroom.



- EXISTING**
- 40 student desks/ seats
  - 42 LF storage / 28 LF counter
  - 180 SF dedicated teacher space
  - 30 LF tack / 32 LF whiteboard



**THIS IS NOW**

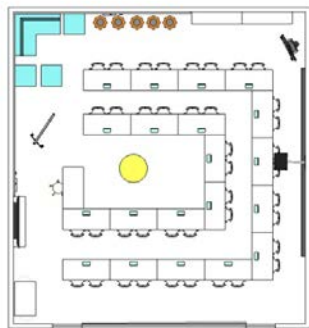


**WHAT IS NEXT?**

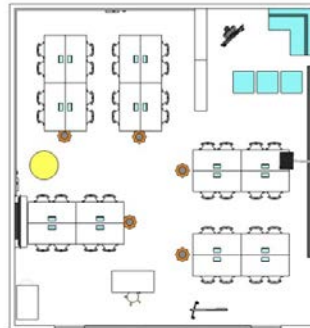
With any change, there must be a cultural shift and proper training for teachers so that they can utilize the furniture and equipment in the most effective manner.



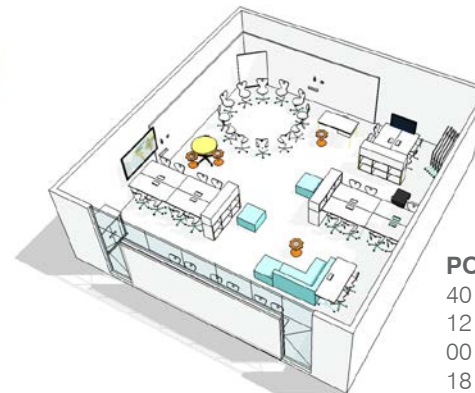
Lecture



Discussion



Break-Out



- POTENTIAL PROPOSED**
- 40 student desks/ seats
  - 12 LF storage / 10 LF counter
  - 00 SF dedicated teacher space
  - 18 LF tack / 50 LF whiteboard

## 4.2 PROGRAM VISION & STANDARDS EDUCATIONAL PROGRAM STANDARDS | HIGH SCHOOL

### CLASSROOM | CO-LAB

#### C. Program Activities

- Interdisciplinary, learner-centered instruction with full-integration of technology
- Active and passive learning activities
- Large lecture to small group to individual work
- Core subject instruction: Language Arts, Social Studies, Math, Science

#### D. Design Objectives

- Ability to support diverse grouping strategies, encourage interdisciplinary teaching with visibility to adjoining classrooms and shared collaboration areas.
- Ability to open to the outdoor space.
- Classrooms to be organized in a cluster around a central common area (Co-lab).
- The Co-lab area is a flexible space with moveable and group-able furniture that acts like an extension to the Classroom and can be utilized for break-out and small group activities. \*This model will be implemented in new construction or where feasible in existing Classroom configurations. There needs to be adequate supervision from Classroom to the Co-lab. Initiate Co-lab spaces as pilot projects to test the validity of the space and provide training on how to use the space.
- Spaces will be designed with appropriate charging stations, outlets and wireless technology for integration of mobile devices.
- Provide areas of student display.





# 4.2

## PROGRAM VISION & STANDARDS EDUCATIONAL PROGRAM STANDARDS | HIGH SCHOOL

### SCIENCE LABS

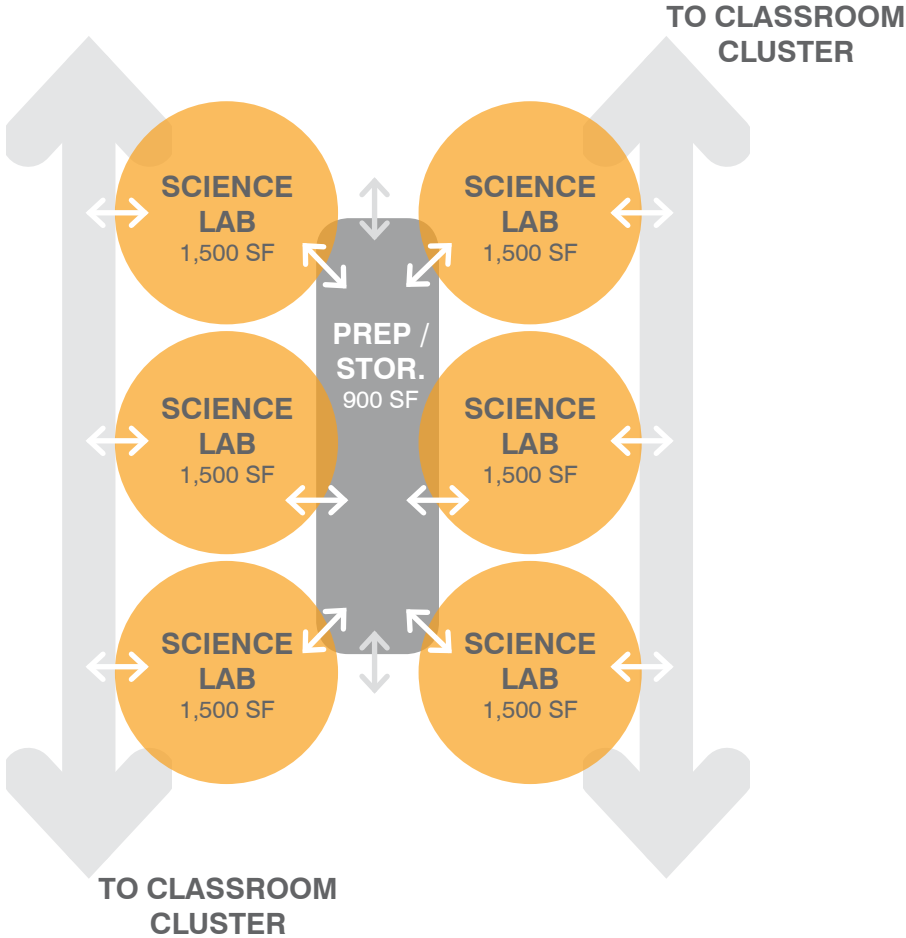
#### A. Space Program

Lab (10 x 1,500 sf)	15,000 SF
Prep Room (10 x 200 sf)	2,000 SF
<hr/>	
	<b>17,000 SF</b>



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#### B. Adjacency Diagram



## PROGRAM VISION & STANDARDS EDUCATIONAL PROGRAM STANDARDS | HIGH SCHOOL

### SCIENCE LABS

#### C. Program Activities

- Hands-on lab experiments
- Small group working sessions
- Full classroom lectures
- Curriculum could include General Science, Biology, Physics, Environmental Science, Chemistry

#### D. Design Objectives

- Distinct lecture and lab space within Classroom
- Tie outdoor learning courtyards to curriculum activities.
- Integrate technology into Science Labs
- Utilize chemical resistant surfaces
- Evaluate specifying group-able lab tables for flexibility and collaboration



# 4.2

## PROGRAM VISION & STANDARDS EDUCATIONAL PROGRAM STANDARDS | HIGH SCHOOL

### PERFORMING ARTS

#### A. Space Program

<b>Theater</b>	
Main Theater*	4,000 SF
Lobby/ Display Gallery	1,000 SF
Concessions	200 SF
Ticket Booth	75 SF

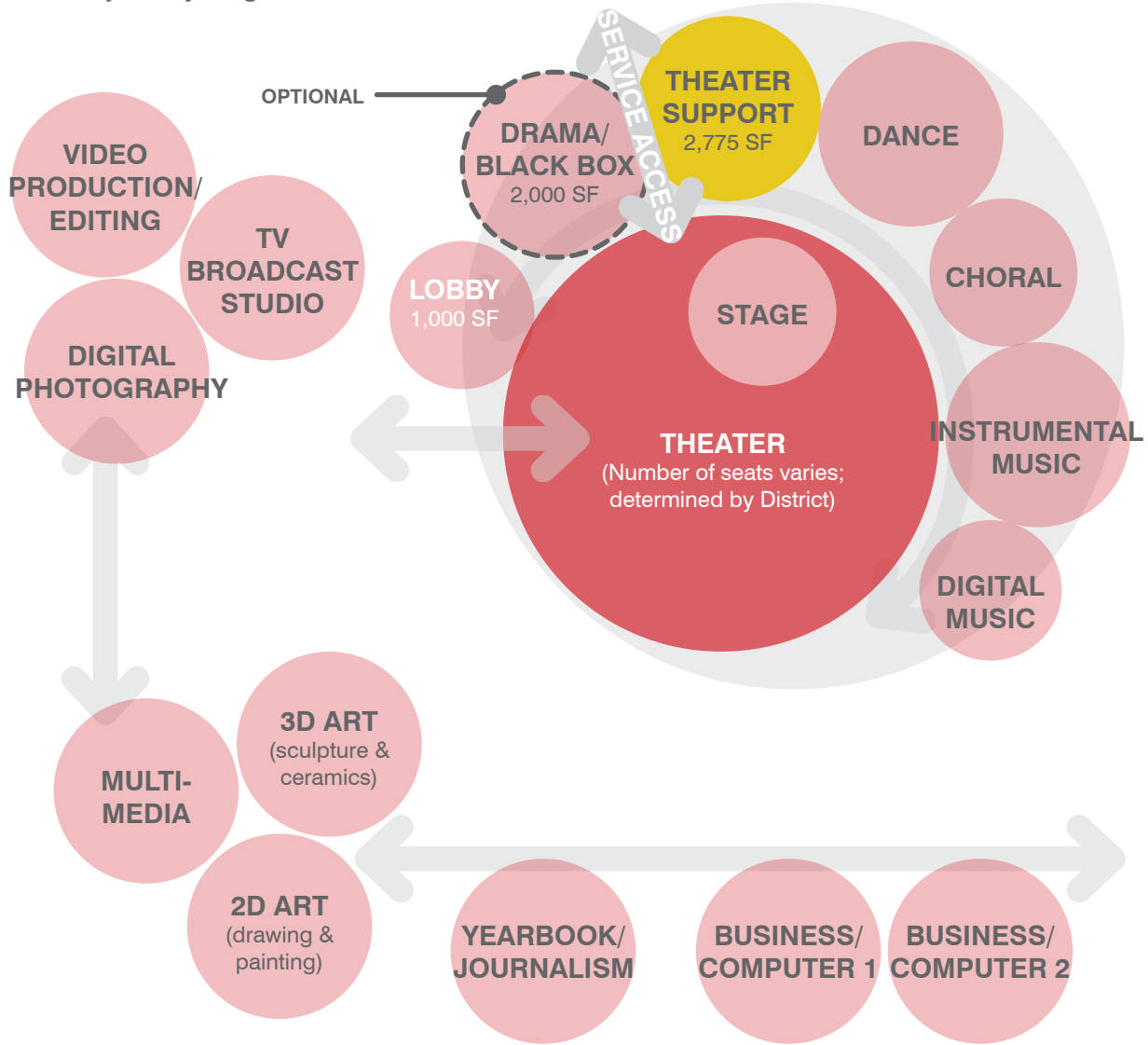
<b>Theater Support</b>	
Stage	2,400 SF
Orchestra Pit	1,000 SF
Scene Shop/ Construction Lab	1,000 SF
Tools & Material Storage	100 SF
Prop Storage	600 SF
Costume Storage	400 SF
Dimmer Room	75 SF
Sound & Lighting Control Room	200 SF
Dressing/Make-up w/ Toilet (2 x 300sf)	600 SF
	<hr/>
	<b>11,650 SF</b>

<b>PLC - COLLABORATIVE TEAMING</b>	
Conference/ Green Room	400 SF
Staff Workroom	300 SF
Storage	100 SF
	<hr/>
	<b>800 SF</b>

\*Size of theater may vary dependent on number of seats

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#### B. Adjacency Diagram



**4.2**

**PROGRAM VISION & STANDARDS  
EDUCATIONAL PROGRAM STANDARDS | HIGH SCHOOL**

**MULTI-MEDIA ARTS**

**VISUAL ARTS**

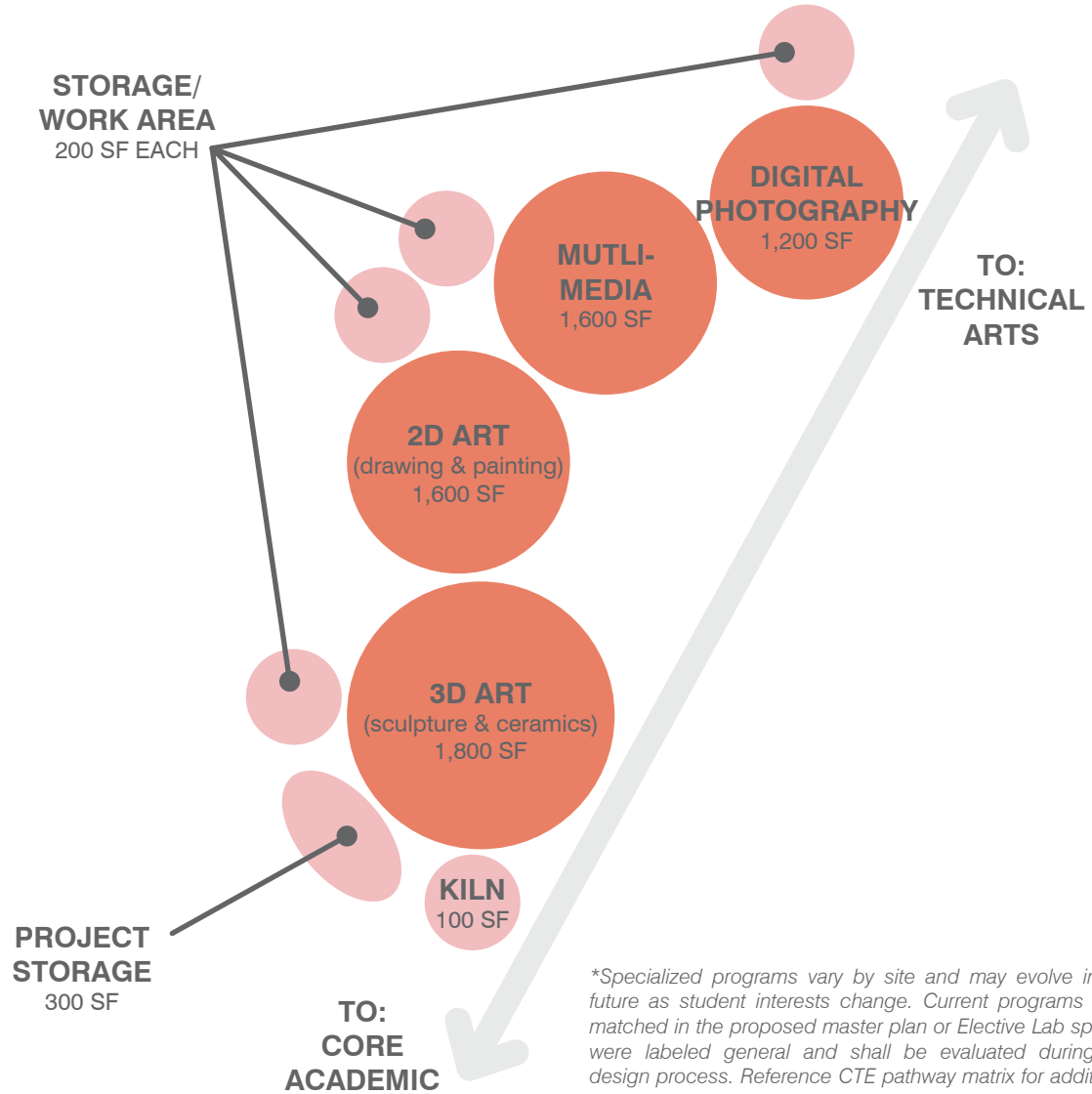
**A. Space Program**

Art 2D (2 x 1,600 sf)	3,200 SF
Storage/ Workroom	400 SF
Art 3D	1,800 SF
Kiln	100 SF
Clay/ Project Storage Room	300 SF
Storage/ Workroom	200 SF
Design/Photography Lab	1,200 SF
Storage/ Workroom	200 SF
<hr/>	
	<b>7,400 SF</b>



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**B. Adjacency Diagram**



*\*Specialized programs vary by site and may evolve in the future as student interests change. Current programs were matched in the proposed master plan or Elective Lab spaces were labeled general and shall be evaluated during the design process. Reference CTE pathway matrix for additional information on current programs.*

4.2

**PROGRAM VISION & STANDARDS  
EDUCATIONAL PROGRAM STANDARDS | HIGH SCHOOL**

**MULTI-MEDIA ARTS**

**TECHNICAL ARTS**

**A. Space Program**

**TV/Video Production**

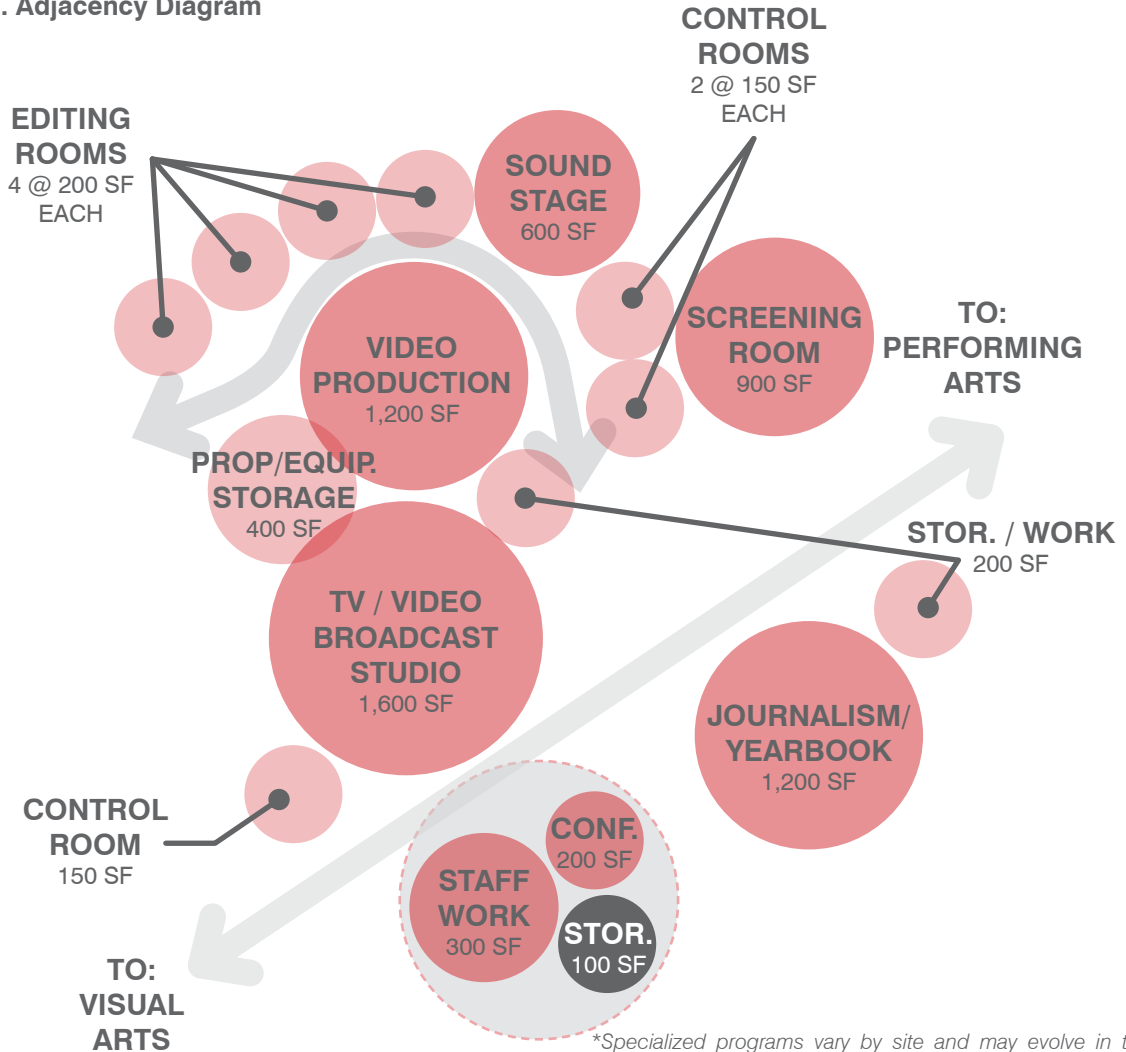
TV/ Broadcast Studio	1,600 SF
Control Room	150 SF
Video Production Lab	1,200 SF
Multimedia/ Editing Room	800 SF
Foley Sound Stage/ Audio Studio	600 SF
Control Room	150 SF
Screening Room	1,800 SF
Control Room	150 SF
Prop & Equipment Storage	400 SF
Storage/ Workroom	200 SF

**Journalism/ Yearbook**

Classroom/ Lab	1,200 SF
Storage/ Workroom	200 SF

**8,450 SF**

**B. Adjacency Diagram**



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**4.2**

# PROGRAM VISION & STANDARDS EDUCATIONAL PROGRAM STANDARDS | HIGH SCHOOL

**SPECIALIZED PROGRAMS**

**BUSINESS / DESIGN / ENGINEERING  
(FLEX PROGRAM LABS)**

**A. Space Program**

Design Lab (2 x 1,200 sf)	2,400 SF
Storage/ Workroom (2 x 200 sf)	400 SF
	<b>2,800 SF</b>

**CONSTRUCTION/ BUILDING INDUSTRY  
INDUSTRIAL TECHNOLOGY**

**A. Space Program**

Shop (2 x 2,000 sf)	4,000 SF
Material Storage	400 SF
Tool/ Equipment Storage	200 SF
Office/ Workroom	200 SF
	<b>4,800 SF</b>

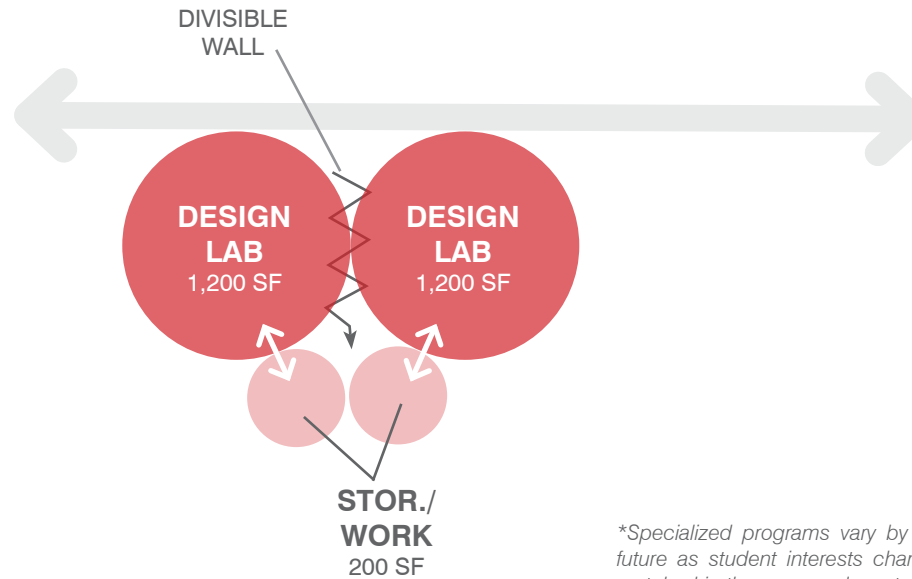
**SPECIALIZED PROGRAMS  
ROTC, CHILD DEVELOP., FASHION,  
MACHINE & FORMING TECHNOLOGY**

**A. Space Program**

Classroom (5 x 1,200 sf)	6,000 SF
Storage	1,000 SF
	<b>7,000 SF</b>

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**B. Adjacency Diagram**



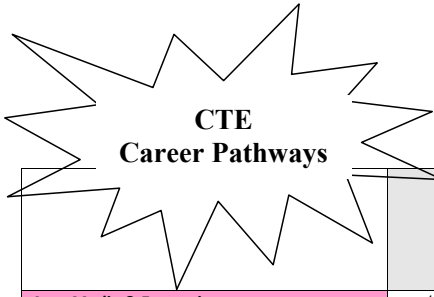
*\*Specialized programs vary by site and may evolve in the future as student interests change. Current programs were matched in the proposed master plan or Elective Lab spaces were labeled general and shall be evaluated during the design process. Reference CTE pathway matrix for additional information on current programs.*



4.2

# PROGRAM VISION & STANDARDS EDUCATIONAL PROGRAM STANDARDS | HIGH SCHOOL

SPECIALIZED PROGRAMS



	Anaheim	Cypress	Gilbert	Katella	Kennedy	Loara	Oxford	Magnolia	Savanna	Western
<b>Arts, Media &amp; Entertainment</b>	(FBLA)	(FBLA)			(FBLA)					(FBLA)
Design, Visual, & Media Arts	CA Part Acad	Perkins		Perkins/ROP				Photo - ROP		Perkins
Media Production Arts	CA Part Acad	Perkins			Perkins	Perkins			Perkins	Perkins
Performing Arts	APAC Boosters									ROP
Production Management	AME Grant									
<b>Building &amp; Construction Trades</b>				NAHB						NAHB
Residential and Commercial Construction	ROP/Perkins		ROP	ROP/Perkins				ROP/Perkins		ROP
<b>Business &amp; Finance</b>										
Financial Services	ROP		ROP		Perkins				Perkins	
Business Management	Banking - ROP			Perkins		Banking-ROP				
<b>Education, Child Development, and Family Services</b>										
Child Development	ROP	ROP		ROP		ROP				ROP
Education					ROP	GEN		ROP		ROP
<b>Engineering &amp; Design</b>										
Engineering & Architecture (PLTW)	ROP									
<b>Fashion &amp; Interior Design</b>										
Fashion Design & Merchandising	Perkins									
<b>Health Science &amp; Medical Technolog</b>						(HOSA)		(HOSA)	(HOSA)	(HOSA)
Patient Care	Dental - R	EMT - R	Medical-R			Medical - R		Medical - R	Nurse - R	Medical - R
<i>Special Area:</i> Biotechnology (BioMedical)		Sprt Md-R			Pharm - R					
							PLTW -R			PLTW/Perkins
<b>Hospitality, Tourism, and Recreation</b>				(HERO)	(HERO)					
Food Service and Hospitality		Perkins	ROP	Perkins	Perkins				ROP	ROP
<b>Information &amp; Communications Technologies</b>										
Information Support & Services	Perkins									
Software & Systems Development		Perkins				Perkins	Perkins			
<b>Manufacturing &amp; Product Design</b>										
Machine and Forming Technology	ROP									
<b>Marketing, Sales, and Service</b>					(FBLA)		(FBLA))			
Entrepreneurship & Self-Employed					Perkins		Perkins			
<b>Public Services</b>										
Public Safety	Navy/ROP		ROP	Army/ROP	Army/ROP	Army/ROP		Army/ROP	ROP	Army/ROP
<b>Transportation</b>										
Operations: Structural Repair & Refinishing						ROP			ROP	
Systems Diagnostics & Services				ROP		ROP			ROP	

# 4.2

# PROGRAM VISION & STANDARDS EDUCATIONAL PROGRAM STANDARDS | HIGH SCHOOL

## ADMINISTRATION

### A. Space Program Public Administration

Lobby	400 SF
Reception	150 SF
Principal	250 SF
Large Conference	250 SF
Principal's Secretary Office	75 SF
Flex Office (2 x 125 sf)	250 SF
Admin Work/ Copy/ Staff Mailbox	400 SF
Supply Storage	200 SF
Toilet (2 x 150 sf)	250 SF

### Main Copy Room

Copy Center	600 SF
Supply Storage	200 SF

### Site Administration/ Discipline

Student Reception/ Waiting	300 SF
AP Clerical Support (3 x 75 sf)	225 SF
Assistant Principal's Office (3 x 150 sf)	450 SF
School Resource Officer Office	125 SF
Conference (2 x 150 sf)	300 SF
<b>Subtotal</b>	<b>4,425 SF</b>

### Attendance

Attendance Office (4 x 75 sf)	300 SF
Current Records Storage	100 SF
<b>Subtotal</b>	<b>400 SF</b>

### Health

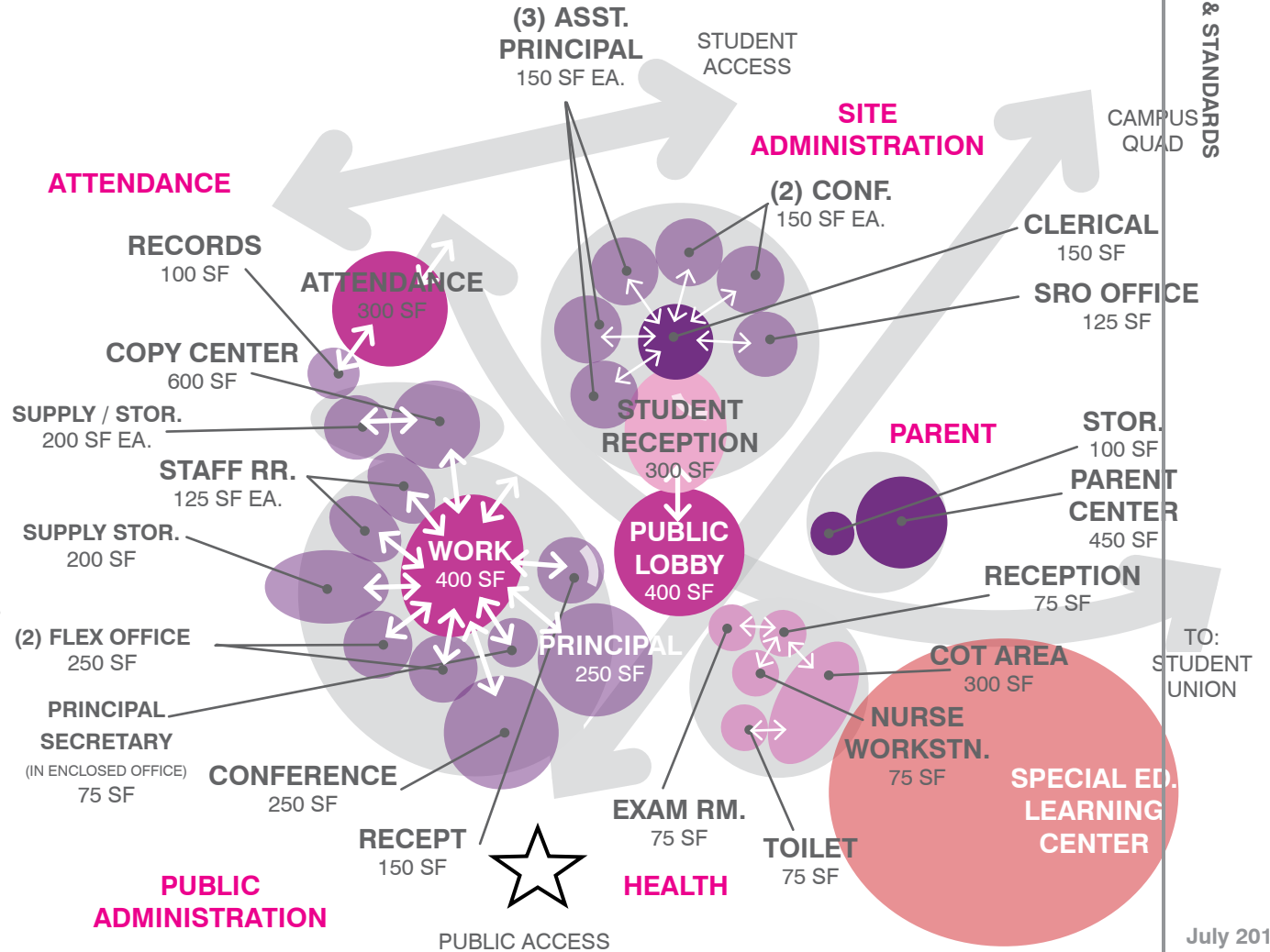
Reception/ Waiting	75 SF
Exam Room	75 SF
Health Workstation	75 SF
Cot Area (3 cots)	300 SF
Toilet	75 SF
<b>Subtotal</b>	<b>600 SF</b>

### Parent Center

Parent Center	450 SF
Storage	100 SF
<b>Subtotal</b>	<b>550 SF</b>

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## B. Adjacency Diagram





### ADMINISTRATION

#### C. Program Activities

- Check-in/ Front entry/ 'Welcome Center'
- Administrative duties
- Conference
- Discipline
- Counseling
- Health support
- Staff collaboration
- Attendance, enrollment, supply and records storage

#### D. Design Objectives

- Welcoming Lobby - establish school pride
- Define a clear, single point of entry for campus
- Limited access to 'Private' staff spaces
- Clearly defined 'Public' spaces (lobby and waiting area)
- Centralized Staff Workroom to foster staff collaboration and interaction
- Allow for staff communication and collaboration
- Adequate sized staff lounge and administrative areas
- Adequate storage for record files and office supplies
- Meet CDE standards for health office
- Parent volunteer workroom provides space for parents, an integral part of the learning community
- Area for student artwork display



# 4.2

# PROGRAM VISION & STANDARDS EDUCATIONAL PROGRAM STANDARDS | HIGH SCHOOL

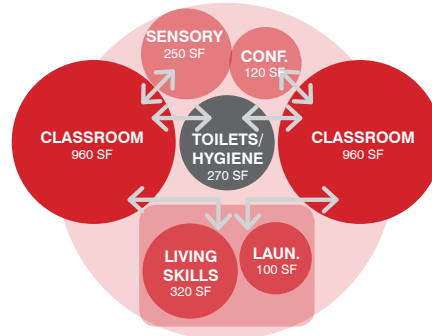
## SPECIAL EDUCATION

### A. Space Program

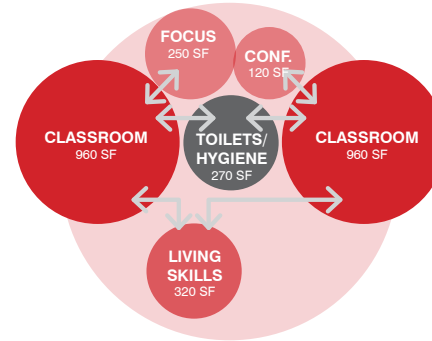
<b>RSP/MM</b>	
Classroom (3 x 960 sf)	<b>2,880 SF</b>
<b>Special Ed (LHS, SH, Autism)</b>	
RSP, MM, DHH, O+M	0 SF
LHS, SH, Autism Classroom (2 x 960 sf)	1,920 SF
Toilets / Hygiene	270 SF
Sensory	250 SF
Living Skills	320 SF
Laundry	100 SF
Conference	120 SF
	<hr/> <b>2,980 SF</b>
<b>Special Education - Bridges</b>	
Classroom (2 x 960 sf)	1,920 SF
Toilets / Hygiene	270 SF
Living Skills	320 SF
	<hr/> <b>2,510 SF</b>
<b>Special Education - Adult Transition</b>	
Classroom (2 x 960 sf)	1,920 SF
Toilets / Hygiene	270 SF
Focus	250 SF
Living Skills	320 SF
Conference	120 SF
	<hr/> <b>2,880 SF</b>
<b>Special Education - ED, VI</b>	
Classroom	960 SF
Focus / Brailist	100 SF
	<hr/> <b>1,060 SF</b>

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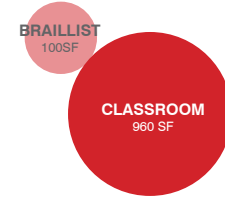
**B. Adjacency Diagram**  
LHS, SH, AUTISM, OH



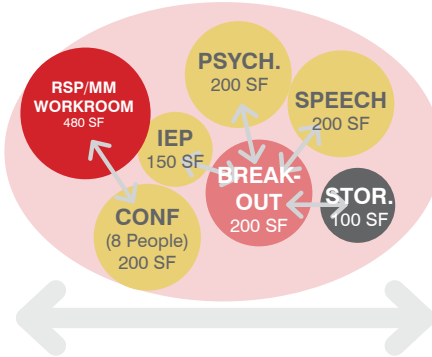
**BRIDGES**



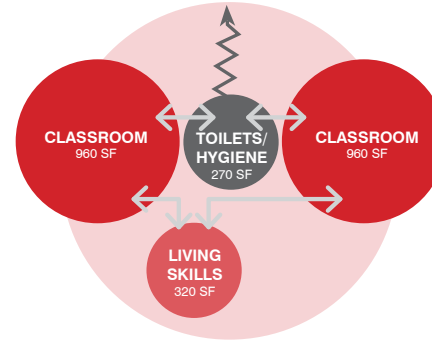
**VI**



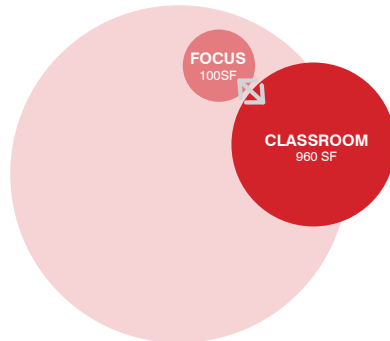
**LEARNING CENTER**



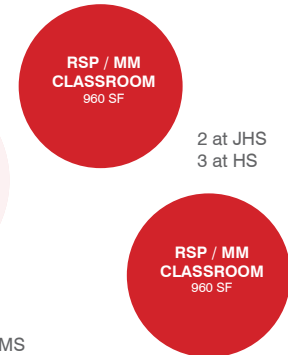
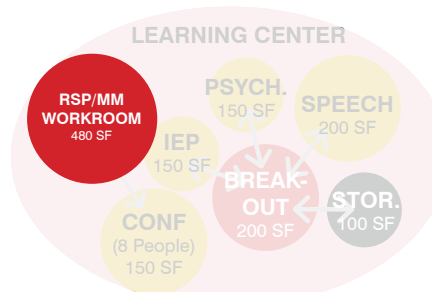
**ADULT TRANSITION**



**E.D.**



**RSP, MM, DHH, O+M**



STUDENTS MAINSTREAMED IN STANDARD CLASSROOMS

4.2

**PROGRAM VISION & STANDARDS**  
**EDUCATIONAL PROGRAM STANDARDS | HIGH SCHOOL**

**SPECIAL EDUCATION**

	DHH	RSP	(CH) Mild/MOD.	LHS	(Moderate) Autism	(SH) MOD./Severe	E.D.	(Severe Ed) Bridges	Visually Impaired	Orthopedic Handicapped	Sensory Room
Anaheim High		6	5		2				1		
Cypress High		5	3		2	2	1				
Kennedy High		4	4	1		1	1				
Katella High		6	5	1			1				1
Loara High		5	5	2		2	1				
Magnolia High		5	4	1	3			3 (Bridges)			1
Savanna High		5	3			2					
Western High		5	4	2							
Trident Center		1 (CDS)	4 (GSD)				1 (GSD)				
Hope Special Ed Center						22					1 (OT-PT)
Oxford Academy											
Adult Transition*				4 (Hope)		2 (D.O.)					

\*Adult Transition programs to be added to Loara HS, Katella HS, Magnolia HS, Western HS, and removed from District Campus and Hope.

**4.2**

**PROGRAM VISION & STANDARDS  
EDUCATIONAL PROGRAM STANDARDS | HIGH SCHOOL**

**SPECIAL EDUCATION**

**A. Space Program (Continued)**

**Learning Center**

RSP/MM Workstations (6 x 80 sf)	480 SF
Break Out Area	200 SF
IEP Conference	150 SF
Records Storage	100 SF
Speech Office	200 SF
Psychologist Office	200 SF
	<b>1,330 SF</b>

**C. Program Activities**

- Individualized physical education activities
- Specialized training or technical support for the incorporation of assistive devices
- Aural rehabilitation
- Monitoring of hearing levels
- Development and improvement of language and communication skills
- Consultation
- Tutoring
- Meetings

- The Bridges program needs to be located in a separate, self-contained area, within a fenced in area preferably with an outdoor yard space.

**D. Design Objectives**

- Include a Learning Center at all school sites. Location should be adjacent or near the Main Administration offices. A workroom within this space will provide a 'hub' / work space for staff. In addition, dedicated offices shall be provided for Counselors.
- Two (2) RSP/MM Classrooms shall be provided at Junior High Schools and (3) RSP/MM Classrooms shall be provided at High Schools. In general, locate in centralized areas of campus, dispersed.
- RSP, MM, DHH, O+M program students shall be mainstreamed and integrated into campus to have full inclusion of Special Ed students on.
- Match existing specific programs for all other programs. Reference matrix on previous page for specific programs implemented at each site.
- Instructional support provided by a special education teacher or instructional aide to help students with special needs in their classes.
- Provide more efficient layout and equipment to ease the teachers interaction with the students e.g. larger rooms, break out focus rooms, built in casework and lifts.
- Sensory and Focus Rooms need to have clear supervision from the adjacent Classroom



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**4.2**

# PROGRAM VISION & STANDARDS EDUCATIONAL PROGRAM STANDARDS | HIGH SCHOOLS

**STUDENT UNION / LIBRARY-MEDIA**

**B. Key Plan**

**A. Space Program**

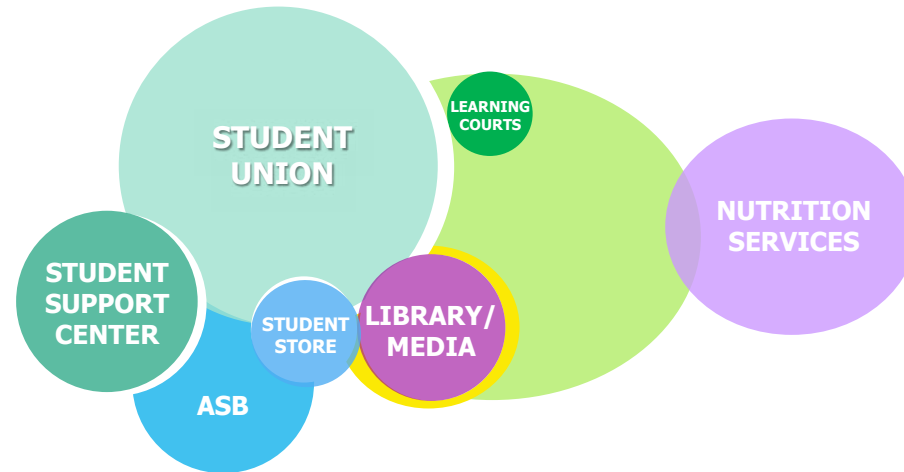
**Library-Media**

Circulation Desk	150 SF
Media Center Office	125 SF
Work/Processing Room	300 SF
Text/ Tech Storage	1,200 SF
Reference/ On-line Catalog Stations	600 SF
Reading Room	1,800 SF
Stacks/Collection	1,800 SF
Reference/ Periodical Stacks	400 SF
Student Work Areas	300 SF
Professional Dev. Library	400 SF
Staff Toilet	75 SF
Innovation Lab	1,200 SF

**Technology Support**

Technology Director Office	150 SF
Technology Workroom	200 SF
Equipment Storage Room	200 SF
Main Data Network Control Room (MDF)	200 SF

**9,100 SF**



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**4.2**

# PROGRAM VISION & STANDARDS EDUCATIONAL PROGRAM STANDARDS | HIGH SCHOOL

## LIBRARY - MEDIA / STUDENT UNION

### A. Space Program

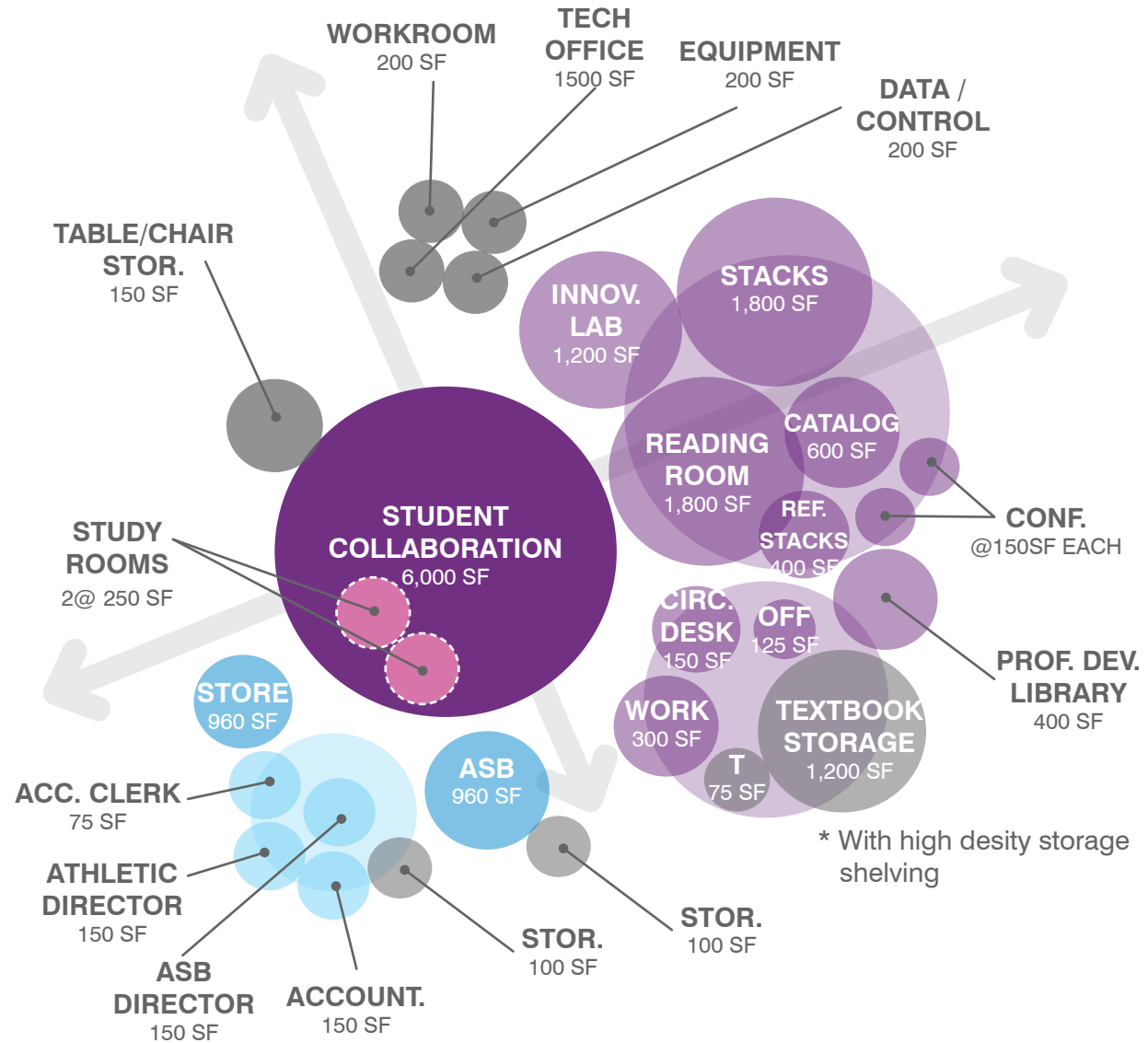
#### Student Union

Collaboration/ Dining	6,000 SF
Study Rooms	500 SF
Table/ Chair Storage	150 SF

#### ASB

ASB Director's Office	150 SF
Athletic Director's Office	150 SF
Student Store	400 SF
Accountant	125 SF
Accounting Clerk	75 SF
Activities Storage Room w/ Safe	100 SF
ASB Room	960 SF
ASB Storage Room	100 SF

**8,710 SF**



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**4.2**

# PROGRAM VISION & STANDARDS EDUCATIONAL PROGRAM STANDARDS | HIGH SCHOOL

## LIBRARY - MEDIA / STUDENT UNION

### C. Program Activities

- Student collaboration
- Study and reading
- Circulation of materials and resources
- Display student work
- Research
- Individual quiet study, small and large group activities
- Academic and social interaction
- Community access (if applicable)

### D. Design Objectives

- The Library-Media Center / Student Union along with Nutrition Services and Main Quad areas form the campus “hub” for the school. Create a sense of connection and synergy between these spaces.
- Centrally locate to promote staff, student and community interactions.
- The library-media center / student union should be a welcoming, comfortable, informal, stimulus-rich, well-lit environment that supports multiple concurrent activities.
- Minimize built-ins and countertops. Make furniture flexible and mobile to allow for multiple configurations in the space. Allow the furniture to provide for large and small groups and individual areas.
- Innovation Lab, located within the Library-Media center to support computer-based programs, on-line learning and virtual instruction. Space can also be utilized for staff development and training.
- Provide dedicated space for MDF / IDF.
- Tech equipment storage needs to be secured.

### E. Design Guidelines

Design for 3.3 SF per pupil plus 600 SF per California Department of Education standards.

#### Reading and Stacks:

- Balance of books vs. online materials
- *Referenced from the “Standards and Guidelines for Strong School Libraries” by the California School Library Association.*
  - Recommended Exemplary Quantitative Standards:

Pleasure Reading	32 - 45 SF per seat
Computing	36-45 SF per workstation

#### Professional Development Library:

- Actual volume count to be determined by site, assume approximately 17 books/ student at 1-inch per book. The use of mobile stacks vs. fixed stacks is important to consider with increasing technology and on-line collections. Mobile stacks will ease reorganization or removal of volumes if on-site book collection requirements decrease. Fictional volumes vs. non-fictional volumes should be considered in stack layout.



## PROGRAM VISION & STANDARDS

### EDUCATIONAL PROGRAM STANDARDS | HIGH SCHOOL

#### NUTRITION SERVICES / CUSTODIAL SERVICES

##### C. Program Activities

- Nutrition services
- Food cooking and preparation
- Food serving
- Student and faculty dining
- Custodial services provides storage for custodial equipment and supplies

##### D. Design Objectives:

- Nutrition Services along with the Student Union and Main Quad components of the campus make up the campus 'hub'. Create a sense of connection and synergy between these spaces.
- Provide adequate queuing and serving area dedicated for nutrition services. Optimize circulation, efficiency of service and flow.
- Food serving area must be adjacent to Kitchen.
- Student queuing into the serving area should be located off a covered area to protect students from the weather and sun. There should be clear views into the serving room to better manage flow.
- The Federal Government is moving towards implementing more scratch cooking at schools. The District Central Kitchen and on-site kitchens will need to move towards supporting the implementation of this.
- Access to restrooms should be adjacent to the lunch area.
- Provide covered area with sun and rain protection for students to eat.
- Custodial closets should be dispersed throughout campus for ease of cleaning staff access.

##### D. Design Guidelines:

- Approximately 4 SF/student for the Lunch Shelter area





**4.2**

# PROGRAM VISION & STANDARDS EDUCATIONAL PROGRAM STANDARDS | HIGH SCHOOL

**STUDENT SUPPORT**

**A. Space Program**

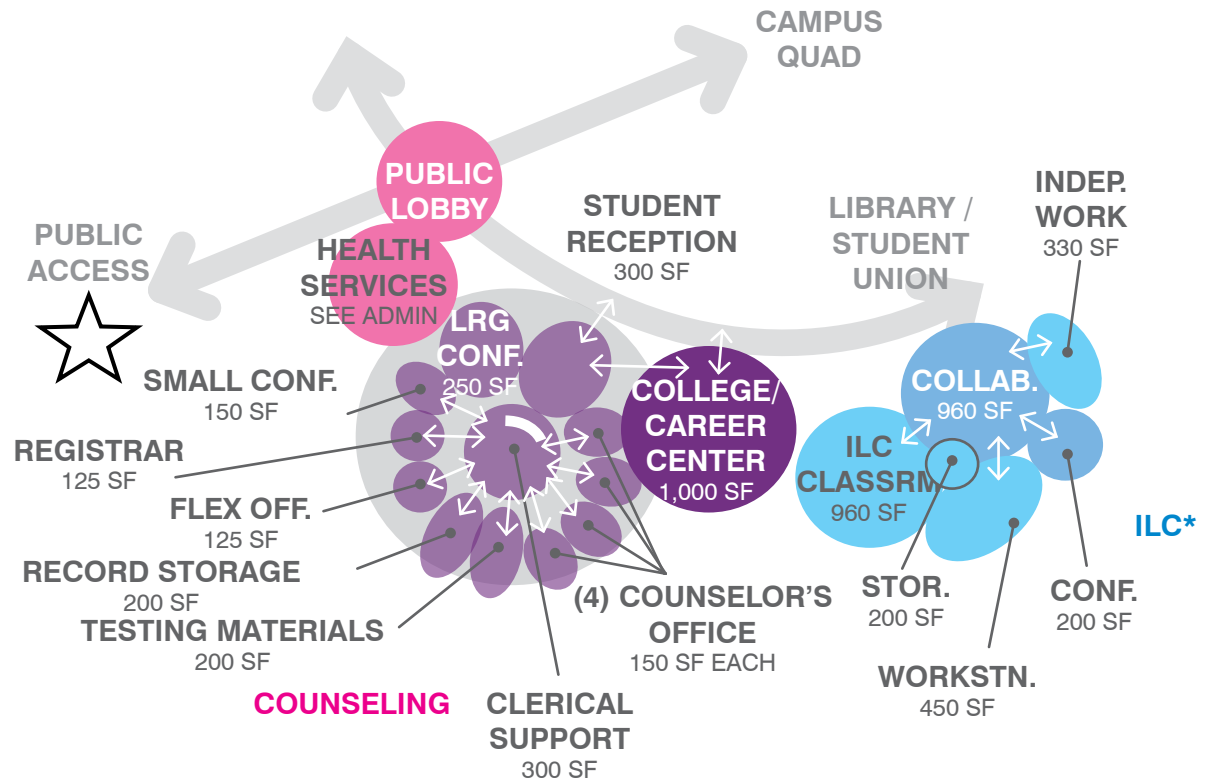
**Counseling Services**

Student Reception/ Waiting Area	300 SF
Clerical Support	300 SF
Counselor's Office	600 SF
Registrar Office	125 SF
Flex Office	125 SF
Testing Materials	200 SF
College/ Career Center	1,000 SF
Small Conference	150 SF
Large Conference	250 SF
Long-term Records Storage	200 SF
<hr/>	
	<b>3,250 SF</b>

**Independent Learning Center (ILC)**

ILC Classroom	960 SF
Workstations	450 SF
Collaborative Work Area	960 SF
Conference	200 SF
Independent Work Area	330 SF
Storage	100 SF
<hr/>	
	<b>3,000 SF</b>

**B. Adjacency Diagram**



\*ILC'S (INDEPENDENT LEARNING CENTERS) TO BE IMPLEMENTED AT ALL HIGH SCHOOLS EXCEPT KENNEDY AND CYPRESS WHICH WILL SHARE ONE

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## PROGRAM VISION & STANDARDS EDUCATIONAL PROGRAM STANDARDS | HIGH SCHOOL

### STUDENT SUPPORT

#### C. Program Activities

- One-on-one instruction
- Small group instruction
- Tutoring
- Counseling
- Independent Learning

#### D. Design Objectives

- Centrally located on campus adjacent to the Library / Media Center
- Offices to accommodate private counseling sessions
- Small group room to be provided for breakout activities
- ILC's shall provide space at each high school site where students can obtain assistance / help earlier and allow for students to stay at their home schools. The space should support varied size learning from individual to large group. Space components to include a Classroom with student computer stations for online learning, study rooms for quiet individual learning, open staff workstations, and a medium-large group lecture space, as well as private conference room space



# 4.2

# PROGRAM VISION & STANDARDS EDUCATIONAL PROGRAM STANDARDS | HIGH SCHOOL

## NUTRITION SERVICES

### A. Space Program

#### Kitchen

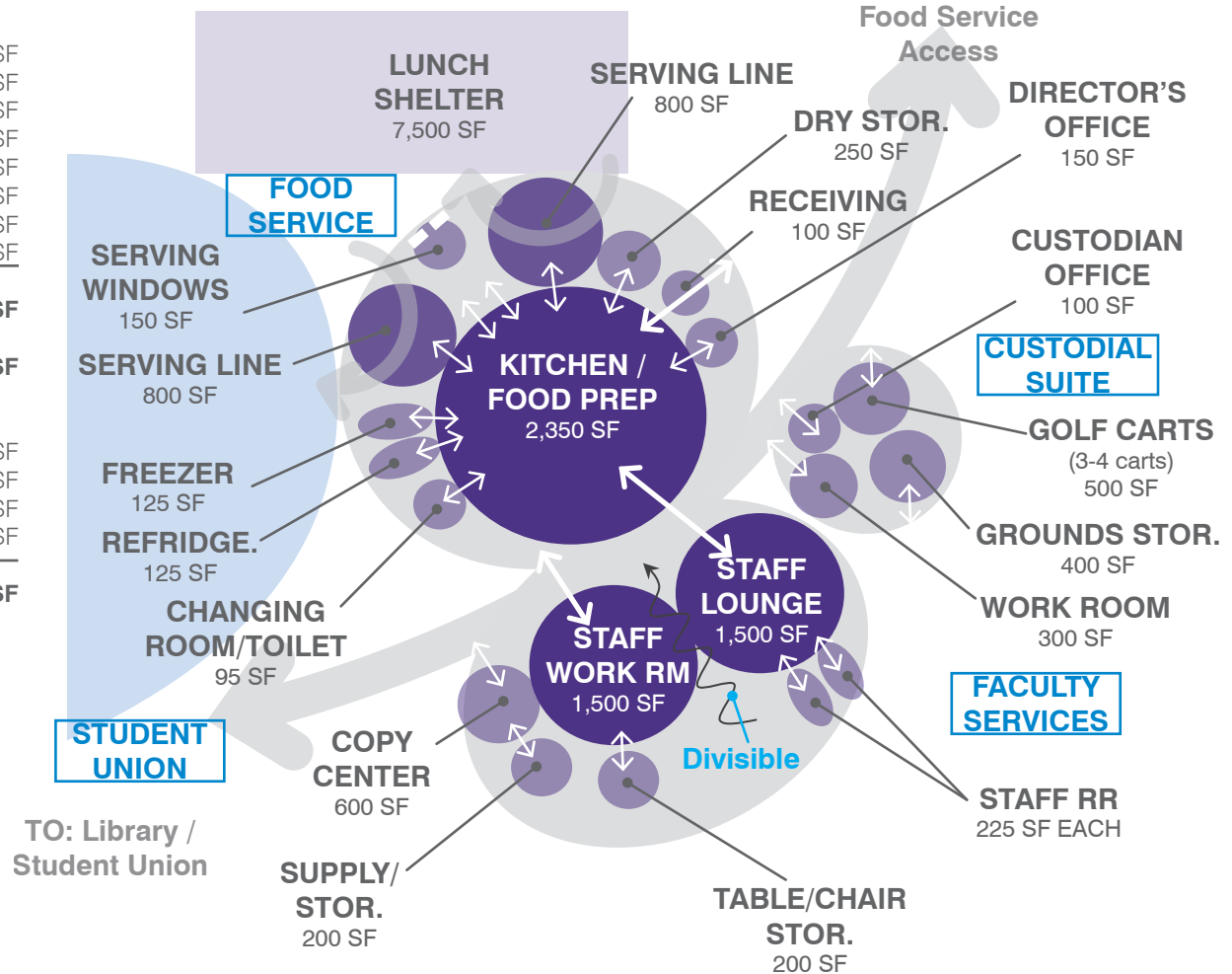
Kitchen/ Food Prep	
Dry Storage	2,350 SF
Walk-in Refrigerator/ Freezer (2 x 125 sf)	250 SF
Serving Line (2 x 800 sf)	250 SF
Serving Windows	1,600 SF
Changing Room/ Toilet	150 SF
Food Service Director Office w/ Safe	95 SF
Receiving Area	150 SF
	100 SF
<hr/>	
	<b>4,945 SF</b>

Lunch Shelter **7,500 SF**

#### Custodial Services

Custodian Office	100 SF
Custodian/ Maintenance Workroom	300 SF
Supply/ Ground Storage	400 SF
Golf Cart Garage/ Storage (4 carts)	500 SF
<hr/>	
	<b>1,300 SF</b>

### B. Adjacency Diagram



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# 4.2

# PROGRAM VISION & STANDARDS EDUCATIONAL PROGRAM STANDARDS | HIGH SCHOOL

## PHYSICAL EDUCATION / ATHLETICS

### A. Space Program

#### Gymnasium

Auxiliary Gymnasium	9,000
Lobby / Hall of Fame	1,000
Concessions	200
Ticket Booth	75
Gym Storage (2 x 200 sf)	400
Boys / Girls Locker / Shower Room (2 x 2,400 sf)	4,800
Boys / Girls Toilet (2 x 250 sf)	500
Boys / Girls Equipment Storage (2 x 200 sf)	400
Boys / Girls PE Staff Office/Locker (2 x 600 sf)	1,200
Coaches Meeting/Video Room	400
Off-Site Coaches Room (2 x 400 sf)	800
Training / Treatment Room	900
Boys/Girls JV Locker Room (2 x 600 sf)	1,200
Boys/Girls Varsity Locker Room (2 x 900 sf)	1,800
Uniform Storage	1,000
Athletic Equipment Storage	1,000
Restrooms	per code

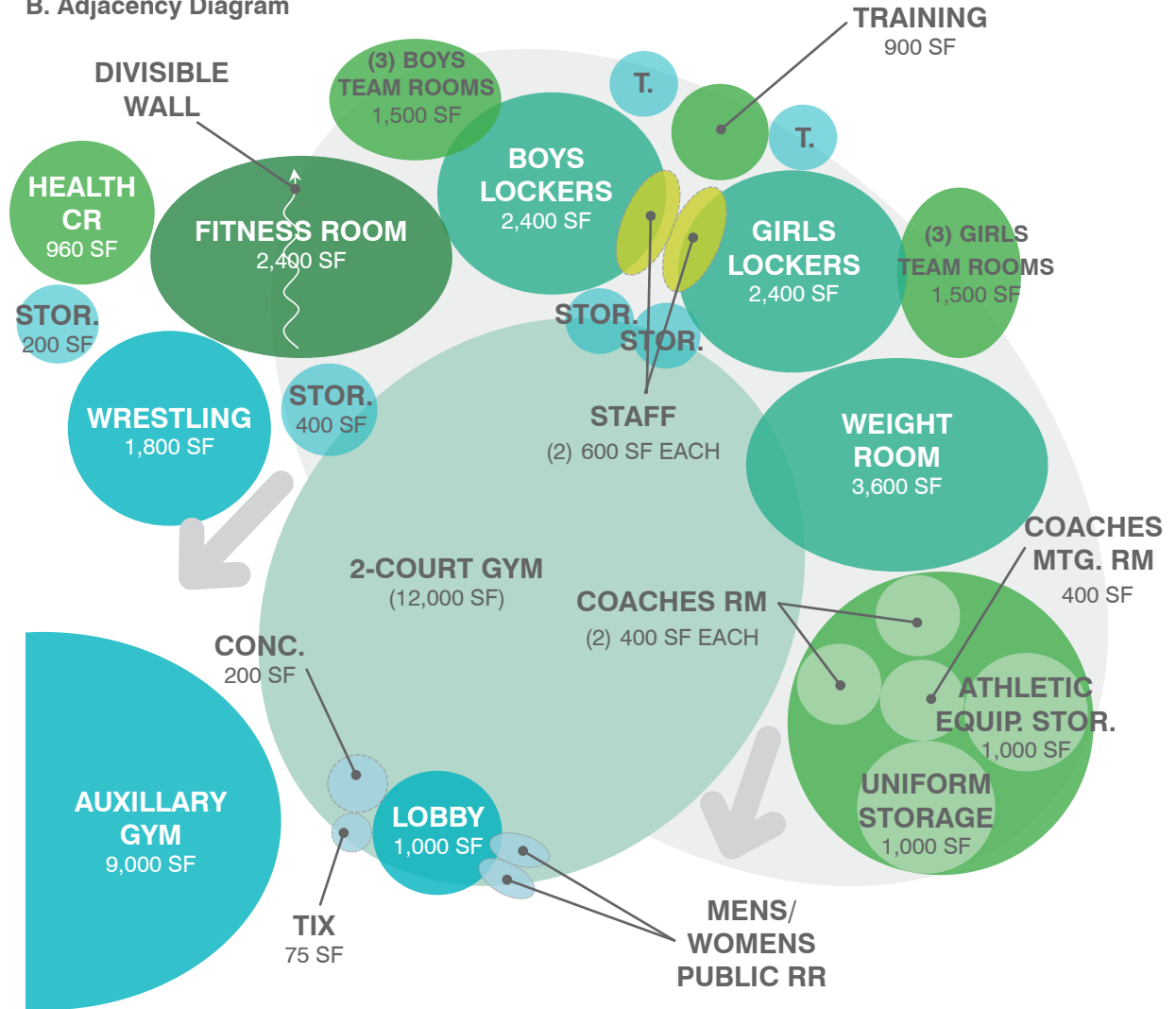
**>24,675 SF**

#### Athletic Teaching Stations

Weight Room (2 x 1,800 sf)	3,600 SF
Fitness Room	2,400 SF
Wrestling Room	1,800 SF
Wrestling Storage	200 SF

**8,000 SF**

### B. Adjacency Diagram



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**4.2**

**PROGRAM VISION & STANDARDS  
EDUCATIONAL PROGRAM STANDARDS | HIGH SCHOOL**

**PHYSICAL EDUCATION / ATHLETICS**

**C. Program Activities**

- Physical Education
- Athletic practice space
- Assembly
- Changing

**D. Design Objectives**

- Physical education programs are integral in supporting students' high school experience
- Engage students to value the importance of fitness and help them develop life long healthy habits
- PE / Athletic facilities are the "face" of the school for the community. Therefore it is important to have good looking facilities that demonstrate school pride
- Gym and locker facilities have access to other PE / Athletic spaces
- Near access to public parking to support joint-use activities
- Adequate size locker rooms and lockers that accommodate student backpacks
- Provide team rooms for Athletics, separate from PE. Include a Training Room.
- Fitness room with sports flooring
- Fitness Classroom to support testing and class functions
- Adequate equipment storage
- District stadium facilities, evaluate synthetic field and track to support heavy, year round usage



# 4.2

# PROGRAM VISION & STANDARDS EDUCATIONAL PROGRAM STANDARDS | HIGH SCHOOL

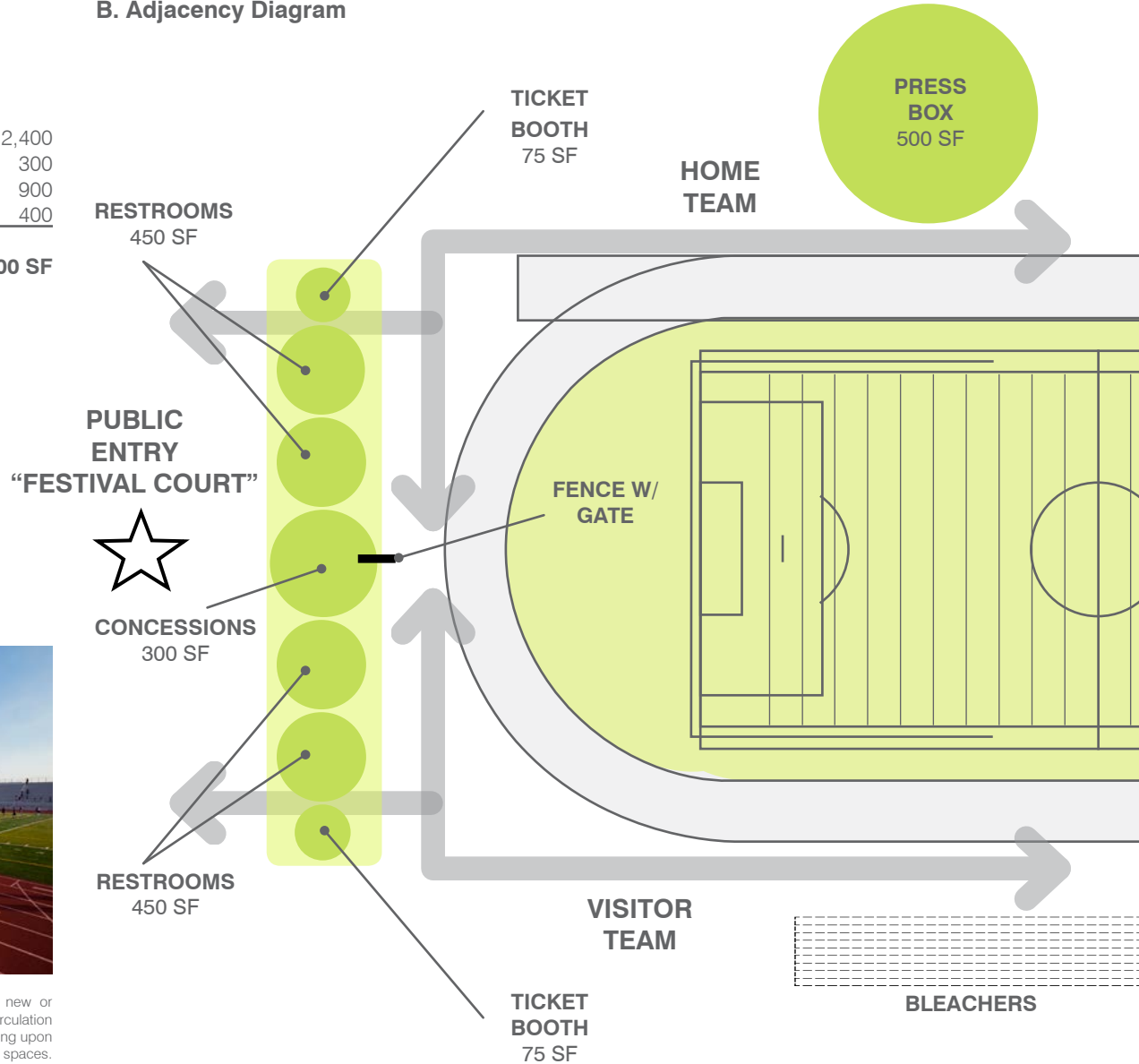
## PHYSICAL EDUCATION / ATHLETICS

### A. Space Program

#### Field House

Field Storage (6 x 400 sf)	2,400
Shared Concessions	300
Public Toilets (4 x 225 sf)	900
Press Box (2 x 200 sf)	400
	<b>4,000 SF</b>

### B. Adjacency Diagram



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**4.2**

**PROGRAM VISION & STANDARDS  
EDUCATIONAL PROGRAM STANDARDS | HIGH SCHOOL**

**PHYSICAL EDUCATION / ATHLETICS**

**B. Adjacency Diagram**

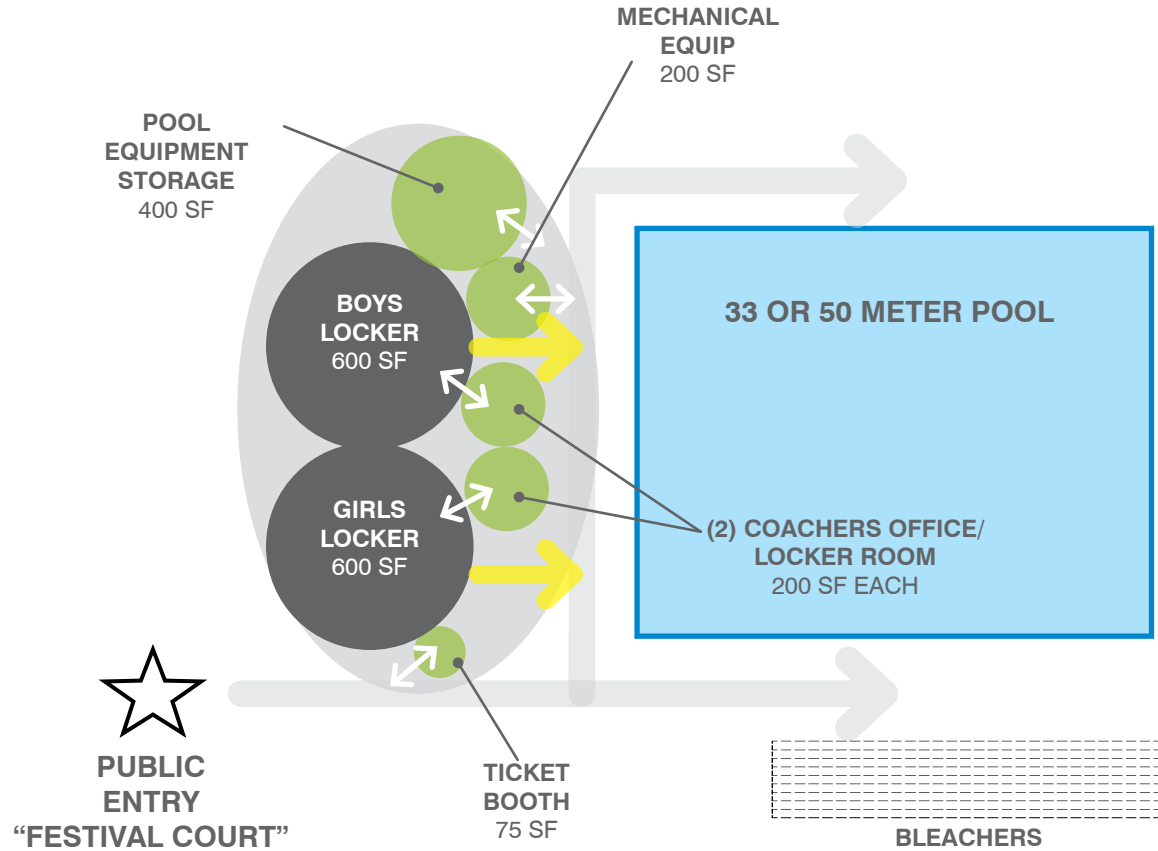
**A. Space Program**

**Aquatic Center**

Ticket Booth	100
Lifeguard/Coaches Office	150
Public Toilets (2 x 350 sf)	700
Pool Equipment Storage(2 x 400 sf)	800
Pool Mechanical Equipment	1,200
	<hr/>
	<b>2,950 SF</b>



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**4.3**

# PROGRAM VISION & STANDARDS DISTRICT STANDARDS SPECIFICATIONS

## STANDARD SPECIFICATIONS

Anaheim Union High School District (AUHSD) has prepared these Standard Specifications to create uniformity between projects with respect to the quality and types of materials and systems to be incorporated into various projects. It is not the intent of these Standard Specifications to dictate the project scope of work. The Standard Specifications do not address all items required for all projects. Specialty products unique to an individual project that are not addressed in these Standards still need to be reviewed and approved by the District. The District welcomes suggestions to improve these Standards; however, deviations from these Standards need to be specifically approved, in writing, by the District.

The following is the Table of Contents for the document. For specific information within a division, see Appendix (Section 8.7)

<b>DIVISION 01</b>	
SECTION 01 57 13	TEMPORARY EROSION AND SEDIMENT CONTROL
SECTION 01 73 29	CUTTING AND PATCHING
<b>DIVISION 02</b>	
SECTION 02 41 00	DEMOLITION
<b>DIVISION 03</b>	
SECTION 03 30 00	CAST-IN-PLACE CONCRETE
<b>DIVISION 04</b>	
SECTION 04 22 00	CONCRETE UNIT MASONRY
<b>DIVISION 05</b>	
SECTION 05 12 00	STRUCTURAL STEEL FRAMING
SECTION 05 50 00	METAL FABRICATIONS
SECTION 05 52 13	PIPE AND TUBE RAILINGS
<b>DIVISION 06</b>	
SECTION 06 16 00	SHEATHING
SECTION 06 41 16	PLASTIC-LAMINATE-FACED ARCHITECTURAL CABINETS
SECTION 06 64 00	PLASTIC PANELING
<b>DIVISION 07</b>	
SECTION 07 01 50.16	ROOFING MAINTENANCE PROGRAM
SECTION 07 21 00	THERMAL INSULATION
SECTION 07 25 00	WEATHER BARRIERS
SECTION 07 51 23.11	GLASS-FIBER-REINFORCED ASPHALT EMULSION ROOFING
SECTION 07 51 23.22	GLASS-FIBER-REINFORCED ASPHALT EMULSION ROOFING
SECTION 07 62 00	SHEET METAL FLASHING AND TRIM

**4.3**

**PROGRAM VISION & STANDARDS  
DISTRICT STANDARDS SPECIFICATIONS**

**DIVISION 08**

- SECTION 08 11 13 HOLLOW METAL DOORS AND FRAMES
- SECTION 08 14 16 FLUSH WOOD DOORS
- SECTION 08 41 13 ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS
- SECTION 08 51 13 ALUMINUM WINDOWS
- SECTION 08 71 00 DOOR HARDWARE
- SECTION 08 80 00 GLAZING

**DIVISION 09**

- SECTION 09 24 00 CEMENT PLASTERING
- SECTION 09 29 00 GYPSUM BOARD
- SECTION 09 30 13 CERAMIC TILING
- SECTION 09 51 13 ACOUSTICAL PANEL CEILINGS
- SECTION 09 51 23 ACOUSTICAL TILE CEILINGS
- SECTION 09 64 66 WOOD ATHLETIC FLOORING
- SECTION 09 65 13 RESILIENT BASE AND ACCESSORIES
- SECTION 09 65 16 RESILIENT SHEET FLOORING
- SECTION 09 65 19 RESILIENT TILE FLOORING
- SECTION 09 67 23 RESINOUS FLOORING
- SECTION 09 68 16 SHEET CARPETING
- SECTION 09 72 00 WALL COVERINGS
- SECTION 09 91 13 EXTERIOR PAINTING
- SECTION 09 91 23 INTERIOR PAINTING
- SECTION 09 96 23 GRAFFITI-RESISTANT COATINGS

**DIVISION 10**

- SECTION 10 11 00 VISUAL DISPLAY UNITS
- SECTION 10 14 19 DIMENSIONAL LETTER SIGNAGE
- SECTION 10 14 23 PANEL SIGNAGE
- SECTION 10 14 26 POST AND PANEL/PYLON SIGNAGE
- SECTION 10 21 13.17 PHENOLIC-CORE TOILET COMPARTMENTS
- SECTION 10 28 00 TOILET, BATH, AND LAUNDRY ACCESSORIES
- SECTION 10 44 13 FIRE PROTECTION CABINETS
- SECTION 10 44 16 FIRE EXTINGUISHERS
- SECTION 10 75 16 GROUND-SET FLAGPOLES

**DIVISION 11**

- SECTION 11 52 13 PROJECTION SCREENS

**DIVISION 12**

- SECTION 12 24 13 ROLLER WINDOW SHADES
- SECTION 12 35 53.16 PLASTIC-LAMINATE-CLAD LABORATORY CASEWORK
- SECTION 12 36 23.13 PLASTIC-LAMINATE-CLAD COUNTERTOPS

**DIVISION 14**

- SECTION 14 24 00 HYDRAULIC ELEVATORS
- SECTION 14 42 00 WHEELCHAIR LIFTS

**DIVISION 21**

- SECTION 21 13 13 WET PIPE FIRE SUPPRESSION SYSTEMS

**DIVISION 22**

- SECTION 22 00 00 PLUMBING

**DIVISION 23**

- SECTION 23 00 00 HVAC
- SECTION 23 09 00 BUILDING AUTOMATION SYSTEM
- SECTION 23 11 23 NATURAL GAS DISTRIBUTION

**DIVISION 26**

- SECTION 26 00 00 ELECTRICAL

**DIVISION 31**

- SECTION 31 10 00 SITE CLEARING
- SECTION 31 22 00 GRADING
- SECTION 31 23 16 EXCAVATION
- SECTION 31 23 16.13 TRENCHING
- SECTION 31 23 23 FILL

**4.3**

**PROGRAM VISION & STANDARDS  
DISTRICT STANDARDS SPECIFICATIONS**

**DIVISION 32**

- SECTION 32 01 90 LANDSCAPE MAINTENANCE
- SECTION 32 11 06 POROUS UNIT PAVING
- SECTION 32 11 08 RECREATIONAL COURT SURFACING
- SECTION 32 11 12 SITE FURNISHINGS
- SECTION 32 11 23 AGGREGATE BASE COURSES
- SECTION 32 11 25 TURF SURFACED ROADWAYS
- SECTION 32 12 16 ASPHALT PAVING
- SECTION 32 12 17 PAVEMENT MARKING, TRUNCATED DOMES AND SIGNAGE
  
- SECTION 32 12 36 SEAL COAT
- SECTION 32 13 13 CEMENT CONCRETE PAVEMENT
- SECTION 32 13 73 CONCRETE PAVING JOINT SEALANTS
- SECTION 32 14 00 UNIT PAVING
- SECTION 32 15 00 DECOMPOSED GRANITE SURFACING
- SECTION 32 17 13 PARKING BUMPERS
- SECTION 32 17 23 PAVEMENT MARKINGS
- SECTION 32 18 13 SYNTHETIC TURF SURFACING
- SECTION 32 18 39 SYNTHETIC RUNNING TRACK SURFACING
- SECTION 32 31 13 CHAIN LINK FENCES AND GATES
- SECTION 32 31 19 DECORATIVE METAL FENCES AND GATES
- SECTION 32 84 00 PLANTING IRRIGATION
- SECTION 32 93 00 LANDSCAPE WORK

**DIVISION 33**

- SECTION 33 05 13 MANHOLE AND STRUCTURES
- SECTION 33 11 16 SITE WATER UTILITY DISTRIBUTION PIPING
- SECTION 33 13 00 DISINFECTING OF WATER UTILITY DISTRIBUTION
- SECTION 33 31 11 SITE SANITARY UTILITY SEWERAGE PIPING
- SECTION 33 41 11 SITE STORM UTILITY DRAINAGE PIPING
- SECTION 33 42 13 PIPE CULVERTS
- SECTION 33 44 19 UTILITY STORM WATER TREATMENT HARVEST AND USE BMPS
  
- SECTION 33 44 19.13 PROPRIETARY BIOTREATMENT BMP – FILTERRA
- SECTION 33 44 19.16 IN-LINE UTILITY STORM WATER FILTERS
- SECTION 33 44 19.19 CATCH BASIN INSERT UTILITY STORM WATER FILTERS
  
- SECTION 33 46 00 UTILITY OIL AND GAS SEPARATORS OTHER STORM WATER TREATMENT FACILITIES
- SECTION 33 46 00 SUBDRAINAGE

Technology  
Security



## PROGRAM VISION & STANDARDS TECHNOLOGY MASTER PLAN

### EXECUTIVE SUMMARY

#### 1.1 Introduction and Objectives

In October of 2013, Anaheim Union High School District retained the services of LPA, Inc. to prepare a District-Wide Facilities Master Plan which will be utilized to develop a prioritized project list for an upcoming District general obligation bond election that will serve as a guide for District facility planning and capital improvements for the next ten (10) years. If approved, it will be placed on the November 2014 general election ballot.

PlanNet Consulting is serving on the LPA team to assess and evaluate specific elements of the District's technology and security infrastructure, systems and services, and provide standards, recommendations, budgets and implementation strategies.

#### 1.2 Methodology

The first phase of the process was to perform Facilities Assessments. To this end, PlanNet met with District IT Leadership, reviewed District-provided documentation; conducted field inspections of a representative selection of school campuses and the District offices; participated in community forums; and conducted meetings with school and district leaders to validate findings and discern District values.

After developing an Assessment of the current environment, and taking into account both industry standards and District needs and values, PlanNet developed a set of Recommendations to address the observed gaps. Rough order of magnitude Budgets were developed for the Recommendations. A high-level Roadmap with phasing was also developed to help guide implementation of the Recommendations. Taken together, these Recommendations, Budgets and Roadmap feed into the Facilities Master Plan.

Through a distillation of the Assessment and Recommendations efforts, PlanNet will develop a set of District Standards which will be presented in high-level design criteria format. These District Standards are focused on Structured Communications Cabling and Security Systems.

#### 1.3 Findings and Observations

Following are the key findings and observations made within each of the technology disciplines analyzed for the assessment.

##### 1.3.1- Physical Infrastructure

1.3.1.1- Fiber cable infrastructure is up-to-date and capable of supporting current and planned network demands.

1.3.1.2- The quantity of copper cables is inadequate to support District plans for expanded IT services. Some of the existing copper cables are outdated and will need to be replaced. Most of the installed copper cable is up-to-date.

1.3.1.3- Equipment rooms generally do not meet current industry standards for clearances, cooling, power, security and future expansion.

1.3.1.4- District WAN is critically dependent on a single Internet/WAN service provider (AT&T). Note: The District plan to address this July 2014.

1.3.1.5- While this assessment is focused on physical infrastructure, it is noted that the current generation of network electronics is inadequate to support planned bandwidth targets of 10gbps to the IDF and 1gbps to the desktop. (Applies to: Cypress High School, Kennedy High School, Oxford Academy, Walker Junior High School, Lexington Junior High School, Loara High School, Hope School and Trident Center)

##### 1.3.2- Physical Security

1.3.2.1- Security systems are not employed at all campuses.

1.3.2.2- Electronic/video surveillance systems are only being used in very few locations and not evenly across district schools.

1.3.2.3- Lighting controls do not allow for selective ability to provide all-night lighted safety corridors.

1.3.2.4- Fencing is not utilized fully, leaving campuses vulnerable to areas that can be easily breached.

1.3.2.5- Wayfinding signage that clearly indicates the location of the school Administration building was missing from many campuses.

# 4.4 PROGRAM VISION & STANDARDS TECHNOLOGY MASTER PLAN

## EXECUTIVE SUMMARY (cont.)

### 1.4 Recommendations with Budget Guidance

#### IT Physical Infrastructure

- MDF Relocation:** The MDF (Main Distribution Frame) of a campus should be in a dedicated purpose space; not shared with Electrical or Mechanical Rooms. The Campus MDF was observed to share space with Electrical Rooms in 12% of the inspected sites. Relocating a campus MDF requires careful planning and the cost of this effort is determined by many variables. For the purpose of this high-level analysis, three cost bases were developed and ascribed to percentages of the school sites based on grouped size estimates of their IT Physical Infrastructure.
- MDF Remediation:** The MDF shall have adequate electrical provisioning, temperature control, and at least 15% available cable capacity. A variety of MDF deficiencies were noted during the site visits. Remediation costs were based on the following:

MDF Relocation Costs					District	School Level
School Level	Percentage Distribution			Total	Average	
High Schools	88%	0%	12%			
8	7	0	1			
	\$ -	\$ -	\$ 150,000	\$ 150,000	\$ 18,750	
Junior High Schools	88%	12%	0%			
8	7	1	0			
	\$ -	\$ 100,000	\$ -	\$ 100,000	\$ 12,500	

MDF Remediation (a la carte)		
HVAC		3,000
Cable Capacity		1,500
Electrical Circuit Capacity		2,000
UPS		2,000
Grounding		2,500

In addition to the projected budget impact, each affected site would need to allocate a dedicated space 64 square foot (8' X 8') for the relocated MDF.

## 4.4 PROGRAM VISION & STANDARDS TECHNOLOGY MASTER PLAN

### EXECUTIVE SUMMARY (cont.)

- Carrier Redundancy: Each MDF should be served by at least two different Carriers (eg: AT&T and Time Warner) – preferably via diverse pathways. This decreases the impact of losing connectivity from any single carrier or pathway. The redundant pathway does not need to be symmetrical. It can be sized according to an evaluation of minimal necessary mission critical bandwidth needs on a school by school basis. For the purpose of this budget impact report, a value of \$50,000 has been assigned to each campus that needs Carrier Redundancy. This number is representative of a typical order of magnitude cost to interconnect a second carrier via a new pathway. It assumes there will be some significant costs for trenching, conduit, cable, splicing termination and inter-connection panels. It is noted that the district is taking steps to address this vulnerability at the conclusion of their current carrier contract (July 2014).
- SCCS Copper: The District should install Category 6 cable for all station cabling. This requires replacing older cables of the Category 5 and Category 3 vintage. The costs associated with this upgrade were based on the following assumptions:
  1. The quantity of classrooms at each inspected campus was estimated.
  2. It was assumed that each classroom would be requiring 8 network drops.
  3. It was assumed that 75% of all classrooms would need to be upgraded.
  4. The all-inclusive average cost of installing a single network drop was estimated to be \$200.

#### Security Infrastructure

- Video Surveillance: The District should provide Video Surveillance Cameras at security control points, at congregation areas, and at the entrance to locations housing valuables (both monetary and information). For the purpose of this budget impact, Low- and High-cost estimates were constructed and ascribed to Junior High Schools and High Schools respectively.

CCTV	Unit Cost	Low	High
Camera Count		10	20
Fixed IP Camera	\$ 1,200	\$ 12,000	\$ 24,000
Direct Network Cost	\$ 500	\$ 5,000	\$ 10,000
NVR & Storage		\$ 20,000	\$ 50,000
		\$ 37,000	\$ 84,000

- Electronic Locks: The District should provide Electronic Door Locking hardware to classrooms with high-value contents as well as key administrative areas. The following assumptions were used in this cost estimation:
- Standard Locks: Locking hardware that is capable of being locked from inside the room should be installed on every classroom entry door. In the event of a “lockdown” situation the staff would be at risk if they needed to go out of the classroom to lock the door.

# 4.4 PROGRAM VISION & STANDARDS TECHNOLOGY MASTER PLAN

## EXECUTIVE SUMMARY (cont.)

- Electronic Locks: The District should provide Electronic Door Locking hardware to classrooms with high-value contents as well as key administrative areas. The following assumptions were used in this cost estimation:
  1. The quantity of classrooms at each inspected campus was estimated.
  2. 100% of all classrooms would receive the upgraded locking hardware; either Electronic or Standard. Three options are considered:
    - 10-20 Electronic Locks per site
    - 1/3 Electronic Locks per site (Note: This is the option represented in the summary budget worksheet.)
    - 100% Electronic Locks
  3. The full cost to purchase and install this hardware per door is estimated to be: \$2000 for Electronic Locks; \$500 for Standard Locks.
- Standard Locks: Locking hardware that is capable of being locked from inside the room should be installed on every classroom entry door. In the event of a “lockdown” situation the staff would be at risk if they needed to go out of the classroom to lock the door.

Door Locking Hardware							
		Junior High School - typical			High School - typical		
	Electronic Qty	Electronic	Standard	Total	Electronic	Standard	Total
Option 1	10-20 per site	20,000	28,000	48,000	40,000	50,000	90,000
Option 2	1/3 of rooms	44,000	22,000	66,000	80,000	40,000	120,000
Option 3	All rooms	132,000	-	132,000	240,000	-	240,000
		Junior High School x 8			High School x 8		
	Electronic Qty	Electronic	Standard	Total	Electronic	Standard	Total
Option 1	10-20 per site	160,000	224,000	384,000	320,000	400,000	720,000
Option 2	1/3 of rooms	352,000	176,000	528,000	640,000	320,000	960,000
Option 3	All rooms	1,056,000	-	1,056,000	1,920,000	-	1,920,000

Door Locking Hardware						
		Other Locations			District	
	Electronic Qty	Electronic	Standard	Total	Total	
Option 1	10-20 per site	40,000	50,000	90,000	1,194,000	
Option 2	1/3 of rooms	85,000	41,250	126,250	1,614,250	
Option 3	All rooms	240,000	-	240,000	3,216,000	

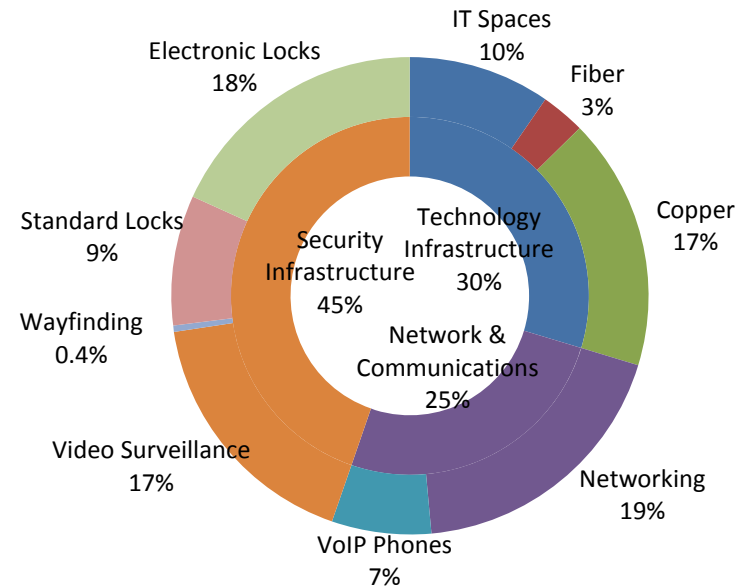


## 4.4 PROGRAM VISION & STANDARDS TECHNOLOGY MASTER PLAN

### EXECUTIVE SUMMARY (cont.)

- Wayfinding: The District should provide clear wayfinding signage that identifies the location of the administration office. A fixed amount of \$1,000 was assigned to all Junior High Schools and \$2,000 was assigned to all High Schools.
- Fencing: All inspected schools have fencing that surrounds the property with various gates to control access on and off the campus. The fence lines at some of the campuses have areas where they are low and are easily climbed. Some campuses have gates for entering the camps from the fence lines bordering residential neighborhoods that are not attended. Development of budget impact to provide remediation of fencing issues would need to be done in collaboration with the architectural and facility design efforts.
- Entry-way Redesign: In many campuses the main entry-way should be redesigned to support the safe and effective greeting of visitors to the administration offices. In most cases this involves raising the administration counter to create a barrier to visitors. In some cases the reception counter needs to be relocated in order to provide clear line of site to the entryway. Development of budget impact to provide remediation of entry-way redesign issues would need to be done in collaboration with the architectural and facility design efforts.
- Lighting: The District should improve light fixtures and wiring to allow for more un-switched lighting on campus – perhaps LED lighting. Lighted corridors are an essential component of campus safety as they facilitate clear way-finding; offer the safety of seeing other persons in the area; provide essential lighting for Video Surveillance cameras; and increase the overall sense of security. Development of budget impact to provide remediation of lighting issues would need to be done in collaboration with the architectural and facility design efforts.

### Technology & Security Costs



# 4.4 PROGRAM VISION & STANDARDS TECHNOLOGY MASTER PLAN

Inspected Sites	Enroll	IDF Qty	Room Qty	*		*			
				MDF Relocation	MDF Remediation	Carrier Redundancy	OSP Fiber/Path	SCCS Copper	
					10%		80%		
					10,000		800		
Anaheim High School	3,232	13	135			5,000	13,000	86,400	
Katella High School	2,686	13	100			5,000	50,000	13,000	64,000
Kennedy High School	2,322	10	90			5,000	50,000	10,000	57,600
Loara High School	2,624	15	150	150,000			50,000	15,000	96,000
Ball Junior High School	1,128	8	60	-	9,000	50,000	8,000		38,400
South Junior High School	1,575	10	75	-	8,500	50,000	10,000		48,000
Sycamore Junior High School	1,490	7	80	100,000			7,000		51,200
Walker Junior High School	1,139	8	50		5,000	50,000	8,000		32,000
Hope School	304	4	50	-	8,000	50,000	4,000		32,000
District Offices			20	-	6,500				12,800
Oxford Academy	1,152	8	55		5,000		8,000		35,200
				250,000	57,000	350,000	96,000		553,600

Summary of Inspected Sites	Site Qty	MDF Relocation	MDF Remediation	Carrier Redundancy	OSP Fiber	SCCS Copper
High School	4	150,000	15,000	150,000	51,000	304,000
Junior High School	4	100,000	22,500	150,000	33,000	169,600
Other Locations	3	-	19,500	50,000	12,000	80,000
	11	250,000	57,000	350,000	96,000	553,600

Average by School Level	Qty	MDF Relocation	MDF Remediation	Carrier Redundancy	OSP Fiber	SCCS Copper
High School	1	37,500	3,750	37,500	12,750	76,000
Junior High School	1	25,000	5,625	37,500	8,250	42,400
Other Locations	1	-	6,500	16,667	4,000	26,667
	1	22,727	5,182	31,818	8,727	50,327

Projection for all District Locations	Site Qty	MDF Relocation	MDF Remediation	Carrier Redundancy	OSP Fiber	SCCS Copper
High School	8	300,000	30,000	300,000	102,000	608,000
Junior High School	8	200,000	45,000	300,000	66,000	339,200
Other Locations	5	-	32,500	83,333	20,000	133,333
	21	500,000	107,500	683,333	188,000	1,080,533

# 4.4 PROGRAM VISION & STANDARDS TECHNOLOGY MASTER PLAN

Inspected Sites	Enroll	IDF Qty	Room Qty	*					
				Network Electronics	VoIP Comm	Video Surveillance	Electronic Locks	Standard Locks	Way-Finding
							34%	66%	
							2,000	500	
Anaheim High School	3,232	13	135	60,000	25,000	84,000	91,800	44,550	2,000
Katella High School	2,686	13	100	60,000	25,000	84,000	68,000	33,000	2,000
Kennedy High School	2,322	10	90	60,000	25,000	84,000	61,200	29,700	2,000
Loara High School	2,624	15	150	60,000	25,000	84,000	102,000	49,500	2,000
Ball Junior High School	1,128	8	60	40,000	19,000	37,000	40,800	19,800	1,000
South Junior High School	1,575	10	75	40,000	19,000	37,000	51,000	24,750	1,000
Sycamore Junior High School	1,490	7	80	40,000	19,000	37,000	54,400	26,400	1,000
Walker Junior High School	1,139	8	50	40,000	19,000	37,000	34,000	16,500	1,000
Hope School	304	4	50	15,000	10,000	37,000	34,000	16,500	1,000
District Offices			20	180,000	15,000		13,600	6,600	
Oxford Academy	1,152	8	55	40,000	19,000	37,000	37,400	18,150	1,000
				635,000	220,000	558,000	588,200	285,450	14,000

Summary of Inspected Sites	Site Qty	Network Electronics	VoIP Comm	Video Surveillance	Electronic Locks	Standard Locks	Way-Finding
High School	4	240,000	100,000	336,000	323,000	156,750	8,000
Junior High School	4	160,000	76,000	148,000	180,200	87,450	4,000
Other Locations	3	235,000	44,000	74,000	85,000	41,250	2,000
	11	635,000	220,000	558,000	588,200	285,450	14,000

Average by School Level	Qty	Network Electronics	VoIP Comm	Video Surveillance	Electronic Locks	Standard Locks	Way-Finding
High School	1	60,000	25,000	84,000	80,750	39,188	2,000
Junior High School	1	40,000	19,000	37,000	45,050	21,863	1,000
Other Locations	1	78,333	14,667	24,667	28,333	13,750	667
	1	57,727	20,000	50,727	53,473	25,950	1,273

Projection for all District Locations	Site Qty	Network Electronics	VoIP Comm	Video Surveillance	Electronic Locks	Standard Locks	Way-Finding
High School	8	480,000	200,000	672,000	646,000	313,500	16,000
Junior High School	8	320,000	152,000	296,000	360,400	174,900	8,000
Other Locations	5	391,667	73,333	123,333	141,667	68,750	3,333
	21	1,191,667	425,333	1,091,333	1,148,067	557,150	27,333

4.4

# PROGRAM VISION & STANDARDS TECHNOLOGY MASTER PLAN

Inspected Sites	Enroll	IDF Qty	Room Qty	Network & Infrastructure				Combined Total
				Communications	IT	Security		
Anaheim High School	3,232	13	135	85,000	104,400	222,350	Anaheim	411,750
Katella High School	2,686	13	100	85,000	132,000	187,000	Katella	404,000
Kennedy High School	2,322	10	90	85,000	122,600	176,900	Kennedy	384,500
Loara High School	2,624	15	150	85,000	311,000	237,500	Loara	633,500
Ball Junior High School	1,128	8	60	59,000	105,400	98,600	Ball	263,000
South Junior High School	1,575	10	75	59,000	116,500	113,750	South	289,250
Sycamore Junior High School	1,490	7	80	59,000	158,200	118,800	Sycamore	336,000
Walker Junior High School	1,139	8	50	59,000	95,000	88,500	Walker	242,500
Hope School	304	4	50	25,000	94,000	88,500	Hope	207,500
District Offices			20	195,000	19,300	20,200	District	234,500
Oxford Academy	1,152	8	55	59,000	48,200	93,550	Oxford	200,750
				855,000	1,306,600	1,445,650		3,607,250

Summary of Inspected Sites	Site Qty	Network & Infrastructure			Combined Total
		Communications	IT	Security	
High School	4	340,000	670,000	823,750	1,833,750
Junior High School	4	236,000	475,100	419,650	1,130,750
Other Locations	3	279,000	161,500	202,250	642,750
	11	855,000	1,306,600	1,445,650	3,607,250

Average by School Level	Qty	Network & Infrastructure			Combined Total
		Communications	IT	Security	
High School	1	85,000	167,500	205,938	458,438
Junior High School	1	59,000	118,775	104,913	282,688
Other Locations	1	93,000	53,833	67,417	214,250
	1	77,727	118,782	131,423	327,932

Projection for all District Locations	Site Qty	Network & Infrastructure			Combined Total
		Communications	IT	Security	
High School	8	680,000	1,340,000	1,647,500	3,667,500
Junior High School	8	472,000	950,200	839,300	2,261,500
Other Locations	5	465,000	269,167	337,083	1,071,250
	21	1,617,000	2,559,367	2,823,883	7,000,250