

The goal of the DAG is to develop comprehensive, equitable, integrated and visionary high school campus designs with authentic school community engagement. Members will be expected to serve for several months throughout the planning process.



# MADISON HIGH SCHOOL MASTER PLAN

Portland Public Schools | Opsis Architecture + Dao

# MHS MASTER PLAN UPDATE



# DESIGN ADVISORY GROUP 01

## AGENDA

Welcome Back

DAG Introductions

Why did you join the DAG?

Code of Conduct

Elect Co-Chairs

Schedule

Group Activity

Learning Possibilities

Report Back

Public Comments

Next Steps



# DAG CODE OF CONDUCT

## R – E – S – P – E – C – T

- Differing opinions
- Decisions you may not agree with
- Allow everyone to speak
- Be brief and to the point
- Be on time and be prepared
- The art of compromise
- Represent the community – not just your specific interest
- Anything in writing is a public document
- Listen more, talk less
- Keep political issues/criticisms to yourself
- Maintain a positive attitude
- Hold each other accountable for maintaining RESPECT

# DAG CHARTER

## **Mission Statement:**

“to **advise** the Madison Modernization Project Team in developing a comprehensive, equitable, integrated and visionary school design with authentic school community engagement”

- DAG advises on priorities for the project, but is not a decision making group
- DAG is one of many stakeholder groups
- DAG members represent the entire project and are information conduits
- DAG participates in open houses and other public meetings
- DAG input is vital to understanding Madison culture, values, priorities, preferences, community, challenges
- DAG is critical to forming the overall vision for the school

# MASTER PLAN

## MADISON HIGH SCHOOL Master Plan



**DRAFT FINAL REPORT**

08.02.16



# VISION STATEMENT



**The new Madison High School will be a welcoming, safe and secure place that builds upon the diversity and resiliency of everyone in the Madison community – students, parents, teachers and neighbors alike.**

**In the 21st Century, teaching and learning happens everywhere. As such, the new Madison will serve as a rigorous and engaging learning atmosphere that helps students embrace the future and solve real world problems, utilizing flexibility, creativity and the strength of a diverse community.**



# GUIDING PRINCIPLES

The MPC studied national trends in 21<sup>st</sup> century school design and married those trends with their own understanding of the particular needs and goals for the Madison community. The resulting principles formed the basis for the Master Plan concept designs:

## **Create State-of-the-Art 21st century learning environments**

*Transform the school's facilities to stimulate learning.*

## **Community Connections**

*Make the school the heart of the Neighborhood.*

## **Social and Academic Connections**

*Create a reflection of the neighborhood spirit and diversity inside Madison HS.*

## **Indoor / Outdoor Connections**

*Create stronger connections between the school's interior and its outdoor courtyards and gardens.*

## **Example of Sustainability**

*Connect the new facility to nature and environmental systems. Inspire students and the community to embrace sustainable behavior.*

## **Access and Security**

*Create safe and convenient access points for students on foot, bike, bus, and cars.*

## **Improve connectivity within the building**

*Create visual landmarks and open sightlines and improve access and flow.*

## **Optimize the Site's Environment**

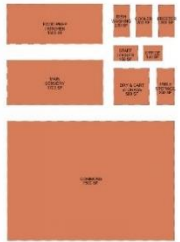
*Address the school's topography while enhancing its use of solar access and adjacent amenities and views.*

## **Enhance the Building's Systems**

*Modernize the school's structural, mechanical, electrical, and technology systems.*



# MASTER PLAN – ED SPECS



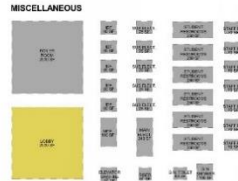
STUDENT CENTER / COMMONS



LIBRARY

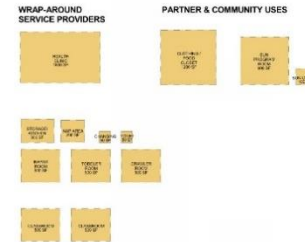


CUSTODIAL



MISCELLANEOUS

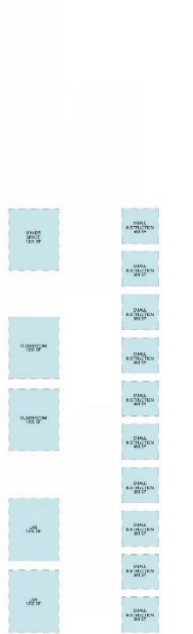
SUPPORT



WRAP-AROUND SERVICE PROVIDERS

PARTNER & COMMUNITY USES

PARTNER & COMMUNITY USES & WRAP-AROUND SERVICE PROVIDERS

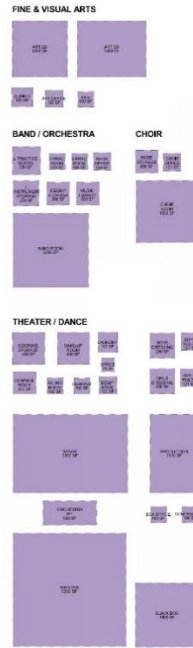


CAREER PREP  
SMALL INSTRUCTION



EXTENDED LEARNING

INSTRUCTIONAL



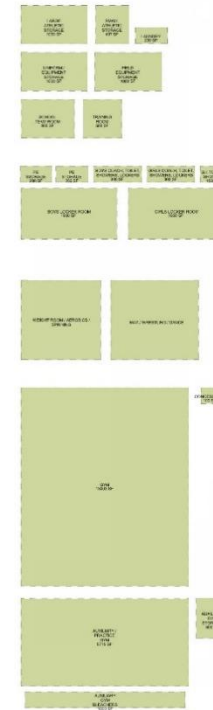
FINE & VISUAL ARTS

BAND / ORCHESTRA

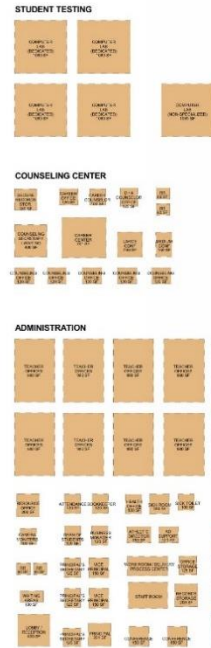
CHOIR

THEATER / DANCE

FINE ARTS



ATHLETICS

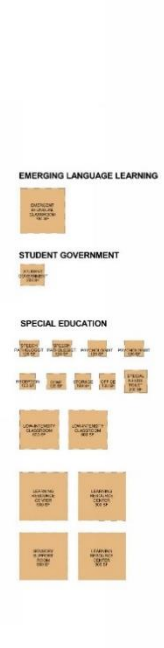


STUDENT TESTING

COUNSELING CENTER

ADMINISTRATION

EDUCATION SUPPORT

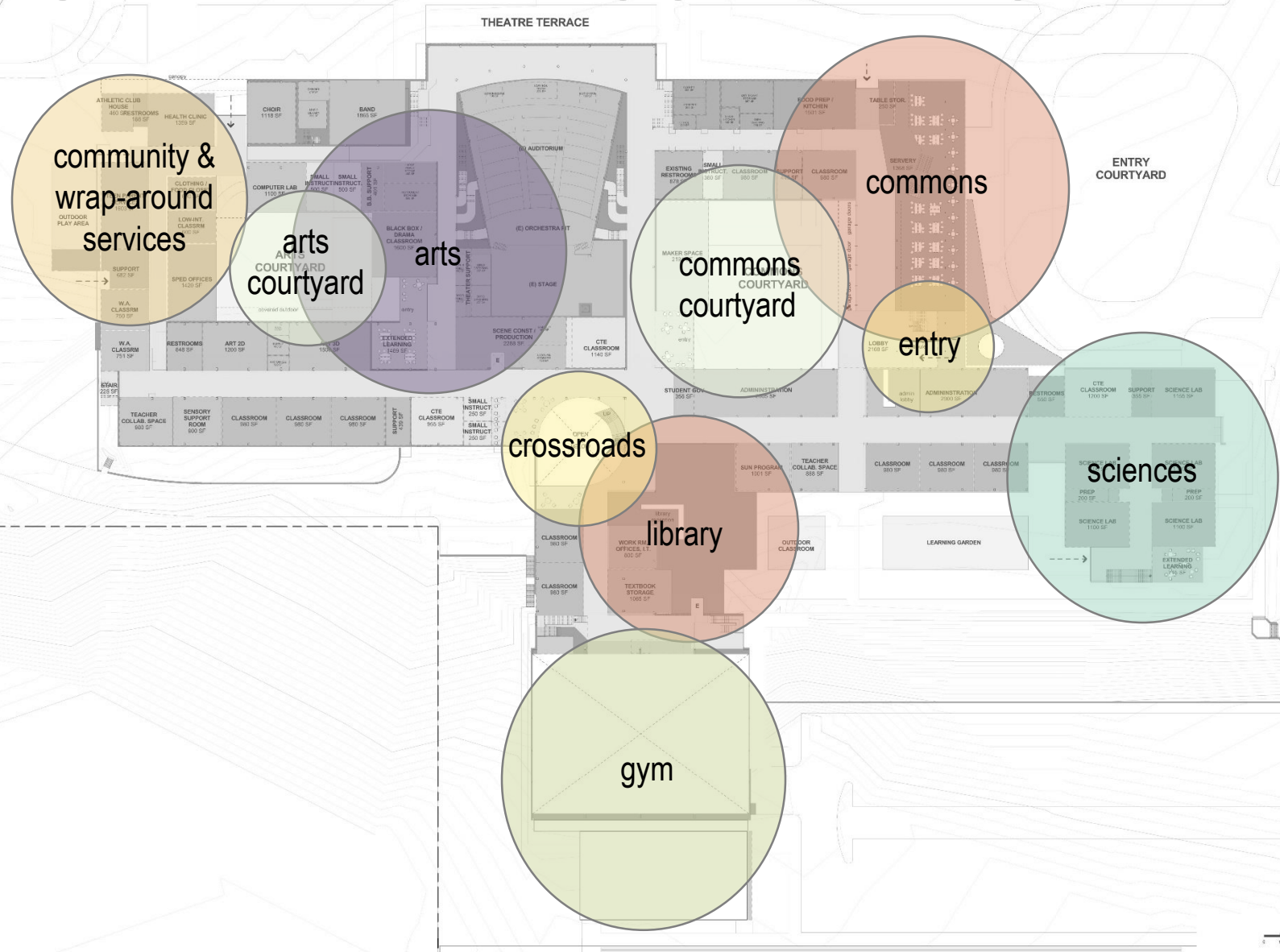


EMERGING LANGUAGE LEARNING

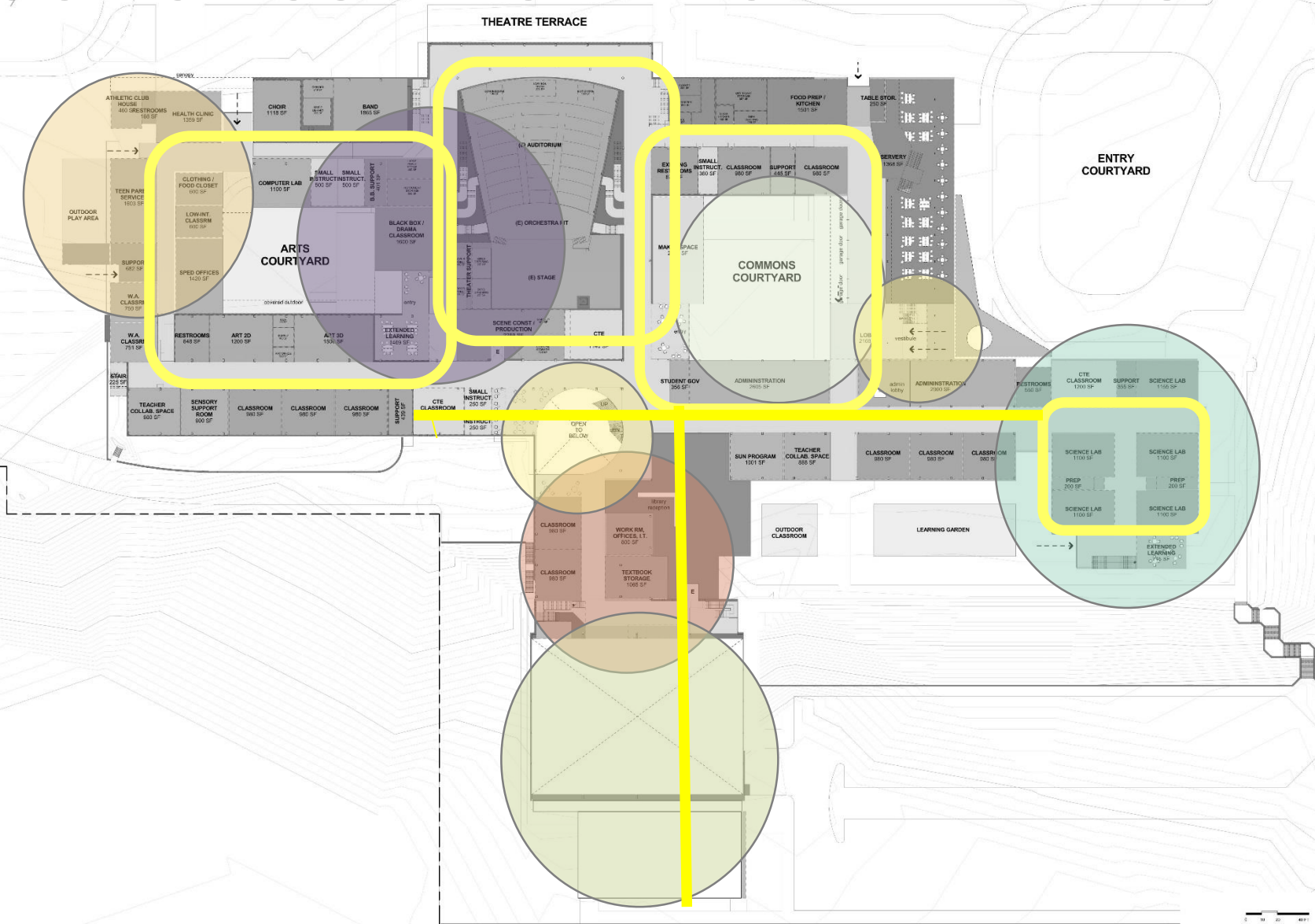
STUDENT GOVERNMENT

SPECIAL EDUCATION

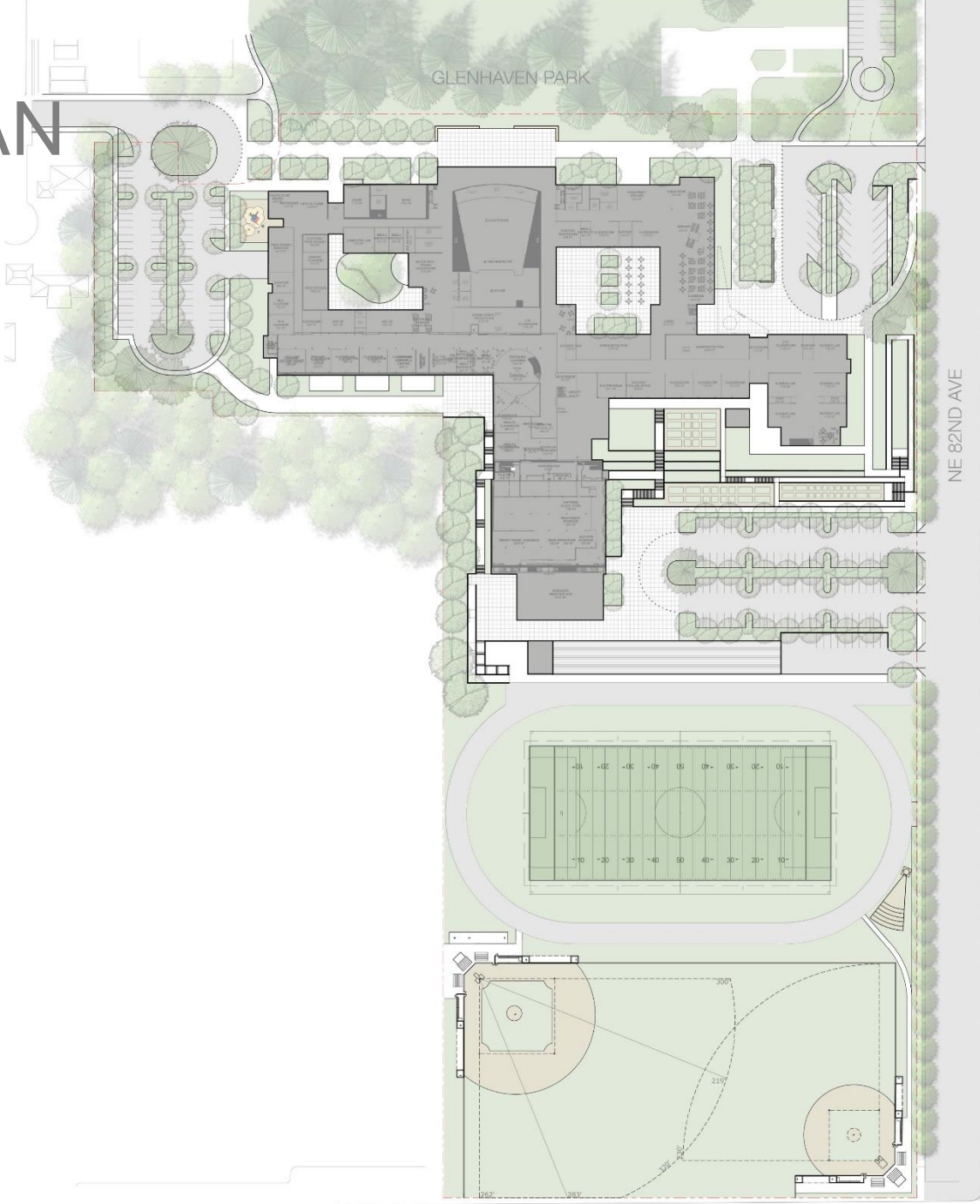
# MASTER PLAN - PROGRAM DIAGRAM



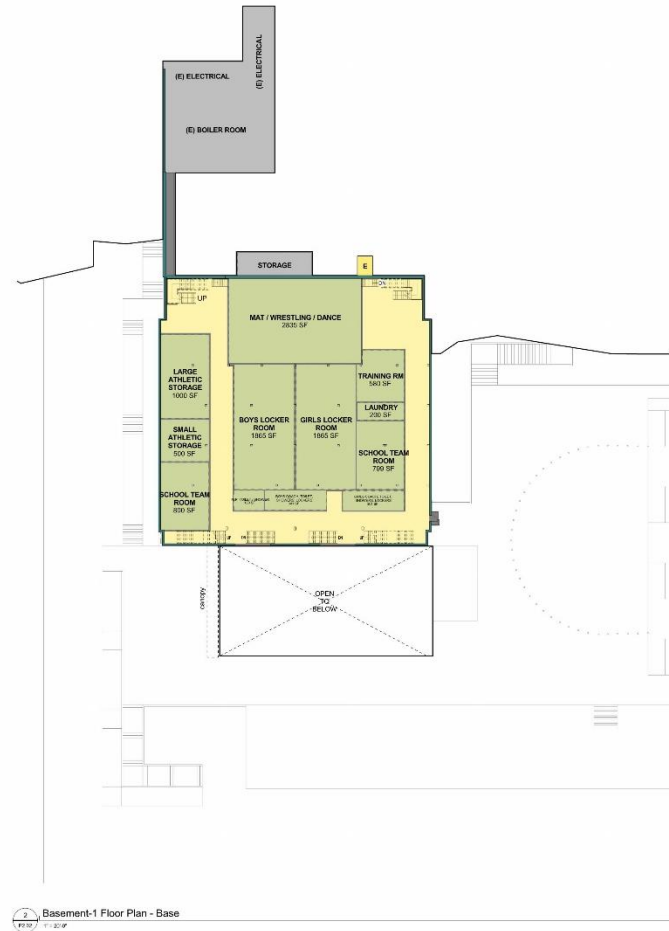
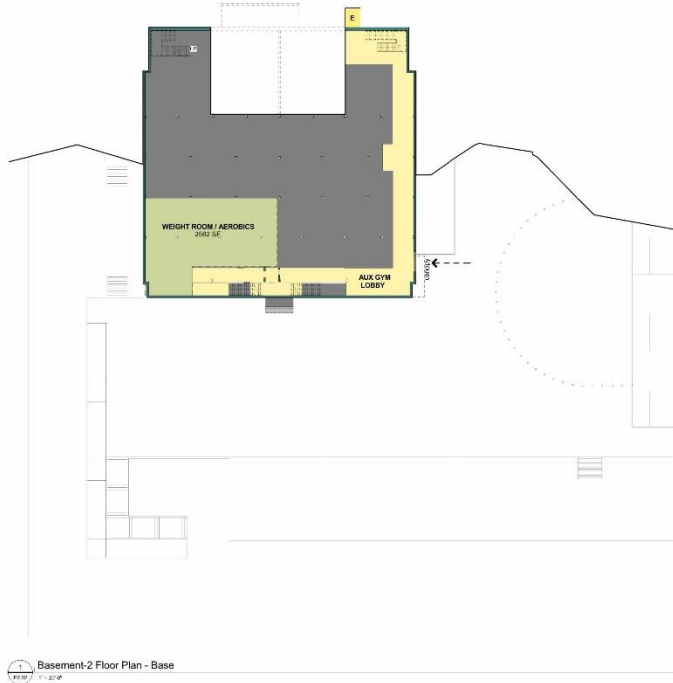
# LOOP CIRCULATION – NO DEAD ENDS



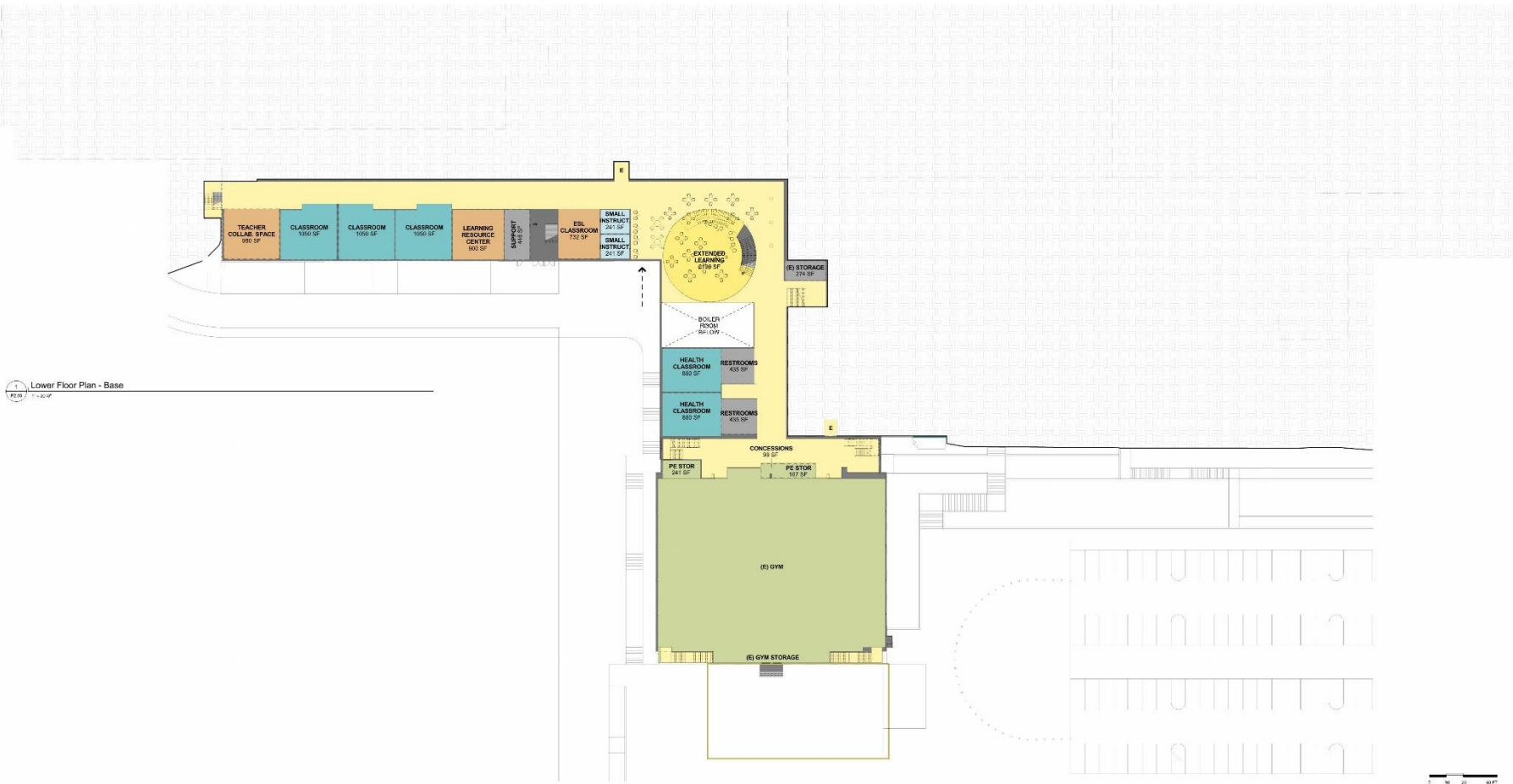
# SITE PLAN



# PROGRAM PLANS – LOWEST LEVELS



# PROGRAM PLANS – LOWER LEVEL



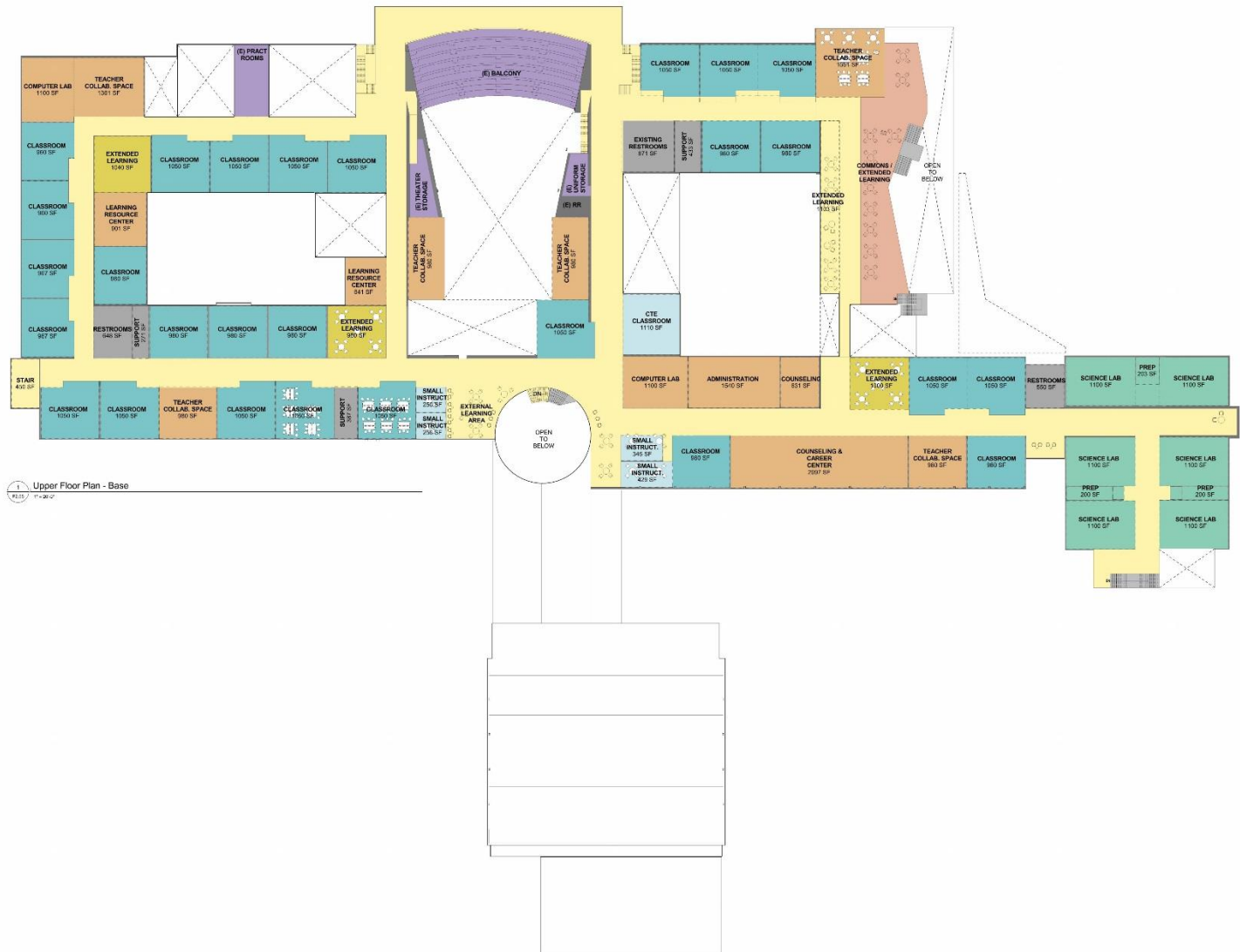
1 Lower Floor Plan - Base  
1-2016

Lower Floor Plan - Base

# PROGRAM PLANS – MAIN LEVEL



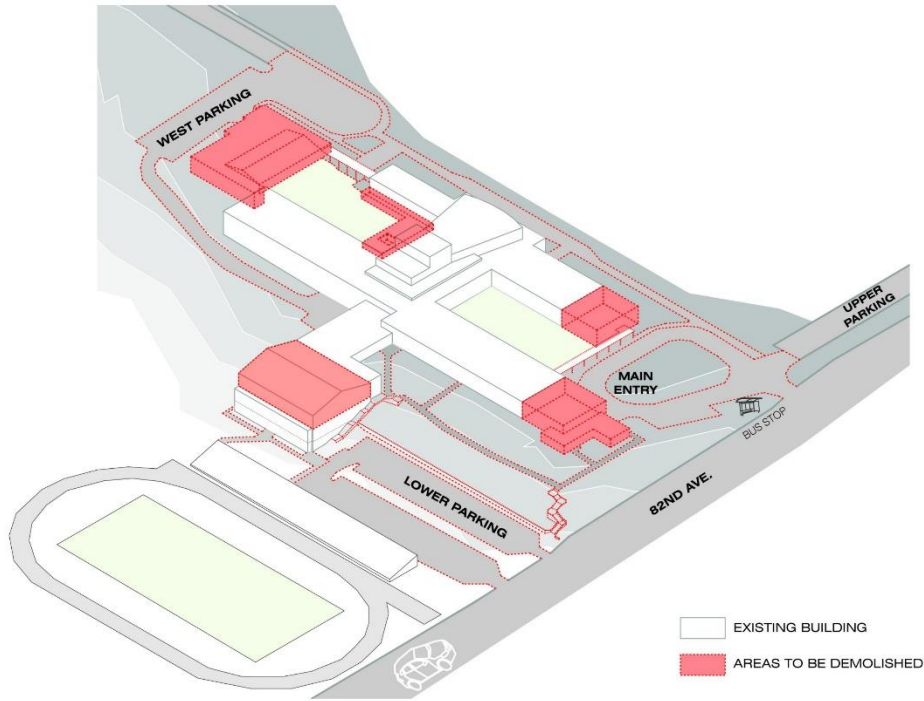
# PROGRAM PLANS – UPPER LEVEL



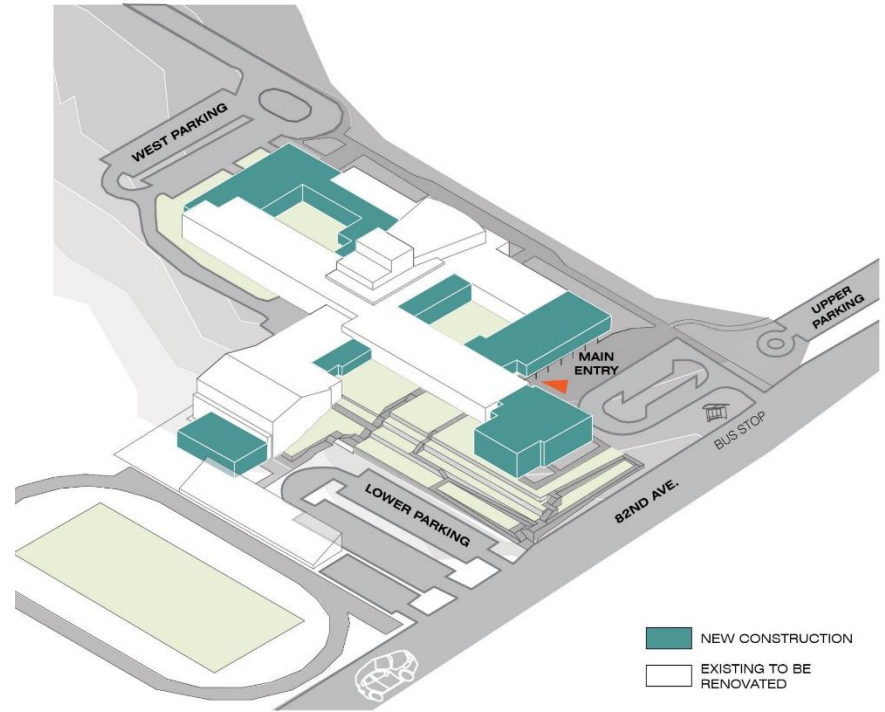
1 Upper Floor Plan - Base  
1/16/17 11-20-17



# COST PLANS

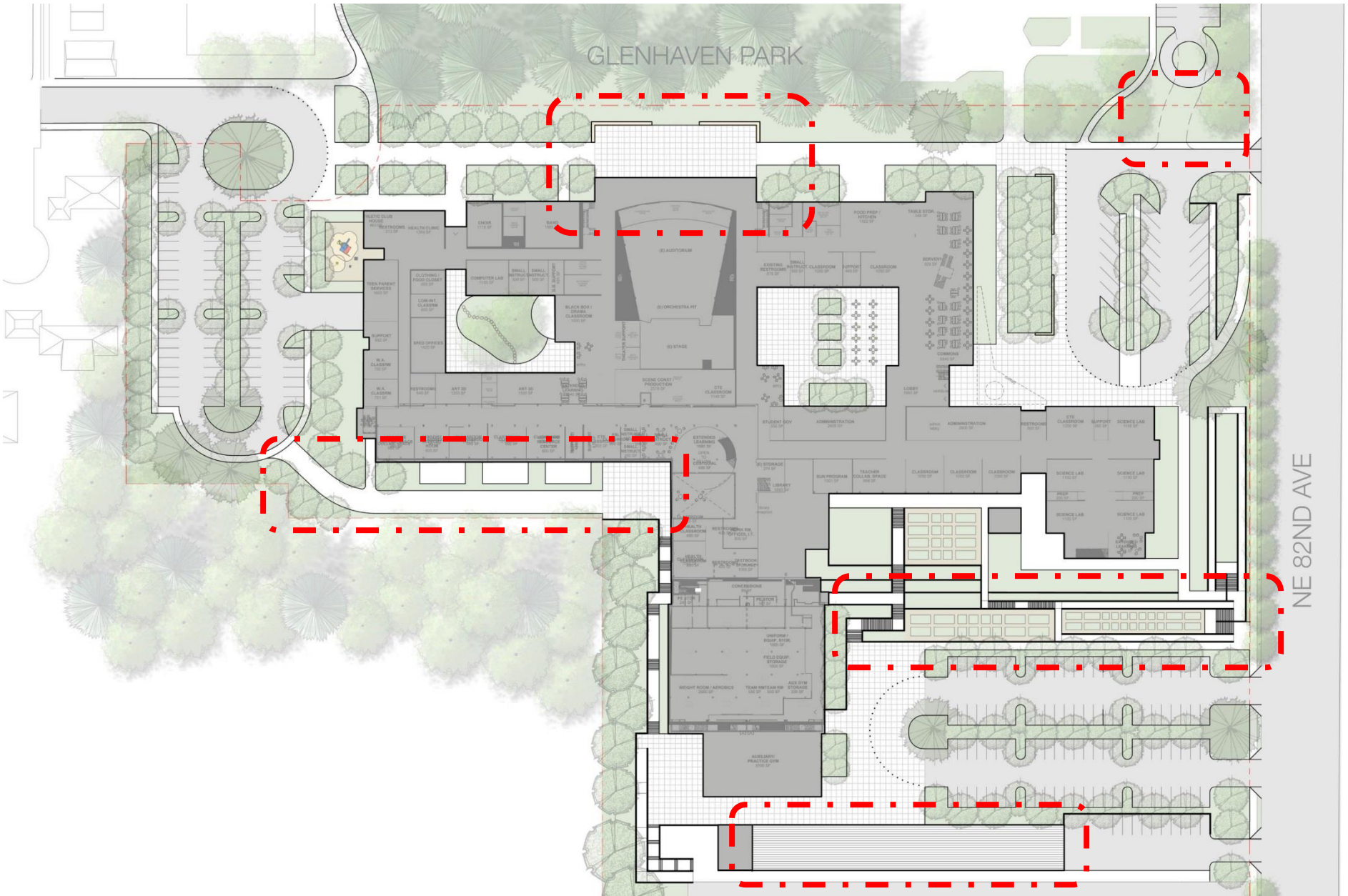


**DEMOLITION DIAGRAM**

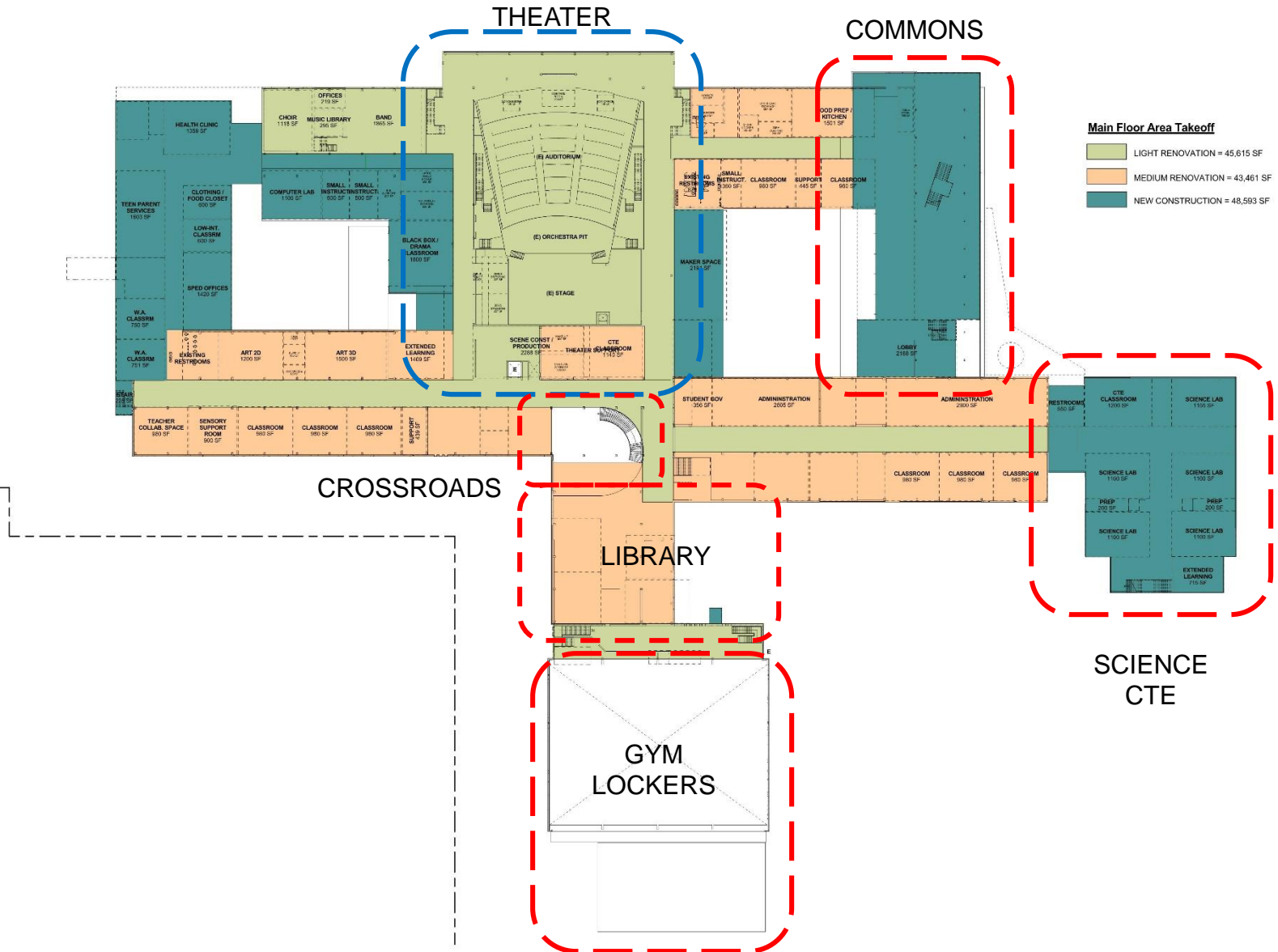


**AREAS OF NEW CONSTRUCTION**

# SITE PLAN – COST OPTIONS



# COST PLANS – MAIN FLOOR PLAN

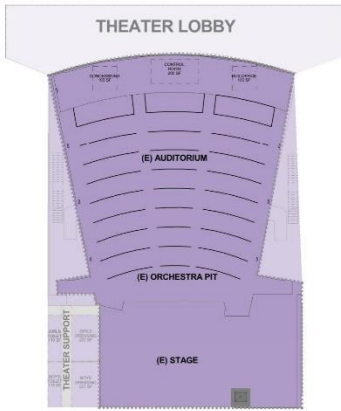


# Madison HS vs Ed Spec v2.6

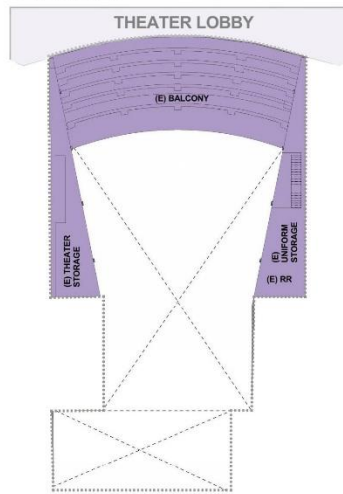
SPACE USE 1.2	ED SPEC REQ'D			MADISON CONCEPTUAL			DELTA (EdSpec - C)	
	Quantity	Room Area	Area	Quantity	Room Area	Area	Quantity	Area (n)
Sub-Total Fine & Visual Arts	2		3,080	2		3,080	0	0
Sub-Total Band/Orchestra	1		3,470	1		4,148	0	678
Sub-Total Choir	0		200	1		1,318	1	1,118
Sub-Total Theater / Dance	2		14,600	2		28,683	0	14,083
<b>SUB-TOTAL REQUIRED FINE &amp; PERFORMING ARTS</b>	<b>5</b>		<b>21,350</b>	<b>6</b>		<b>37,229</b>	<b>1</b>	<b>15,879</b>

SPACE USE 1.2	ED SPEC REQ'D			MADISON CONCEPTUAL			DELTA (EdSpec - C)	
	Quantity	Room Area	Area	Quantity	Room Area	Area	Quantity	Area (n)
CORP PROGRAM	0		12,620	0		14,185	0	1,565
Sub-Total Ed Support - Student Center / Commons	1		5	1		9,434	0	(786)
Sub-Total Ed Support - Media Center / Library	0		200	0		358	0	158
Sub-Total Ed Support - Student Space	0		3,850	0		4,058	0	208
Sub-Total Ed Support - Custodial	0		10,045	0		11,395	0	861
Sub-Total Ed Support - Miscellaneous	0		0	0		0	0	0
<b>SUB-TOTAL REQUIRED EDUCATIONAL SUPPORT</b>	<b>13</b>		<b>87,400</b>	<b>13</b>		<b>79,619</b>	<b>0</b>	<b>2,819</b>

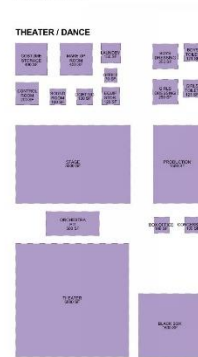
MAIN LEVEL



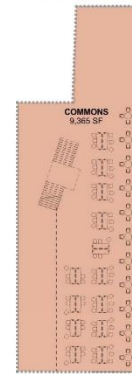
UPPER LEVEL



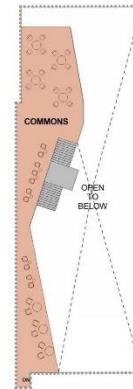
ED SPEC



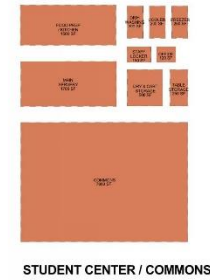
MAIN LEVEL



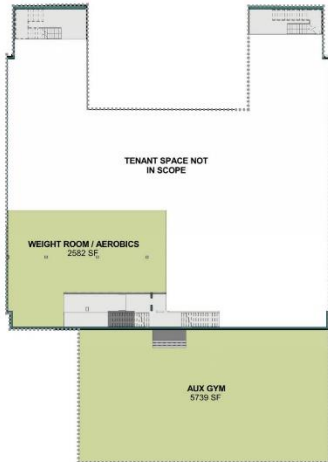
UPPER LEVEL



ED SPEC



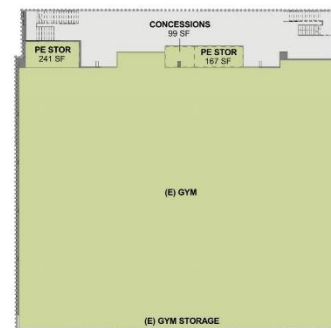
BASEMENT 02



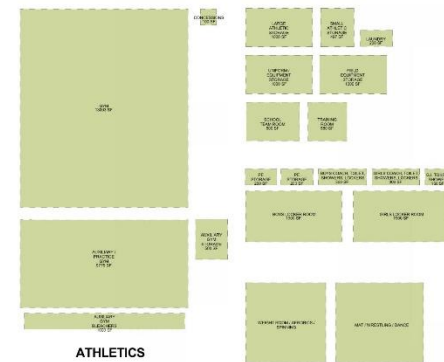
BASEMENT 01



LOWER LEVEL

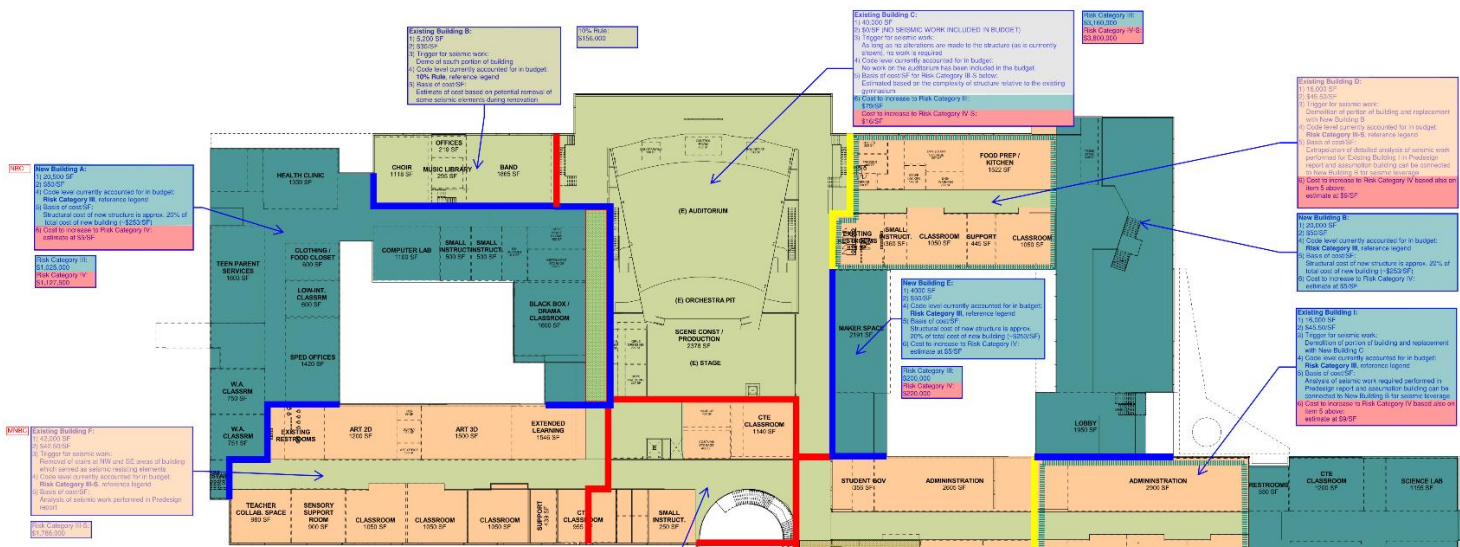


ED SPEC



SPACE USE 1.2	ED SPEC REQ'D			MADISON CONCEPTUAL			DELTA (EdSpec - C)	
	Quantity	Room Area	Area	Quantity	Room Area	Area	Quantity	Area (n)
PHYSICAL EDUCATION/ATHLETICS								
Sub-Total Large Gymnasium	4		28,380	4		31,021	0	2,641
Sub-Total Auxiliary Gym	1		7,200	1		5,739	0	(1,461)
<b>SUB-TOTAL REQUIRED PHYSICAL EDUCATION / ATHLETICS</b>	<b>5</b>		<b>35,580</b>	<b>5</b>		<b>36,760</b>	<b>0</b>	<b>1,180</b>

# DUE DILIGENCE STRUCTURE /SEISMIC



**LEGEND:**  
**Risk Category** accounted for in budget:  
 No Work - Budget did not account for any work in this area as it was deemed not cost feasible and also not required by current building code.  
 10% Rule - Meeting code 10% rule, but not current code for new structures. Structural components are retrofitted locally when alterations increase the seismic demand to capacity ratio for a specific element by more than 10%. Non-structural components are not addressed. Non-Structural include brick veneer, reinforcing and MEP/architectural elements seismic bracing.  
 Risk Category III-S - Structure was strengthened due to code 10% rule (reference previous). However, due to the amount of existing seismic structural alterations, strengthening to the 10% rule essentially adheres to the Risk Category III for the main structure. Therefore, structural components meet current code definition for Risk Category III. Non-Structural components do not meet current code definition for Risk Category III. Non-Structural include brick veneer, reinforcing and MEP/architectural elements seismic bracing. Oppts to coordinate with cost estimator and MEP for additional pricing of Non-Structural components as S&S only includes Structural components.  
 Risk Category III - Meeting current code for a school with occupant load greater than 250. Structural and Non-Structural components meet current code definition for Risk Category III.  
 Risk Category IV-S - Earthquake Relief Shelter requirement (per the proposed code amendment). The cost to upgrade to Risk Category IV-S from Risk Category III includes the following:

- 1) Increasing seismic structural cost by 20% to account for increase in design forces.
  - 2) Emergency Power - ability to hook up to temporary emergency generators
  - 3) Emergency Water Supply - ability to connect to temporary potable water tank
  - 4) Natural Gas Shutoff - Gas lines to be equipped with earthquake actuated gas shutoff
- Oppts to confer with cost estimator and MEP for pricing of Non-Structural components as S&S only includes Structural components (Item 1).**  
**NON-STRUCTURAL COMPONENTS AS WELL AS: PATIO AND REPAIR WALLS AND CEILING, FLOORING.**
- Note:**  
 City of Portland Title 24.85 requires global seismic upgrades (structural and non-structural) if the occupant load is increased by more than 149 occupants or more than 1/3 the area of the building is revised to a higher occupancy hazard. Please note that an increase in gross occupants (egress occupants from a different building) are considered an increase in occupant load.

**KEY FOR JOINTS:**  
 - Indicates location of existing 1" seismic/expansion joints to remain  
 - Indicates location of existing 1" seismic/expansion joint to be increased in size. Reference Predisign Report for more information  
 - Indicates location of new seismic joint

**Existing Building B:**  
 1) 21,000 SF  
 2) 30,000 SF  
 3) Trigger for seismic work:  
 4) Control of seismic electronic during demolition of wall and addition of library to the east  
 5) Code level currently accounted for in budget:  
 6) Risk Category III-S reference legend  
 7) Basis of cost S&S:  
 8) Analysis of seismic work required performed in Predisign report  
 9) Cost to increase to Risk Category IV-S:  
 1) \$16,000,000

**10% Rule:**  
 1) 21,000 SF  
 2) \$16,000,000

**Risk Category III-S:**  
 1) \$16,000,000  
 2) \$16,000,000  
 3) \$16,000,000

**Existing Building C:**  
 1) 80,000 SF  
 2) 80,000 SF  
 3) Trigger for seismic work:  
 4) Control of seismic electronic during demolition of wall and addition of library to the east  
 5) Code level currently accounted for in budget:  
 6) Risk Category III-S reference legend  
 7) Basis of cost S&S:  
 8) Analysis of seismic work required performed in Predisign report  
 9) Cost to increase to Risk Category IV-S:  
 1) \$16,000,000

**10% Rule:**  
 1) 80,000 SF  
 2) \$16,000,000

**Risk Category III-S:**  
 1) \$16,000,000  
 2) \$16,000,000  
 3) \$16,000,000

**Existing Building D:**  
 1) 118,000 SF  
 2) 118,000 SF  
 3) Trigger for seismic work:  
 4) Control of portion of building and replacement with new structure  
 5) Code level currently accounted for in budget:  
 6) Risk Category III-S reference legend  
 7) Basis of cost S&S:  
 8) Analysis of seismic work required performed in Predisign report and geotechnical building cost be considered  
 9) Cost to increase to Risk Category IV-S based on Item 5 above:  
 1) \$16,000,000

**10% Rule:**  
 1) 118,000 SF  
 2) \$16,000,000

**Risk Category III-S:**  
 1) \$16,000,000  
 2) \$16,000,000  
 3) \$16,000,000

**Existing Building E:**  
 1) 14,000 SF  
 2) 14,000 SF  
 3) Trigger for seismic work:  
 4) Control of seismic electronic during demolition of wall and addition of library to the east  
 5) Code level currently accounted for in budget:  
 6) Risk Category III-S reference legend  
 7) Basis of cost S&S:  
 8) Analysis of seismic work required performed in Predisign report  
 9) Cost to increase to Risk Category IV-S:  
 1) \$16,000,000

**10% Rule:**  
 1) 14,000 SF  
 2) \$16,000,000

**Risk Category III-S:**  
 1) \$16,000,000  
 2) \$16,000,000  
 3) \$16,000,000

**Existing Building F:**  
 1) 20,000 SF  
 2) 20,000 SF  
 3) Trigger for seismic work:  
 4) Control of seismic electronic during demolition of wall and addition of library to the east  
 5) Code level currently accounted for in budget:  
 6) Risk Category III-S reference legend  
 7) Basis of cost S&S:  
 8) Analysis of seismic work required performed in Predisign report  
 9) Cost to increase to Risk Category IV-S:  
 1) \$16,000,000

**10% Rule:**  
 1) 20,000 SF  
 2) \$16,000,000

**Risk Category III-S:**  
 1) \$16,000,000  
 2) \$16,000,000  
 3) \$16,000,000

**Existing Building G:**  
 1) 18,000 SF  
 2) 18,000 SF  
 3) Trigger for seismic work:  
 4) Control of portion of building and replacement with new building  
 5) Code level currently accounted for in budget:  
 6) Risk Category III-S reference legend  
 7) Basis of cost S&S:  
 8) Analysis of seismic work required performed in Predisign report and geotechnical building cost be considered  
 9) Cost to increase to Risk Category IV-S based on Item 5 above:  
 1) \$16,000,000

**10% Rule:**  
 1) 18,000 SF  
 2) \$16,000,000

**Risk Category III-S:**  
 1) \$16,000,000  
 2) \$16,000,000  
 3) \$16,000,000

**Existing Building H:**  
 1) 10,000 SF  
 2) 10,000 SF  
 3) Trigger for seismic work:  
 4) Control of seismic electronic during demolition of wall and addition of library to the east  
 5) Code level currently accounted for in budget:  
 6) Risk Category III-S reference legend  
 7) Basis of cost S&S:  
 8) Analysis of seismic work required performed in Predisign report  
 9) Cost to increase to Risk Category IV-S:  
 1) \$16,000,000

**10% Rule:**  
 1) 10,000 SF  
 2) \$16,000,000

**Risk Category III-S:**  
 1) \$16,000,000  
 2) \$16,000,000  
 3) \$16,000,000

**Existing Building I:**  
 1) 12,000 SF  
 2) 12,000 SF  
 3) Trigger for seismic work:  
 4) Control of seismic electronic during demolition of wall and addition of library to the east  
 5) Code level currently accounted for in budget:  
 6) Risk Category III-S reference legend  
 7) Basis of cost S&S:  
 8) Analysis of seismic work required performed in Predisign report  
 9) Cost to increase to Risk Category IV-S:  
 1) \$16,000,000

**10% Rule:**  
 1) 12,000 SF  
 2) \$16,000,000

**Risk Category III-S:**  
 1) \$16,000,000  
 2) \$16,000,000  
 3) \$16,000,000

**Existing Building J:**  
 1) 10,000 SF  
 2) 10,000 SF  
 3) Trigger for seismic work:  
 4) Control of seismic electronic during demolition of wall and addition of library to the east  
 5) Code level currently accounted for in budget:  
 6) Risk Category III-S reference legend  
 7) Basis of cost S&S:  
 8) Analysis of seismic work required performed in Predisign report  
 9) Cost to increase to Risk Category IV-S:  
 1) \$16,000,000

**10% Rule:**  
 1) 10,000 SF  
 2) \$16,000,000

**Risk Category III-S:**  
 1) \$16,000,000  
 2) \$16,000,000  
 3) \$16,000,000

**Auxiliary Data:**  
 1) 10,000 SF - See note 7 below  
 2) 10,000 SF - See note 7 below  
 3) Code level currently accounted for in budget:  
 4) Risk Category III-S reference legend  
 5) Basis of cost S&S:  
 6) Structural cost of new structure is approx. 20% of total cost of new building - \$283,527  
 7) Cost to increase to Risk Category IV-S based on Item 5 above:  
 8) \$16,000,000  
 9) Additional notes:  
 a) While the new structure is in the budget, as part of the new structure, wood glulam beams are proposed for the main structural cost (see note 7 above). We, and RLB, could provide that option or not. We also thought certain IFS could result in a cost. If the auxiliary item they are willing to provide is similar in nature to the original item that was done at previous site.

### ABHT ESTIMATE VS. RLB ESTIMATE FOR STRUCTURAL SEISMIC WORK AT RENOVATIONS:

Building	ABHT Seismic Work Estimate	RLB Seismic Work Estimate
Existing Building A - Demo	\$0	\$0
Existing Building B - Not included	\$0	\$0
Existing Building C - Demo	\$1,728,000	\$1,728,000
Existing Building D - Demo	\$1,728,000	\$1,728,000
Existing Building E - Demo	\$1,728,000	\$1,728,000
Existing Building F - Demo	\$1,728,000	\$1,728,000
Existing Building G - Demo	\$1,728,000	\$1,728,000
Existing Building H - Demo	\$1,728,000	\$1,728,000
Existing Building I - Demo	\$1,728,000	\$1,728,000
Existing Building J - Demo	\$1,728,000	\$1,728,000
Seismic Joints	\$1,010,000	\$1,010,000
Arjum Star	\$280,000	\$280,000
<b>Total</b>	<b>\$8,506,000</b>	<b>\$8,506,000</b>

### RISK CATEGORY IV CONCLUSIONS FOR ASSEMBLY SPACES (GYM, AUDITORIUM, CAFE/COMMONS):

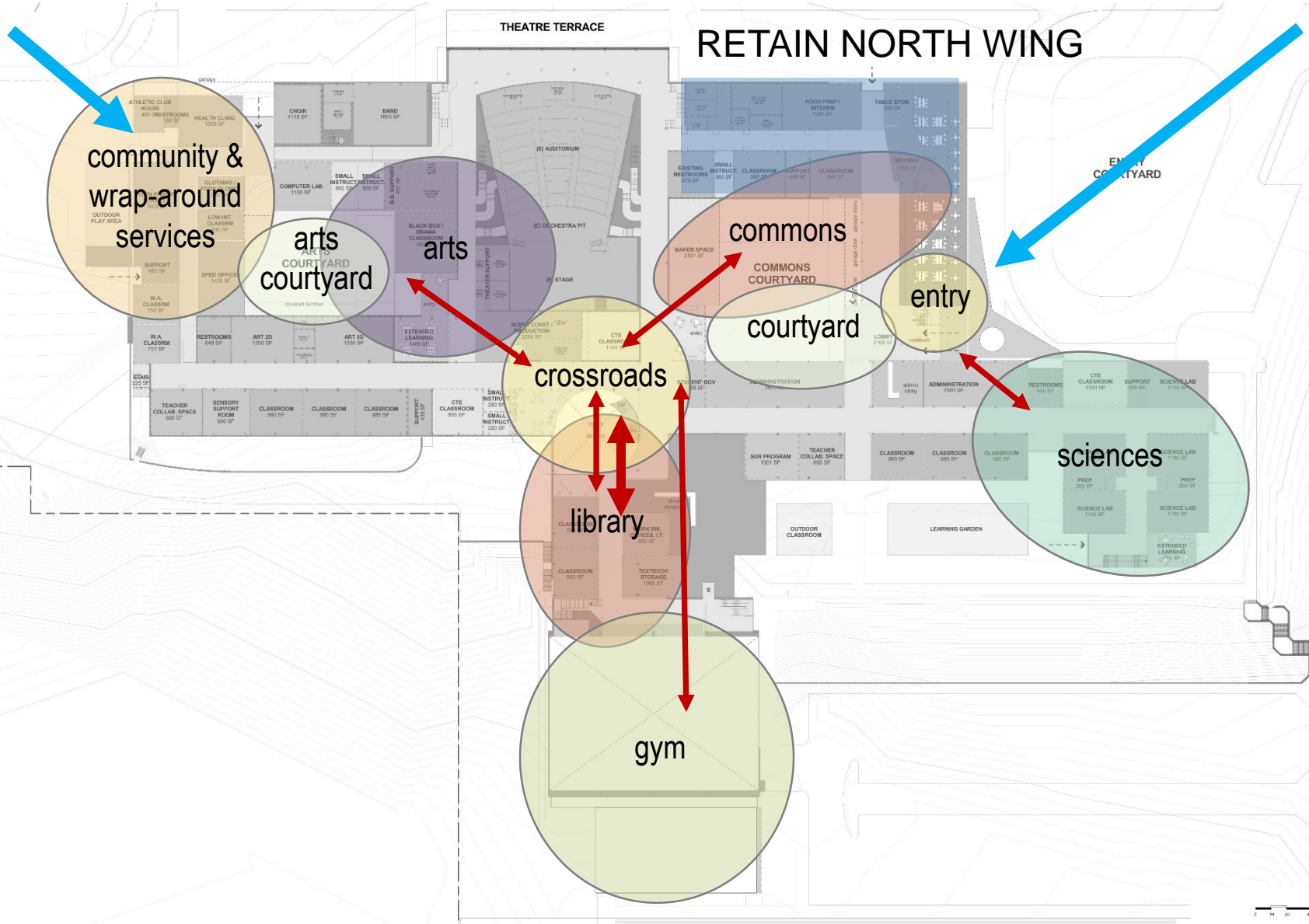
Risk Category III or IV seismic retrofits were not included in the budget for the auditorium or gymnasium (Buildings C and K, respectively) in the pre-design phase. As indicated in building specific notes, no alterations triggering seismic work were shown and therefore no seismic work is required. The costs indicated are an estimate to provide a preliminary indication of the lack of cost feasibility in pursuing seismic retrofit in these two buildings.

New construction is required to be designed to Risk Category III. As indicated in the building specific note, the seismic work for the cafe/commons to Risk Category III was included in the budget. The premium to increase this building to Risk Category IV is much more cost feasible.

The buildings adjacent to the cafe/commons are more cost feasible to upgrade to Risk Category IV as well. The existing buildings adjacent to the cafe/commons (Buildings D and I) that are being connected to the new cafe/commons for seismic (seismic) could potentially be eligible for the Seismic Rehabilitation Grant Program (SRGP). These funds also not only can be used to cover the premium to bring these existing buildings to Risk Category IV, but potentially also cover a good portion of the required seismic work.



# RELATIONSHIP STUDY



# COST OPTIONS

12.1.2016 Estimated Construction Cost

\$104 Million

12.1.2016 PPS Madison Budget

\$ 95 Million

One Year Escalation =

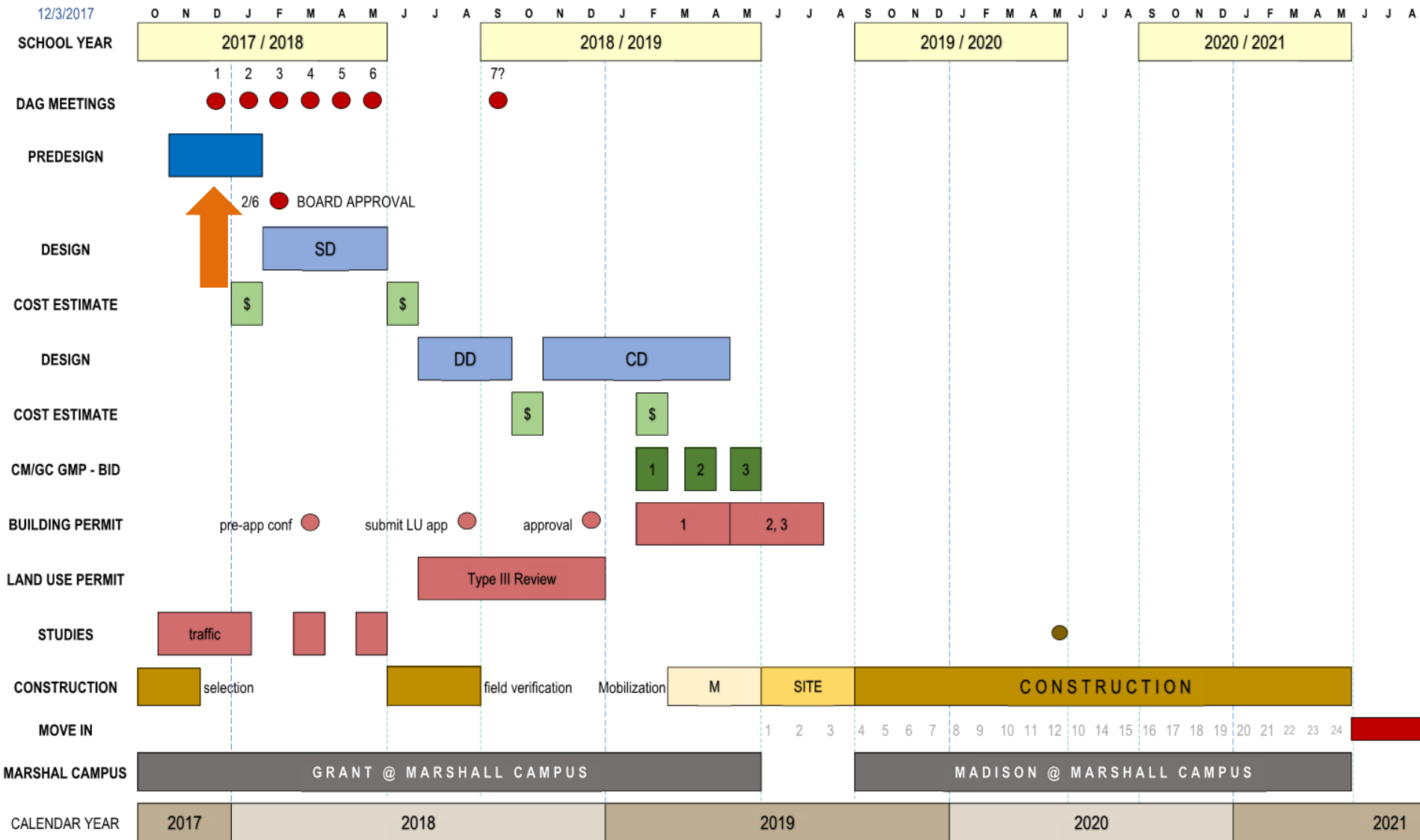
appx \$5 Million

## MPC Design Priorities Exercise

Due Diligence Optional Priorities	Sum	Rank
G. Modify scope of "Beacon" (renovation & new)	32	1
E. Add an atrium at the "Crossroads"	41	2
H. Improve net/gross efficiency by 5%	44	3
A. South Slope Stairs	50	4
C. Stadium upgrades	51	5
I. Reduce scope of gymnasium	51	6
F. Auditorium size reduction (re-purpose for instruction)	55	7
B. South yard improvements	56	8
J. Reduce scope of improvements to basement lease space	60	9
D. Field upgrades	63	10

# SCHEDULE

12/3/2017





# LEARNING SPACE INTERACTIVE

*As many learning pedagogies move toward more interdisciplinary, project-based and individualized modalities our building designs should anticipate a wider range of multiple uses for spaces. A variety of space sizes and functionalities can support these activities.*

For this exercise we want groups to explore two key areas of the Masterplan to imagine the learning possibilities by the grouping together programs and spaces.



# LEARNING SPACE INTERACTIVE

## CAREER TECHNICAL EDUCATION (CTE) PROGRAMS

**Computer Science** - Robotics, 3D modeling and Animation

**Design and Applied Arts** – 3-D design, ceramics & sculpture, textiles

**Digital Media**

**Engineering** – Engineering, Digital electronics, Robotics

**Health Sciences** – Anatomy & Physiology, Medical Interventions, Biomedical Science, Health Services

**Sustainable Agriculture** – Urban Framing, AP Environmental, and Senior Capstone

## SCIENCE PROGRAMS

**Physics**

**Chemistry, AP Chemistry**

**Biology, AP Biology**

**Biomedical Science**

**Forensic Science**

**AP Environmental Science**

**Sustainable Agriculture**

## MAD ARTS

**Digital Design** – graphic design, photography, video

**Fine Arts** – foundations, inter/advanced - painting, drawing, ceramics, printmaking

**Sculpture (CTE)** – Ceramics & Sculpture, Textiles, 3D design

# PLAYING CARDS

makerspace



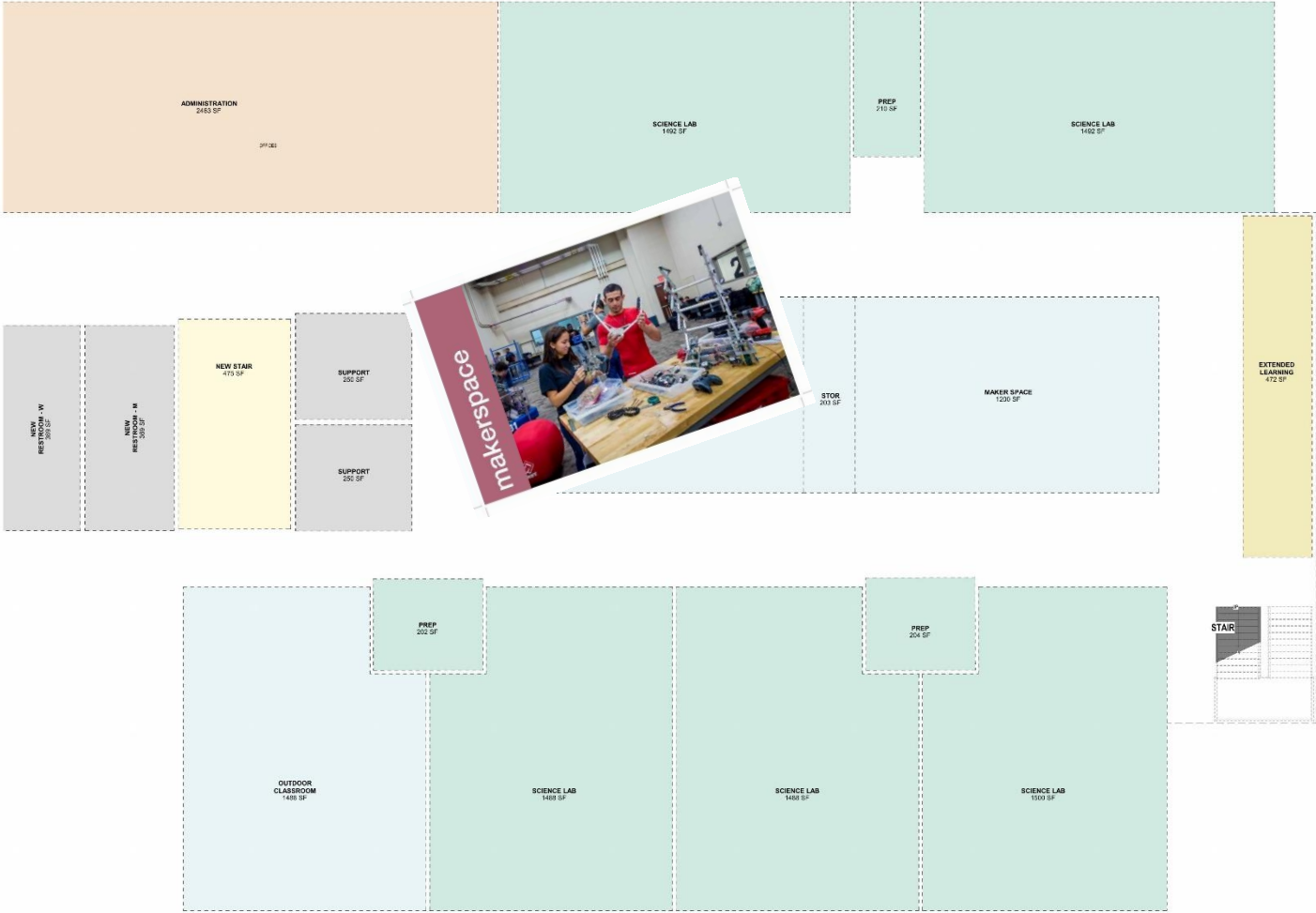
inclusive

performance



adaptable

# GAME BOARD



# GAME BOARD



# DAG NEXT STEPS

## **DAG Meeting 2**

Final Report to Board

Board Master Plan Update Review

**January 22**

January 23

February 20

Review MP Update

## **DAG Meeting 3**

Optional Meeting

**February 26**

February TBD

Franklin HS Tour

Roosevelt HS Tour

## **DAG Meeting 4**

**March 19**

Design Options

## **DAG Meeting 5**

**April 16**

Preferred Option

## **DAG Meeting 6**

**May 14**

Review Schematic Design

DAG Meeting 7 – If Required

September

