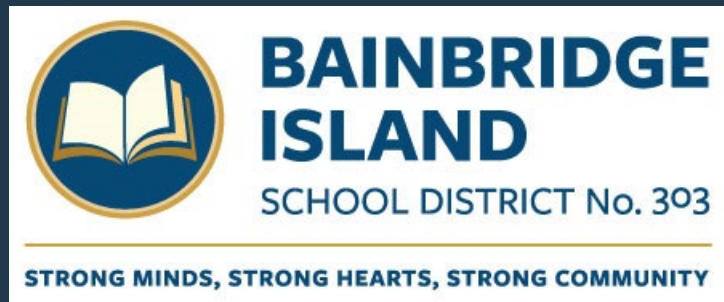


mahlum

11 OCTOBER 2018  
SCHEMATIC DESIGN

# BHS Building 100 Replacement



## PROJECT REVIEW

### 2016-2018

Oct – Oct Ed Spec

### 2018

May-Oct Schematic Design  
September GCCM Approval  
October Ed Spec Approval  
October Schematic Design Approval  
Oct-Dec Design Development

### 2019

January Design Development Approval  
Jan- Aug Construction Documents  
August Construction Documents Approval  
April – August SPED Renovation Construction  
July – August Demolition of Building 100  
September Building 100 Construction begins  
**September Building 300 Substantial Completion**

# PROJECT REVIEW

## 2020

February

Building 200 Construction Begins

November

Building 100 and 200 Construction Completed

December

Building 100 and 200 Substantial Completion

**CONSULTANTS**

**ARCHITECT**

Mahlum

**GENERAL CONTRACTOR | CONSTRUCTION MANAGER (GCCM)**

FORMA Construction

**STRUCTURAL ENGINEER**

PCS

**LANDSCAPE ARCHITECT**

Cascade Design Collaborative

**ACOUSTICAL ENGINEER**

Stantec

**MECHANICAL ENGINEER**

Metrix Engineers

**GEOTECHNICAL ENGINEER**

Aspect Consulting

**THEATER CONSULTANT**

The Shalleck Collaborative

**ELECTRICAL ENGINEER**

BCE Engineers

**SURVEYOR**

AGO Land Surveying

**KITCHEN CONSULTANT**

JLR Design Group

**CIVIL ENGINEER**

LPD Engineering

**COST CONSULTANT**

Robinson Company

## BISD DESIGN STANDARDS

- :: 50+ Year buildings
- :: Low emitting materials
- :: Low maintenance, healthy materials
- :: Natural daylight
- :: LED lighting
- :: Lighting controls
- :: Indoor air quality
- :: Future ready technology
- :: Energy efficient windows
- :: Low Impact Development (LID)
- :: CPTED Safety and Security

## **PROJECT DESCRIPTION**

A new centralized commons will bring student dining to the heart of campus, enhancing safety and security, while greatly expanding project work space for CTE, Fine Arts and Music programs housed in the modern Building 100. The existing Building 200 commons will be transformed into a Theater, with full technical support. The SPED programs displaced by the demolition of the existing Building 100 will be embedded with classrooms in renovated space within the Building 300.

## **PROJECT SCOPE**

Site Area (acres) : 2.5 - 3.4

Building 100, New (GSF): 35,688 SF, plus 8,967 SF covered exterior dining | work space  
Buildings 200|300, Renovated (GSF): 15,833 SF (200) plus 4,364 SF (300)

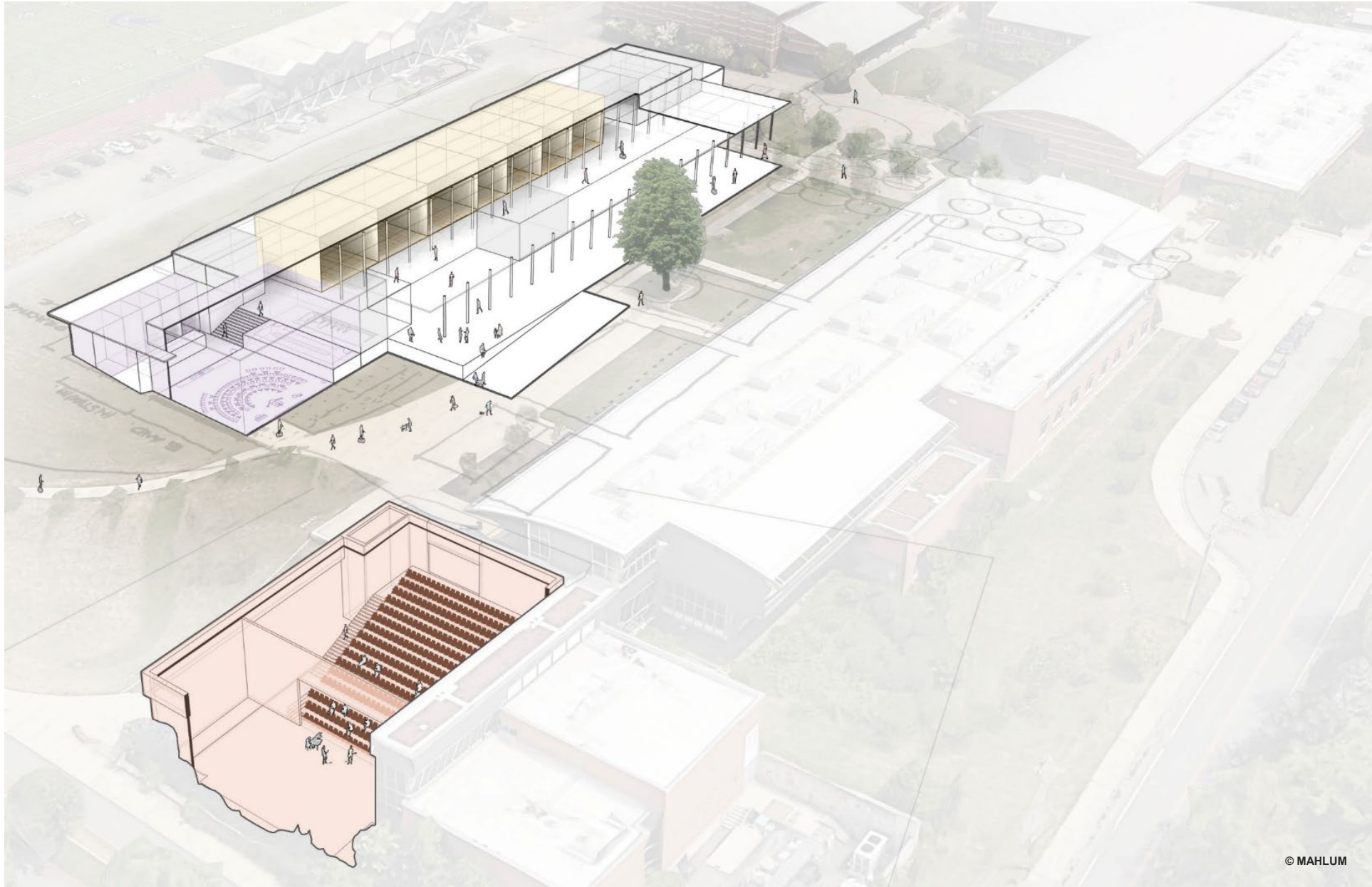
## **PROJECTED CONSTRUCTION TIMELINE:**

Summer 2019 (Building 300, SPED)

July 2019 – December 2020 (Building 100 and Building 200, Theater)

**PROJECTED COMPLETION** December 2020

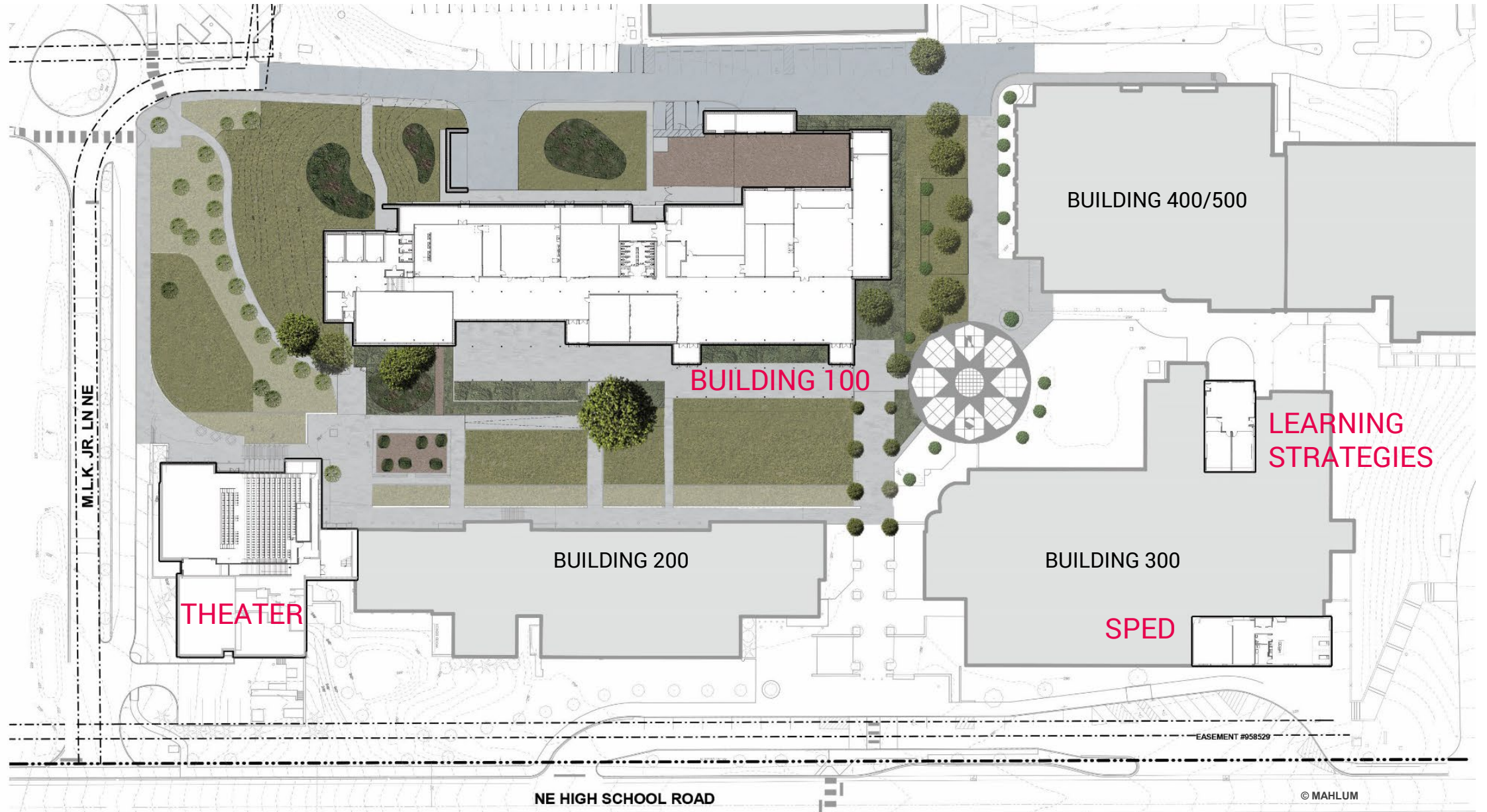
# Building 100 Replacement :: Concept



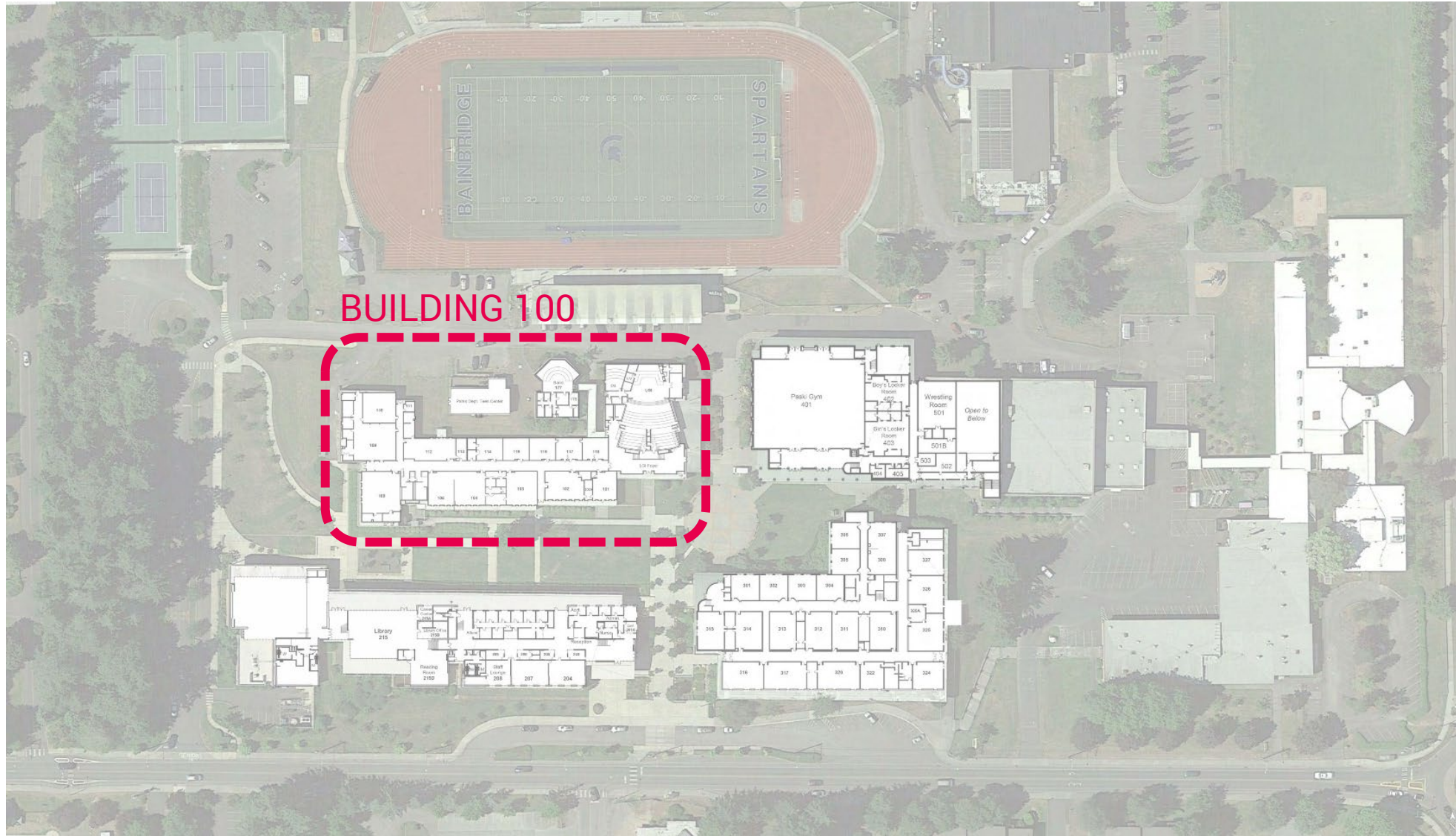




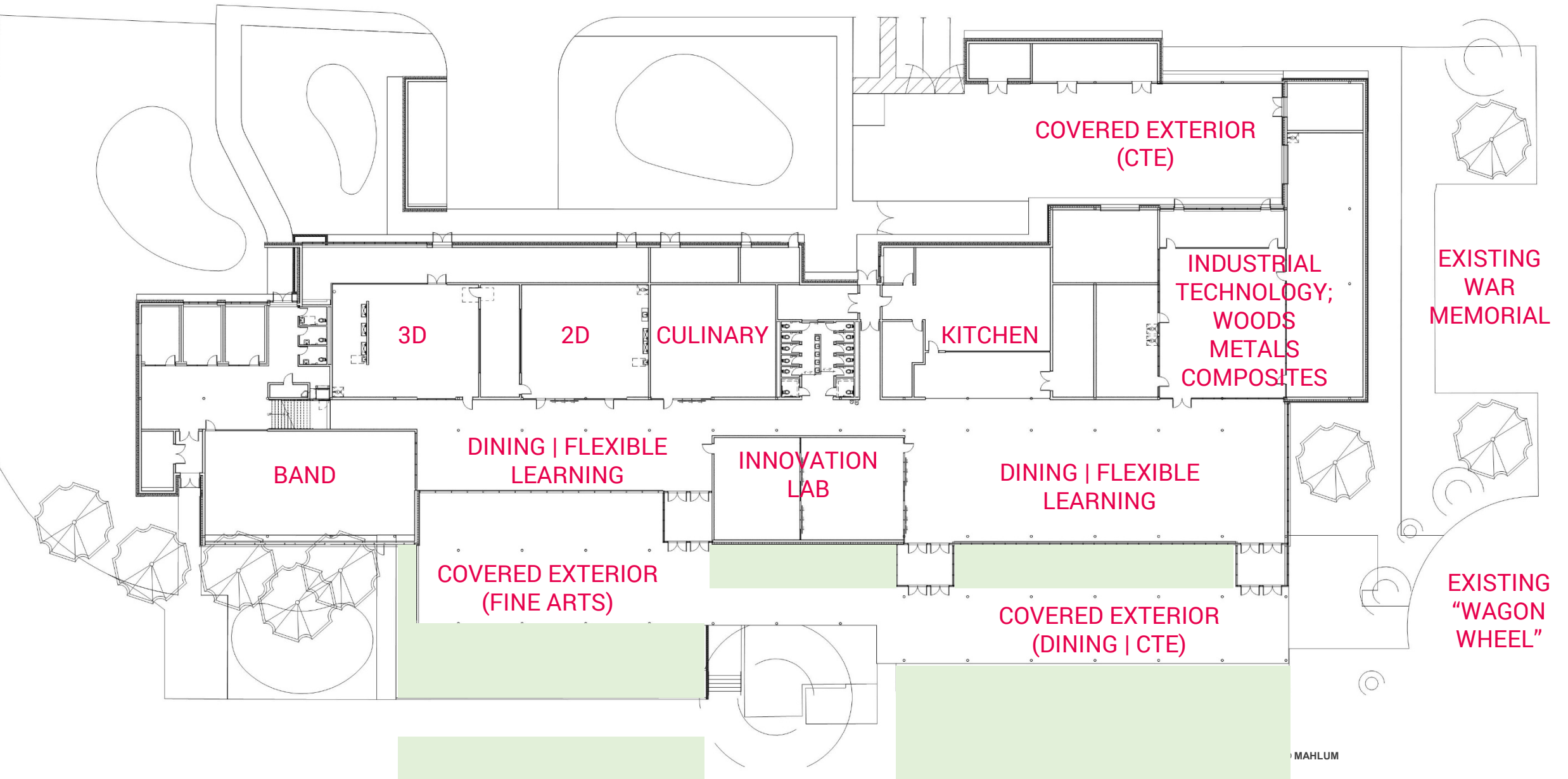
# Building 100 Replacement :: Site Plan



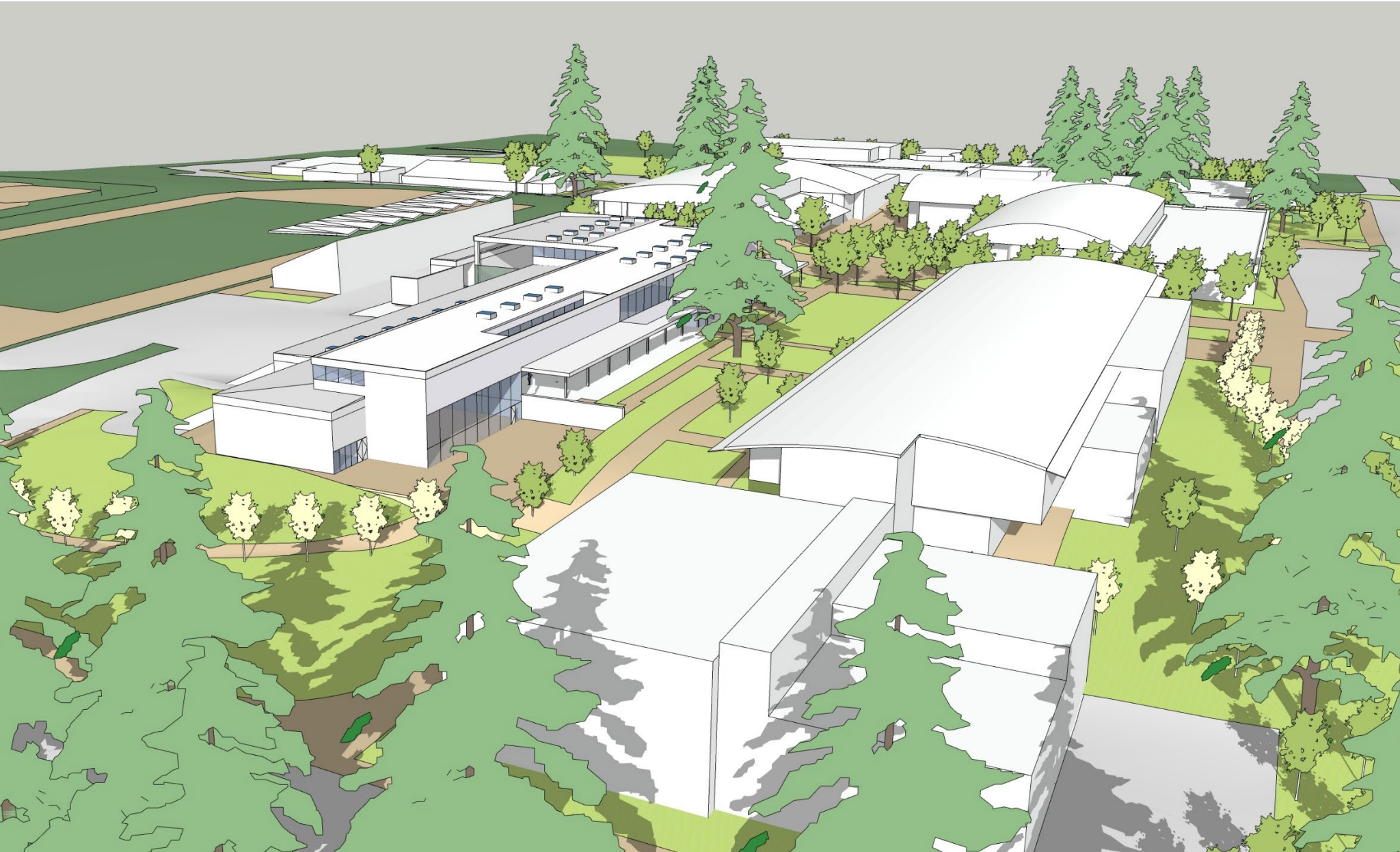
# Building 100 Replacement :: Scope of Work



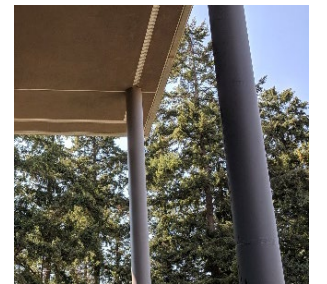
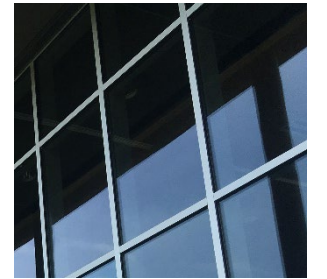
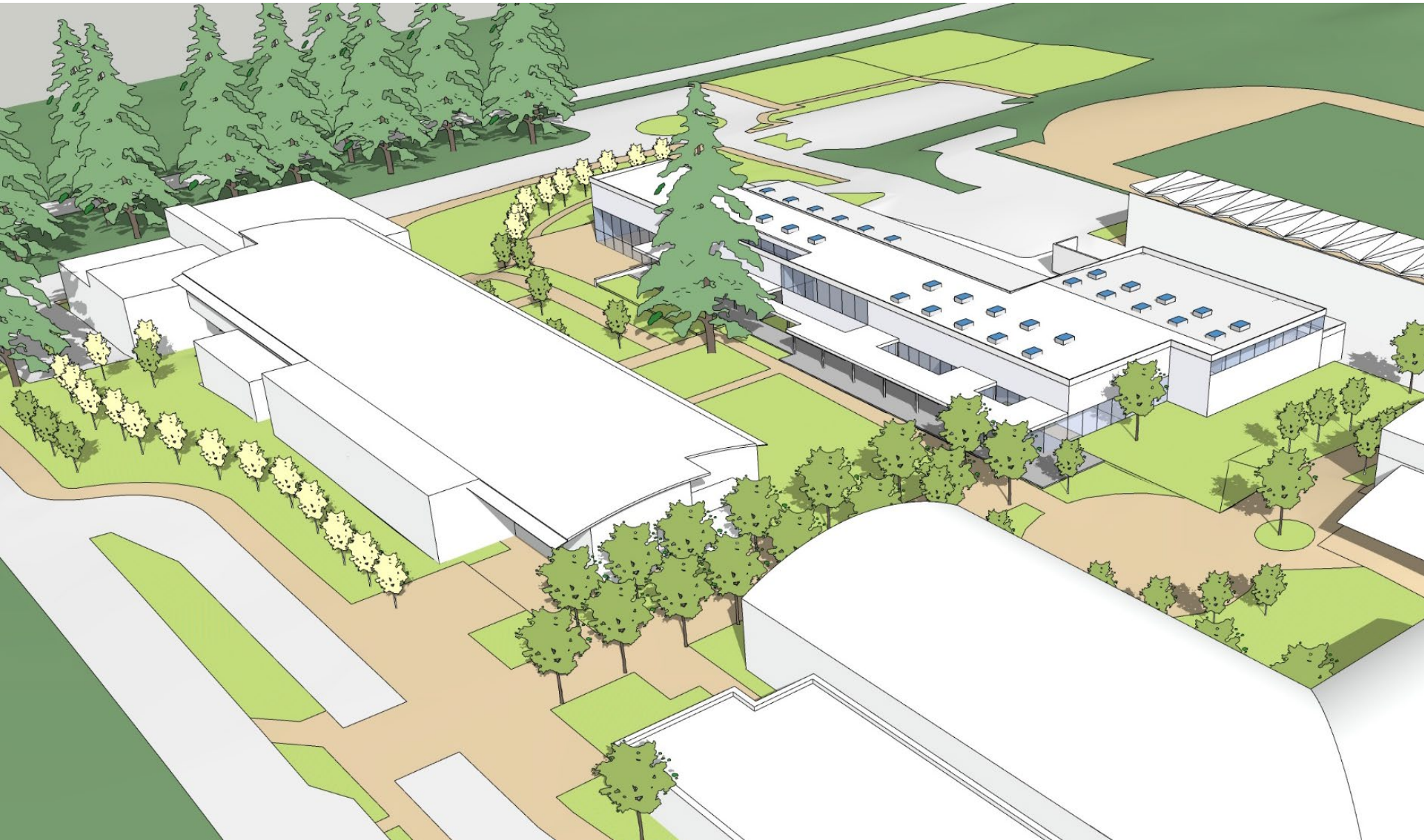
# Building 100 Replacement :: Floor Plan



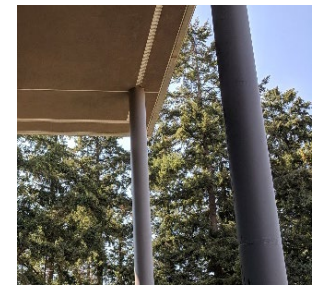
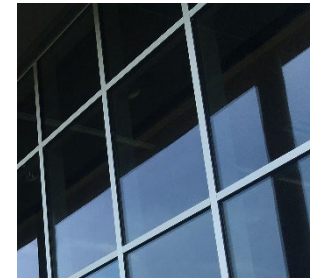
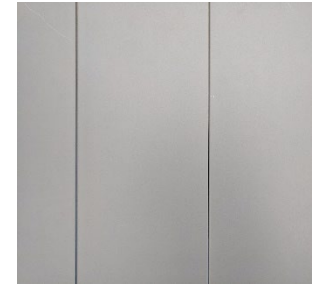
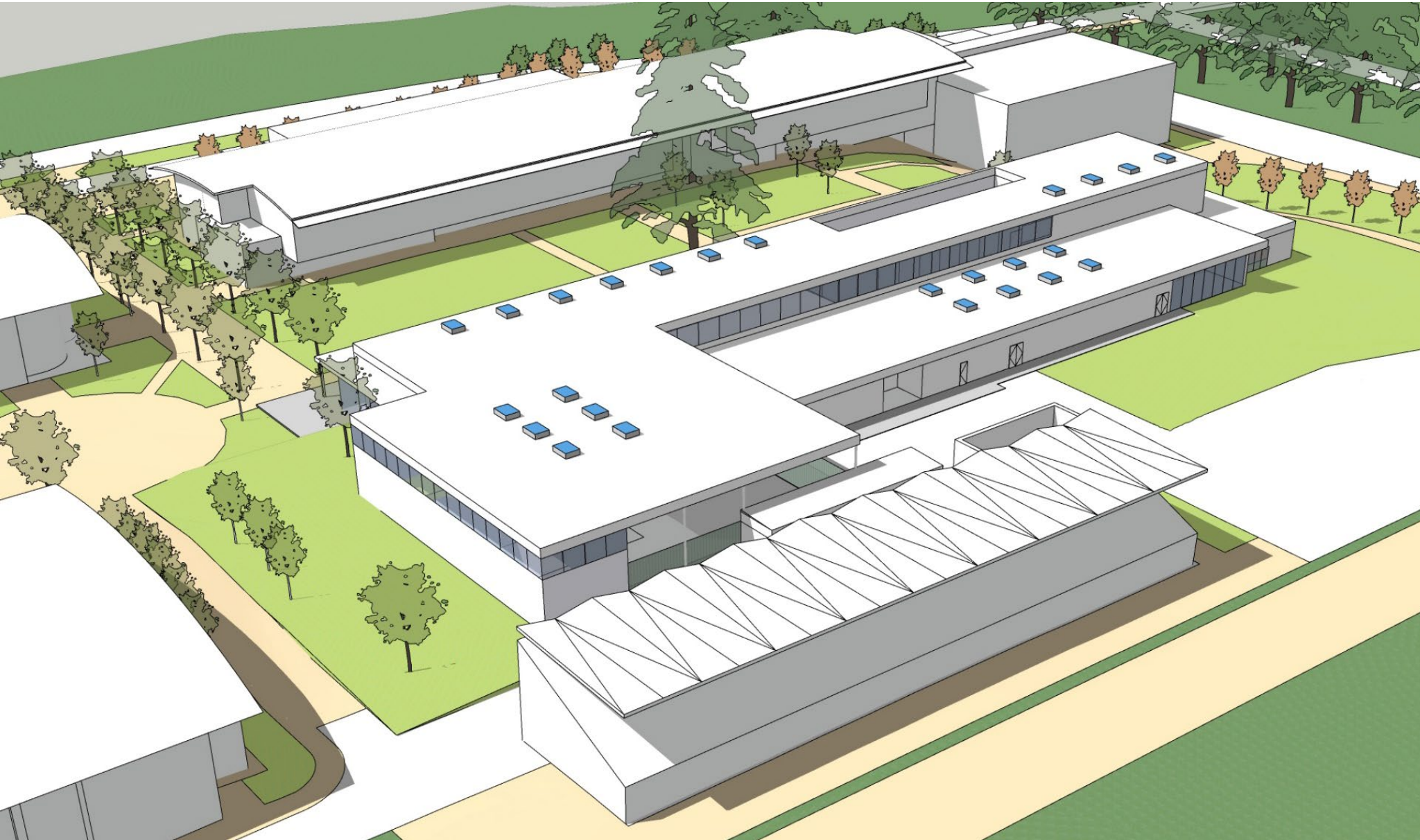
# Building 100 Replacement



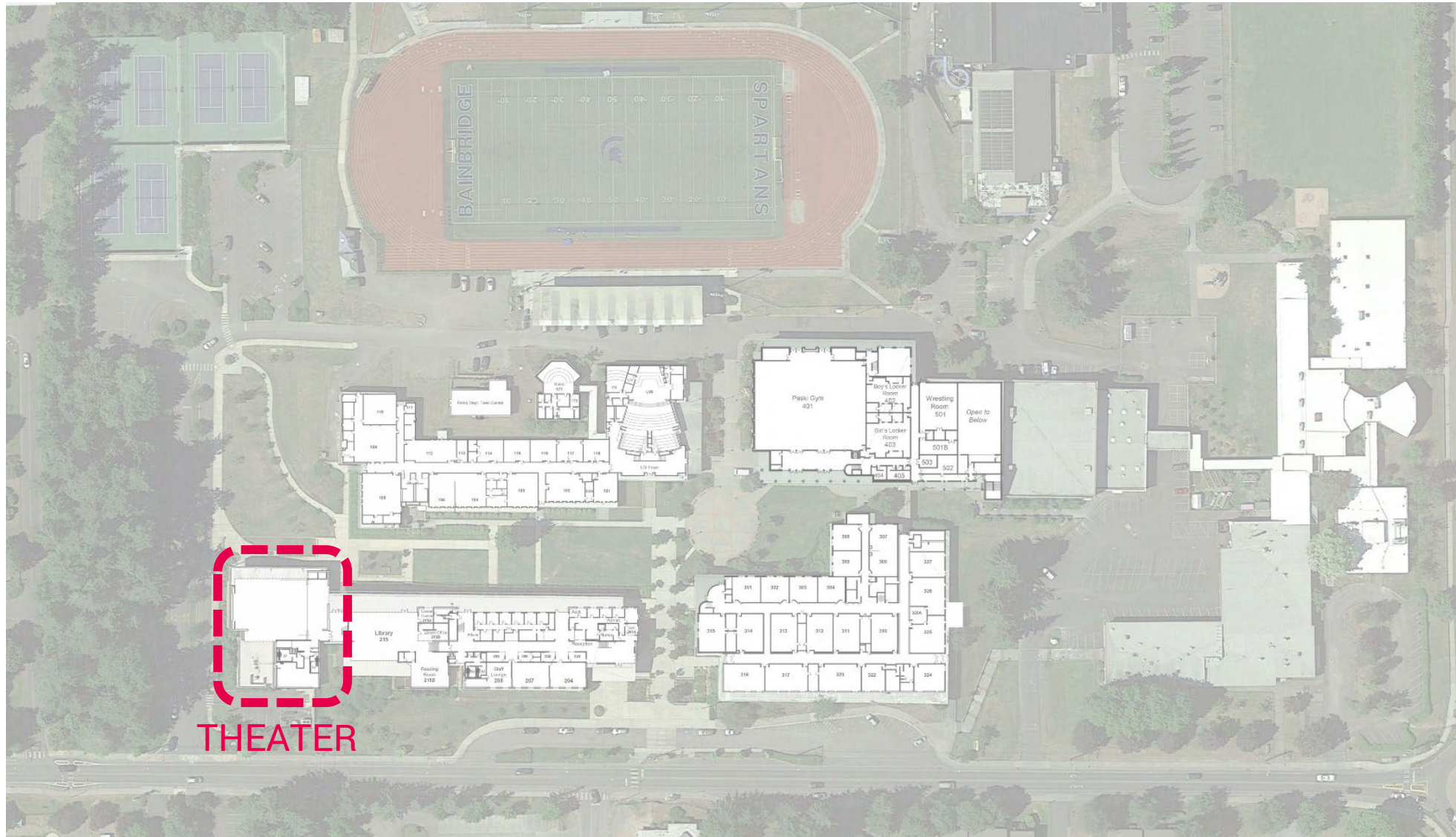
# Building 100 Replacement



# Building 100 Replacement

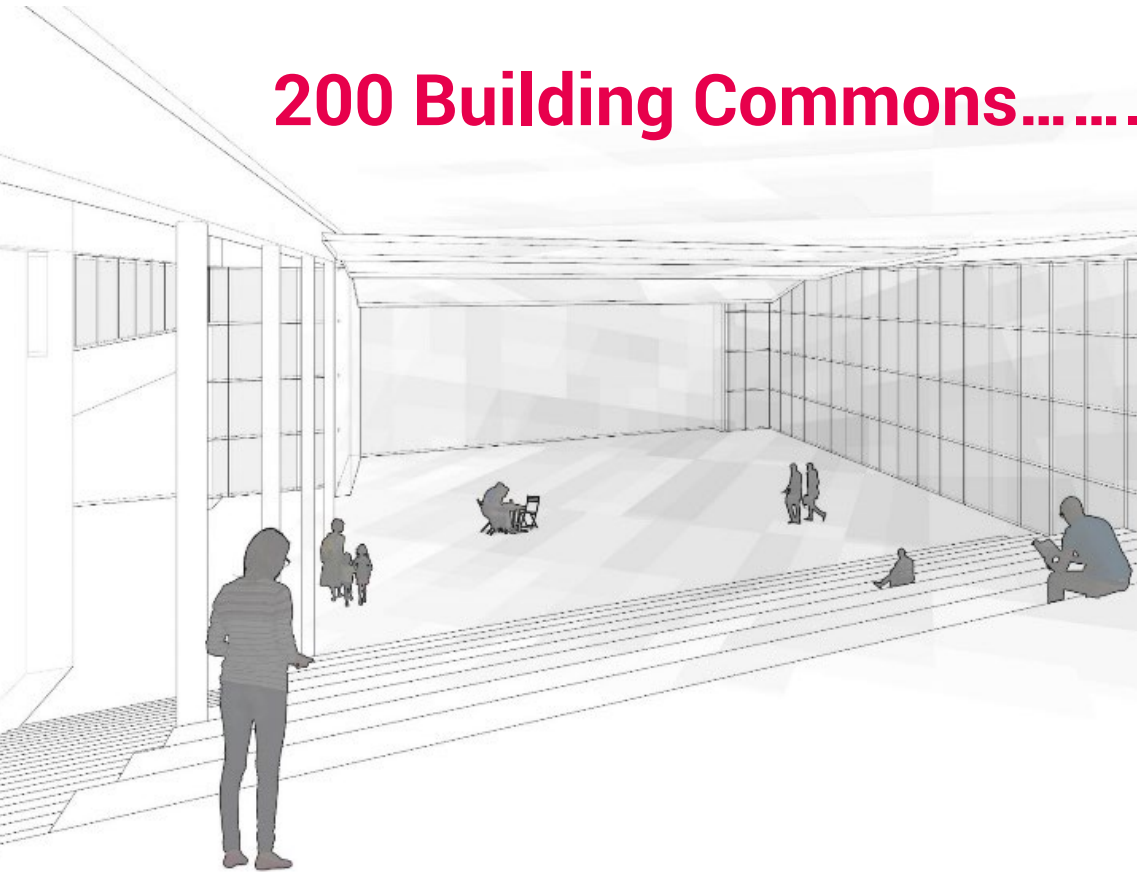


# Building 100 Replacement :: Bldg 200 Scope



# Building 100 Replacement :: Bldg 200 Scope

**200 Building Commons.....**

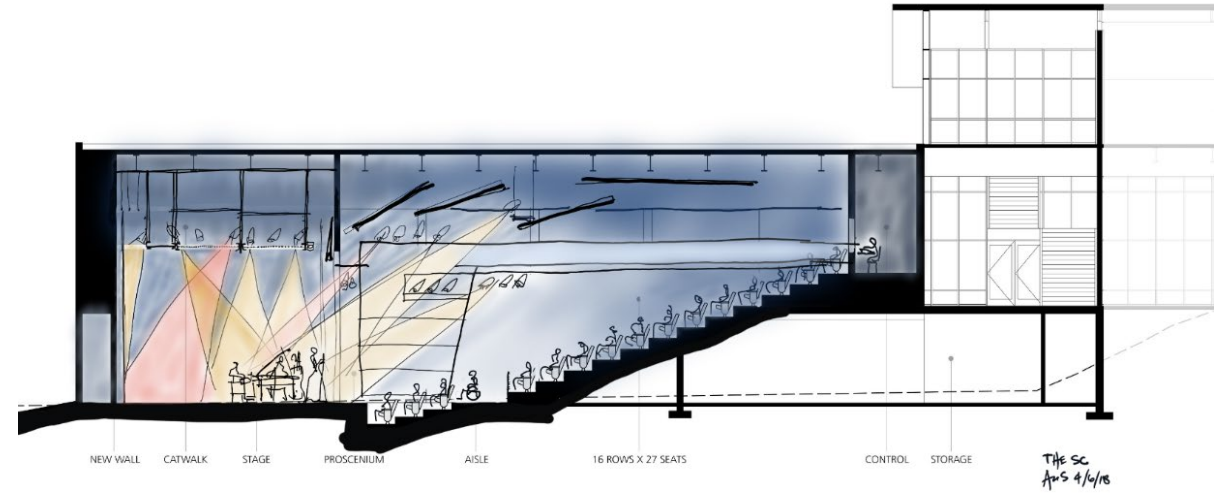
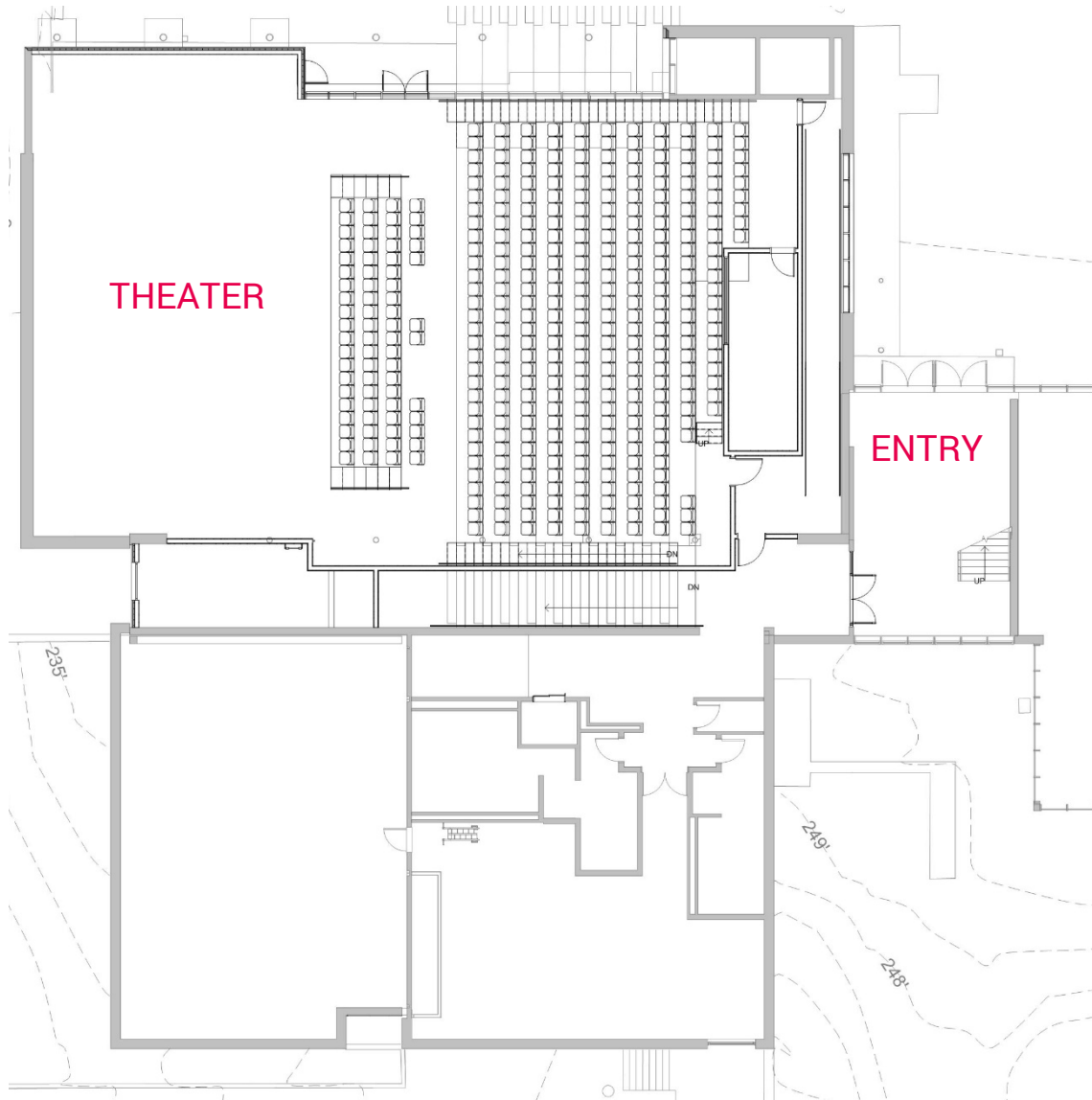


**Transformed**

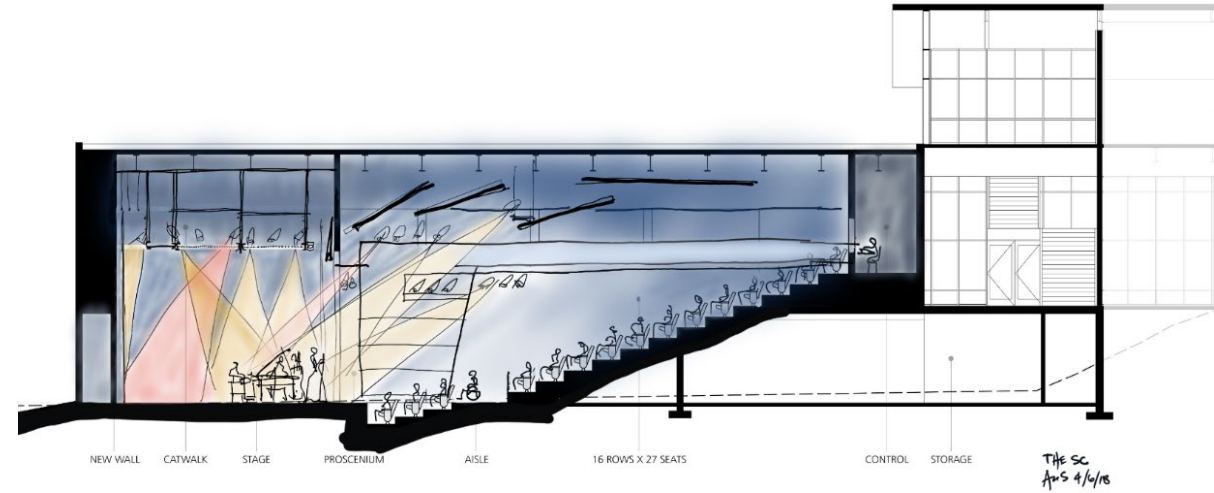
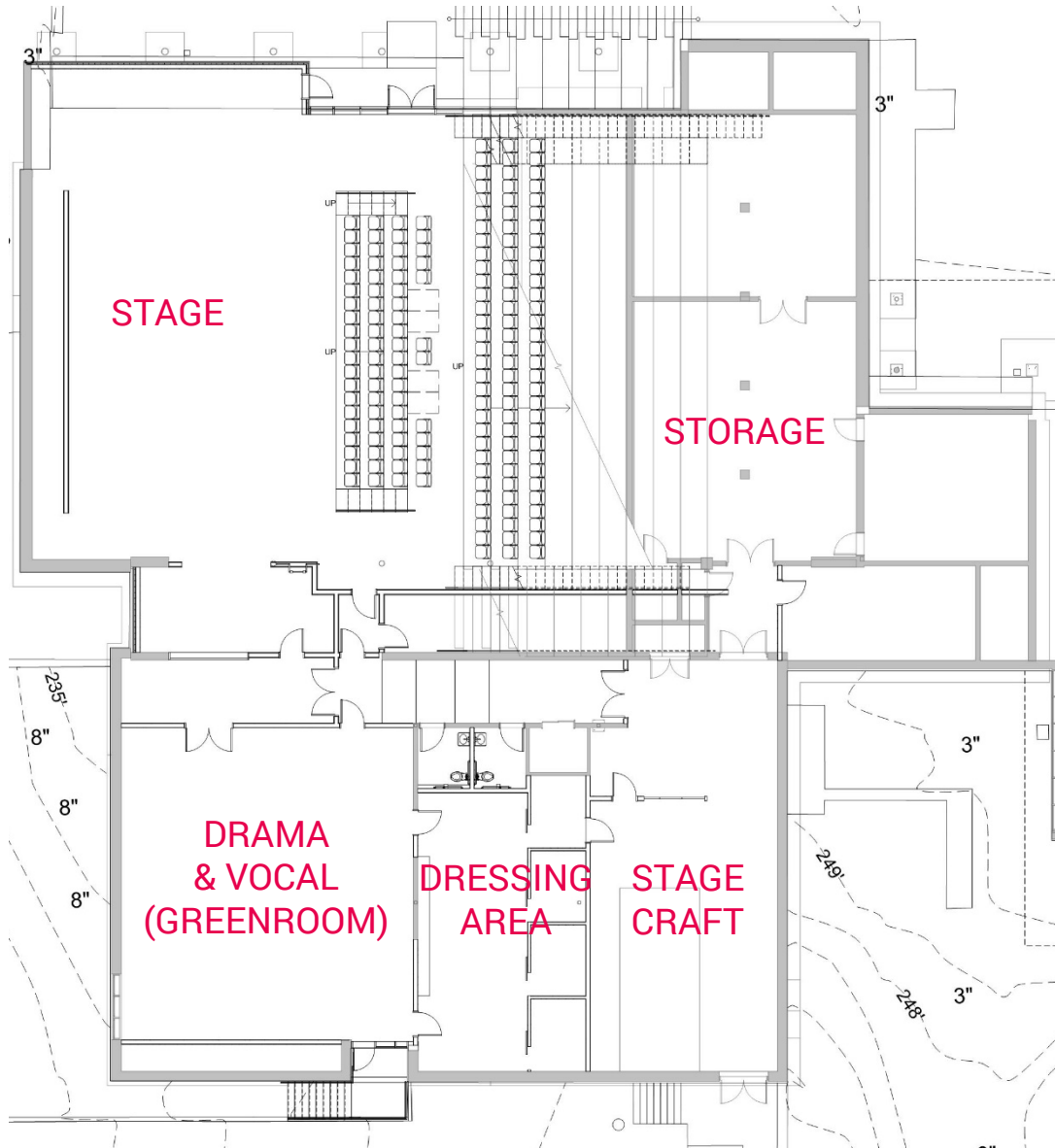




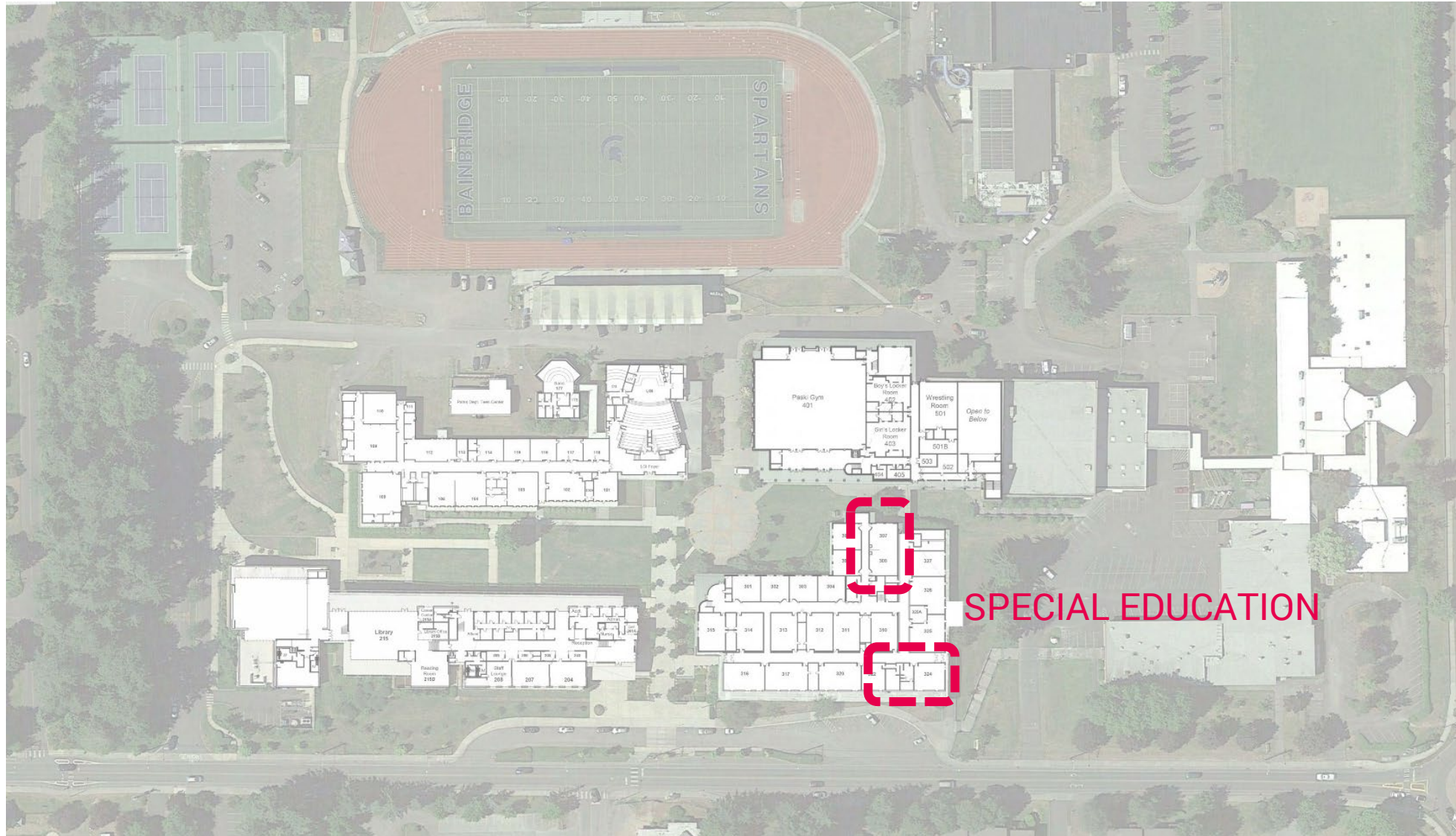
# Building 100 Replacement :: Bldg 200 Scope



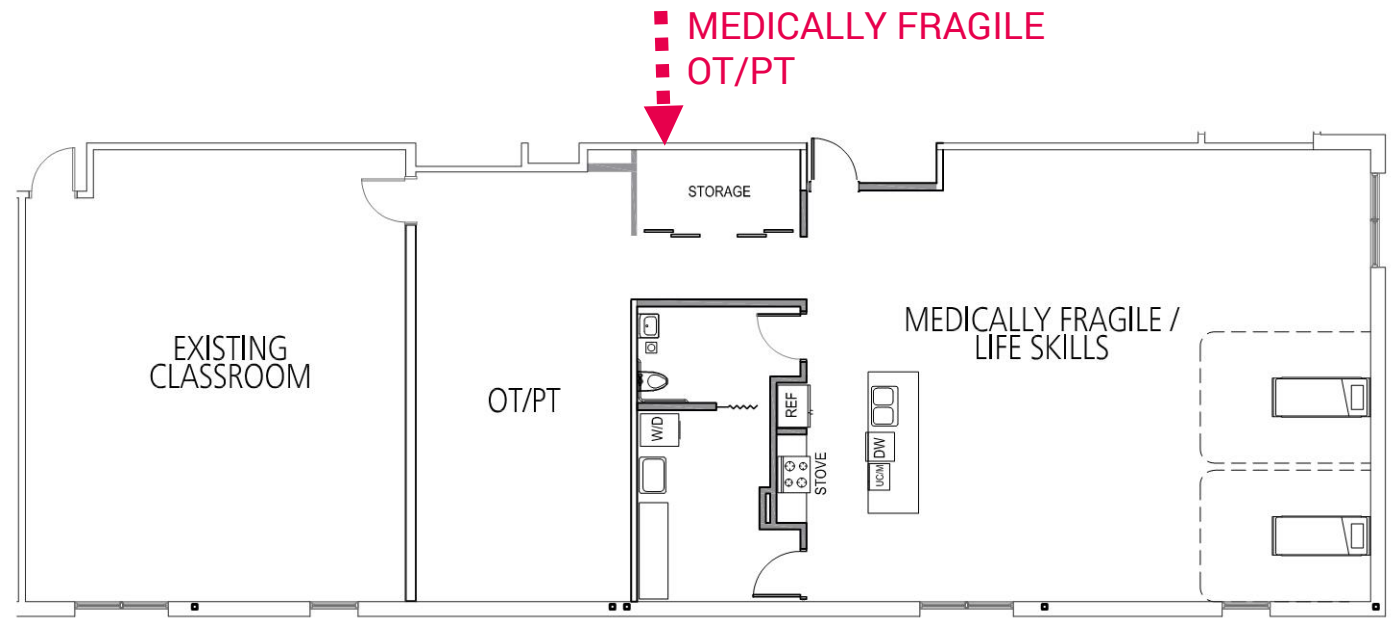
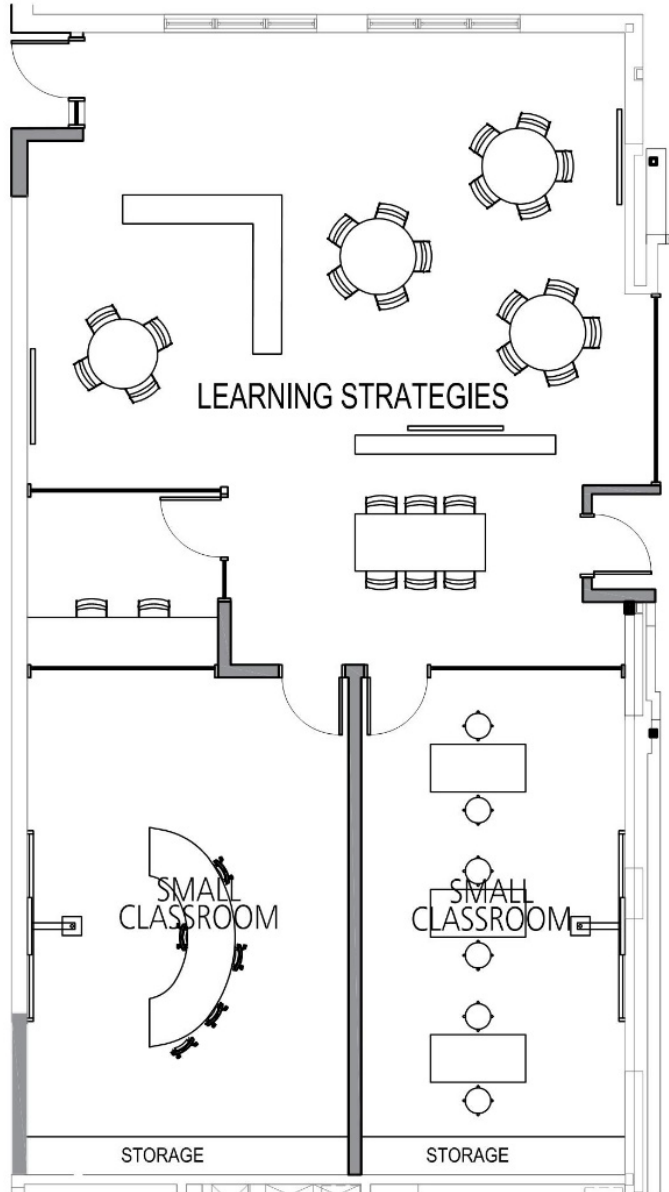
# Building 100 Replacement :: Bldg 200 Scope



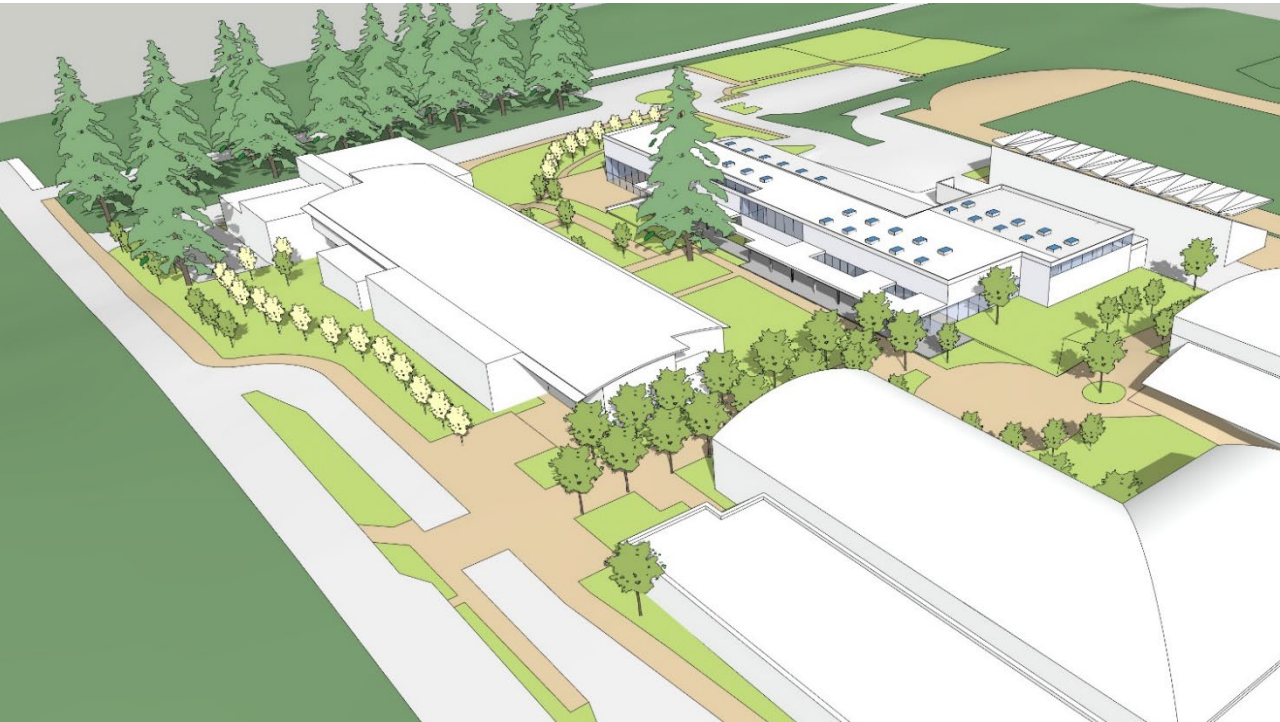
# Building 100 Replacement :: Bldg 300 Scope



# Building 100 Replacement :: Bldg 300 Scope



# Building 100 Replacement Cost Summary



# Building 100 Replacement :: Cost Summary

2016 Bond Request	\$ 30,000,000
State Match	1,750,000
Interest Earnings	<u>1,000,000</u>

**Total Confirmed Resources** **\$ 32,750,000**

Direct Costs	\$ 21,340,272
Est.   Design Contingencies	2,667,534
GC CM Fee   Contingency	2,144,137
SGC   NSS <small>Specified General Conditions   Negotiated Support Services</small>	<u>2,205,823</u>
Guaranteed Maximum Price SD Estimate	\$ 28,357,766

**SD Cost Estimate Oct/2018 (includes soft costs)** **\$ 39,500,000**

**Shortfall** **\$ 6,750,000**

# Building 100 Replacement :: Cost Summary

## 2016 Bond Model Program

Performing Arts (600 Seats) 20,260 SF  
Music | Arts | CTE | SPED 26,185 SF

46,385 SF

## 2018 Educational Specifications Program

Performing Arts (350-400) 15,833 SF  
Music | Arts | CTE | SPED 31,181 SF  
Commons | Kitchen 8,871 SF

55,885 SF

Plus Covered Exterior Work Space

+ 8,967 SF

\$ 39,500,000  
SD Cost Estimate  
Oct 2018

# Building 100 Replacement :: Value Engineering

## Cost Reductions

- Reduced the height of building by 3'
- Simple, modular building design with typical storefront sizes
- Storefront in-lieu of curtainwall glazing
- Single high volume story versus multiple stories that require full elevator and stairs
- Brick | Masonry is used conscientiously for visual impact and campus continuity
- Lower cost materials-metal panels are used as appropriate
- Building follows existing topography versus expensive regrade efforts
- Construction of Bldg 100 & Bldg 200 Renovation concurrently avoids extended construction \$
- Remodel underutilized classrooms in Bldg 300 for Special Education | Learning Strategies
- Working with CoBI to meet stormwater management requirements efficiently, reducing site impacts



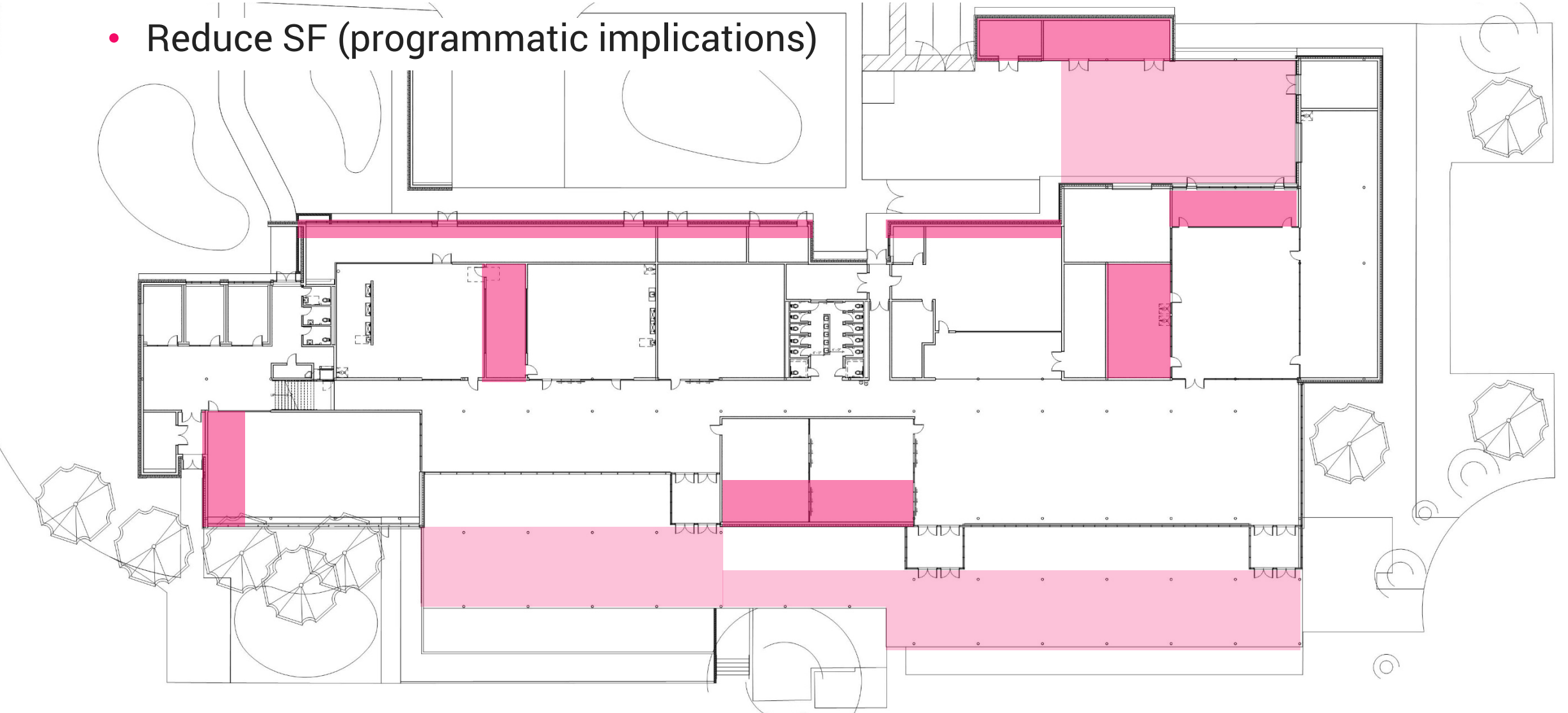
# Building 100 Replacement :: Value Engineering

## Cost Reductions

- Efficient use of circulation space
- Fully utilize the Commons; extending educational project space without increasing SF
- Extend Commons space with outdoor covered area, increasing capacity of dining for less cost/SF than enclosed space
- Modular, flexible education spaces for future educational space flexibility
- Utilize durable, low maintenance, easy to clean materials such as concrete floors; non-precious and cost effective
- Convert the existing Building 200 Commons to a Theater utilizing the existing raked seating and volume for less cost/SF than new space
- Partnering with GC/CM contractor  
(Forma's expertise in identifying value engineering options early in design)
- Reuse existing kitchen equipment in new kitchen construction wherever possible

# Building 100 Replacement :: Value Engineering | Cost Reductions, Future Considerations

- Reduce SF (programmatic implications)



# Building 100 Replacement Schematic Design and Cost Estimate

## Questions?

