

Edmonds

Public Facilities District



edmonds center for the arts

MITHŪN

BUILDING ENVELOPE AND SEISMIC STUDY



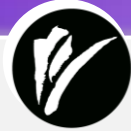
PRESENTATION



PART ONE

Introduction

History
and Scope



PART TWO

Mithun
Presentation



PART THREE

Potential
Next Steps



PART FOUR

Q&A

*Please hold all
questions for end*

ECA CAMPUS HISTORY




- Building history pre-ECA
- 2005-2006 renovation to become ECA
- ECA + Partner?
- 2019-2022 discussions with the Boys and Girls Club of Snohomish County
- Mithun conceptual master plan (first phase paid for by B&GC). Paused to complete the building envelope condition assessment

BUILDING ISSUES



- Building envelope deficiencies recently noted
- Potential seismic vulnerabilities
- Engage professional services to perform focused assessments

FOCUS OF THE BUILDING ENVELOPE AND SEISMIC STUDY

- 
- Assess condition/deficiencies of exterior walls and recommend corrective action
 - Assess structural vulnerability of the building(s) in event of significant earthquake
 - Determine historic significance of building for regulatory opportunities and constraints for construction
 - Determine actual energy performance for ECA building and compare to the performance of existing buildings defined in the state Clean Building Act
 - Develop cost models to compare refurbishment or demolish/rebuild of the 1921 Building
 - Provide construction scheduling options



Edmonds Center for the Arts
Building Envelope & Seismic Study—

AGENDA

- + METHODOLOGY
- + FINDINGS
- + BUDGET
- + CONCEPT SCHEDULE

Methodology—

PROCESS

PROJECT GOAL: Understand envelope conditions, seismic vulnerabilities, and historical status of the ECA Auditorium, Gym, and 1921 Back-of-House buildings and establish a baseline scope of work to address deficiencies.

+ **DISCOVERY**

- Researched existing documentation
- Participated in site walk-throughs & prepared a diagrammatic 3D Revit model
- Completed a code and historical analysis
- Performed tests on the facility to gather information about its conditions

+ **ALTERNATIVES ANALYSIS**

- Developed and assessed renewal options and budget
- Assessed Clean Building Act compliance
- Proposed building improvement options

+ **DOCUMENTATION**

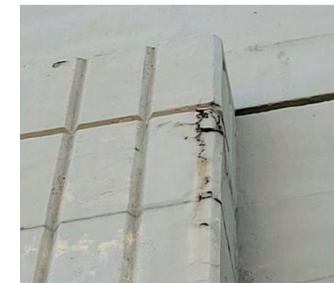
- Producing a report including preliminary budgets for proposed options

FIRST FLOOR TESTING LOCATIONS

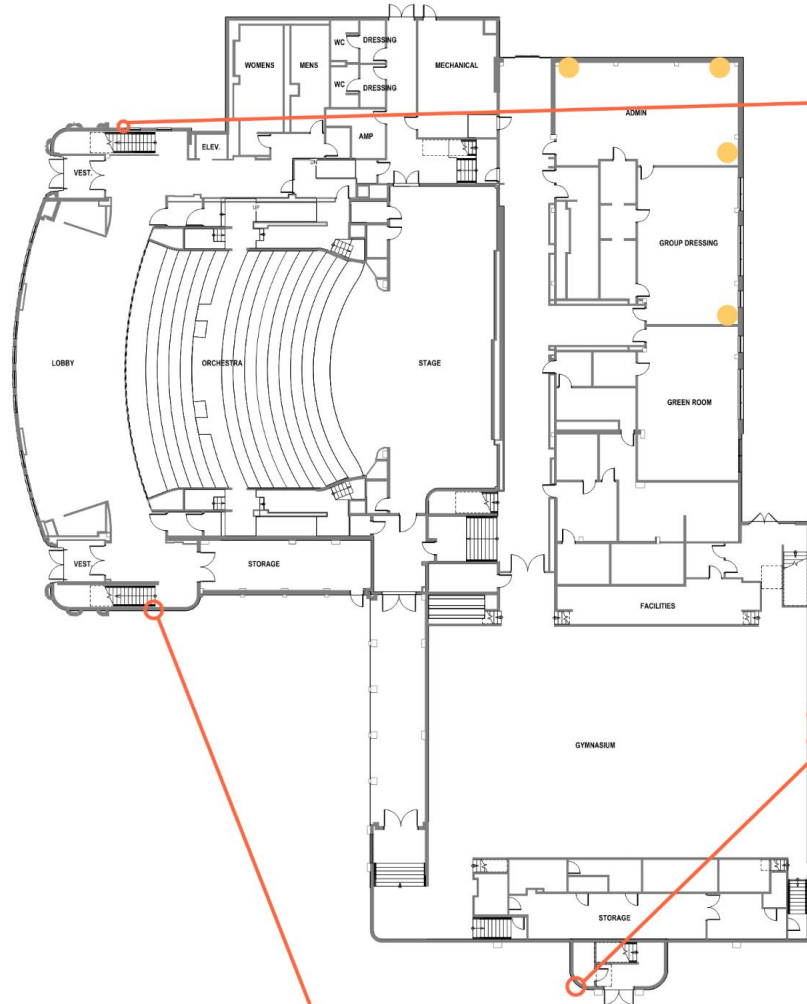
● Hollow Clay Tile Found

(2) 4" cores near base of wall

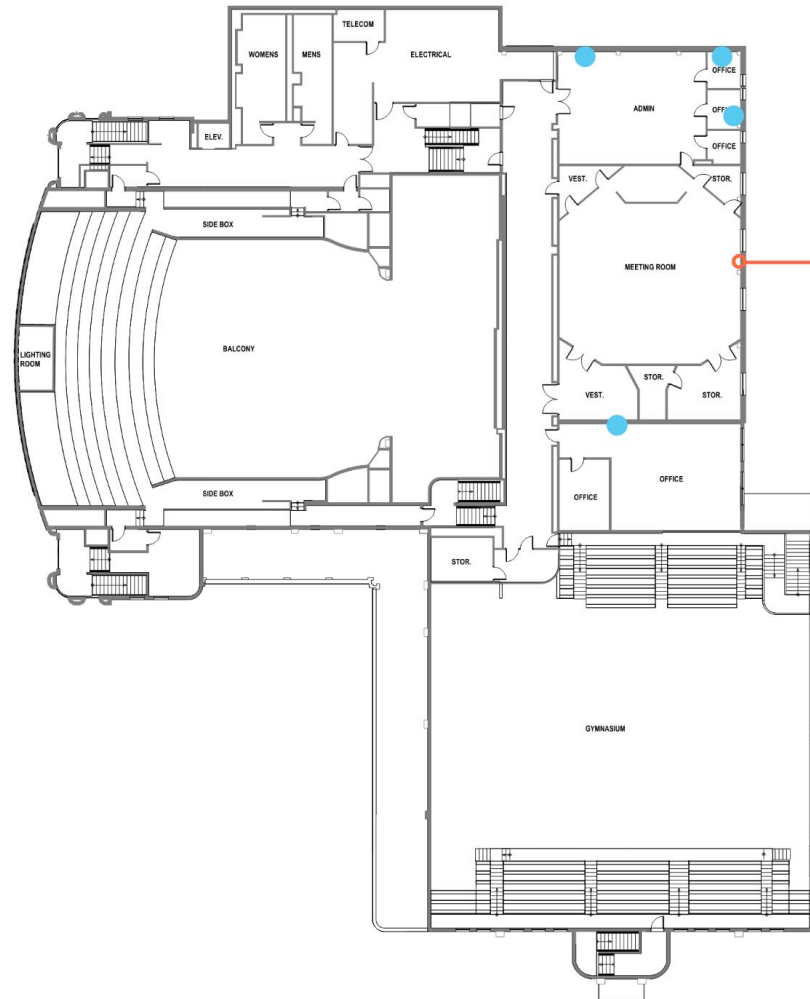
Remove spalled concrete



Water testing



SECOND FLOOR TESTING LOCATIONS



- Masonry Testing Location

4x4 opening at interior side of exterior wall



Findings—

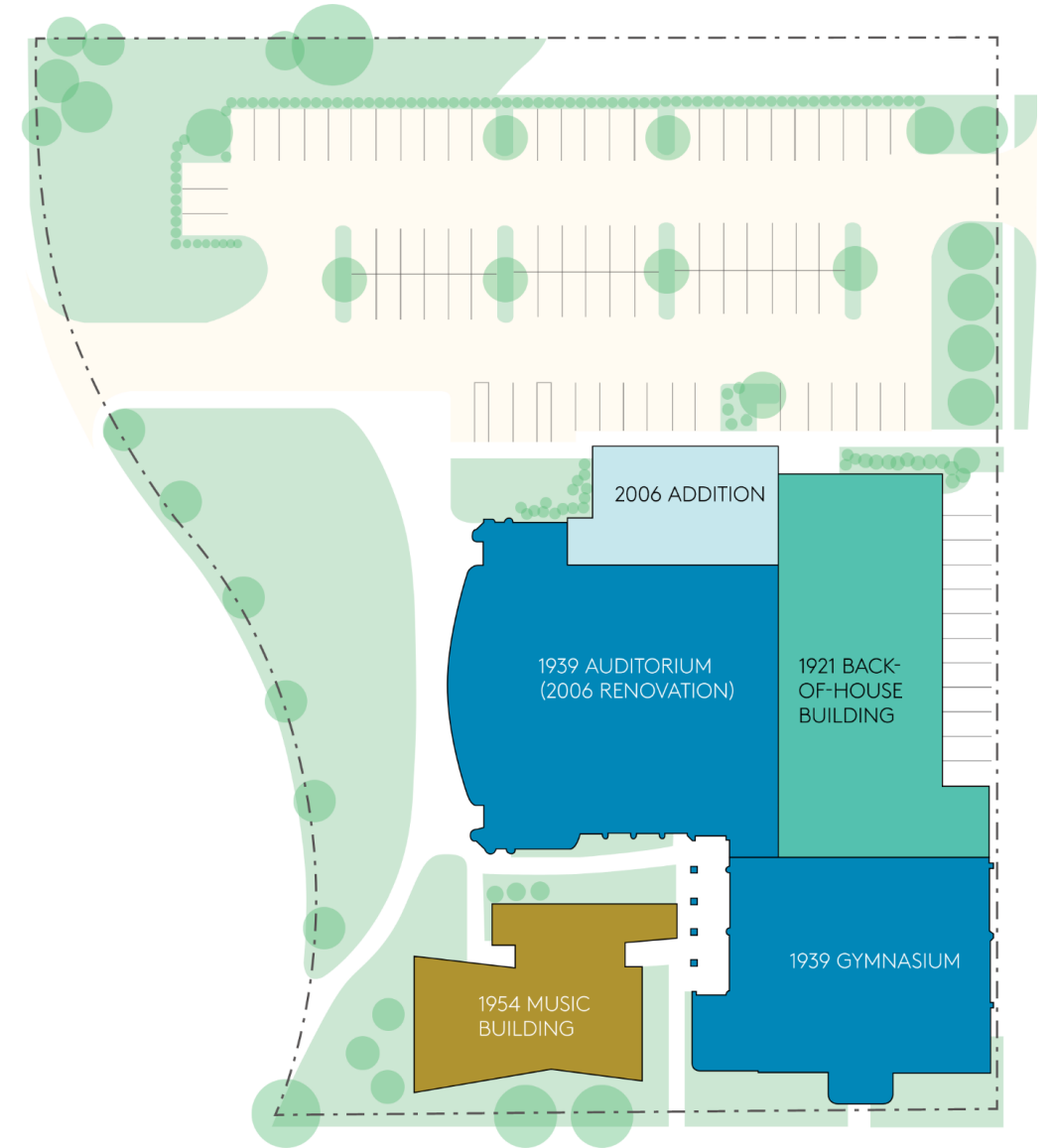
DEVELOPMENT CHRONOLOGY

1921 BACK-OF-HOUSE (SCHOOL) BUILDING

1939 GYMNASIUM & AUDITORIUM

1954 MUSIC BUILDING (NOT INCLUDED IN STUDY)

2006 ADDITION



INITIAL KEY FINDINGS

+ STRUCTURE

- Auditorium meets collapse prevention per 2005 requirements.
- Fly loft roof exposed wood framing is deteriorated
- Gym requires connecting roof structure to walls and improving diaphragm to meet 2023 collapse prevention requirements
- 1921 Back-of-House Building has URM and HCT walls; substantial structural intervention required to meet collapse prevention requirements



INITIAL KEY FINDINGS

+ ENVELOPE

- Concrete has sporadic cracks and spalls
- Paint is not holding well at masonry; cracking and leaking present
- Windows - condensation, thermal comfort, energy loss, and frame deterioration concerns
- Older roofs are beyond service life; skylights causing heat loss
- Prior leaks have occurred in below-grade spaces



INITIAL KEY FINDINGS

+ HISTORIC PRESERVATION

- Not a landmark building - no restrictions
- 1939 Art Deco facade is character-defining element worth preserving



AUDITORIUM

+ MINIMUM RECOMMENDED SCOPE

- Targeted concrete repair / patching
- Elastomeric anti-carbonation concrete coating
- Fly tower repair
- Roofing replacement at areas beyond useful life

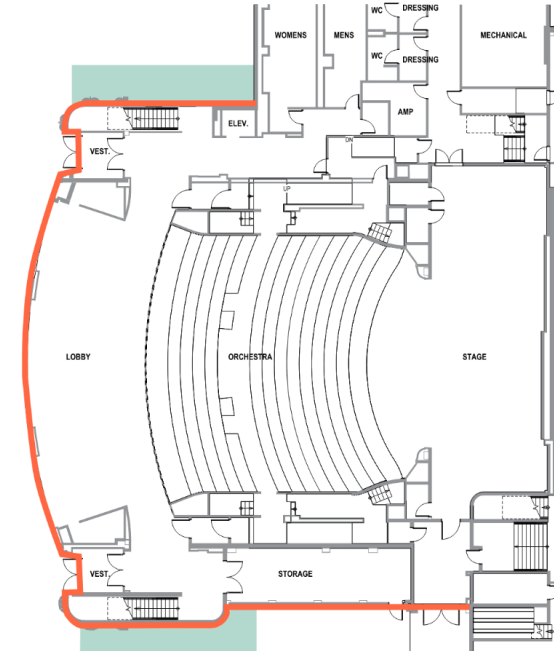
+ ADDITIONAL RECOMMENDED SCOPE

- Replace windows
- Soil drainage landscape improvements

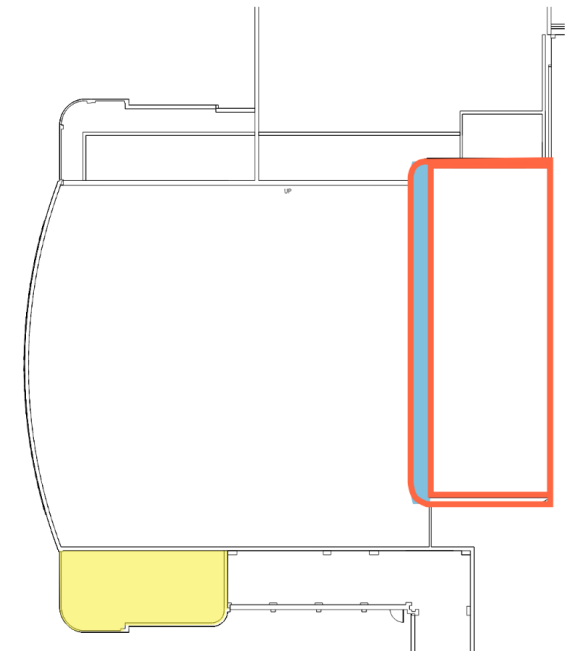
Auditorium meets collapse prevention per 2005 requirements - no seismic scope recommendations

KEY

- | | | | |
|--|-----------------------------------|---|-----------------|
|  | WALL REPAIR AND COATING |  | FLY LOFT REPAIR |
|  | REPLACE WINDOWS (OPTIONAL) |  | REPLACE ROOF |
|  | LANDSCAPE IMPROVEMENTS (OPTIONAL) | | |



GROUND FLOOR PLAN



ROOF PLAN



WEST ELEVATION

GYMNASIUM






+ MINIMUM RECOMMENDED SCOPE

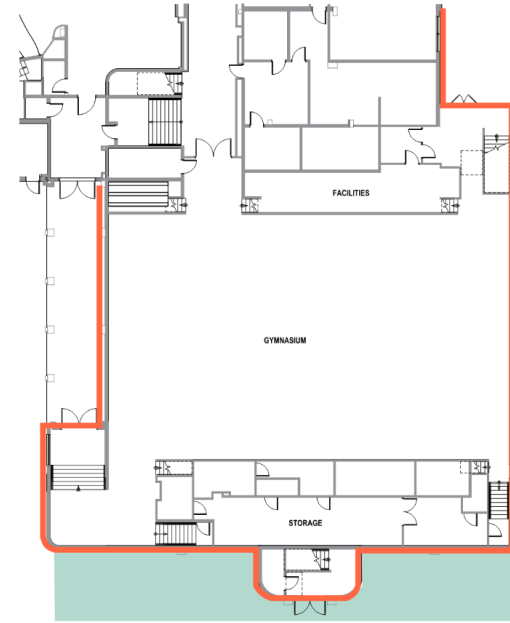
- Targeted concrete repair
- Elastomeric anti-carbonation concrete coating
- Tie wall to roof
- Improve diaphragm - add 1/2" plywood overlay / re-roof

+ ADDITIONAL RECOMMENDED SCOPE

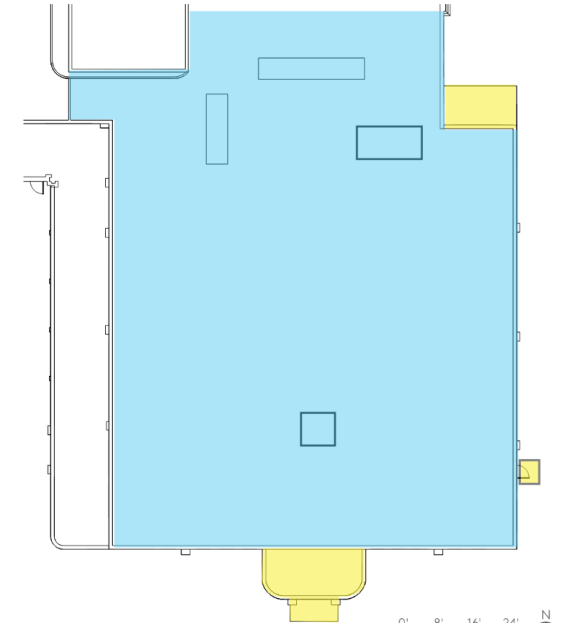
- Replace windows
- Landscaping improvements to improve soil drainage

KEY

-  WALL REPAIR AND COATING
-  REPLACE WINDOWS (OPTIONAL)
-  LANDSCAPE IMPROVEMENTS (OPTIONAL)
-  DIAPHRAGM IMPROVEMENTS
-  REPLACE ROOF AT AREAS BEYOND USEFUL LIFE



GROUND FLOOR PLAN



ROOF PLAN



SOUTH ELEVATION

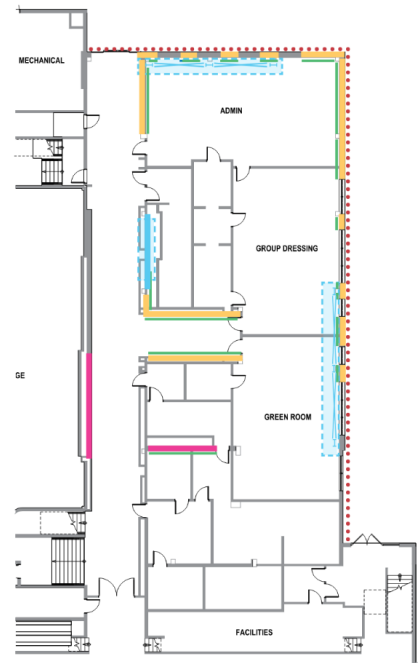
1921 BACK-OF-HOUSE BUILDING

+ RENOVATION OPTION RECOMMENDATIONS

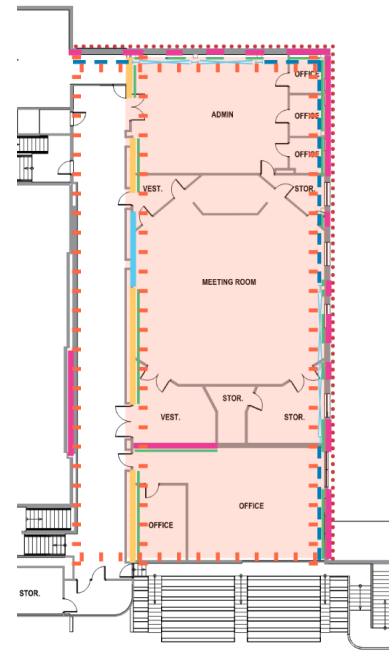
- Phase 1: Roof-level structural & envelope interventions (Voluntary)
- Phase 2: Second floor level interventions - wall anchorage (Voluntary)
- Phase 3: Remaining comprehensive building renovation (Full existing building code compliance)

KEY

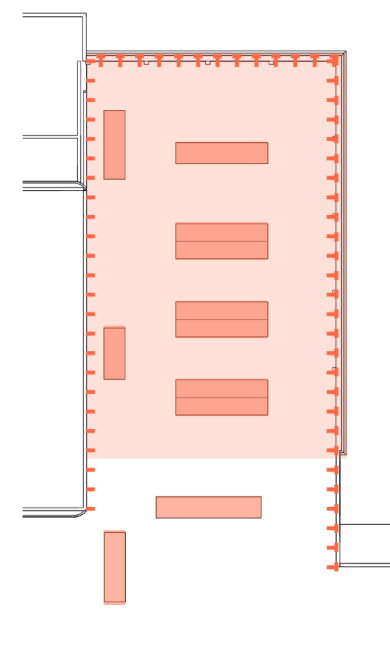
- (E) HCT WALL
- (E) URM WALL
- CONCRETE WALL
- BRACED FRAME
- - - FOUNDATION
- STRONGBACK
- DRAG STRUT
- REMOVE PAINT, COAT BRICK
- WALL ANCHOR
- WALL ANCHOR & CRICKET PARAPET BRACING
- RE-ROOF /DIAPHRAGM UPGRADES



GROUND FLOOR PLAN



SECOND FLOOR PLAN



ROOF PLAN



1921 BACK-OF-HOUSE BUILDING

+ REPLACEMENT OPTION RECOMMENDATIONS

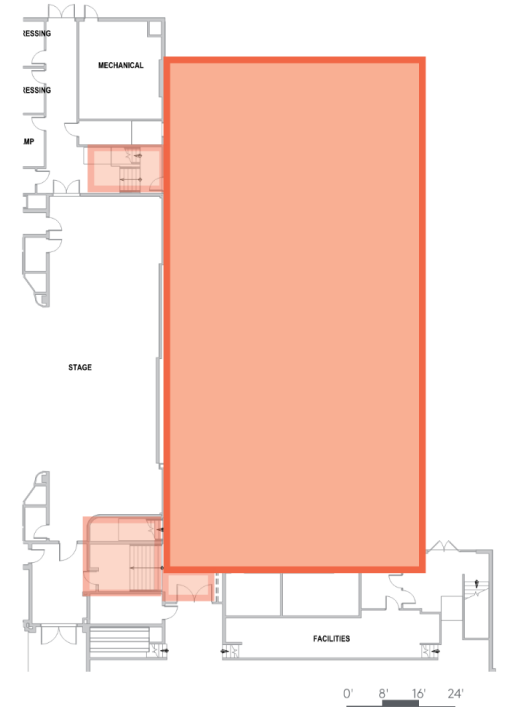
Replacement will provide the highest level of safety, functionality, and longevity of the building.

● Base Scope:

- Demolish 1921 Back-of-House Building
- Replace in kind: two-story, ~13,600 GSF structure at its current floor level.
- Does **not** include additional modifications to existing walls or stairs within the auditorium or gym

● Value Add:

- Align floor level of replacement building with the existing stage level.
- Additional budget for earthwork/excavation, re-building stairs, adding lift for accessible access to gym.



GROUND FLOOR PLAN

Target Budgets—

TARGET BUDGET ASSUMPTIONS

- All budget figures are in February 2024 dollars
- Additional cost will accrue due to escalation, driven by project schedule
- Construction cost includes seismic and envelope repairs only, no program improvements / interior renovations
- Project budgets include figures for sales tax, consultant services, furniture & equipment, project management, contingency, etc.
- Budgets do not include detailed consideration of operational impacts / disruption

AUDITORIUM TARGET BUDGET

BASE STRUCTURAL & ENVELOPE SCOPE

SCAFFOLDING	\$312,700
DEMOLITION	\$27,100
STRUCTURAL WOOD FRAMING	\$157,800
EXTERIOR WALL CONSTRUCTION	\$451,500
EXTERIOR WINDOWS	\$20,600
ROOFING	\$93,100
CONTINGENCY	\$212,600
MARKUPS	\$89,300
GENERAL CONDITIONS	\$220,000
CONSTRUCTION BUDGET	\$1,585,000
PROJECT BUDGET	\$3,000,000

ADDITIONAL RECOMMENDED ENVELOPE SCOPE

WINDOW REPLACEMENT	\$223,700
LANDSCAPE DRAINAGE IMPROVEMENTS	\$37,400
ADD. SCOPE CONSTRUCTION BUDGET	\$261,100
ADDITIONAL SCOPE PROJECT BUDGET	\$600,000

BASE + RECOMMENDED STRUCTURAL & ENVELOPE SCOPE

STRUCTURAL & ENVEL. PROJECT BUDGET	\$3,600,000
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GYMNASIUM TARGET BUDGET

BASE STRUCTURAL & ENVELOPE SCOPE

SCAFFOLDING	\$211,300
DEMOLITION	\$111,300
STRUCTURAL STEEL / WOOD	\$46,200
EXTERIOR WALL CONSTRUCTION	\$401,100
EXTERIOR WINDOWS	\$25,600
ROOFING	\$313,200
CONTINGENCY	\$221,700
MARKUPS	\$93,100
GENERAL CONDITIONS	\$165,000
CONSTRUCTION BUDGET	\$1,590,000
PROJECT BUDGET	\$3,000,000

ADDITIONAL RECOMMENDED ENVELOPE SCOPE

WINDOW REPLACEMENT	\$229,000
LANDSCAPE DRAINAGE IMPROVEMENTS	\$69,400
ADD. SCOPE CONSTRUCTION BUDGET	\$298,400
ADDITIONAL SCOPE PROJECT BUDGET	\$700,000

BASE + RECOMMENDED STRUCTURAL & ENVELOPE SCOPE

STRUCTURAL & ENVEL. PROJECT BUDGET	\$3,700,000
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1921 BACK-OFF-HOUSE BUILDING | RENOVATION

PHASE 1: ROOF

MOBILIZATION	\$2,500
DEMOLITION & ABATEMENT	\$74,700
SCAFFOLDING	\$132,000
STRUCTURAL STEEL / WOOD	\$86,100
EXTERIOR WALL CONSTRUCTION	\$15,000
ROOF	\$257,800
CONTINGENCY	\$113,600
MARKUPS	\$47,800
GENERAL CONDITIONS	\$120,000
CONSTRUCTION BUDGET	\$849,500
PROJECT BUDGET	\$1,700,000

PHASE 2: LEVEL 2

MOBILIZATION	\$2,500
DEMOLITION & ABATEMENT	\$107,100
STRUCTURAL STEEL / WOOD	\$31,400
CONTINGENCY	\$28,200
MARKUPS	\$11,900
GENERAL CONDITIONS	\$60,000
ADD. SCOPE CONSTRUCTION BUDGET	\$241,100
ADDITIONAL SCOPE PROJECT BUDGET	\$600,000

1921 BACK-OFF-HOUSE BUILDING RENOVATION

PHASE 3: REMAINING COMPREHENSIVE RENOVATION

FOUNDATIONS	\$79,900
SUPERSTRUCTURE	\$447,100
EXTERIOR ENCLOSURE	\$583,600
INTERIOR CONSTRUCTION	\$362,600
INTERIOR FINISHES	\$656,400
PLUMBING	\$333,800
HVAC	\$882,000
FIRE PROTECTION	\$81,300
ELECTRICAL	\$874,500
EQUIPMENT	\$30,000
CASEWORK & FURNISHINGS	\$126,300
SPECIAL CONSTRUCTION	\$161,300
SELECTIVE DEMOLITION	\$413,100
SITE	\$35,000
CONTINGENCY	\$978,300
MARKUPS	\$410,900
GENERAL CONDITIONS	\$750,000
CONSTRUCTION BUDGET*	\$7,255,900
PROJECT BUDGET*	\$14,700,000

TOTAL COST OF ALL PHASES

PHASE 1 - ROOF LEVEL INTERVENTIONS	\$1,700,000
PHASE 2 - LEVEL 2 INTERVENTIONS	\$600,000
PHASE 3 - REMAINING RENOVATION SCOPE*	\$14,700,000
PROJECT BUDGET*	\$17,000,000

*In a comprehensive renovation, program / interior renovation improvements become embedded in project

1921 BACK-OF-HOUSE BUILDING | REPLACEMENT

BASE SCOPE

FOUNDATIONS	\$340,500
SUPERSTRUCTURE	\$997,600
EXTERIOR ENCLOSURE	\$829,600
ROOFING	\$236,900
INTERIOR CONSTRUCTION	\$593,200
INTERIOR FINISHES	\$643,500
CONVEYING SYSTEMS	\$130,000
PLUMBING	\$333,800
HVAC	\$882,000
FIRE PROTECTION	\$81,300
ELECTRICAL	\$874,500
EQUIPMENT	\$25,000
CASEWORK & FURNISHINGS	\$130,800
SPECIAL CONSTRUCTION	\$141,800
SITE (INCL. BUILDING DEMO)	\$677,200
CONTINGENCY	\$1,383,500
MARKUPS	\$581,100
GENERAL CONDITIONS	\$900,000
CONSTRUCTION BUDGET*	\$9,800,000
PROJECT BUDGET*	\$19,200,000

VALUE ADD: ALIGN FIRST FLOOR WITH EXISTING STAGE

FIRST FLOOR ALIGNMENT	\$713,700
CONSTRUCTION BUDGET OF VALUE ADD	\$713,700
PROJECT BUDGET OF VALUE ADD	\$1,100,000

TOTAL REPLACEMENT W/ VALUE ADD

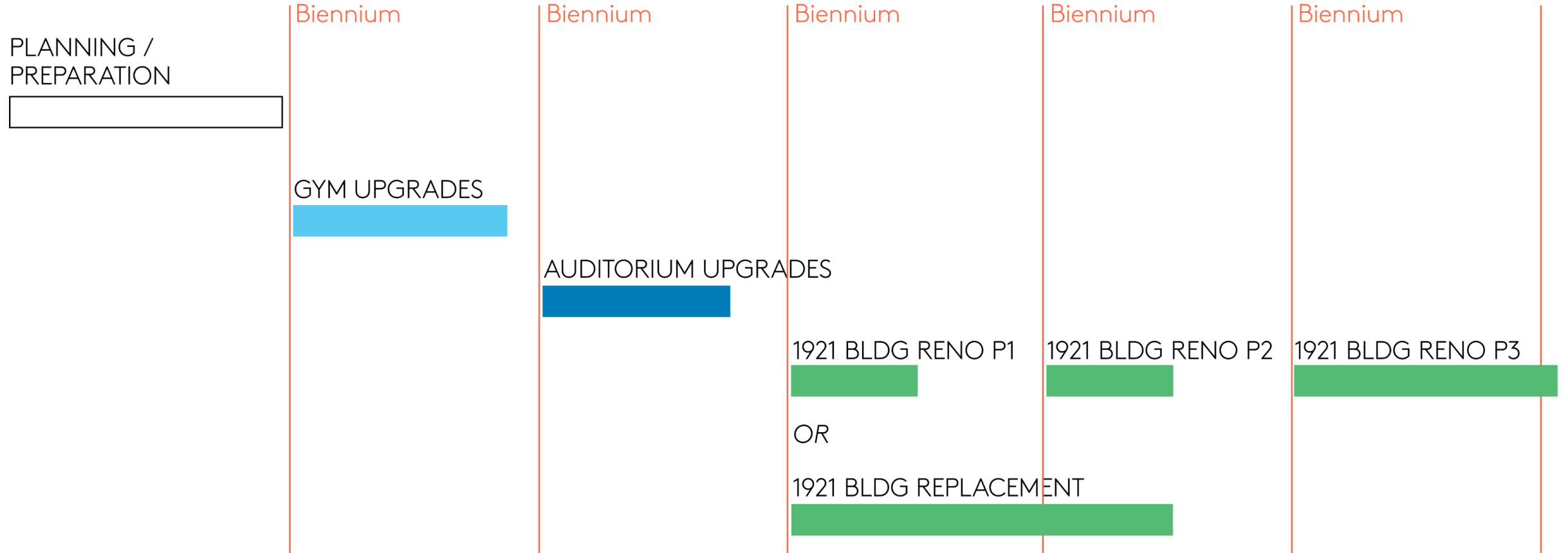
TOTAL PROJECT BUDGET*	\$20,200,000
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*In a building replacement, program improvements become embedded in project

Schedule—

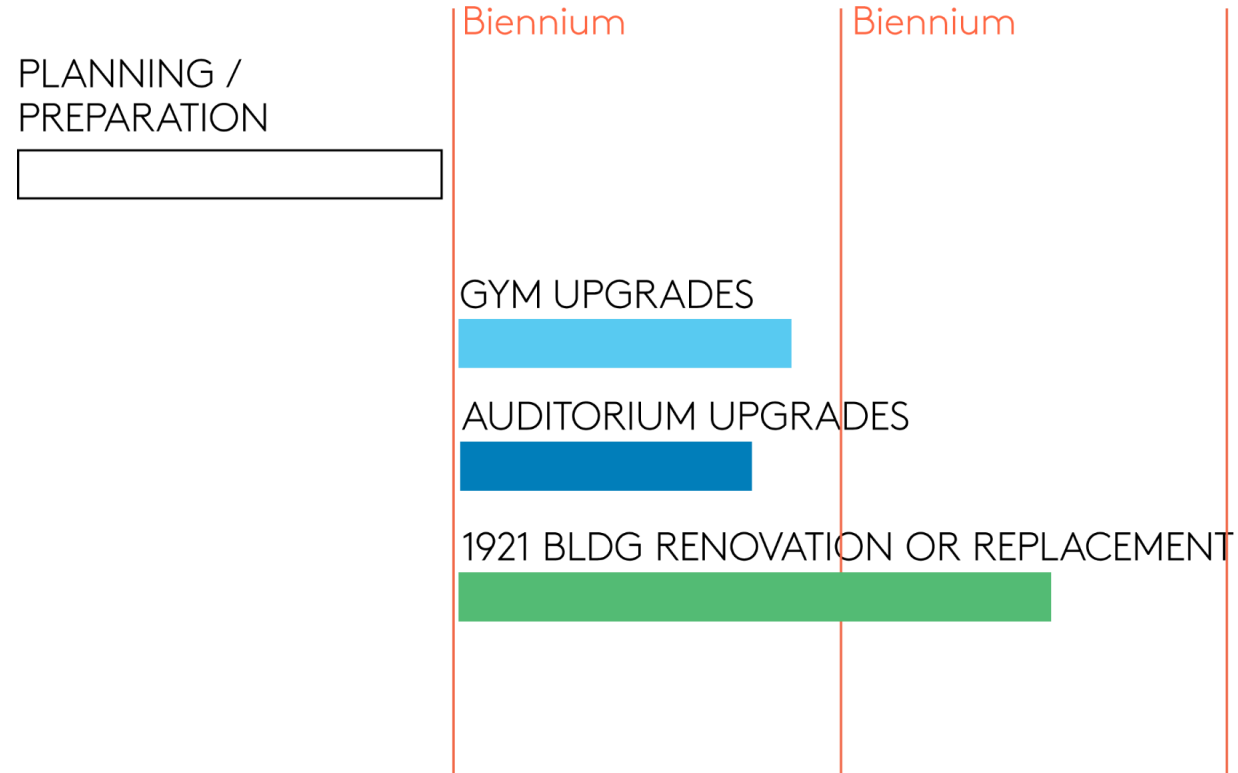
CONCEPT SCHEDULE EXAMPLE

MULTIPLE PHASES



CONCEPT SCHEDULE EXAMPLE

SINGLE PHASE



RISKS AND OPPORTUNITIES

+ RISKS

- 1921 Back-of-House Building and 1939 Gymnasium do not meet current collapse prevention requirements
- Envelope conditions will continue to deteriorate and may require more extensive / intensive repairs if left unaddressed

+ OPPORTUNITIES

- Maximize the value of capital projects by understanding their relationship to ECA's vision, mission, and strategic plan

CONSIDERATIONS AND NEXT STEPS



- Study gives us “State of the Campus”, technical considerations, and opportunities for the future

- NEXT:
 - Master Planning

 - Partnerships

 - Operational Impacts of Construction

 - Financial Strategy

MASTER PLANNING



- Match external facilities to internal activities and strategic mission/vision
 - Developing 5-year Strategic Plan (2025) in parallel with a building/campus plan
 - Extend Mithun's scope to consider programmatic and structural options for replacement of 1921 building and other structures
 - Consider City entitlement process
- ECA Executive Leadership + Steering Committee (or task force)

PARTNERSHIPS



- Resume potential partnership discussions
 - Current funding for design phase with B&GC (state capital grant)
 - Other potential partnership opportunities in our community
- ECA Executive Leadership + Steering Committee (or task force)

OPERATIONAL IMPACTS OF CONSTRUCTION



- Phasing Options
 - Operational limitations; impact on programs and clients
 - Revenue, expense, and staffing implications
-
- ECA Staff + Facilities & Operations Committee + Admin & Finance Committee (or task force)

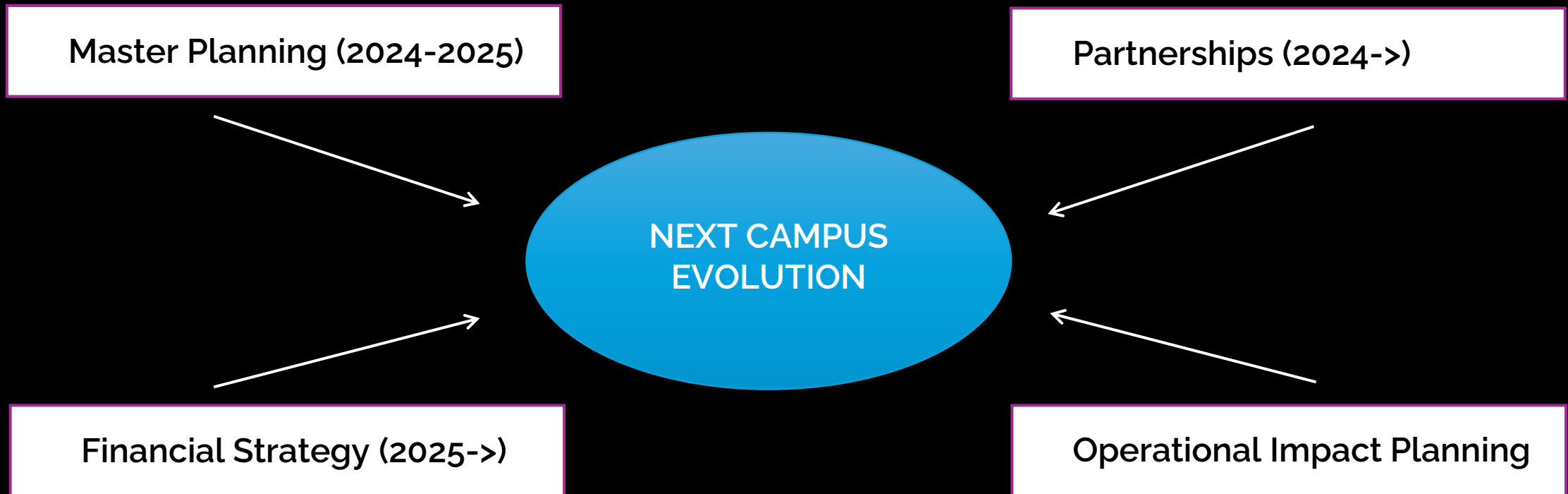
FINANCIAL STRATEGY



- Combining Mithun recommendations with known existing capital deficiencies and additional capital needs within the building + previously budgeted improvement (e.g., accessibility initiatives)
- Cost Reassessment (project scope, timing, and inflation)
- Project sequencing/cashflow
- Bonding Capacity (through 2041 and beyond via legislative extension)
- Fundraising/Capital Campaign

➤ ECA Staff + Admin & Finance Committee + Philanthropy Committee (or task force)

NEXT STEPS MAP



CONTACT INFORMATION



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QUESTIONS?

Edmonds

Public Facilities District



edmonds center for the arts

MITHŪN

**THANK
YOU!**

