

LOWELL HIGH SCHOOL

COMMUNITY
MEETING
2019

PERKINS —
EASTMAN





AGENDA

MSBA PROCESS

- Where We Are
- Looking Forward

DESIGN OVERVIEW

- Project Goals
- Site Features
- Building Features
- Reno/New Scope of Work
- Transformative Renovation Case Study
- Phasing Plans

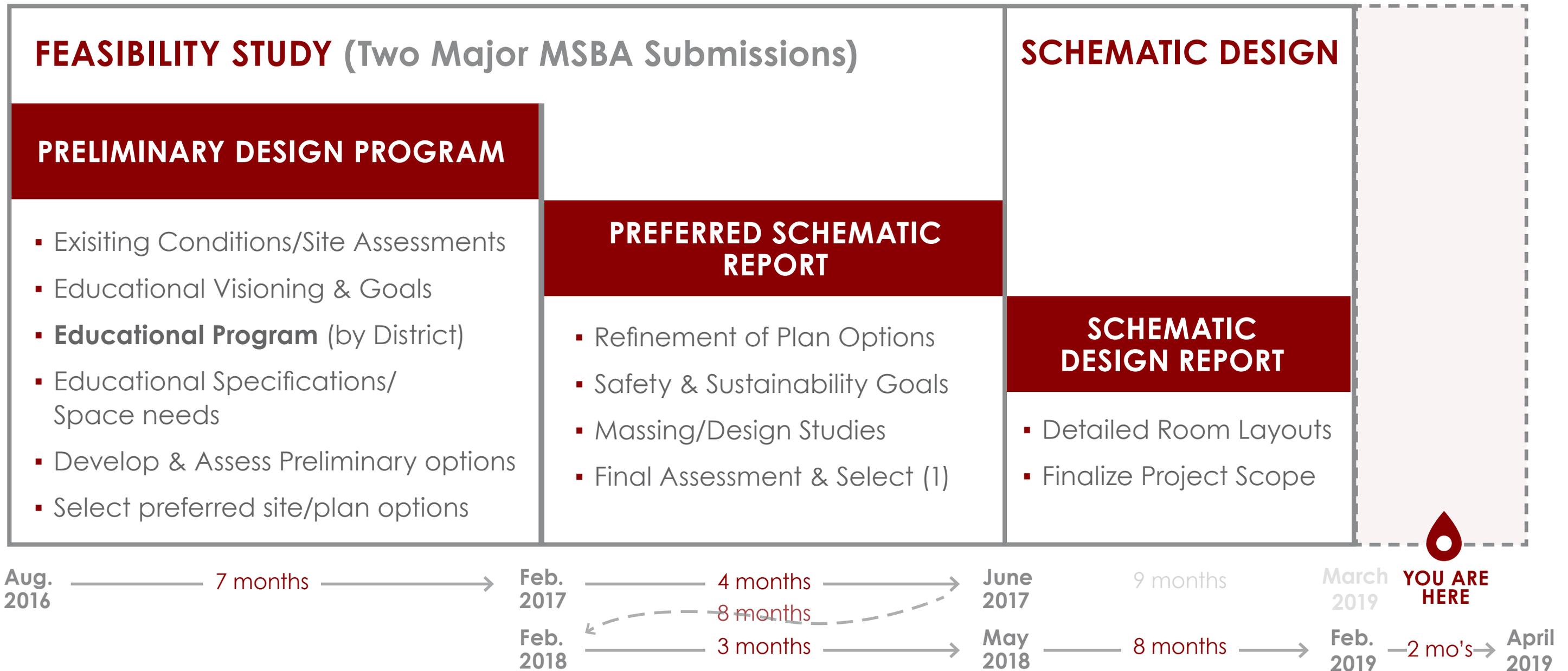
PROJECT COSTS

- Estimated Construction Cost

WHERE WE ARE

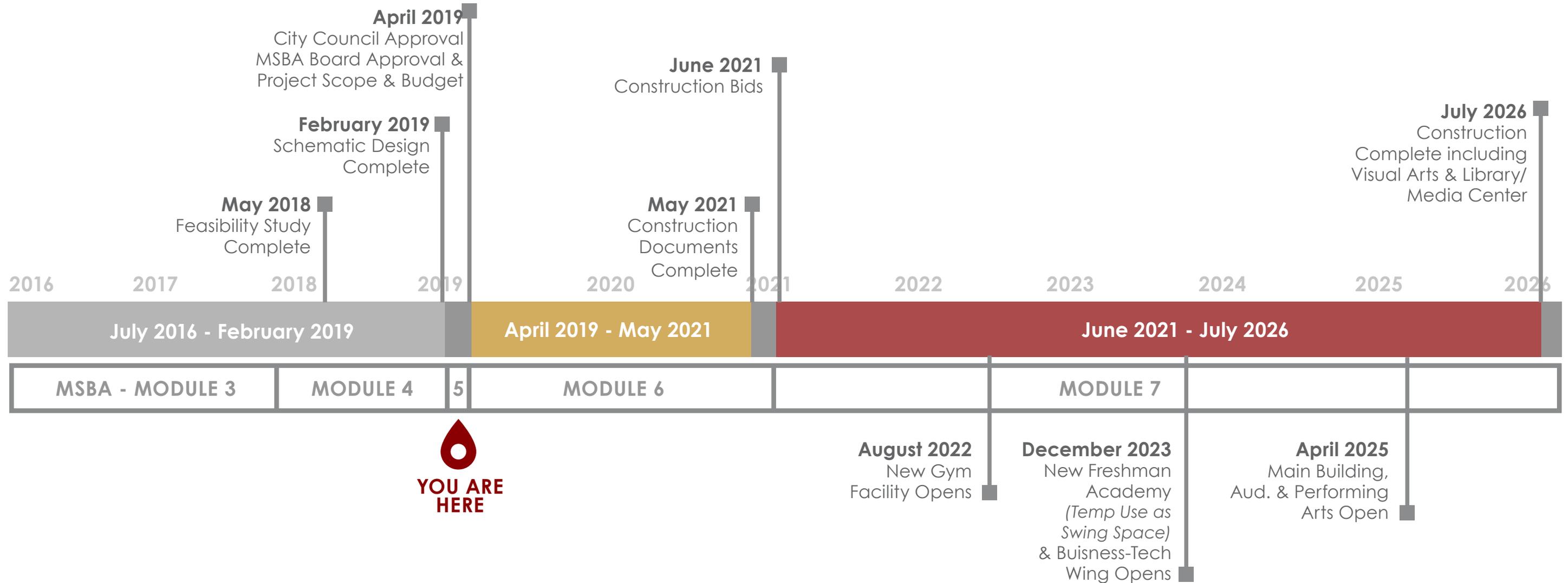
FEASIBILITY AND SCHEMATIC DESIGN SCHEDULE

The MSBA's Feasibility/Schematic Process Had 3 Major Submissions, (1 Repeated for Site) Over 30 months



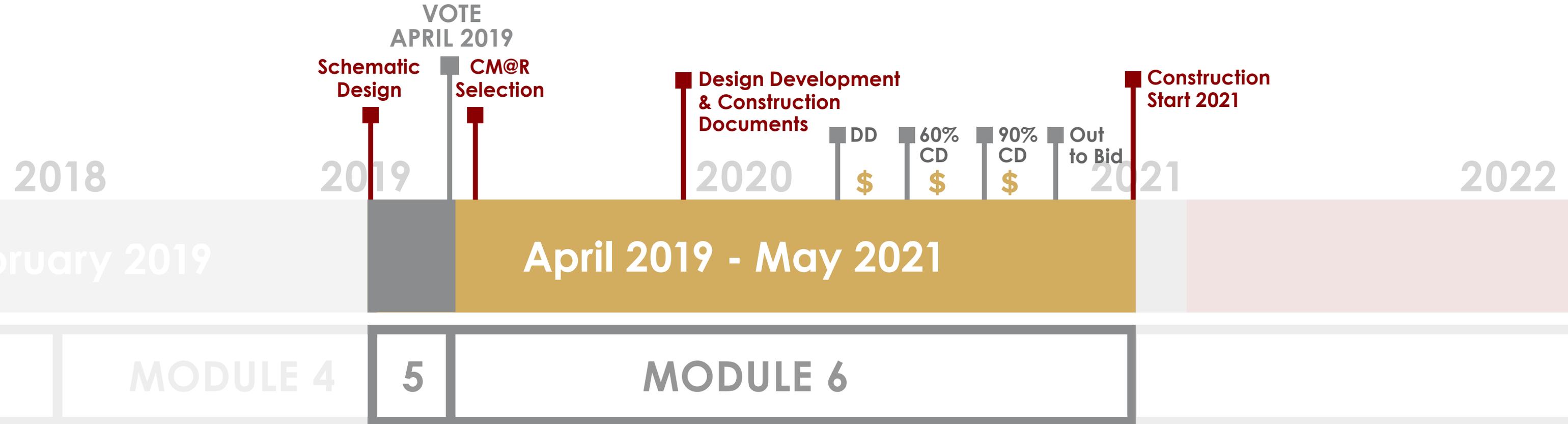
LOOKING FORWARD

OVERALL PROJECT SCHEDULE



LOOKING FORWARD

SCHEDULE THROUGH CONSTRUCTION START




**YOU ARE
HERE**

\$ = Budget Check

PROJECT GOALS

EDUCATIONAL VISION



Connected Freshmen Academy

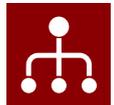


Zone for Community Use / Lock-Off

- Access to Media Center & Food Service
- Daytime Public Access



Create Hub/Heart to the School



Organize for Interdisciplinary Collaboration

- 9th Grade Core Academic Teams
- STEM & Humanities Planning Clusters
- Integrated SPED, ELL, Health & Flexible Learning Spaces
- Clustered Fine Arts, Digital Media, ROTC & World Language



Accessible House Model for Admin/Support



Provide Good Daylight/Orientation



Minimize Educational Disruption

Lowell High School - Lowell, MA
MSEA Module 3 Feasibility Study - Preferred Schematic Report (revised)

Educational Program (v12 for the revised PSR)

Lowell High School, established in 1831 with a principal and 47 students, was the first public co-educational high school in the United States and one of the first integrated high schools in the nation. In 1896 Coburn Hall was erected and an adjacent building was added in 1922. The school was expanded across the canal in 1980 with the construction of a new building and field house. Expansion and renovation of both buildings occurred in 1997. In 2005, the district repurposed a nearby middle school to serve as additional space for the Lowell High School Freshman Academy.

Throughout its long life, the high school buildings have been repurposed to the extent possible to meet educational needs, but the structure only allows for minimum flexibility and usage. As the school expands in numbers and evolves into a modern educational approach, a new facility is needed to implement technology seamlessly across the building and to offer flexible spaces that support collaboration and 21st century teaching and learning.

LHS successfully completed the Fall 2015 NEASC Accreditation process and received full reaccreditation. However, the school was placed on warning for standard 7: Community Resources for Learning, which deals with budget, facilities, and the physical plant. The accreditation committee listed the following concerns (noted in the 4/22/16 Accreditation letter):

The school site and plant do not minimally support the delivery of high quality school programs and services, including but not limited to the following:

- Leaks in the roof, the tunnel, and from sinks
- Temperature fluctuations where one room is considerably warm while another is considerably colder
- The presence of pests in the building
- Windows in need of repair
- The nurse's office which is small and not easily navigated by wheelchair-bound students
- The lack of full accessibility to individuals with physical handicaps
- The main cafeteria that is at or near capacity
- The lack of capacity of the electrical system resulting in the inability to support upgrades in technology
- The lack of natural light or adequate ventilation in art rooms
- The inability of the science labs in both the 1922 and the 1980 buildings to support modern science curriculum and pedagogy
- The lack of equitable facilities to support students in life skills programs
- The lack of equitable access to up-to-date technology for all students

SITE FEATURES



WELCOMING
ENTRY

1



OPEN GREEN
SPACE

2



RELATIONSHIP
TO CANAL/LUCY
LARCOM PARK

3



ROOFTOP
GARDEN

4



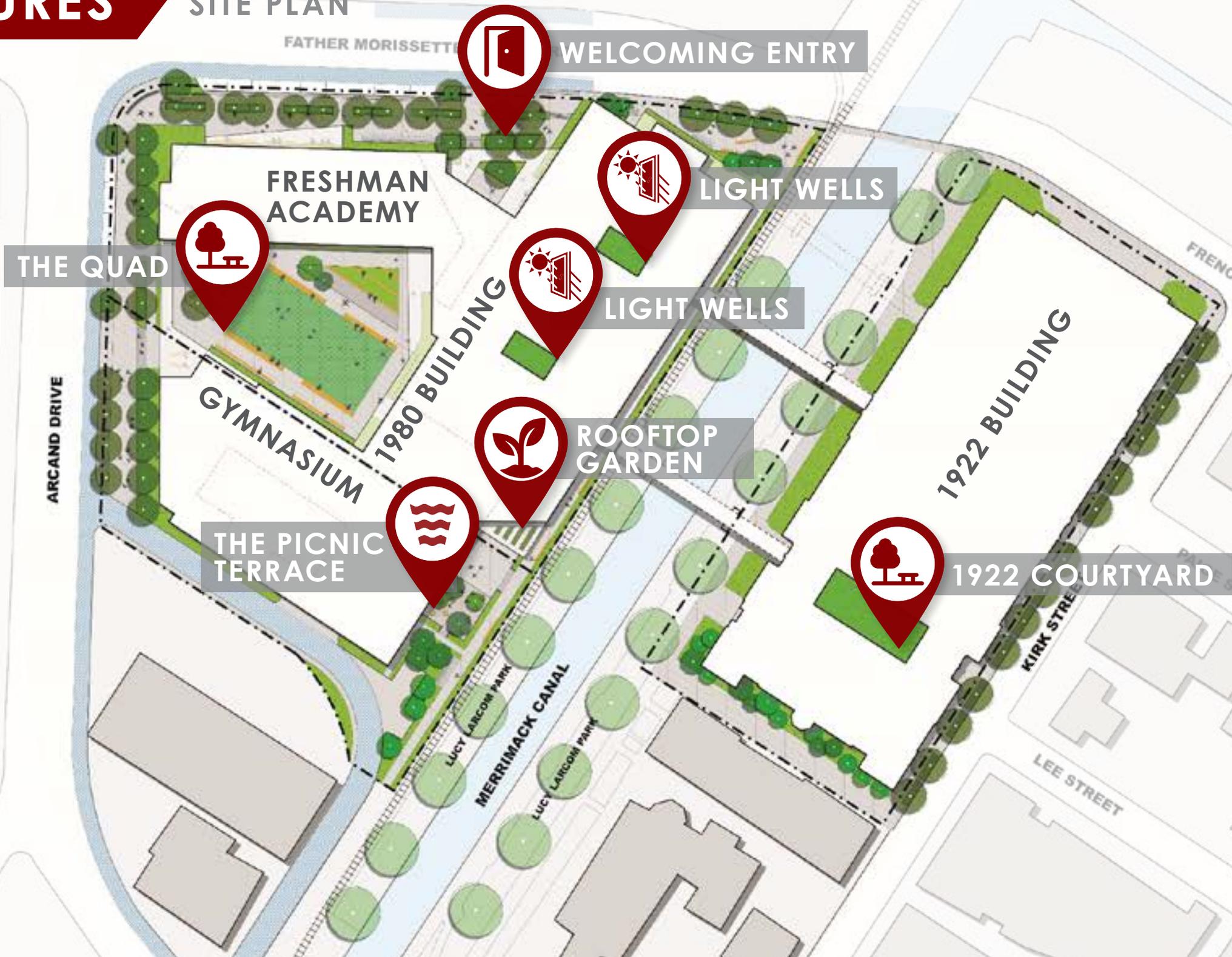
VERTICAL
LIGHTWELLS

5



SITE FEATURES

SITE PLAN



 WELCOMING ENTRY

 LIGHT WELLS

 LIGHT WELLS

 ROOFTOP GARDEN



 1922 COURTYARD



THE QUAD

GYMNASIUM

FRESHMAN ACADEMY

1980 BUILDING

1922 BUILDING

THE PICNIC TERRACE

MERRIMACK CANAL

LUCY LARCOM PARK

LUCY LARCOM PARK

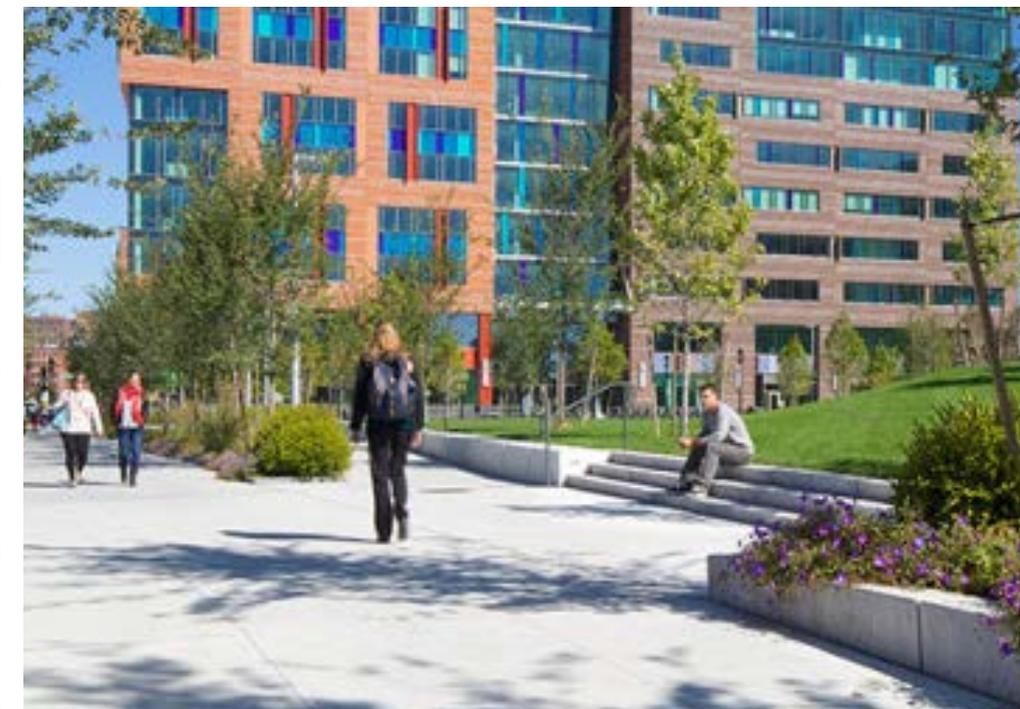
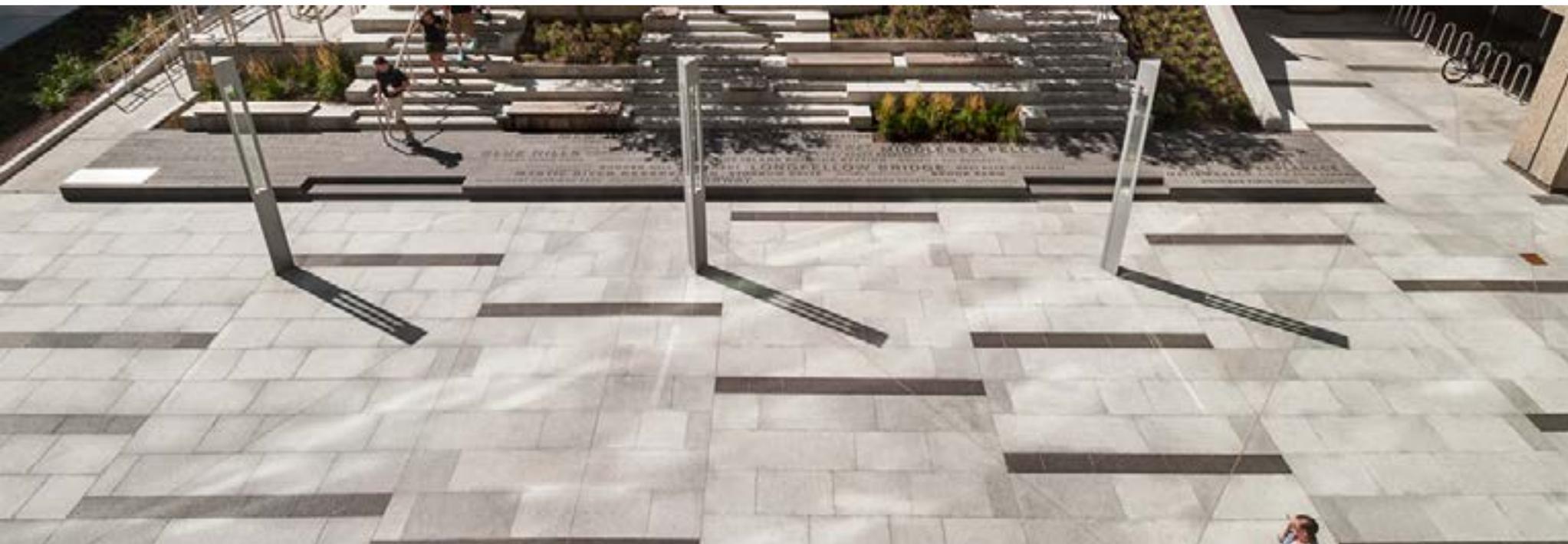
KIRK STREET

LEE STREET

FRENCH STREET

SITE FEATURES

WELCOMING ENTRY



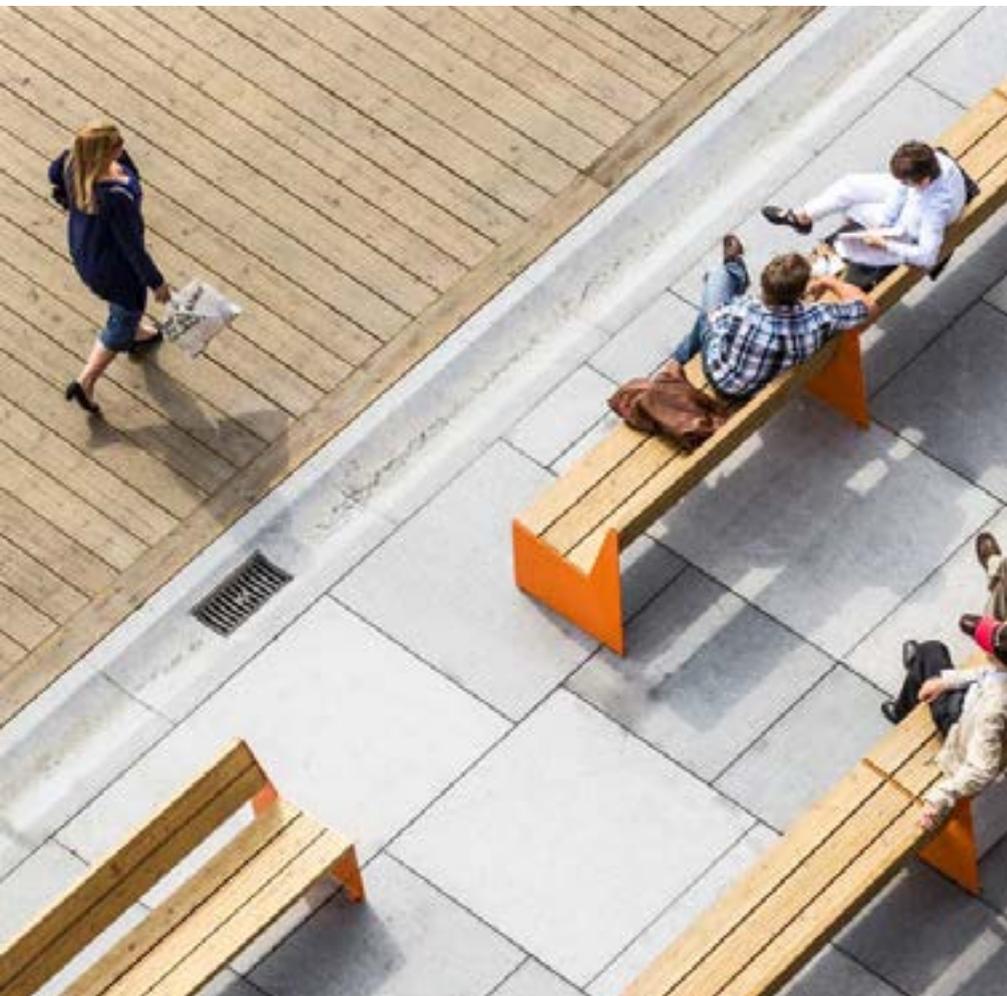
SITE FEATURES

OPEN GREEN SPACE: "THE QUAD"



SITE FEATURES

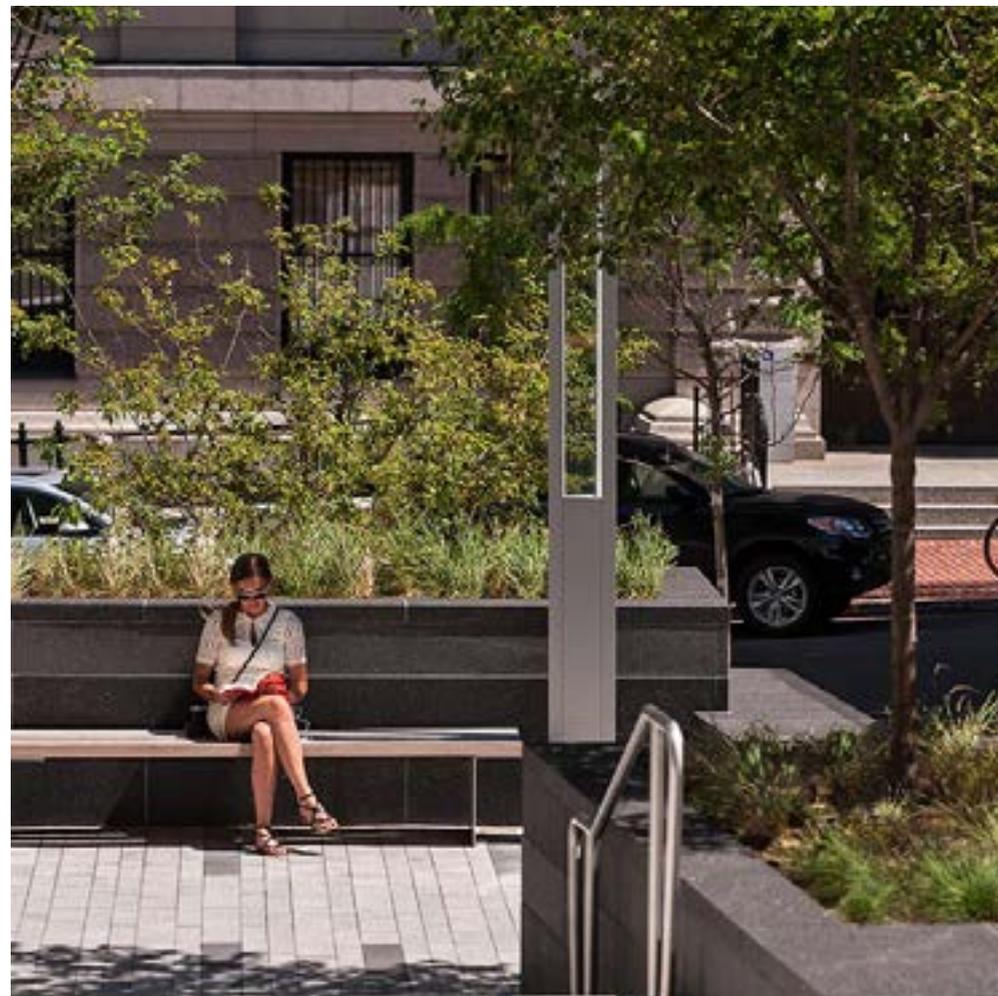
RELATIONSHIP TO CANAL/PARK



WATERFRONT PROMENADE AT AKER BRUGGE

LINK LANDSKAP

Oslo, Norway



ROEMER PLAZA- SUFFOLK UNIVERISTY

(KMDG)

Boston, MA



VISTULA BLVD

RS ARCHITEKTURA KRAJOBRAZU

Warsaw, Poland

SITE FEATURES

ROOFTOP GARDEN



MARTIN LUTHER KING JR. SCHOOL

PERKINS EASTMAN
Cambridge, MA



ALEXANDRIA CENTER FOR LIFE SCIENCES

ORE ARCHITECTURE
New York City, NY



THE DISTRICT WHARF: THE CHANNEL

PERKINS EASTMAN
Washington, DC

SITE FEATURES

VERTICAL LIGHTWELLS



TAHARI COURTYARDS

MICHAEL VAN VALKENBURGH
Millburn, NJ



TAHARI COURTYARDS

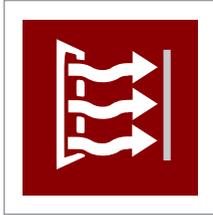
MICHAEL VAN VALKENBURGH
Millburn, NJ



KENETIC SITE SPECIFIC ART INSTALLATION

AMY TAVERN
Velvet Da Vinci, San Francisco, CA

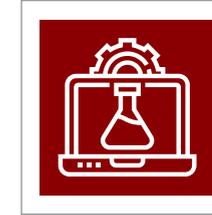
BUILDING FEATURES



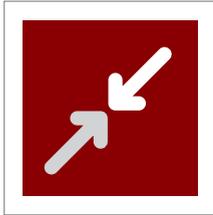
**HIGH
PERFORMANCE
ENVELOPE**



**TRANSFORMATIVE
RENOVATION**



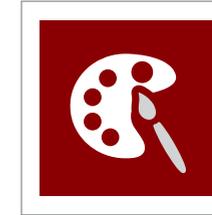
**21ST CENTURY SCIENCE
AND ENGINEERING
LABORATORIES**



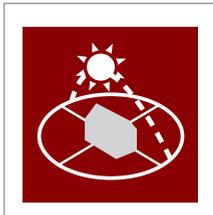
**CAMPUS CONNECTIVITY
(INCLUDES FRESHMAN
ON CAMPUS)**



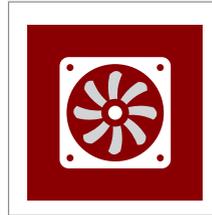
**STATE-OF-THE-ART
ATHLETIC
FACILITIES**



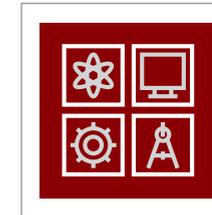
**TRANSFORMATIVE
FINE ARTS SUITE
OF STUDIOS**



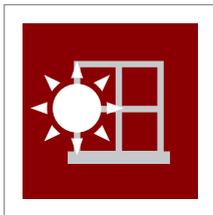
**IDEAL SOLAR ORIENTATION
FOR NEW CONSTRUCTION
CLASSROOMS**



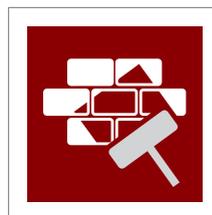
**HIGH-EFFICIENCY
MECHANICAL
SYSTEMS**



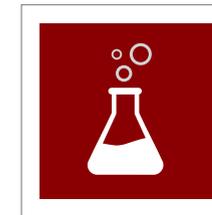
**STEM & HUMANITIES
CLASSROOM
CLUSTERS**



**ALL CLASSROOMS
RECEIVE NATURAL
DAYLIGHT**



**DURABLE, EASY
TO MAINTAIN
MATERIALS**



**FRESHMAN CLUSTER
OF CLASSROOMS
WITH SCIENCE LABS**



AERIAL VIEW OF EXISTING CAMPUS



AERIAL VIEW OF PROPOSED CAMPUS



LHS
Est. 1831

LOWELL HIGH SCHOOL

VIEW OF FRONT ENTRY ACROSS FATHER MORISSETTE



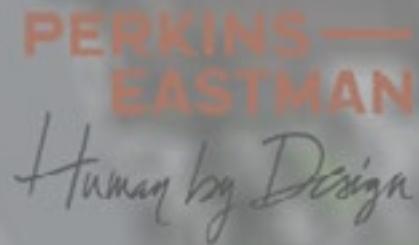
VIEW OF THE QUAD/OPEN GREEN SPACE



Industry
Pills
Culture
Lowell
MERRIMACK DIVISORY

CONNECTION TO CANAL

LOWELL HIGH SCHOOL



PERKINS EASTMAN
BOSTON, MASSACHUSETTS



LOWELL HIGH SCHOOL
LOWELL, MASSACHUSETTS

SCHEMATIC DESIGN PROGRESS
JANUARY, 2019



HEART OF THE SCHOOL



GYMNASIUM



INFORMATION

EARN INSPIRE

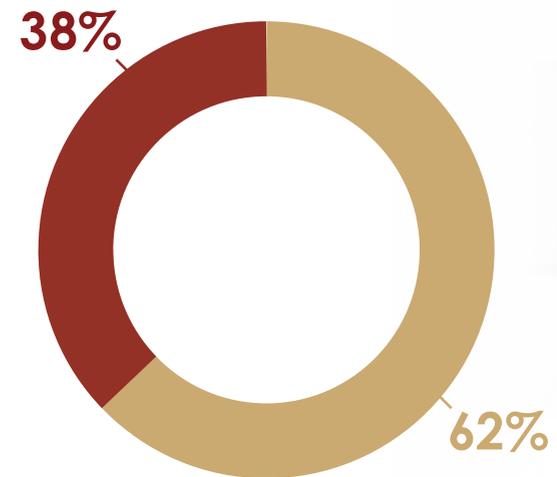
MEDIA CENTER



DINNING COMMONS

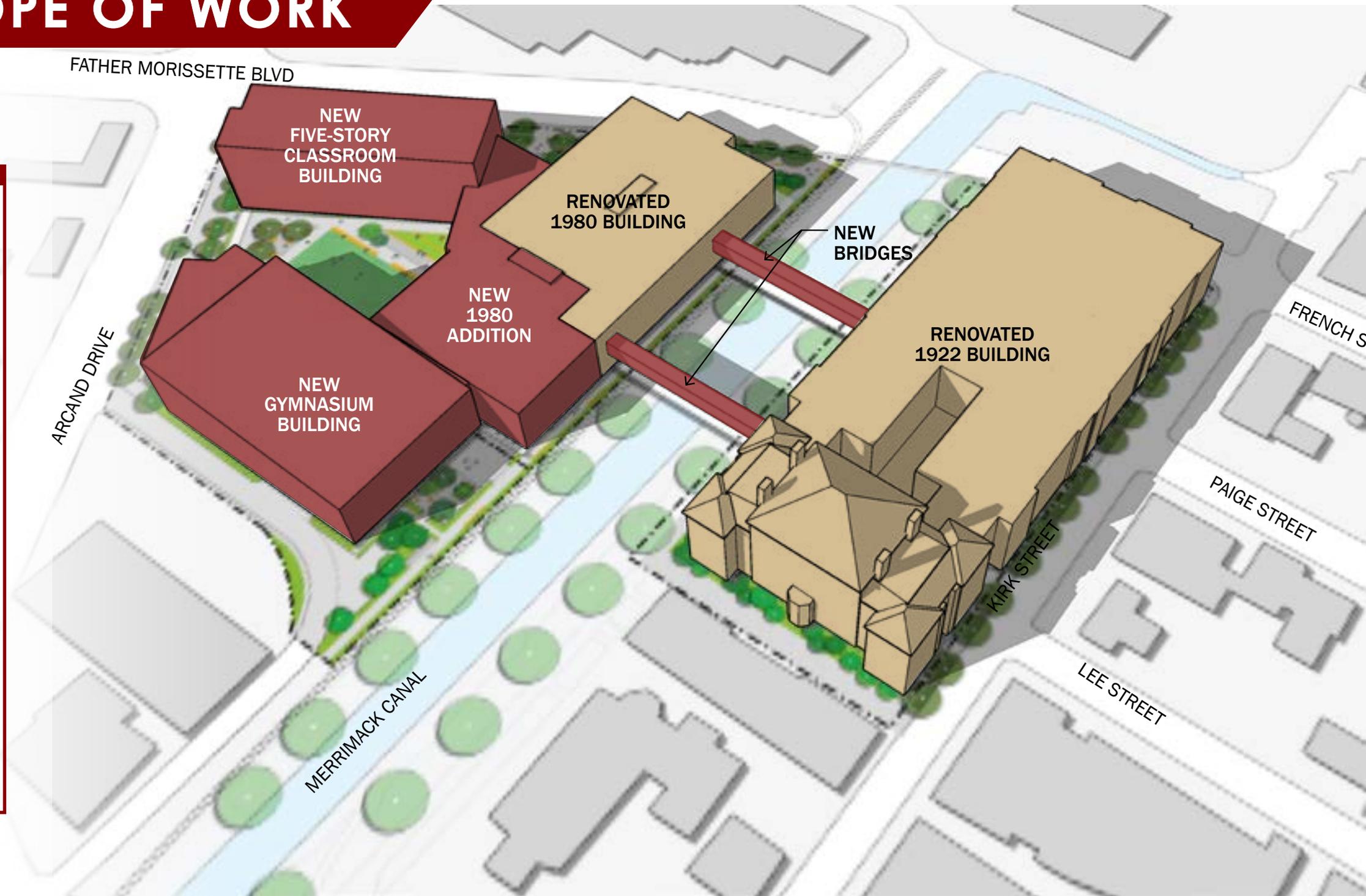
RENO/NEW SCOPE OF WORK

BUILDING AREA



Area of Renovation

Area of Addition



TRANSFORMATIVE RENOVATION CASE STUDY

PRECEDENT WORK

Ron Brown College
Preparatory High School

IMPROVED ENTRY

BEFORE ▼



AFTER ►



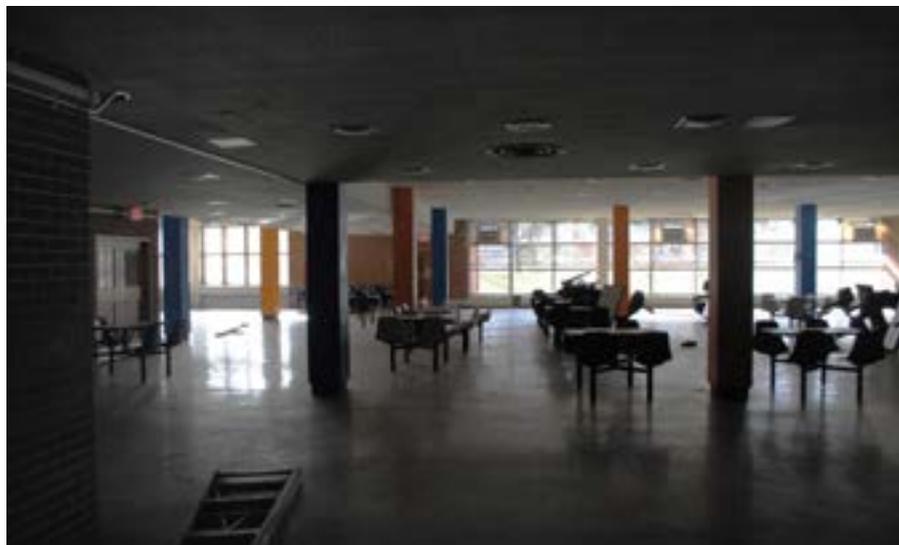
TRANSFORMATIVE RENOVATION CASE STUDY

PRECEDENT WORK

Ron Brown College
Preparatory High School

MAIN LOBBY & GATHERING SPACE

BEFORE ▼



AFTER ►



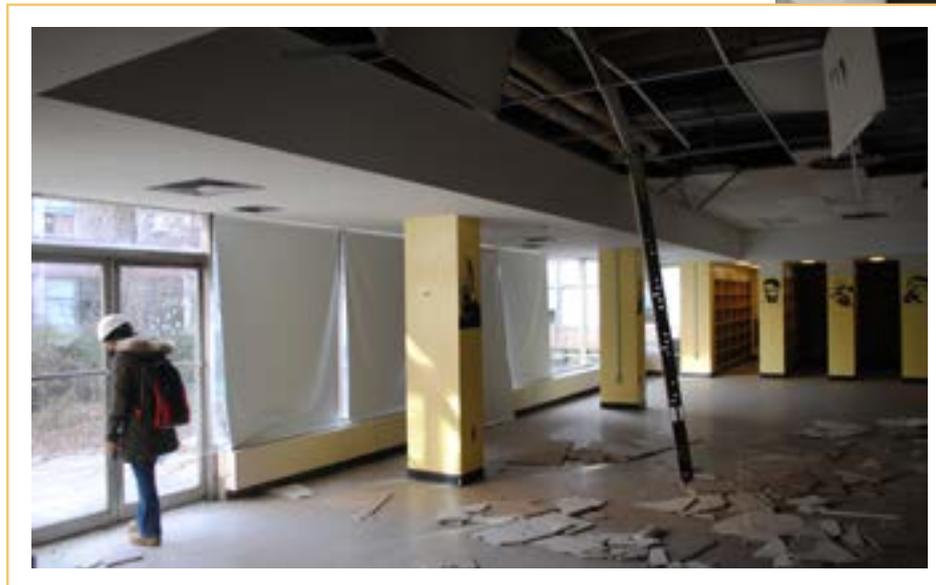
TRANSFORMATIVE RENOVATION CASE STUDY

PRECEDENT WORK

Ron Brown College
Preparatory High School

MEDIA CENTER

BEFORE ▼



AFTER ►



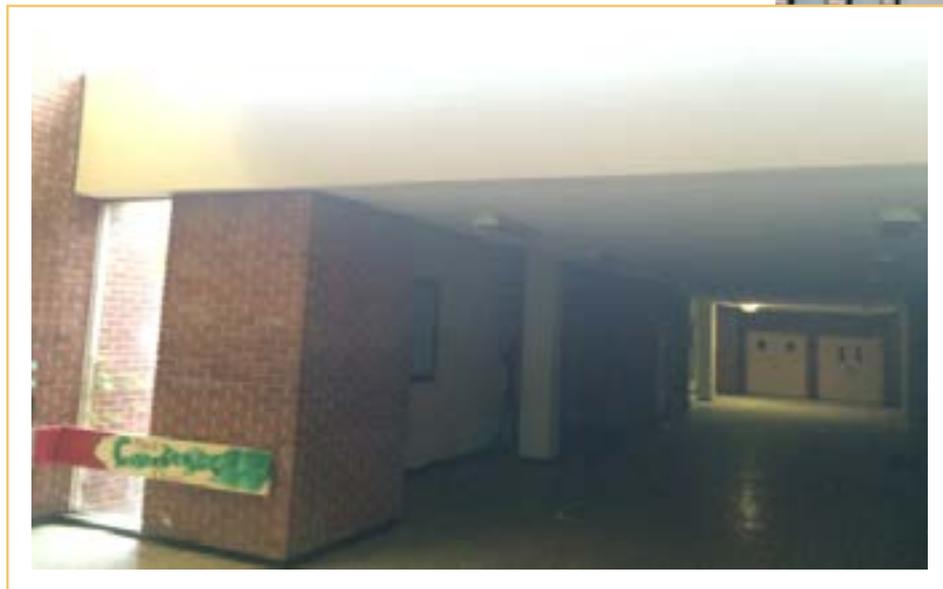
TRANSFORMATIVE RENOVATION CASE STUDY

PRECEDENT WORK

Ron Brown College
Preparatory High School

CONNECTING THE HEART & SOUL: MAIN CORRIDOR CONNECTION

BEFORE ▼



AFTER ►



TRANSFORMATIVE RENOVATION CASE STUDY

PRECEDENT WORK

Ron Brown College
Preparatory High School

ENGAGING CULTURE THROUGHOUT THE CORRIDORS

BEFORE ▼



AFTER ►



TRANSFORMATIVE RENOVATION CASE STUDY

PRECEDENT WORK

Ron Brown College
Preparatory High School

MOTIVATION THROUGHOUT THE SCHOOL

BEFORE ▼



AFTER ►



TRANSFORMATIVE RENOVATION CASE STUDY

PRECEDENT WORK

Ron Brown College
Preparatory High School

GYMNASIUM FOR THE RON BROWN MONARCHS

BEFORE ▼



AFTER ►



TRANSFORMATIVE RENOVATION CASE STUDY

PRECEDENT WORK

Ron Brown College
Preparatory High School

CLASSROOM TRANSFORMATION: ENVIRONMENTS CONDUCIVE TO LEARNING

BEFORE ▼

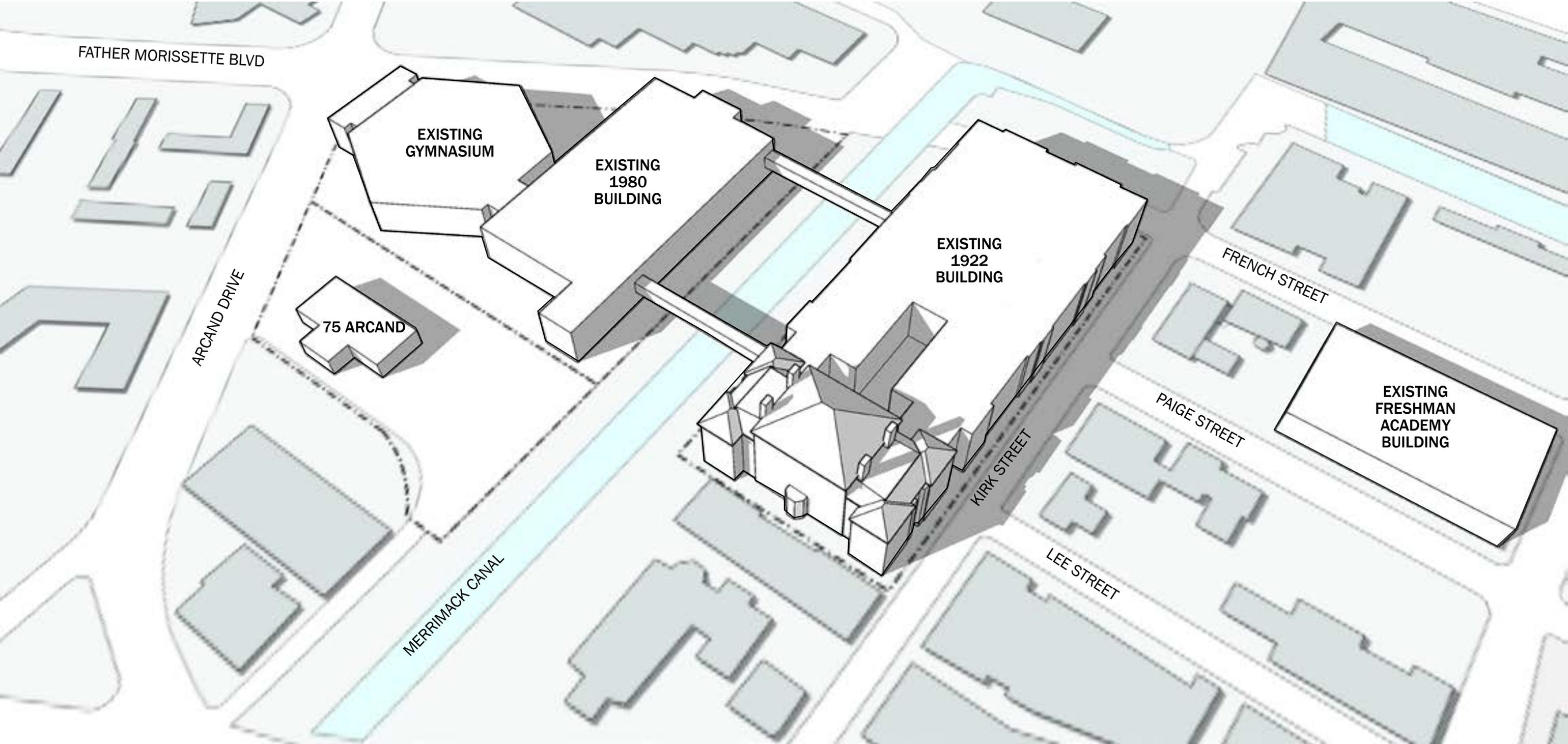


AFTER ►



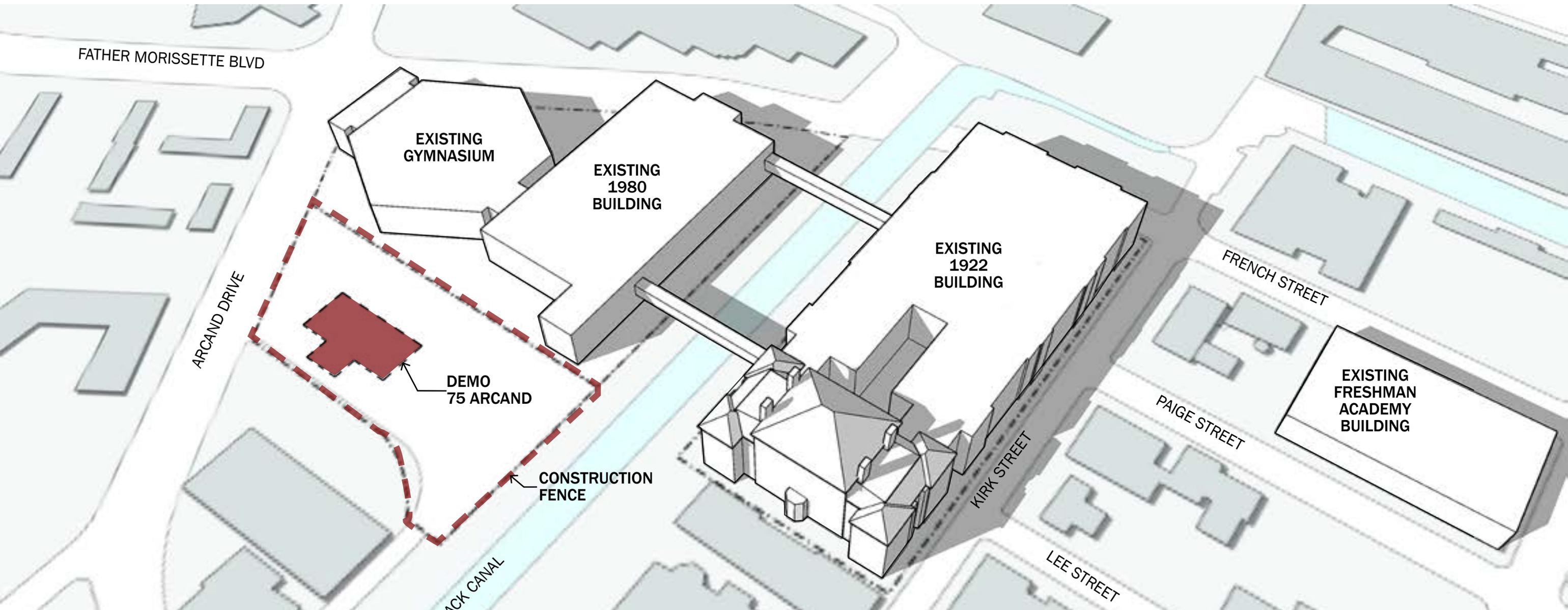
PHASING PLAN

EXISTING CAMPUS



PHASING PLAN

PHASE 1A



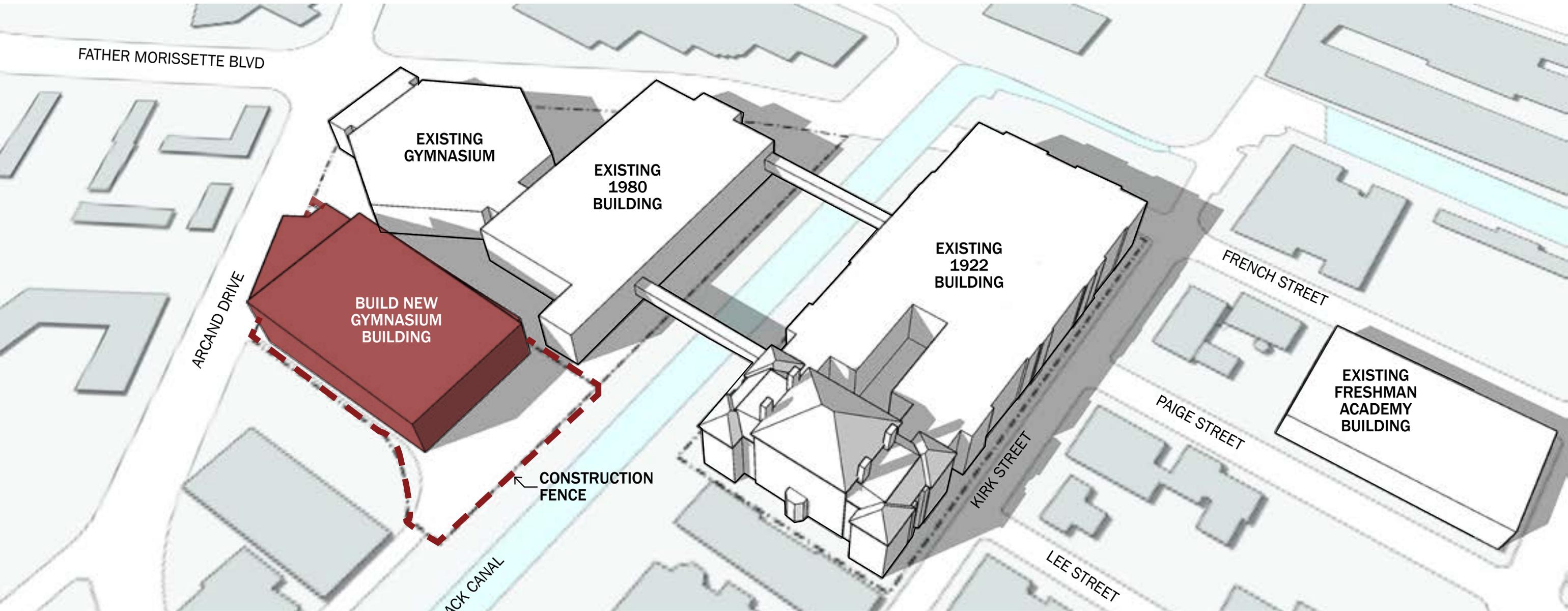
PHASE 1 & 1A

SPRING '21 – FALL '22
(18 MONTHS TOTAL)

- ALL WORK IS OFF-SITE (SCHOOL UNAFFECTED)
- DEMOLISH 75 ARCAND

PHASING PLAN

PHASE 1



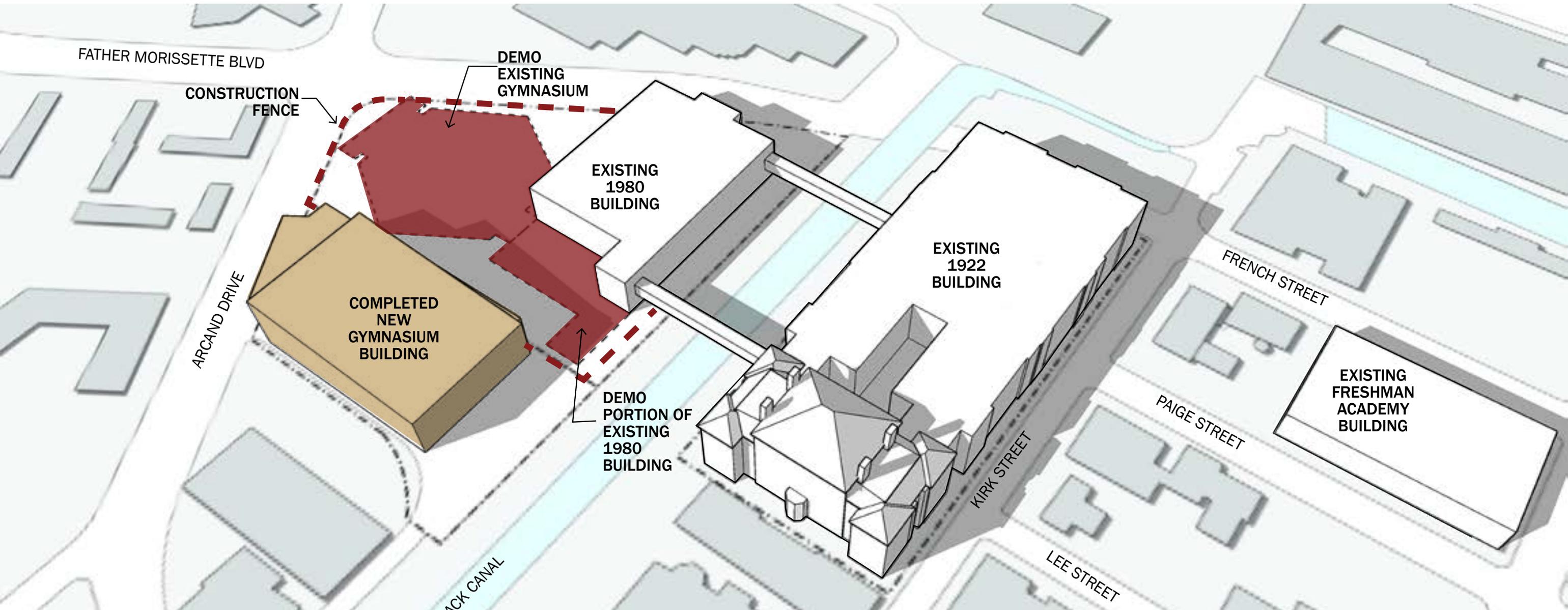
PHASE 1 & 1A

SPRING '21 – FALL '22
(18 MONTHS TOTAL)

- ALL WORK IS OFF-SITE (SCHOOL UNAFFECTED)
- BUILD NEW GYM BLDG. (INCLUDING KITCHEN/BOILER)

PHASING PLAN

PHASE 2A



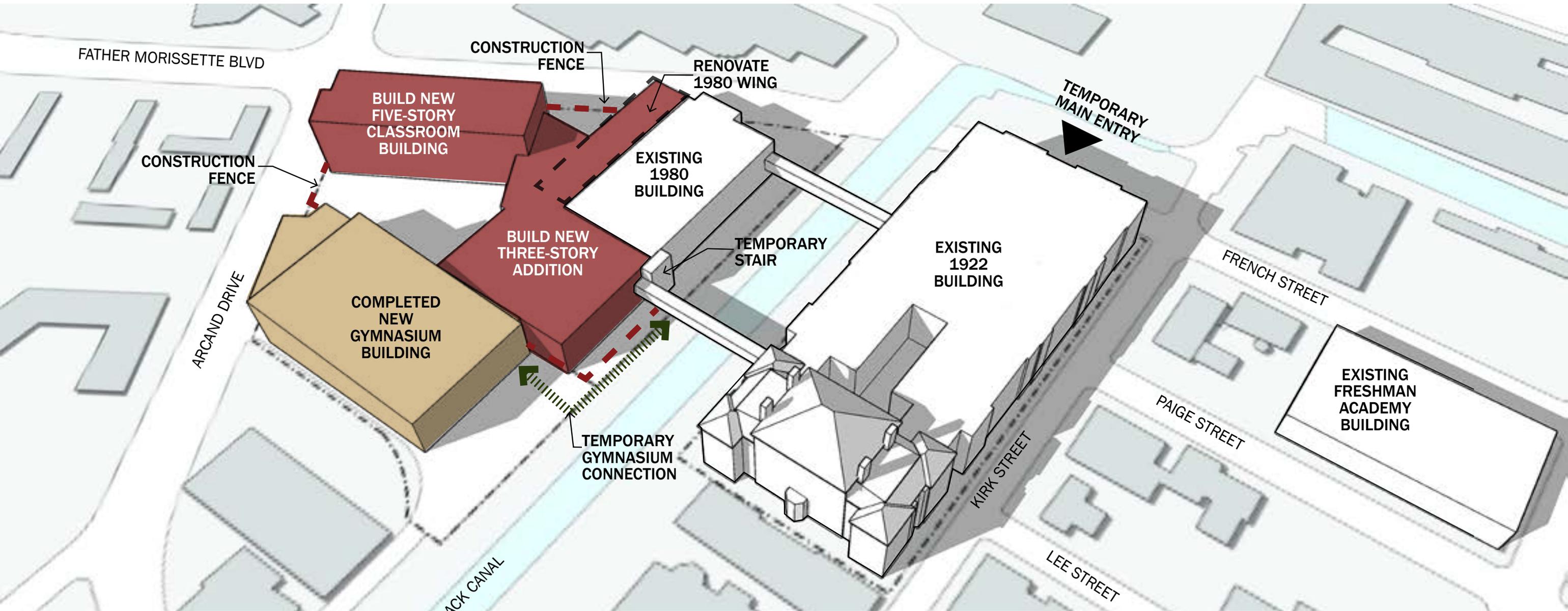
PHASE 2 & 2A

SUMMER '22 – WINTER '23
(18 MONTHS, 3 OVERLAP)

- DEMO EXISTING GYM (DURING THE SUMMER)
- BUILD SEPARATION WALLS, TEMPORARY CONNECTOR, RELOCATE MAIN ADMIN. AND VACATE SWING SPACE (DURING THE SUMMER)

PHASING PLAN

PHASE 2



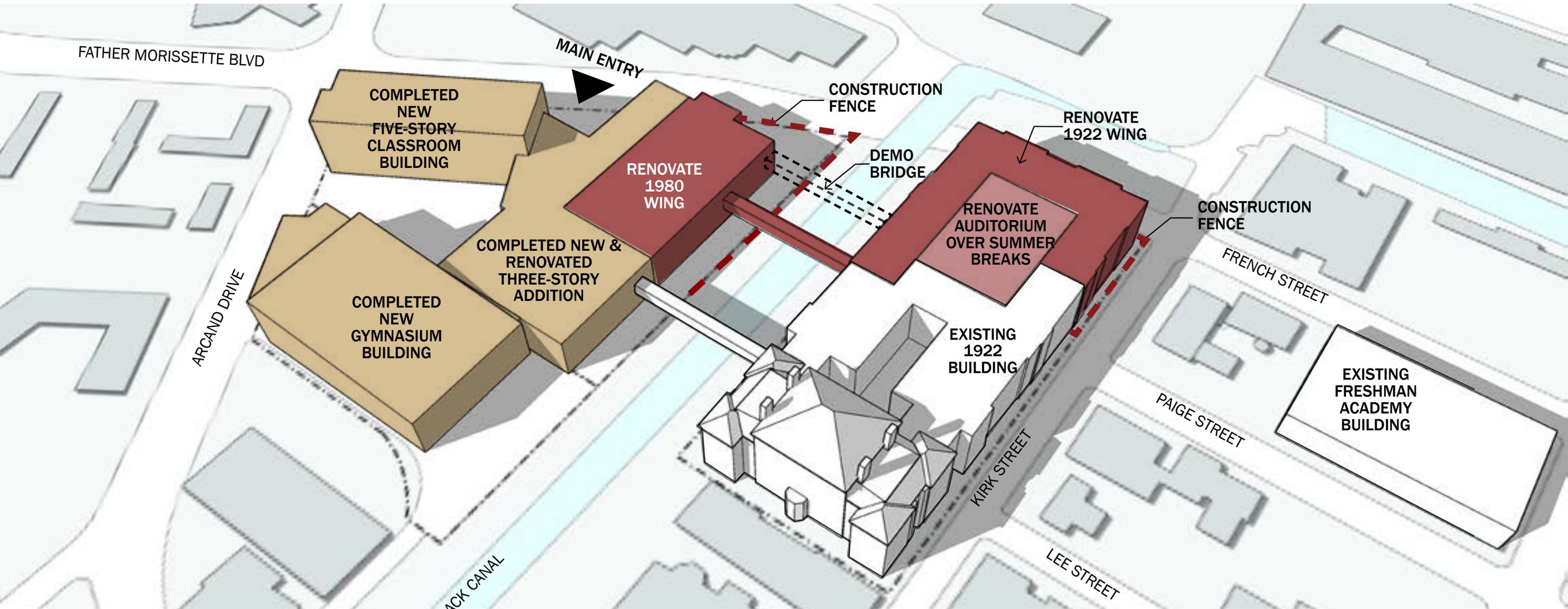
PHASE 2 & 2A

SUMMER '22 – WINTER '23
(18 MONTHS, 3 OVERLAP)

- BUILD NEW FRESHMAN ACADEMY/BUSN-TECH. (CREATES 60 NEW ROOMS)
- RENOVATE WEST SIDE OF 1980 BUILDING

PHASING PLAN

PHASE 3



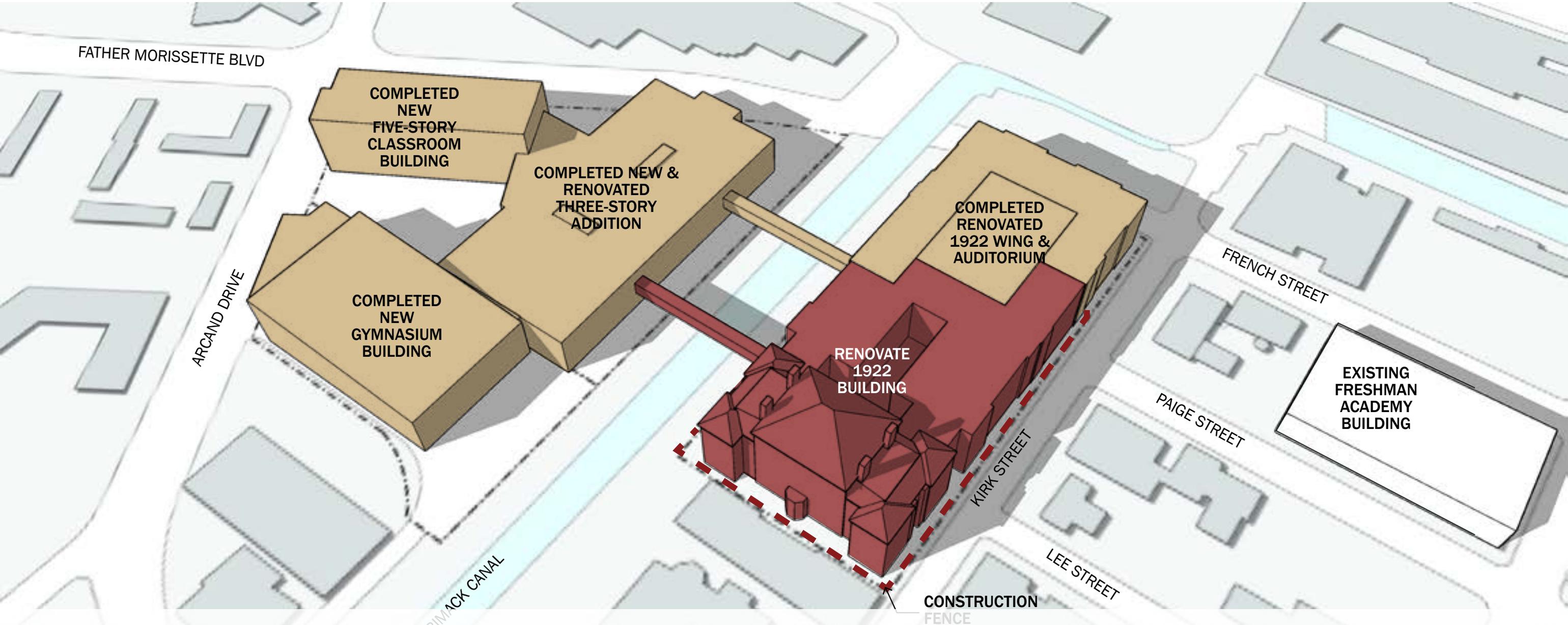
PHASE 3

WINTER '24 – SPRING '25
(15 MONTHS)

- RENOVATE BALANCE OF 1980'S & NORTH 1922 BUILDING
- BUILD NEW NORTH BRIDGE
- RENOVATE AUDITORIUM (OVER SUMMER/BREAKS)
- CONTRACTOR USES OLD BRIDGE, THEN DEMOLISH

PHASING PLAN

PHASE 4



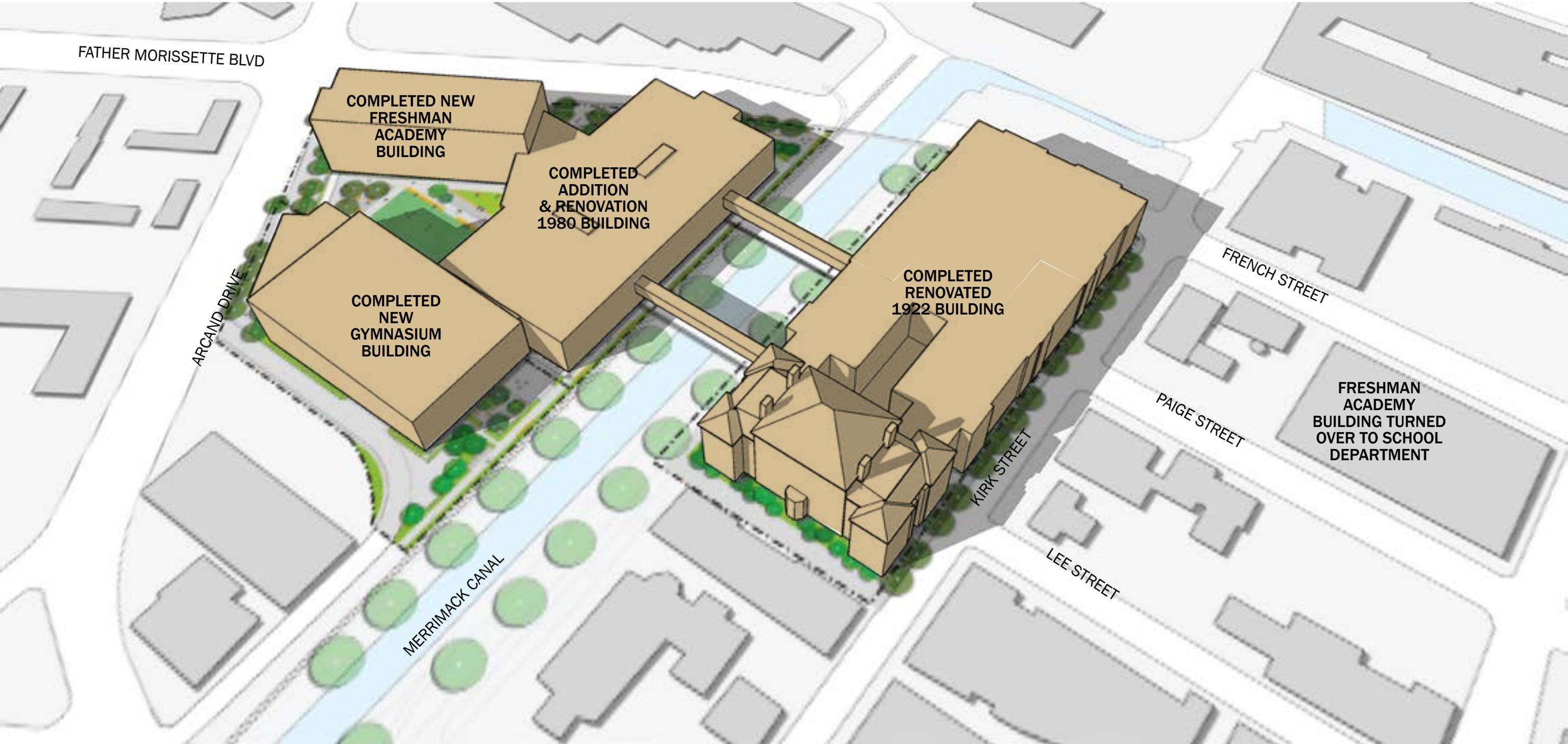
PHASE 4

SPRING '25– SUMMER '26
(15 MONTHS)

- RENOVATE REMAINDER OF 1922 BUILDING
- REBUILD SOUTH BRIDGE
- FRESHMAN RELOCATED TO NEW FACILITIES

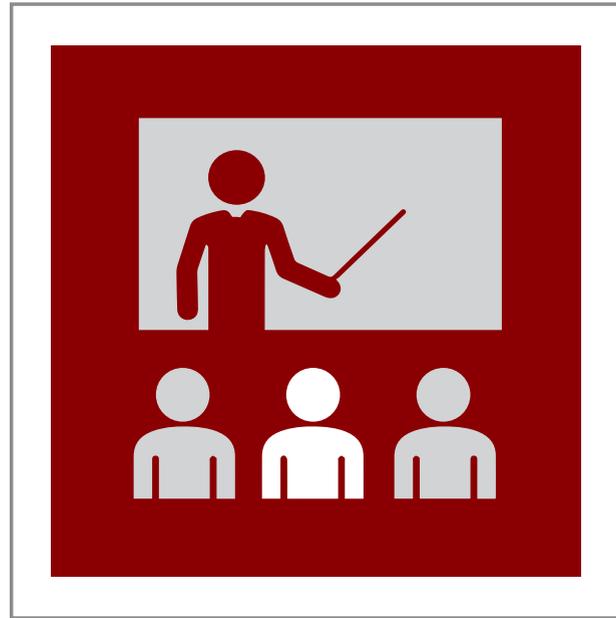
PHASING PLAN

MOVE-IN



PHASED OCCUPIED CONSTRUCTION

CONSTRUCTION GOALS



**CONTINUITY OF
EDUCATION**



**SEPARATION OF
CONSTRUCTION**

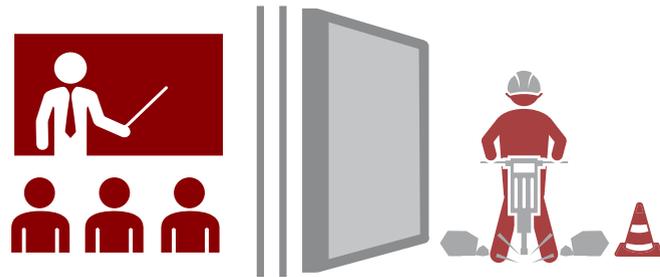


**SAFETY
FOR ALL**

PHASED OCCUPIED CONSTRUCTION

IMPLEMENTATION

1. SEPARATED ZONES



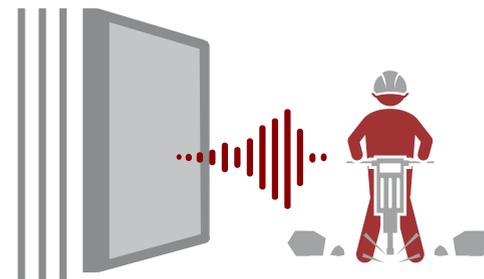
(INCLUDING STACKED)



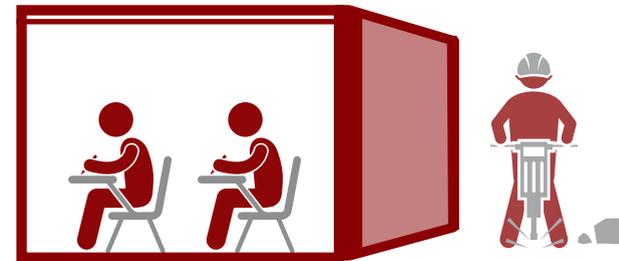
2. MAINTAIN SEPARATE STAIRS & HALLWAYS



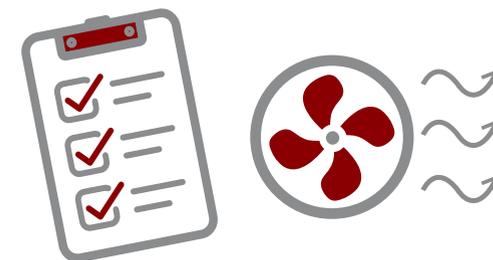
3. ACOUSTIC BUFFER SPACE



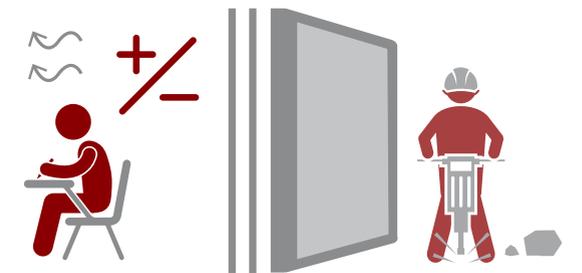
4. BUILT BARRIERS/SEALED



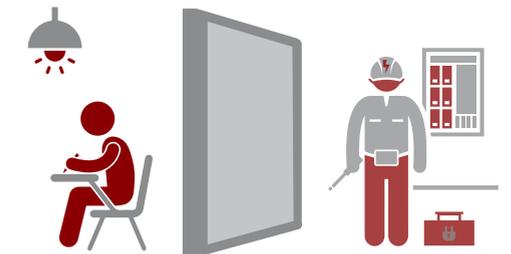
5. REGULAR AIR QUALITY TESTING



6. NEGATIVE AIR PRESSURE



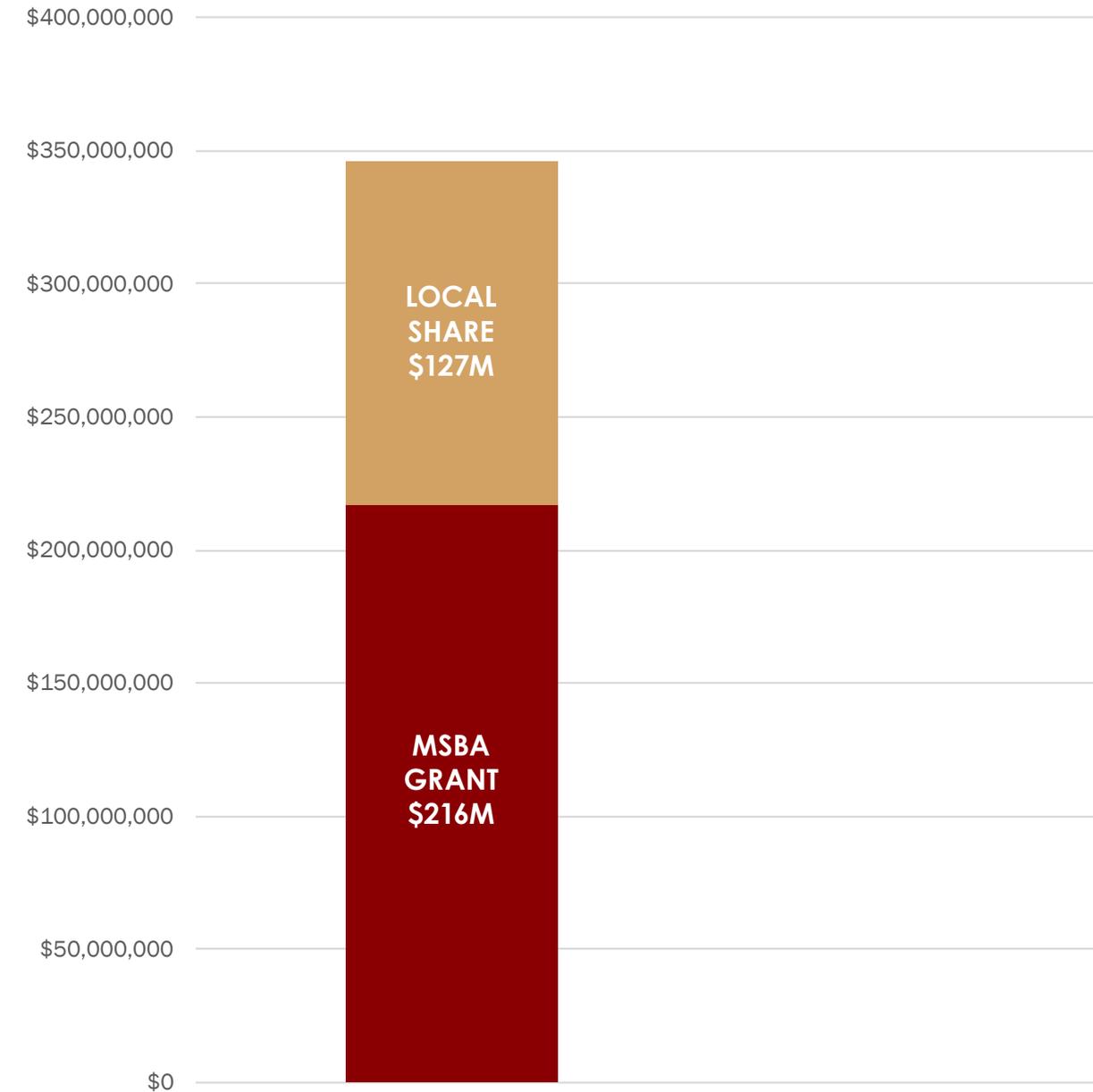
7. CONTINUITY OF (UTILITY) SERVICES *(sequenced phases from new & back to existing)*



ESTIMATED CONSTRUCTION COSTS

FUNDING

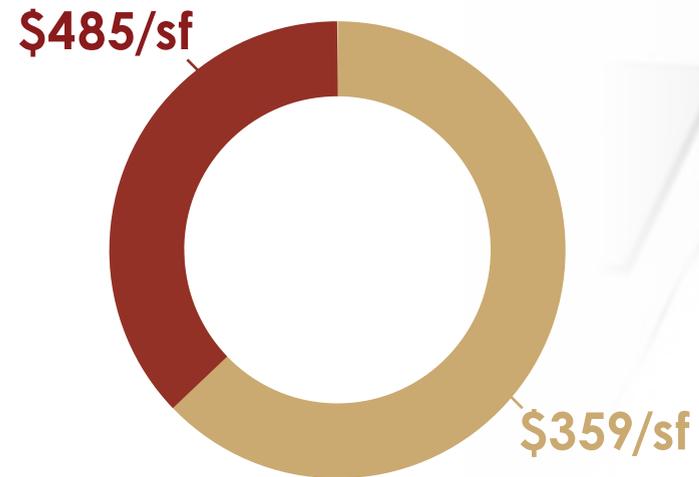
MSBA GRANT:	\$215,992,406
LOCAL SHARE:	\$127,406,814
TOTAL ESTIMATED PROJECT COSTS:	\$343,399,220



ESTIMATED CONSTRUCTION COSTS

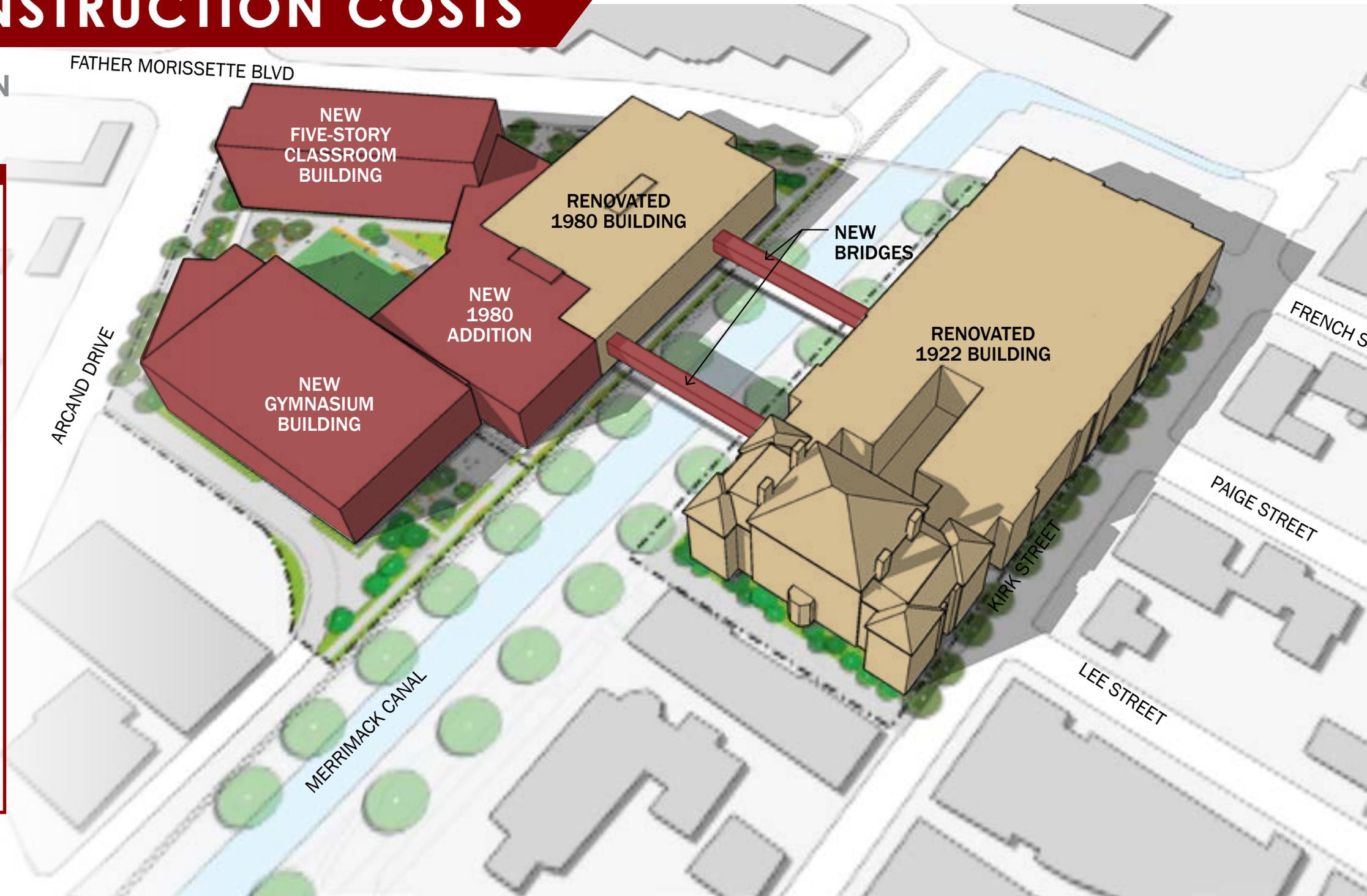
ADDITION VS. RENOVATION

BUILDING AREA



■ Area of Renovation

■ Area of Addition



ESTIMATED CONSTRUCTION COSTS

CURRENT MSBA HIGH SCHOOL PROJECTS

PROJECT	NEW CONSTRUCTION OR ADDITION/RENO	COST/SQ	TOTAL PROJECT BUDGET	
Lowell High	A/R	\$434	\$343,399,220	\$343,399,220
Waltham	NC	\$742	\$381,292,924	\$381,292,924
Arlington	A/R	\$573	\$308,278,341	\$308,278,341
Belmont	A/R	\$532	\$295,159,189	\$295,159,189
BMC Durfee (Fall River)	NC	\$435	\$263,494,125	\$263,494,125
Somerville	A/R	\$533	\$255,982,704	\$255,982,704
Saugus	NC	\$471	\$160,720,553	\$160,720,553
Boston Arts Academy	NC	\$639	\$124,755,412	\$124,755,412

LOWELL HIGH SCHOOL

COMMUNITY
MEETING
2019

PERKINS —
EASTMAN

