

A RECREATIONAL REUSE STUDY
for the FORMER ELGIN STATE
HOSPITAL LAUNDRY BUILDING

PREPARED FOR THE CITY OF ELGIN,
THE PARKS & RECREATION DEPARTMENT AND
THE PARKS & RECREATION ADVISORY COMMISSION



AUGUST 2016

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Introduction:

In 2008, Landmarks Illinois included the Elgin Mental Health Center on its Chicagoland Watch List to bring attention to the architecturally significant buildings that had been vacated. They included the distinctive Laundry Building and the circular Medical Surgical Building – both designed by renowned Modernist architect Bertrand Goldberg – and a brick horse barn built in the 1890s and thought to be the oldest masonry barn in Kane County.

At the time of the 2008 Watch List announcement, the Laundry Building and masonry barn, located on the northern portion of the hospital campus, had been purchased by John B. Sanfilippo and Sons. The company planned to consolidate its nut processing operations on the site, but ultimately opted for an alternate location. The Medical Surgical Building, still owned by the Elgin Mental Health Center, was considered too deteriorated for rehabilitation. With the future of the buildings uncertain, local preservation advocates assumed that all would ultimately be demolished.

In 2015, the City of Elgin purchased the Laundry Building and masonry barn as part of an 84-acre parcel acquisition. Since then, the Laundry Building and barn have been used for storage by the City of Elgin Parks and Recreation Department. Studies are underway to expand the city's sports complex, which is located immediately to the west. In late 2015, Landmarks Illinois reached out to the Parks and Recreation Department and the Parks and Recreation Advisory Commission and offered to conduct a pro bono condition assessment and reuse study of the Laundry Building. Upon their acceptance of Landmarks Illinois' offer, the firms of Wiss, Janney, Elstner Associates, Inc (WJE) and Skidmore, Owings and Merrill (SOM) were asked by Landmarks Illinois to conduct the condition assessment and reuse studies. (The condition assessment prepared by WJE can be found in the appendix of SOM's reuse study).

We hope that SOM's study gives vision for a future recreational reuse within the Laundry Building, which we believe can help accommodate the expansion needs of the City's Parks and Recreation Department, as well as save a great Modernist landmark for Elgin's citizens.

This study focuses on two key design options to fit recreational uses in the Laundry Building:

- to retain the interior mezzanine and maintain as much of the existing building infrastructure as possible while accommodating the needs for athletic use.
- to maintain the exterior envelope and slab only and remove the interior mezzanine in order to allow for greater flexibility within the building when considering an athletic use.

We appreciate the opportunity to partner with the City of Elgin, the Parks and Recreation Department and the Parks and Recreation Advisory Commission to provide these reuse options.

We thank:

Randy Reopelle, Parks and Recreation Director
Carl Missele, Chairman, Parks and Recreation Advisory Commission
Bill Briska, Elgin Mental Health Center Historian

Reuse Study Preparation:

SOM
Eric R. Keune, Design Director, AIA, LEED, NCARB
Cyril Marsollier, Project Architect
Tanvi Parikh, Project Manager, AICP, LEED AP

Condition Assessment Preparation:

WJE
Ed Gerns, Principal
Rachel Will, Senior Associate

This study was produced by Landmarks Illinois, a nonprofit, non-governmental advocacy organization—founded in 1971—that is committed to preserving the architectural heritage of Illinois. For 45 years, Landmarks Illinois has been the leading voice for historic preservation in Chicago, the suburbs and throughout the state.

Our state’s built environment is unique and irreplaceable. Landmarks Illinois serves citizens and communities with advocacy, education, and public awareness programs, legislative initiatives, technical assistance, partnership initiatives and grants.

Will Tippens, Chair

Bonnie McDonald, President

Lisa DiChiera, Director of Advocacy



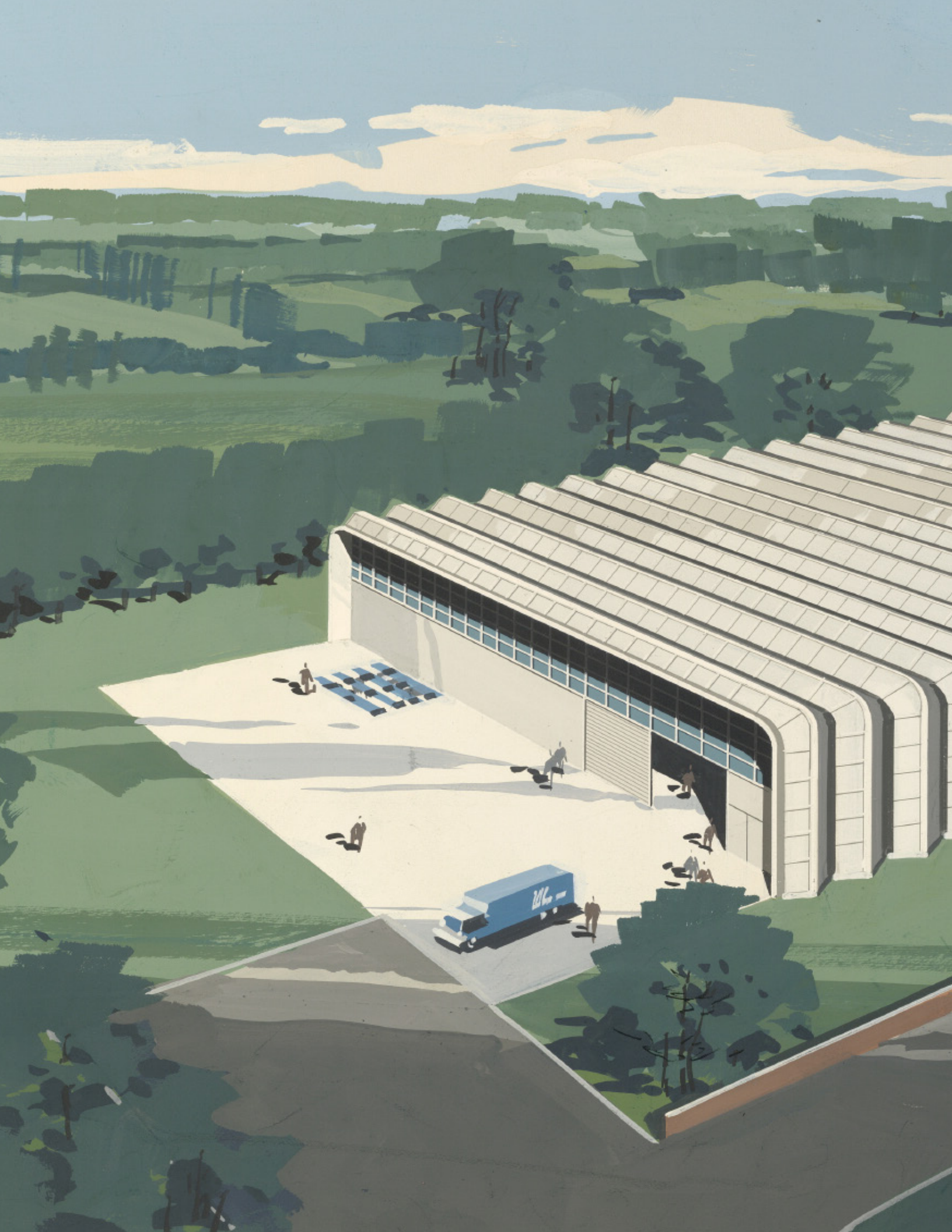
Left: Marina City Towers, Chicago
Credit: Landmarks Illinois

History

The Bertrand Goldberg Legacy

The Elgin Mental Health Center is a historic campus with several legacy buildings dating to its founding with few notable works of modern architecture. Bertrand Goldberg's two buildings on this site are arguably the most significant of the complex's modern era.

These are the Laundry Building and the Medical Surgical Building.





Rendering of the Laundry Building
Elgin State Hospital, Exterior Perspective,
Original Architectural Rendering, 1962
Acrylic on illustration board
63.5 x 91.5 cm
Collections of the Art Institute of Chicago



Elgin Mental Health Center History

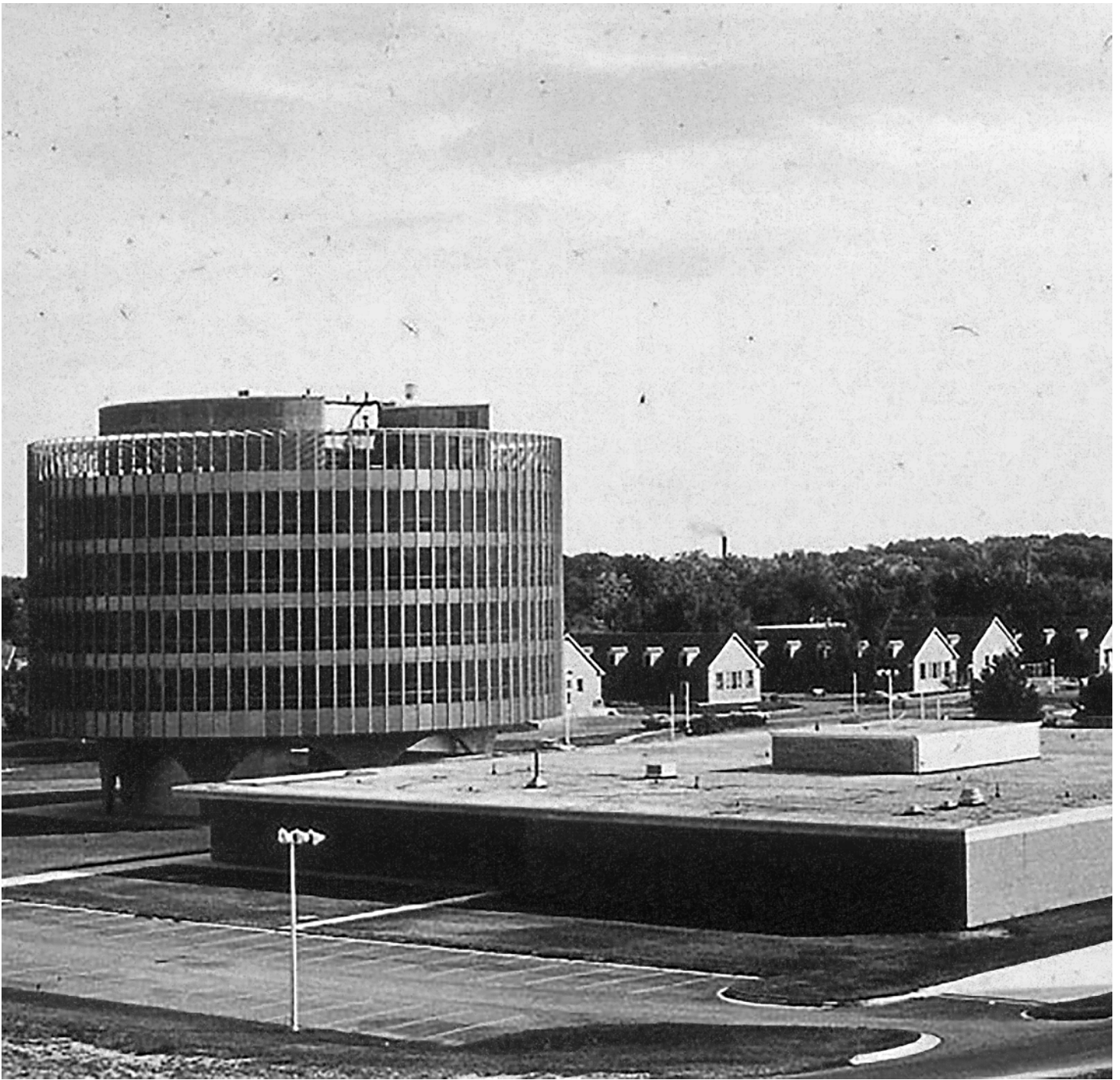
The Elgin Mental Health Center is a multi-building complex that was founded circa 1872. The buildings on the complex have been constructed at various times since the facility opened. Bertrand Golberg was commissioned to design an extension to the Hospital - the circular Medical Surgical Building - as well as the Laundry Building.



Left: Elgin Mental Health Center as it appeared on a Postcard circa 1920.

Right top: Roof during construction, 1964 (bertrandgoldberg.org)

*Right bottom: Construction shot, 12.21.1964
Elgin Mental Health Center Museum Archives*



The Medical Surgical Building

The Laundry Building is a nearby companion of the Medical Surgical Building, which embodies many of Goldberg's theories and formal solutions to medical and science buildings, including the panoptic plan, organic geometry, expressed structure, external sunshading, and an interplay between curvilinear and orthogonal primary architectural elements. The building is currently vacant and the operable sunshades non-functional.



Left: Birdseye view of Elgin State Hospital. (Larry Gordon photo, n.d.)

Right: Structural Detail of the Medical Surgical Building

View of column detail, Elgin State Hospital. (Larry Gordon photo, n.d.)

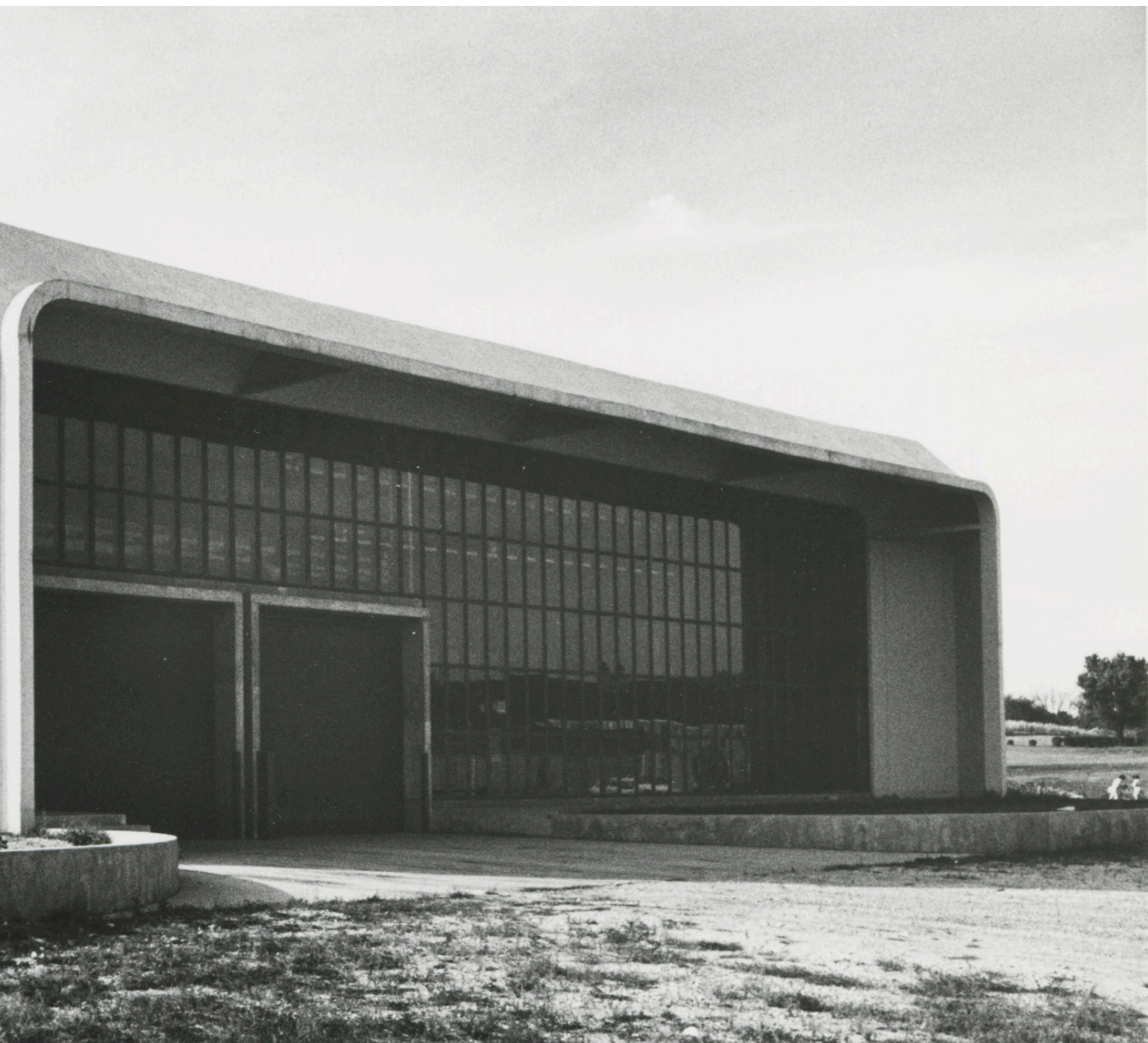
Source: bertrandgoldberg.org



The Laundry Building

Goldberg's design relies upon the repetitive use of continuous large scaled, "V" shaped structural members as both vertical columns and walls, utilizing their depth to achieve the more than 100 ft. long span condition of the roof. The troughs between the concrete "V"'s are sloped to function as roof drains, sloping approximately 50 ft. in each direction. The elemental, straightforward expression of the building as a hangar-like shed, open on two ends, lends itself towards reuse.

Elgin State Hospital, Laundry Building
Larry Gordon
Collections of the Art Institute of Chicago





*Elgin State Hospital, Laundry Building circa 1966
Elgin Mental Health Center Museum Archives*

*Orvieto Airport Hangar,
View of the Interior
Pier Luigi Nervi
Italy, 1936-1940*



*Sainsbury Centre for Visual Arts,
Exterior View
Foster + Partners
Norwich, UK, 1974-1978
www.fosterandpartners.com*



Early photographs of the Laundry Building after its completion convey a clear architectural identity of strength, consistency and purpose. The gently curving geometry could be considered a descendant of hangars by Pier Luigi Nervi, and a precursor to subsequent modernist Shed-like designs for projects such as Norman Foster's Sainsbury Art Centre.



The majority of the proposed re-use programs in this report for the Laundry Building are recreational. The long span nature of the architecture lends itself towards these types of programs. The clear height to the underside of the structure is functional for most sports uses.



Elgin State Hospital, Laundry Building
Larry Gordon
Collections of the Art Institute of Chicago

Existing Conditions

Site Context

The entire northern portion of the Mental Health Center property has been transferred from the State of Illinois to the City of Elgin. This section of the report aims to document the existing conditions of the site and the issues at stake when implementing a reuse scenario for the Laundry Building.

- 
- 1 THE LAUNDRY BUILDING
2 HISTORIC BRICK HORSE BARN
3 EXISTING POWERPLANT
4 MEDICAL SURGICAL BUILDING
5 ELGIN MENTAL HEALTH CENTER
6 ELGIN SPORTS COMPLEX
7 GOLF COURSE
8 HISTORIC SITE ENTRANCE
9 EXISTING GATES

Site Plan and Context

The hospital site plan reveals the growth and change of the site over time from its historic, pastoral core, to a series of peripheral, newer additions - including both of the Goldberg buildings. The Central Plant building (3) is excluded from the transfer of the northern portion of the Mental Health Center land from the State of Illinois to the City of Elgin.

Originally, the bulk of the Northeastern corner of the site was filled with fruit orchards, which were used by the patients and staff.



6

9

9

1

3

2

4

5

8

FORMER HOSPITAL
PROPERTY LINE

ELGIN LAUNDRY BUILDING



Connectivity to St. Rt. 31 - Re-use infrastructure

One of the primary goals of the City is to establish a second main entrance to the existing sports complex within the site area of the land transfer. The site could utilize the existing historic hospital entrance just south of the transfer boundary. The site will also incorporate new bike trail links which connect to existing City of Elgin bikeways.



Connectivity to St. Rt. 31 - Create new infrastructure

Alternatively, a new "Main Parks Entrance" could be established north of the historic hospital entrance. The configuration and location of this entrance could take advantage of/rebuild atop the historic road locations which once traversed this portion of the site but have since fallen into disrepair.

- ACCESS TO SPORTS FIELDS
- MAIN ROADS
- ELGIN BYPASS - US 20



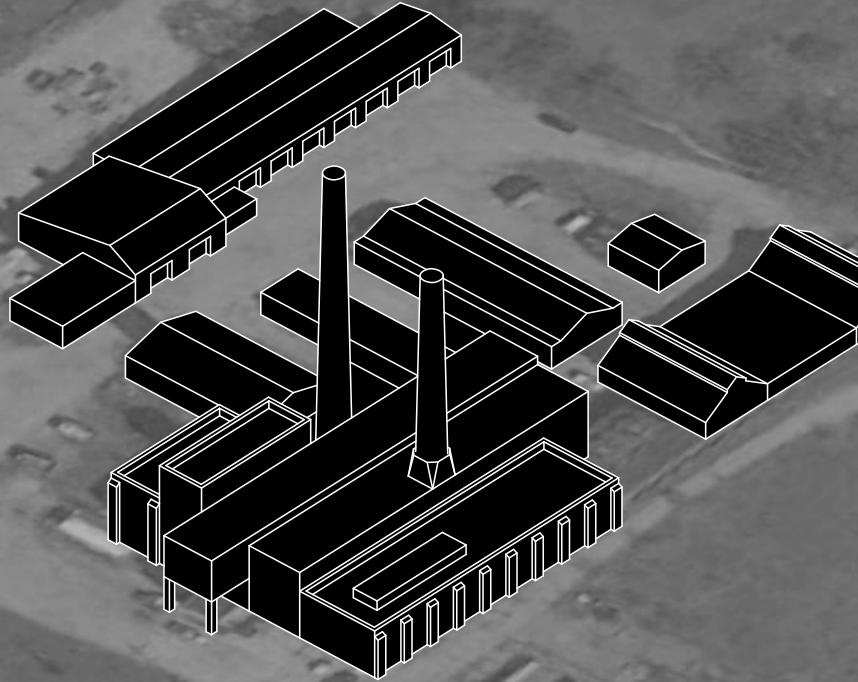
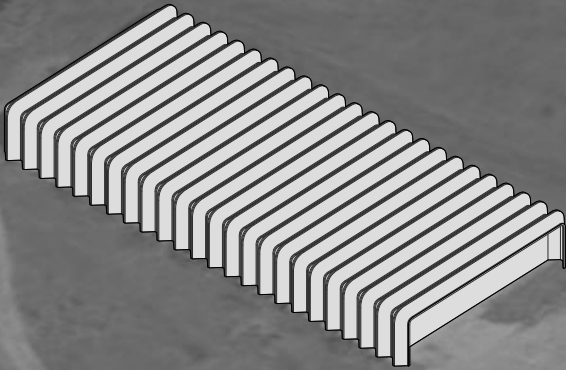


Bikeway Masterplan

The bikeway linkage will connect the end of the current northern access road with the trail. The bikeway continues along the west edge of the Fox River, crossing St. Rt. 31 and connects to a broader network that allows bicyclists to ride safely around Elgin.

- LAUNDRY BUILDING LOCATION
- EXISTING OFF-STREET TRAIL
- PROPOSED OFF STREET TRAIL

Left: Elgin Bikeway Masterplan, 2008
 Source: www.cityofelgin.org
 Refer to Appendix for full copy of the document.





Immediate Context

The immediate site context is both ad hoc and unmaintained. An ensemble of structures surrounds and includes the historic power plant, while the roads and circulation areas are degraded. Many of the road surfaces evident today are only dirt or gravel. Site circulation and access needs to be reconsidered and the visitor experience enhanced. The west end of the Laundry building faces the woods which separate the Mental Health Center from the Golf Course. The east end of the building faces the utility buildings which support the central plant.

Future Development

As the new steward of the Laundry Building, the City of Elgin is envisioning a future field house project which would ideally be located in proximity of the Laundry Building, with which it would have synergies in uses, share access, parking, and potentially MEP services. The program of this future building is not determined, but is assumed to be approximately 125,000 to 150,000 sq. ft. in size.



Elgin State Hospital, Laundry Building
Interior Detail
Source: bertrandgoldberg.org

Existing Conditions

Envelope Assessment

A survey of the existing conditions was conducted by WJE in January of 2016, indicating that the Laundry Building is generally in fair to good condition and would require only minimal repair and maintenance at this time. Understanding the structural integrity of the building and its construction method provides a framework and helps determine what elements are key components that contribute to the building's architectural value. The approach is not to maintain the architecture at all costs, rather to find the appropriate attitude and compromise that permits a new use in keeping with the building's identity.

The building interior is organized with two double height spaces adjacent to the large glass walls at either end of the structure. It is asymmetrically bifurcated by an independent column supported mezzanine structure accessed via a pair of associated stairs and one two-sided elevator.



Current State

The current state of the building is cosmetically dated, but appears to be structurally sound. The paint finish on the concrete needs to be reapplied and waterproofing on the roof reassessed. The curtain walls on both ends of the building require maintenance or should be removed and replaced with a higher performing thermal envelope utilizing contemporary glazing and thermal assemblies.

Elgin State Hospital, Laundry Building
Source: bertrandgoldberg.org

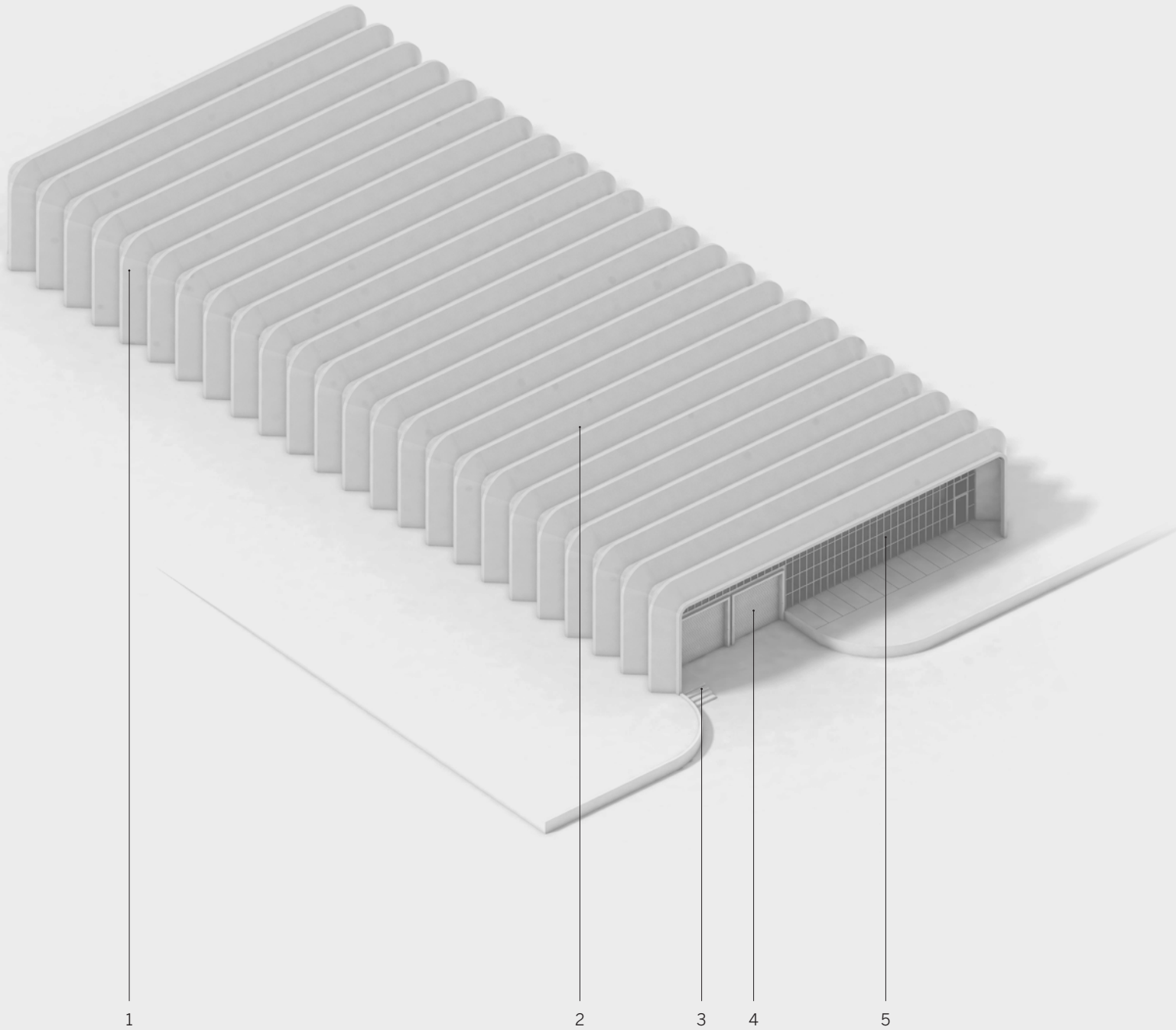


Building Structure

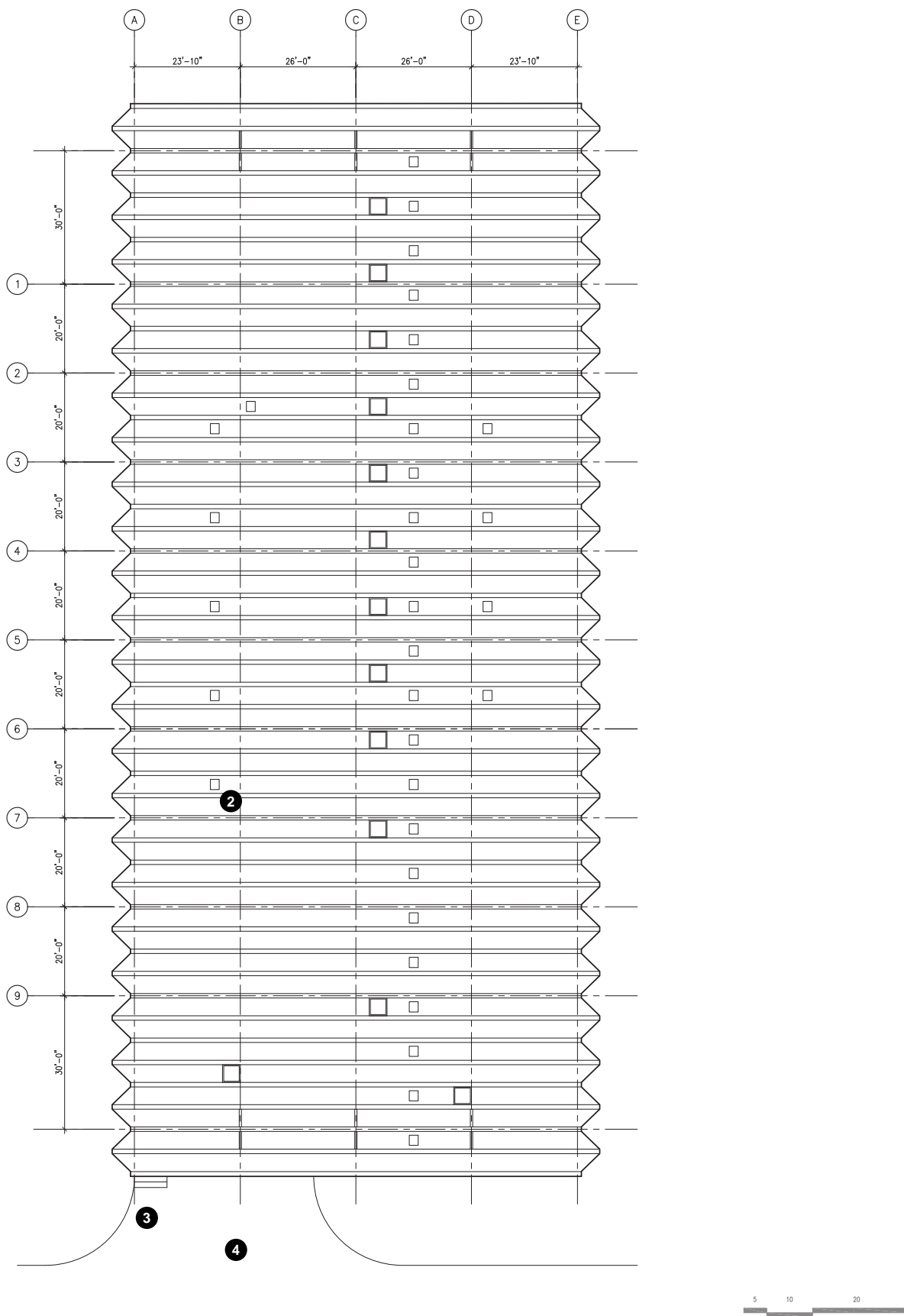
A series of precast planks are set within the sloping planes of the concrete structure. These removable panels allow exhaust hoods and MEP equipment in the roof plane to be relocated as layouts on the ground level would change over time.

Note that the roof was not accessed at the time of WJE's Condition Assessment and would require further evaluation.

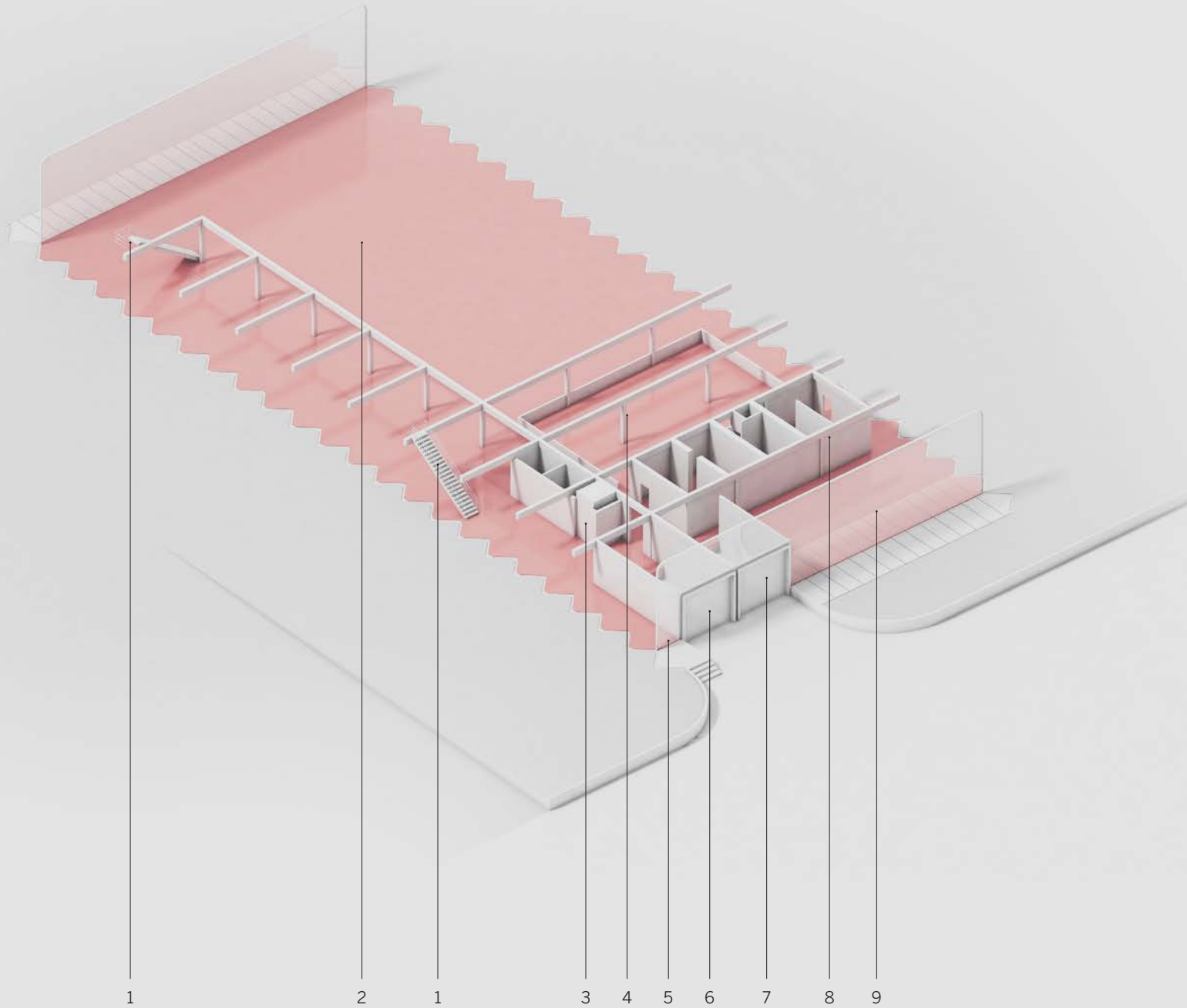
- 1 24 FREESTANDING FOLDED CONCRETE PORTALS
- 2 VENTILATION OPENINGS (TO BE LOCATED PENDING ROOF SURVEY)
- 3 PEDESTRIAN ACCESS
- 4 LOADING DOCKS / OVERHEAD DOORS
- 5 RECESSED CURTAIN WALLS ON EAST AND WEST ELEVATIONS



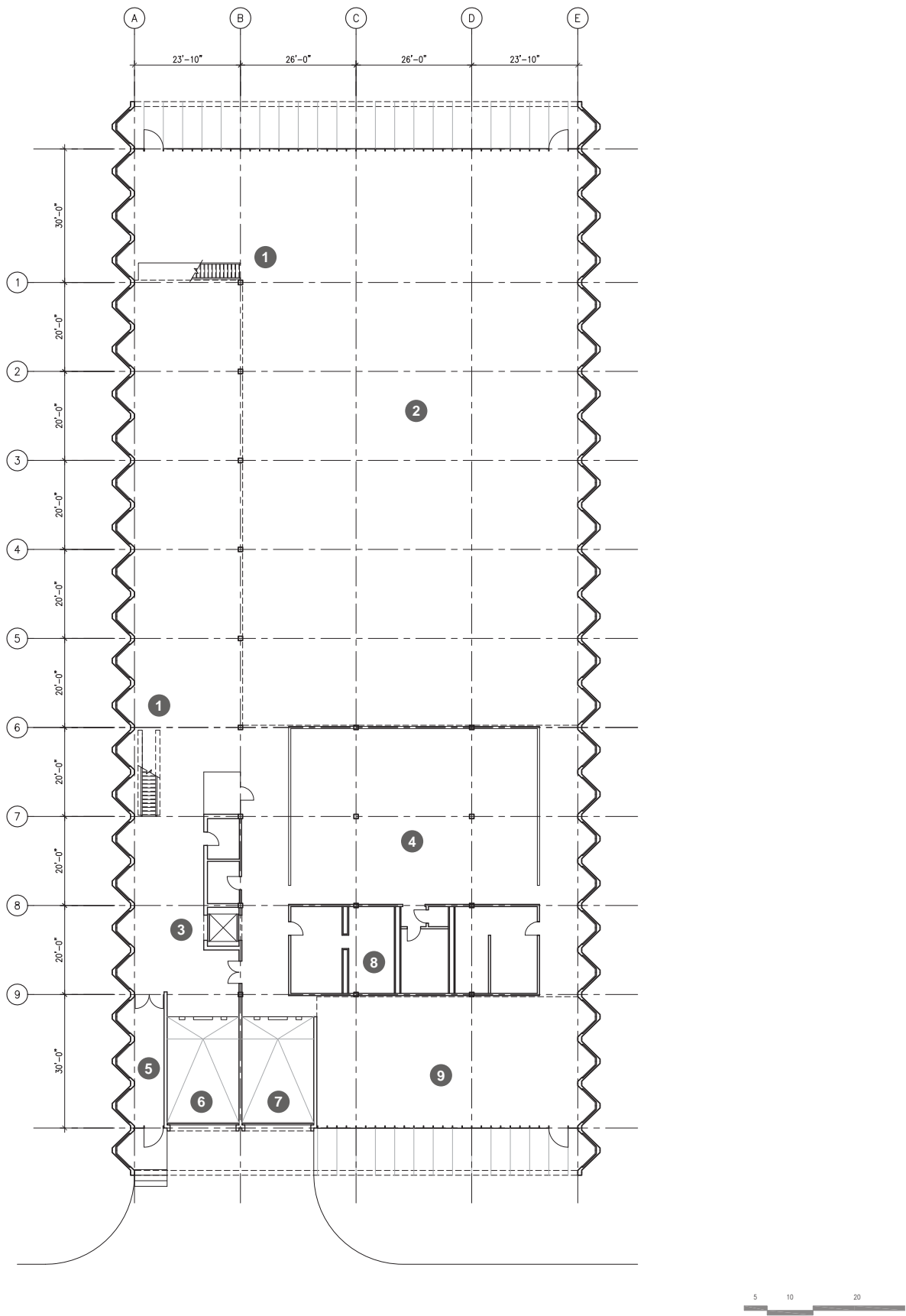
Exterior Enclosure Existing Conditions



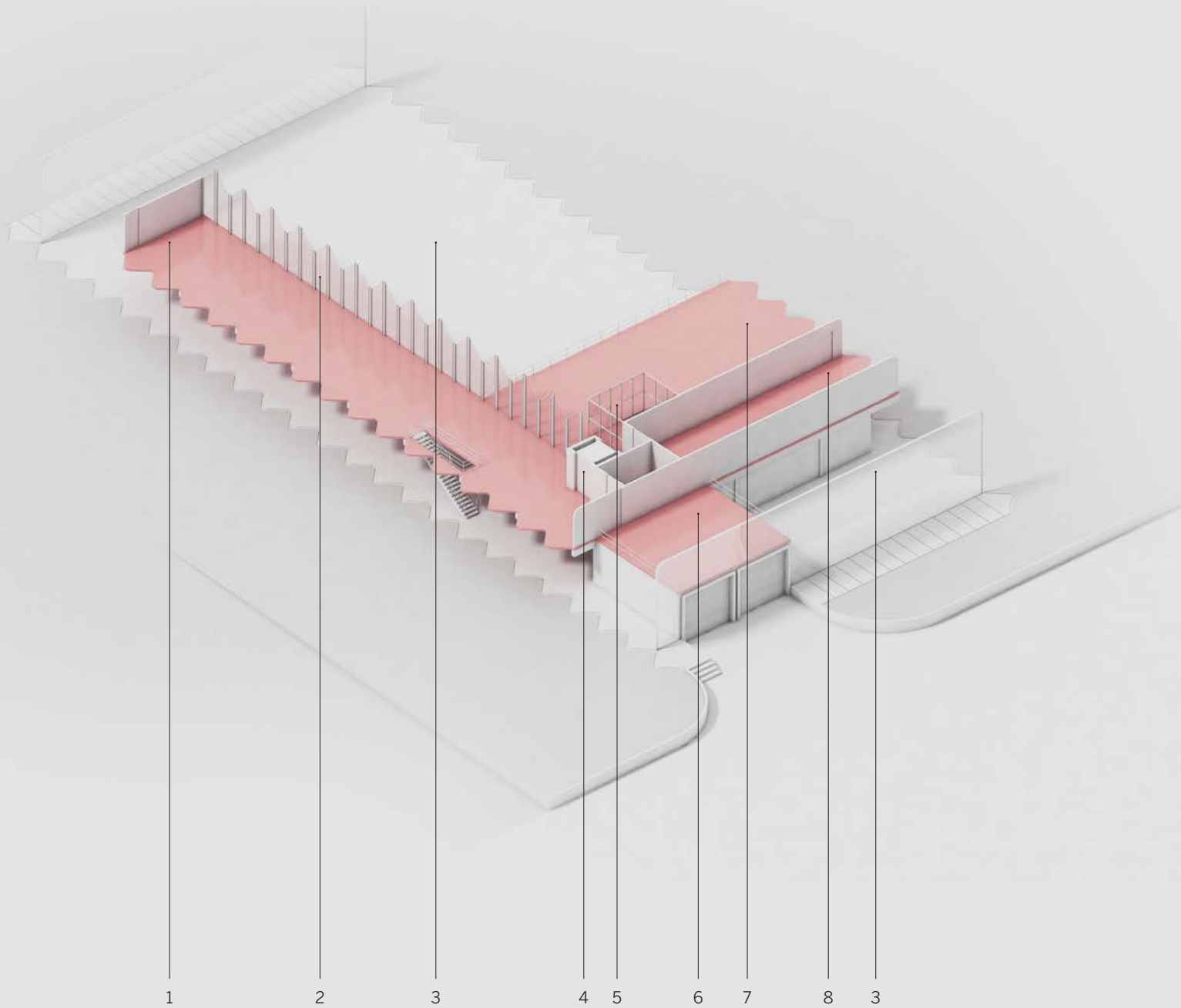
- 1 STAIRS TO LEVEL 2
- 2 MAIN LAUNDRY AREA (EQUIPMENT)
- 3 TWO-SIDED ELEVATOR
- 4 MENDING AREA
- 5 ENTRY VESTIBULE
- 6 CLEAN DOCK
- 7 SOILED DOCK
- 8 LOCKER ROOMS + RESTROOMS
- 9 CLEAN LINEN STORAGE



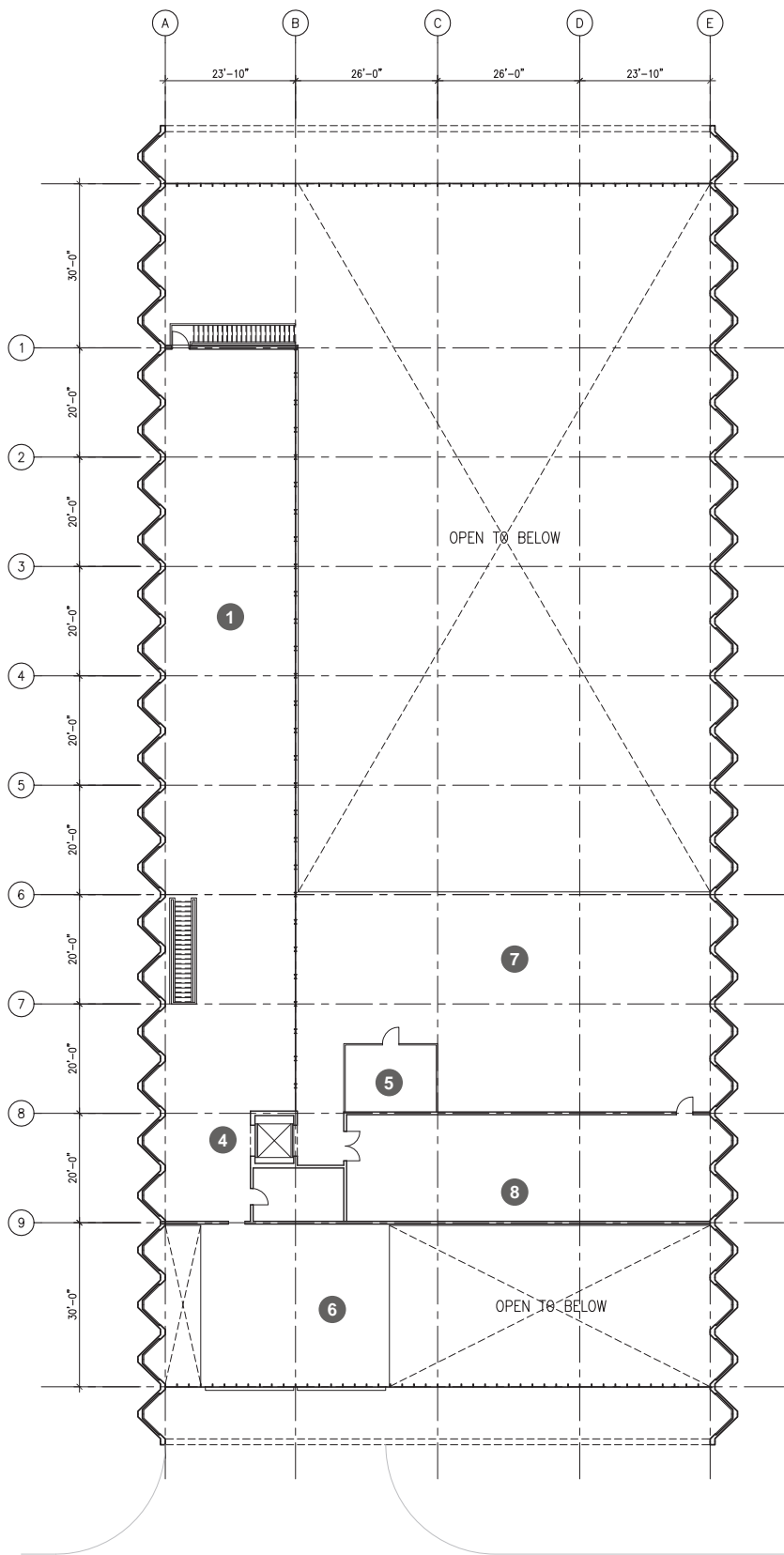
Ground Level Existing Conditions



- 1 SORTING ROOM
- 2 CURTAINWALL
- 3 DOUBLE-HEIGHT SPACE
- 4 TWO-SIDED ELEVATOR
- 5 GLASS ENCLOSURE
- 6 LUNCH ROOM
- 7 UTILITY ROOM
- 8 STORAGE ROOM



Mezzanine Level Existing Conditions

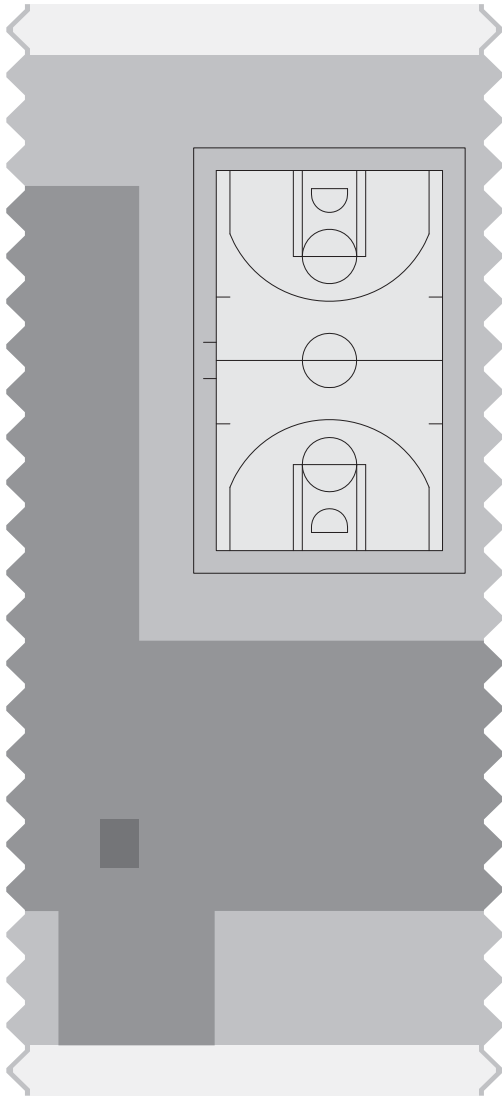


Test Fits

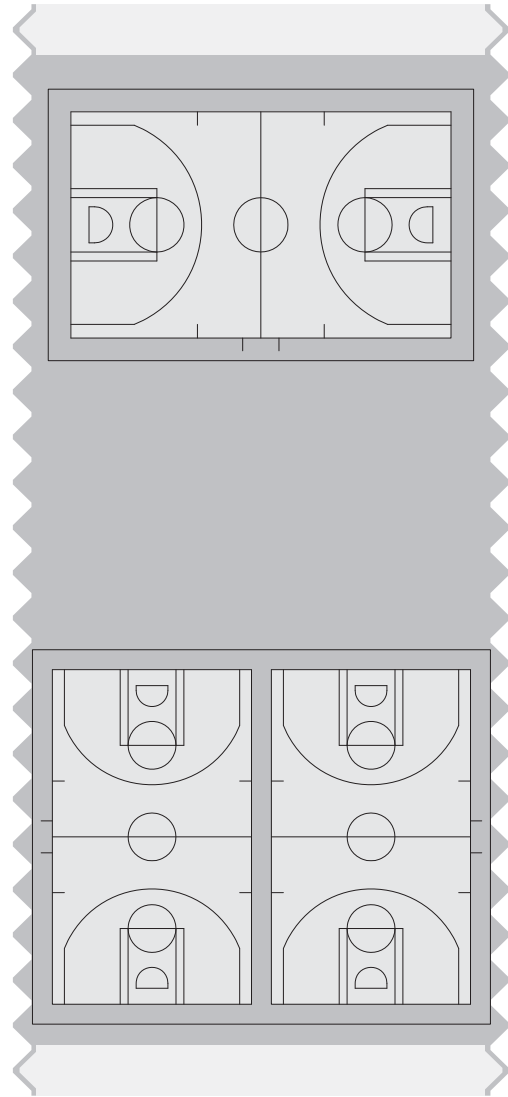
Program Alternatives

The Laundry Building is a rectangular building of 110' wide by 240' long. Its capacity varies depending on whether one is trying to retain its interior configuration or remove it completely. The following pages show a non-exhaustive list of sport programs that could potentially occupy the space in various capacities. The list shows compatible options as well as limitations according to lack of height or surface area. This comprehensive evaluation of multiple recreational programs was necessary prior to envisioning a viable retrofit scenario.

OPTION I



OPTION II

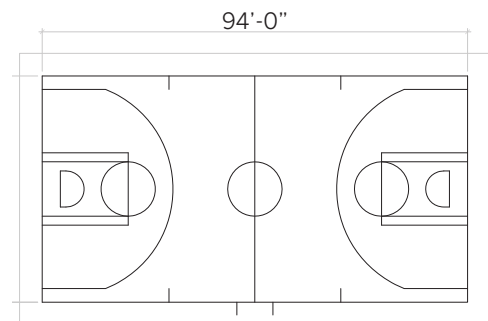


Basketball

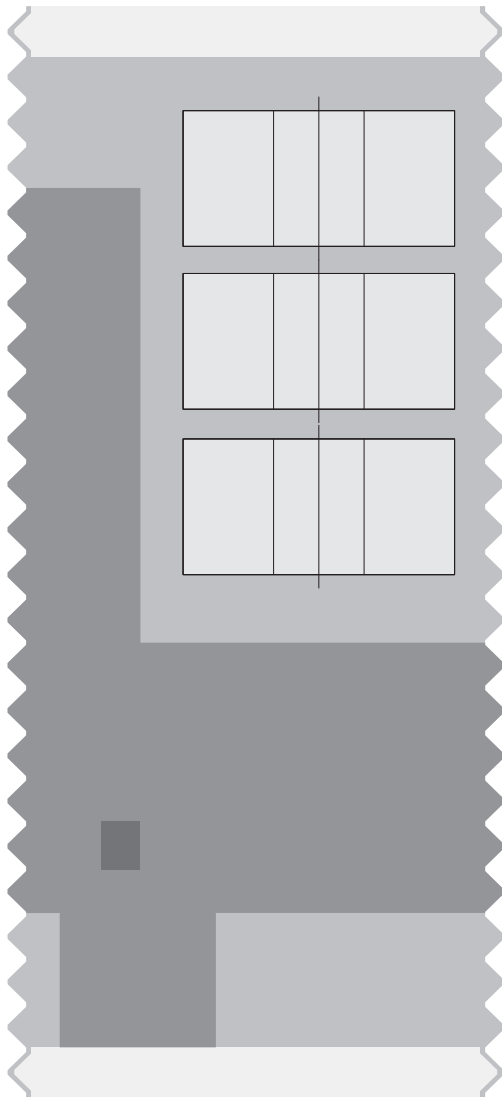
OPTION I - fits 1 court

OPTION II - fits up to 3 regular sized courts and up to
4 high school-sized courts

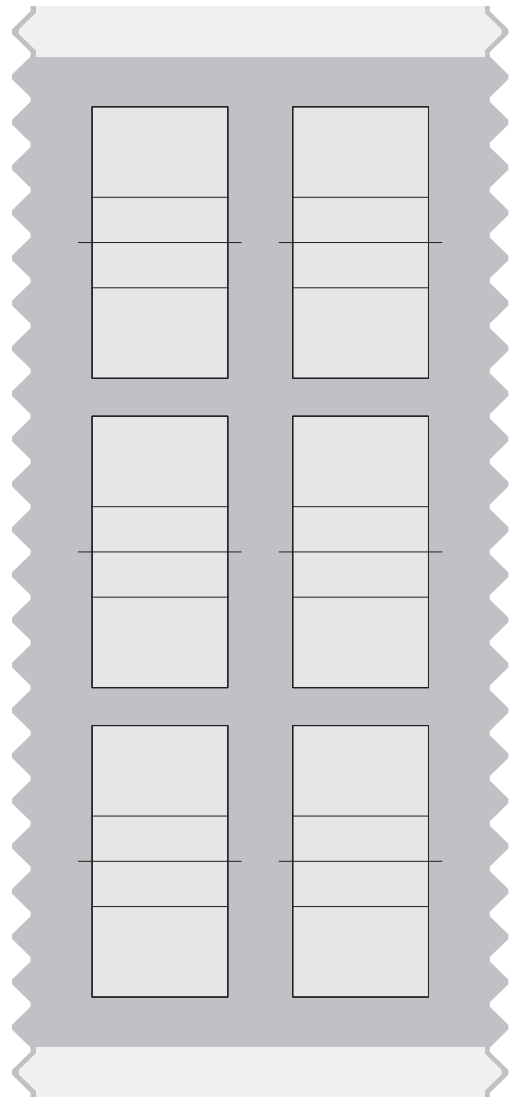
HEIGHT REQUIREMENTS: 20' high



OPTION I



OPTION II

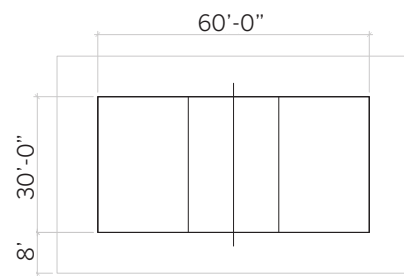


Volleyball

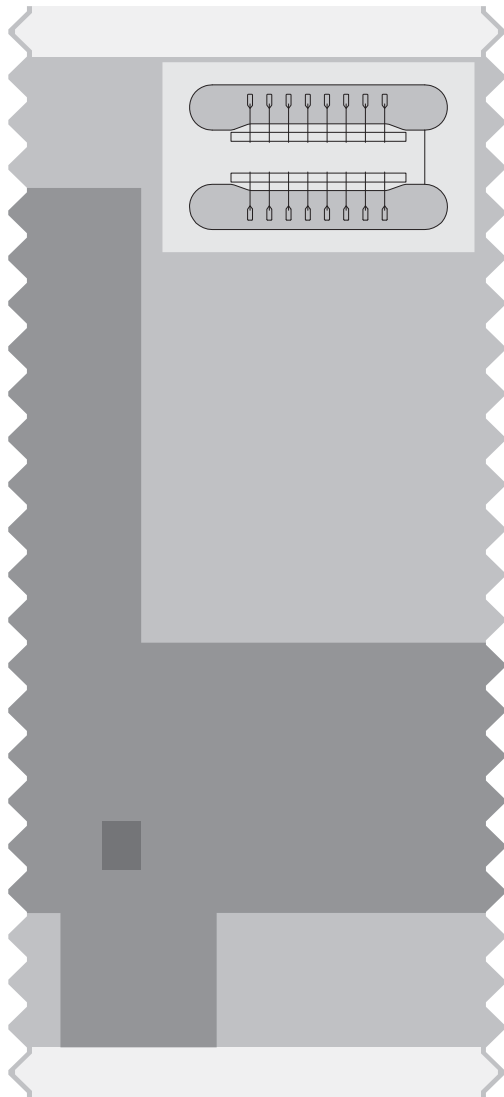
OPTION I - fits 3 courts

OPTION II - fits 6 courts

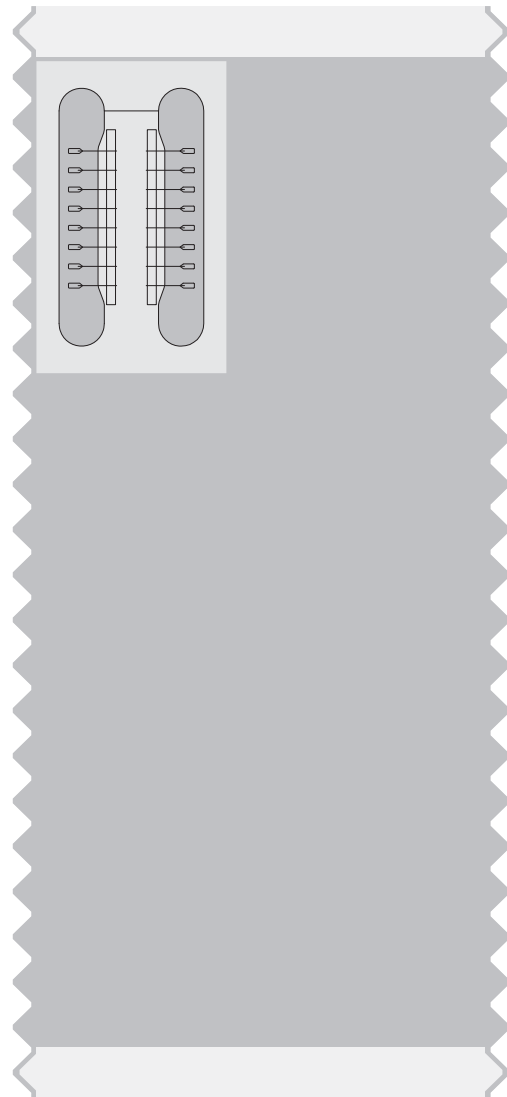
HEIGHT REQUIREMENTS: 23' high



OPTION I

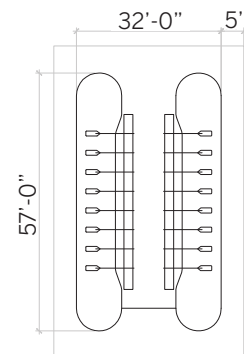


OPTION II

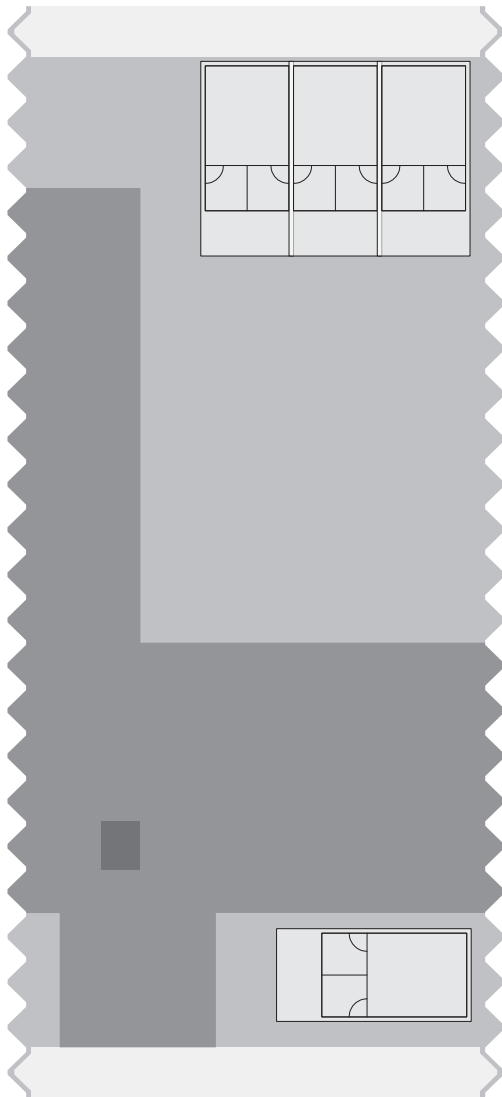


Indoor Rowing

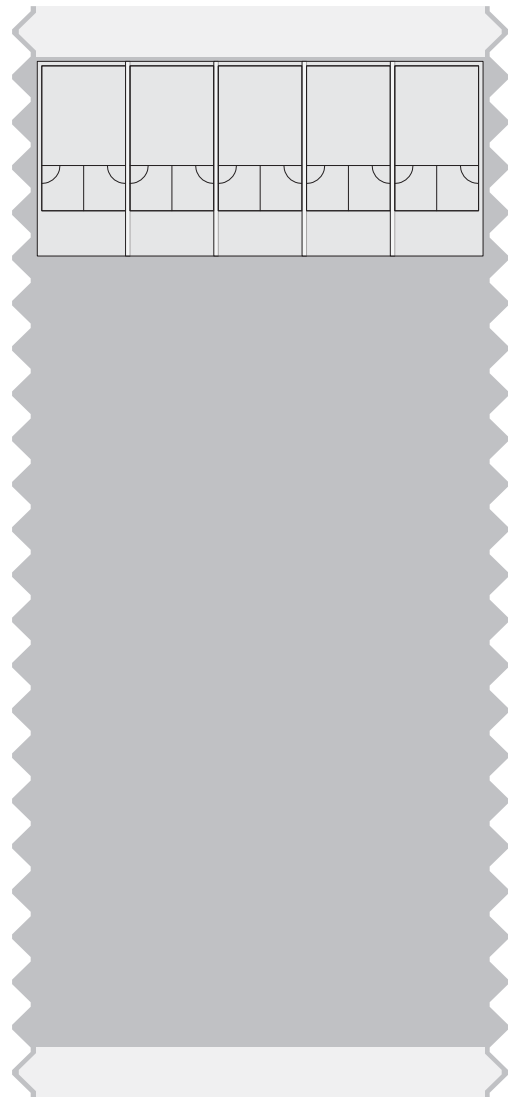
With the Laundry Building located approximately 0.6 miles from the Fox River, a Rowing Facility could allow a Rowing Club to train year round. The required footprint of such facility is limited, but can easily be paired with additional sporting activities within the footprint of the existing building.



OPTION I



OPTION II

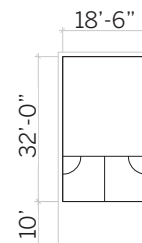


Squash

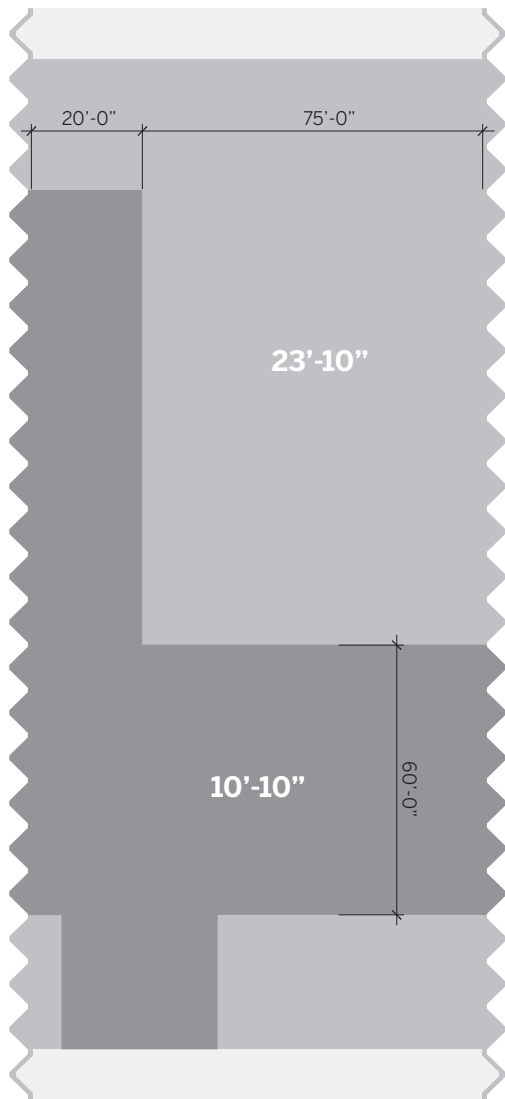
OPTION I - fits 3 courts

OPTION II - fits 6 courts

HEIGHT REQUIREMENTS: 16' high



OPTION I



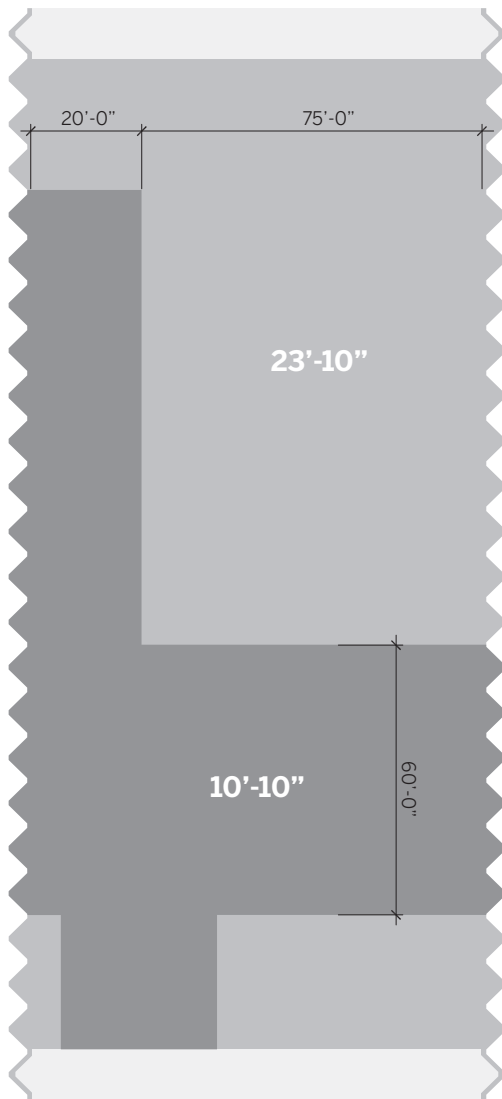
OPTION II



Gymnastics

Gymnastics Halls consist of a series of apparatus that require very different surface areas and height clearances. The above matrix provides an idea of the available surface and clear heights depending on the location within the space. Conceptually, the existing building can accommodate such program.

OPTION I



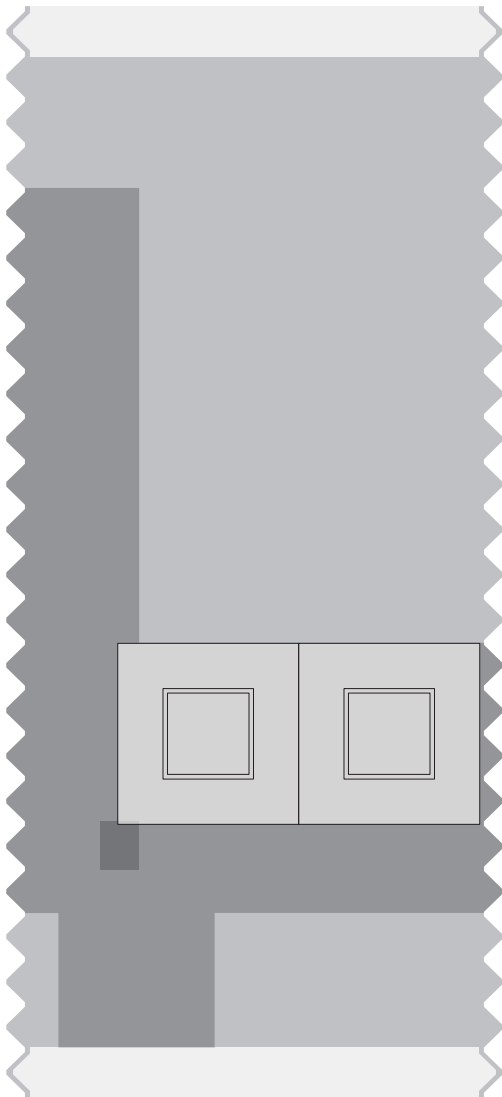
OPTION II



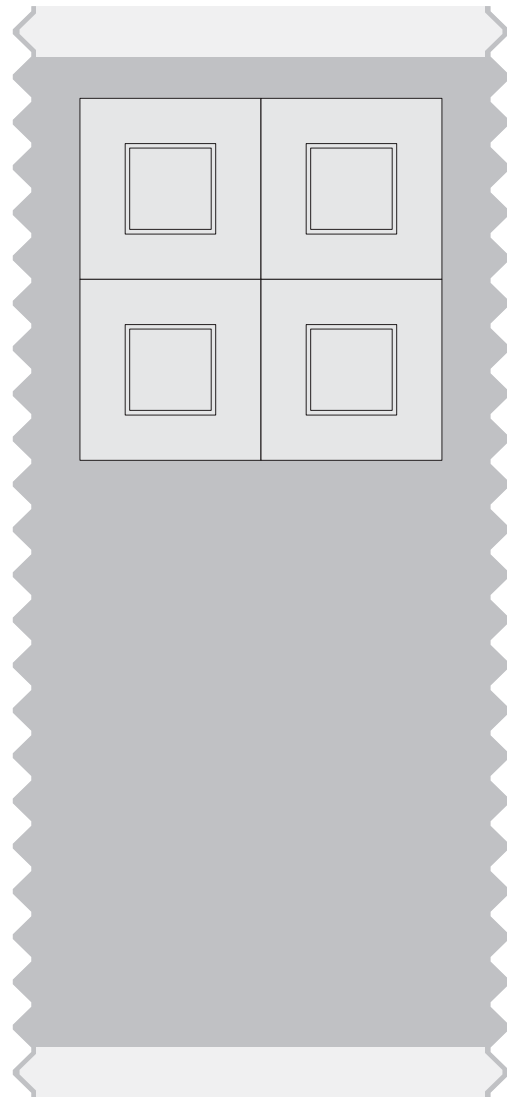
Strength Enhancing Equipment

Workout rooms consist of a series of equipment that have height and surface restrictions. Depending on the foreseen capacity, the surface requirements can vary. Considering the layout of the existing space, the upper level (either the existing mezzanine or a new-built) would provide a sufficient surface area for a comfortable workout room.

OPTION I



OPTION II

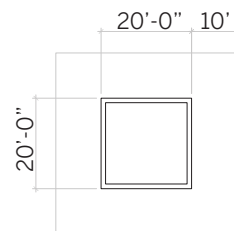


Boxing

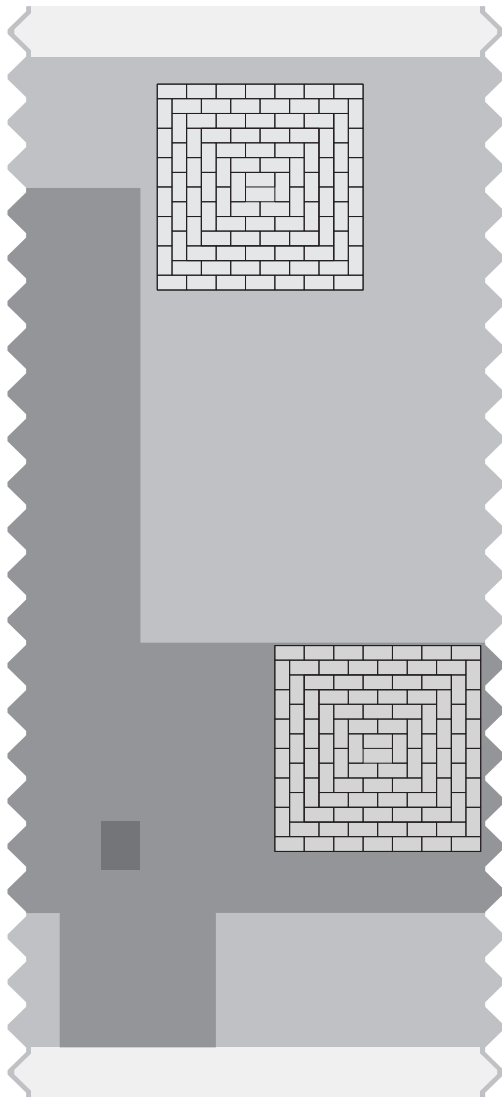
OPTION I - fits 4, and up to 10 rings

OPTION II - fits 2 rings

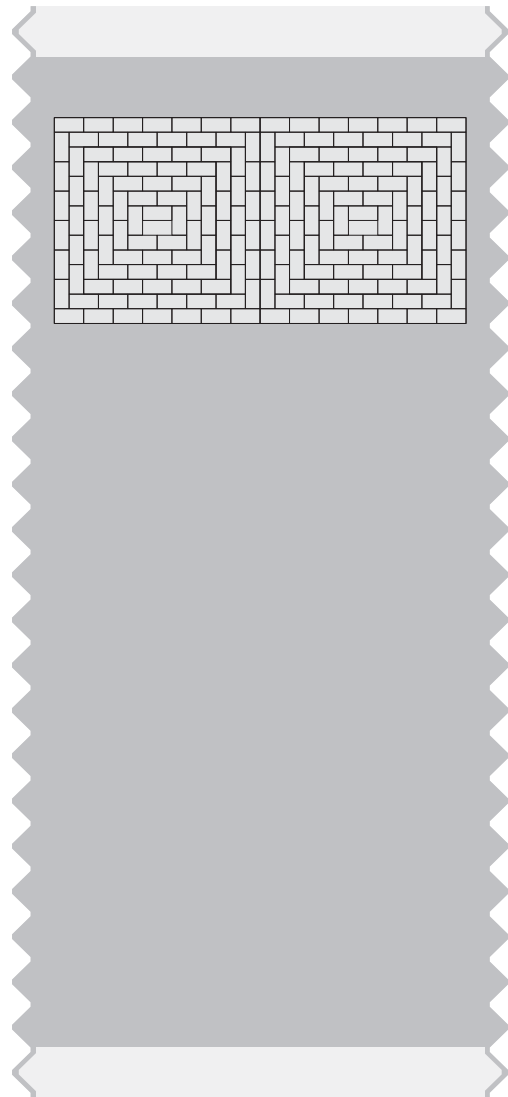
HEIGHT REQUIREMENTS: N/A



OPTION I



OPTION II

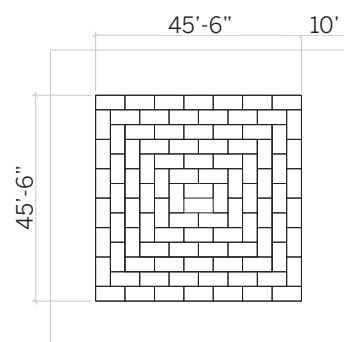


Judo / Martial Arts

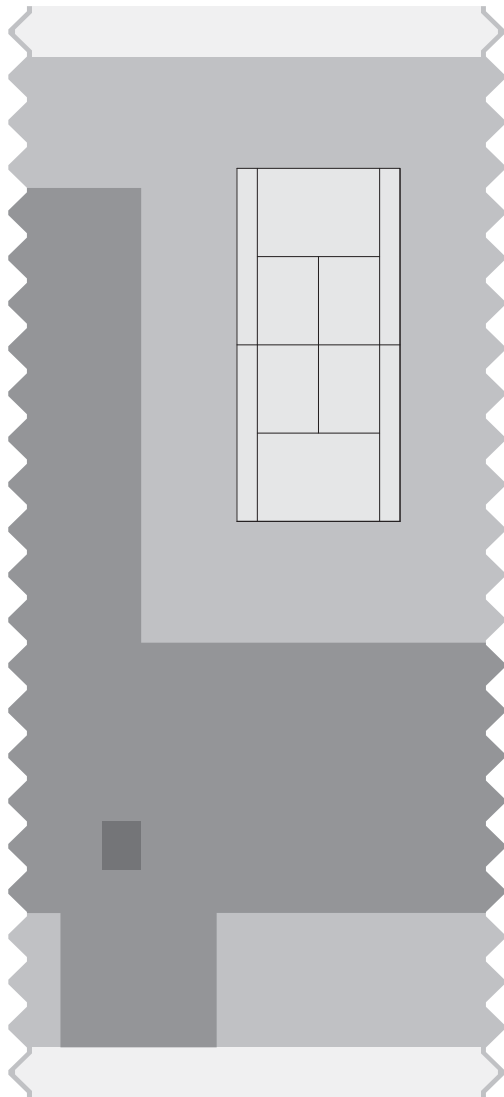
OPTION I - fits 1 field at the lower level, 1 at the upper level

OPTION II - fits 2 fields

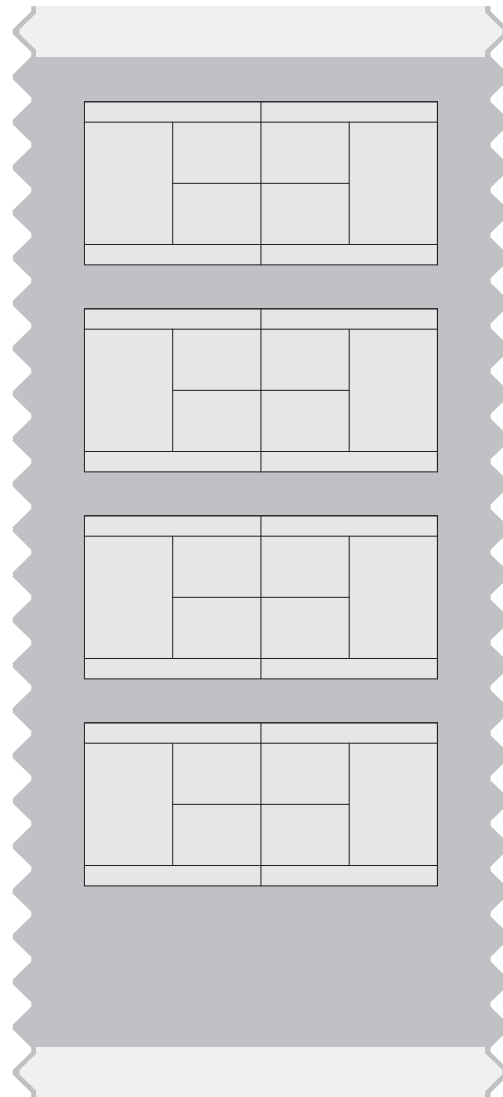
HEIGHT REQUIREMENTS: N/A



OPTION I

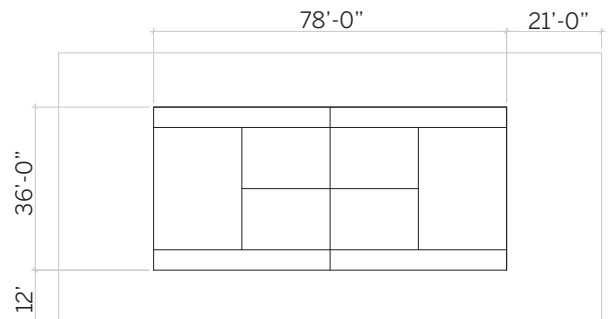


OPTION II

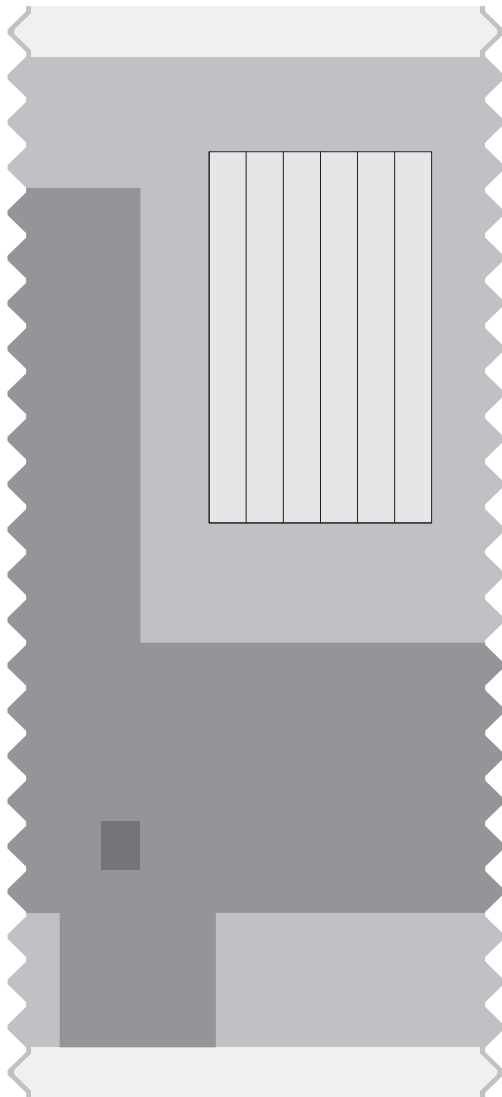


Tennis

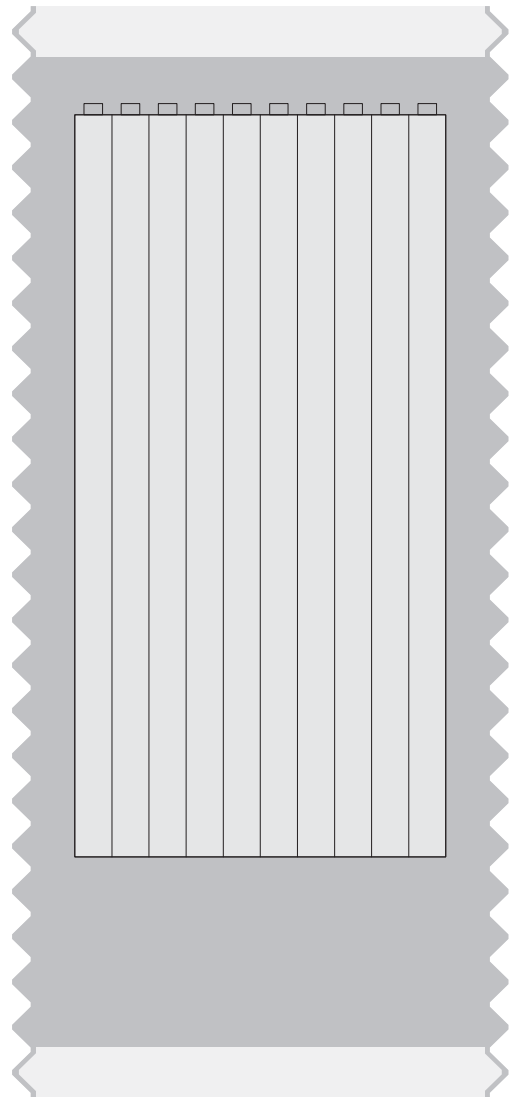
The minimum height above the playing area varies according to recreational versus competitive use. The minimum clearance above the net is at least 35ft. for recreational purposes. Note that the current height from floor to concrete beam is short of 24ft. The ground would need to be excavated for this practice to be applicable.



OPTION I



OPTION II

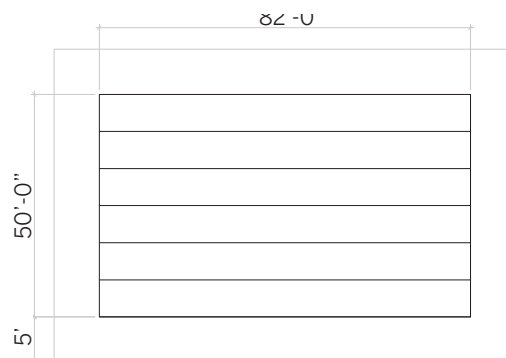


Olympic Sized Pool / Half Pool

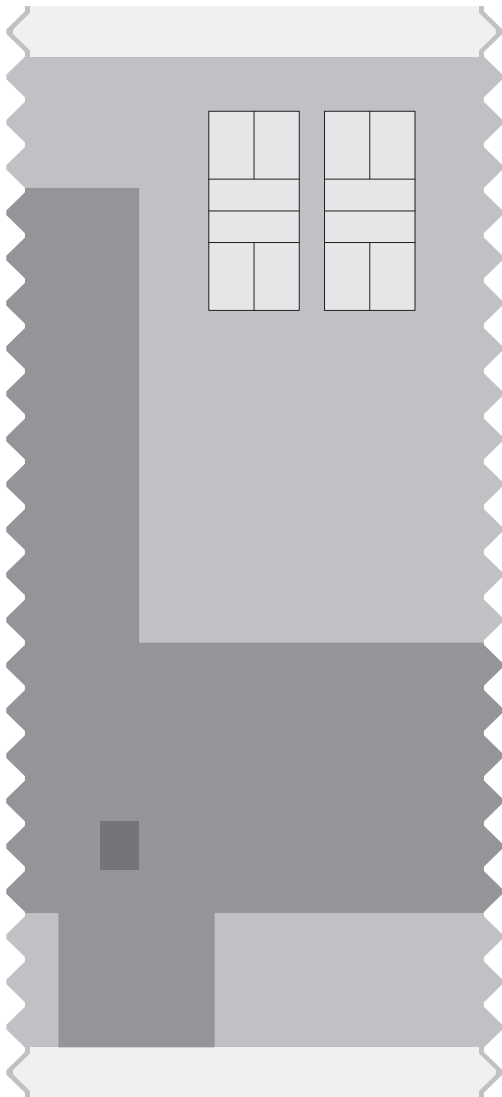
OPTION I - fits 1 half size pool

OPTION II - fits 1 Olympic size pool

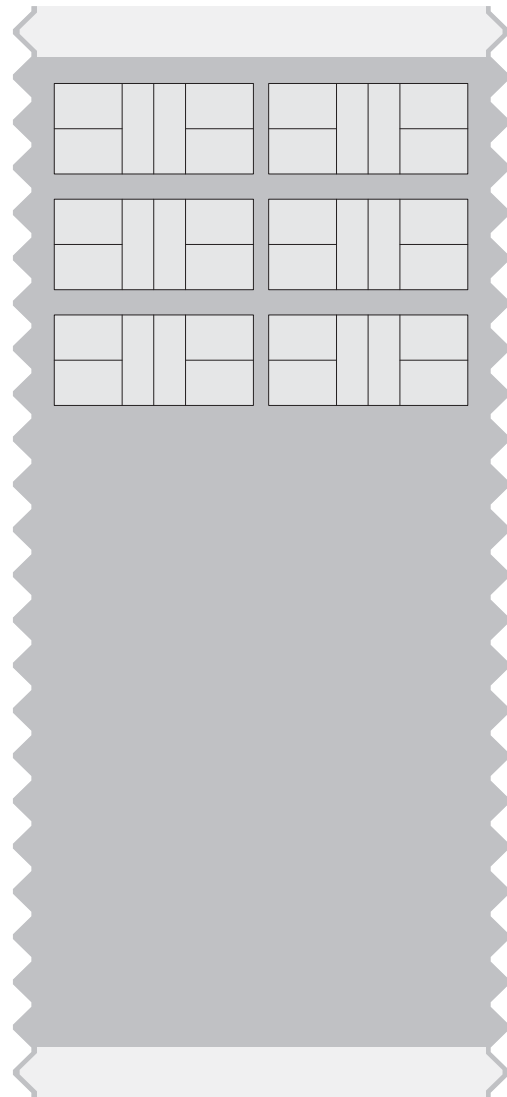
HEIGHT REQUIREMENTS: 16' high



OPTION I



OPTION II

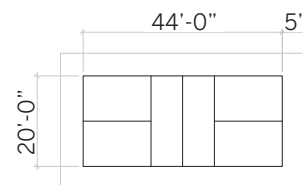


Pickle Ball

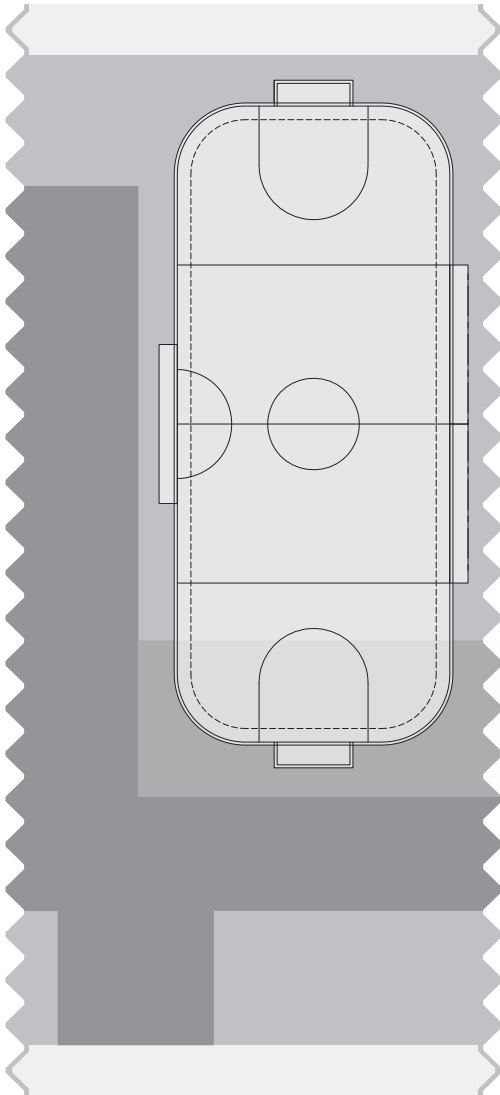
OPTION I - fits 2, and up to 4 courts

OPTION II - fits 6 and up to 14 courts

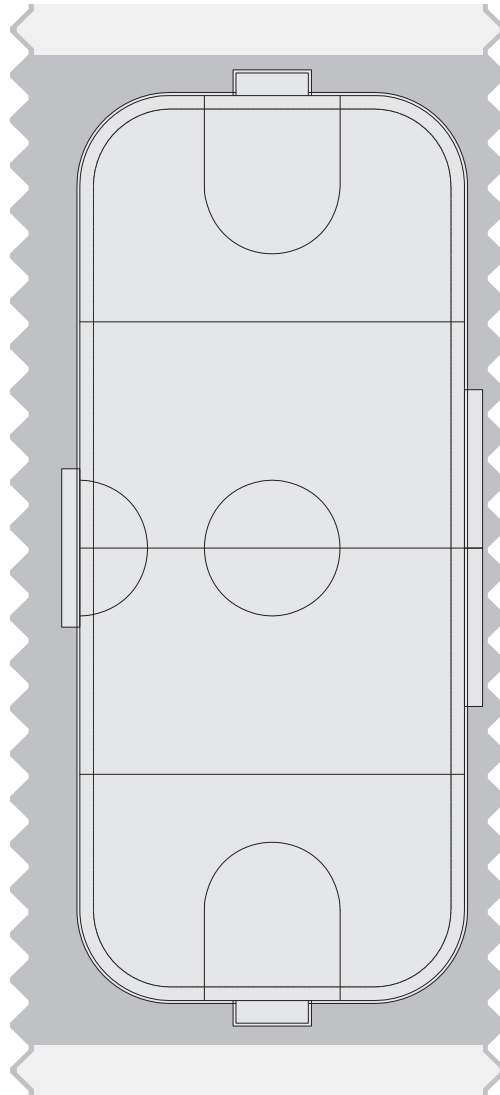
HEIGHT REQUIREMENTS: N/A



OPTION I

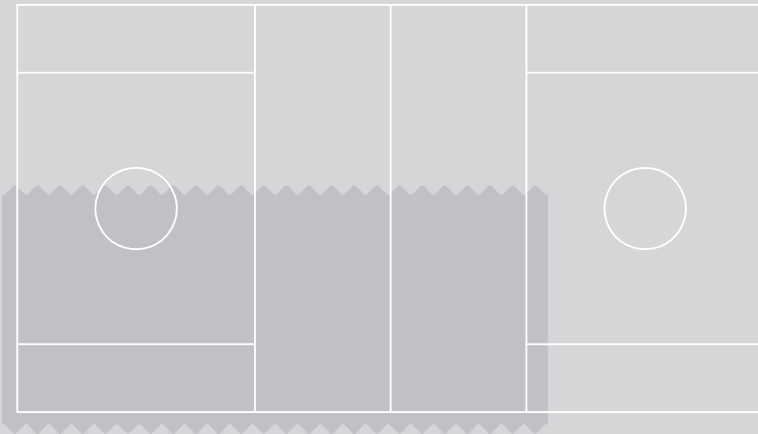
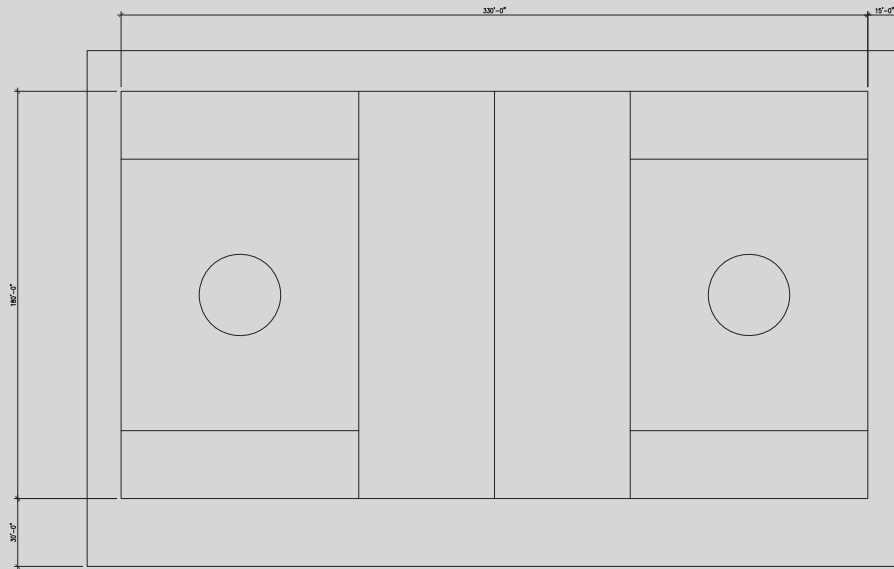


OPTION II



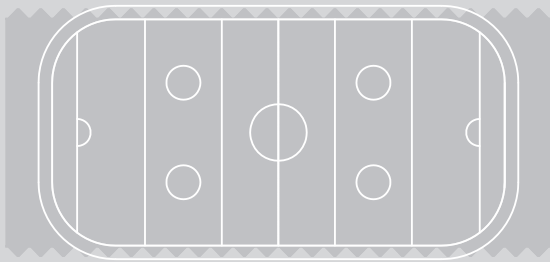
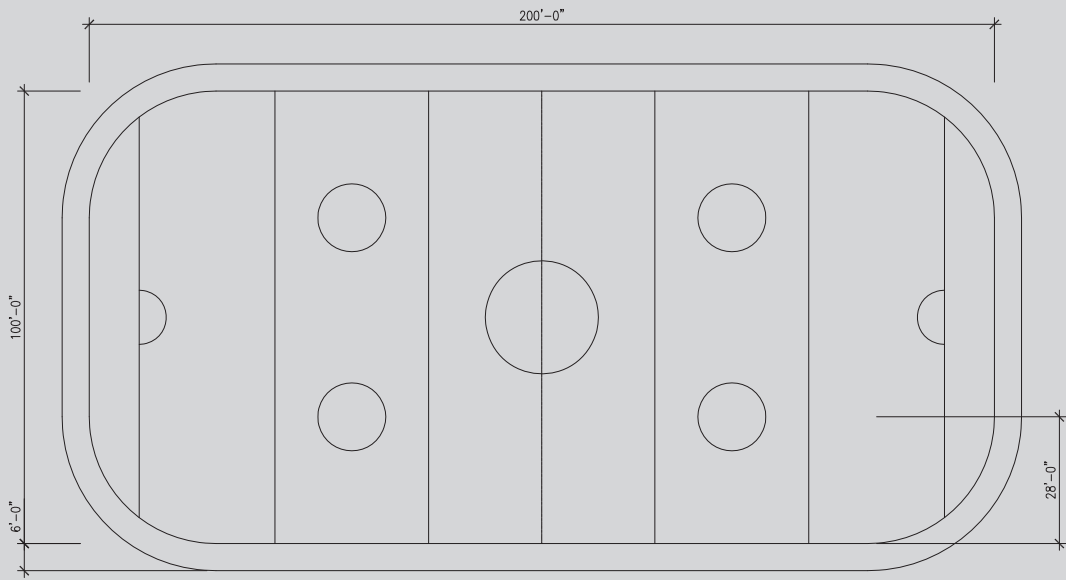
Indoor Soccer

When demolishing only a portion of the mezzanine, the existing building can accommodate a moderate size indoor soccer field of 60ft. by 140ft. When removing the mezzanine completely, the existing building can accommodate a full size indoor soccer field, based on the size requirements established by the United States Soccer Federation - Indoor Playing Rules.



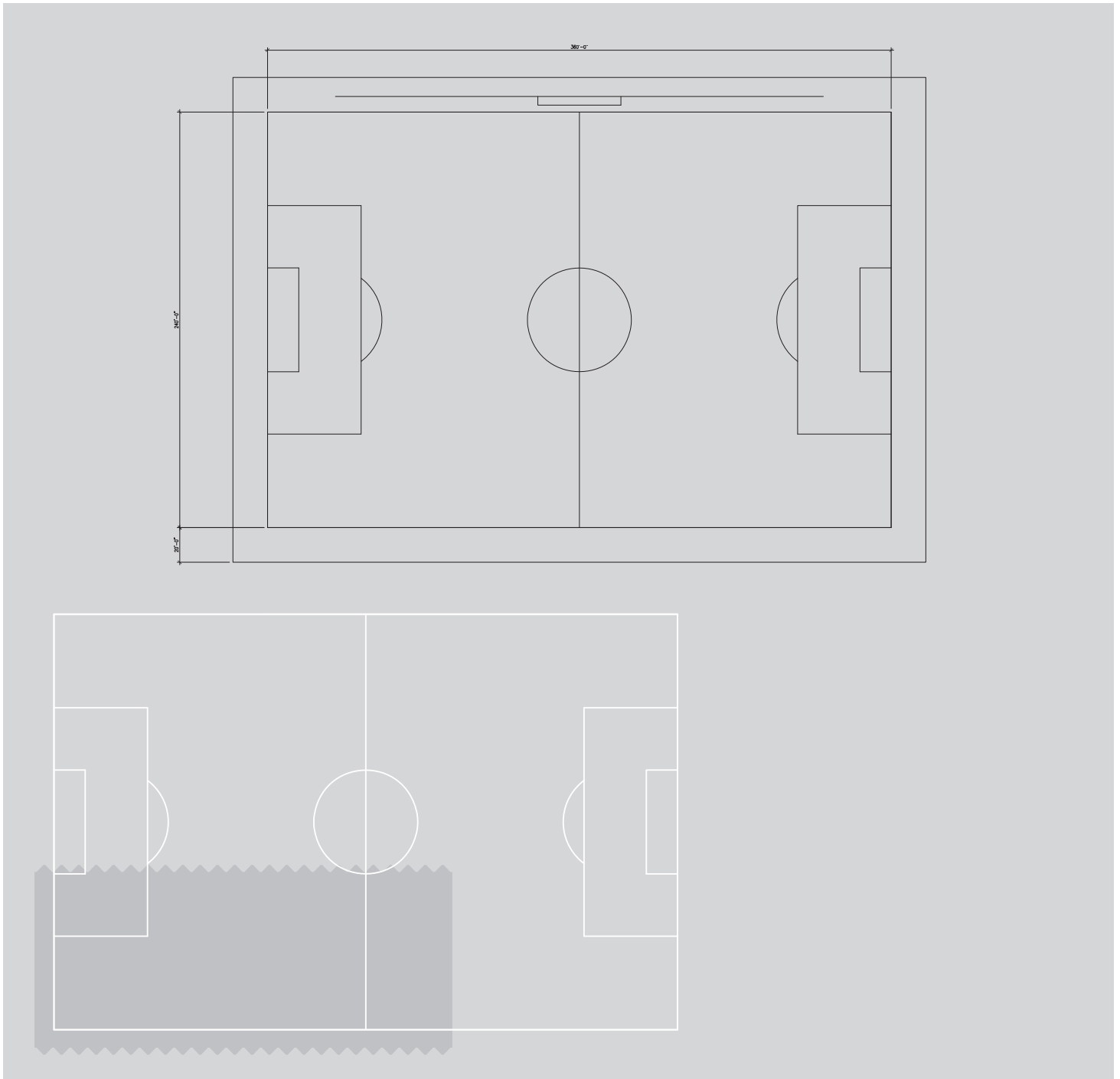
Lacrosse

The size of a Lacrosse field exceeds the building footprint. Reducing it to an indoor playing size appears impractical. Hence, this is not a viable option.



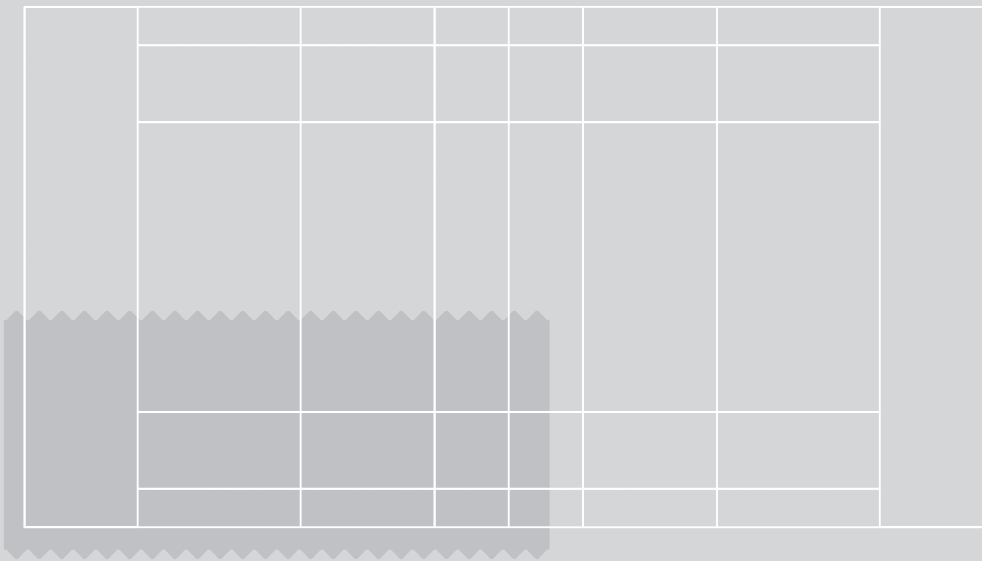
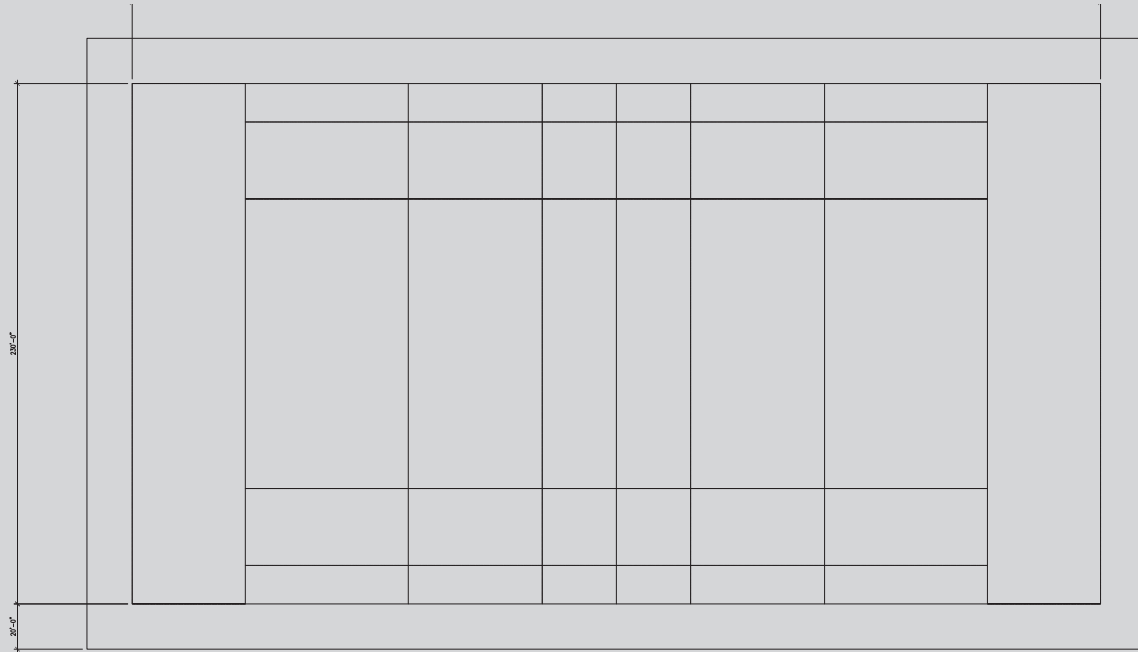
Youth and High School Lacrosse Field of Play

The size of an indoor sized Lacrosse field exceeds the building footprint. Hence, this option is not viable.



Outdoor Soccer

The size of a Soccer field exceeds the building footprint. Reducing it to an indoor playing size appears impracticable. Hence, this option is not viable.



Rugby

The size of a Rugby field exceeds the building footprint. Reducing it to an indoor playing size appears impracticable. Hence, this option is not viable.

Recommendations

Since it is no longer performing its original design function, the scope of this effort has been focused on the viability of the Laundry Building to support other functional uses. This study proposes two scenarios to organize thinking around the recreational reuse of the Laundry Building:

Scenario 1

Retaining the mezzanine: maintain as much of the existing building infrastructure as possible, which limits the possible number, size and type of potential future athletic uses for the building.

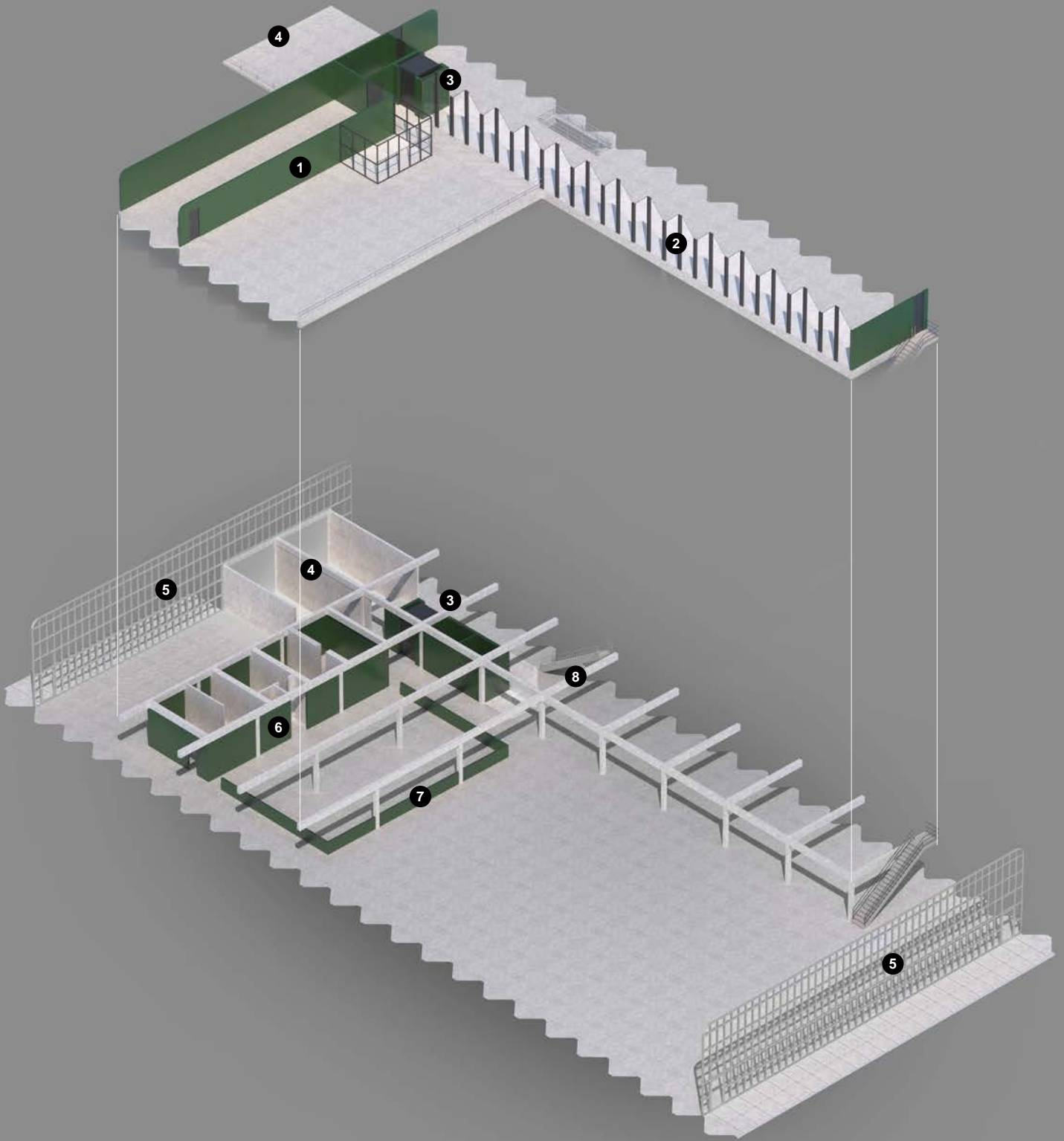
Scenarios 2 A & 2 B

Removing the mezzanine: maintain the exterior envelope and floor slab only, and remove all interior infrastructure to maximize flexibility and scale of potential future athletic uses.

Scenario 1

Retain Mezzanine

The first option focuses on salvaging as much of the existing interior infrastructure as possible while maximizing the space usability and enhancing the programmatic capacity. Exploring the most conservative retrofitting scenario provides an understanding of the potential of the space as is. Retaining the mezzanine offers an economical approach to the reuse plan.



- 1 REMOVE EXISTING PARTITIONS AT UPPER LEVEL
- 2 RETAIN CURTAINWALL
- 3 RETAIN ELEVATOR
- 4 REMOVE EXISTING DOCK ENCLOSURES AND ASSOCIATED FLOORPLATE
- 5 REPLACE AND UPDATE CURTAIN WALLS
- 6 RECONFIGURE LOCKER ROOMS / MAINTAIN MEP CONNECTIONS
- 7 REMOVE PARTITION
- 8 REMOVE EXISTING STAIRCASE

Existing Conditions / Updates

The Scenario 1 programmatic reconfiguration of the Laundry Building retains the mezzanine and removes some existing infrastructure that has no potential fit in the design. However, an effort to minimize drastic changes has been made: with the exception of the floorplate located above the former dock, the entire footprint of the mezzanine is maintained. The extensive glass enclosure of the upper floor is kept in place to allow users to enjoy views to the spaces below. The existing curtain walls on each end are to be replaced with higher performing glass enclosures.

Proposed Recreational Uses and Program

- Main play area fits:
 - (1) full-size basketball court
 - (1) youth-sized basketball court
 - (2) Volleyball
 - (3) Pickleball
- Yoga / Dance studio 2510 sq. ft. (61' by 41')
- Spin Room 1715 sq. Ft. (34' by 50')
- Strength enhancement area 3515 sq. Ft. (25' by 138')

- Reception desk
- Administration Space 750 sq. ft. (30' by 25')
- Locker Rooms + Restrooms
- Bleachers - Capacity 130

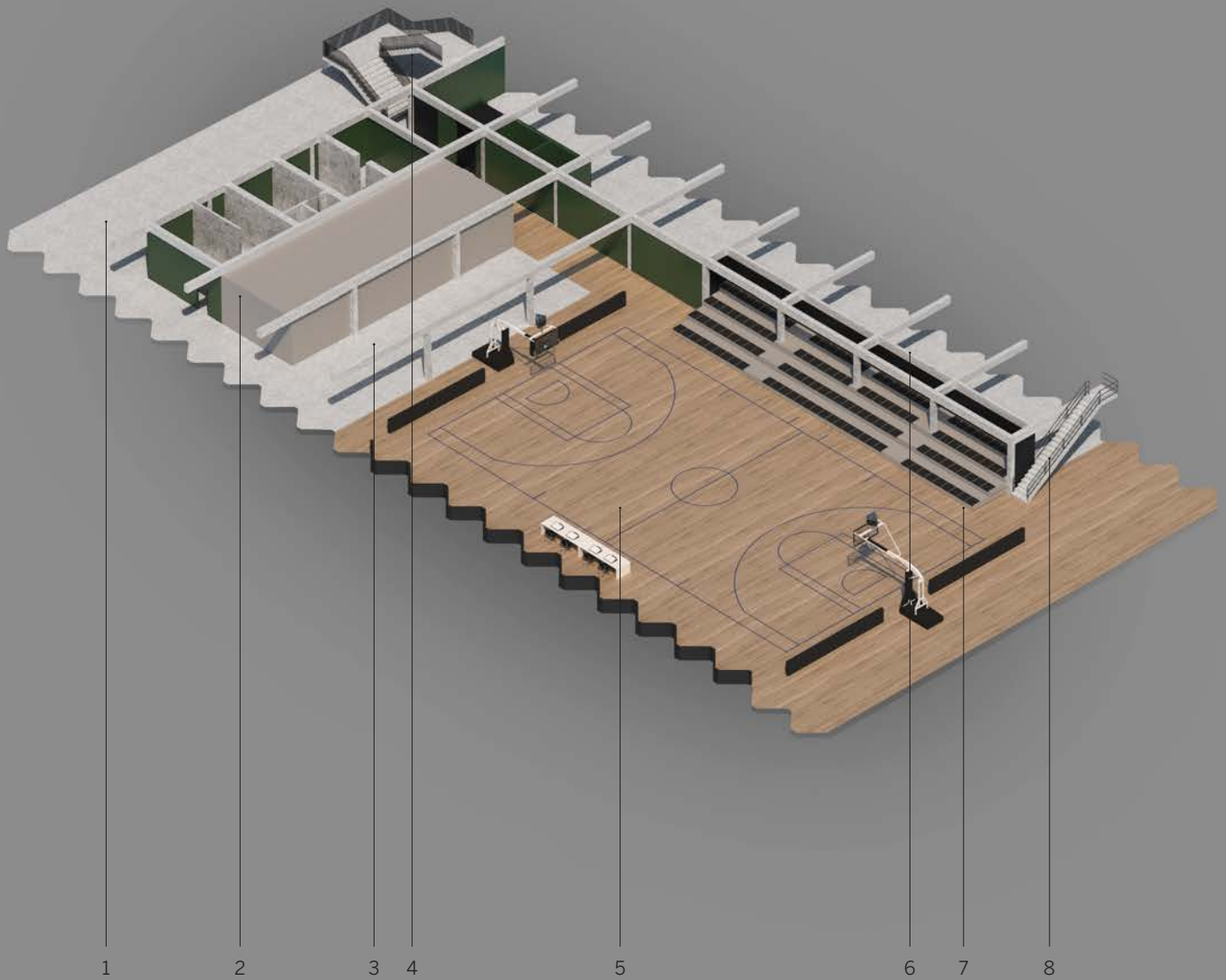




Ground Level

At the lower level, the large open space can house a configuration of different sports activities: Basketball, Volleyball, Pickleball and more as needed. The existing locker rooms can be extended and reconfigured to increase the capacity. The space adjacent to the glass wall houses vertical circulation to the upper floor along with a reception area. Athletes and visitors can enter the facility from different sides. Conveniently located under the mezzanine, the seating area is concealable.

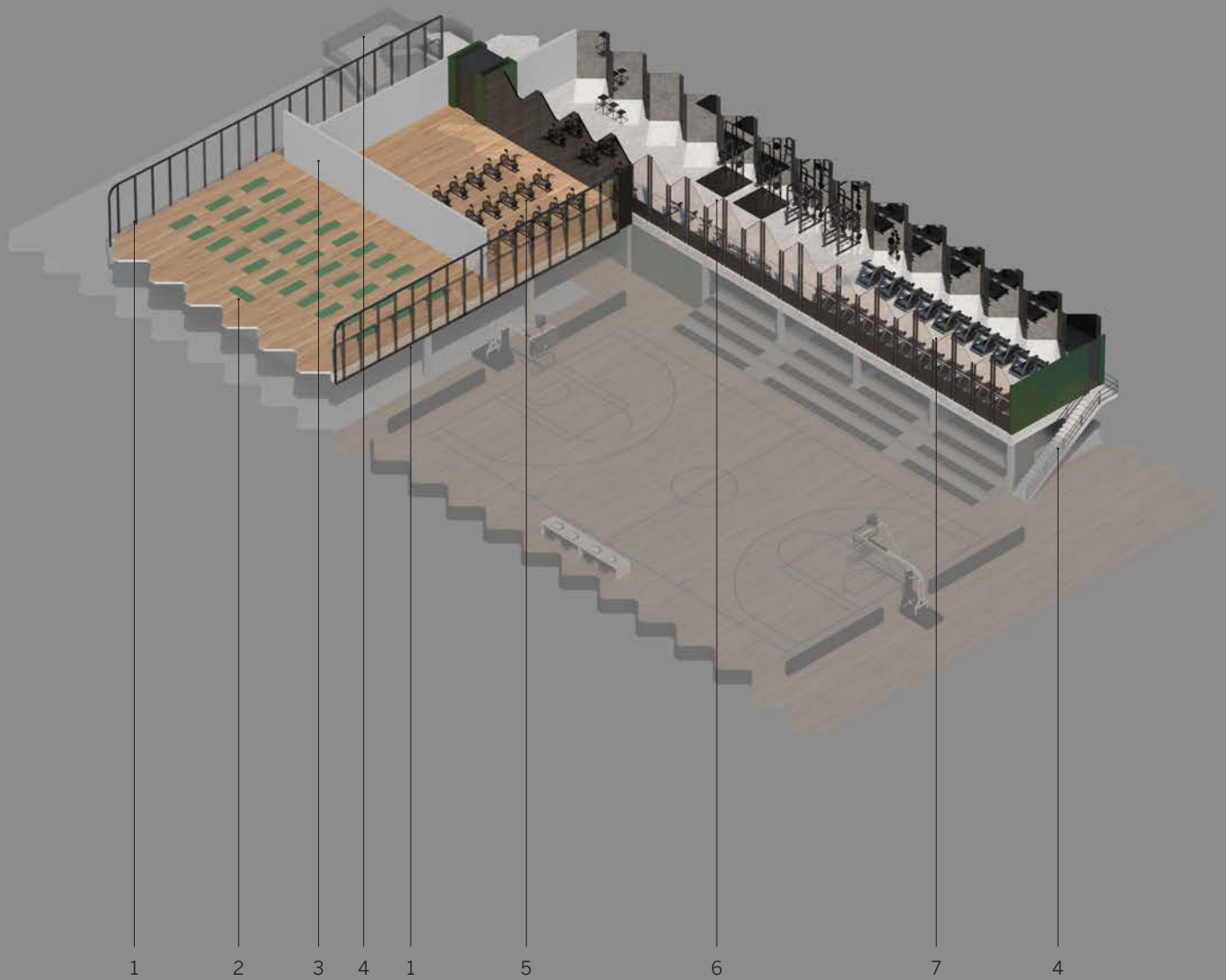
- 1 **MAIN ENTRY + RECEPTION AREA**
- 2 **LOCKER ROOMS + VISITOR BATHROOMS**
- 3 **STRETCHING + WARM-UP ZONE**
- 4 **ACCESS TO UPPER LEVEL (NEW STAIRCASE)**
- 5 **MAIN PLAY AREA: BASKETBALL + VOLLEYBALL 9750 SQ. FT. (75' BY 130')**
- 6 **MEP + STORAGE SPACE**
- 7 **BLEACHERS / CONCEALABLE SEATING - CAPACITY 130**
- 8 **EXISTING STAIRCASE TO REMAIN**

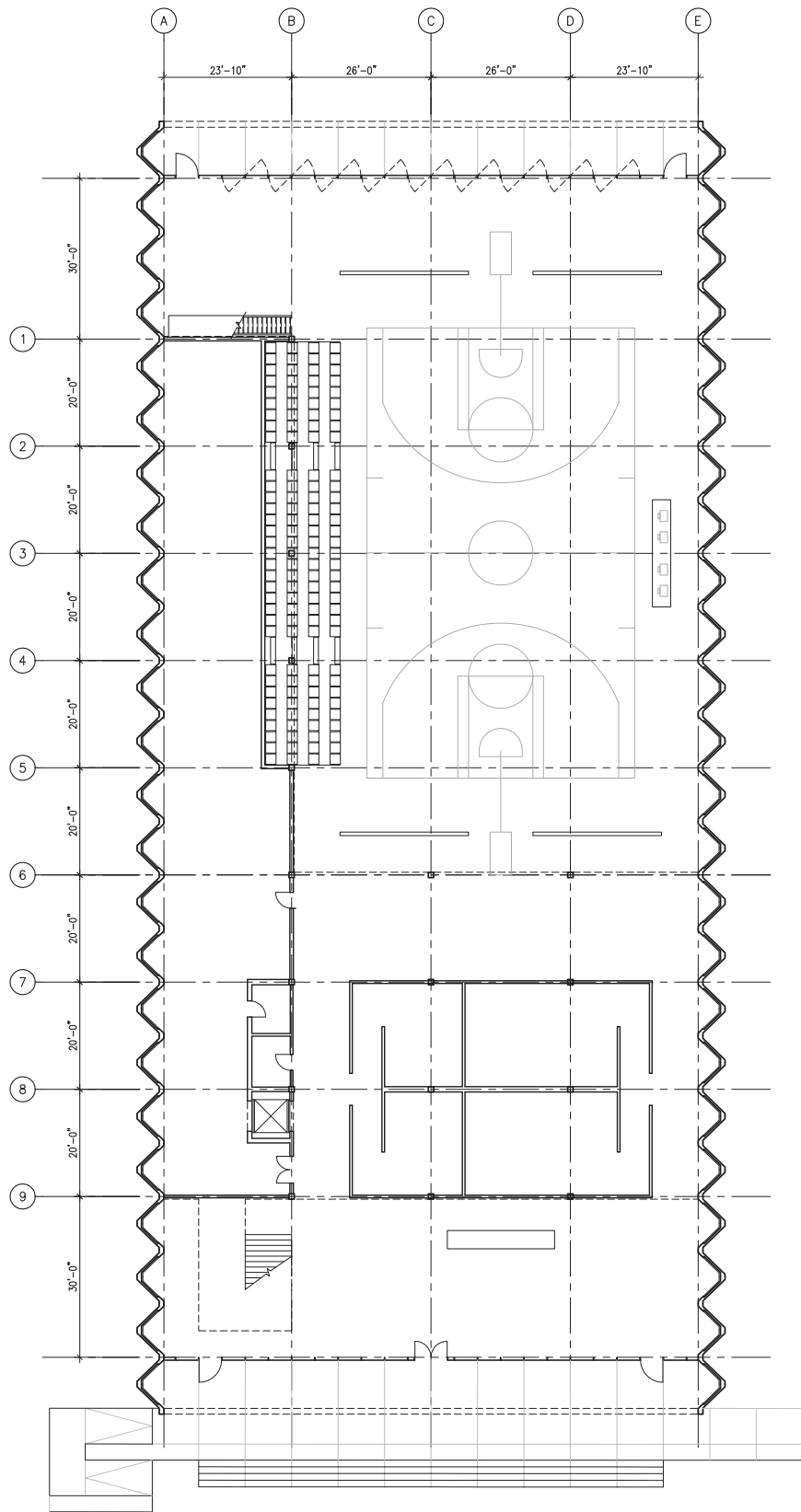


Mezzanine Level

In this option, the upper level is enclosed with new glass partitions that allow visual transparency as well as natural light, but keeps spaces separated from one another. Movable partitions allow for a reconfiguration of the space according to needs: from dance studio to yoga studio, spin room or crossfit. The long and narrow space lends itself to fixed gym equipment by virtue of its proportions, but could also house several other functions.

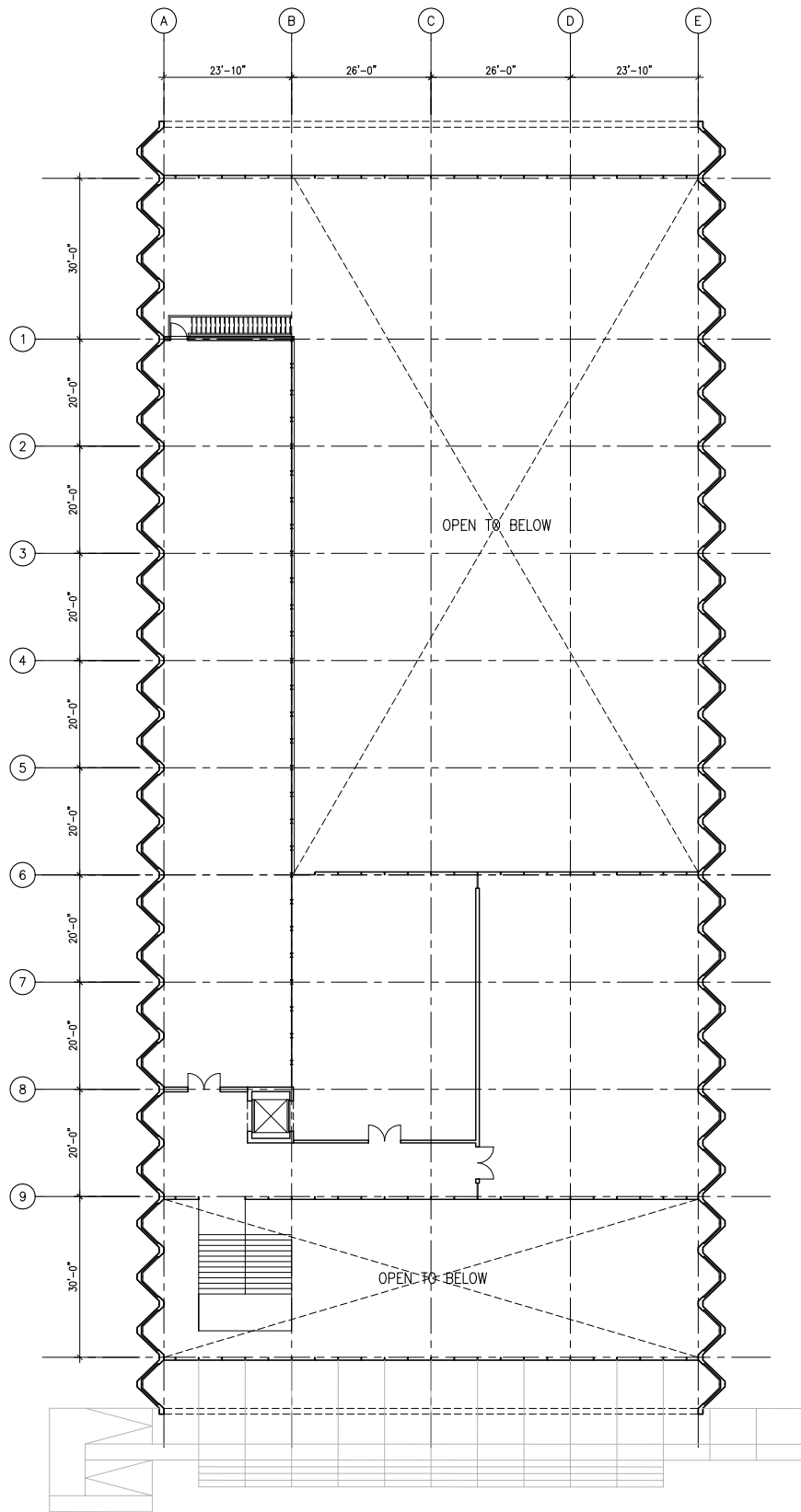
- 1 NEW FULL HEIGHT GLASS PARTITIONS
- 2 **YOGA STUDIO** 2510 SQ. FT. (61' BY 41')
- 3 MOVABLE PARTITION
- 4 VERTICAL CIRCULATION
- 5 **SPIN ROOM** 1715 SQ. FT. (34' BY 50')
- 6 **STRENGTH ENHANCEMENT AREA** 3515 SQ. FT. (25' BY 138')
- 7 CARDIO ZONE





Ground Level





Mezzanine Level





- 1 PHASE I - RENOVATED LAUNDRY
- 2 PHASE II - NOTIONAL 125-150K SQ. FT. FIELD HOUSE
- 3 PHASE II - SITE PARKING
- 4 FUTURE CONNECTION BETWEEN LAUNDRY BUILDING AND FIELD HOUSE
- 5 BARN WITH PEDESTRIAN ACCESS
- 6 EXISTING MENTAL HEALTH CENTER POWERPLANT WITH PRIVATE ACCESS

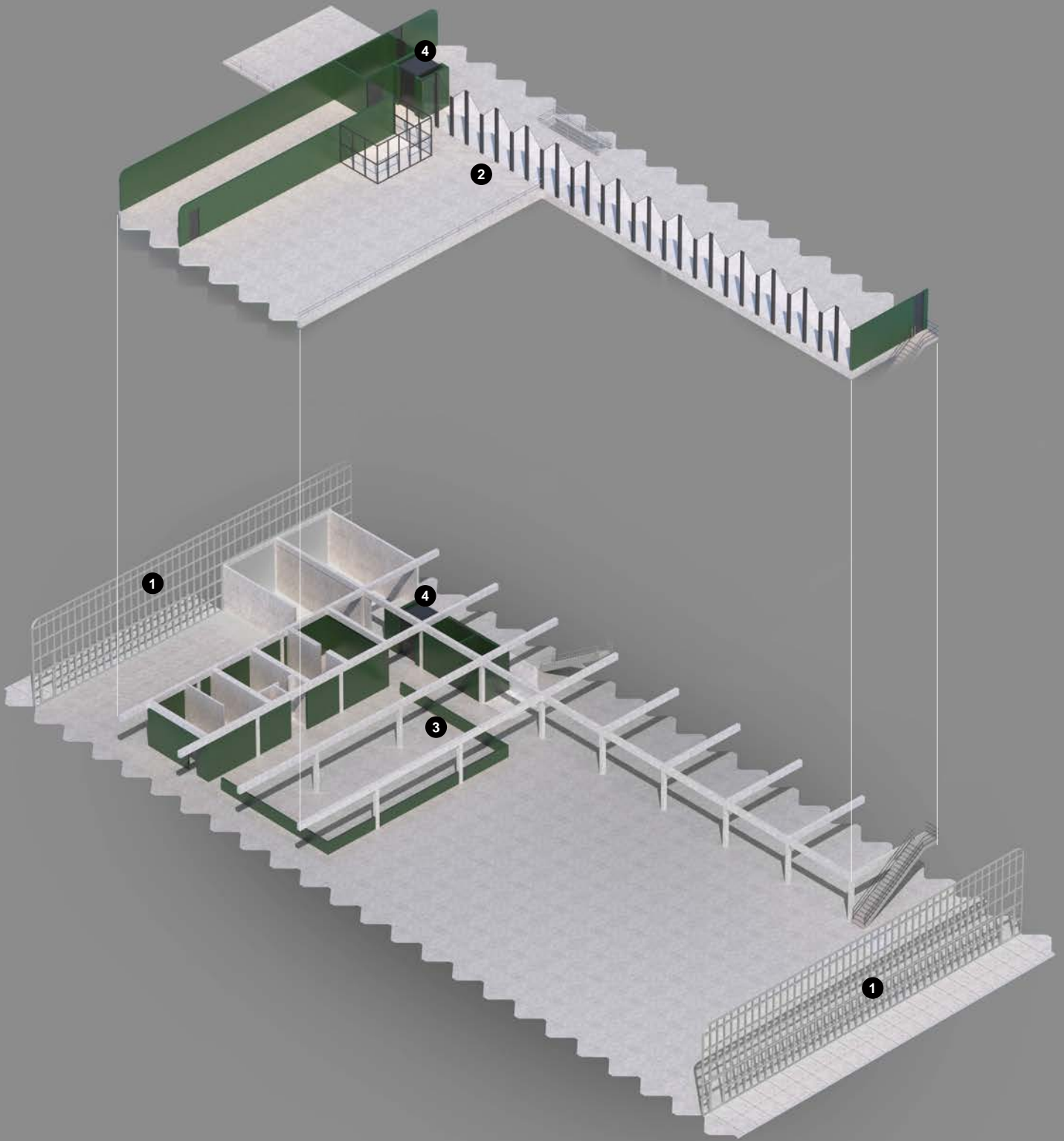
Scenario 1 - Site Plan

Concepts for a renewed site plan hinge on successfully incorporating the Laundry Building into a modest “sports ensemble” located in close proximity to a future field house with adequate parking for both facilities. A new central plant could also be considered as a shared resource between the two structures. The site organization and site landscaping must consider the uncertain future of the nearby Central Plant building.

Scenario 2.A

Remove Mezzanine - Large Open Space

Currently, none of the interior buildout is structurally bound to the exterior envelope, hence the interior space can be opened in its entirety to accommodate a complete remodel. Removing the interior infrastructure, including partitions and mezzanine, allows us to explore the full potential of the space and make the best use of the existing envelope in relation to its new programs and functions.



- 1 REPLACE AND UPDATE CURTAIN WALLS
- 2 REMOVE MEZZANINE LEVEL AND PARTITIONS
- 3 REMOVE LOWER LEVEL PARTITIONS
- 4 REMOVE ELEVATOR

Existing Conditions / Updates

The removal of all interior partitions along with the mezzanine offers an extensive open floorplate of roughly 23,300 sq. ft. (between 105' and 110' by 220'). Maximizing the usable area of the open plan while providing quality spaces becomes a priority. With openings only on the east and west facades, the plan allows the location of programs that do not require much natural light towards the center of the plan (services such as locker rooms, bathrooms, storage rooms, etc.).

Proposed Recreational Uses and Program

- Main play area: fits
 - (1) full-size basketball court
 - (2) youth-sized basketball courts
 - (2) Volleyball
 - (3) Pickleball
- Martial arts / wrestling / dance studio 5500 sq. ft. (50' by 110')
- Strength enhancement area 3300 sq. Ft. (30' by 110')

- Reception desk
- Administration space 750 sq. ft. (30' by 25')
- Locker Rooms + Restrooms
- Bleachers - Capacity 340
- New access and circulation spine 2000 sq. ft. (52' by 100')



SOM



LANDMARKS
ILLINOIS

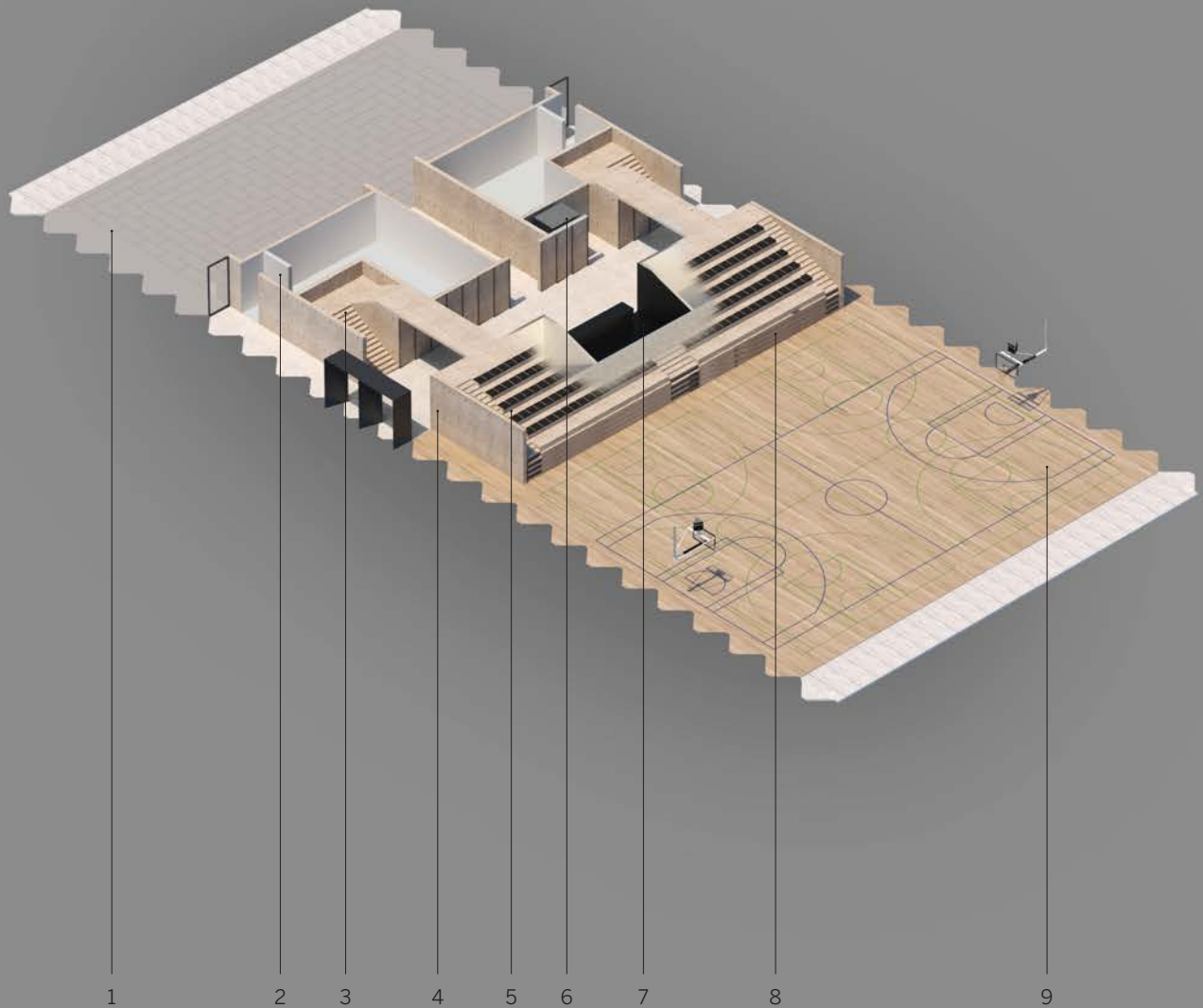
2017-2018 Annual Report



Ground Level

The main programs are pushed to each end of the building closer to the exterior views and natural light. While the services such as lockers, bathrooms and storage are organized towards the center of the building. A double height circulation spine allows athletes and visitors to navigate the facility easily. In this configuration, the bleachers are also operable in order to enlarge the play area capacity up to two youth-sized basketball courts.

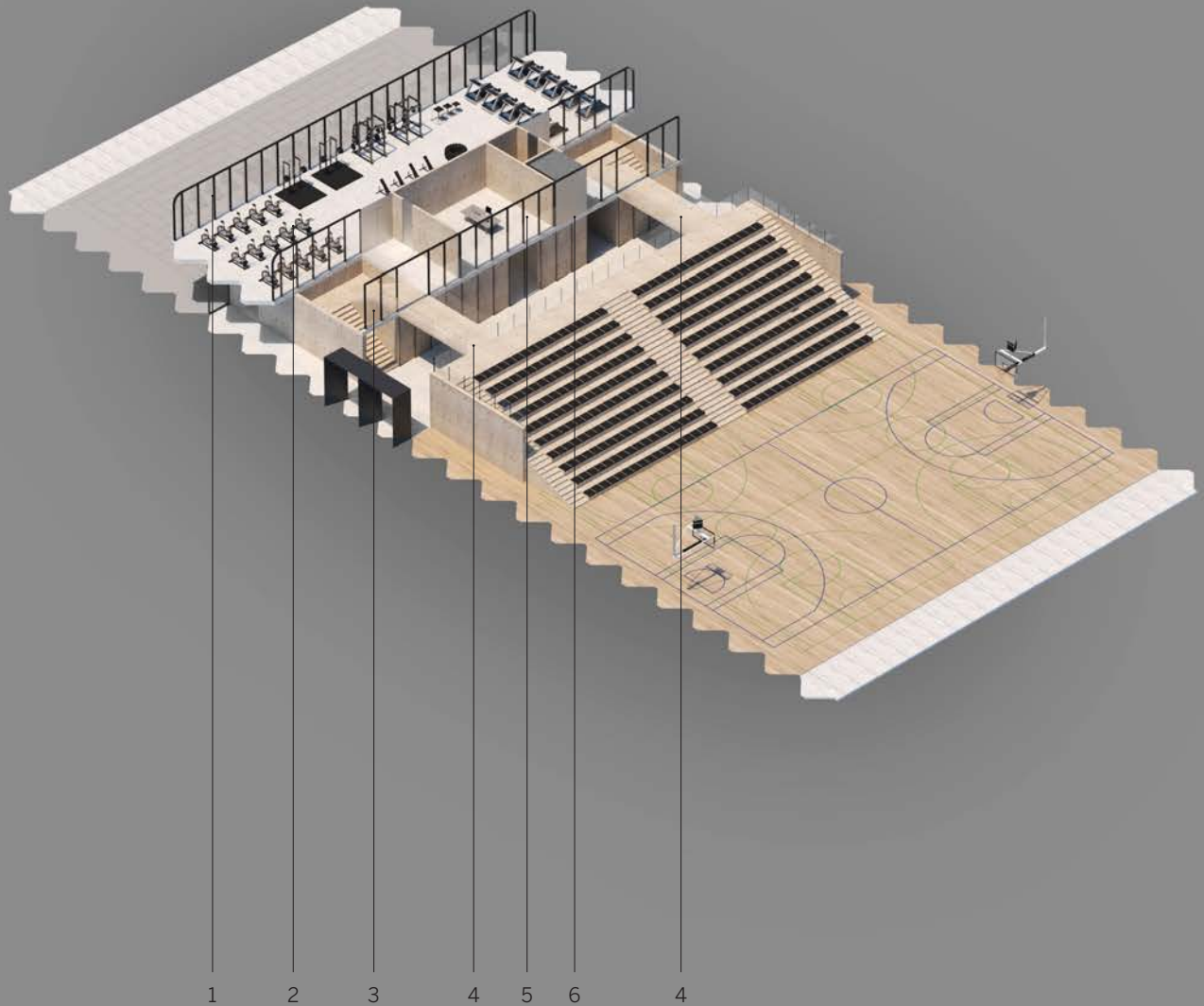
- 1 **MARTIAL ARTS / WRESTLING / DANCE STUDIO** 5500 SQ. FT. (50' BY 110')
- 2 LOCKER ROOMS
- 3 ACCESS TO UPPER LEVEL (NEW STAIRCASE)
- 4 **NEW ACCESS AND CIRCULATION SPINE** 2000 SQ. FT. (52' BY 100')
- 5 VISITOR BATHROOM
- 6 NEW ELEVATOR
- 7 **RECEPTION DESK**
- 8 **RETRACTABLE BLEACHERS** - COMPACT CAPACITY 170 (FOLDED) - 340 (OPEN)
- 9 **MAIN PLAY AREA** FITS (1) FULL-SIZE BASKETBALL COURT ; (2) YOUTH-SIZE COURTS

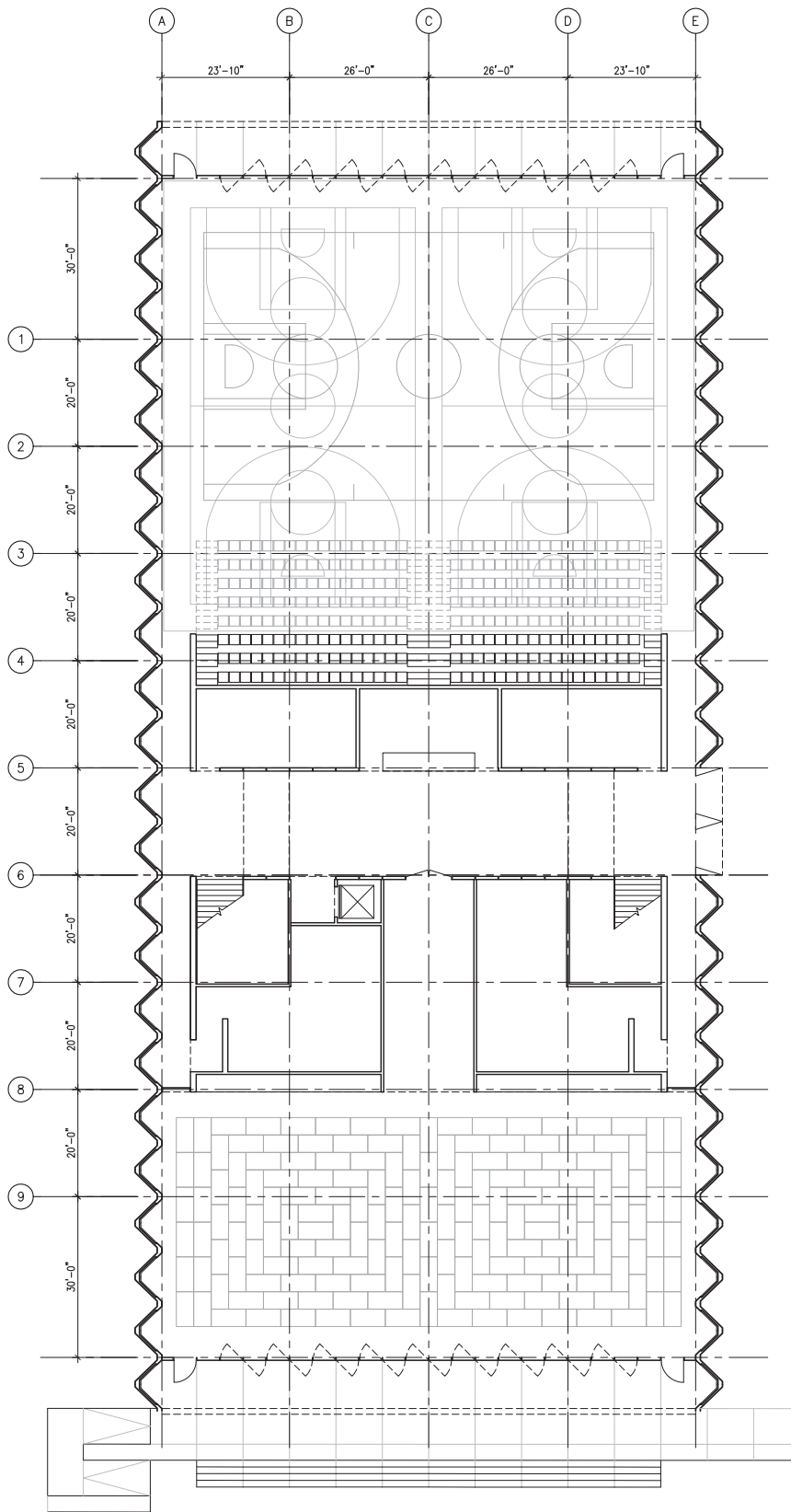


Upper Level

The lower level constitutes a plinth upon which additional program spaces are accommodated. Access to the fixed bleachers is provided via bridges over the main circulation spine. Located over the locker room volume is a strength enhancement studio and admin offices. Similar to Scenario 1, spaces on the upper floor are enclosed with glass partition to allow natural light and views while allowing soundproof spaces.

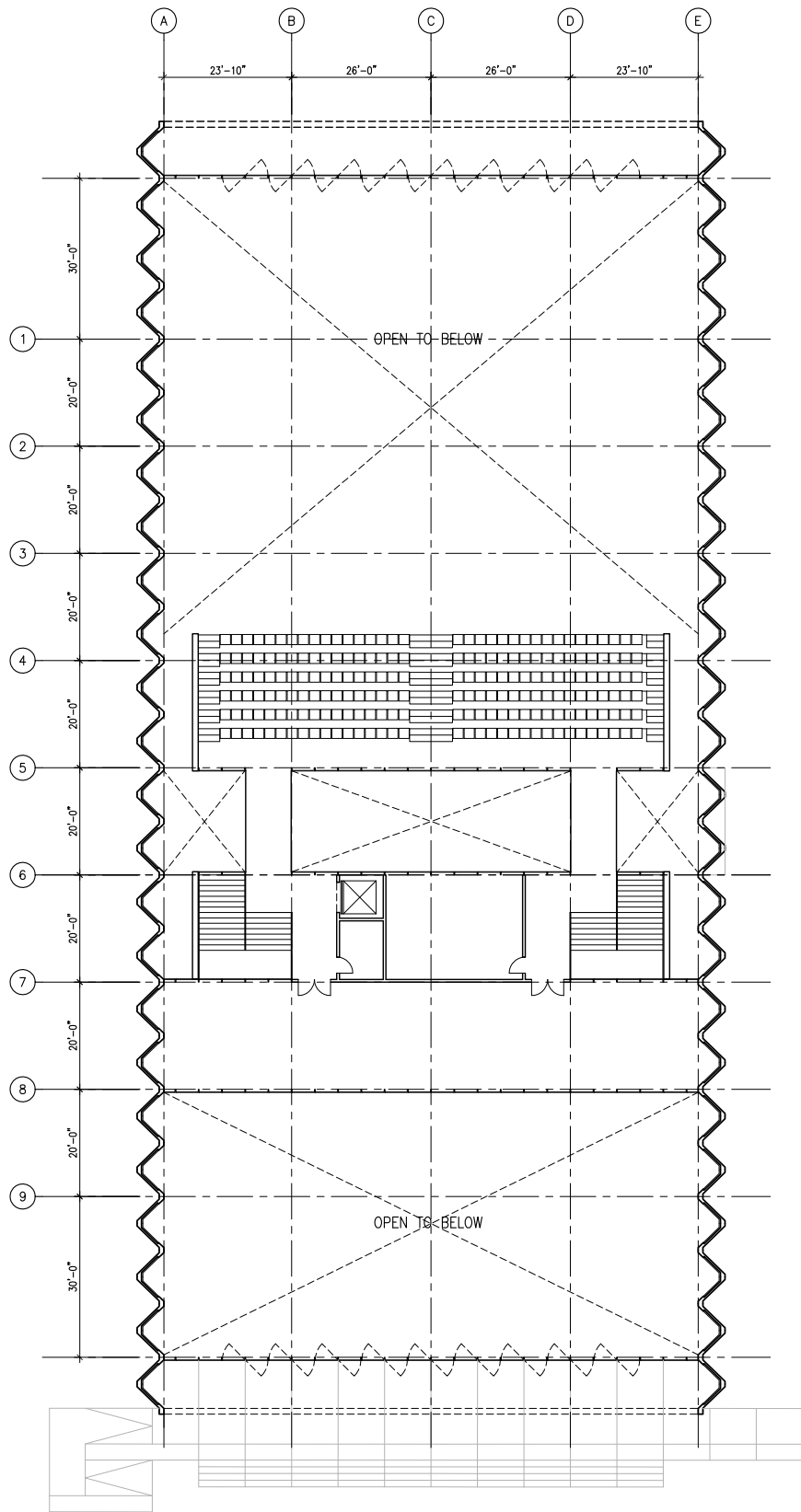
- 1 NEW FULL HEIGHT GLASS PARTITIONS
- 2 **STRENGTH ENHANCEMENT AREA** 3300 SQ. FT. (30' BY 110')
- 3 VERTICAL CIRCULATION
- 4 BRIDGE
- 5 **ADMINISTRATION SPACE** 750 SQ. FT. (30' BY 25')
- 6 ELEVATOR





Ground Level





Upper Level





- 1 PHASE I - RENOVATED LAUNDRY
- 2 PHASE II - NOTIONAL 125-150K SQ. FT. FIELD HOUSE
- 3 PHASE II - SITE PARKING
- 4 FUTURE CONNECTION BETWEEN LAUNDRY BLDG AND FIELD HOUSE
- 5 BARN WITH PEDESTRIAN ACCESS
- 6 EXISTING MENTAL HEALTH CENTER POWERPLANT WITH PRIVATE ACCESS

Scenario 2.A - Site Plan

This site plan allows an access through the center of the building as opposed to its east facade. The concept for a renewed site plan hinges on successfully incorporating the Laundry Building into a modest “sports ensemble” located in close proximity to a future field house with adequate parking for both facilities. A new central plant could also be considered as a shared resource between the two structures.

Scenario 2.B

Youth Soccer Field

Taking advantage of the large open space would also allow the installation of a youth size soccer field within the existing building. Similar to Scenario 2.A, the removal of the interior infrastructure accommodates a large indoor play field.





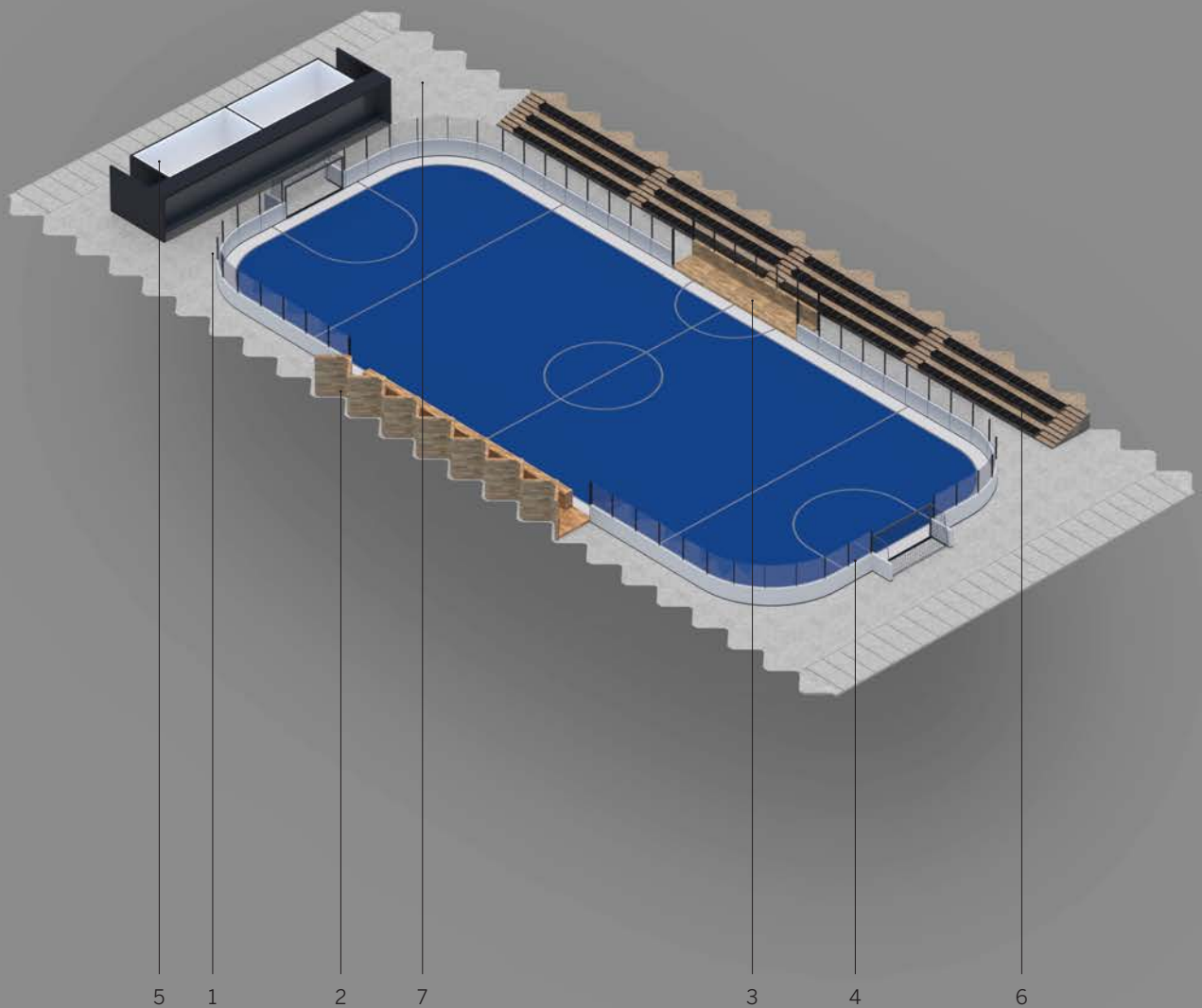
Existing Conditions / Updates

For Scenario 2.B, the removal of all interior infrastructure including partitions and the mezzanine offers an extensive open floorplate of roughly 23,300 sq. ft. (between 105' and 110' by 220'). Introducing an indoor soccer field maximizes the usable area of the existing building.

Ground Level

The entire ground floor is occupied by the soccer field and adjacent bleachers: the field is enclosed with a vision glass which allows visitors to enjoy the game. In this configuration, the retrofitting effort is minimal: clearing the interior space from its current infrastructure and partitioning and reconfiguring the bathrooms are the only pre-requirement for accomodating a play field inside the building.

- 1 SOCCER FIELD 74' X 170'
- 2 PLAYERS' BENCHES
- 3 PENALTY BOXES
- 4 VISION GLASS
- 5 BLEACHERS - CAPACITY 192
- 6 RESTROOM BLOCK
- 7 GATHERING AREA

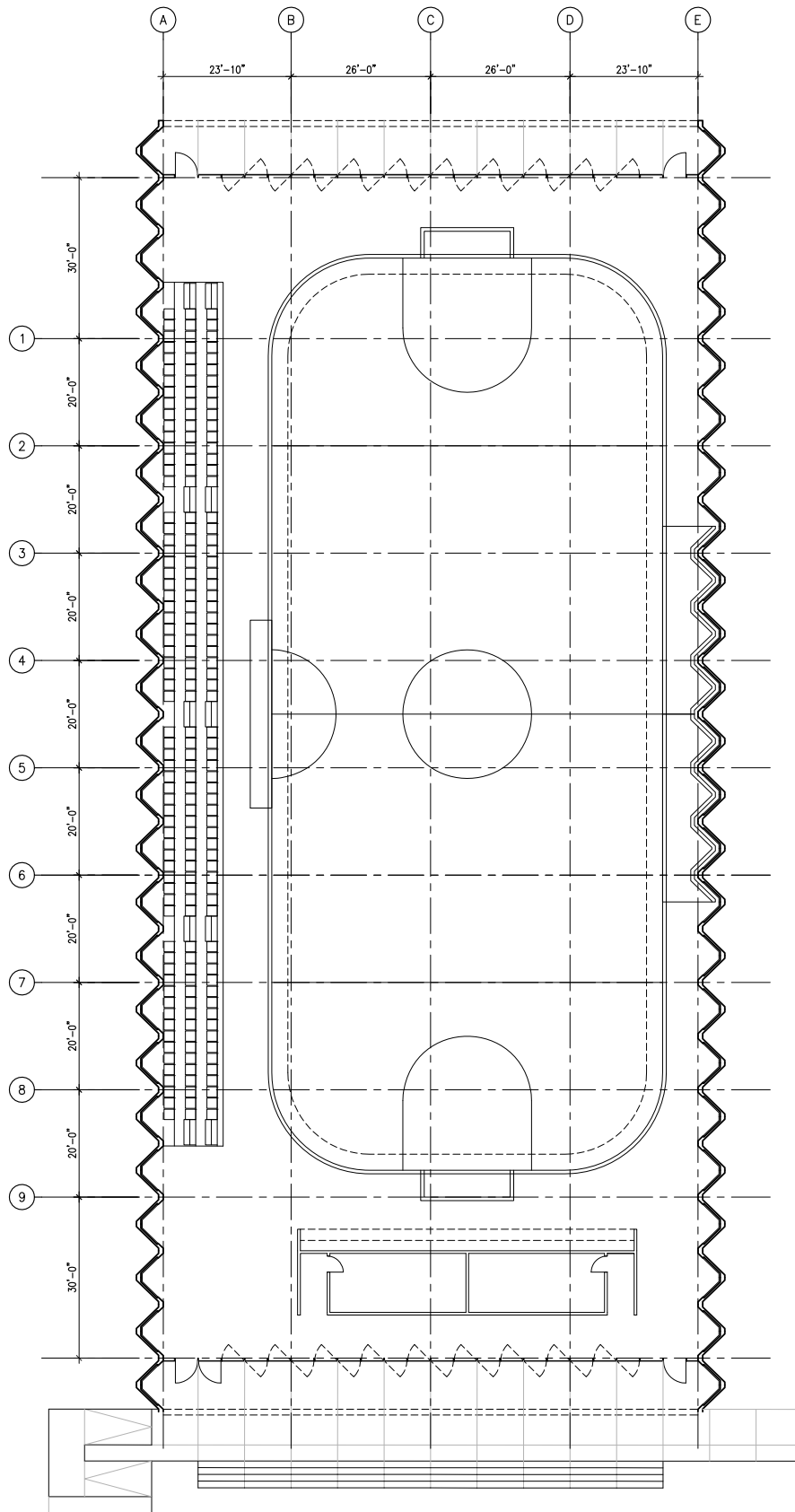


Maximizing the Field Size

The field that is shown in this plan measures 74 ft. by 170 ft. That is the maximum size available when fitting an indoor soccer field, bleachers and a bathroom block within the existing Laundry Building. The size of this field is smaller than the indoor soccer field size recommended by the United States Soccer Federation, but is larger than the current indoor soccer field currently located at the Eastside Recreation Center of Elgin, which measures 90ft. by 35ft.

Please refer to the Appendix for two alternate schemes that show either:

1. A smaller field size that requires less demolition.
2. A larger field size without any bleachers.



Ground Level

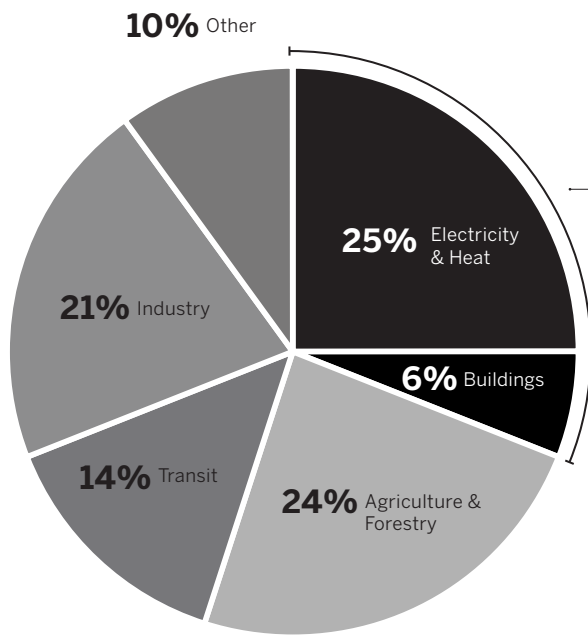




- 1 PHASE I - RENOVATED LAUNDRY
- 2 PHASE II - NOTIONAL 125-150K SQ. FT. FIELD HOUSE
- 3 PHASE II - SITE PARKING
- 4 FUTURE CONNECTION BETWEEN LAUNDRY BLDG AND FIELD HOUSE
- 5 BARN WITH PEDESTRIAN ACCESS
- 6 EXISTING MENTAL HEALTH CENTER POWERPLANT WITH PRIVATE ACCESS

Scenario 2.B - Site Plan

Concepts for a renewed site plan hinge on successfully incorporating the Laundry Building into a modest “sports ensemble” located in close proximity to a future field house with adequate parking for both facilities. A new central plant could also be considered as a shared resource between the two structures. The site organization and site landscaping must consider the uncertain future of the nearby Central Plant building.



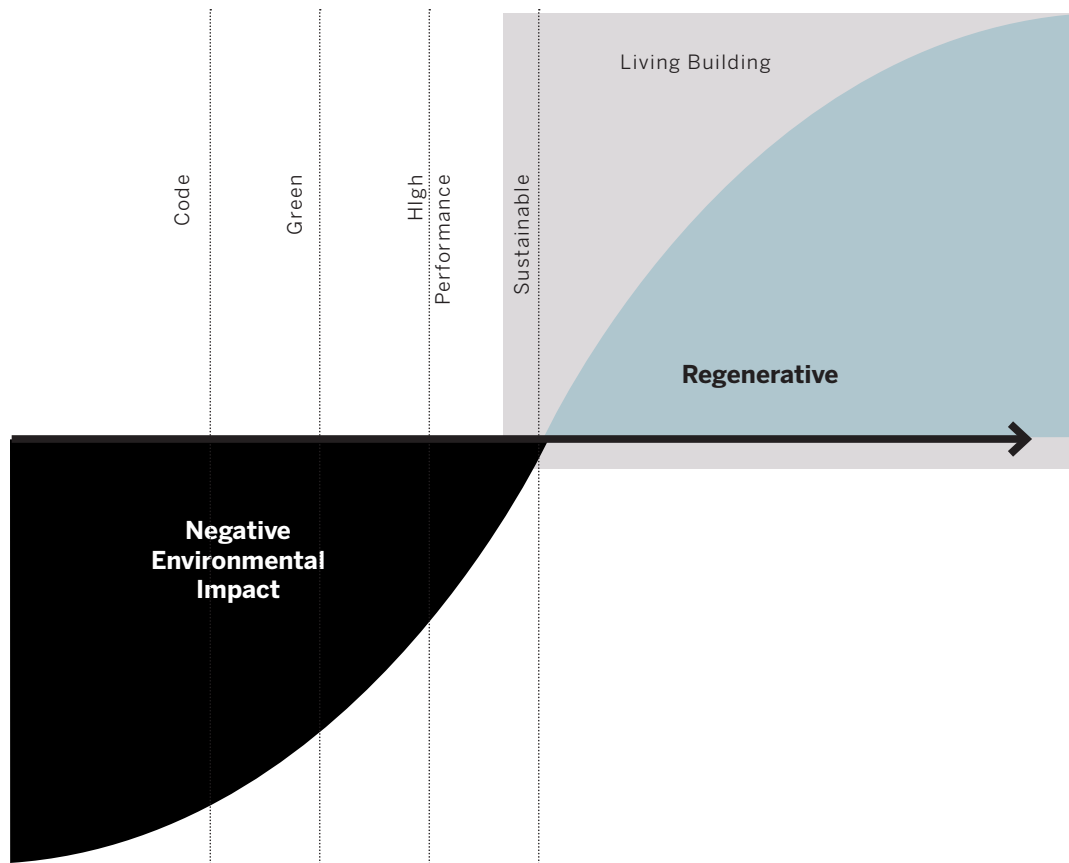
31% of global GHG emissions are directly related to the building industry¹

Elgin Laundry Building Potential:

1,135 MT not released to the atmosphere
CO₂ because of adaptive reuse

¹ Global Emissions by Economic Sector

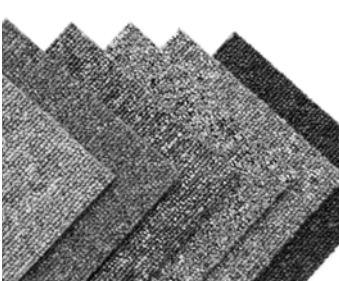
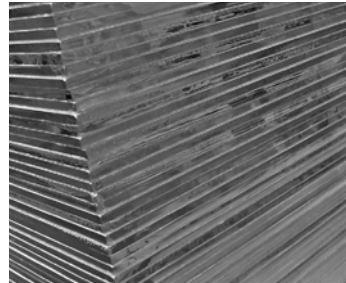
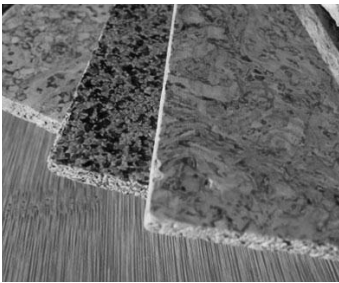
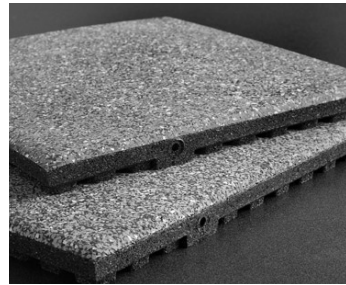
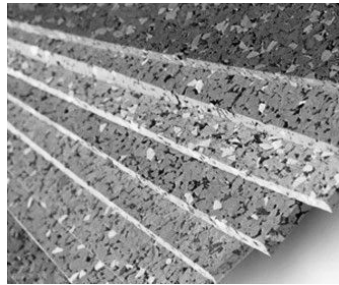
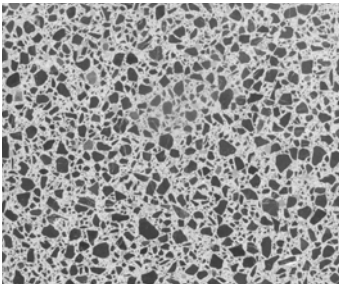
Source: Contribution of Working Group III to the Fifth Assessment Report of the IPCC



Sustainable Systems

Facility for the 21st Century

The unique design of the existing building, which includes a relatively modest amount of glazing, would allow future building reuse to be a showpiece for the City of Elgin's commitment to sustainability and reducing the carbon footprint of municipal facilities. The building can be reused to meet select requirements of the "*Living Building Challenge*," minimizing water use, reducing electricity use and generating solar hot water, all while utilizing healthy materials.





Living Building Challenge 3.0

"Instead of a world that is merely a less bad version of the one we currently have - we ask a simple and profound question - What does good look like?"

Living Future Institute

Given the scale and program of the Elgin Laundry Building, the team has the opportunity to achieve a very high level of performance. Whether the project is registered for the "*Living Building Challenge*," or aspires to achieve some of these lofty environmental goals, we propose that we consider their call to action. Areas of design and engineering are significant and impactful, but entirely possible for the project. Goals could include:

Net Positive Water, Embodied Carbon Footprint, elimination of materials considered part of the Materials Red List, Net Positive Waste, Urban Agriculture, and Biophilic Environments.

Certification can be achieved by looking at all categories of consideration. Alternately a focus area of very high performance can be selected to earn a Petal Certification. For example, a Material Petal Certification can be pursued which focuses on healthy, low impact materials for the project.

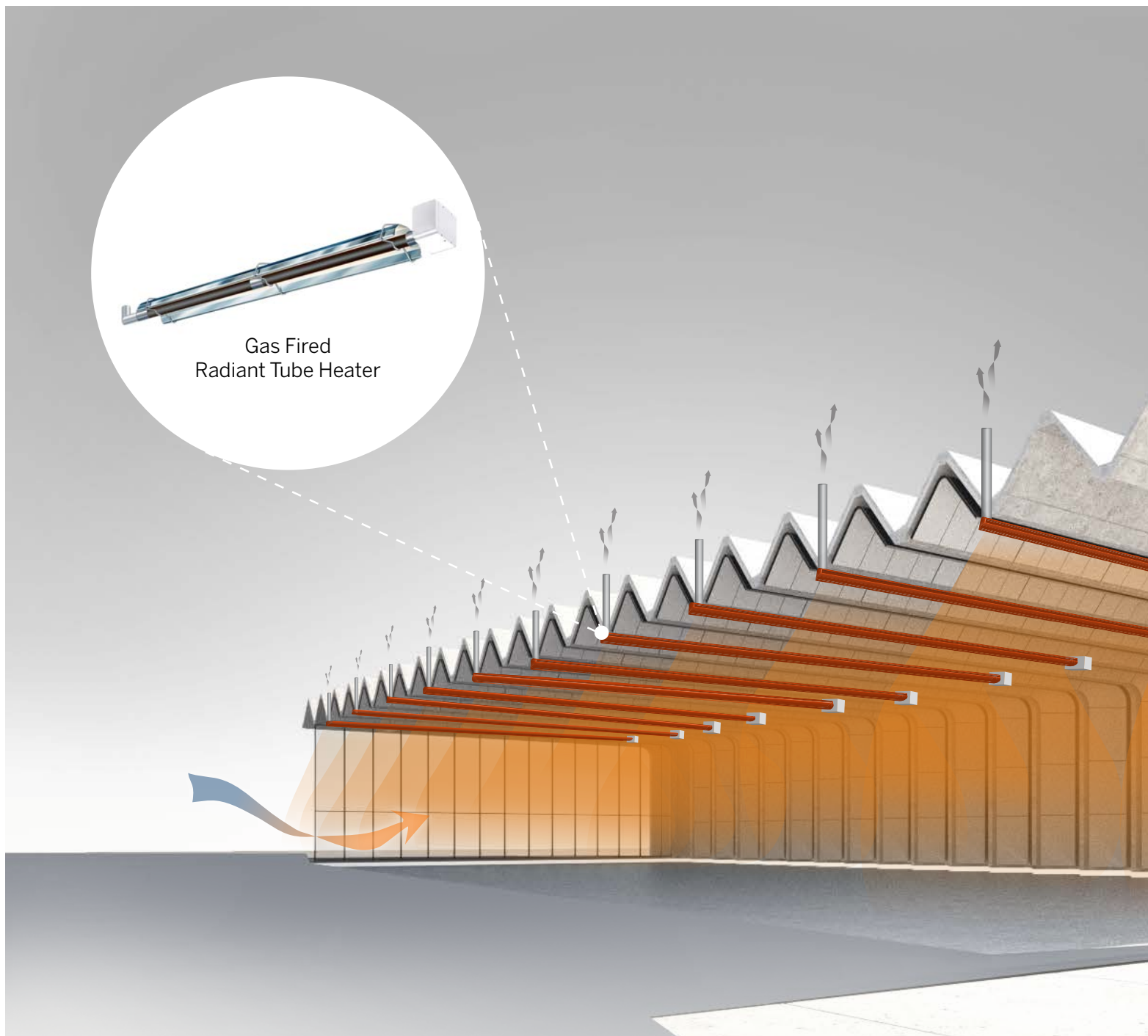


Hybrid Natural Ventilation

A hybrid natural ventilation system can be realized with a combination of air distributed through the existing louvers in the historic precast concrete enclosure system, and an operable curtain wall system. This system would allow cooling in the shoulder seasons and summer months. Hot air can be released through natural bouancy through the the curtain wall system. When combined with the thermal mass of the historic concrete structure, night ventilation can also be used to pre-condition indoor temperatures.



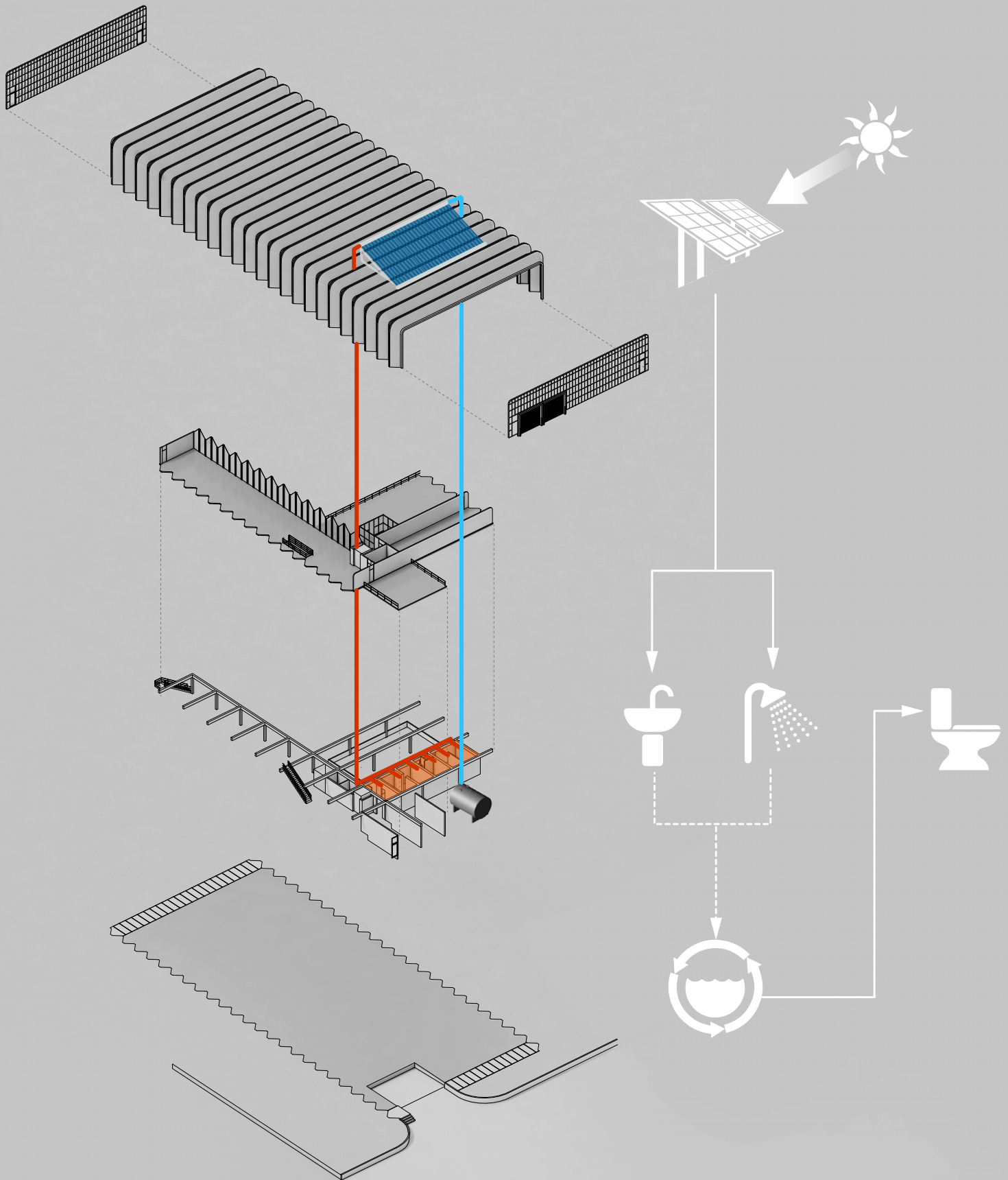
- 1 CURTAIN WALL REPLACEMENT
- 2 PIVOTING PANELS - BOTTOM 12'
- 3 UNFOLDING FULL-HEIGHT PANELS
- 4 SLIDING FULL-HEIGHT PANELS



Gas Fired Radiant System

By utilizing a water-based system to deliver heating, the project could realize improved thermal comfort, acoustic performance, and pollution control all while having significant energy savings. The team proposes a gas fired radiant system installed in the ceiling plane. This will result in a high efficiency system with minimal interruption of the visual lines of the ceiling plane. Outside air can be delivered through the existing louver system in the perimeter walls during the winter months.





Net Zero Water

Due to minimal fixture requirements for the program, significantly reducing potable water usage is possible. A combination of rainwater collection, packaged water treatment, and reclaimed water reuse could allow the Elgin Laundry Building to have a Net Zero Water footprint. In addition if renewable energy is considered, it is recommended that solar thermal be studied. Providing solar hot water would be one of the most cost effective onsite renewable technologies that can be utilized, at the same time this will be able to provide 100% of the hot water requirements without a large collector array.

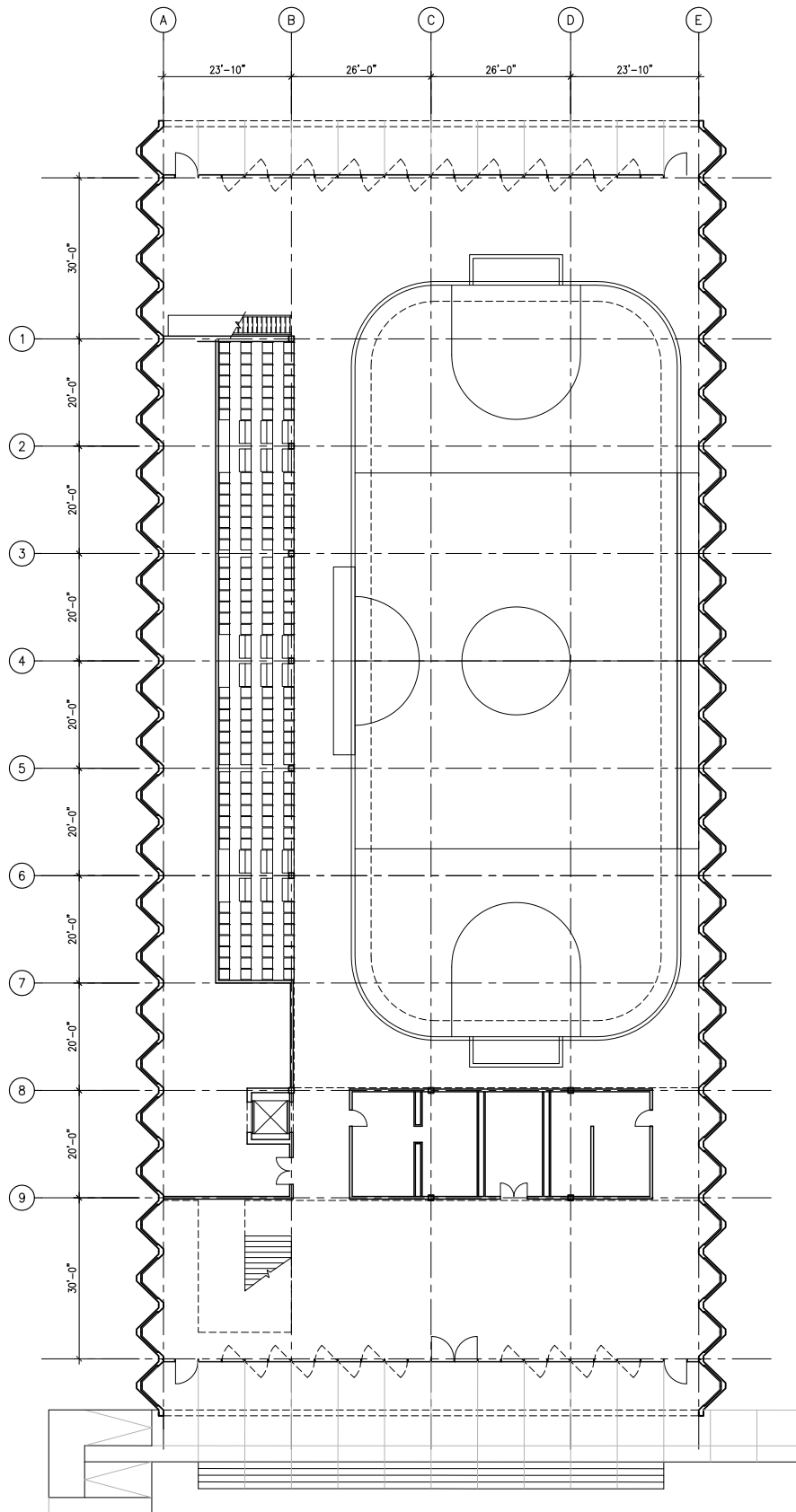
Appendix

Alternate Schemes for the Soccer Field Scenario

The Elgin Newsletter, Vol. 3 Nb. 10 - August 16, 1966

Elgin Bikeway Masterplan, January 2008

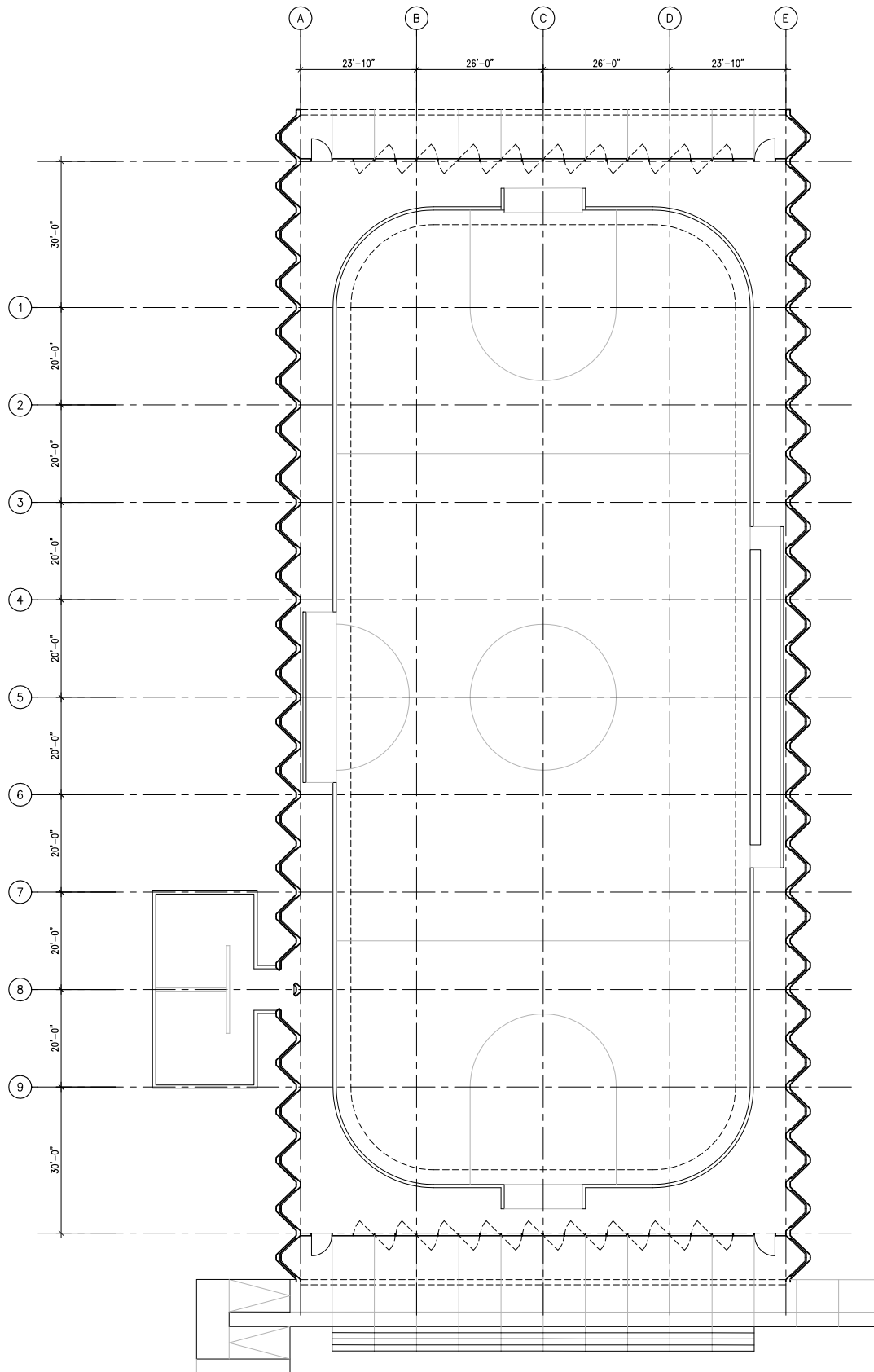
WJE Condition Assessment - Laundry Building, January, 2016



Alternate Scheme 1 for Soccer Field

This scenario fits an Indoor Soccer field of 60 ft. by 140 ft. : that is the smallest field size acceptable by the Elgin Parks & Recreation Advisory Commission. In this option, only a partial demolition of the existing mezzanine would be required. The existing bathroom block could also be preserved although it would require an upgrade and reconfiguration. Finally, the space immediately adjacent to the entry could be used either as a gathering space, or could be programmed with a recreational activity such as Yoga (on Soccer off-hours, for example).

The bleachers capacity is affected in this scenario as its goes from 192 visitors in the Scenario 2.B to 112 visitors.



Alternate Scheme 2 for Soccer Field

This scenario focuses on fitting the largest field size possible within the existing enclosure of the building. The field represented in this plan measures 200 ft. by 85 ft. as recommended by the United States Soccer Federation.

This option would not allow bleachers, although the clear vision glass that surrounds the field would allow visitors to watch the game. Additionally, a restroom block would need to be built outside of the existing building.

the Elgin News Letter

OTTO KERNER, Governor

DR. HAROLD M. VISOTSKY, Director of Mental Health

DR. ERNEST S. KLEIN, Superintendent



PUBLISHED BY
ELGIN STATE HOSPITAL
ELGIN, ILLINOIS

Volume 3, No. 10

August 16, 1966

NEW LAUNDRY BUILDING

FRONT AND SIDE
VIEW OF NEW
LAUNDRY BUILDING.
CONTINUOUS-LINE
CONCRETE "RIBBING"
IN WALLS AND ROOF
MAKES ROOF SELF-
SUPPORTING WITH-
OUT THE USE OF
INTERIOR COLUMNS.
CONCRETE EXTERIOR
HAS BEEN SEALED
AND PAINTED AS ONE
OF THE LAST STEPS
IN CONSTRUCTION.



NEW LAUNDRY TO BE COMPLETED, READY FOR OPERATION NOVEMBER 1

Sidewalk superintendents' expertise to the contrary, the new laundry building is scheduled for completion Aug. 31. An additional 60 days will be required to complete the installation of machinery, and the laundry will be on an operational basis by Nov. 1 or before.

Ground for the structure was broken May 4, 1964, for an approximate completion date in November 1965, but two unforeseen problems delayed completion for more than ten months. One was the special stresses created by the heavy laundry machinery to be installed; the second was the possibility that normal expansion and contraction in the building might

cause minor leaks in the process piping which is a necessary part of laundry machinery. Both problems were eventually solved: special steel buttresses were swung under the floor of the balcony, and flexible connections, to allow for expansion and contraction, were developed.

The new laundry will be streamlined and highly automated, according to Charles Cullen, hospital business administrator. Its 30,000 sq. ft. provides approximately twice as much space as the present building. It will process 100 tons of laundry per week—an increase from last year's figure of 750 tons made necessary by improved laundry and linen service.

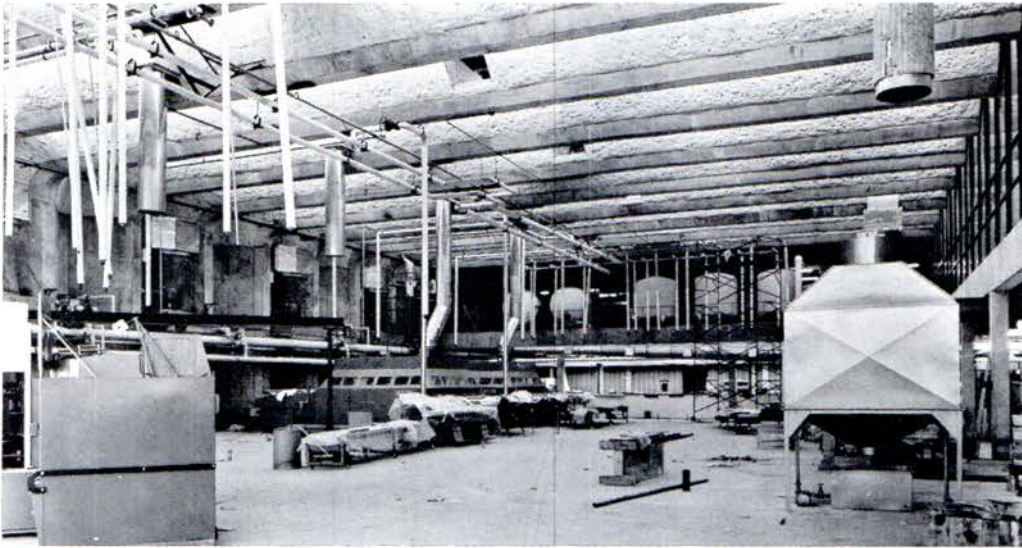
All washers will be self-loading. A completely automated shirt unit will have a capacity of 800 shirts a day, and two automated pants press units will be capable of pressing 240 pairs of pants per hour—substantially in excess of present requirements.

High speed flatwork ironers, conveyors, and automatic spreaders will greatly increase productivity. An efficient ventilating system will effect a complete change of air at regular intervals.

An auxiliary building will house blowers for the aerating of wastes, dissipating their heat and otherwise conditioning the

continued on page 2

AN INSIDE LOOK



INTERIOR VIEW, SHOWING INSTALLATION OF LAUNDRY MACHINERY AND VENTILATING EQUIPMENT. CONCRETE "RIBS" SUPPORTING THE ROOF ARE SEEN IN THE CEILING. LAUNDRY'S MENDING ROOM WILL BE HOUSED BEHIND PARTITION IN REAR CENTER.

COMPLETION NEAR . . .

continued from page 1

wastes before disposal in the sewage system.

The new laundry will also boast a whole

ly new service—a mending room—to help speed clothing back to the wards more quickly. While the laundry will continue its present cooperation with rehabilitation services to train patients for laundry work, the new facility, because of its automated

machinery, will be operated by employees.

The building was designed by Bertrand Goldberg & Associates, architects-designers of Chicago's Marina Towers and ESH's new medical-surgical complex.

DAYLONG - STAYLONG NESS PICNIC THEME

Elgin State Hospital's Night Employees Social Society (NESS) held its second annual all-day picnic at Tyler Creek, Elgin, on Aug. 3. Approximately 125 night employees and their families attended the event provided through the organization's flower fund.

NESS officers claim almost 100 per cent membership of employees working the 11 p.m. to 7 a.m. shift—the largest membership count since forming in January 1965. Events sponsored by the group include dinners, rummage sales, and the annual picnic and Christmas party.

This year's officers are James Manning, president; John Neurandorf, vice-president; Edith Campbell, treasurer, and Helen Belew, secretary.

NEARBY MENTAL HEALTH SOCIETY OPENS CONVALESCENT FACILITIES

A social center for convalescents from mental illness, opened July 7 under the auspices of the DuPage County Mental Health Society, is now on a successful operational basis, according to Mrs. A. M. Jens, Glen Ellyn, director of the project.

The need for "a social center to help convalescents from mental illness to rebuild social contacts, to make friends, and to enjoy good companionship," has been stressed by many psychiatrists, physicians, clergymen and others in the Glen Ellyn area. Mental illness often tends to weaken these contacts, they said, and rebuilding or strengthening them is vital to full recovery.

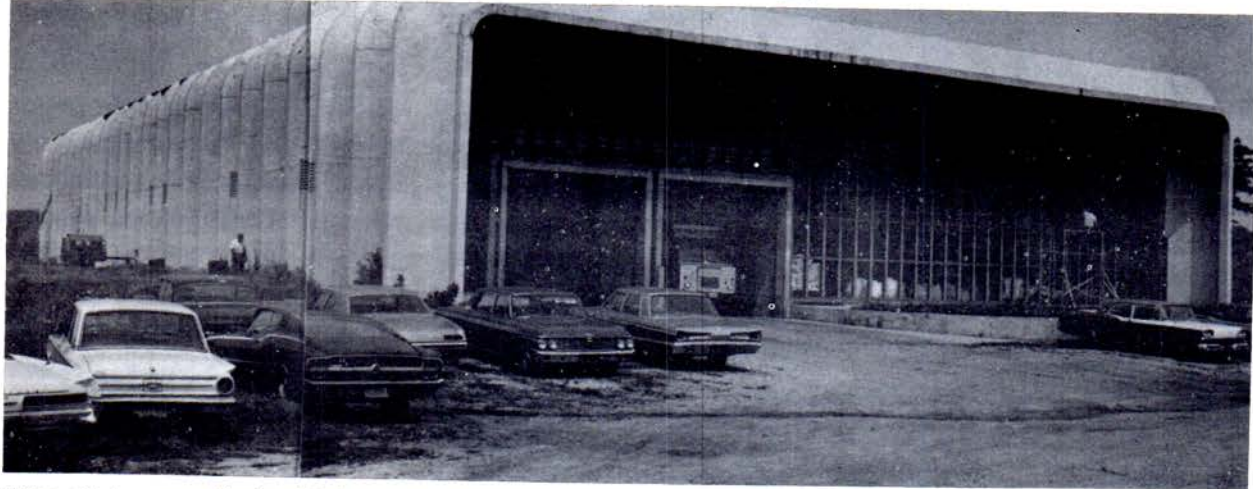
A total of 12 convalescents from the area have been in attendance to date, and more are expected. Meetings are held

weekly at the Church of the Brethren, Glen Ellyn. The program consists of book reviews, square dances, community sings, games, hobbies, and other activities designed to promote social interaction.

Present plans call for the inclusion of patients from nearby nursing homes. Preliminary discussions between Mrs. Jens and Dr. Daniel Haffron, assistant superintendent and director of Community Placement Service for Elgin State Hospital, have been completed. Transportation of patients to Glen Ellyn is being studied.

The work is being done entirely by volunteers. Psychologist for the project is Dr. John Stumpf of Elmhurst. Mrs. Jens is a director of the DuPage County Mental Health Society.

New Laundry Operational



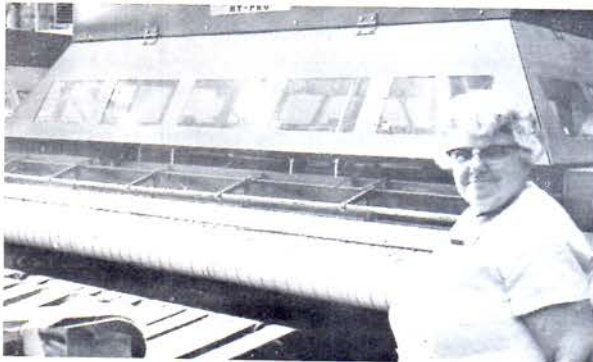
"Man, what an accordion!" sighed a 10 year old visitor when he first saw the new laundry building. Another example of the "new look" is the architectural style that is used in the design of the laundry building. (ESH Photo)



Mass production is the name of the game in the new ESH Laundry. Washers that stand taller than a man wash, rinse, and eject the clothes into the steel tubs (bottom center). The washers are loaded from the second floor through chutes. (ESH Photo)



It might look like a birthday cake but it's really a tub full of wet wash that has been compressed in a special machine until all of the water is squeezed out. This "cake" is moved hydraulically since it is much too heavy for handling by hand. It is pushed into dryers that looked as if they were large enough to park a Volkswagen in. William Schwartz, now Acting Laundry Manager, operates the hydraulic controls. (ESH Photo)



Would you believe, a mangle that is 12 feet wide? You better 'cause these are! Frances Simmons demonstrates how quickly this mangle swallows (and presses) a sheet. The laundry has two of these "monsters" to turn out the wash as fast as it is needed. (ESH Photo)



This was the most fascinating machine the NEWSLETTER reporter saw! Freshly ironed shirts were placed in the proper position by Ella Vollman. A button was pressed and almost instantly, a series of metal arms swished and the shirt was neatly folded and ready for stacking in the shirt rack (front, center of picture). (ESH Photo)



ELGIN BIKEWAY MASTER PLAN

JANUARY 2008

COLOR CODE	BIKE TRAILS	FOREST PRESERVES	PARKS & RECREATION	SCHOOLS
City Limits	Proposed Mid-County Trail	Blenkle	Burnside Forest Park	Abbott
Land Outside City Limits	Existing Mid-County Trail	Burnridge/Paul Wolff	Campus Park	Central Alt
Forest Preserve Area	Existing Fox River Trail	Bowes Creek Woods	Central Park	Century Oaks
Historic Districts	Existing IL Prairie Path	Columbus Park	Channing Park	Channing
Central Business District	Proposed Primary Bikeway	Eagles	College Park	Coleman
Proposed Foot Bridge Connection to Fox River Trail	Existing Primary Bikeway	Elgin Shores	Continental Park	Conran
Proposed Overpass/Underpass	Proposed Secondary Bikeway	Forsen Creek	Eagle Heights Park	Clinton
	Proposed Off-Street Trail	Fitchie Creek	Elgin Country Club	Elgin Comm College
	Existing Off-Street Trail	Rutland	Elgin Sports Complex	Elgin High School
		Fox River Bluff West	Festival Park	Ellis
		Fox River Shores	Fox Meadows	Garfield
		Hampshire	Gratch Park	Gifford
		Jon J. Duerr		Highland
		Koryon Farm		
				Hillcrest
				Huff
				Illinois Park
				Kimball
				Larkin High School
				Larson
				Lowrie
				Lund's Park
				McKinley
				Otter Creek
				Prairie View
				S Elgin HS
				Sheridan
				St. John
				St. Mary
				Timber Trails
				Valley Creek
				Washington
				Willard
				Win. Burnham





ELGIN MENTAL HEALTH CENTER Condition Assessment - Laundry Building

**750 South State Street
Elgin, Illinois**



Final Report

January 18, 2016
WJE No. 2015.7360

Prepared for:

Landmarks Illinois
30 North Michigan, Suite 2020
Chicago, Illinois 60602

Prepared by:

Wiss, Janney, Elstner Associates, Inc.
10 South LaSalle Street, Suite 2600
Chicago, Illinois 60603
312.372.0555 tel | 312.372.0873 fax



ELGIN MENTAL HEALTH CENTER
Condition Assessment - Laundry Building

750 South State Street
Elgin, Illinois

A handwritten signature in black ink, reading "Rachel Will", is positioned above a horizontal line.

Rachel Will
Senior Associate

A handwritten signature in black ink, reading "Edward Gerns", is positioned above a horizontal line.

Edward Gerns
Principal

Final Report

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ELGIN MENTAL HEALTH CENTER CONDITION ASSESSMENT - LAUNDRY BUILDING

**750 South State Street
Elgin, Illinois**

INTRODUCTION

As requested by Ms. Lisa DiChiera, Wiss, Janney, Elstner Associates, Inc. (WJE) has performed a limited condition assessment of the laundry building on the campus of the Elgin Mental Health Center, located at 750 South State Street in Elgin, Illinois. The purpose of our assessment was to evaluate the current condition of the structural system, exterior envelope, and interior of the building, and provide an estimate of probable cost to restore the exterior envelope and building structure.

BACKGROUND

The Elgin Mental Health Center is a multi-building complex that was founded circa 1872. The buildings on the complex have been constructed at various times since the facility opened. Landmarks has requested that WJE evaluate the laundry building, designed by Bertrand Goldberg, which was constructed between 1966 and 1967. The building has been vacant and unheated since 2000. Only minimal maintenance has reportedly been performed.

Our assessment included a review of available documentation on the subject building and a site visit to make interior and exterior observations of the main structural and architectural components of the building. We did not perform any structural analysis to evaluate the adequacy of the existing components.

DESCRIPTION OF STRUCTURE

The laundry building is rectangular in plan, measuring approximately 240 feet in the east-west direction and 110 feet in the north-south direction. The structure consists of twenty-four free-standing folded concrete plates that create portals. Painted steel louvers are installed through the concrete wall areas at each portal. Each portal is approximately 10 feet wide and spans 110 feet. The east and west ends of the building are enclosed with a recessed steel and glass curtain wall that spans from a concrete curb at grade to the underside of the end portals. The west curtain wall incorporates passage doors as well as 10 non-original aluminum frame double hung windows replacing curtain wall glazing. The west curtain wall incorporates two overhead doors as well as a passage door. The interior is generally open but incorporates a mezzanine level that extends the full length of the building along the north wall. An aerial view of the laundry building and a portion of the hospital complex are shown in Figure 1. A rendering of the building created during the design phase is shown in Figure 2. A view of the building under construction is shown in Figure 3. Overall views of the building exterior and interior are shown in Figure 4 through Figure 9.

Structural Framing/Building Envelope

The majority of the structure for the laundry building is comprised of folded plate portals that sit on a concrete foundation with a slab-on-ground floor. These elements are self-supporting, creating both the north and south facades of the building. Steel and glass curtain walls span between grade and the bottom of the end portals at the east and west facade. The curtain wall consists of regularly spaced, vertically oriented steel tubes anchored to a steel base plate. Intermediate horizontally oriented steel T-sections span between

the vertical mullions. Steel frame fixed sashes, glazed with single pane 1/4 inch thick glass set with steel stops, are fastened into the vertical mullions and horizontal plates. The mezzanine is a reinforced concrete structure at the south end within the enclosure of the building. Views of various details of the building are shown in Figure 10 through Figure 11.

Interior Finishes

The bottom surfaces of the concrete plates that create the ceiling inside the building are coated with what appears to be an acoustical and/or insulation treatment (Figure 10). The remaining areas are the exposed concrete portals and slab-on-ground.

OBSERVATIONS

Mr. Edward Gerns and Ms. Rachel Will of WJE made visual observations of readily accessible portions of the building on December 29, 2015. Exterior observations of the facade were made from ground level. Interior observations were made at accessible areas. The following sections summarize our observations.

Structural Framing/Building Envelope

1. The coating applied to the vertical/wall surfaces of the concrete portals is mostly completely deteriorated, with the exception of the underside of the portals at curtain wall set back areas on the east and west ends of the building.
2. Corrosion was noted on all of the steel louvers installed through the concrete wall areas (Figure 12 and Figure 13).
3. Limited areas of cracking and spalling were noted in the exterior and interior portions of the folded plates (Figure 14 and Figure 15).
4. A few spalls were noted at the interface of the folded plates and the slab-on-ground (Figure 16) as well as isolated locations on the interior.
5. Surface corrosion and blistering and peeling paint were noted on the steel curtain wall mullions. The most significant corrosion was noted on the plate that was installed on the concrete curb at the bottom of the curtain wall (Figure 17 and Figure 18).
6. A few of the curtain wall lites are broken (Figure 19).
7. A liquid applied membrane appears to have been installed on the (roof) portion of the portals that span between the walls. Only limited areas were visible during our evaluation and no information regarding the material and when it was installed was available.
8. A few areas of water leakage were noted on the interior at the transition between the vertical and horizontal portion of the portal (Figure 20 and Figure 21). This joint appears to be a cold joint, but could not be definitively determined.
9. Water marks were visible on the visible portion of the base plate at the curtain wall, as well as the adjacent concrete floor (Figure 22 and Figure 23).
10. Trees and other shrubbery were noted in the areas between the portals on both sides of the building. At many locations, the trunks of these plants were within a few inches of the exterior concrete.

Interior Finishes

11. There are no interior finishes, with the exception of the acoustical/insulation material applied to the ceiling. No significant distress, displacements, or damage was noted in the acoustical/insulation material.

DISCUSSION

Generally, the laundry building is in fair to good condition and requires only minimal repair and maintenance at this time. Depending on the function of the building following repairs, modifications may be necessary or could be considered to improve thermal performance. The existing curtain wall is not thermally broken and therefore will have a tendency for condensation to form during heating seasons. Similarly, the concrete portals are not insulated, except for, potentially, the minimal effect of the acoustical treatment on the ceiling. Plant growth near the exterior walls has the potential to cause damage to the walls, finishes, and foundations system for the building.

RECOMMENDATIONS AND PRELIMINARY COST ESTIMATE

Based on our review of the laundry building, we offer the following repair recommendations:

1. Repair areas of cracked and spalled concrete on the interior and exterior of the portals.
 - Estimated cost: \$35,000 allowance
2. Remove the existing remaining coating on the exterior vertical surfaces of the concrete portals and install a breathable acrylic coating to minimize water infiltration. During this work, the concrete should be sounded to locate areas of delaminated concrete and make repairs as necessary. Also, as part of this work, trees and shrubbery close to the exterior walls should be removed.
 - Estimated cost: \$200,000
3. Clean and paint the steel louvers, or replace the louvers with painted aluminum louvers and install perimeter sealant. Alternatively, the louvers could be removed and the opening infilled.
 - Estimated cost: \$20,000 allowance
4. Remove all coatings from the curtain wall area and install a new high performance coating system. This should include removing the glass to enable the glazing pocket to be coated. Replace all broken or cracked glass in the curtain wall. Consideration could also be given to replacing the curtain wall with a new thermally improved system.
 - Estimated cost: \$200,000
5. Evaluate the condition of the liquid applied membrane on the roof area. Depending on the condition, removal may be necessary, or over-coating may be possible in combination with localized repairs. It is likely that the coating in the area between the portals will be the most deteriorated since water drains from the roof area through these areas.
 - Estimated cost: \$25,000 allowance for repair; \$200,000 for replacement
6. Evaluate the source of the water leakage at the transition between the vertical and horizontal portion of the portal. Repair may be limited to installing additional liquid applied membrane, and/or repairing cracks, cold joints, or other breaches in the system.
 - Estimated cost: \$25,000 allowance

The above items represent the minimum level of effort necessary to rehabilitate the major structural and architectural components of the buildings in preparation for re-occupancy. A more thorough review of the existing architectural and structural elements should be performed, and detailed repair drawings and specifications should be prepared. Obviously, significant repairs to the electrical, plumbing, and HVAC systems may be required, but consideration of these items was beyond the scope of our review.

General repair methods are included to develop an opinion of estimated costs to correct the deficiencies observed. These methods may or may not be the best method of remediation and should not be considered as a repair recommendation. All repairs should be designed by a licensed professional. Costs are given in present-day dollars and are not modified for cost increases in the future. Cost estimates were made either

by reference to a standard estimating guide or from experience with costs of similar work. Costs were not obtained from a contractor bidding on a set of repair drawings and specifications and were not made by a professional cost estimator. Competitive bids using a set of repair drawings and specifications should be obtained if more accurate costs are required.

QUALIFICATIONS

It should be understood that our review was not an investigation, thereby limiting the potential to uncover all ailments of the exterior wall and structural systems.

FIGURES



Figure 1. Aerial view of Elgin Hospital Complex. North is oriented up in this image.

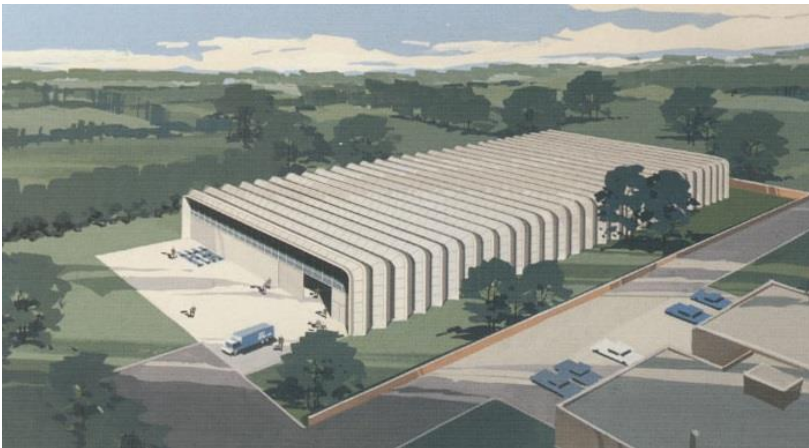


Figure 2. Rendering of laundry building during the design phase in 1964



Figure 3. Laundry building during construction in 1966



Figure 4. View of west facade



Figure 5. View of south facade



Figure 6. View of a portion of the curtain wall on the east facade



Figure 7. Interior view of west curtain wall area



Figure 8. Interior view of laundry building



Figure 9. View of mezzanine level of building



Figure 10. Detail of transition from vertical wall surface to horizontal/roof portion of portal



Figure 11. Transition from vertical to horizontal at exterior



Figure 12. View of ridge between portal, as well as painted steel louver in wall



Figure 13. Louver in wall area



Figure 14. Spalled concrete at edge of end portal



Figure 15. Spall in underside of overhanging portion of end portal on west facade



Figure 16. Spall at concrete at base of wall and crack in slab-on-ground



Figure 19. View of glazing pocket at broken lite in curtain wall at base. Note: no corrosion scaling is evident in the glazing pocket.



Figure 20. Indications of water leakage at transition between wall and ceiling area on interior



Figure 21. Indications of water leakage at transition between wall and ceiling area on interior



Figure 22. Water stains on bottom plate of curtain wall



Figure 23. Indications of water infiltration and/or condensation on the slab adjacent to the curtain wall

