

North End Community Center

Programming and Siting Study

Martin J. Walsh, Mayor
City of Boston

Public Facilities Department Project #7111
2019-02-22

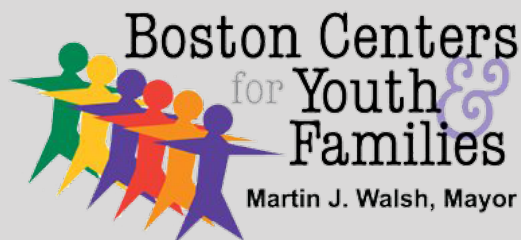


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Executive Summary

In 2017 the City of Boston’s Public Facilities Department engaged the Sasaki and their consultant team to work with Boston Centers for Youth and Families (BCYF) to study the existing Nazzaro Community Center in the North End, programming needs and options for this facility, and master plan options for renovating or relocating the facility. The study included analysis of potential relocation sites and concept cost estimates of the top three options for renovating or building a new facility. The project included a community process that sought public feedback on the existing center, program needs, and site selection. As part of the public process the study team convened a Community Advisory Committee (CAC) comprised of dedicated users of the current Nazzaro Center and members of other community groups affiliated with the Nazzaro. The CAC met several times throughout the study, a public meeting was held in the fall of 2018, and two different surveys were issued to the larger North End community at different points during the study.

The existing building assessment showed that the Nazzaro Center is in moderately good condition, needing upgrades and repairs in specific areas of the interiors, envelope, structure, and building systems. However the building is undersized for the current and desired programs. In particular, the size of the existing gymnasium is a severe constraint. Renovation options for the building would not be able to “find” significantly more space in the building due

to its dimensional constraints. The building has some historic character and is well-liked in the community but carries no official historic designation.

The programming process with BCYF and the community revealed that, while the existing center is well-used, there is demand for both more space and more programs. The team developed three versions of the program: an option to “right-size” existing spaces (e.g. the gym) without adding new ones; an “ideal” program including everything on the community’s wish list; and a middle option included adding key program spaces and right-sizing others. This middle option became the basis for the site test fits.

Through the site analysis phase, the team determined whether the program would fit each site and weighed the pros and cons of each, including location, community reaction, traffic patterns, available land, regulatory processes and constraints, sea level rise vulnerability, and potential for public-private development partnership. Together with PFD, BPDA, the Housing Innovation Lab, and the Mayor’s Office, three sites were selected for further study and concept pricing.

The final recommendation of the study is to proceed with a new community center on the site adjacent to the existing Mirabella Pool.

Section 1

Process

1.1 Project Team

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1.2 Project Schedule + Methodology

PHASE 1	PHASE 2	PHASE 3	PHASE 4
Existing Conditions Assessment & Programming Requirements	Draft Program	Preliminary Site Selection Study	Concept Layouts and Cost Estimates
1.1 Overview & Site	2.1 Spatial Requirements	3.1 Review of Surrounding Potential Properties Coordinating with City/BDPA Property Information, Current Properties For Sale and Neighborhood Input	4.1 Concept Layout Options (up to 3)
1.2 Interior	2.2 Draft Organizational Options	3.2 Analysis of Draft List of Potential Properties for Program and Site Viability	4.2 Sustainability Review with LEED checklist
1.3 Exterior	2.3 Community Outreach– Survey Results & Analysis	3.3 Short List of Sites For Review: Existing Site + 2 or 3 Potential Sites; Program Test Fit, Identify Development Issues; Property Cost and Construction	4.3 Community Review (Public Meeting #3)
1.4 HVAC, Plumbing, Electrical, Fire Protection Analysis	2.5 Draft Program Recommendations	3.4 Possible Public/Private Partnership, Mixed Use Analysis, Workshop with Housing Innovation Lab	4.4 HVAC, Plumbing, Electrical, Fire Protection Concepts
1.5 Structural Analysis	2.5 Community Review of Draft Program and Preliminary Site Selection Discussion (Public Meeting #2)	3.5 Deliverable: Site Analysis & Selection Report	4.5 Structural Concepts
1.6 Community Outreach– Interactive Web Survey	2.6 Recommended Renovations, Upgrades, New Construction	3.6 Phase 3 City of Boston Review: OBM/MOPFD/BCYF	4.6 Cost Estimates of Layout Options
1.7 BYCF Goals and Objectives	2.7 Deliverable: Draft Program		4.7 Deliverable: Concept Layouts for Short-Listed Sites; Cost Estimate for Each Concept
1.8 Community Goals and Objectives (Public Meeting #1)	2.8 Phase 2 City of Boston Review: PFD/BCYF		4.8 Phase 4 City of Boston Review: OBM/MOPFD/BCYF
1.9 Deliverable: Existing Conditions Report			
1.10 Phase 1 City of Boston Review: PFD/BCYF			
			PHASE 5
			Final Report & Presentation
			5.1 Final Draft Report
			5.2 Community Review of Recommendations
			5.3 Final Report
			5.4 Phase 5 City of Boston Review of Report: OBM/MOPFD/BCYF
			5.5 Public Presentation of Study (Public Meeting #4)

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Section 2



Existing Conditions Assessment



2.1 Neighborhood + Site Overview

THE NORTH END

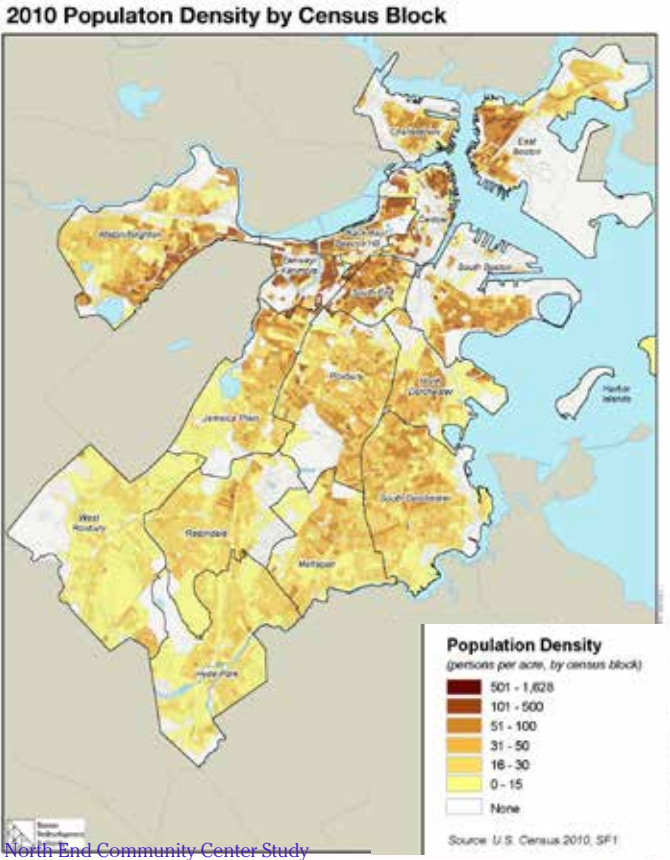
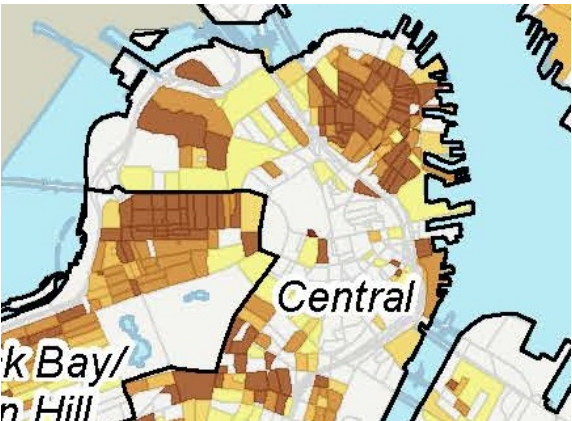
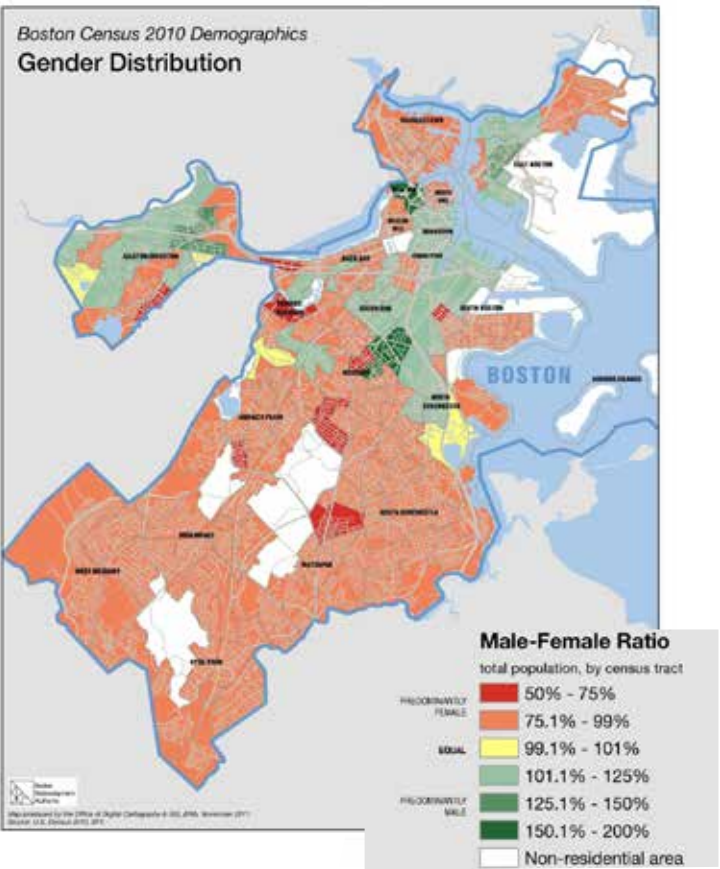
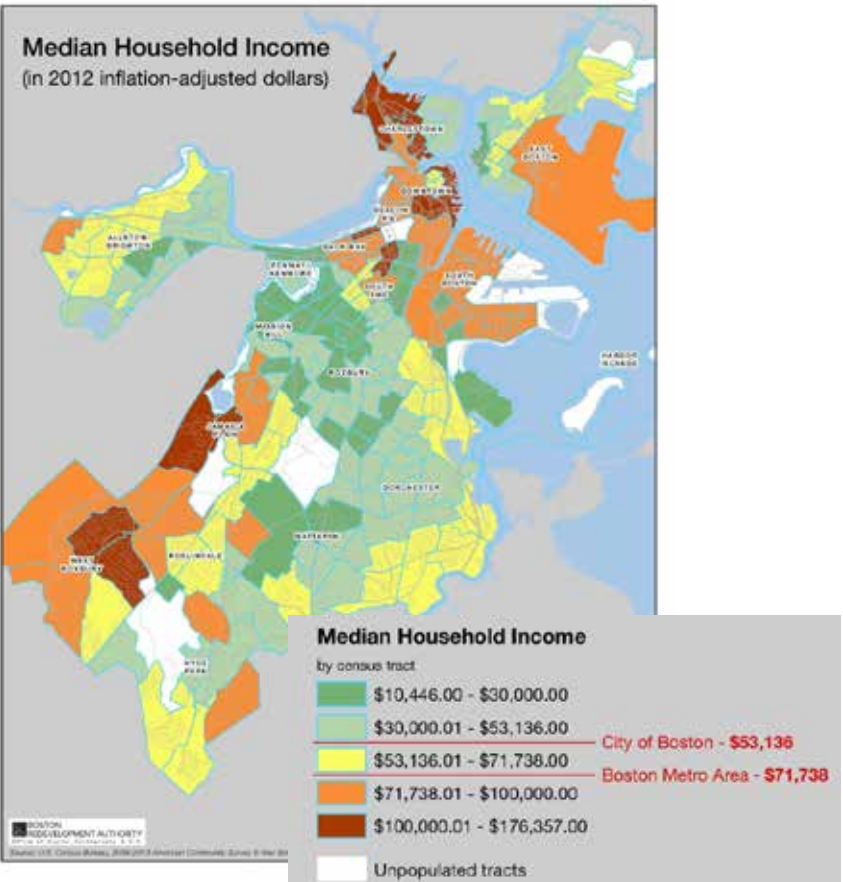
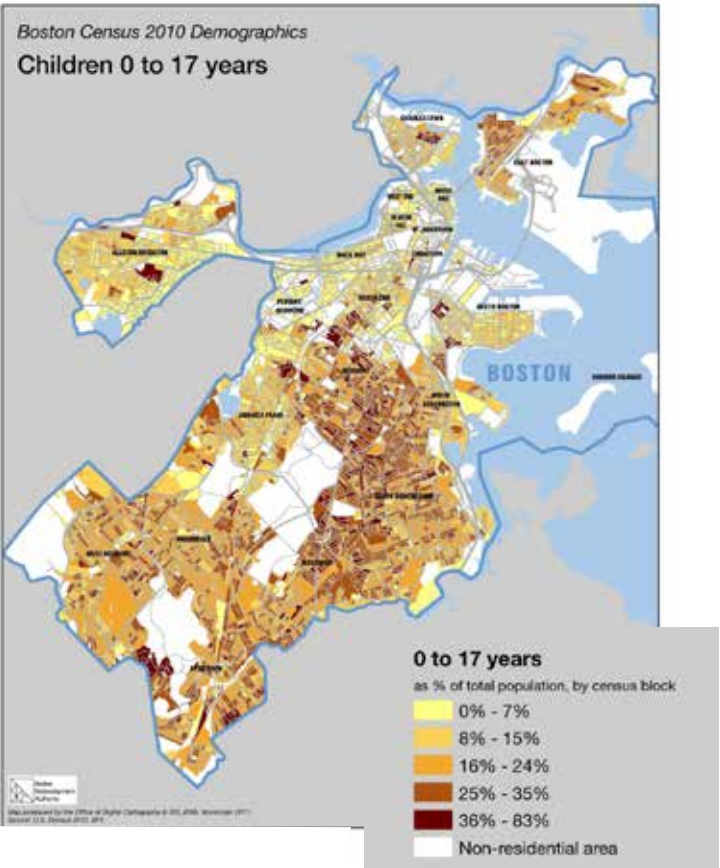
The North End has been settled since the 1630s, and was home to Colonial-era figures such as Cotton Mather and Paul Revere. In the 19th century the neighborhood became one of the densest in Boston, and was home to Irish, European Jewish, and Italian immigrants. By the early 20th century the neighborhood was predominantly Italian-American, a cultural identity that persists today even as the neighborhood has become more diverse.

Today, the neighborhood remains very dense, with most residents living in apartments and condominiums. According to census data, the neighborhood is predominantly female.

The urban fabric of mid-rise brick and stone buildings was mostly built in the late 19th century. Construction of the Sumner and Callahan Tunnels and the Central Artery in first half of the 19th century caused the neighborhood's borders to contract and many buildings to be demolished. Until the Central Artery was removed in the early 2000s, the neighborhood was relatively isolated from the rest of the city, which contributed to its strong identity. The north end has relatively few open green spaces but does have waterfront access via the Harborwalk.

(Sources: Wikipedia, 2010 Boston Census)

NEIGHBORHOOD DEMOGRAPHICS



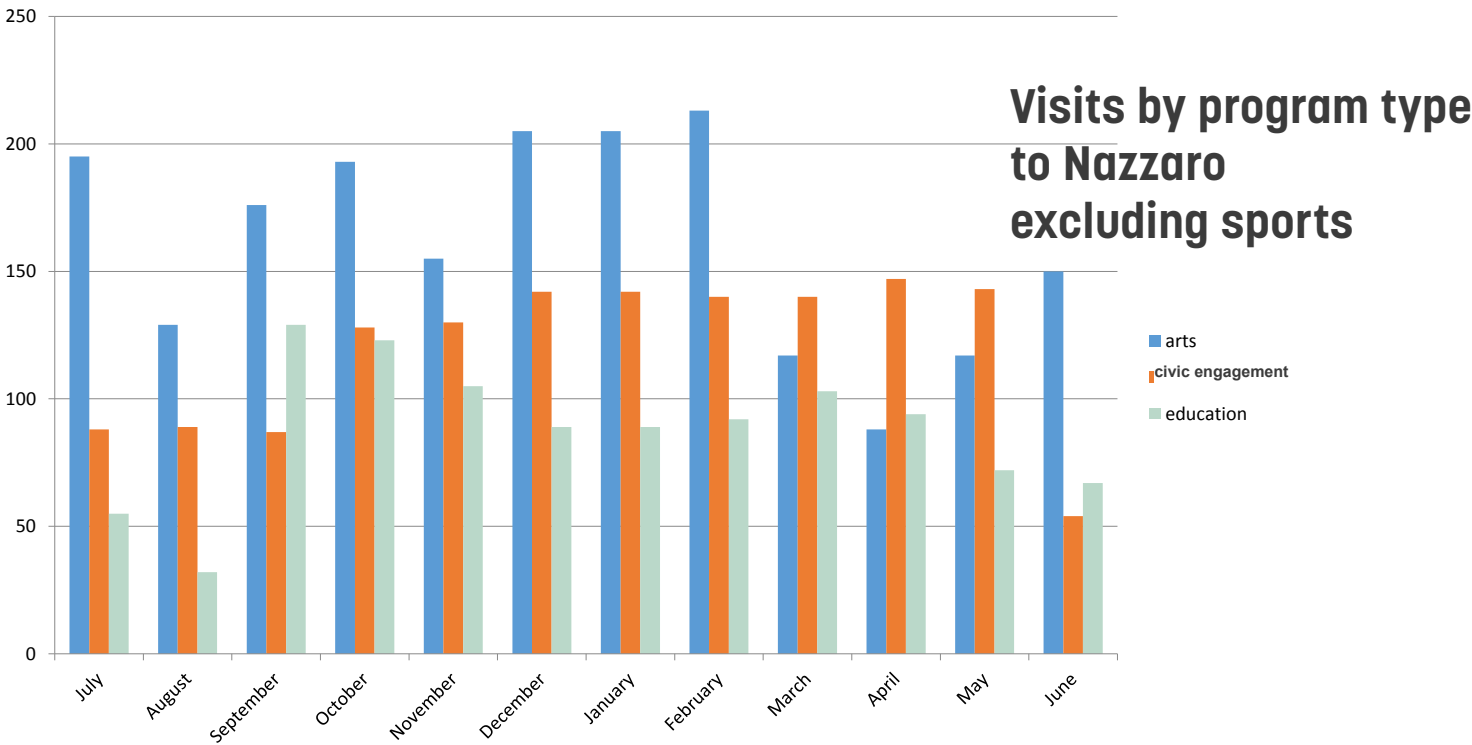
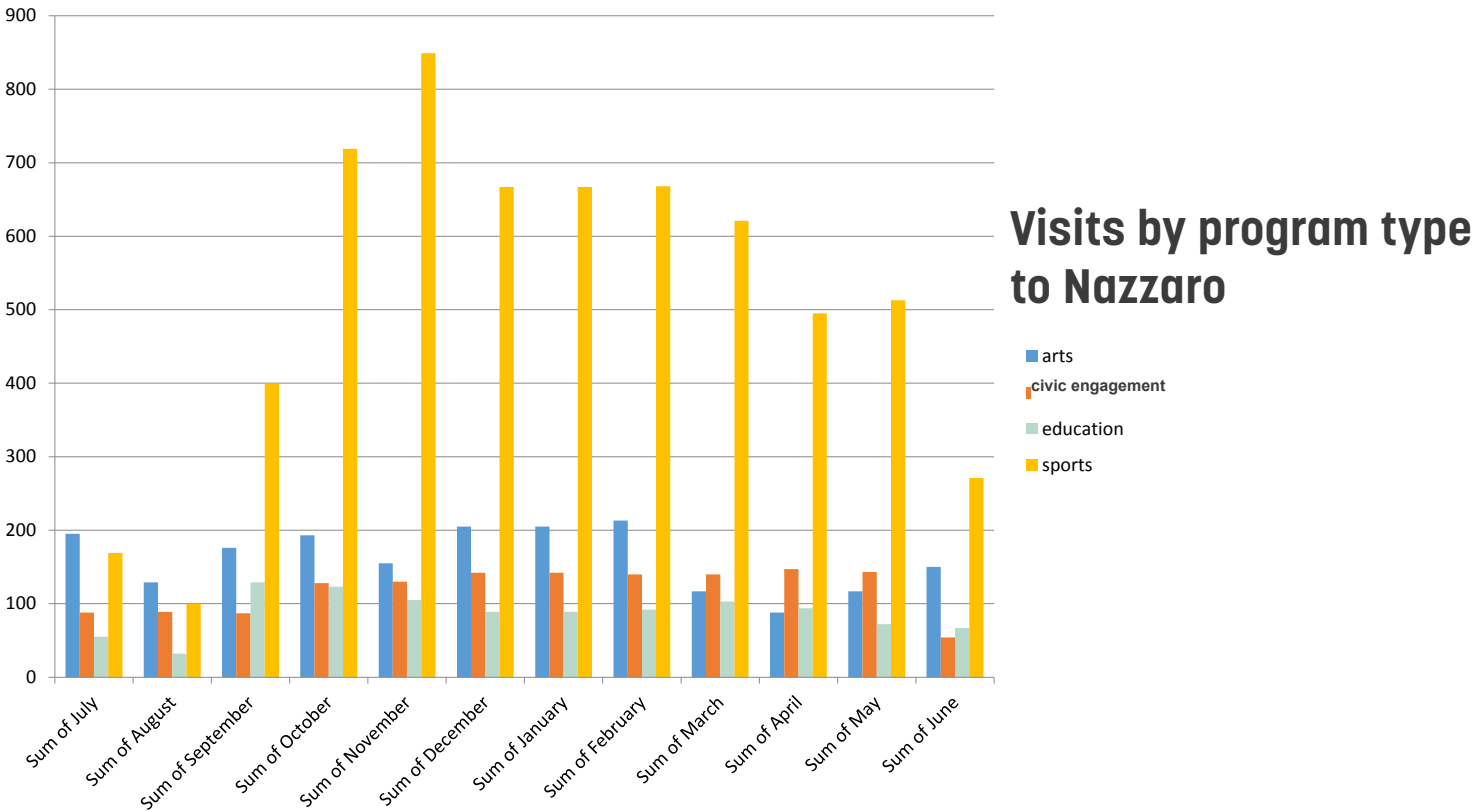
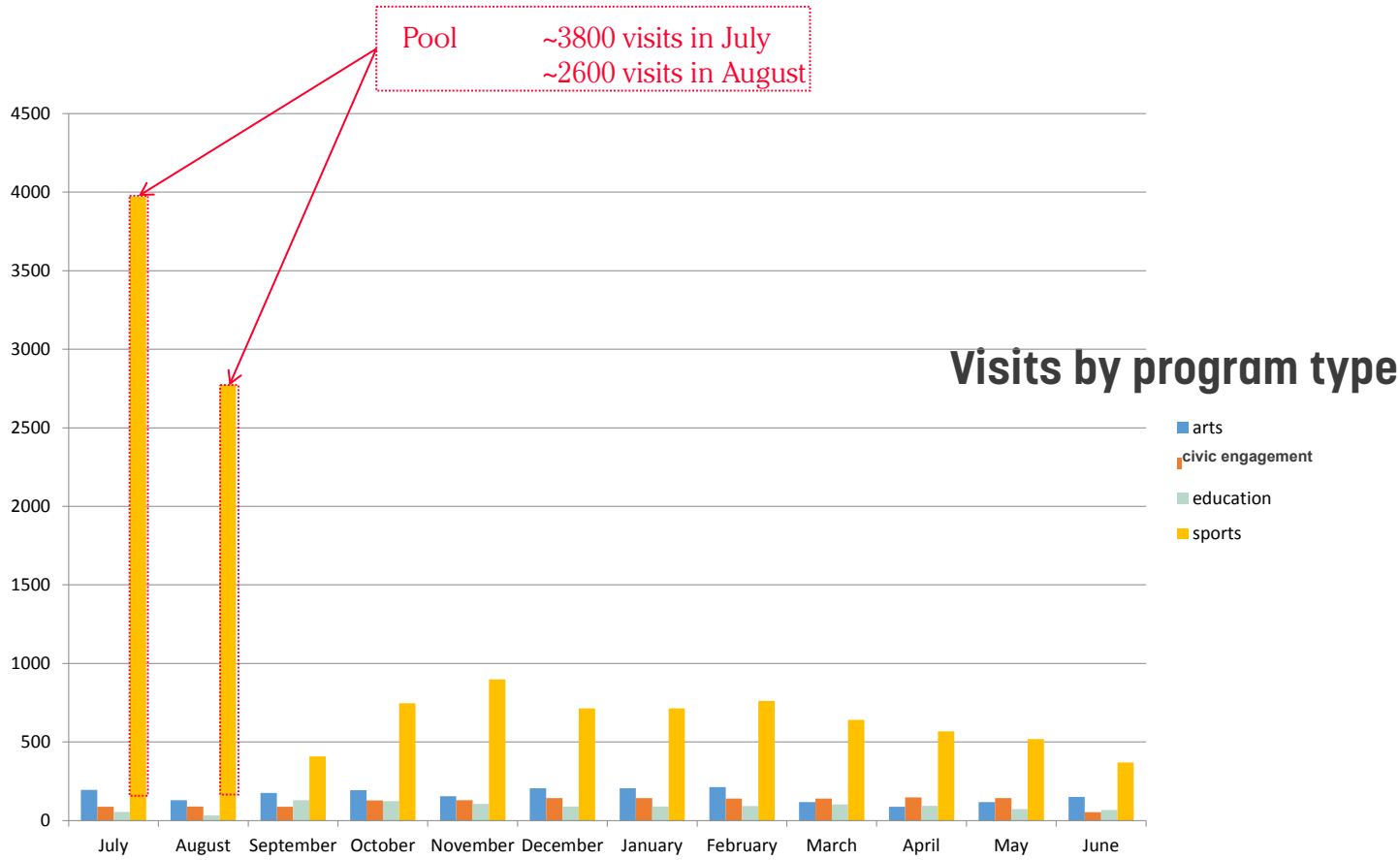
BCYF IN THE NORTH END

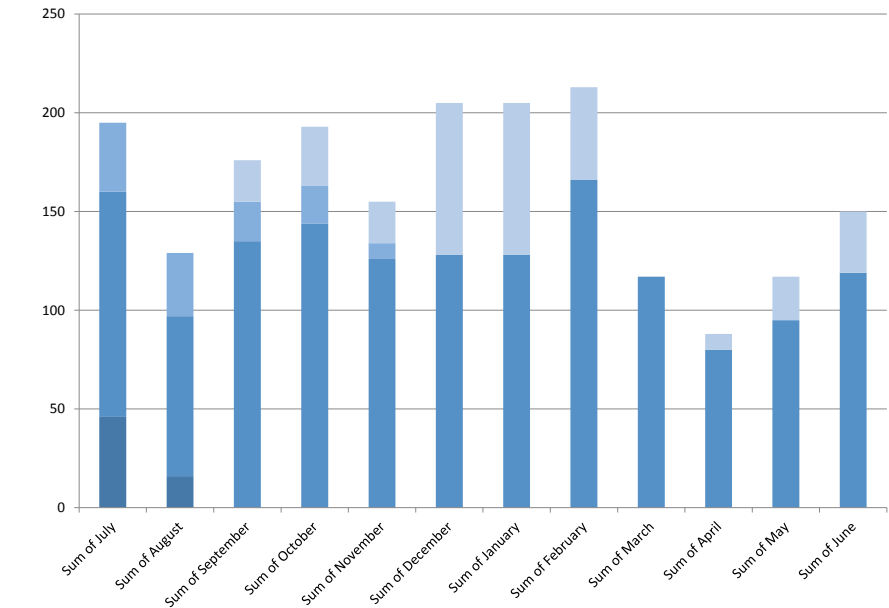
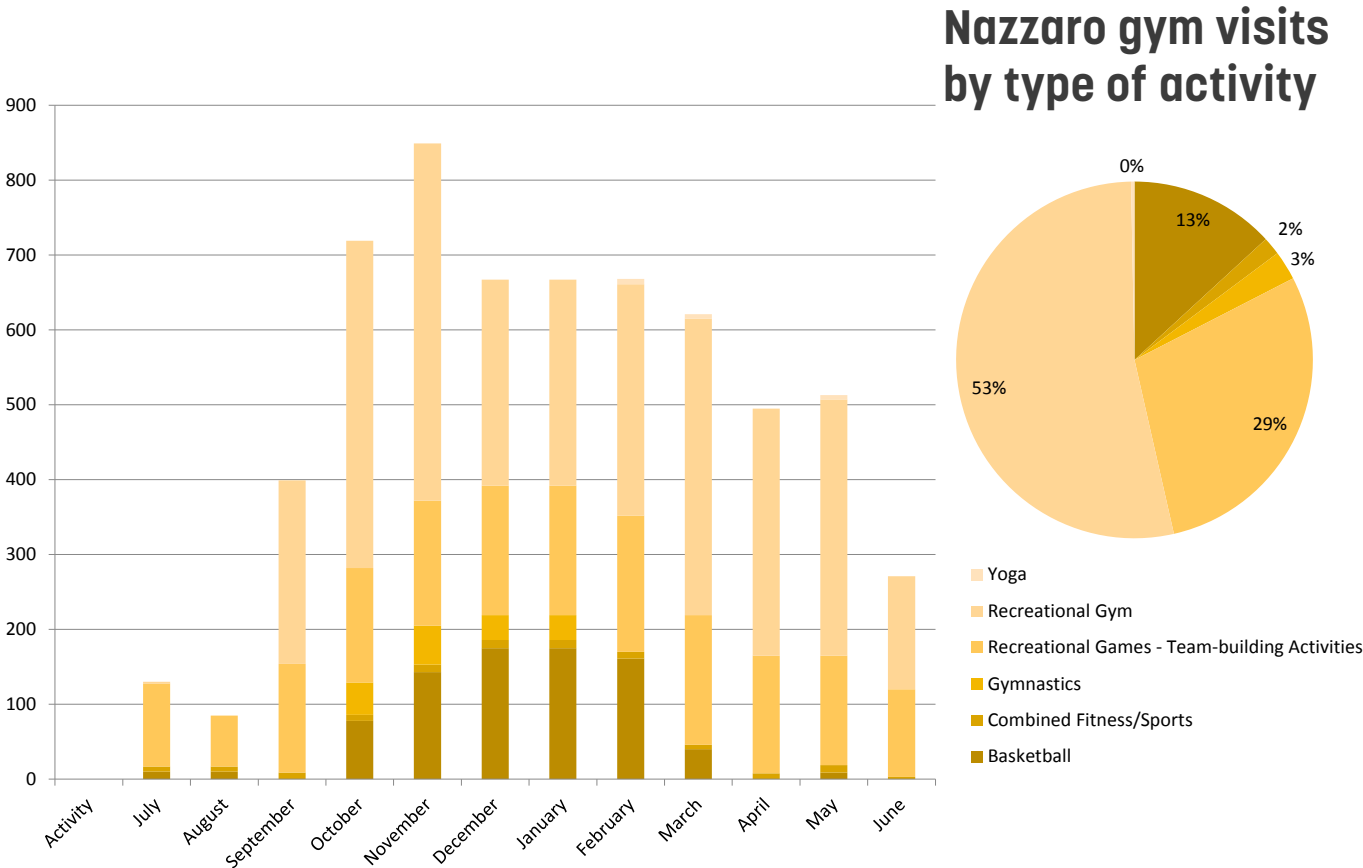
Boston Centers for Youth and Families (BCYF) is Boston’s largest youth and human services agency. BCYF describes its mission as follows:

“We offer affordable programs for residents of all ages across the City. Our goal is to provide quality programs that enrich the lives of residents and meet the needs of the community.”

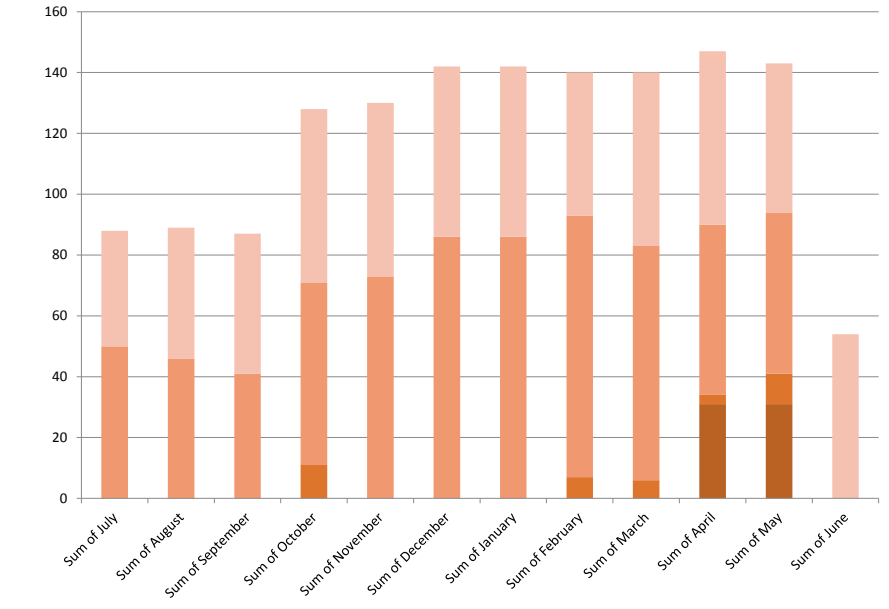
In the North End, many of BCYF’s programs focus on providing after-school and camp care for children and sports and fitness programs for area schools. However, the North End staff operate a diverse range of programming out of a small facility.

The graphs on the following pages show BCYF’s program and visit data from Fiscal Year 2016.

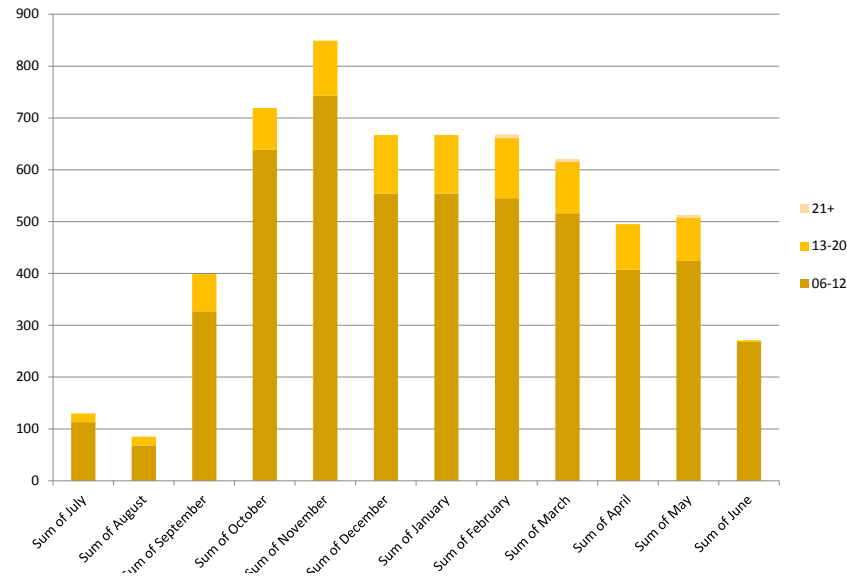




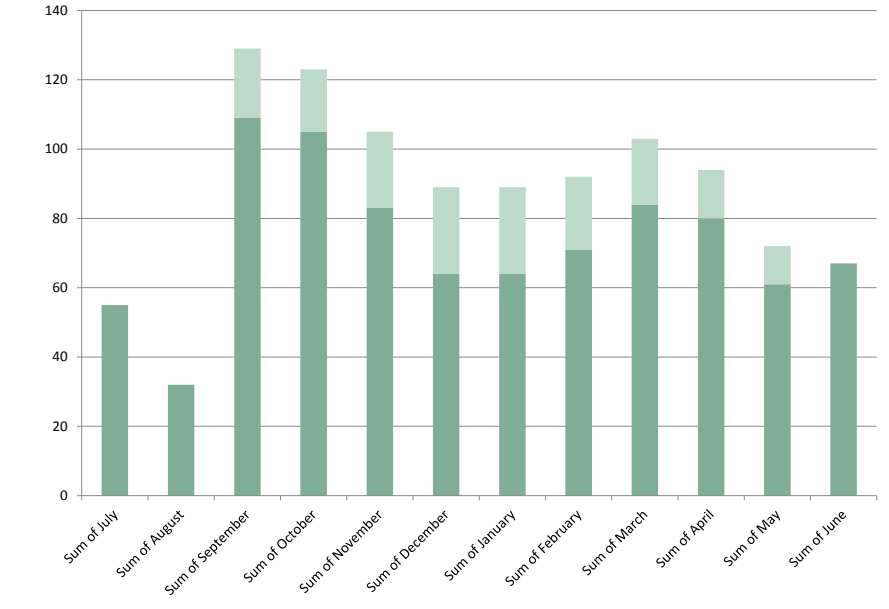
Arts visits by age of visitor



Civic engagement visits by age of visitor



Sports visits by age of visitor



Education visits by age of visitor

2.2 Existing Building Overview

OVERVIEW

BCYF operates two facilities in the North End: the Nazzaro Center and the Mirabella Pool. This assessment focuses on the Nazzaro Center.

Nazzaro Community Center

The Nazzaro Center, located at 30-32 North Bennet Street, houses most of BCYF’s North End programs. According to BCYF, the

Center is used as follows:
Monday through Friday
10am - 2pm Seniors, Toddlers
2pm - 5pm After School Programs
5pm - 9pm Teen Programs
Youth and Adult Sports Leagues
Open Gym
Community Meetings
Highest demand is from 2-9pm.



MAIN ENTRANCE



photo: Matt Conti (NorthEndWaterfront.com)

The building was built in 1907 as the North Bennet Street Bath House and Gymnasium. It was built along with three similar facilities to serve city residents who did not have bathtubs or showers in their apartments. The gymnasium was an original part of the program as well. As late as 1976, when the building was converted to recreational use, a reported 900 households in the North End did not have access to bathing facilities.

The architect of the Nazzaro Center was Maginnis, Walsh & Sullivan. The building has a cast-iron frame and masonry exterior in a Renaissance-revival style. Although a description of the building is included in the inventory of historic assets maintained by the Massachusetts Historic Commission (a copy of which is included in appendix section A.2 of this report), the building is not protected by local, state, or federal

Landmark status. The building’s most recent renovation was carried out by the City of Boston in 2004 to upgrade interior finishes, drywall partitions, and mechanical systems.

Mirabella Pool

BCYF also operates the Mirabella Pool at 475 Commercial Street. The facility consists of a single-story CMU bath house built in 1999; an outdoor lap pool; an outdoor deep pool (without diving boards); and a publicly-accessible splash pad. The pool is open seasonally.

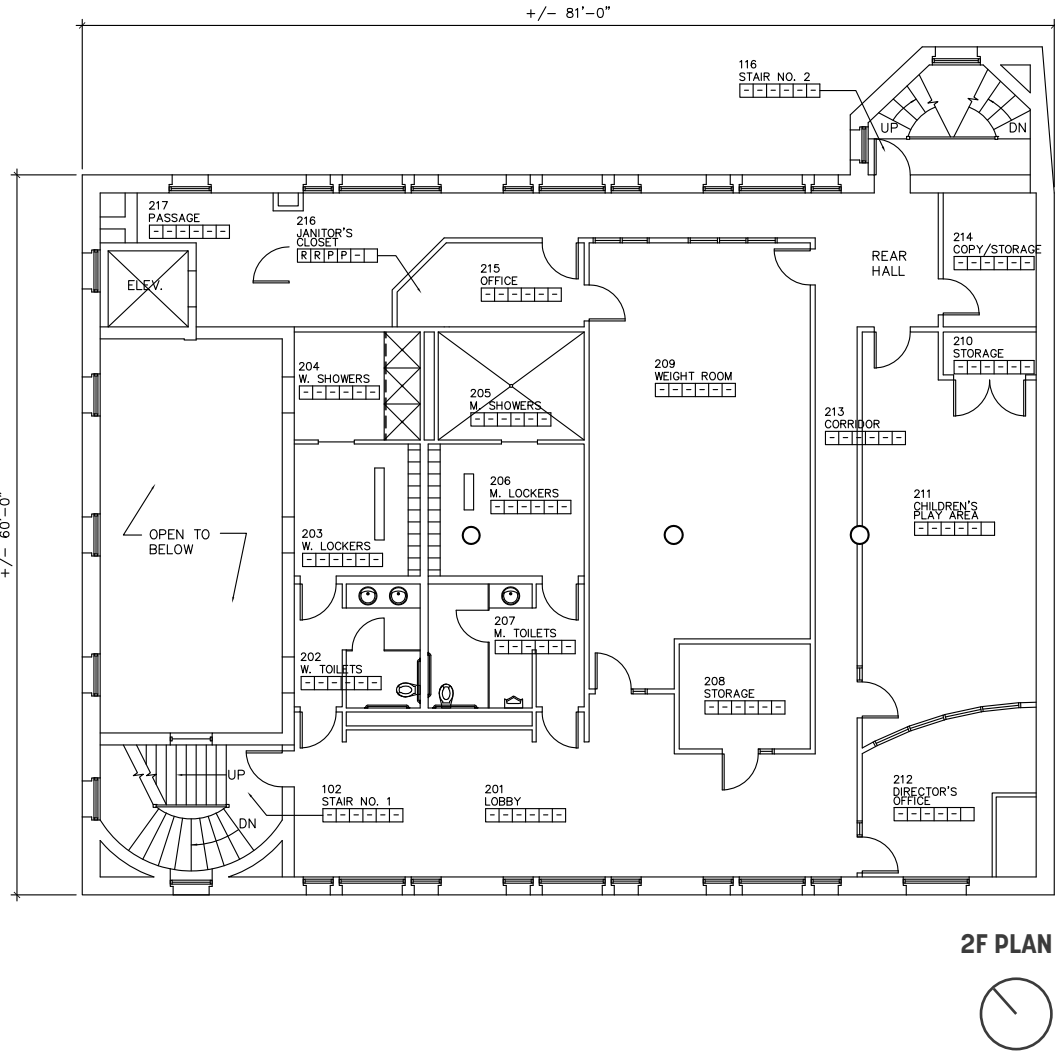
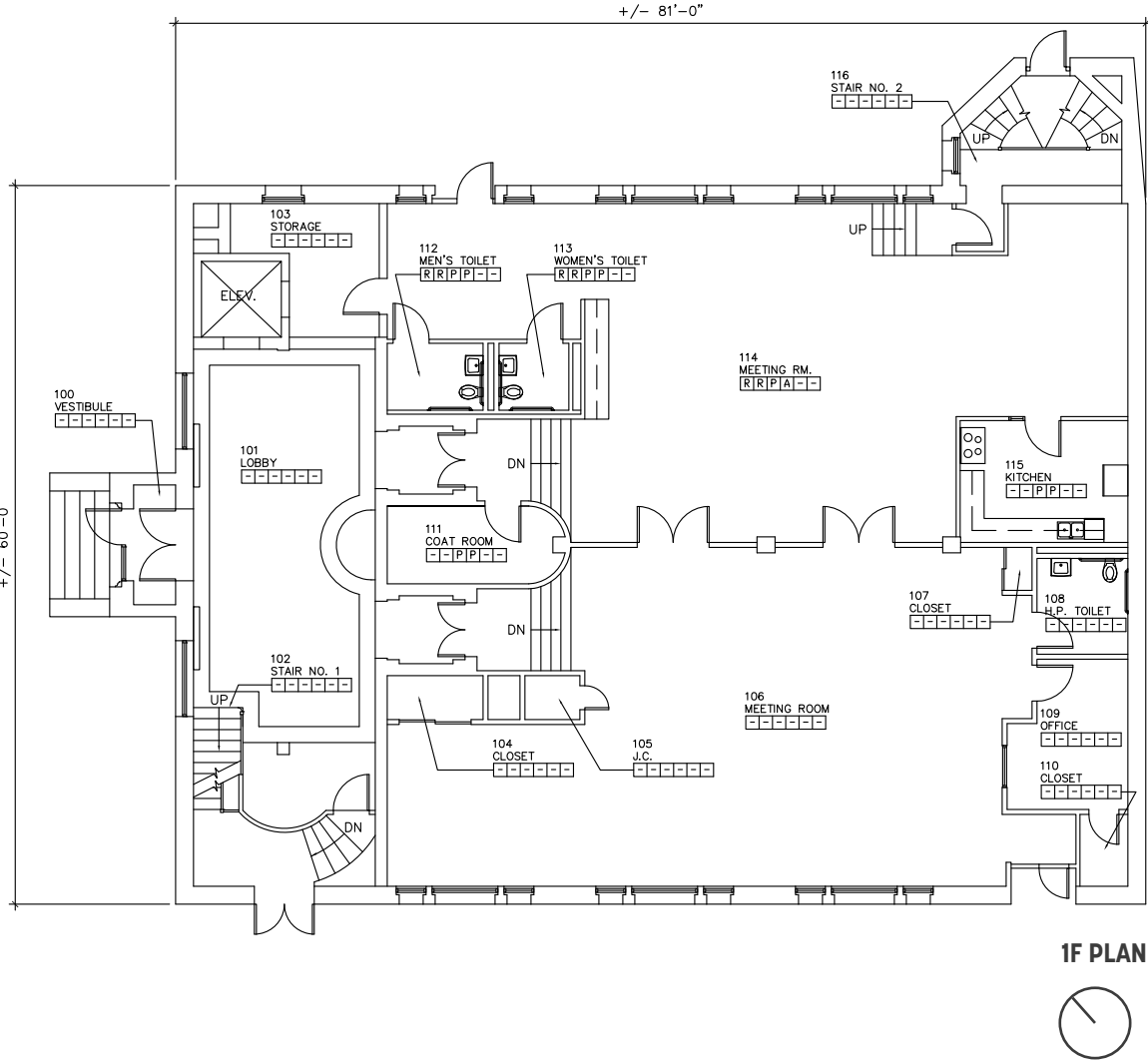
This study does not review the existing conditions of the pool. Depending on the final outcome of the site selection process, this study may recommend preserving or replacing the entire pool or portions thereof.

2.3 Building Condition Assessment

EXISTING DRAWINGS

All drawings courtesy of City of Boston
Public Facilities Department.

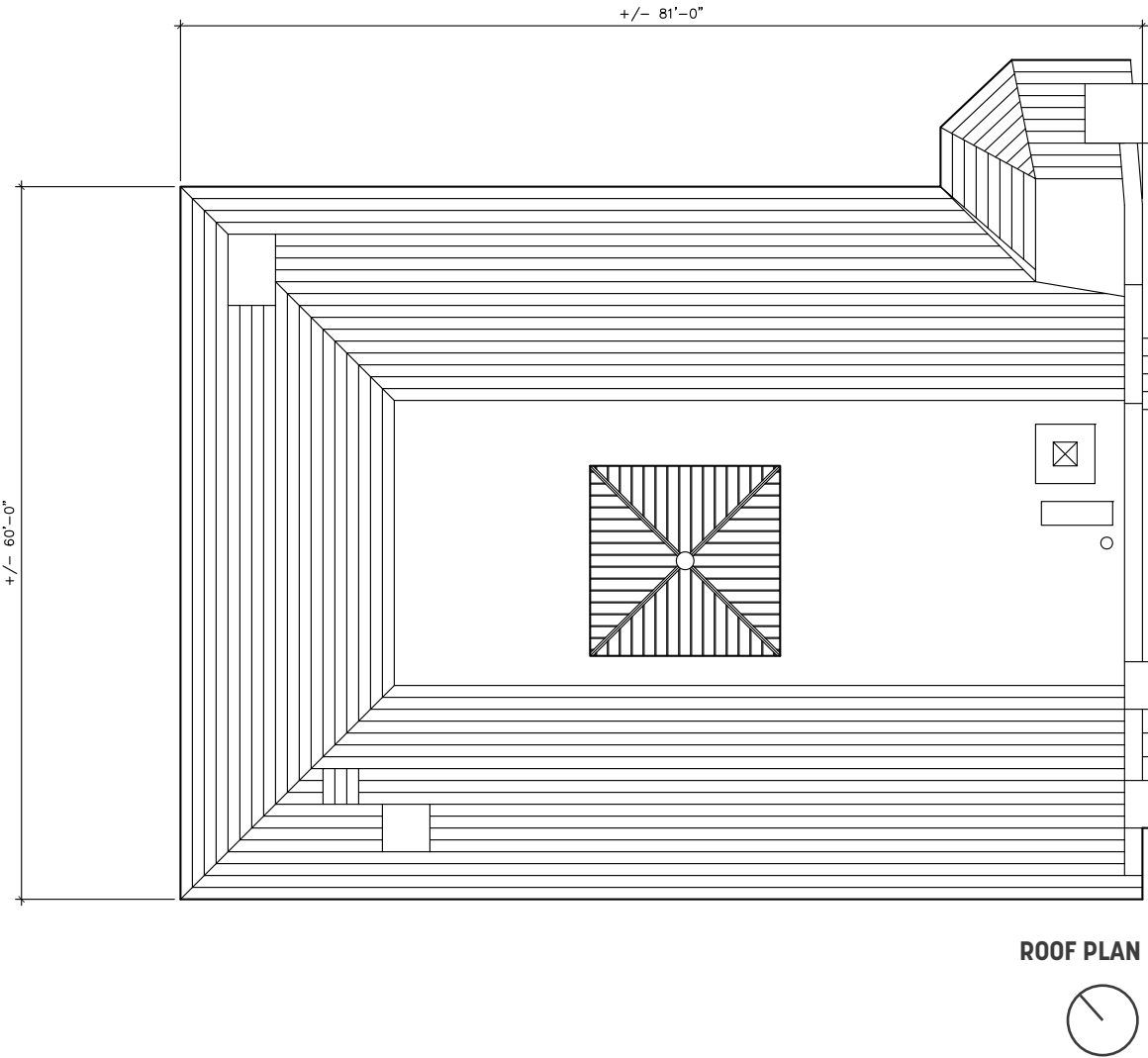
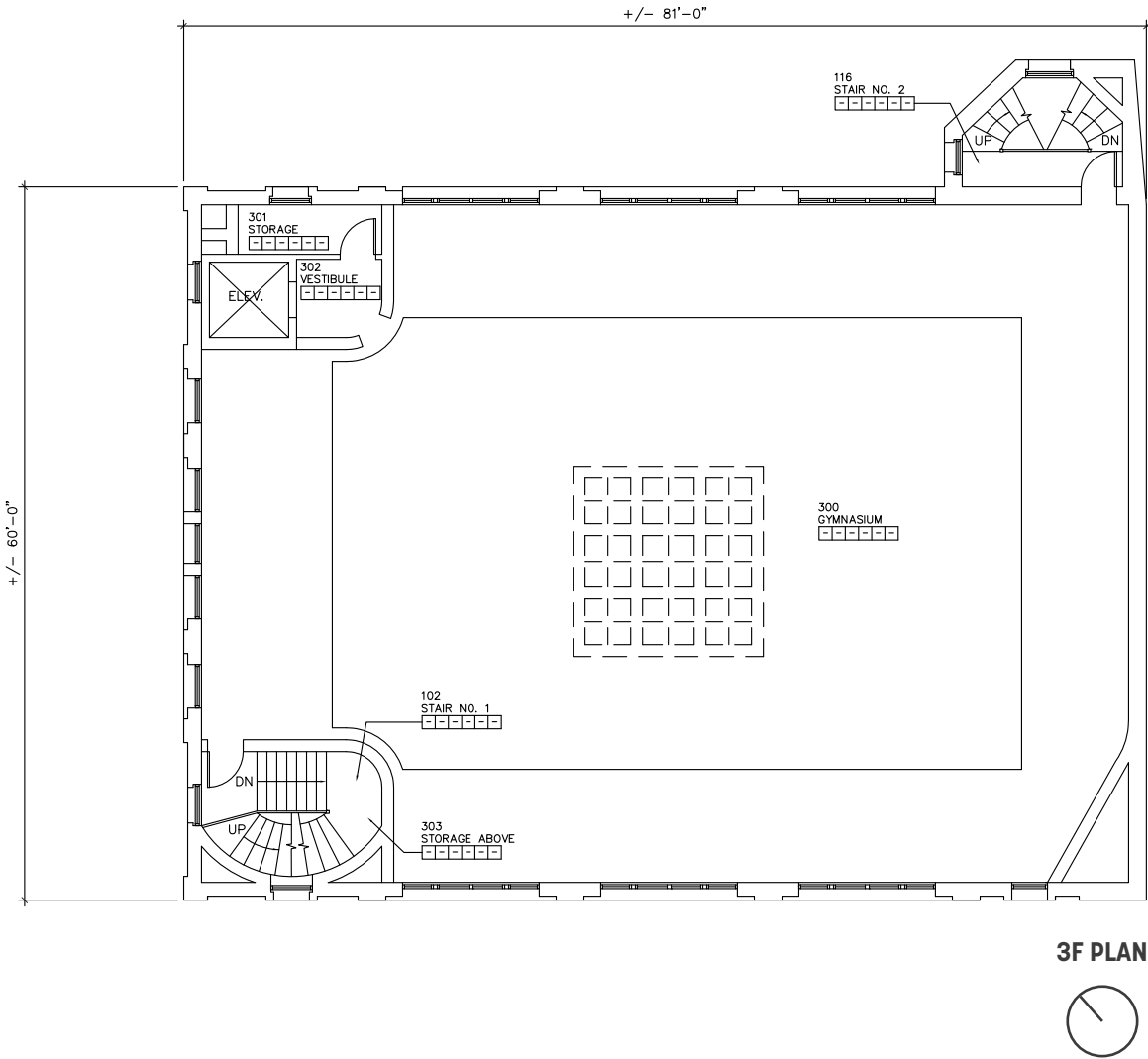
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EXISTING DRAWINGS

All drawings courtesy of City of Boston
Public Facilities Department.

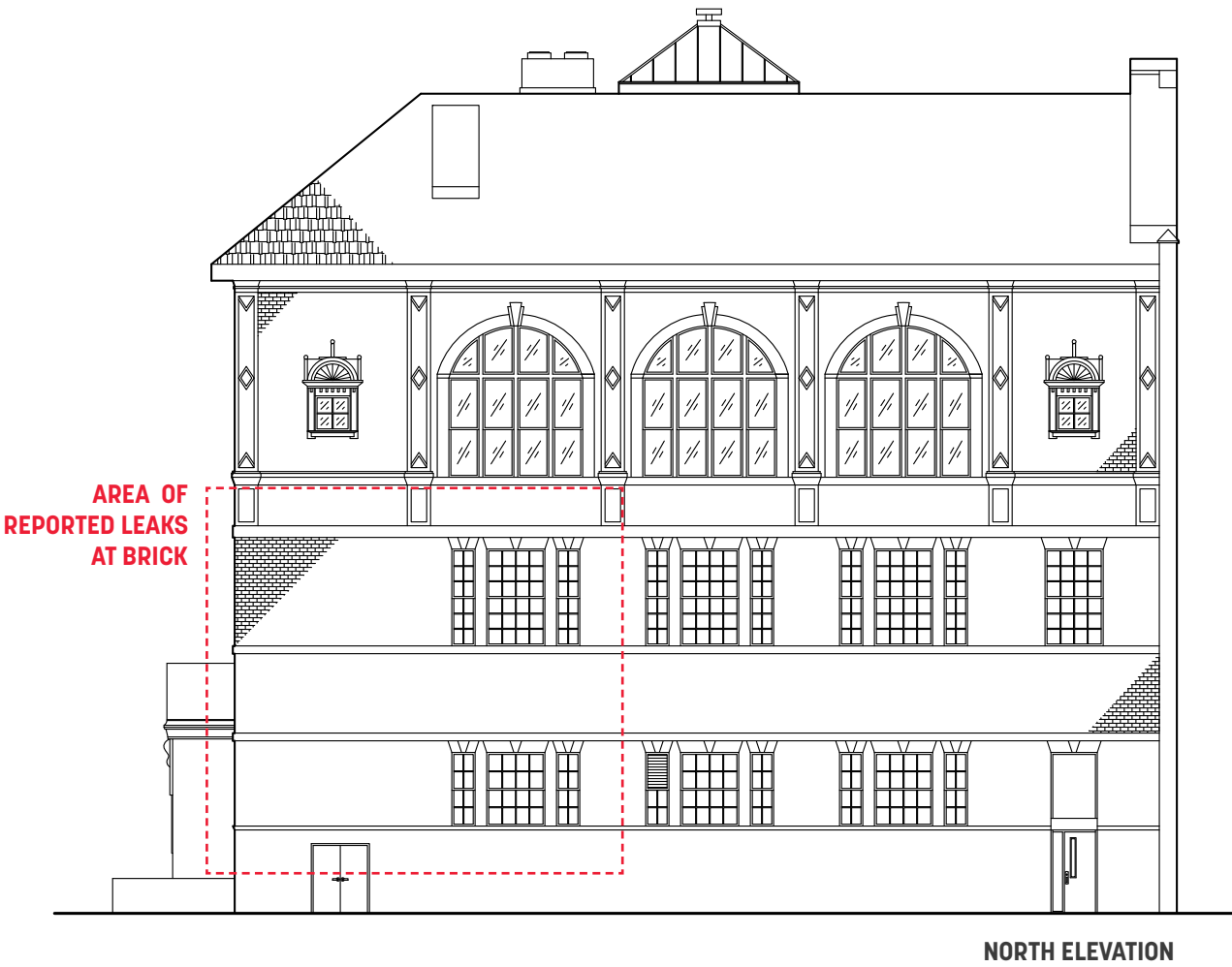
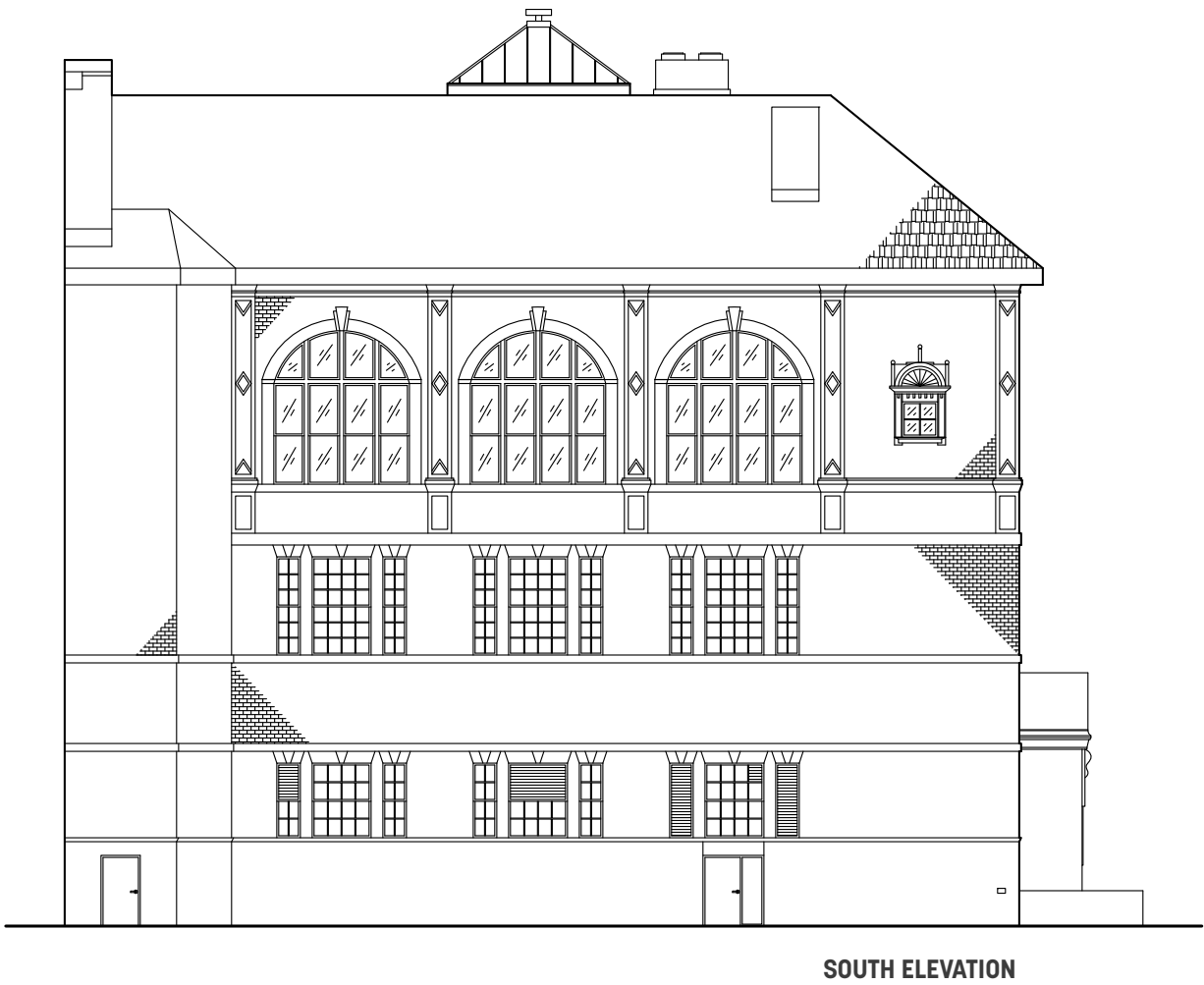
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EXISTING DRAWINGS

All drawings courtesy of City of Boston
Public Facilities Department.

Scale: 1/16" = 1'-0"



EXISTING CONDITIONS: EXTERIOR

The following represents observations and opinions about the Nazzaro Center’s interior condition based on site visits on 12 June and 3 August, 2017 and an examination of the most recent CAD drawings provided by the City of Boston.

The masonry walls of the building are generally in good condition. The walls are primarily brick with a limestone base and banding at the third floor, carved limestone ornament around windows, and granite steps at the front entrance. The historic character of the building’s architecture and ornament have generally been preserved. Two windows on the front of the building, however, have been filled in with

mismatched brick.

The building’s windows at the lower levels have been replaced with modern metal-clad windows. The gymnasium windows appear to be original. Some of the windows are protected with expanded metal covers. In a recent renovation, mechanical louvers were inserted into existing masonry openings to serve new systems.

BCYF staff report leaking on the exterior masonry walls along North Bennet Street during wind-driven rain. The observed area of leaking is the brick at the first and second floors in the first two structural bays (see elevation).



AERIAL VIEW: GOOGLE MAPS

Roof

The roof overhangs several feet beyond the perimeter of the walls. Rafter extensions are clad in copper in good condition. Copper gutters are visible at the perimeter. The roof of the vestibule is also copper.

The roof was not accessible on our visits, but satellite imagery shows that the pitched portions of the roof have slate shingles. The top, low-slope portion of the roof appears to have a rubber membrane with few visible patches. Anecdotally from BCYF staff, the roof is in good repair. Some small rooftop equipment is located on the roof as well as the original copper-clad skylight.



NORTH BENNET ST. FACADE



MECHANICAL VENTS AT COURTYARD SIDE



HIGH WINDOWS AT COURTYARD SIDE



MAIN ENTRANCE

Outdoor Spaces

A small courtyard to the south of the building is part of the Nazzaro Center parcel. This space is enclosed by an iron fence and is well-used by the community for gardening, socializing, and resting in the shade of mature trees. A mural decorates one of the walls. This space also provides at-grade access via a side door to the adult program room.

A prefabricated shed in the courtyard is used for storing maintenance equipment.

The forecourt of the building is used for staff parking, although it is technically part of Polcari Playground, a Boston Parks and Recreation Facility. Polcari Playground contains an outdoor basketball court, which is used recreationally in the community as well as for BCYF programs.

Brick pavers, ornamental fencing, and canopy trees contribute to the quality of these spaces as an urban oasis.



FORECOURT



MURAL AND ACCESSIBLE DOOR AT COURTYARD SIDE



COURTYARD



COURTYARD AND STORAGE SHED

EXISTING CONDITIONS: INTERIOR

The following represents observations and opinions about the Nazzaro Center’s interior condition, code compliance, and accessibility based on site visits on 12 June, 31 July, and 3 August 2017 and an examination of the most recent CAD drawings provided by the City of Boston.

Basement

Plans of the basement are not available. The basement appears to be smaller than the first floor above.

Access and Egress

The basement is reached by a cast-iron stair. This stair is steeper and the handrails are lower than currently allowable by code.

There does not appear to be a direct exit to the outdoors from the basement.

Finishes

The floor of the basement is exposed slab. There are significant areas of water infiltration through walls and possibly through seepage from below through the floor slab. Standing water was observed. The worst water infiltration through walls and slab is located at the northeast corner of the basement, where the utility entrances are.

The walls are painted exposed structure with some painted CMU partitions. These



BASEMENT

partitions are nonstructural and do not extend to the ceiling. Paint is in poor condition, probably due to water.

Ceilings are exposed structure with some areas of unpainted gypsum board. Gypsum board appears to have been added to protect occupants from spalling concrete.

Steam and water pipes - some in use, some abandoned in place - run throughout the space. Insulation on some of these pipes is of the age and type likely to contain asbestos.

Lighting

Lighting is via fluorescent pendant fixtures and is adequate for the uses.

Uses

In addition to mechanical and plumbing equipment, the basement is being used for storage. Items are being stored in plastic bags and in piles. No shelving is provided. Space is adequate for the items being stored, but the lack of shelving and damp conditions are not ideal for storage. The items being stored looked to mostly be seasonal decorations and youth program supplies. Loose bricks were observed piled in one of the storage rooms.



BASEMENT STAIR



BASEMENT

First Floor

The first floor consists of the vestibule and lobby, the two main spaces—adults’ and children’s rooms—and single-user bathrooms, closets, and an office to serve the main spaces.

Access and Egress

The main entrance to the building is up several steps and is not wheelchair-accessible. Entry is through a vestibule and into the lobby. Once inside the lobby, there is an elevator leading to the upper floors. The majority of the first floor, however, is several steps down from the lobby, at approximately the level of exterior finish grade. Wheelchair access to these first-floor spaces is via a side door from the garden.

An ornamental stair leads from the lobby to the upper floors. A shallow set of stairs leads down from the lobby into the two main rooms. This stair has handrails but lacks handrail extensions.

The two main spaces on the ground floor have second means of egress directly to the outdoors. The egress door from the children’s room is difficult to open, but both doors do have the required hardware.

The adult room and the children’s room can be combined into a single space by opening doors in the central wall into the adult room.



LOBBY



Finishes

The lobby and vestibule floor is a marble mosaic tile in good condition. Loose walkoff mats are in use. Lobby walls are painted plaster. Original wood trim is in fairly good condition, and wood casework wainscoting and radiator covers have been added in a past renovation. The metal screens on the radiator covers are broken. The lobby is open to a vaulted ceiling in good repair.

Flooring throughout the rest of the first floor is VCT in poor condition, dull and scratched with some broken tiles. The walls are generally painted CMU or plaster and the trim and casework is not original. In some locations, there is quarry tile on the walls which is falling off.

There is a dropped ACT ceiling in reasonable condition with some cosmetic flaws. Kitchen casework is in good condition with some solid surface and some laminate countertop and laminate cabinetry.

The children’s room includes a wall-hung accordion partition that seems to be in usable condition.

The bathrooms are have painted CMU walls



CHILDREN’S ROOM

and tile floors. They are adequately sized and appear to have the correct accessories and fixtures for ADA compliance. Doors and frames are painted hollow metal.

Lighting
Lighting is direct fluorescent recessed into the ACT ceiling grid with frosted diffusers. Light levels are adequate. Lighting is not dimmable.

Furniture & Equipment
Furniture in the adults' room consists of lightweight banquet tables and padded chairs. The furniture is in usable condition but does not harmonize with the room. The kitchen includes high-end residential appliances and a range hood.

The children's room furniture is functional and appropriate to the uses, with stacking chairs and laminate tables. Wooden bookshelves are well-used but still solid. A reading nook has been created with rugs and pillows but there is no soft furniture in this room.

Uses
The first floor spaces house a broad range of programming and are used in a flexible way. These spaces, when combined, are also used for most of the community meetings in the North End.



ADULTS' ROOM

Second Floor
The second floor includes the weights and fitness area, the teen room, offices, and locker rooms. The lobby is a double-height space that extends into the second floor. The wide corridor at the north side of the floor is used for arts and drama activities.

Access and Egress
Access is via the main stair or the elevator. There is an additional egress stair serving this level in the southwest corner of the building.

Finishes
Most of the second floor is finished in VCT of poor quality. The walls are painted. Doors and frames are painted hollow metal.

The circulation space has no ceiling and is open to the structure above, which is visually interesting but has peeling paint.

The weight room has loose-laid rubber tile flooring in poor condition and an ACT ceiling. Wall paint in this space is chipping. Mirrors are small and infrequent.

The locker rooms and bathrooms have porcelain tile walls, solid surface counter tops, and plastic partitions, all in good condition.



TEEN ROOM



CORRIDOR

A painted interior storefront partition in good condition separates the teen room and director’s office.

Lighting
Lighting on this level is provided by suspended up/down fluorescent fixtures in good condition. There is excellent natural light in the circulation spaces from the large windows. Bathroom lighting is from recessed fixtures and is pleasant.

Furniture & Equipment
The weight room equipment is old and worn. Teen room furniture is relatively new and in good condition.

Uses
With the exception of the circulation space (which is used by camps and child care programs as overflow space for arts and drama activities as noted above), each space on the second floor has a single dedicated use. Anecdotally, the weight room and locker rooms are not heavily used because they are so small. The offices on this floor are small and cramped.



WEIGHT ROOM



WOMEN’S BATHROOM & LOCKER ROOM



OFFICE



GYMNASIUM

Third Floor
The third floor is entirely occupied by the gym. A running track once ran along the perimeter of the room but no longer exists.

Access and Egress
Access is via the main stair or the elevator. There is an additional egress stair serving this level in the southwest corner of the building.

Finishes
The gym floor is a traditional sprung wood athletic floor and is in good condition. Walls are painted. The ceiling and exposed structure suffers from peeling paint.

Lighting
Lighting is provided by suspended fixtures and by the large skylight and windows on both sides. The natural light in the space is ample, pleasant, and balanced. Ceiling fans are provided for air circulation.

Furniture & Equipment
Basketball backboards, divider curtain, time clock, and seating are all in serviceable condition.

Uses
Storage space appears adequate in the storage room adjacent to the elevator. The

gym is heavily used by several programs and demographics (refer to the usage data, pages 17 and 18 of this report). The dimensions of the gym, and the fact that the stair and elevator enclosures intrude into the runoff area, make this space unsuitable for competition play.

Vertical Circulation

The elevator is small but in good condition.

The main stair is an iron stair with outdated rise:run and handrail dimensions. The primary code concern is that the stairwell enclosure is open to the double-height lobby via large windows infilled with decorative iron grilles. This likely does not provide the correct fire separation.

The rear stair in the southwest corner of the building provides emergency egress and is also used to access the attic. This is also a wrought-iron stair with outdated rise:run and handrail dimensions. The attic access ladder is a vertical ladder without any cage protection.

Both stairwells are being used for storage.



REAR STAIRWELL



MAIN STAIRWELL





ASSOCIATES Inc.

63 Pleasant Street, Suite 300, Watertown, MA 02472 | Tel (617) 926-9300

EXISTING CONDITIONS: STRUCTURAL

The existing building is a three-story multi-wythe brick structure, with classrooms and offices on the first two floors and a gymnasium on the third floor. According to the listing in the Inventory of Historic Assets of the Commonwealth maintained by The Massachusetts Historical Commission the building was constructed circa 1907. A site visit was carried out on August 3rd, 2017 to evaluate the existing structural condition of the building. The following documents were made available to RSE Associates:

- Architectural floor plans and roof plans dated May 17, 2004
- Massachusetts Cultural Resource Information record

This report presents our findings based on a review of the structural components accessible at the time of the visit and excludes below grade elements such as footings, etc.

1.0 Original Building

The overall condition of the exterior of the structure is good. The exterior brick, stone, and concrete have minimal wear and cracking. There is an area of spalled concrete with exposed, rusted rebar at the west side of the building near grade, photo 1. The exterior multi-wythe brick bearing walls are exposed throughout the building and most are in good condition. There is a significant vertical crack, that goes through brick as well as mortar, at the third floor between the stairwell and the main building, photo 2.

Foundation:

The building has a partial basement that was accessible during the site visit. Concrete foundation walls were visible and it is assumed that these foundation walls are bearing on strip footings. The basement floor is a concrete slab, it is in good condition. There are two 1'-8" wide concrete bearing walls running the width of the building with a series of archways in them. Most of these archways had shear cracks that ranged from hairline to 1/4" wide, photo 3. These walls were otherwise in good condition. The exterior concrete walls had some areas of honeycombing, efflorescence and spalling, the worst being in the utility room, photo 4. There were areas of moisture in the basement, including standing water and dampness on the walls and floor, photo 5.

First Floor Framing:

The first floor framing of this building consists of reinforced concrete slabs spanning to drop beams. The surface of the beams are concrete, but it is unknown whether they are reinforced concrete beams or steel beams encased in concrete. The beams span to concrete bearing walls. The underside of the slab was visible in the basement and there were numerous areas of spalled concrete, the most severe was located under the lobby where the spalled concrete exposed rusted diamond mesh reinforcement. There were cracks in the tile of the lobby floor that lined up with the location of the first floor beams. Many of the dropped beams had been covered with gypsum board, photo 6. Due to the moisture level in the basement, it is assumed that this was done to protect the beams from further exposure and to protect occupants from falling spalled concrete.

Second and Third Floor Framing:

The second and third floor framing is concrete slabs spanning to dropped concrete beams. It is unclear whether these beams are reinforced concrete or steel beams encased in concrete. The concrete beams are spaced at approximately 7'-6" and span to deeper concrete girders, again these could be reinforced concrete or steel beams encased in concrete. The girders span to three concrete columns that run down the center of the building, these columns were exposed on the second floor and measured approximately 1'-6" in diameter. Much of the second floor framing was covered by a dropped ceiling. A ceiling tile was removed and the slab and concrete beam that could be seen were in good condition. The third floor framing was exposed in many places and was in good condition, photo 7. There was an area of spalled concrete adjacent to hvac piping in the rear corner of the building on the underside of the third floor slab, photo 8. Otherwise, on both the second and third floor, the areas of the structure that were exposed appeared sound.

The second floor is open at the lobby area as this is a two story space. There were no signs of distress to the wall and ceiling finishes, in the lobby. The entire third floor is made up of a gymnasium with basketball court. Horizontal steel channels had been added at the large windows, photo 9.

Roof Framing:

The roof framing of this building is steel roof trusses that span the width of the building and bear on the exterior multi-wythe brick walls, photos 10-11. There is concrete infill spanning between the trusses, most likely a lightweight concrete with mesh reinforcement or a perlite concrete. There is also a steel framed skylight at the center of the roof structure. The limited area of the structure that was visible appeared to be sound and there are no signs of distress to the finished ceiling in the gymnasium space. Steel beams have been hung off the roof structure for support of a dividing curtain and basketball backboards in the gymnasium, photo 12.

2.0 Observations

The overall condition of the building is good, with the exception of the first floor framing which is in fair condition. This is due to the moisture level in the basement which has caused deterioration of the concrete.

3.0 Implications of Potential Work

Minor changes to the existing structure such as floor openings or infills for ductwork and piping, etc. can be accommodated by the existing slabs and walls. The locations of these openings would require structural review and miscellaneous steel framing may be required to frame new openings. Steps should be taken to mitigate the moisture problems in the basement as this will lead to further deterioration of the exposed structure in this space.

Significant floor openings and changes to the interior bearing walls could possibly trigger seismic analysis of the building, potentially requiring seismic upgrade.

4.0 Photos



Photo 1



Photo 2



Photo 3



Photo 4



Photo 5



Photo 6



Photo 9



Photo 7



Photo 8



Photo 10



Photo 11



Photo 12

EXISTING CONDITIONS: BUILDING SYSTEMS

The information included below was developed by Cosentini Associates from:

- Review of the existing MEP Record Drawings provided by the client for the renovation project titled “Repairs And Renovations To Nazzaro Community Center” dated May 17, 2004
- Observations by Cosentini during their site visit on August 8, 2017

HVAC Systems

Central HVAC Plant (Location - Basement)

The primary heating medium for the building is low pressure steam generated by a gas fired cast iron boiler. The boiler is Smith mode 28A-S/W-07 with 1310 MBH rated steam capacity. No design or as-built drawings have been provided for this installation. The boiler age information was not available but visually it appears to be in good condition and not near the end of its useful life.

Steam is distributed from the boiler to two hot water converters generating heating hot water which is circulated throughout the building by hot water pumps (one converter has two associated base mounted pumps, the second converter has one associated in-line pump). No design or as-built drawings have been provided for this installation. The

pumps and converters age information was not available but visually they appear to be in poor condition and may require repair or replacement in the near future.

Steam condensate is collected and fed back to the boiler by a duplex condensate pump unit. No design or as-built drawings have been provided for this installation. The unit appears to be the same age as the boiler and is not near the end of its life expectancy. Building does not have a central cooling plant. Local cooling systems are described below.

First Floor HVAC

Lobby:
The entrance/reception area is heated by two hot water heaters which appear in need of repairs. No design or as-built drawings have been provided for this installation.

Senior Center :
The HVAC systems installed during the 2004 renovation project are:

- The space is served by a split system DX air conditioning unit with hot water heating coil. Unit is located in the ceiling of the spaces. The system condenser is located on the roof. The system is provided with outside ventilation air intake and relief. There is a return air fan associated with the unit. System included

- supply and return air duct distribution.
- Bathrooms are ventilated by an in-line exhaust air fan and associated ductwork with air discharge to the outside.
 - The above systems are in good condition and should not need any work in the near future.

Other HVAC systems in the space include:

- There is some perimeter hot water radiation in the space. The kitchen has a recirculating hood.
- There appears to be an exhaust duct from the kitchen but it is not connected to the hood.
- No design or as-built drawings have been provided for these systems but they appear to be in good condition.

There is an old non-functioning split system unit in the room with the condenser outside. This system should be removed.

Children’s Room:
The room appears to be served by a split system AC unit with a condenser on the roof. No design or as-built drawings have been provided for this installation. The system vintage is not known but it appears old and will likely need to be replaced in the near future.

Second Floor HVAC

Bathrooms are ventilated by an in-line exhaust air fan and associated ductwork with air discharge to the outside. The system was installed during the 2004 renovation project and should not need any work in the near future.

There is 100% outdoor air heating and ventilation (H&V) unit with filters and hot water coil located in the ceiling of the weight room. The unit provides heating and ventilation to the weight room, children’s room, circulation corridors, and offices. The Teen room is also provided with ceiling agitator fans. No design or as-built drawings have been provided for this installation. The system vintage is not known but it appears old and will likely need to be replaced in the near future.

There is a split cooling system unit in the weight room. There is reportedly a project underway to replace it and provide a multi-unit split system to cool the weight room and the children’s room.

Third Floor HVAC

The third floor is a gym. It is heated and ventilated by an exhaust fan, 4 propeller ceiling agitator fans and 4 hot water unit heaters. The system was upgraded during the 2004 renovation project and all its components are in good condition.

There is no air conditioning in the space. Some peeling of the ceiling paint was observed perhaps due to lack of AC and de-humidification. Consideration should be given to adding air conditioning to this space.

Roof

Condensing units and some fans associated with the systems described above are located on the roof.



STEAM BOILER



HOT WATER PUMPS



STEAM CONVERTER



DUPLEX CONDENSATE PUMP UNIT



ENTRANCE HEATER

HVAC Conclusion

If the building is to be renovated or expanded, the observations and recommendations above indicate the overall priorities and approach to HVAC upgrades. The top priorities for renovation are summarized by system as follows:

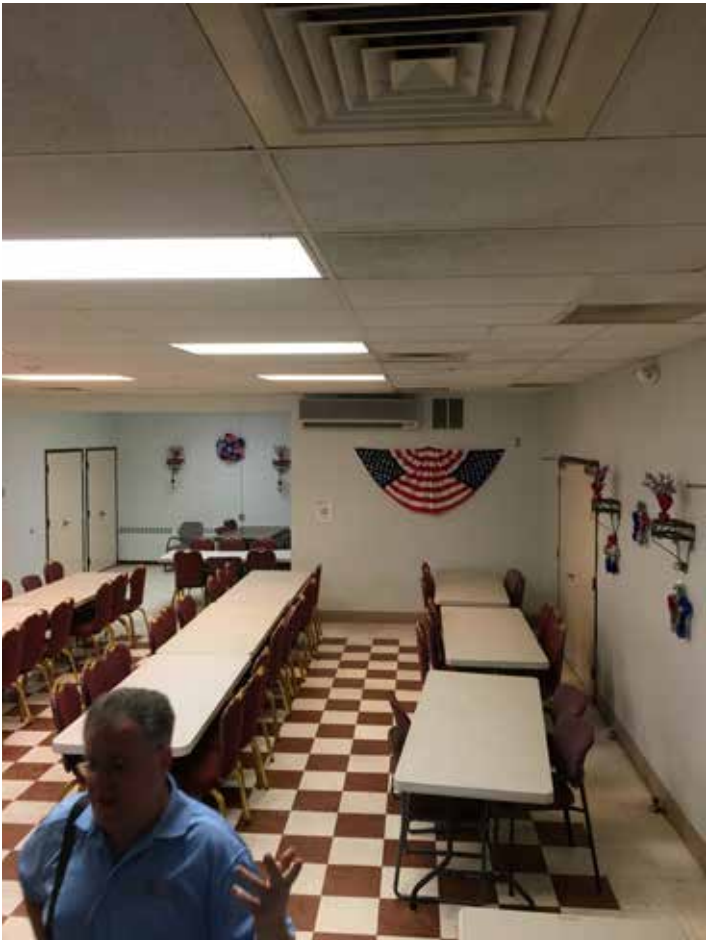
- Heating: The building heating medium is steam which is converted to hot water. Hot water is distributed throughout the building to the heating equipment. The steam generating boiler appears to be in good condition and not near the end its life expectancy. Steam converters, hot water pumps and other auxiliary heating equipment appear to be beyond

their useful life. The team recommends replacing the steam converters and hot water pumps.

- Cooling: there is no central cooling plant in the building. The areas that are provided with air conditioning (the Senior Center, Teen Room, and Weight Room) are served by individual split type AC systems of various vintages. The team recommends replacing the older systems (Teen Room, Weight Room) and providing new systems for non-conditioned areas such as the Children's Room.
- Ventilation systems appear adequate except for the H&V unit serving areas on the second floor which is old and needs

to be replaced.

- The Gym is currently heated and ventilated but not air conditioned and there are signs of some issues with high humidity. Consideration shall be given to providing AC to the Gym.



SENIOR CENTER AIR DISTRIBUTION



SENIOR CENTER KITCHEN VENTILATION



TEEN ROOM CEILING FANS



THIRD FLOOR GYM FANS AND UNIT HEATERS



SECOND FLOOR H&V UNIT



WEIGHT ROOM DUCTLESS SPLIT AC UNIT

Plumbing Systems

The incoming gas service is located in the basement. Gas is distributed to the heating steam boiler and domestic hot water heater.

The incoming water service is located in the basement. Domestic cold water is distributed to the plumbing fixtures throughout the building, to the domestic water heater, and to the heating system make-up.

There is a gas fired domestic water heater in the basement with associated hot water distribution to the plumbing fixtures throughout the building. No design or as-built drawings have been provided for this installation. Though no design or as-built drawings have been provided for the heater the unit appears to be relatively new and should not require any work in the near future.

Most bathrooms were upgraded during the 2004 renovation project and appear to be in good condition.



GAS SERVICE



WATER SERVICE



DOMESTIC HOT WATER HEATER

Fire Protection Systems

The building is not provided with a Fire Protection System. Consideration should be given to providing the building with code compliant Fire Protection Systems.

Fire Alarm

The existing fire alarm system is a non-addressable, zoned system by FCI with a limited number of zones. Notification appliances (horn/strobes) are not adequate for the space. A new fire alarm system should be provided.

The system has one zone per floor and a duct type smoke detector for the air handler on the first floor. There are a limited number of audio/visual notification appliances (horn/strobes). Note that plans of the existing fire alarm system were not available for review.



FIRE ALARM SYSTEM CENTRAL EQUIPMENT

Electrical

The utility company service appears to be a combination of a 400 amp 120/208-volt, 3-phase service and a 200 amp 120/240-volt, 1-phase service. The existing service switches and panelboards in the basement are severely corroded and a new electrical service should be provided if the building is to continue to be used.

Lighting and appliance circuit breaker type panelboards are located throughout the building. Most are flush mounted, with some surface mounted panelboards in non-public type spaces. Some panelboards appear to have been replaced and appear to be in good condition, but the condition of these panelboards varies and the older panelboards should be replaced. Lighting is generally fluorescent fixtures with acrylic lenses. Note that plans of the existing electrical system were not available for review.



SERVICE PANELBOARD IN BASEMENT

2.4 Building Value and Disposition

Overview

What follows is a summary of the typical disposition process for City owned buildings and a real estate overview of the existing Nazzaro center. Both summaries are provided for informational purposes only. This study and report make no recommendations regarding the final outcome for the existing Nazzaro center property should the City build a new community center on a different site.



ELECTRICAL SERVICE EQUIPMENT

Property Disposition Process

If the City of Boston builds a new community center at a different site in the North End and Boston Center for Youth and Families (BCYF) decided that they no longer had any use for the Nazzaro center, BCYF would declare that they no longer needed the existing Nazzaro center after the completion of the new community center.

Property internally transferred from BCYF to DND surplus property - 6 month process

The Department of Neighborhood Development (DND) would present before the Public Facilities Commission (PFC) and request through a vote of the PFC that the existing Nazzaro center property be rerouted into DND’s inventory of surplus property. If the PFC votes to approve the move the property to DND, DND will go before the City Council which will conduct a hearing on the request by DND to surplus the existing Nazzaro Center. As part of the vote, City Council will confirm that no other City departments need the property.

Community process - 6 month process

If the City Council approves moving the property to surplus, DND would then engage in a community process to allow community input on how the City should best dispose of the property. In the case of a significant public building such as the Nazzaro center, the community process would likely involve several community meetings. Throughout the community process, community members and City officials would take part in a lengthy conversation to determine which of several possible outcomes for the building would provide the most benefit to the community. The community would have an opportunity to focus the discussion on preservation, community based nonprofit use, affordable housing or other uses that might provide benefit.

RFP process – 3-4 month process

After the community process has reached a conclusion, DND would issue a public Request For Proposal (RFP) to solicit bids to lease or purchase the property. The requirements of the lease or purchase, as determined through the community process, would be written into the RFP. The winning proposal would be awarded based on the ability to meet the specific requirements of the community, as outlined in the RFP.

Transfer of property – 1-2 year process

It would likely take 1 – 2 years for DND and the new owner to close on the sale of property or finalize the terms of a lease. DND would ensure that all regulations have been met by the new owner and that all necessary funding and permits are in place prior to the transfer of property.

Total Property Disposition Schedule: 18-30 months

Real Estate Overview

This analysis by Colliers International considers the likely market value of the existing Nazzaro Center building and site. It is based primarily on comparables and is not considered a property appraisal.

Existing building sales in the region are more relevant comparison for the Nazarro Center than permitted or unpermitted land sales due to the existing building infrastructure that could prove to be

salvageable for reuse. The sales comparable research used the following criteria:

SALES COMPRABLES - 5-YEAR LOOK BACK - NORTH END					
Date	Address	District	Building SF	# of Units	GSF/Unit
4/29/2012	162 Prince Street	North End	3,400	5	680
6/15/2012	91 Prince Street	North End	27,710	27	1,026
10/10/2013	11 Board Alley	North End	11,405	19	600
10/10/2013	20 Cleveland Place	North End	3,030	5	606
2/28/2014	24 Battery Street	North End	3,230	5	646
3/31/2014	164 Endicott Street	North End	4,020	5	804
6/30/2014	4 Fountain Place	North End	12,049	10	1,205
9/3/2014	35 North Margin Street	North End	5,528	10	553
12/18/2014	20 Sheafe Street	North End	7,360	15	491
6/11/2015	18 Hull Street	North End	3,880	7	554
1/15/2016	351 North Street	North End	5,130	10	513
1/25/2016	3 North Hudson Street	North End	4,560	5	912
3/1/2016	176-178 North Street	North End	7,545	8	943
3/7/2016	278-284 North Street	North End	13,540	19	713
3/31/2016	37 Sheafe Street	North End	7,118	8	890
4/15/2016	15 Stillman Street	North End	3,520	5	704
5/13/2016	10 Harris Street	North End	5,445	5	1,089
6/29/2016	27 Charter Street	North End	4,416	5	883
6/30/2016	27-29 North Margin Street	North End	1,860	4	465
6/30/2016	400 Hanover Street	North End	7,028	8	879
8/29/2016	3-5 Quincy Court	North End	4,560	6	760
9/30/2016	20 Parmenter Street	North End	11,520	12	960
10/4/2016	16-20 Battery Street	North End	8,188	8	1,024
11/30/2016	155 Salem Street	North End	7,944	10	794
4/14/2017	149 Endicott Street	North End	2,704	4	676
6/6/2017	4 Michelangelo Street	North End	6,048	9	672
7/27/2017	36 North Bennet Street	North End	3,450	5	690
7/28/2017	10 Wiget Street	North End	5,700	9	633

Sales Price		\$/Unit	\$/SF	Condition
	\$1,550,000	\$310,000	\$455.88	Built in 1920
	\$7,775,000	\$287,963	\$280.58	Built in 1910
	\$4,465,000	\$235,000	\$391.49	Built in 1905
	\$2,350,000	\$470,000	\$775.58	Built in 1900
	\$1,950,000	\$390,000	\$603.72	Built in 1899
	\$2,420,000	\$484,000	\$601.99	Built in 1900
	\$3,888,890	\$388,889	\$322.76	Built in 1920
	\$4,200,000	\$420,000	\$759.77	Built in 1920
	\$5,000,000	\$333,333	\$679.35	Built in 1920
	\$2,250,000	\$321,429	\$579.90	Built in 1899
	\$3,350,000	\$335,000	\$653.02	built in 1899
	\$2,600,000	\$520,000	\$570.18	Built in 1920
	\$5,500,000	\$687,500	\$728.96	Built in 1899
	\$6,850,000	\$360,526	\$505.91	Built in 1910
	\$4,250,000	\$531,250	\$597.08	Built in 1900
	\$1,950,000	\$390,000	\$553.98	Built in 1900
	\$4,125,000	\$825,000	\$757.58	Built in 1899
	\$2,350,000	\$470,000	\$532.16	Built in 1910
	\$1,205,000	\$301,250	\$647.85	Built in 1899
	\$3,850,000	\$481,250	\$547.81	Built in 1900
	\$2,239,000	\$373,167	\$491.01	Built in 1899
	\$10,242,015	\$853,501	\$889.06	Built in 1900
	\$4,400,000	\$550,000	\$537.37	Built in 1910
	\$6,000,000	\$600,000	\$755.29	Built in 1899
	\$2,485,000	\$621,250	\$919.01	Built in 1900
	\$5,500,000	\$611,111	\$909.39	Built in 1899
	\$3,225,000	\$645,000	\$934.78	Built in 1899
	\$4,250,000	\$472,222	\$745.61	Built in 1910

MEDIAN CALCULATIONS			
	Median GSF/Unit	Median \$/Unit	% Change
Median (All)	708	\$470,000	
Median 2012	853	\$298,981	
Median 2013	603	\$352,500	17.90%
Median 2014	646	\$390,000	10.64%
Median 2015	554	\$321,429	-17.58%
Median 2016	881	\$500,625	55.75%
Median 2017	674	\$616,181	23.08%

SENSITIVITY ANALYSIS FOR ESTIMATION OF VALUE			
	Low Side	Median	High Side
Gross Square Feet	15,174	15,174	15,174
Median Unit Size	900	900	900
Est. Unit Count	16	16	16
Median \$/Unit	\$298,981	\$470,000	\$616,181
Estimated Value	\$4,783,704	\$7,520,000	\$9,858,889

Based on the transaction history in the North End District for Multifamily buildings over the previous 5 years, a median sales price per unit could be derived. The median sales price per residential unit is approximately \$470,000. The Inclusionary Development Policy (“IDP”) is factored into this per unit price. In Colliers’ opinion, this is indicative of the current multifamily market in this region of the City of Boston. Factoring in upward citywide trends for multifamily buildings, it is reasonable to assume that the value of the Nazarro Center can be more than the Median estimation of value; especially when factoring in the time it would take to move the NECC to a new facility.

In speaking with internal resources and reviewing market trends, new apartment products are typically being rented or sold are between 800-900 GSF on average. For the purposes of the sensitivity analysis, 900 GSF was used to match the product offering to the market demands. A point worth noting is that downsizing the unit size to create additional density may adversely affect the price per unit. However, there may be an opportunity to create additional units by adding height to the Nazзарo Center and/or creating an interstitial floor in the gymnasium area; further guidance is necessary to better understand how many more units can be added. The value added would still be based on the price per unit factor.

Section 3

Program

3.1 BCYF Goals + Objectives

BCYF’S goals for this study are straightforward: to align the facility with the needs of the current programs, and to continue to make the center an important resource for the entire community. These goals emerged in early conversations with BCYF staff and leadership.

More space

- The current building is “bursting at the seams.”
- Provide adequate space, equipment, and support for popular activities

More users

- Provide a universally accessible facility
- Continue to welcome the core users while inviting in teens, childless adults, other demographics



3.2 Community Goals + Objectives

COMMUNITY ADVISORY COMMITTEE (CAC Workshop #1) - Sept. 13, 2017

BCYF offers an array of diverse programs at the Nazario Center, which receives visits from over 60,000 Boston residents each year. The lack of space in the current community center is the biggest issue at hand. The waiting list for programs offered at the center is significantly longer than the list of current attendees. Many of the adults working/volunteering at the Nazario Center were former Nazario program participants who have a strong desire to give back to their communities. They want to be able to make a difference in the lives of as many kids, teens, seniors, etc. as possible, and perceive the lack of space as being the main issue standing in their way. “If you live in the neighborhood, you should be able to join the program.” It was stated by many that the Nazario Center is the **“heartbeat of the community.”**

Programs currently offered:

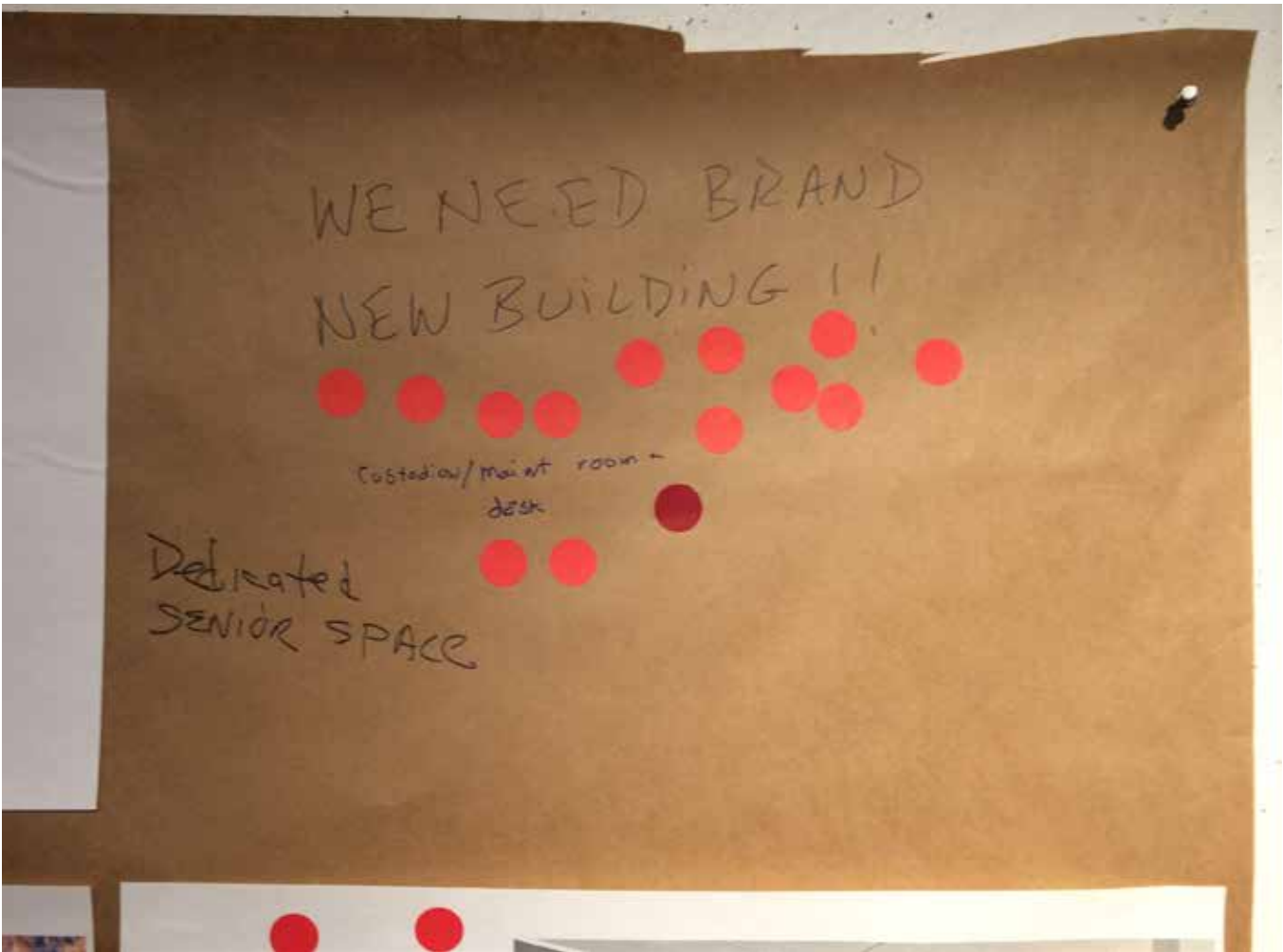
- Arts & Crafts
- After-school Programs
- Band
- Cooking Class
- Visual & Performing Arts
- Digital Media
- Family Guidance & Support Workshops
- Teen Center
- Homework Assistance
- Academic Enrichment
- Job Skills & Readiness
- Leadership Development
- Community Service
- Basketball
- Rec Gym/Sports & Fitness
- Outdoor Adventure
- Elder Services
- New Mom Group
- Toddlers Program

How The Building Is Used

Monday through Friday
6:30am - 10am Open Gym and Fitness
10am - 2pm Seniors, Toddlers
2pm - 5pm After School Programs
5pm - 9pm Teen Programs
Youth and Adult Sports Leagues
Open Gym
Community Meetings
Highest demand is from 2-9pm.

Saturdays:
9am - 5pm Sports Instructional Programs
Youth and Adult Sports Leagues
Open Gym and Fitness

Sundays:
closed



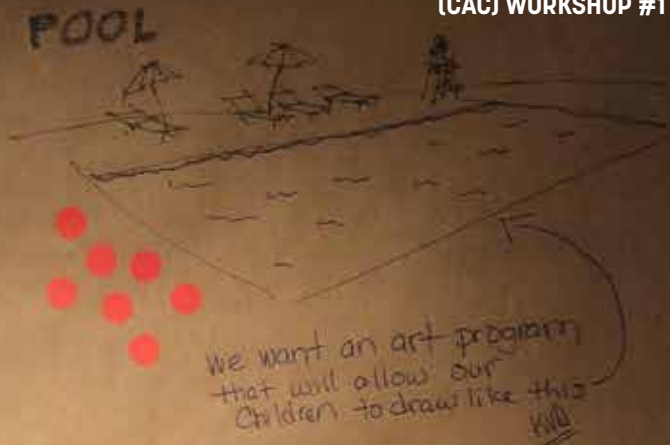
IMAGES FROM COMMUNITY ADVISORY COMMITTEE (CAC) WORKSHOP #1



IMAGES FROM COMMUNITY ADVISORY COMMITTEE (CAC) WORKSHOP #1

Sports & Fitness

IMAGES FROM COMMUNITY
ADVISORY COMMITTEE
(CAC) WORKSHOP #1



Outdoor Court & Play

Basketball
Baseball
Water play
Outdoor play



Indoor Court | Sport Court



Indoor Court

Basketball
Baseball
Volleyball
Floor Hockey
Youth Fitness
Adult Fitness
Senior Fitness
Bike



Weights & Fitness



More fitness classes
using exercise equipment
with weights

Indoor Court | Basketball



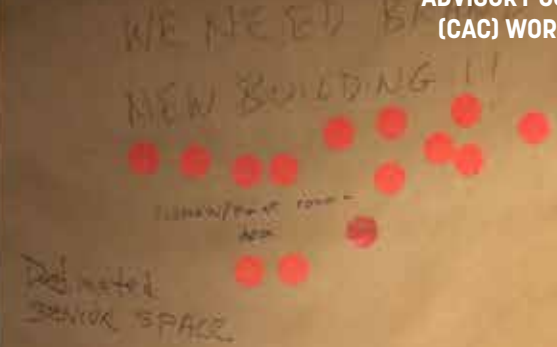
Studio Fitness

Barre Fitness
Aerial Fitness
Salsa Fitness
Cardio
Spa
Yoga/Pilates
Meditation
Dance



Education

IMAGES FROM COMMUNITY
ADVISORY COMMITTEE
(CAC) WORKSHOP #1



Outdoor

Active Common
Community Garden
Outdoor Play
Water Play
Flag Football
Outdoor Sports
Outdoor Pool



Computer Lab

Computer Classes
Internet & Software Access
and Support

After-school Programs
Summer Day Camp
Teen Center
Homework Aid
Tutoring
Recycling Studio



Cooking

Cooking Classes
Nutrition
Kitchen



Youth Rooms

After-school Programs
Summer Day Camp
Teen Center
Homework Aid
Tutoring
Recycling Studio
Special Events



Health & Wellness

Health Classes / Clinic
Meditation / Mindfulness
Yoga / Tai Chi

Arts and Crafts
Reading Room
Community Room
Outdoor Space



Arts

IMAGES FROM COMMUNITY
ADVISORY COMMITTEE
(CAC) WORKSHOP #1

Arts & Crafts

Knitting
Youth and Teen Programs
Maker Space
Exhibition Space



Multi-purpose
Room for Adults
at night

Beard making
Paint night
Sewing
Knitting
Weight Watchers

Theater & Dance



Separate
Rooms please

they perform
practices on
same days



Music

Music / Band
Recording Studio

Small
Room



Community

IMAGES FROM COMMUNITY
ADVISORY COMMITTEE
(CAC) WORKSHOP #1

Multipurpose Room

Community Meetings

Workshop Room



Teen Center

Strong Women Strong Girls
Teen Center

Music Room
Arts and Crafts
Dance and Theater
Sports

Homework Area
Reading
Room
Peer Leader



Air Conditioning

dance areas

lots of space in the
recognition - hard on staff

Adult Rooms

For Adults
Music Making
Classroom
Homework Area
Reading



PROGRAM REVIEW (CAC Workshop #2) - Dec. 13, 2017

Overview

The purpose of this meeting was to continue the conversation on programming for the community center. Sasaki presented an update of where the team is in the programming process, how we went about evaluating the space and program needs, and how we arrived at our recommendation. Specifics of site locations had not yet been discussed with the public.

The following comments are taken from the CAC discussion of the proposed program.

Large event discussion

Is the senior/adult room the correct size? Note that the multipurpose room, not the senior room, will accommodate larger events of 50+ people.

Multipurpose room should be able to be subdivided into ~1000-sf zones when a large event is not taking place. Consider a movable platform in the multipurpose room to serve as a stage. Black Box concept is very flexible, but platform may add additional options for use of the space.

Having a number of different rooms of various sizes is crucial to being flexible and spatially efficient. We must ‘right size’ not ‘overbuild.’

Support/Kitchen

The programs’ adjacency to the kitchen is very important. It needs to be located in close proximity to the senior/adult room as well as the larger assembly space. A set up for catering would get used, but it should be able to accommodate the regular users first.

There is a need for the kitchen to be ‘open’, yet capable of being closed off/shut down. It needs to be its own entity as to not disturb the function/use of any particular space.

Sink needed in the room that is shared by arts and crafts (currently the adult room). If the program/selected site provided any ‘extra room’, community group felt it would be great to have a dedicated arts & crafts room.

Children’s Program Spaces

There is a need for storage or coats and bags in the kid’s rooms. Currently kids throw their coats, etc ‘all over the place.’

Toddler program can be shared with other spaces since its schedule is primarily on weekday mornings. If toddler room is going to be shared with classrooms, then it needs to be able to accommodate the ratio and space needs of other age groups. Toddler room could also share space with studio fitness, if storage needs are met.

The program recommendations should assume that EEC licensing is pursued for programs serving ages 6-12. Under a EEC licensing scenario a higher ration of staff to students and classroom area to students is required. Therefore this scenario would not actually take any kids off of the wait list. This is a staffing issue just as much (if not more) as it is an architectural one.

Community group felt that more classrooms were needed.

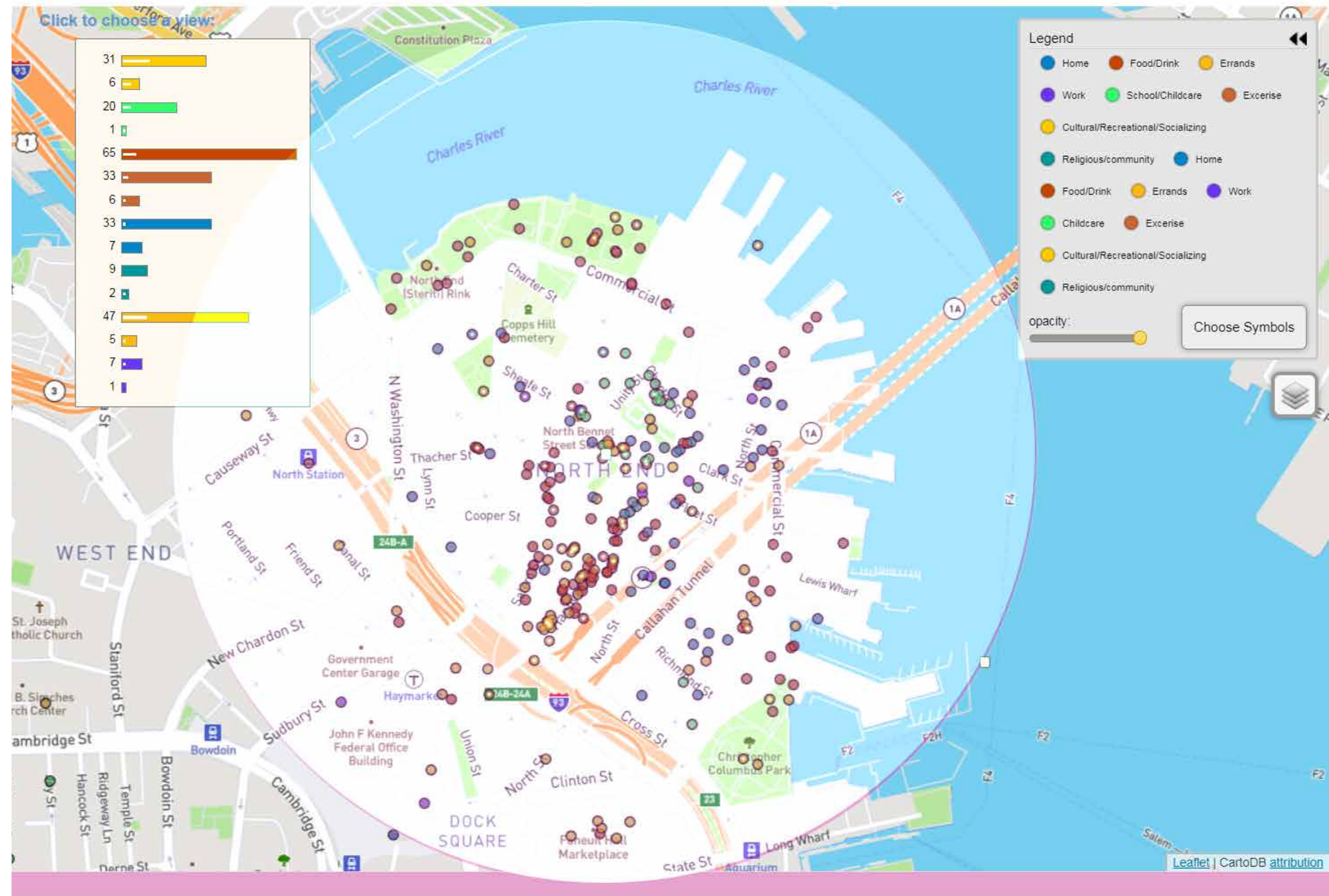
EEC regulations do not apply to teen programs or toddler programs. Teen programs are considered ‘drop in’ programs. It is important for teens to have their own dedicated space.

Sports and Support Spaces

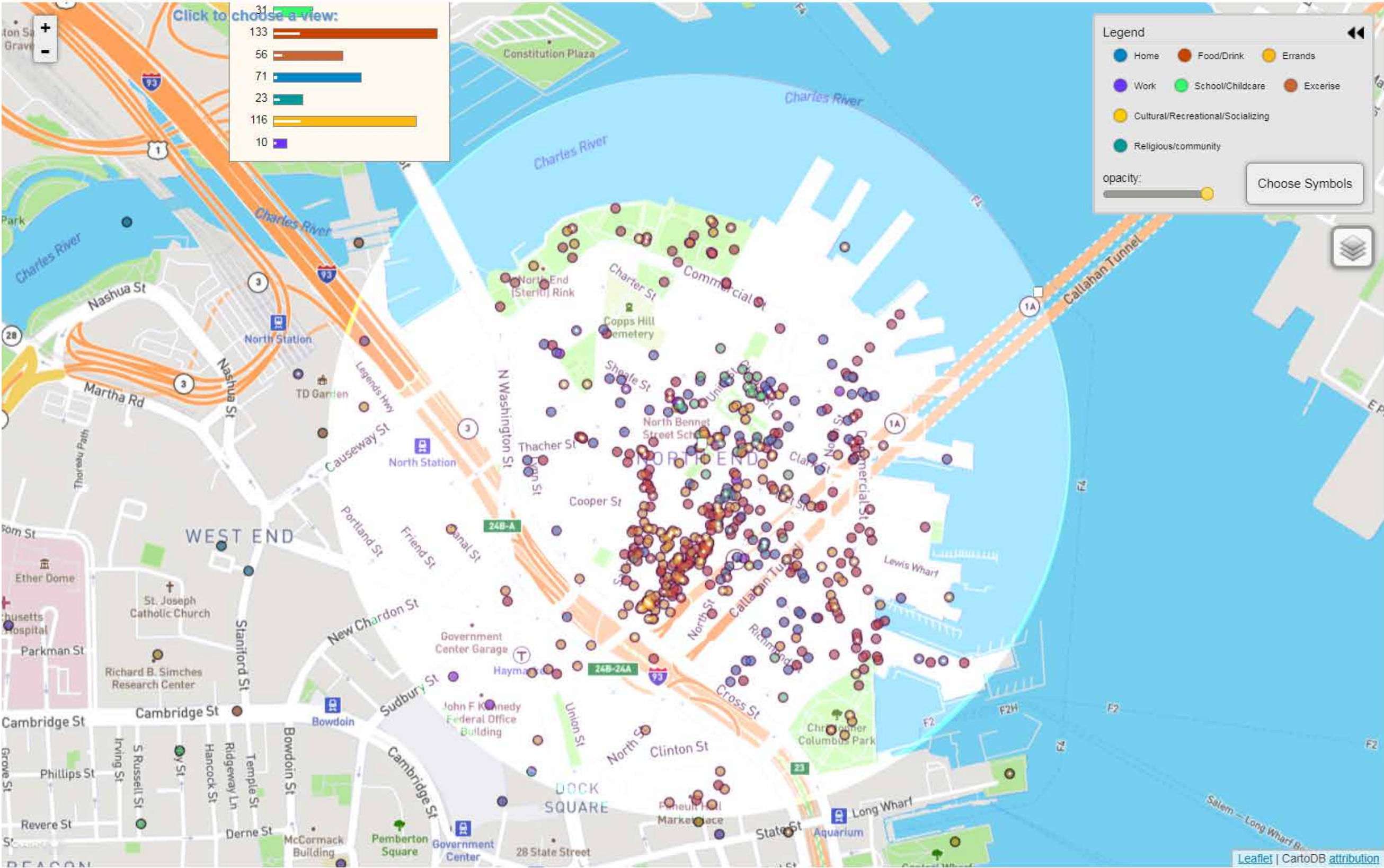
Basketball court: 2 tiers of seating could accommodate 112 people per side, as shown. We likely need half that (show seating on just one side). Adjustable height for hoops is desired. Add third egress in case assembly use is ever desired.

Include an area for nursing. Provide family/ unisex bathrooms.

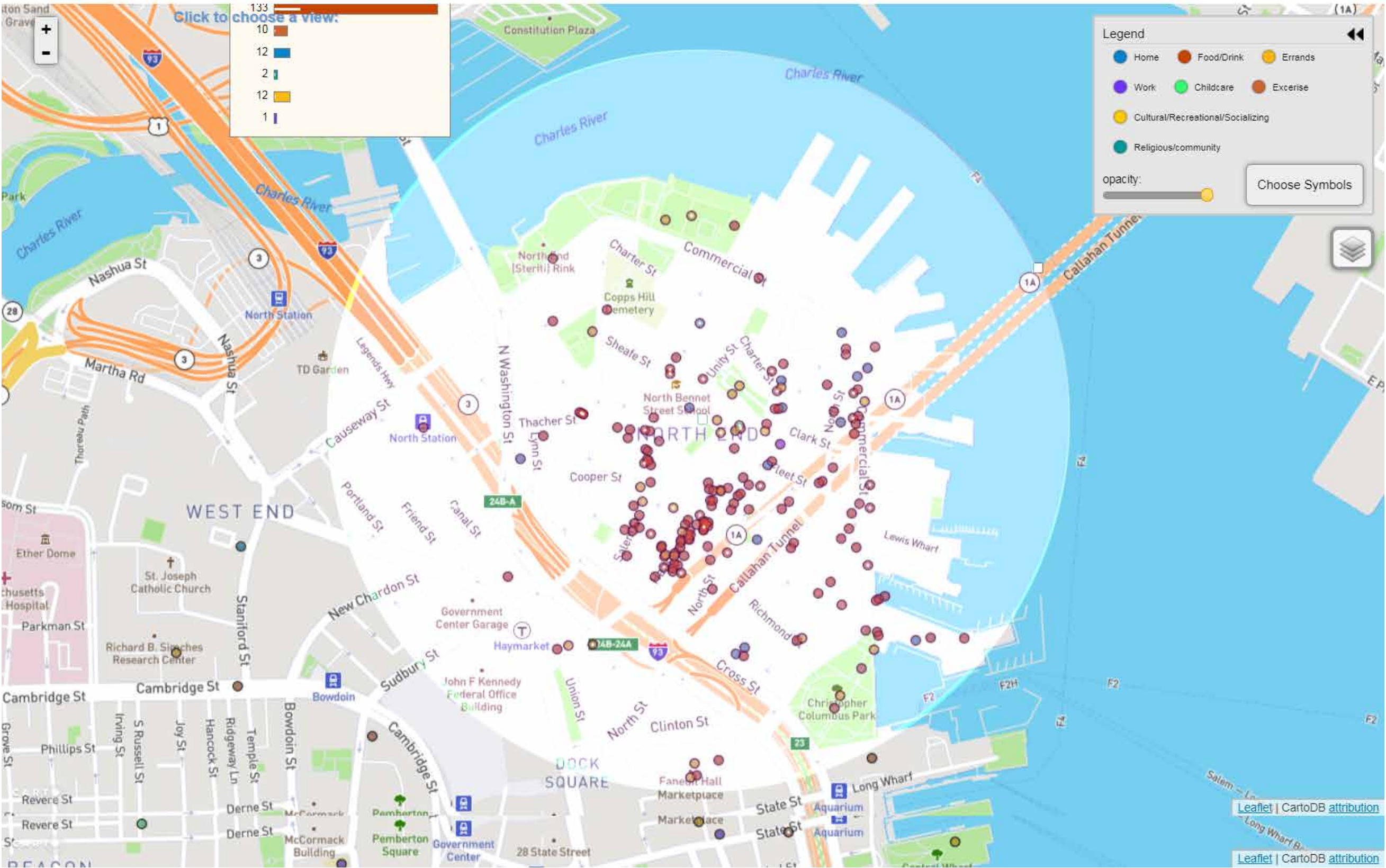
Don’t enclose the Mirabella pool! The outdoor pool is beloved by the neighborhood.



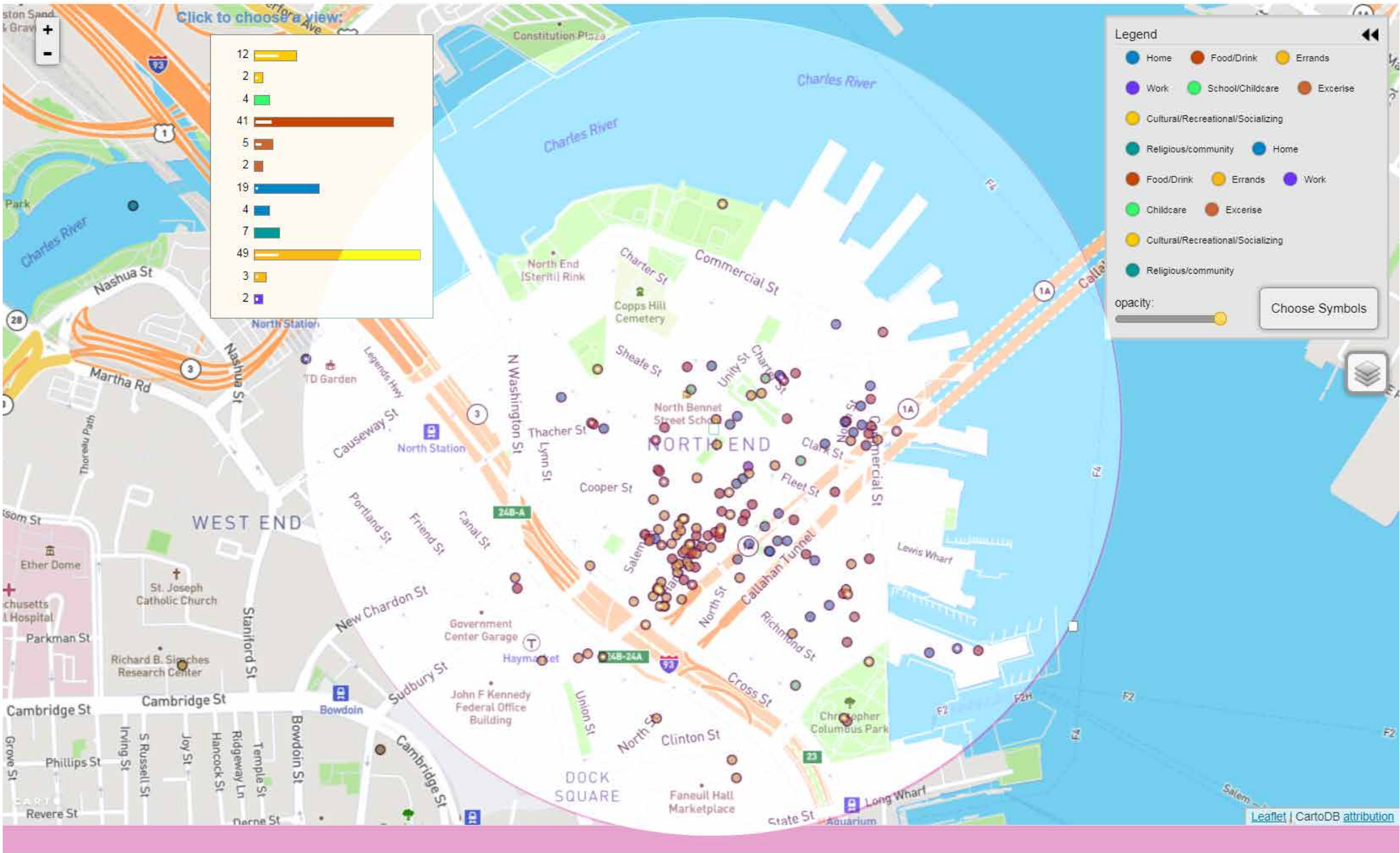
Day In the Life: various daily activities distributed across the neighborhood
Monday-Friday



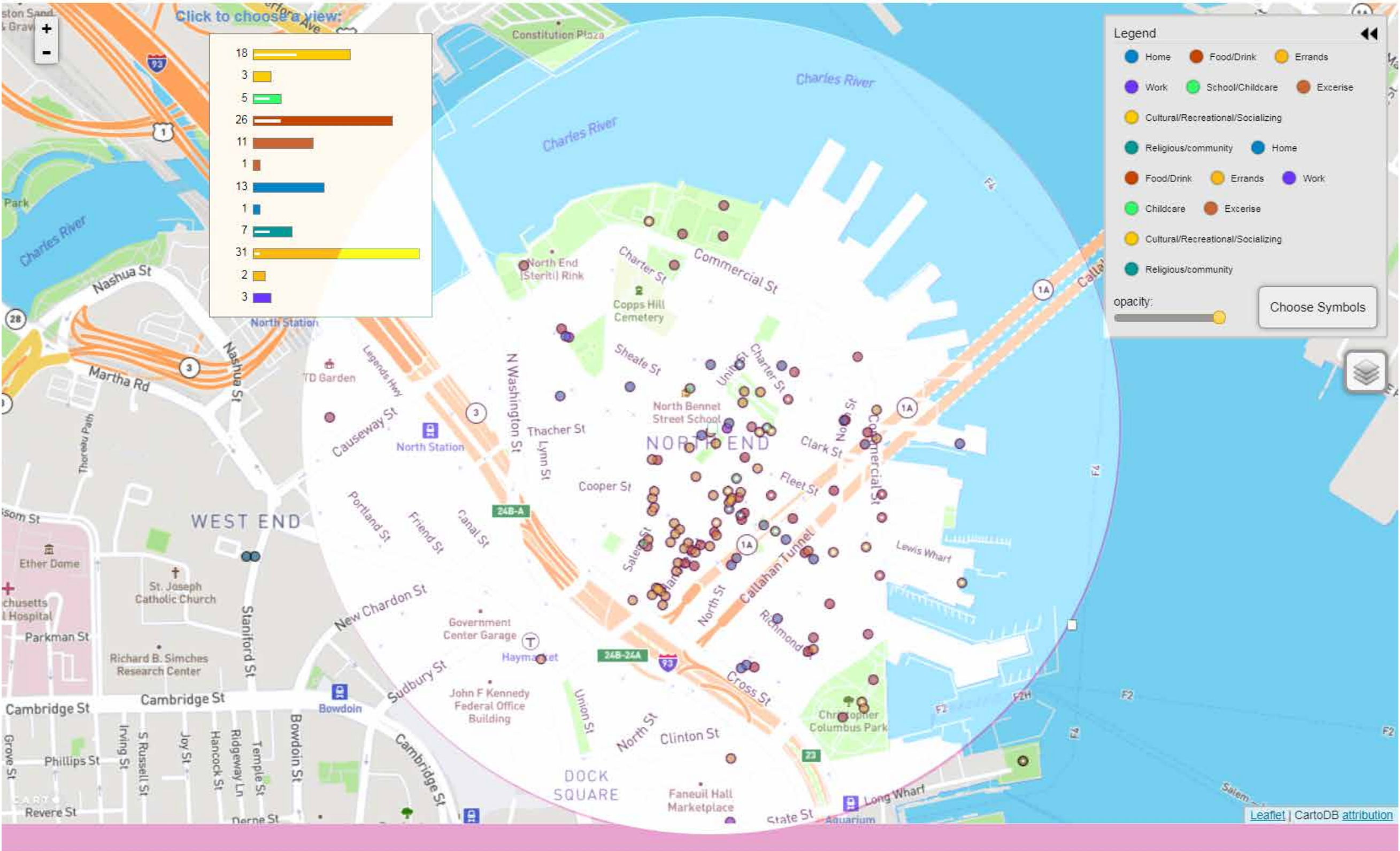
Day In the Life: various daily activities distributed across the neighborhood
Saturday and Sunday



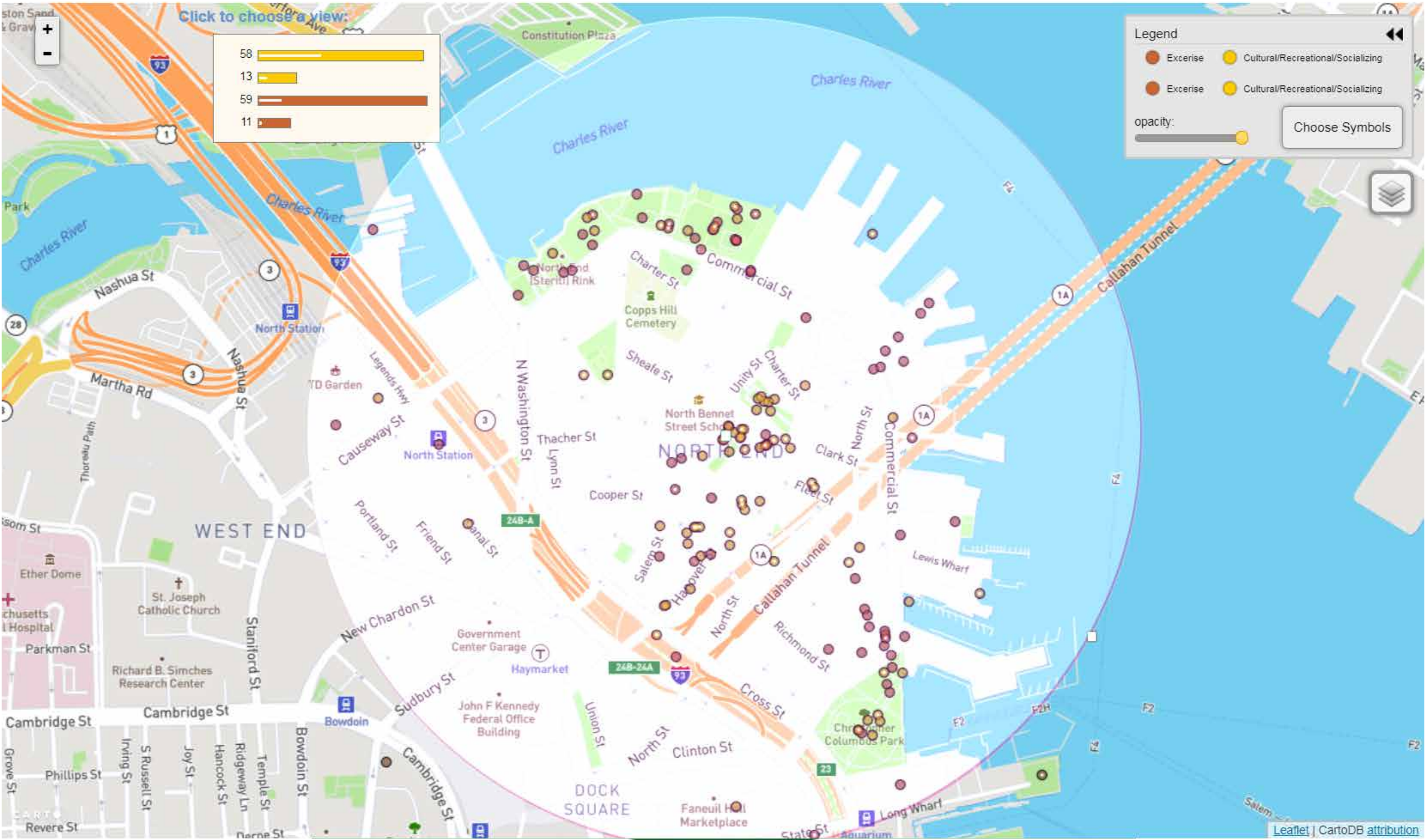
Day In the Life: various daily activities distributed across the neighborhood
Showing respondents who “Rarely or never use the existing Nazzaro Center”



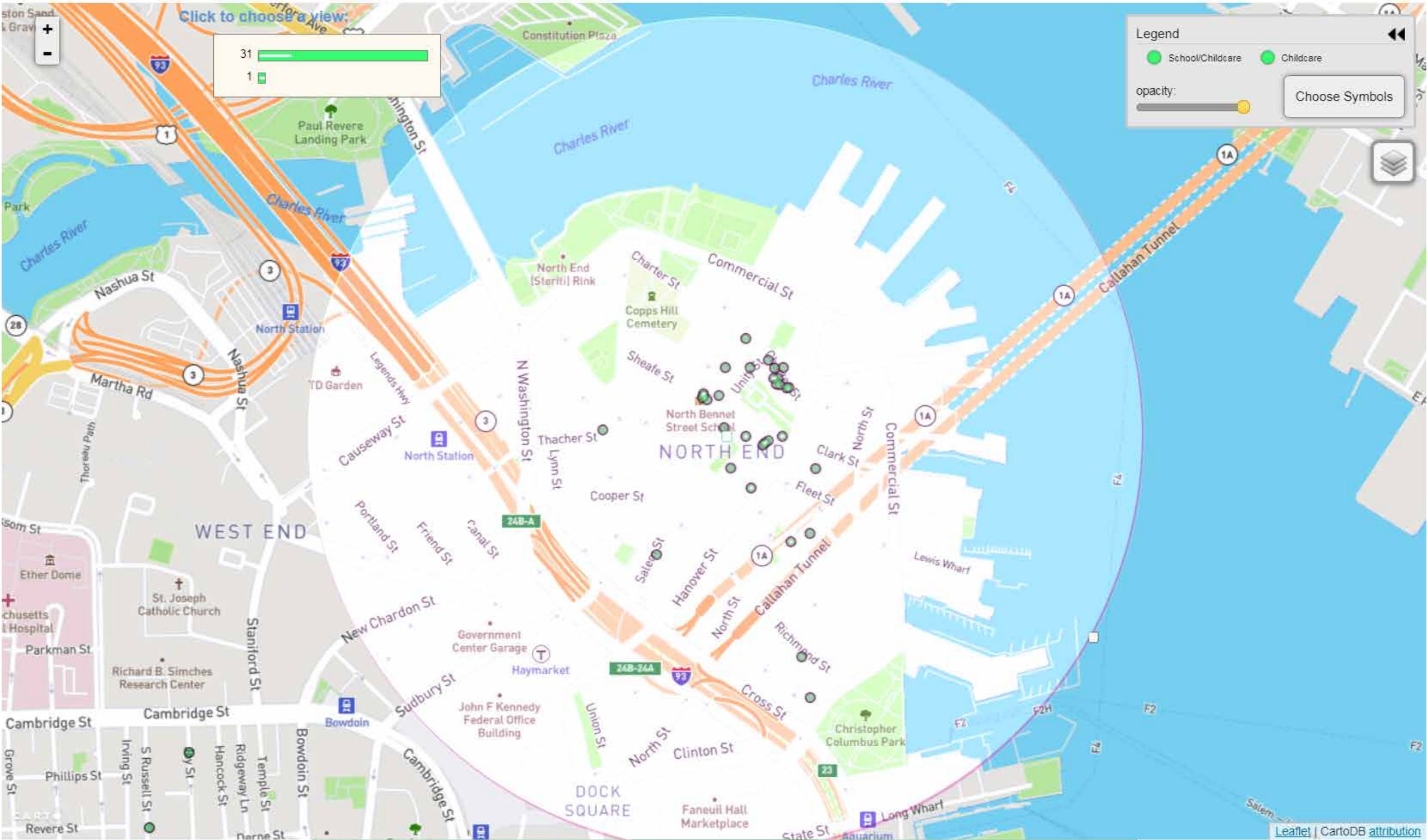
Day In the Life: various daily activities distributed across the neighborhood
Showing respondents aged 50+



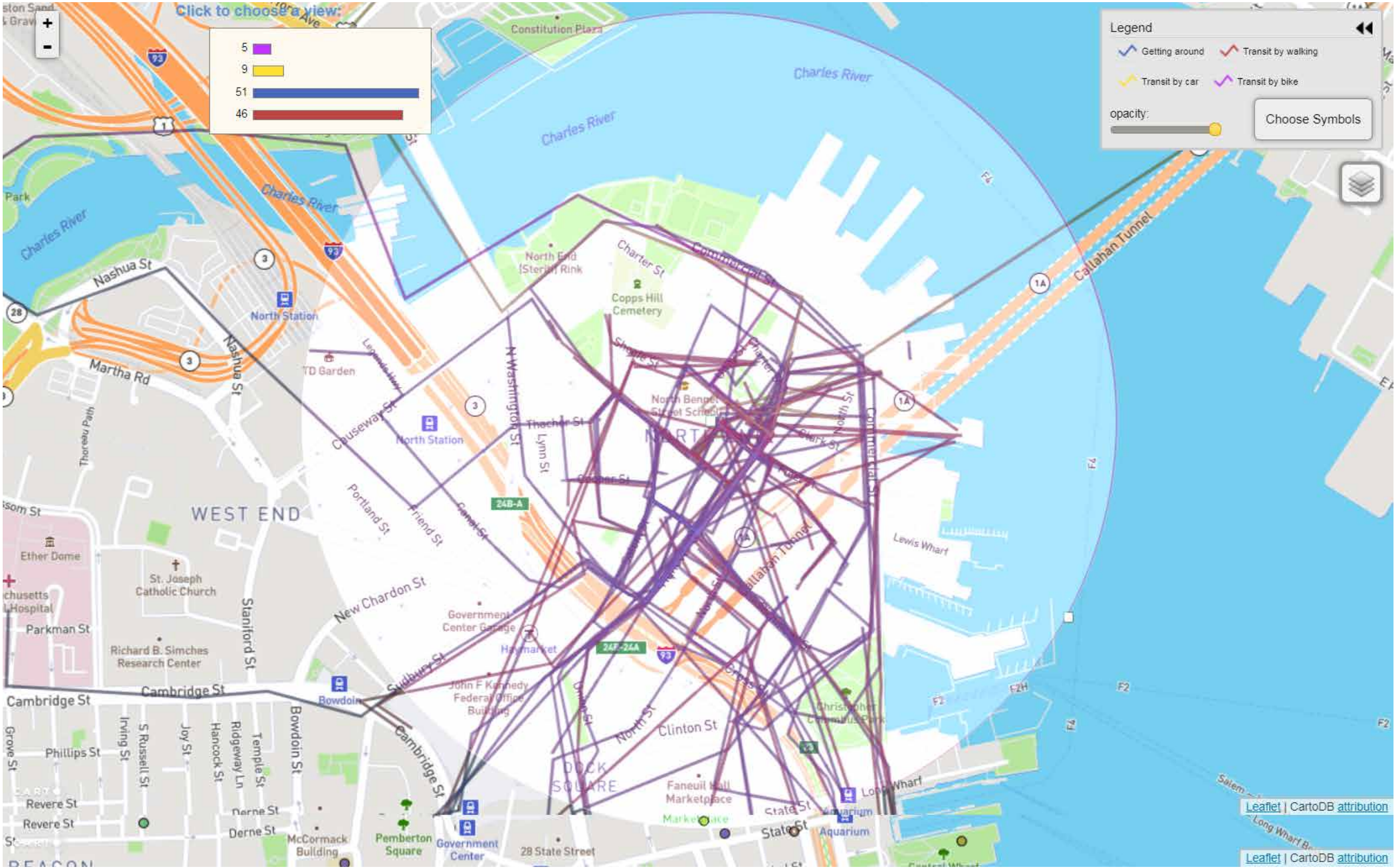
Exercise and Recreational Activities
All respondents, all week



School and Childcare activities
All respondents, all week



Patterns of Transit
Monday-Friday



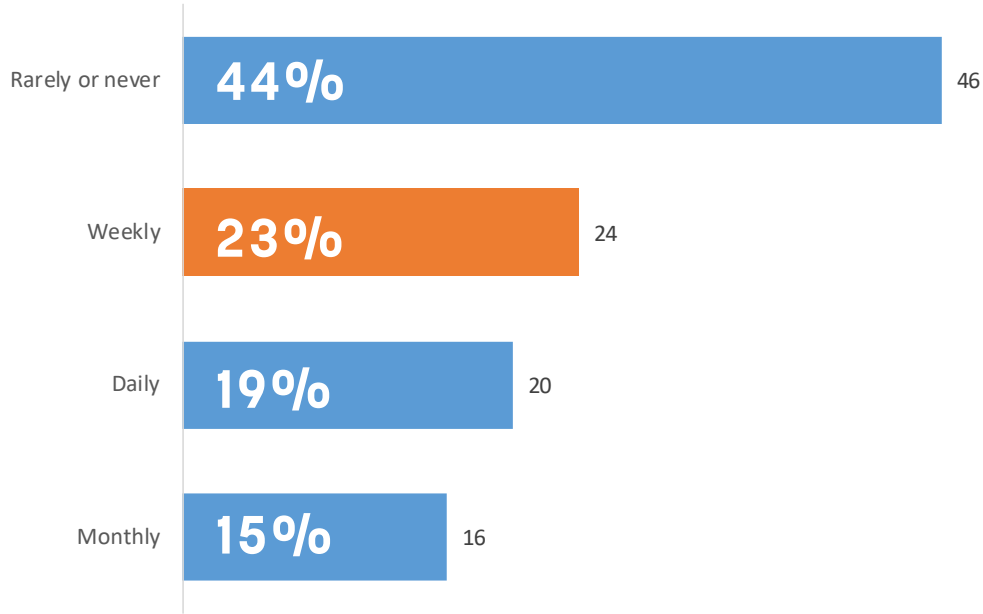
Patterns of Transit
Saturday and Sunday



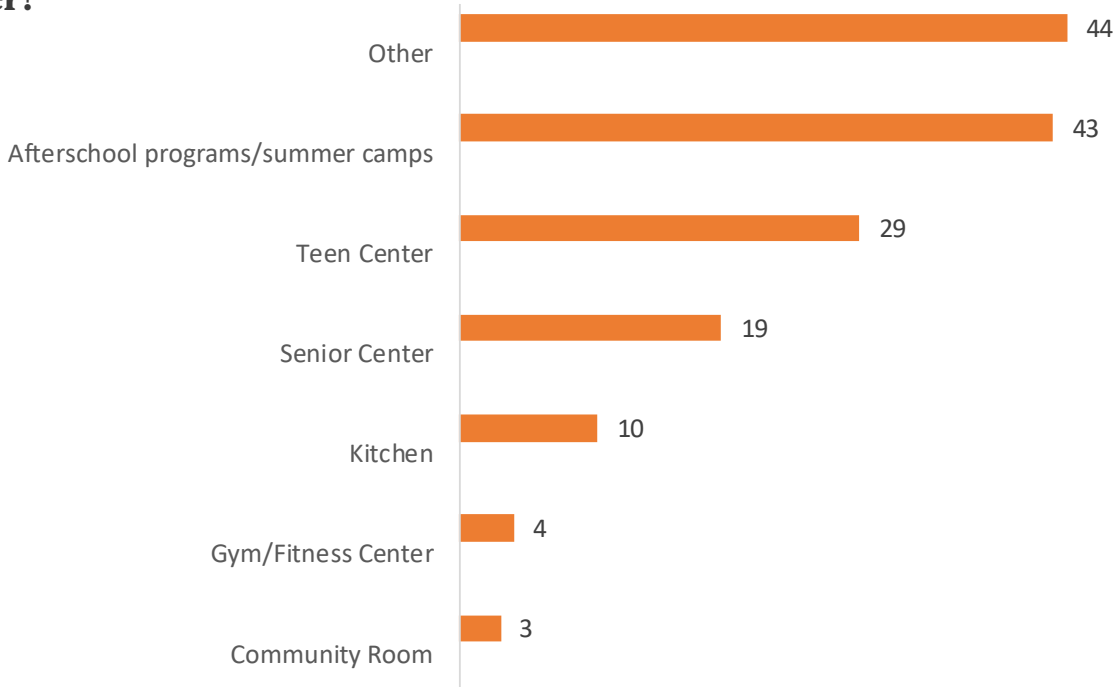
1. Do you use the existing Nazzaro Center? How often?

Results shown are from original survey period (2017). Additional results from second survey period (2018) were as follows:

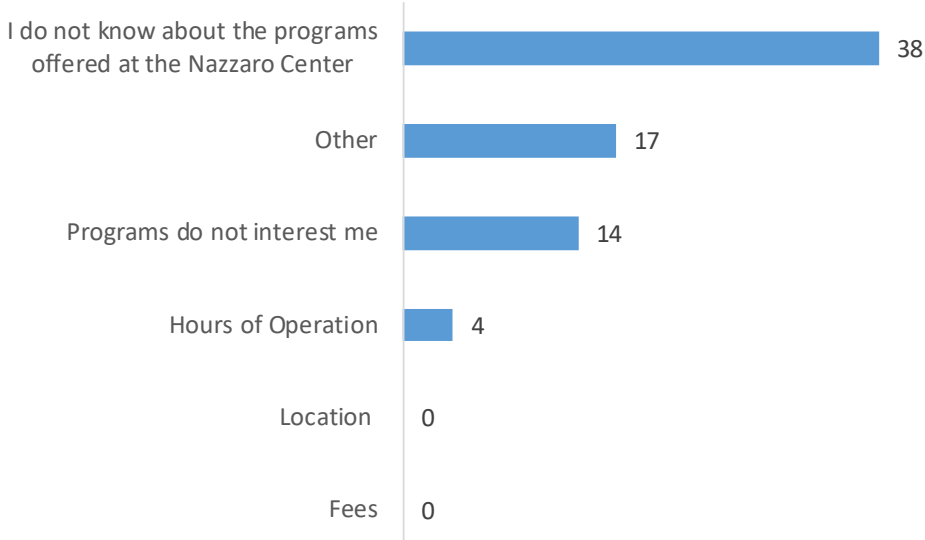
- 30% Rarely or never use
- 25% 2-3 Times per Week
- 10% Weekly
- 30% Monthly



2. What do you do at the Nazzaro Center?



3. If you don't use the existing Nazzaro Center, why not?



Quality of facility

Would do after school programs but long waitlist; Not enough spots for kids in the neighborhood
(7 similar responses)

My child has been on the waiting list for the afterschool program over 3 years

Web site is not informative

I didn't know there was a fitness room, or yoga classes offered, etc.
(2 similar responses)

I wish I was more aware of volunteer opportunities for helping teens with homework, etc.

My child is too young

My schedule is hectic

Used daily when child was young

Need more programs especially Senior Programs not just bingo - we need educational and physical programs
(1 similar responses)

If there were classes like yoga or pilates, I might use it more often.

Needs lots of updating or a new building

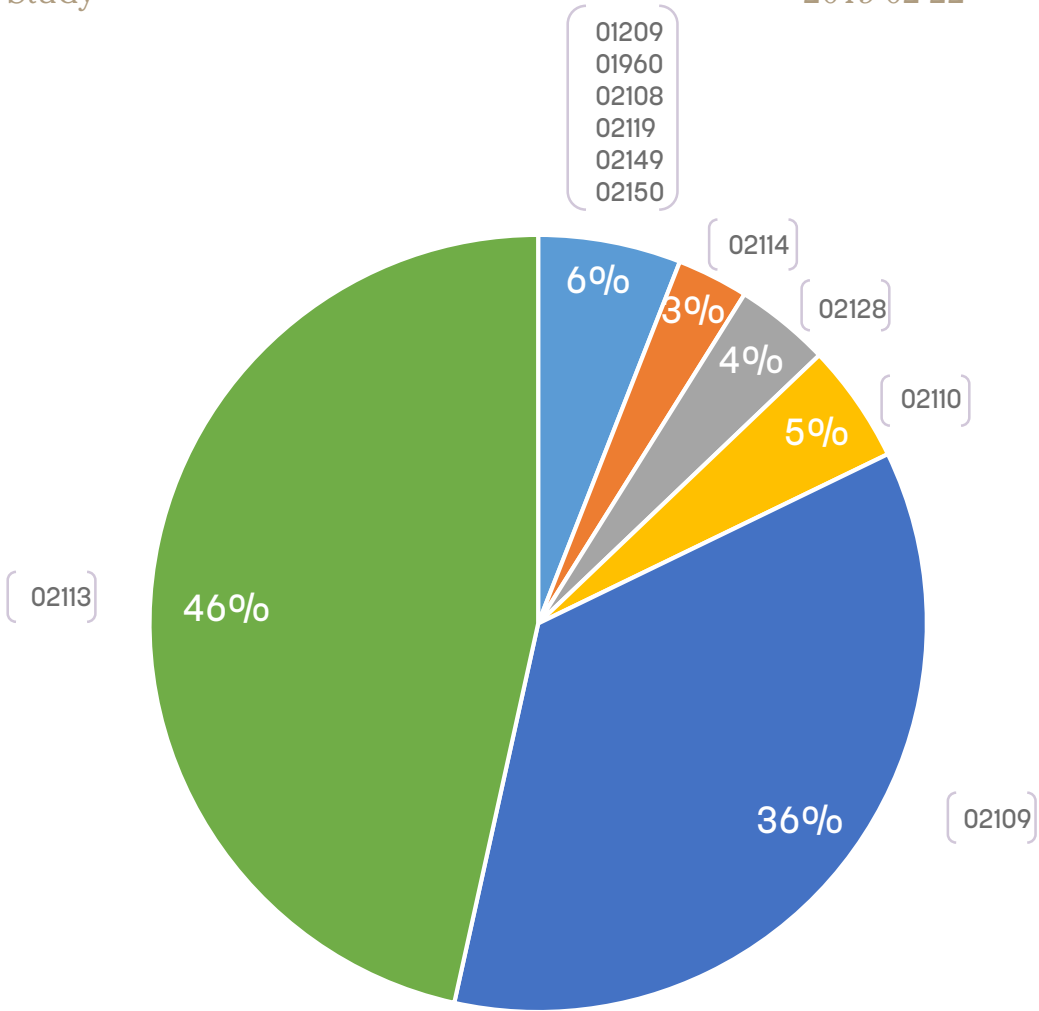
4. What do you like best about the Nazzaro Center?

- Central location, availability
(37 similar responses)
- The amazing staff; Carl and Laurie
(16 similar responses)
- Community feel
(13 similar responses)
- Youth programming / Camps / After school programs
(7 similar responses)
- Sports leagues
(5 similar responses)
- Lots of programs for kids and families, including after school, camps, trips, family events (Halloween, etc)
(5 similar responses)
- Place the kids can come together and play sports and enjoy each other
(4 similar responses)
- I love that they offer a toddler drop in 3 days per week! I wouldn't survive the winters without it!
(4 similar responses)
- Access to pool in summer
(4 similar responses)
- Community meetings
(4 similar responses)
- Weekend basketball / gym
(3 similar responses)
- Golf lessons
(3 similar responses)
- The historic feel of the building
(2 similar responses)
- The people that utilize the facilities
(2 similar responses)
- Willingness to open gym during some snow days.
(1 similar responses)
- Price
- Stroller friendly
- The size of the space
- Everything- the after school program and summer camp are essential for our working family of 5. They gave my

- oldest her first job. My son uses it on weekends for basketball.
- EVERYTHING!! We spend so much time there. It is a way for my kids to be safe after school where they can burn off some steam and play with their friends. There are so many organized activities.
- I like that it is a true community center, it is very dated though and doesn't have things such as an indoor pool, like many of the others have.
- Love that it provides a neighborhood meeting place. Our daughter has been there with school, as well, when they can't have outdoor recess. We'd love more kids/childcare programming and family-friendly activities.
- Ski trips
- Its location and some offerings for kids I just wish there were more options for after school like a drop in program for drawing or legos- something that would add more community offerings like at the library
- The ability to socialize with friends in the senior center
- What I like best about the Nazzaro Center is its location; being a place that is centrally located in the North End and easily accessible, there always being someone there for every need, the incredibly helpful, supportive, and friendly staff, the programs offered that range from sports to summer camp, the ability to come as frequently as I like, and the teen room, where there is always help for anything, a place to be with your friends, a place to do homework, a place to relax, a place to socialize, and a place to come when you like and have access wonderful peers and staff.

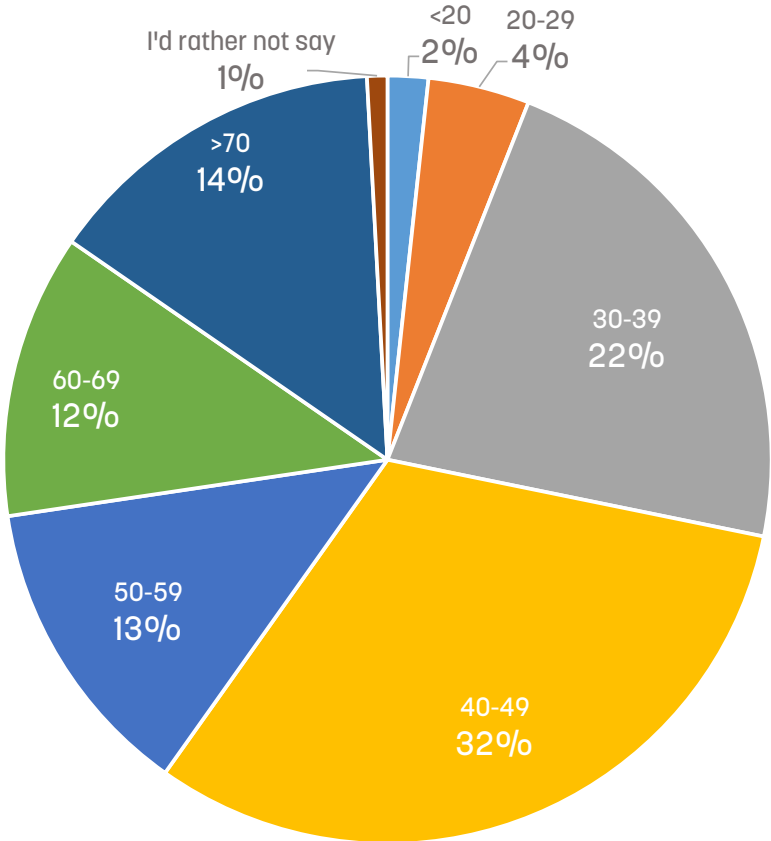
- Location and its proximity to open outdoor space/ basketball courts.
- Open to everyone, particularly families (even though my children are grown and do not use it)

5. Where do you live?

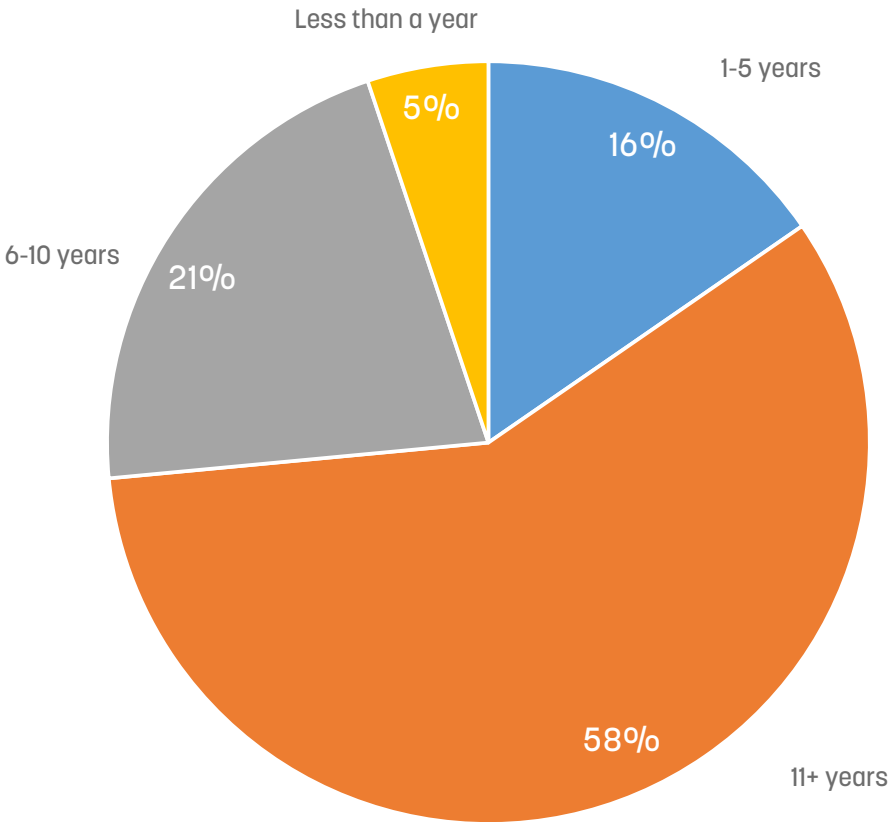


7. What is your age range?

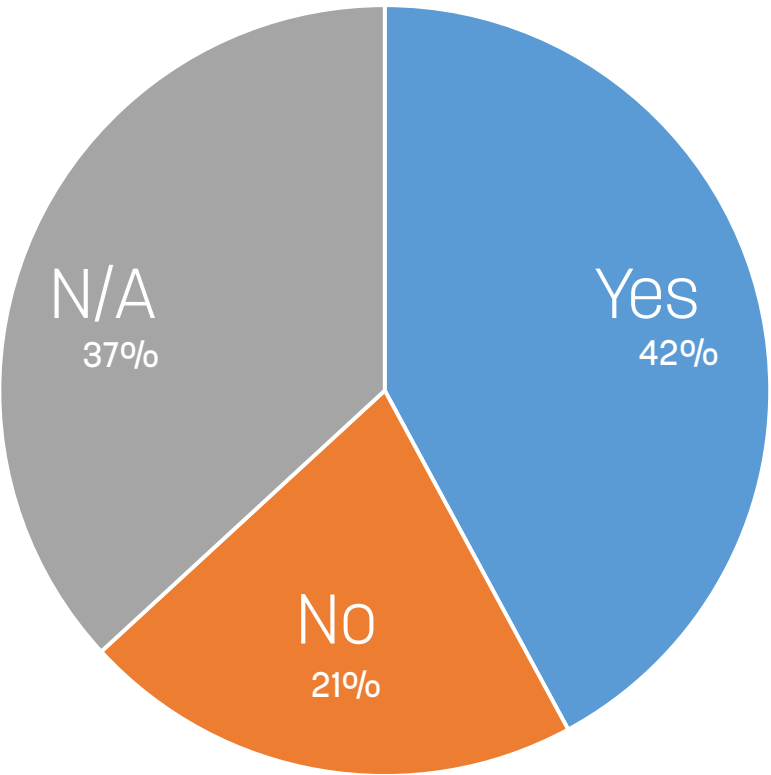
Results shown include responses from both original survey period (2017) and second survey period (2018).



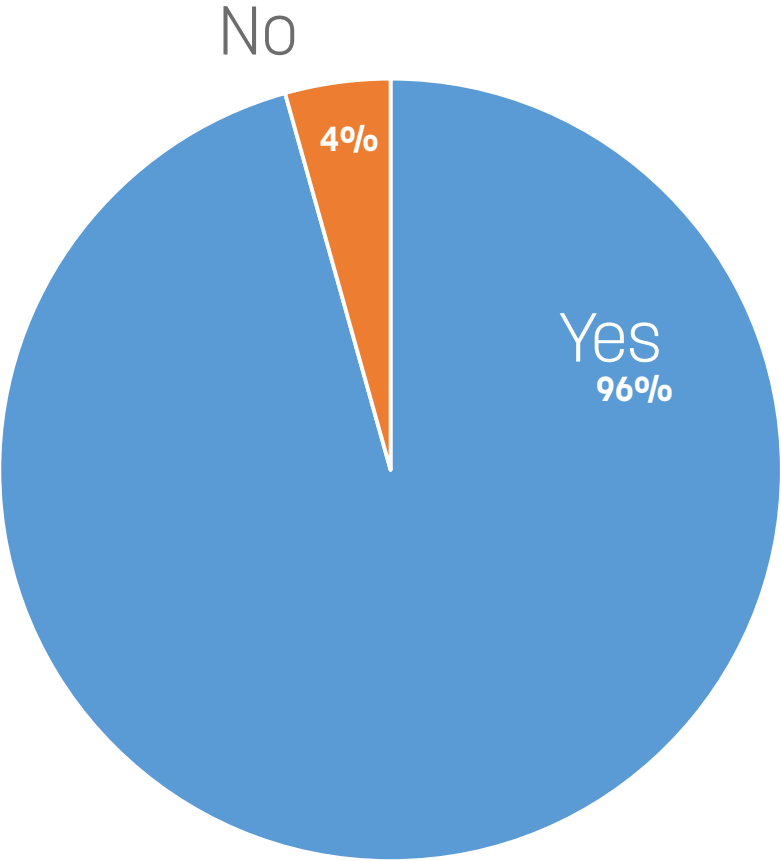
6. How long have you lived there?



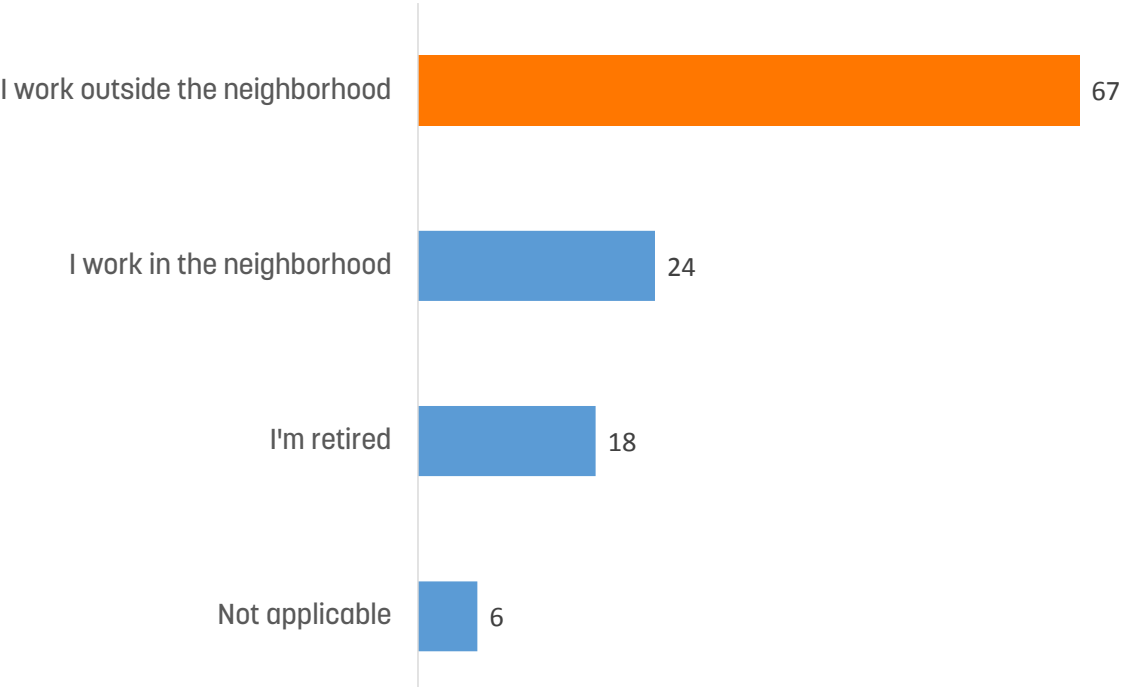
8. Do your children/grandchildren use the center?



9. Are your children/grandchildren under 18?

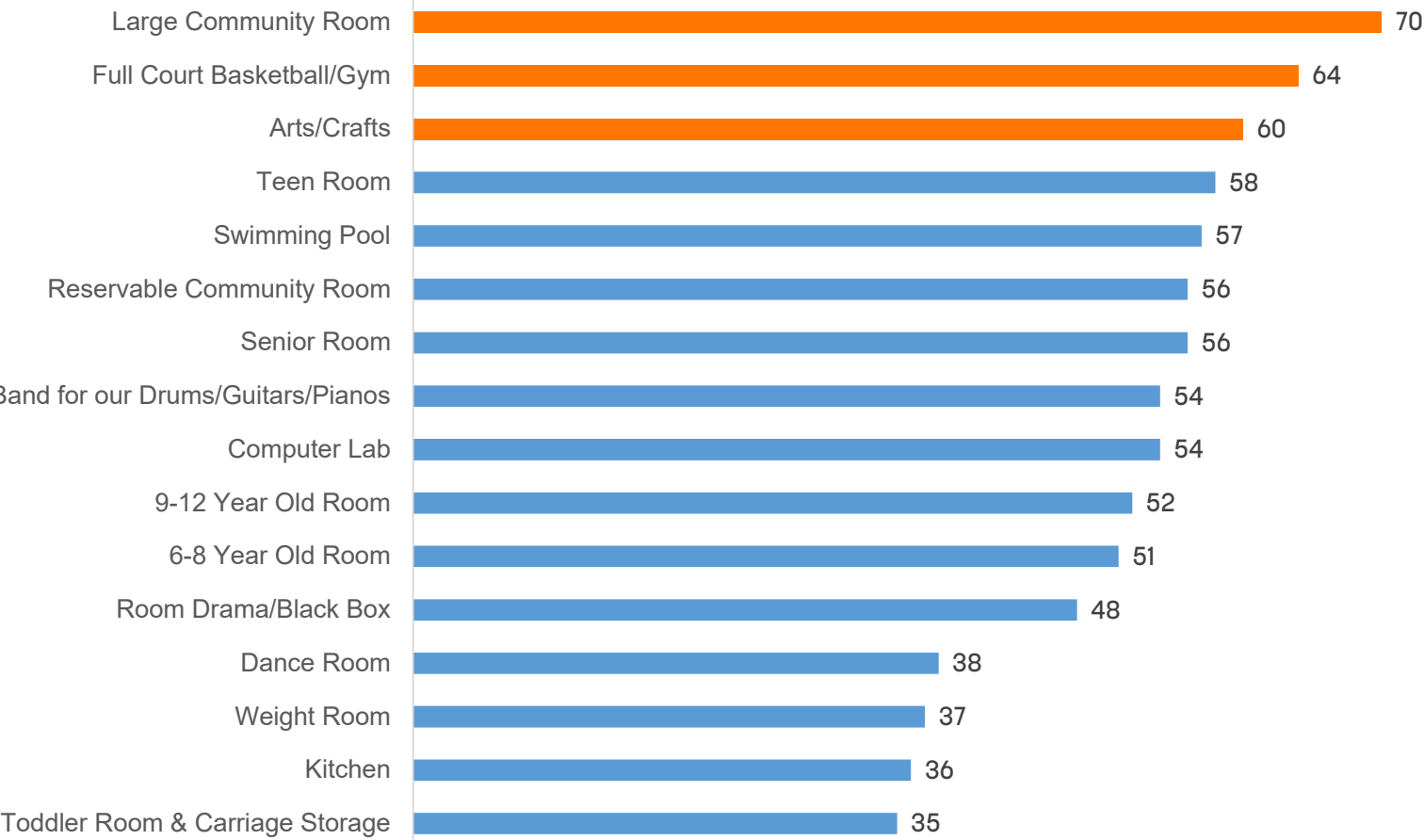
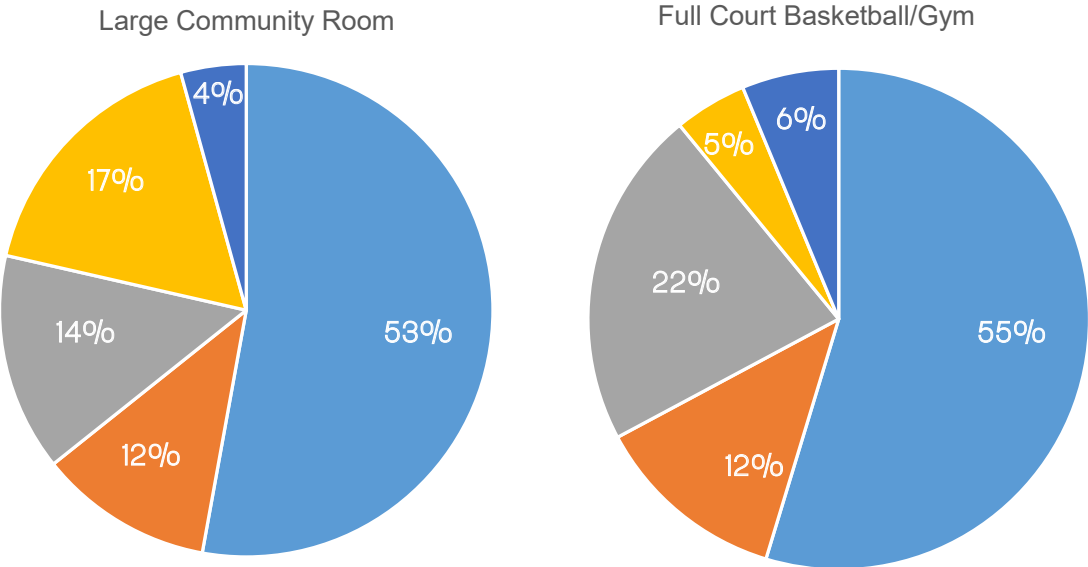


10. Where do you work?



11. Program prioritization

(Respondents had a “budget” of 30 votes to allocate to various program options)



3.3 Spatial Requirements

PROGRAM METHODOLOGY

The programming process began with a series of conversations with BCYF, PFD, and the Mayor’s Office of Neighborhood Services about needs of the community. BCYF staff repeatedly described the building as “bursting at the seams.” A major impetus for this study is simply the need to provide more and better-suited space to house the programs that BCYF already has. In addition, new programs are contemplated that will appeal to broader demographics, supporting BCYF’s overall goals for the center.

Program Categories

BCYF categorizes programs into “Arts,” “Civic Engagement,” “Education,” and “Sports,” abbreviated as “ACES.” Sasaki has followed that categorization, although overlap exists between many of the space uses.

Swimming Pool

The incorporation of a swimming pool and associated support spaces is considered in a separate category. Depending on site selection, a pool may be included in the program. For now, it is shown on a separate page. Whether a pool is included will also affect locker room and plumbing counts.

Existing Visit Analysis

Based on BCYF-provided data on visits to the community center and pool in Fiscal Year 2016, Sasaki reviewed trends and

made observations about how the center is used. After controlling for the spike in visits during the summer that is associated with the swimming pool, the team observed that sports uses predominate, and that over half of the sports visits are for recreational gym - i.e. local schools using the gym for classes during the school day. The center’s programming serves mostly youth, with teens and seniors also represented. Few programs reach adults under 55. All of this led the team to recommend ample sports and educational space, and a few key additions to the program to appeal to adults. This analysis is described in Section 1.

“Wish List” and Sasaki Suggestions

BCYF provided Sasaki with an initial “wish list” of programs:

- Toddler room with stroller storage
- 6-8 Year old room
- 9-12 Year old room
- Teen room
- Senior room
- Computer lab
- Arts/crafts room with sink in room
- Drama/ black box theater
- Music/room/band for drums/guitars/pianos
- Dance room
- Full court basketball gym
- Kitchen
- Community room
- Weight room

- Swimming pool
- Space for other community groups to use

Deck	15	gross
Stages and Platforms	15	net
Outdoor play space	75	gross

In addition to this list, Sasaki recommended the following to complement current programming:

- Cardio and other fitness equipment
- Studio fitness, i.e. yoga, Zumba
- A recording booth adjacent to the music room
- Enhanced family-friendly support spaces, such as family changing rooms
- Dedicated outdoor spaces for both adult and youth use
- Enhanced lobby

Some of these elements may be able to occupy the same spaces. Potential overlaps are indicated in the spreadsheet on the next page.

Occupancy Assumptions

Code-maximum occupancies in the program are based on the Massachusetts State Building Code (780 CMR) and IBC 2009 Table 1004.1.1, as well as state child care licensing requirements (606 CMR 7.00). Key factors (expressed in SF/occupant unless otherwise noted) include:

Accessory Storage/mechanical	300	gross
Assembly w/o fixed seats		
concentrated - chairs only	7	net
standing space	5	net
unconcentrated (tables & chairs)	15	net
Business	100	gross
Day care	35	net
Student-teacher ratio (school age)	1:13	
Student-teacher ratio (preschool)	1:12	
Classroom	20	net
Exercise Rooms	50	gross
Locker Rooms	50	gross
Pool and Rink		
Pool	50	gross

Actual occupancies are typically determined by room layout but must not exceed code occupancies. In the past, BCYF typically as not sought state (EEC) licensure for their childcare programs but would like to retain the option to do so.

Net to Gross Factor

The tabular program assumes 70% efficiency in the final floor plans. The actual ratio will vary based on site and building configuration.

Key Adjacencies

The team recommends the following adjacencies be considered:

- Restrooms should be distributed throughout the building. Child care spaces must have restroom access no more than one floor away.
- Locker rooms and showers should be as close as possible to the pool.
- Cardio and weight equipment areas should be adjacent.
- The kitchen is classified as a Civic Engagement space, but is also used by youth programs and should be near the classrooms.
- Sight lines are key for staff areas to be able to supervise as much of the center as possible.

TABULAR PROGRAM

Existing				Right-Sized				Middle (between right-sized and ideal)					Ideal			
	EXISTING SPACES				EXISTING - RIGHT SIZED				PROPOSED SPACES - MINIMUM					EXPANDED QUANTITY		COMMENTS
PROGRAM	ROOM SF (EXISTING)	OCCUPANCY (Calculated Max)	QUANTITY (EXISTING)	TOTAL SF	ROOM SF (Right-sized)	OCCUPANCY (Typical)	QUANTITY (Right-sized)	TOTAL SF	ROOM SF (Minimum)	OCCUPANCY (Code Max)	OCCUPANCY (Typical)	QUANTITY (MINIMUM)	TOTAL SF	QUANTITY (IDEAL)	TOTAL SF	
A. Arts Spaces																
1. Arts & Crafts Room ‡	0	0	0	0	0	0	0	0	750	38	28	0	0	1	750	‡ In minimum configuration, assume combined with adult room
1.a. Storage	0	0	0	0	0	0	0	0	27	1	0	1	27	1	27	
2. Music Room	0	0	0	0	0	0	0	0	540	27	15	1	540	1	540	
SUBTOTAL NSF				0				0					567		1,317	
B. Civic Engagement																
1. Senior/Adult Program Room ‡	1,216	174	1	1,216	1,000	35	1	1,000	1,000	67	35	1	1,000	1	1,000	Max occupancy based on tables/chairs Not including furniture storage: see 3a. Noncommercial; adjacent to children's & adult rms currently adults' + childrens' rooms combined includes furniture storage and AV
1a. Storage (83 SF,18 SF,18 SF)	119	1	3	357	50	0	1	50	50	1	0	1	50	1	50	
2. Kitchen	142	1	1	142	275	8	1	275	275	14	8	1	275	1	275	
3. Multipurpose Assembly Space **	2,464	352	1	2,464	2,016	150	1	2,016	2,016	288	150	1	2,016	1	2,016	
3.a. Storage/Back-Of-House	0	0	0	0	0	0	0	0	480	2	0	1	480	1	480	
4. Community Room (reservable)*	0	0	0	0	0	0	0	0	300	20	20	1	300	2	600	
SUBTOTAL NSF				1,715				3,341					4,121		4,421	
C. Education (Youth Spaces)																Reference: 606 CMR 7.00
1. Children's Room †	1,248	63	1	1,248	1,000	27	3	3,000	1,000	29	27	4	4,000	6	6,000	per 806 CMR 7.00, 35 sf/pp and 26 max class size. Note that existing space is calculated as Classroom (20 sf/pp) rather than Day Care
1.a. Storage (30 SF,8 SF)	38	1	2	76	25	0	3	75	25	1	0	4	100	6	150	
2. Toddler/Parent Program Room †	0	0	0	0	0	0	0	0	950	48	25	0	0	1	950	† Quantity zero: assume combined with a classroom or Studio Fitness
2.a. Storage	0	0	0	0	0	0	0	0	25	1	0	0	0	1	25	
2.b. Restroom	200	1	1	200	200	1	1	200	100	2	2	0	0	1	100	Adjacent to room Occupancy shown is strollers, not children
2.c. Carriage Storage	0	0	0	0	0	0	0	0	250	1	20	1	250	1	250	
3. Nursing Room	0	0	0	0	0	0	0	0	64	2	2	1	64	1	64	Calculate as classroom
4. Teen Room	433	22	1	433	900	25	1	900	900	45	25	1	900	1	900	
4.a.Storage	28	1	1	28	50	0	1	50	50	1	0	1	50	1	50	Will be used for programs, testing, individual uses
4. Computer Lab	0	0	0	0	0	0	0	0	1,254	63	21	1	1,254	1	1,254	
SUBTOTAL NSF				1,985				4,225					6,618		9,743	
D. Sports and Fitness Spaces																
1. Gymnasium	4,021	81	1	4,021	7,280	75	1	7,280	7,280	146	75	1	7,280	1	7,280	Occupancy given is for athletic use. Up to 1040 occupants for assembly use. BCYF/City of Boston to determine whether assembly use justifies increased egress capacity 2 rows of seating Rule of thumb: 50-75 sf per piece of equipment
1.a. Seating	0	0	0	0	0	0	0	0	208	224	224	0	0	1	208	
2. Weight and Cardio Fitness Room	637	13	1	637	2,500	50	1	2,500	2,500	50	50	1	2,500	1	2,500	
2.a.Storage	42	1	1	42	50	0	1	50	50	1	0	1	50	1	50	
3. Fitness/Dance/Yoga Studio **	0	0	0	0	0	0	0	0	1,200	24	20	1	1,200	2	2,400	** Possibly combine with Multipurpose, depending on flooring and furniture included with locker rooms below Locker rooms sized for gym only - not pool
3.a. Storage	0	0	0	0	0	0	0	0	45	1	0	1	45	1	45	
4. Restrooms (195 SF, 224 SF)	210	1	2	419												
5. Locker/Shower Rooms (62 SF each)	62	2	2	124	1,000	20	2	2,000	1,000	20	20	2	2,000	2	2,000	
6. Family Changing Rooms	0	0	0	0	0	0	0	0	160	4	4	2	320	4	640	
SUBTOTAL NSF				5,243				11,830					13,395		15,123	
E. Entry Lobby/Circulation																
1. Vestibule	35	7	1	35	80	0	1	80	80	16	0	1	80	1	80	transient space desk is staffed whenever the center is open
2. Reception Desk	70	1	1	70	96	2	1	96	96	2	2	1	96	1	96	
3. Lobby	548	110	1	548	600	10	1	600	600	120	10	1	600	1	600	code max occupancy may occur during special events existing now used as tel/data Now in lobby
4. Coat Room/Storage	0	0	0	0	0	0	0	0	80	1	0	0	0	1	80	
5. Vending	0	0	0	0	0	0	0	0	37	0	0	1	37	1	37	
SUBTOTAL NSF				653				776	37				813		893	
F. Staff Areas																
1. Director's Office	160	2	1	160	125	2	1	125	125	2	2	1	125	1	125	Adjacent to gym
2. Office (rm 109)	113	2	1	113	125	2	1	125	125	2	2	1	125	1	125	
2.a Storage	24	1	1	24	50	0	1	50	50	1	0	1	50	1	50	
3. Office (rm 207)	52	1	1	52	300	8	1	300	300	3	8	1	300	1	300	Replace existing with bullpen-style group office
SUBTOTAL NSF				349				600					600		600	

Continued on next page

TABULAR PROGRAM cont’d

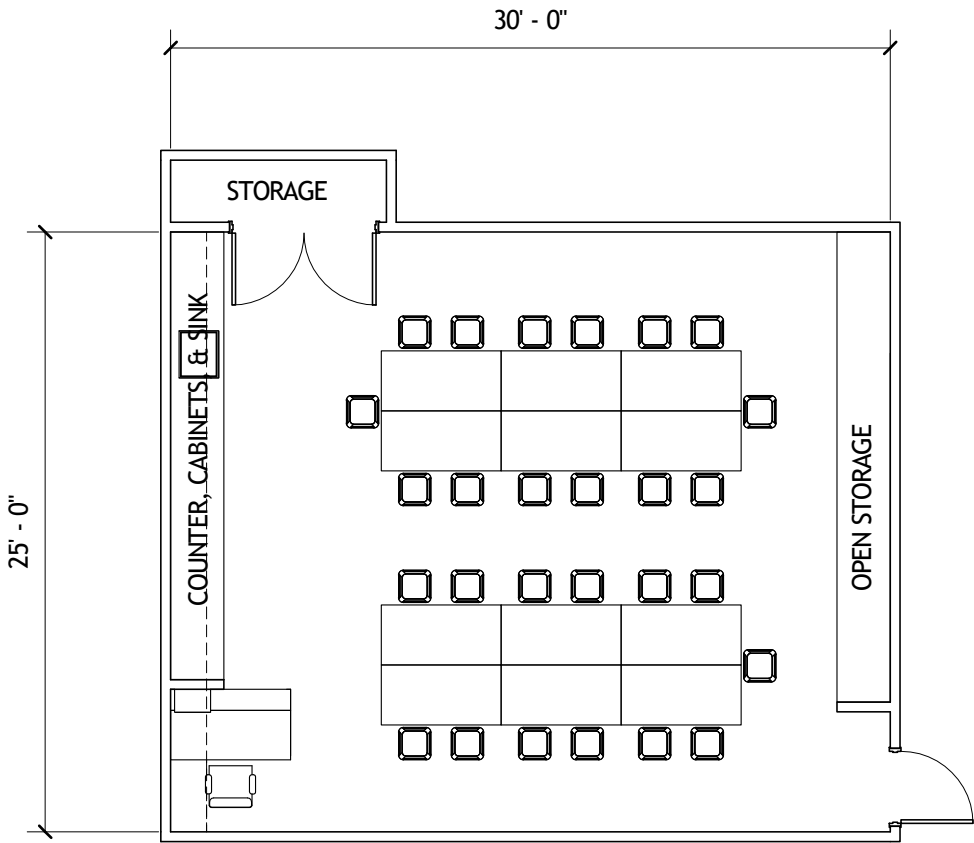
	EXISTING SPACES				EXISTING - RIGHT SIZED				PROPOSED SPACES - MINIMUM					EXPANDED QUANTITY		COMMENTS
PROGRAM	ROOM SF (EXISTING)	OCCUPANCY (Calculated Max)	QUANTITY (EXISTING)	TOTAL SF	ROOM SF (Right-sized)	OCCUPANCY (Typical)	QUANTITY (Right-sized)	TOTAL SF	ROOM SF (Minimum)	OCCUPANCY (Code Max)	OCCUPANCY (Typical)	QUANTITY (MINIMUM)	TOTAL SF	QUANTITY (IDEAL)	TOTAL SF	
G. Building Operations																
1. Janitor (28 SF,48 SF)	38	1	2	76	40	0	3	120	40	1	0	3	120	3	120	1 per floor of the building
2. Storage (86 SF,95 SF,50 SF)	77	1	3	231	100	0	1	100	100	1	0	2	200	2	200	
3. Elevator	42	9	1	42	110	0	1	110	110	23	0	1	110	2	221	transient sapce
4. Corridor circulation (excluding stairs)	1,274	255	1	1,274	TBD	N/A	N/A	TBD	TBD	N/A	N/A	N/A	TBD	N/A	TBD	
5. Mechanical Room	3,000	10	1	3,000	1,200	0	1	1,200	1,200	4	0	1	1,200	1	1,200	Currently a rooftop unit + basement
6. Tel/Data and Electrical	91	1	1	91	80	0	4	320	80	1	0	4	320	4	320	Existing labeled as coat room on plan
7. Restrooms (45 SF, 32 SF, 60 SF)	46	1	3	137	60	1	6	360	60	1	1	6	360	6	360	quantity TBD; depends on total building occupancy
8. Trash/Recycling Room	0	0	0	0	0	0	0	0	100	1	0	1	100	1	100	currently basement & stairwells
9. Service/Delivery Entrance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	included with trash/recycling room
10. Outdoor Maintenance Equip. Storage	100	0	1	100	100	0	1	100	100	1	0	1	100	1	100	currently a prefabricated shed
SUBTOTAL NSF				4,951				2,310					2,510		2,621	
SUBTOTAL BUILDING NSF				14,896				23,082					28,625		34,718	
Efficiency Factor				73%				70%					70%		70%	
GRAND TOTAL BUILDING GSF				20,507				32,974					40,892		49,597	basement, attic plans not avail., assume 3000 sf ea.

TABULAR PROGRAM: Pool

This series of spaces may be included in the building program if the selected site includes the existing Mirabella Pool.

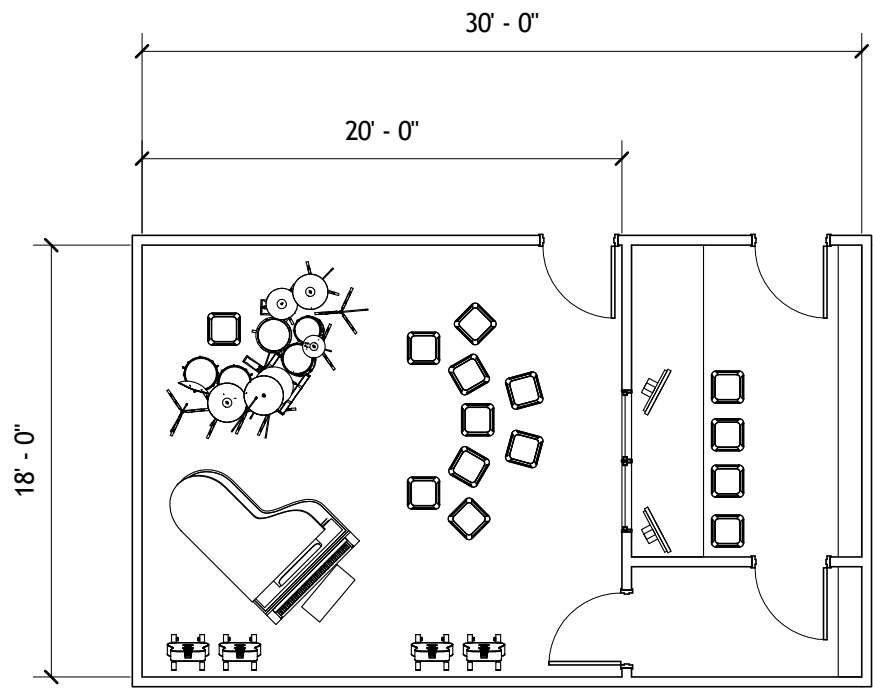
	EXISTING SPACES				EXISTING - RIGHT SIZED				PROPOSED SPACES - MINIMUM					EXPANDED QUANTITY		COMMENTS
PROGRAM	ROOM SF (EXISTING)	OCCUPANCY (Calculated Max)	QUANTITY (EXISTING)	TOTAL SF	ROOM SF (Right-sized)	OCCUPANCY (Typical)	QUANTITY (Right-sized)	TOTAL SF	ROOM SF (Minimum)	OCCUPANCY (Code Max)	OCCUPANCY (Typical)	QUANTITY (MINIMUM)	TOTAL SF	QUANTITY (IDEAL)	TOTAL SF	
H. Potential Merge w/ Mirabella Pool																
1. Splash pool	6,050	404	1	6,050	6,000	80	1	6,000	6,000	400	80	1	6,000	1	6,000	Area includes deck
2. Outdoor Long Pool	6,250	125	1	6,250	6,250	6,250	1	6,250	6,250	125	125	1	6,250	1	6,250	Represents existing Mirabella Pool
3. Deep Pool	2,500	50	1	2,500	2,500	2,500	0	0	2,500	50	50	0	0	0	0	Not a high priority for BCYF
4. Deck	14,400	960	1	14,400	14,400	200	1	14,400	14,400	960	200	1	14,400	1	14,400	
SUBTOTAL OUTDOOR NSF				29,200				26,650					26,650		26,650	
6. Locker Rooms/Showers/Restrooms	600	12	2	1,200	1,500	1,500	2	3,000	1,500	30	30	2	3,000	2	3,000	
a. deduct gym locker rooms from total								-2,000			-2		-2,000		-2,000	
7. Staff Offices	135	2	2	270	125	125	2	250	125	2	2	2	250	2	250	
8. Staff Meeting Room*	220	15	2	440	220	15	0	0	220	15	15	0	0	1	220	* Combine with community room
9. Concessions	212	3	1	212	225	225	0	0	225	3	3	0	0	0	0	Not desired by BYCF
10. Mechanical/Storage/Garage	960	4	1	960	1,000	0	0	0	1,000	4	0	0	0	1	1,000	vehicular access; combine with main mechanical rm
11. Parks & Recreation Dept. Storage	0	0	0	0	320	0	1	320	320	0	1	1	320	1	320	Parks & Recreation Department storage only req'd at Mirabella site; 24/7 access
SUBTOTAL BUILDING NSF				3,082				1,250					1,250		2,470	
Efficiency Factor				88%				80%					80%		80%	
POOL BUILDING GSF				3,498				1,563					1,563		3,088	
GRAND TOTAL POOL GSF				32,698				28,213					28,213		29,738	
I. Potential to Include Indoor Pool																
1. Indoor Lap Pool	0	0	0	0	0	0	0	0	7,000	140	140	0	0	1	7,000	Option not supported by the community
2. Locker Rooms/Showers/Restrooms	600	12	2	1,200	1,500	1,500	2	3,000	1,500	30	30	0	0	2	3,000	included under "G. Building Operations"
a. deduct gym locker rooms from total								-2,000							-2,000	
3. Staff Offices	135	2	2	270	125	125	2	250	125	2	2	0	0	2	250	
4. Staff Meeting Room*	220	15	1	220	220	15	1	220	220	15	15	0	0	0	0	* Combine with community room
5. Concessions	212	3	1	212	225	225	0	0	225	3	3	0	0	0	0	Not desired by BYCF
6. Mechanical/Storage/Garage	960	4	1	960	1,000	0	1	1,000	1,000	4	0	0	0	1	1,000	vehicular access; combine with main mechanical rm
SUBTOTAL BULDING NSF				2,862				2,470					0		9,250	
Efficiency Factor				82%				80%					80%		80%	
POOL BUILDING GSF				3,498				3,088					0		11,563	
J. Outdoor Space																
1. Garden (Exterior Space)	1,500	100	1	1,500	1,000	30	1	1,000	1,000	67	30	1	1,000	1	1,000	Rooftop OK
2. Outdoor play space	0	0	0	0	0	0	0	0	1,950	26	26	1	1,950	2	3,900	75sf/child using at a given time; rooftop OK
3. Parking	200	0	5	1,000	200	0	2	400	200	0	0	2	400	3	600	Currently 5 spaces; provide code-required parking only
SUBTOTAL NSF				1,500				1,000					2,950		4,900	

ROOM DATA SHEETS



Floor Plan Diagram
scale: 1/8" = 1'-0"

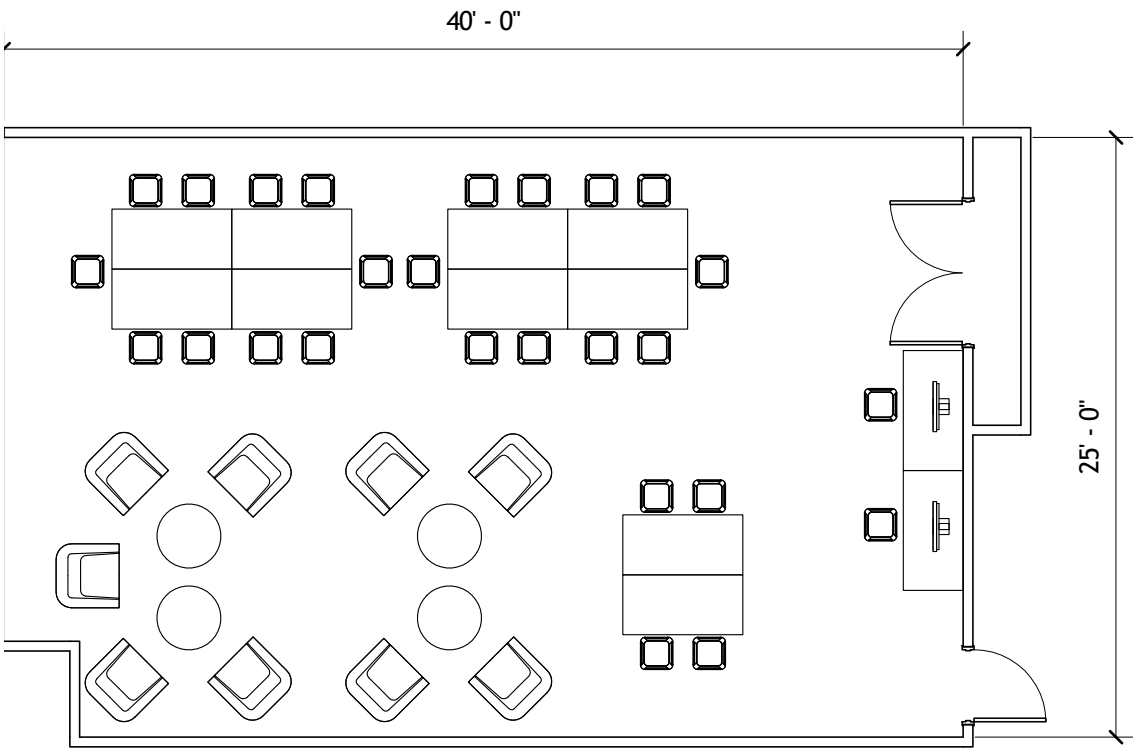
SPACE	Arts & Crafts Room	NOT INCLUDED IN ALL PROGRAM OPTIONS
NET SF	766	
NOTES	Possible overlap with other spaces: Senior/adult program room Storage needs include supplies and finished/in progress artwork	
OCCUPANTS	28	
HOURS OF OPERATION	Day & night	
FUNCTION	Kids during the day/after school Adults at night (adult paint night, jewelry making, knitting, etc)	
SPECIAL FEATURES		
ADJACENCIES/ RELATIONSHIPS	Close to youth/teen rooms Adjacent to storage closet	
FINISHES/ STORAGE	resilient floor storage closet (shown at 27 sf) and open storage (cabinets, counters @ 2 full walls of the room) tackboards or marker boards	
EQUIPMENT: ...FIXED	counters, cabinets, open shelving sink magnetic whiteboards or tackboards	
...MOVABLE	tables & chairs, teacher station, wall-mounted drying racks	



Floor Plan Diagram
scale: 1/8" = 1'-0"

SPACE **Music Room**

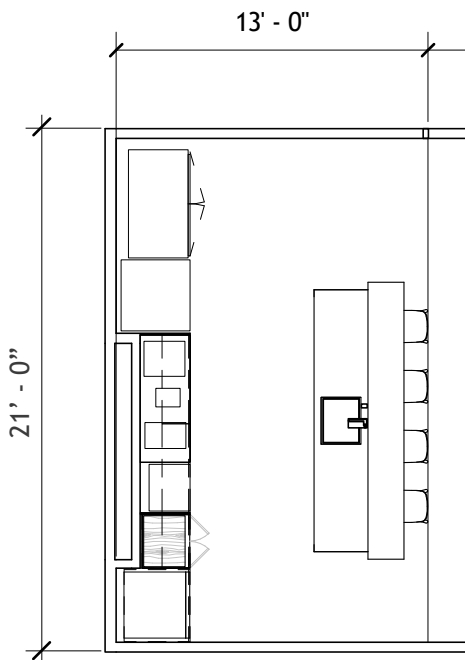
NET SF	540
NOTES	Space for drums, guitars, piano. Some computers for recording. Sasaki recommends separate recording studio within the room
	Storage needs include instruments, microphones, other recording equipment
OCCUPANTS	15
HOURS OF OPERATION	Day & night
FUNCTION	Instrument storage, instruction, practice Recording and mixing
SPECIAL FEATURES	Recording booth within the room square footage It is assumed that this is a practice and recording space, not a performance space. Acoustics are geared toward absorption.
ADJACENCIES/ RELATIONSHIPS	Close to teen room, multipurpose assembly space
FINISHES/ STORAGE	Resilient floor, acoustic panels on walls and ceiling. Area rugs may be required. Consider acoustic flooring such as sound-absorbing linoleum. storage closet (included in the room) mirrors internal soundproof window between room and recording studio
EQUIPMENT: ...FIXED	storage racks and shelving recording/mixing board lockable storage closet
...MOVABLE	music stands, instrument stands microphones, etc. chairs and soft seating



SENIOR/ADULT PROGRAM ROOM

Floor Plan Diagram
scale: 1/8" = 1'-0"

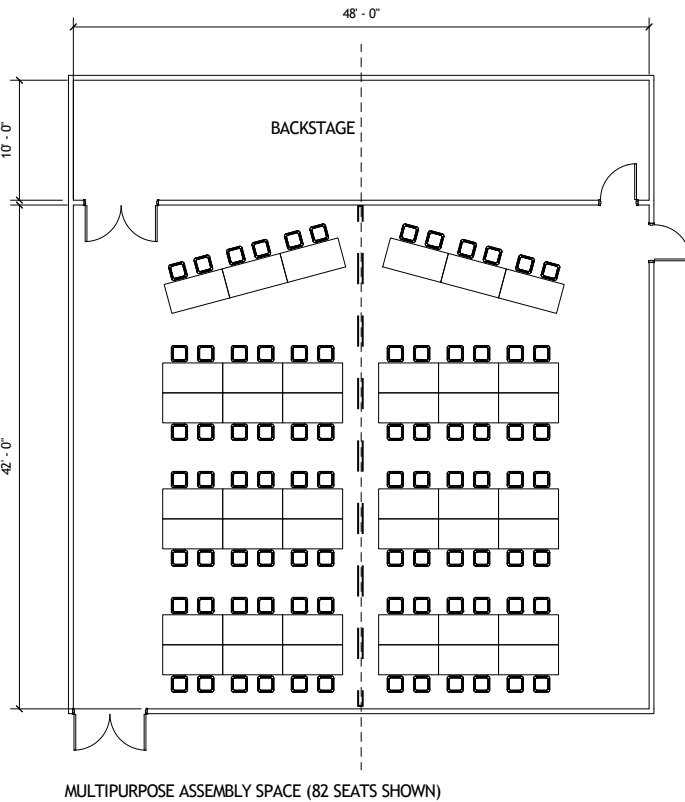
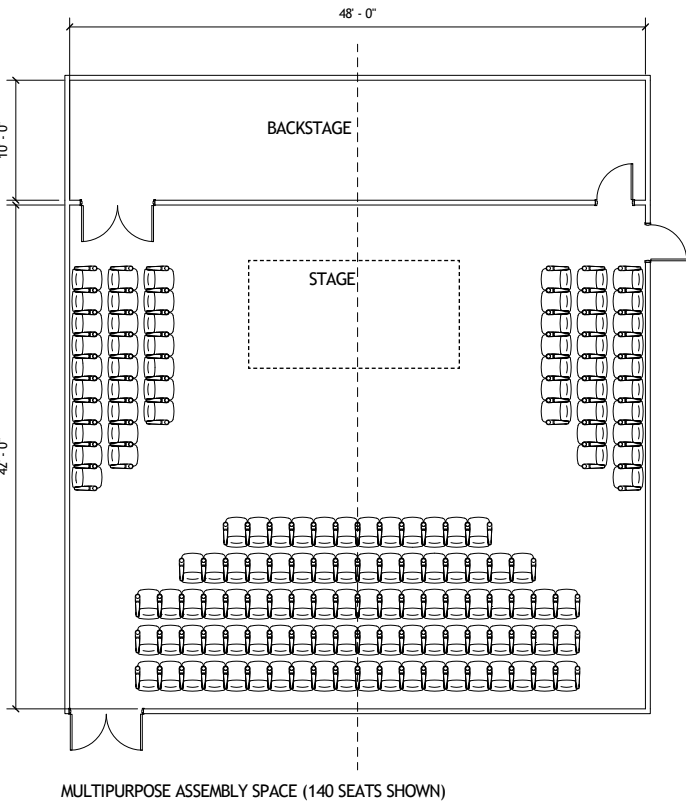
SPACE	Senior/Adult Program Room
NET SF	1,020
NOTES	<p>Preference is for each age group to have their own designated rooms. Seniors want their own space. Seniors use the space 2x a week. Possible overlap with Arts & Crafts</p> <p>Storage needs include bingo equipment, costumes, seasonal decorations. Consider separate storage for tables/chairs elsewhere in the building - possibly in Multipurpose Room storage.</p>
OCCUPANTS	26
HOURS OF OPERATION	<p>Seniors: morning, early afternoon, tend to leave by 3pm</p> <p>Other adult-oriented programming post-3pm</p>
FUNCTION	<p>Lounging, socializing, community, bingo</p> <p>AA meetings, new moms groups, support groups, etc.</p>
SPECIAL FEATURES	
ADJACENCIES/ RELATIONSHIPS	<p>Adjacent to exterior garden space as they have currently</p> <p>Adjacent to kitchen</p> <p>Proximity to ADA restrooms</p> <p>Proximity to furniture storage</p>
FINISHES/ STORAGE	<p>Storage closets and cubbies</p> <p>Resilient or carpeted floor, acoustic ceiling</p>
EQUIPMENT: ...FIXED	<p>Storage cubbies</p> <p>If combined with Arts & Crafts functions, will require a sink.</p>
...MOVABLE	<p>Soft furniture, movable card/craft tables, dining chairs (no low chairs)</p> <p>Computers and tables</p>



KITCHEN

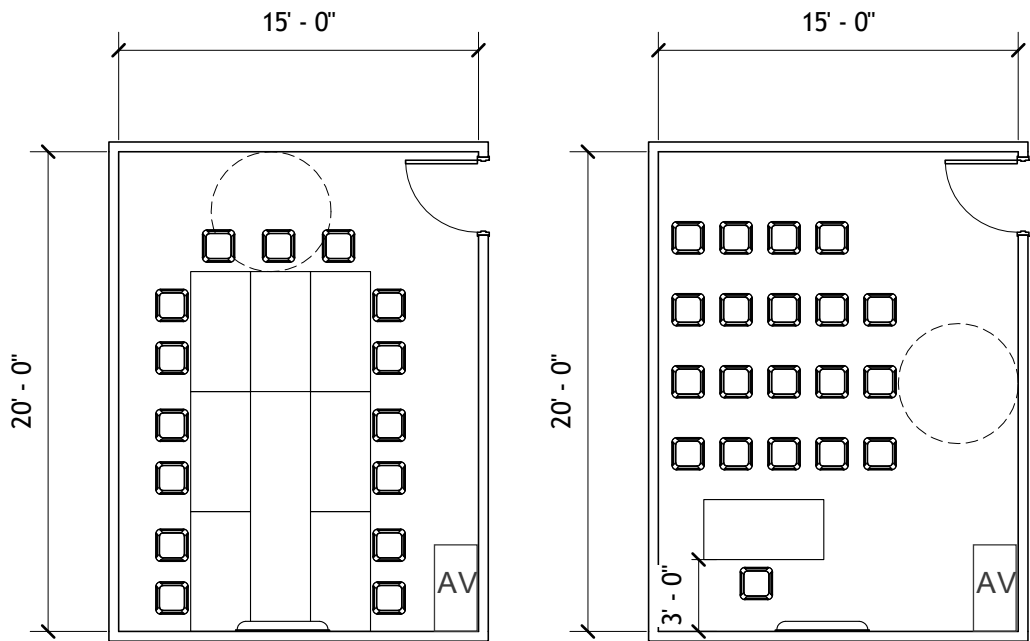
Floor Plan Diagram
scale: 1/8" = 1'-0"

SPACE	Kitchen
NET SF	275
NOTES	<p>Not a commercial kitchen; a residential-style kitchen with ample space for groups. Youth cook as a group activity, bringing in family recipes. Adult users do not currently use the kitchen intensively, although they use coffee/tea.</p> <p>Storage needs include pots and pans, dry goods, and coffee supplies.</p> <p>Should be able to double as a catering kitchen for special events</p>
OCCUPANTS	14
HOURS OF OPERATION	Day and night
FUNCTION	<p>Demonstration and group cooking, adults and youth</p> <p>Catering support for community events and performances</p>
SPECIAL FEATURES	<p>Large counter top/island for demonstrations and groups</p> <p>Adjustable lighting</p> <p>Catering-level sinks, power supply</p> <p>Ability to close off kitchen and/or to use it independently of other spaces</p>
ADJACENCIES/ RELATIONSHIPS	<p>Adjacent to and open to youth classroom or adult program space</p> <p>Proximity to large community room for events</p>
FINISHES/ STORAGE	<p>Resilient, tile, or other hard, slip-resistant floor</p> <p>Cleanable walls and backsplashes</p> <p>Solid surface cabinetry and countertops</p> <p>Hard ceiling</p> <p>Storage cabinets</p>
EQUIPMENT: ...FIXED	Stove top, oven, sink, dishwasher, microwave
...MOVABLE	Refrigerator, coffee maker, hot water maker, toaster



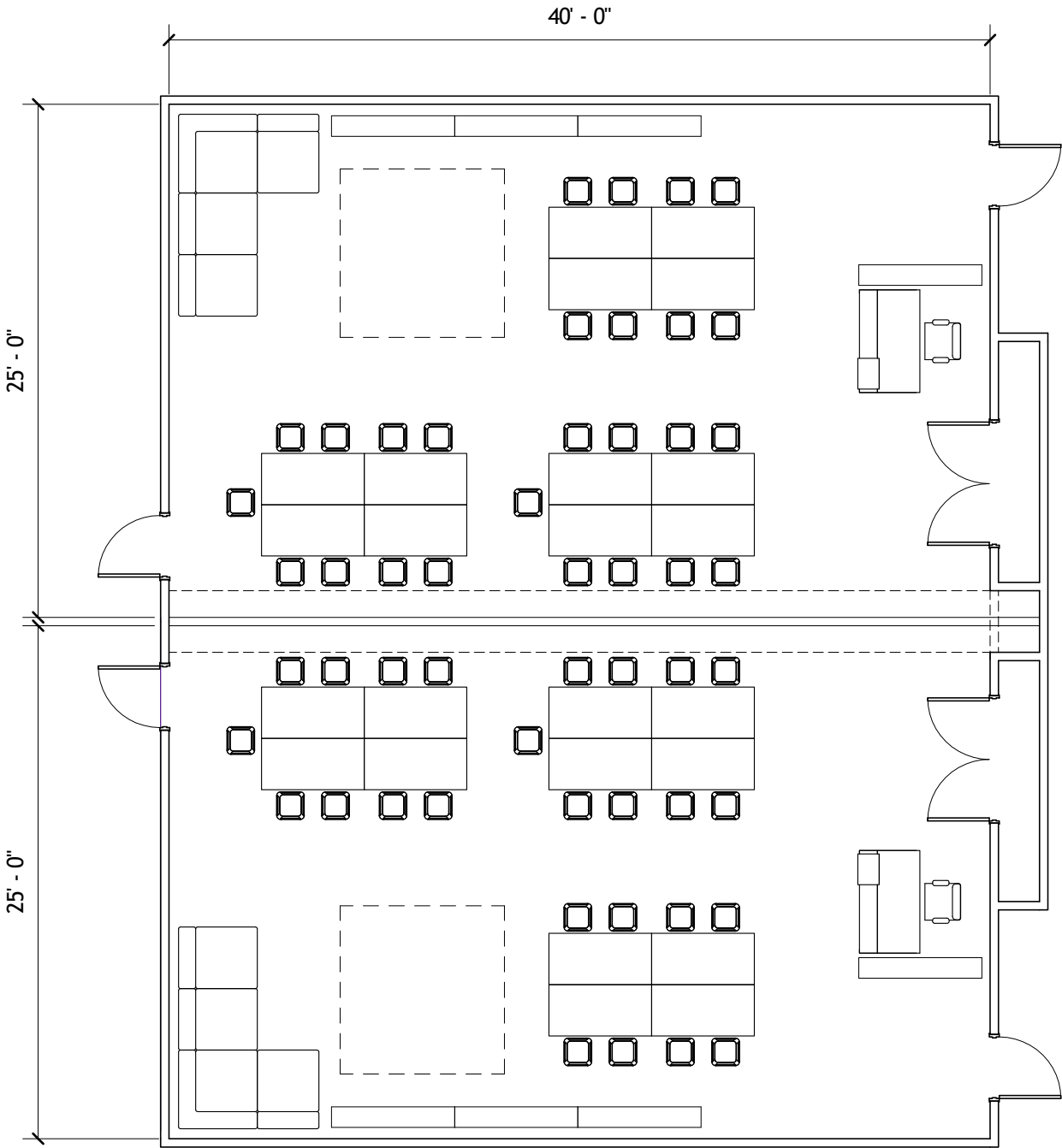
Floor Plan Diagrams
scale: 1/16" = 1'-0"

SPACE	Multipurpose Assembly Space
NET SF	2,016
NOTES	<p>Flexible assembly space with movable seating, lighting, theatrical lighting truss, sound system, appropriate acoustics for performances and for large community events</p> <p>Will also be used for dance, rehearsal, drama club, etc. during the day</p> <p>Possible overlap with studio fitness, depending on flooring and furniture</p> <p>Storage needs may include stage sets/props but is primarily intended to store AV racks and tables and chairs when not in use.</p> <p>North End Music & Performing Arts Center (NEMPAC) has expressed interest in sharing this space.</p> <p>Subdividable.</p>
OCCUPANTS	up to 288 with all movable chairs; typically 50-150
HOURS OF OPERATION	Day & night
FUNCTION	Drama and music performance, community meetings, fitness classes.
SPECIAL FEATURES	<p>movable seating, lighting truss, high ceiling</p> <p>adjustable lighting, AV</p> <p>Controls at ground level (no catwalks/booths)</p>
ADJACENCIES/ RELATIONSHIPS	<p>Adjacent to back-of-house/storage</p> <p>Proximity to lobby or major circulation space</p>
FINISHES/ STORAGE	<p>Hard floor and walls, acoustic panels, exposed ceiling</p> <p>1-2 walls of mirrors</p> <p>No storage in the space; storage in an adjacent room</p>
EQUIPMENT: ...FIXED	<p>lighting/pipe grid</p> <p>AV system: speakers, projector, screen, etc.</p> <p>Curtains to cover mirror walls when not in use</p> <p>Projector screen and projector</p> <p>Retractable partition to subdivide room</p>
...MOVABLE	<p>Theatrical lighting and sound equipment</p> <p>Tables and chairs</p> <p>Movable platform, +/- 18" tall</p>



Floor Plan Diagram
scale: 1/8" = 1'-0"

SPACE	Community Room
NET SF	220
NOTES	Flexible conference/meeting room that can be reserved by community groups for meetings or events No storage required.
OCCUPANTS	15 (conference style); 20 (just chairs)
HOURS OF OPERATION	Primarily evenings
FUNCTION	AA meetings, new moms groups, support groups, etc. Staff meetings
SPECIAL FEATURES	Glazed interior windows and/or sidelites for visibility (frosted?)
ADJACENCIES/ RELATIONSHIPS	Ideally it will be possible to reach the space without accessing other parts of the community center
FINISHES/ STORAGE	Resilient floor, acoustic ceiling AV credenza/cabinet in room
EQUIPMENT: ...FIXED	AV equipment: plug-and-play monitor, telephone Whiteboard / markerboard
...MOVABLE	Tables and chairs

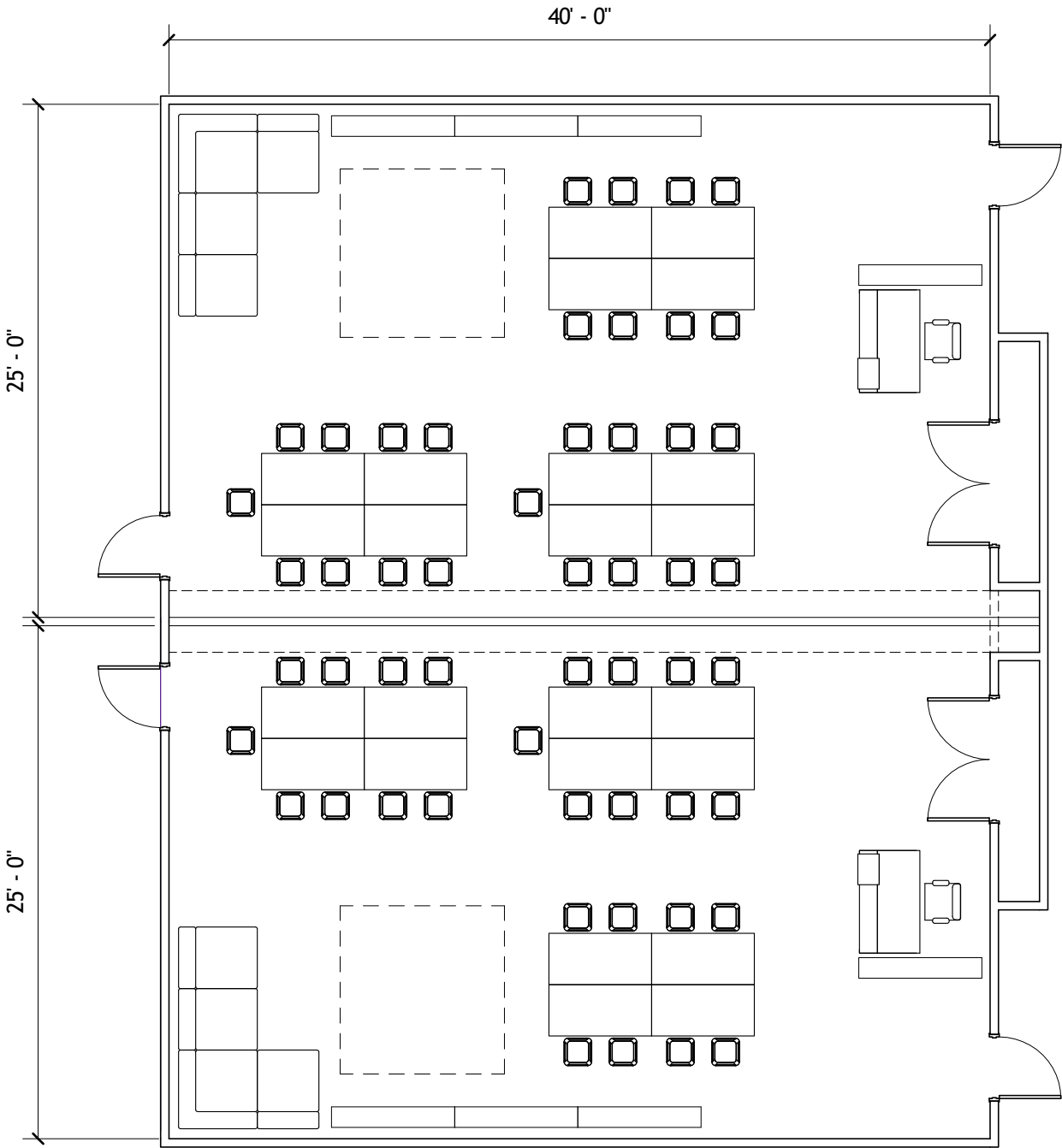


Floor Plan Diagram (2 rooms shown)
scale: 1/8" = 1'-0"

SPACE	6-8 Year Old Room
NET SF	1,020 each; 2 shown with retractable partition
NOTES	Preference is for each age group to have their own designated rooms, and not share with the 9-12, teens, etc. While BCYF child care programs are not typically state-licensed, the rooms shown here follow the spatial and class size requirements for licensure in order to preserve future flexibility for BCYF. Storage needs include books, games, toys, and craft supplies.
OCCUPANTS	up to 26 students & 2 teachers (13:1 student-teacher ratio)
HOURS OF OPERATION	day (afternoon during the school year; all day during summer camps)
FUNCTION	after school programs, summer camp, educational & recreational
SPECIAL FEATURES	Room must be dedicated to this use (cannot be shared by adult programs at other times of day)
ADJACENCIES/ RELATIONSHIPS	Proximity to arts & crafts room, music room, gym, kitchen, restrooms
FINISHES/ STORAGE	resilient floor, acoustic ceiling storage closets and open storage tackboards or marker boards
EQUIPMENT: ...FIXED	storage cubbies
...MOVABLE	tables & chairs, book cases, soft furniture

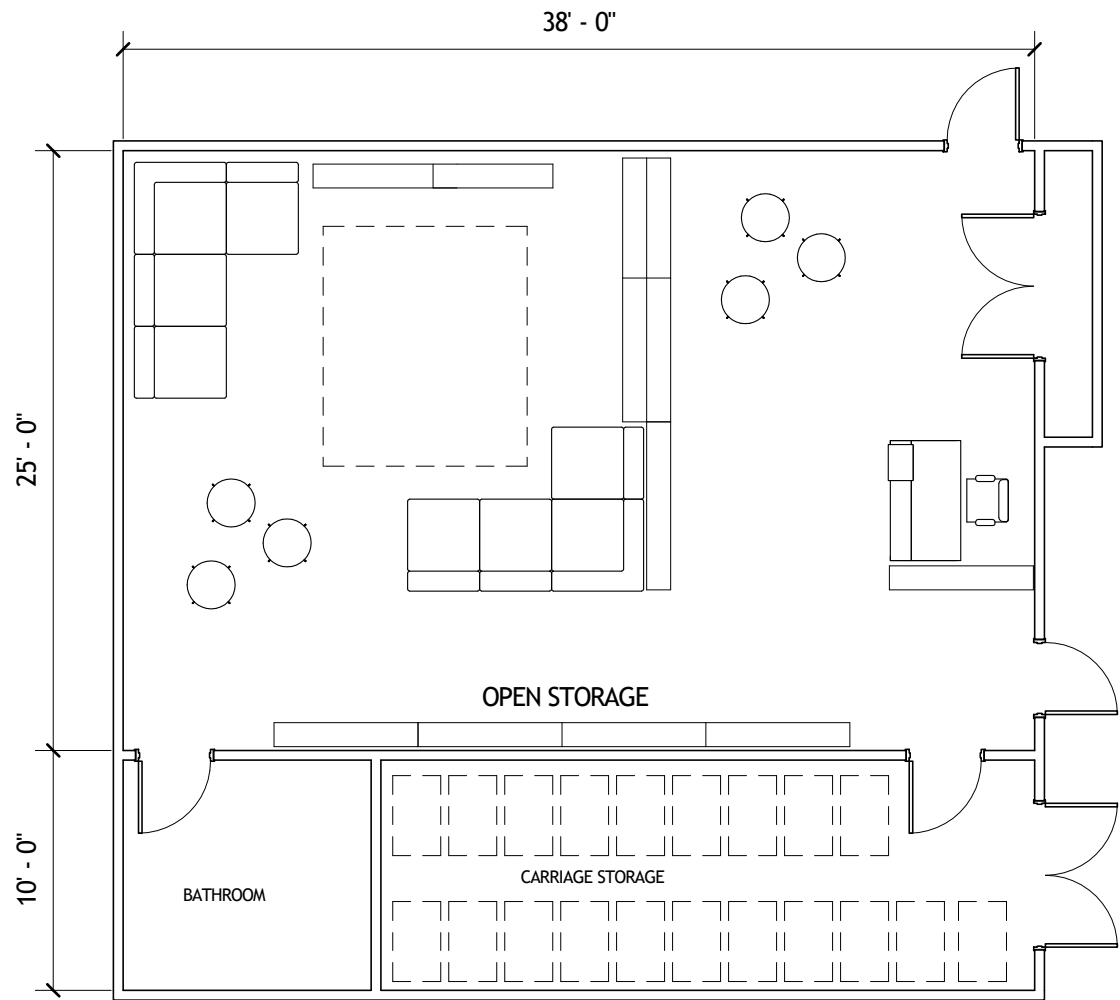
SPACE 6-8 Year Old Room





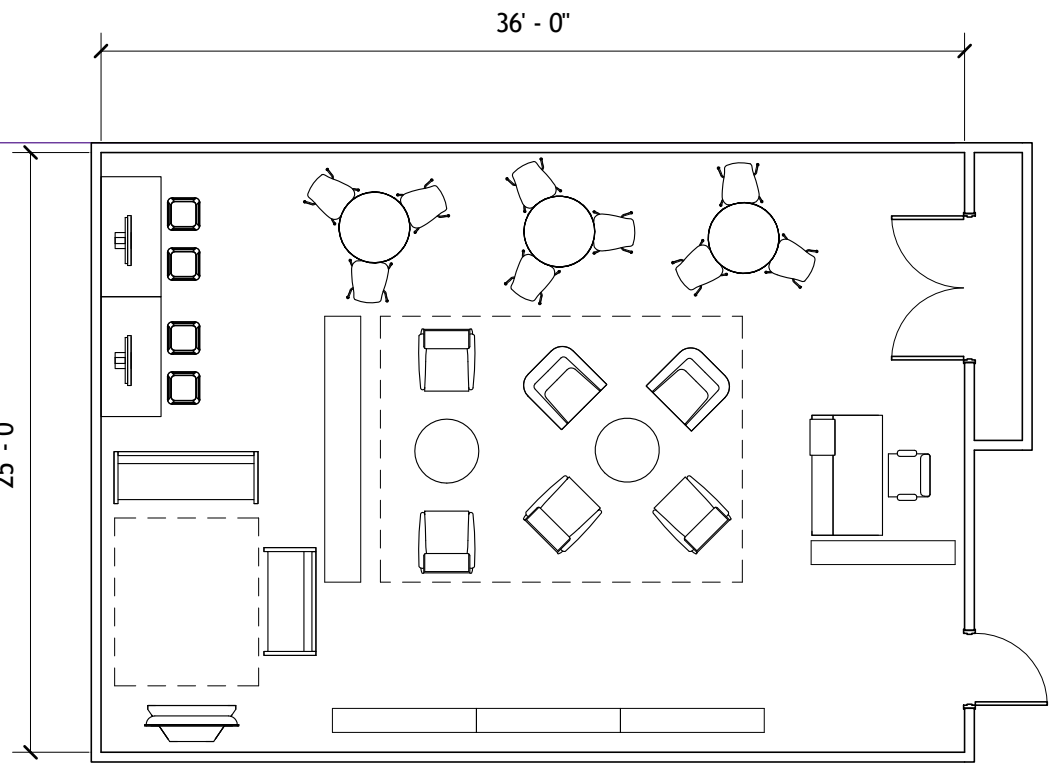
Floor Plan Diagram (2 rooms shown)
scale: 1/8" = 1'-0"

SPACE	9-12 Year Old Room
NET SF	1,020 each; 2 shown with retractable partition
NOTES	Preference is for each age group to have their own designated rooms, and not share with the 6-8, teens, etc. While BCYF child care programs are not typically state-licensed, the rooms shown here follow the spatial and class size requirements for licensure in order to preserve future flexibility for BCYF. Storage needs include books, games, toys, and craft supplies.
OCCUPANTS	up to 26 students & 2 teachers (13:1 student-teacher ratio)
HOURS OF OPERATION	day (afternoon during the school year; all day during summer camps)
FUNCTION	after school programs, summer camp, educational & recreational
SPECIAL FEATURES	Room must be dedicated to this use (cannot be shared by adult programs at other times of day)
ADJACENCIES/ RELATIONSHIPS	Proximity to arts & crafts room, music room, gym, kitchen, restrooms
FINISHES/ STORAGE	resilient floor, acoustic ceiling storage closets and open storage tackboards or marker boards
EQUIPMENT: ...FIXED	storage cubbies
...MOVABLE	tables & chairs, book cases, soft furniture



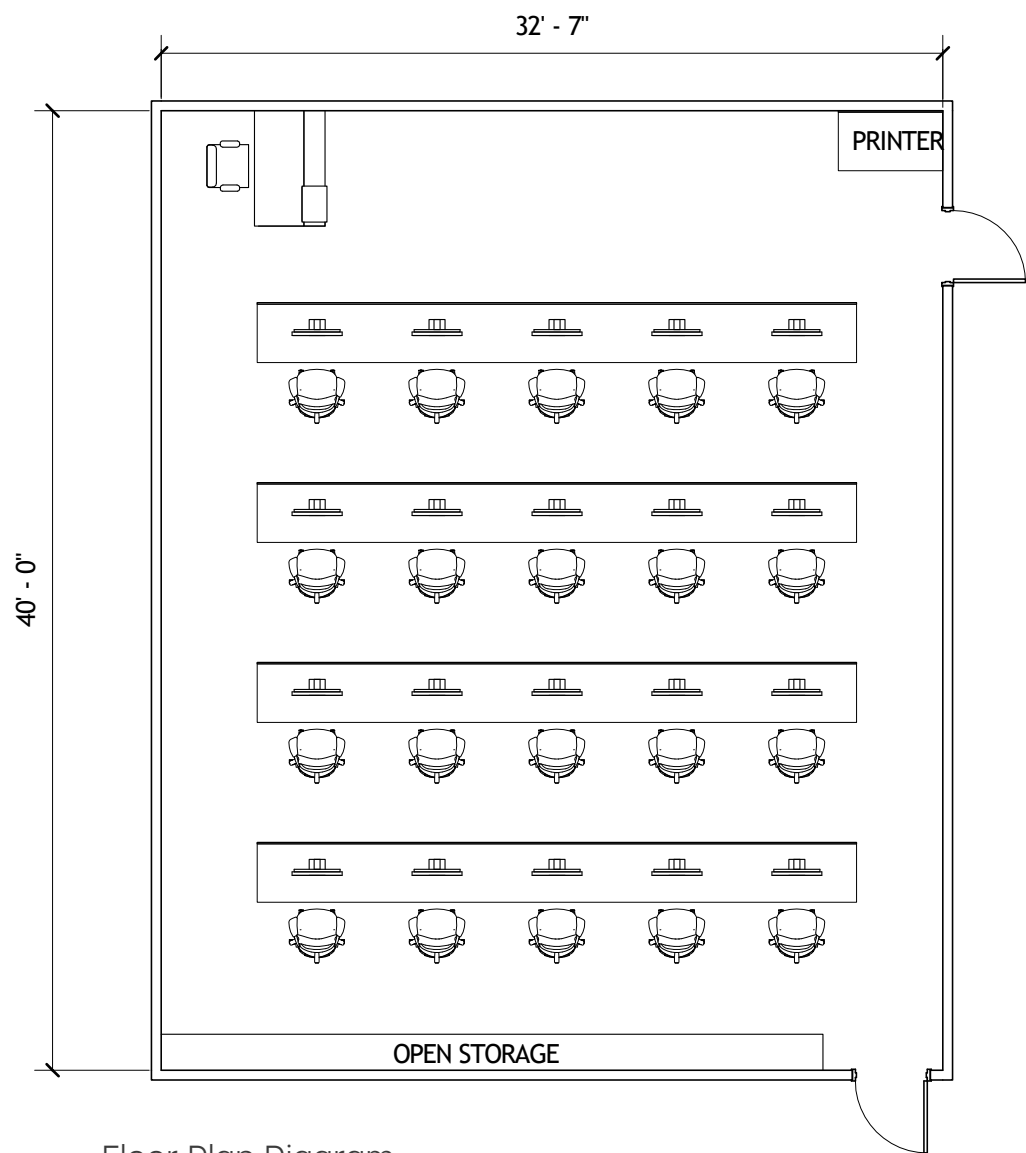
Floor Plan Diagram
scale: 1/8" = 1'-0"

SPACE	Toddler/Parent Program Room	NOT INCLUDED IN ALL PROGRAM OPTIONS
NET SF	970, plus adjacent carriage room, storage, and bathroom	
NOTES	There is currently no toddler/preschool room at the Nazzaro Center. This room is envisioned as a cozy and age-appropriate space for parent-child programming during the day. It is not intended for use as a daycare classroom. Storage needs include books, games, and toys. Stroller storage in a separate room.	
OCCUPANTS	25	
HOURS OF OPERATION	day	
FUNCTION	toddler programming with parent supervision	
SPECIAL FEATURES	May be combined with studio fitness or one of the school-age classrooms, assuming storage needs are met	
ADJACENCIES/ RELATIONSHIPS	Adjacent to toddler-specific restroom facilities Adjacent to carriage storage room Proximity to gym and to outdoor play space	
FINISHES/ STORAGE	resilient floor, carpeted area, acoustic ceiling storage closets and open storage tackboards or marker boards	
EQUIPMENT: ...FIXED	storage cubbies sink and counter in bathroom for diapering	
...MOVABLE	tables & chairs, book cases, rug, soft furniture Refrigerator	



Floor Plan Diagram
scale: 1/8" = 1'-0"

SPACE	Teen Room
NET SF	920
NOTES	Space for programmed and drop-in activities dedicated to teens Storage needs include books, video games, and craft supplies.
OCCUPANTS	25
HOURS OF OPERATION	After school, evening
FUNCTION	After school programs, place for lounging, socializing, studying/ homework (designated quiet space for homework is required)
SPECIAL FEATURES	Should feel like a living room and give the opportunity for teens to make it their own and rearrange
ADJACENCIES/ RELATIONSHIPS	Proximity to arts & crafts room, music room, gym
FINISHES/ STORAGE	resilient floor, acoustic ceiling storage closets and open storage tackboards or marker boards; chalkboard wall
EQUIPMENT: ...FIXED	storage cubbies
...MOVABLE	tables & chairs, book cases, soft furniture Monitor/TV screen for movies, games



Floor Plan Diagram
scale: 1/8" = 1'-0"

SPACE

Computer Lab

NET SF

900

NOTES

Separate room with dedicated computers. Youth using computers for homework can use this space (it's distracting to have the youth computers in the youth room). The space will also be used for educational programs and testing.

OCCUPANTS

21

HOURS OF
OPERATION

After school, evening

FUNCTION

Instruction, testing, individual use

SPECIAL
FEATURES

ADJACENCIES/
RELATIONSHIPS

Proximity to youth classrooms

FINISHES/
STORAGE

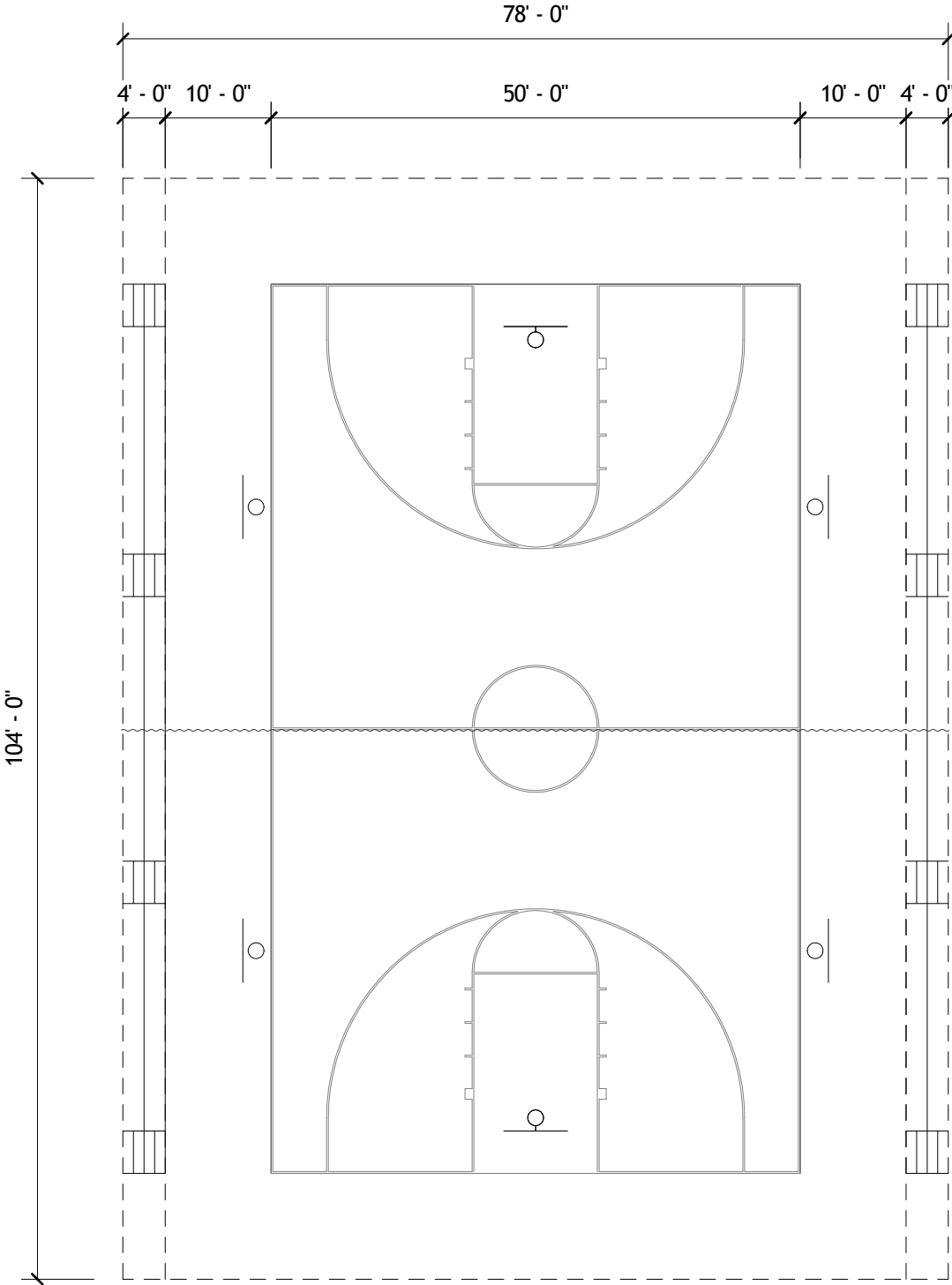
resilient floor, acoustic ceiling
marker board

EQUIPMENT:
...FIXED

floor power or raceways; data connections
storage cubbies/shelving

...MOVABLE

tables with power/data management
task chairs
instructor station
printer



RECREATIONAL BASKETBALL COURT

Floor Plan Diagram
scale: 1/16" = 1'-0"

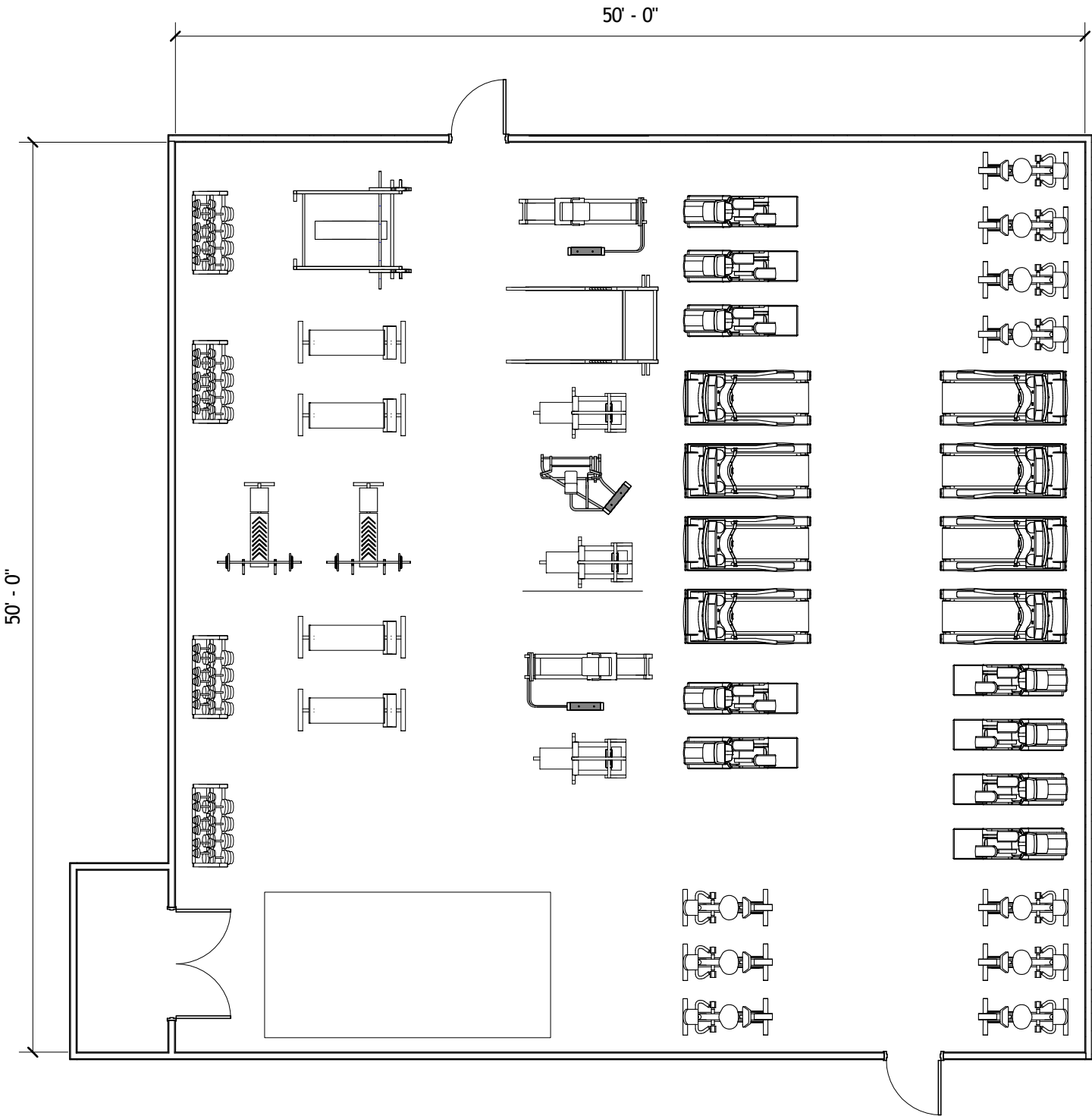
Note: 2 rows of seating desired. Provide 2 rows on one side or 1 row on each side, depending on room configuration.

SPACE	Gymnasium
NET SF	7,280 plus seating area (optional)
NOTES	Given the heavy utilization of the basketball courts (for games, youth programs, and gym class to local schools), it may be preferable to have 2 courts. Desire for flexible bleacher seating for spectators. Potential for this large space with seating to be utilized for other large community events/gatherings that cannot fit in the multipurpose room. Recreational/high school regulation size. (current court is too small and lacks overrun area)
OCCUPANTS	146 when used for exercise, plus up to 224 spectators; up to 1,040 for assembly use. Assembly use at this density will require additional egress capacity and will significantly affect the overall floor plans and test fits.
HOURS OF OPERATION	Day and evening
FUNCTION	Play, educational (school gym class), fitness/exercise Assembly uses
SPECIAL FEATURES	Court should be suitable for MIAA (Massachusetts Interscholastic Athletic Association) tournament play. While MIAA does not specify dimensions, high school games are typically played on a 84' x 50' court, which is assumed here. Clear ceiling height minimum 20', max 25' Adequate egress for potential assembly use (for programming flexibility)
ADJACENCIES/ RELATIONSHIPS	Proximity to restrooms, locker rooms, and storage
FINISHES/ STORAGE	Hardwood sport floor
EQUIPMENT: ...FIXED	Six basketball hoops @10' for additional flexibility (adjustable at cross-court locations) Volleyball stanchion sleeves in floor AV sound system shot clock system and score board divider curtain and track

SPACE

Gymnasium





Floor Plan Diagram
scale: 1/8" = 1'-0"

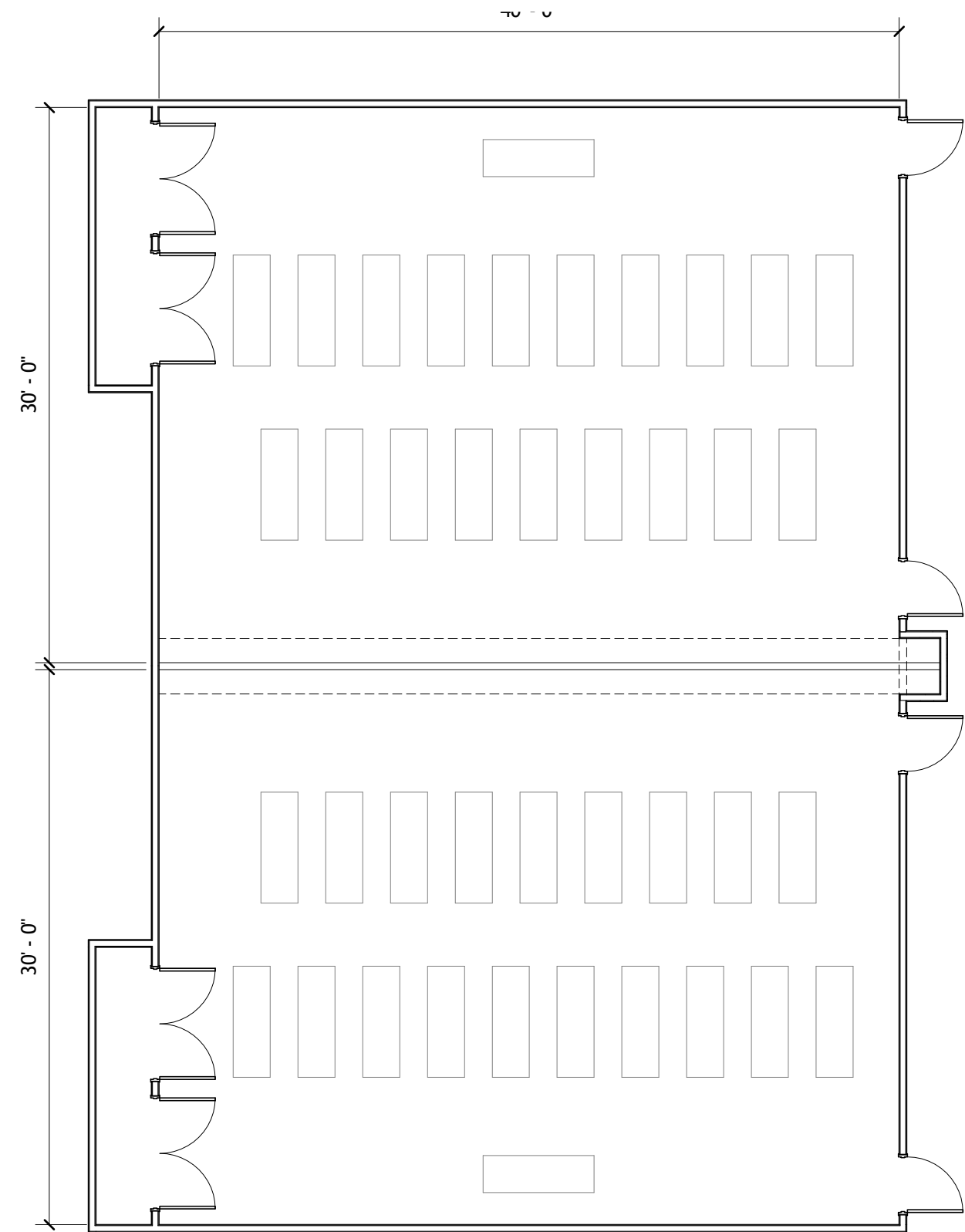
SPACE	Weight and Cardio Fitness Room
NET SF	2,550
NOTES	<p>Current weight room is approx. 800 SF. Desire for a much larger space that includes cardio machines. Room should be zoned by activity.</p> <p>Equipment vendors can provide layouts specifically tailored to the types of equipment purchased. The layout shown is to illustrate approximate occupancy only.</p> <p>Storage needs include exercise balls, free weights, mats, etc.</p>
OCCUPANTS	50 people; approximately 50 pieces of equipment, including free weights
HOURS OF OPERATION	Day and evening
FUNCTION	Fitness
SPECIAL FEATURES	Suspended televisions, stereo/speakers for music Separate HVAC controls
ADJACENCIES/ RELATIONSHIPS	Proximity to restrooms, locker rooms, and storage
FINISHES/ STORAGE	Rubber sport floor Storage in room and adjacent closet Wall-mounted mirrors
EQUIPMENT: ...FIXED	AV sound system
...MOVABLE	Exercise equipment and mats Storage racks

SPACE Weight and Cardio Fitness Room



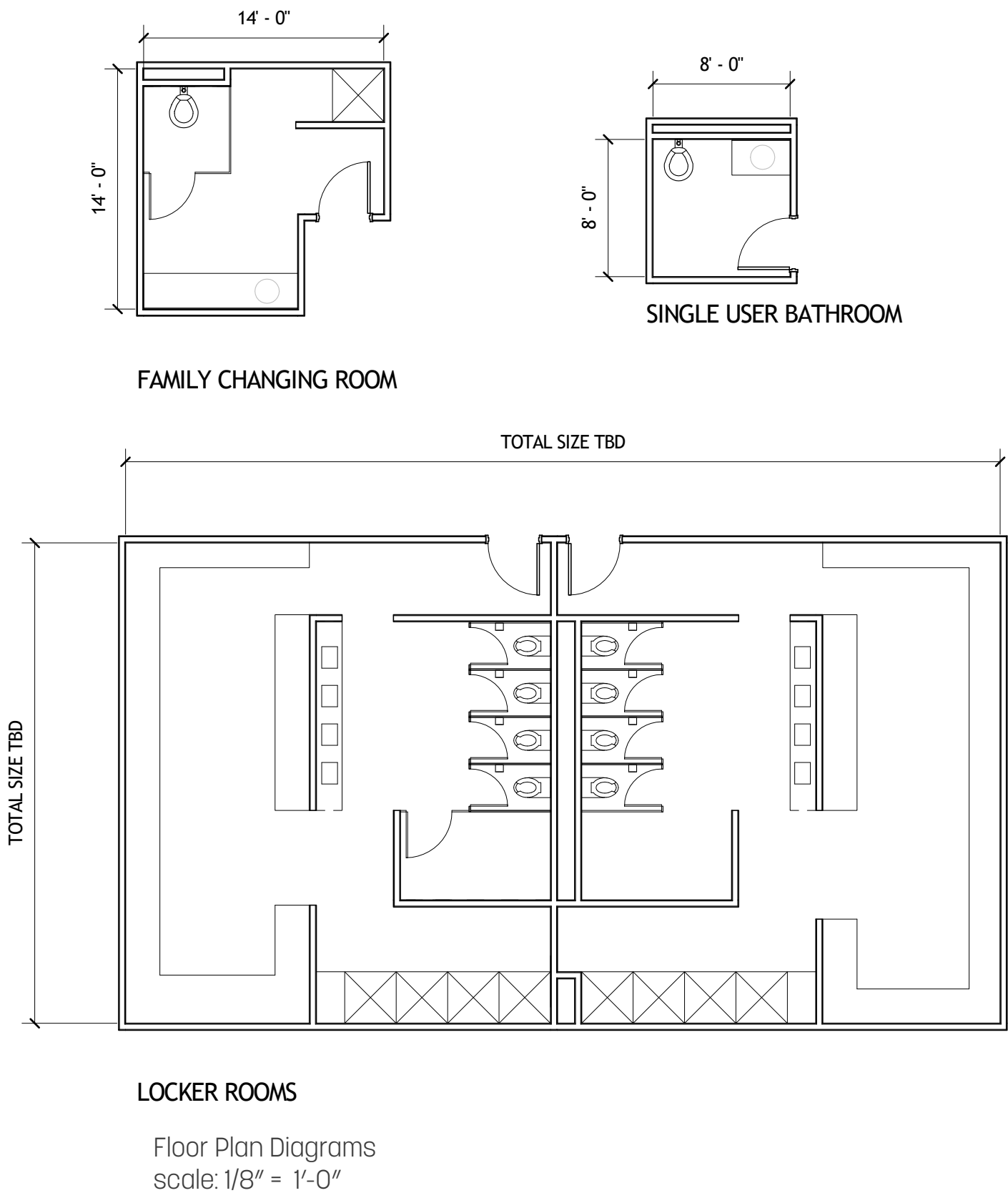
SPACE Fitness/Dance/Yoga Studio





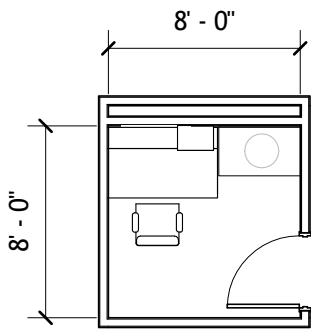
Floor Plan Diagram (2 rooms shown)
scale: 1/8" = 1'-0"

SPACE	Fitness/Dance/Yoga Studio
NET SF	1,230 (2 rooms shown with removable partition between them)
NOTES	<p>Current community center does not have a room like this, intended for yoga, Zumba, dance, cardio classes, Pilates, etc.</p> <p>Possible overlap with Toddler/Parent Program Room Consider 2 identical rooms connected by a removable partition (shown)</p> <p>Storage needs include mats, yoga blocks, Pilates accessories, etc.</p>
OCCUPANTS	20-24
HOURS OF OPERATION	Day and evening
FUNCTION	Fitness classes, stretching
SPECIAL FEATURES	<p>Suspended televisions, stereo/speakers for music</p> <p>Separate HVAC controls</p>
ADJACENCIES/ RELATIONSHIPS	Proximity to restrooms, locker rooms, and storage
FINISHES/ STORAGE	<p>Wood sport/dance floor</p> <p>At least one wall of mirrors, ideally 2 perpendicular to each other</p> <p>Storage in room and adjacent closet</p>
EQUIPMENT: ...FIXED	<p>AV sound system</p> <p>Mirrors</p>
...MOVABLE	Storage racks

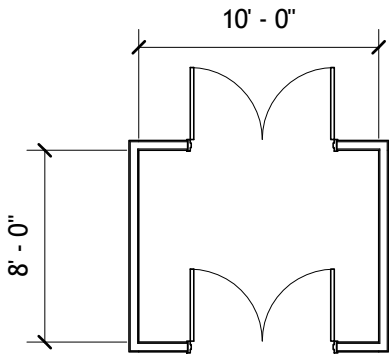


SPACE	Restrooms and Locker Rooms
NET SF	Varies (fixture calculations will be based on total building size)
NOTES	Size and requirements will be determined by plumbing code calculation. Restrooms should be distributed throughout the building. Family changing rooms are intended for several people to use at once (e.g. parent and children, disabled adult and caregiver).If pool is incorporated into the building, then locker rooms will need to replace existing pool bathhouse.
OCCUPANTS	Varies
HOURS OF OPERATION	Day and evening
FUNCTION	Restrooms, showering, changing
SPECIAL FEATURES	1/2-height and smaller lockers Special ventilation requirements Meet all ADA clearance and fixture count requirements
ADJACENCIES/ RELATIONSHIPS	Proximity to sports and pool spaces
FINISHES/ STORAGE	Tile walls, non-slip tile or epoxy flooring, moisture-resistant hard ceiling No storage
EQUIPMENT: ...FIXED	Toilets, lavatories, showers, changing benches, bathroom accessories Benches, hooks
...MOVABLE	

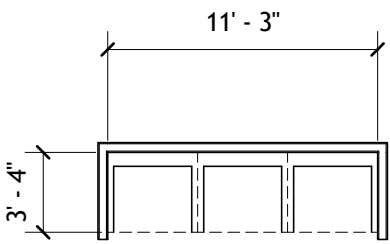
SPACE	Nursing Room
NET SF	64
NOTES	
OCCUPANTS	2
HOURS OF OPERATION	Day and evening
FUNCTION	Nursing, pumping
SPECIAL FEATURES	Lockable, with “occupied” sign
ADJACENCIES/ RELATIONSHIPS	
FINISHES/ STORAGE	Carpet; drywall No storage
EQUIPMENT: ...FIXED	Sink, hand dryer
...MOVABLE	Seating, table



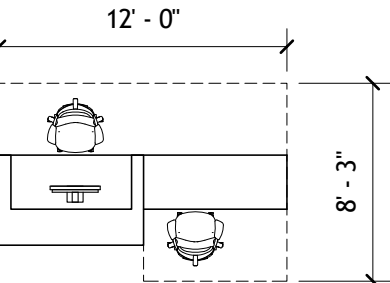
Floor Plan Diagram
scale: 1/8" = 1'-0"



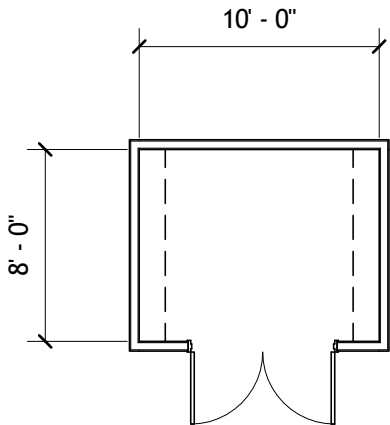
VESTIBULE



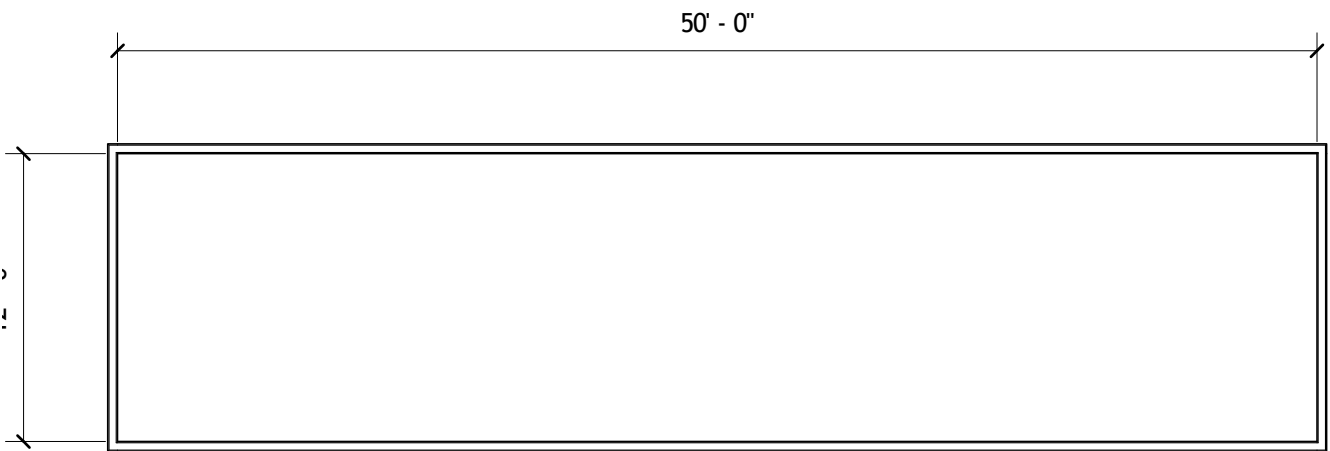
VENDING ALCOVE



RECEPTION DESK



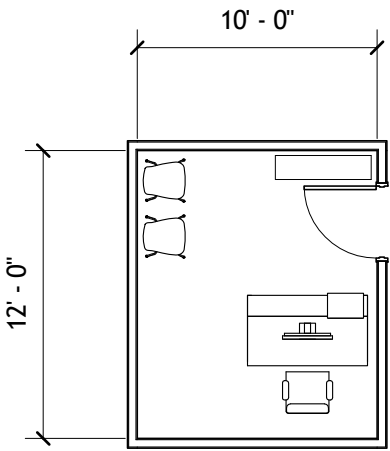
COAT ROOM



LOBBY

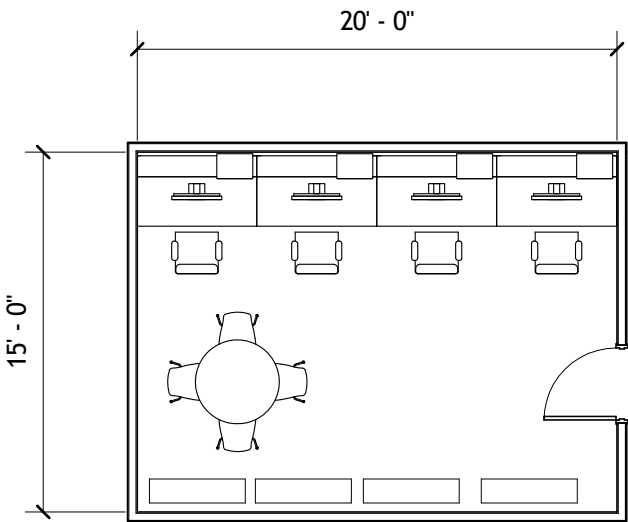
Floor Plan Diagrams
scale: 1/8" = 1'-0"

SPACE	Lobby, Vestibule, Vending, and Reception Desk Optional - Coat Room
NET SF	600, 80, 37, and 96 sf, respectively Coat room - 80 sf
NOTES	Visible, inviting, welcoming. Sight lines and location for supervision/ control are important. Adequately sized for large public events. Reception desk is staffed whenever the center is open. Neighborhood may use the lobby as a place to rest and get out of the heat/cold. Coat room should be nearby.
OCCUPANTS	up to 120 in lobby
HOURS OF OPERATION	Day and evening
FUNCTION	Greeting visitors, gathering before/after events
SPECIAL FEATURES	
ADJACENCIES/ RELATIONSHIPS	At front entrance. Adjacent to coat closet.
FINISHES/ STORAGE	Hard, durable flooring and surfaces. Recessed, removable walk-off mat in vestibule
EQUIPMENT: ...FIXED	Reception desk (accommodates one staff member; both seated and standing transaction positions outside of desk) Chairs, benches
...MOVABLE	Vending machines



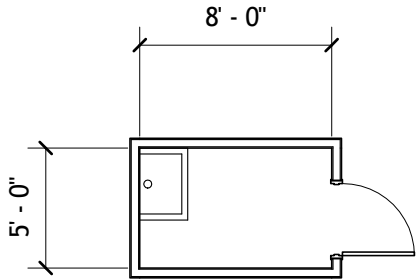
Floor Plan Diagram
scale: 1/8" = 1'-0"

SPACE	Staff Office - Individual
NET SF	125
NOTES	Single-user office with space for visitors, desk, computer, and storage furniture
OCCUPANTS	2
HOURS OF OPERATION	Day and evening
FUNCTION	Staff offices
SPECIAL FEATURES	Glazed interior windows and/or sidelites for visibility
ADJACENCIES/ RELATIONSHIPS	Proximity to storage closet
FINISHES/ STORAGE	Resilient floor, acoustic ceiling Storage in separate closet
EQUIPMENT: ...FIXED	
...MOVABLE	Desk, task chair, guest chairs, shelving, file cabinets



Floor Plan Diagram
scale: 1/8" = 1'-0"

SPACE	Staff Office - Group
NET SF	300
NOTES	Group office with space for visitors, desks, computers, and storage furniture
OCCUPANTS	up to 8
HOURS OF OPERATION	Day
FUNCTION	Staff office space for staff whose primary job is outside the office; a place to meet and to check e-mail and do occasional computer work
SPECIAL FEATURES	Glazed interior windows and/or sidelites for visibility
ADJACENCIES/ RELATIONSHIPS	Proximity to storage closet
FINISHES/ STORAGE	Resilient floor, acoustic ceiling
EQUIPMENT: ...FIXED	
...MOVABLE	Desks with power/data management, task chairs, guest chairs, shelving



Floor Plan Diagram
scale: 1/8" = 1'-0"

SPACE **Janitor's Closet**

NET SF 40 each (2 recommended minimum)

NOTES

OCCUPANTS

HOURS OF
OPERATION

FUNCTION

SPECIAL
FEATURES

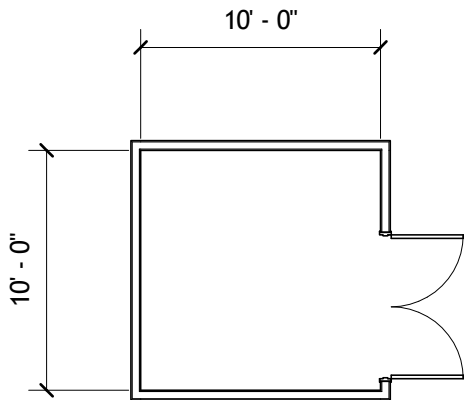
ADJACENCIES/
RELATIONSHIPS

FINISHES/
STORAGE Tile/FRP
Mop and supply storage racks

EQUIPMENT:
...FIXED mop sink

...MOVABLE shelving

SPACE	Storage
NET SF	100 sf per room; 1-2 rooms provided
NOTES	Total above does not include closets within individual spaces such as classrooms.
OCCUPANTS	1
HOURS OF OPERATION	
FUNCTION	
SPECIAL FEATURES	
ADJACENCIES/ RELATIONSHIPS	
FINISHES/ STORAGE	Resilient flooring
EQUIPMENT: ...FIXED	Shelving
...MOVABLE	



Floor Plan Diagram
scale: 1/8" = 1'-0"

SPACE	Elevator
NET SF	100
NOTES	Area includes machine room Elevator size to accommodate stretcher. (min 3500 lb capacity)

OCCUPANTS 10

HOURS OF
OPERATION

FUNCTION

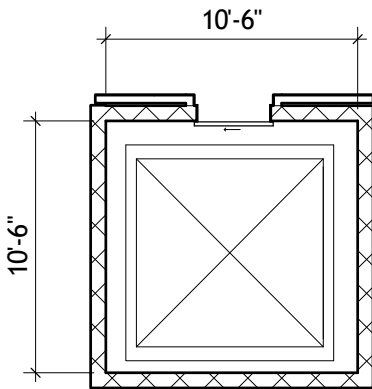
SPECIAL
FEATURES

ADJACENCIES/
RELATIONSHIPS

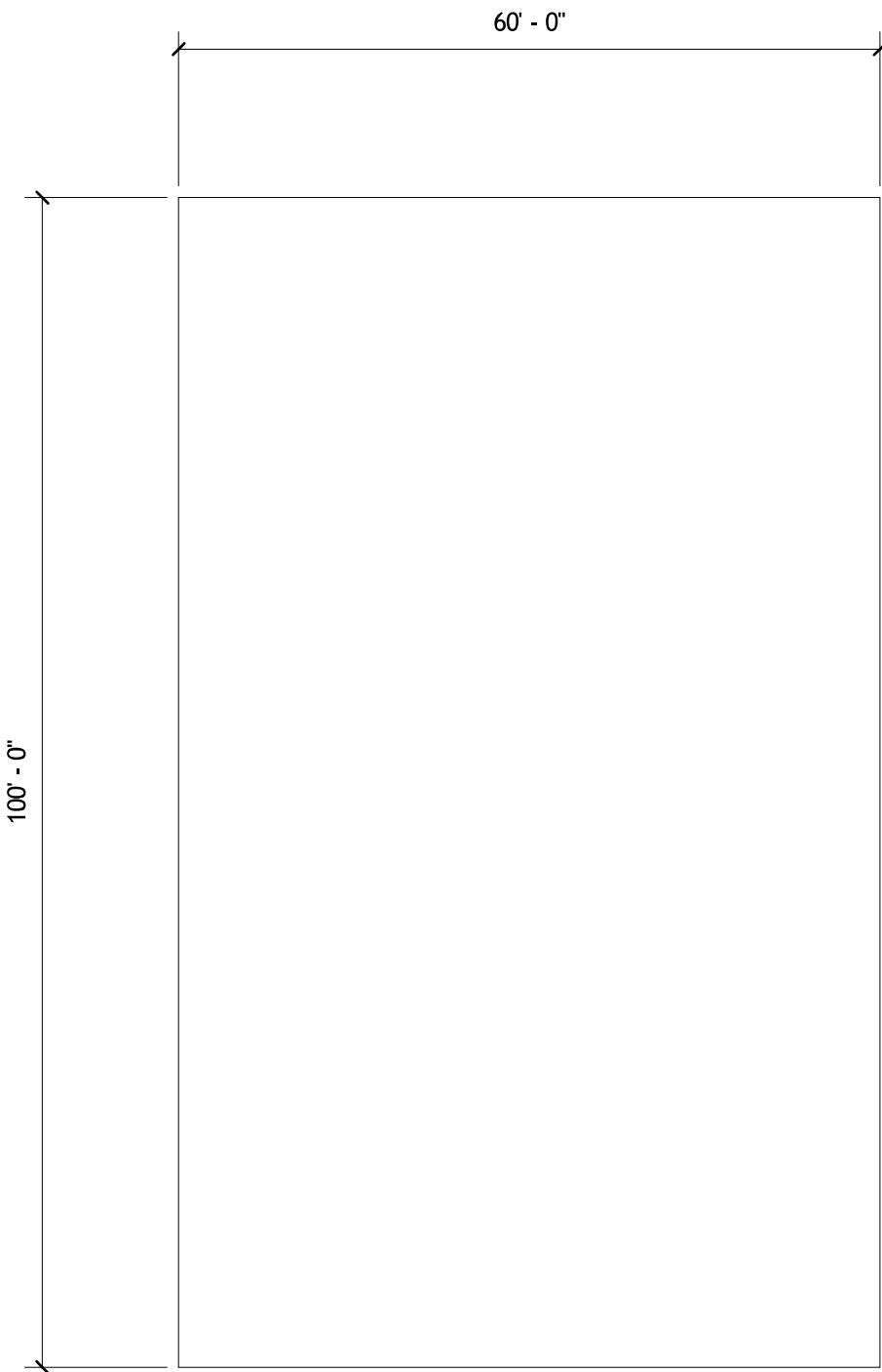
FINISHES/
STORAGE

EQUIPMENT:
...FIXED

...MOVABLE

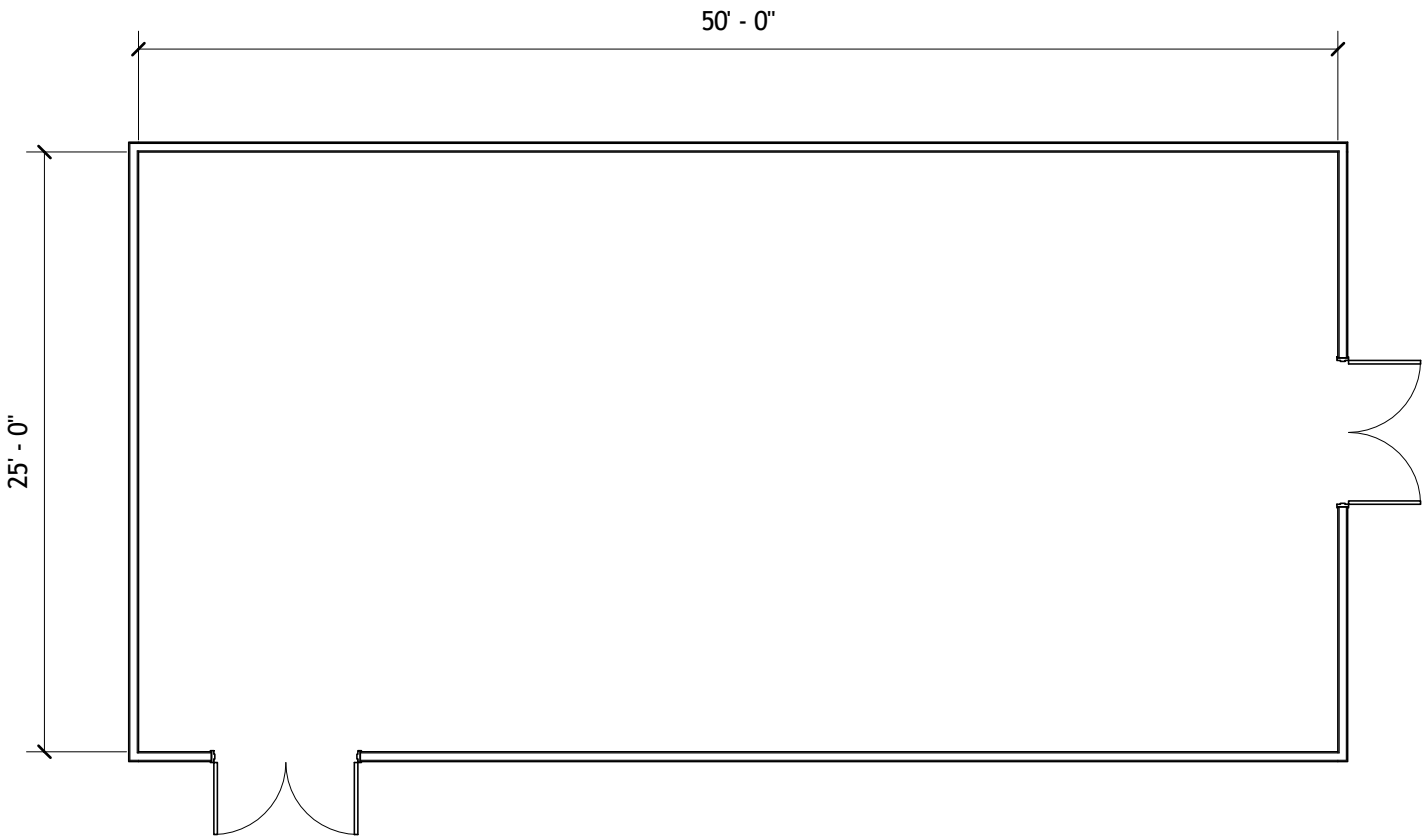


Floor Plan Diagram
scale: 1/8" = 1'-0"



Floor Plan Diagram
scale: 1/16" = 1'-0"

SPACE	Splash Pad	NOT INCLUDED IN ALL PROGRAM OPTIONS
NET SF	6,000	
NOTES	If required, replacement of existing splash pad	
OCCUPANTS	400	
HOURS OF OPERATION	Day / Summer	
FUNCTION	Recreation, Play	
SPECIAL FEATURES		
ADJACENCIES/ RELATIONSHIPS	Adjacent to other exterior pools and near locker rooms Ability to access this space without entering the pool area proper	
FINISHES/ STORAGE	Bonded rubbersurfacing	
EQUIPMENT: ...FIXED	Fountains and play equipment Assume non-recirculating	
...MOVABLE		



Floor Plan Diagram
scale: 1/8" = 1'-0"

SPACE Mechanical Room

NET SF	1200 SF
NOTES	Currently a rooftop unit + basement Estimated size includes assumption of gas boiler, air handler, main electrical room, main tel/data closet, fire protection service entrance. Room may be subdivided. It is assumed that a fire pump is not required. Does not include distributed electrical and tel/data spaces listed elsewhere. BAS management does not occur locally; no workstation required.
OCCUPANTS	4
HOURS OF OPERATION	continuous
FUNCTION	mechanical space
SPECIAL FEATURES	
ADJACENCIES/ RELATIONSHIPS	
FINISHES/ STORAGE	sealed concrete floor
EQUIPMENT: ...FIXED	mechanical, electrical, plumbing, and fire protection equipment
...MOVABLE	

SPACE **Tel/Data & Electrical Closet**

NET SF 80 SF each (4 recommended min)

NOTES

OCCUPANTS 1

HOURS OF
OPERATION

FUNCTION

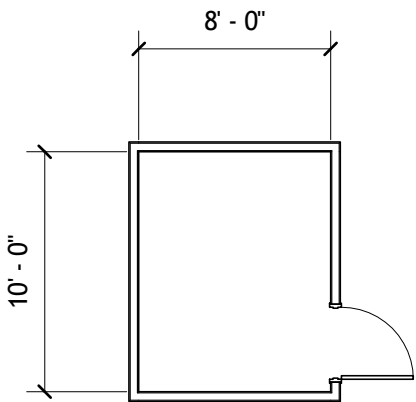
SPECIAL
FEATURES

ADJACENCIES/
RELATIONSHIPS

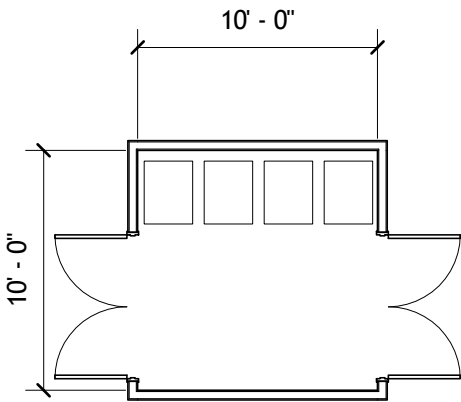
FINISHES/
STORAGE

EQUIPMENT:
...FIXED

...MOVABLE

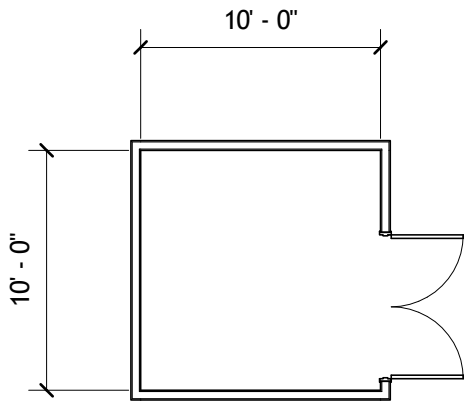


Floor Plan Diagram
scale: 1/8" = 1'-0"



Floor Plan Diagram
scale: 1/8" = 1'-0"

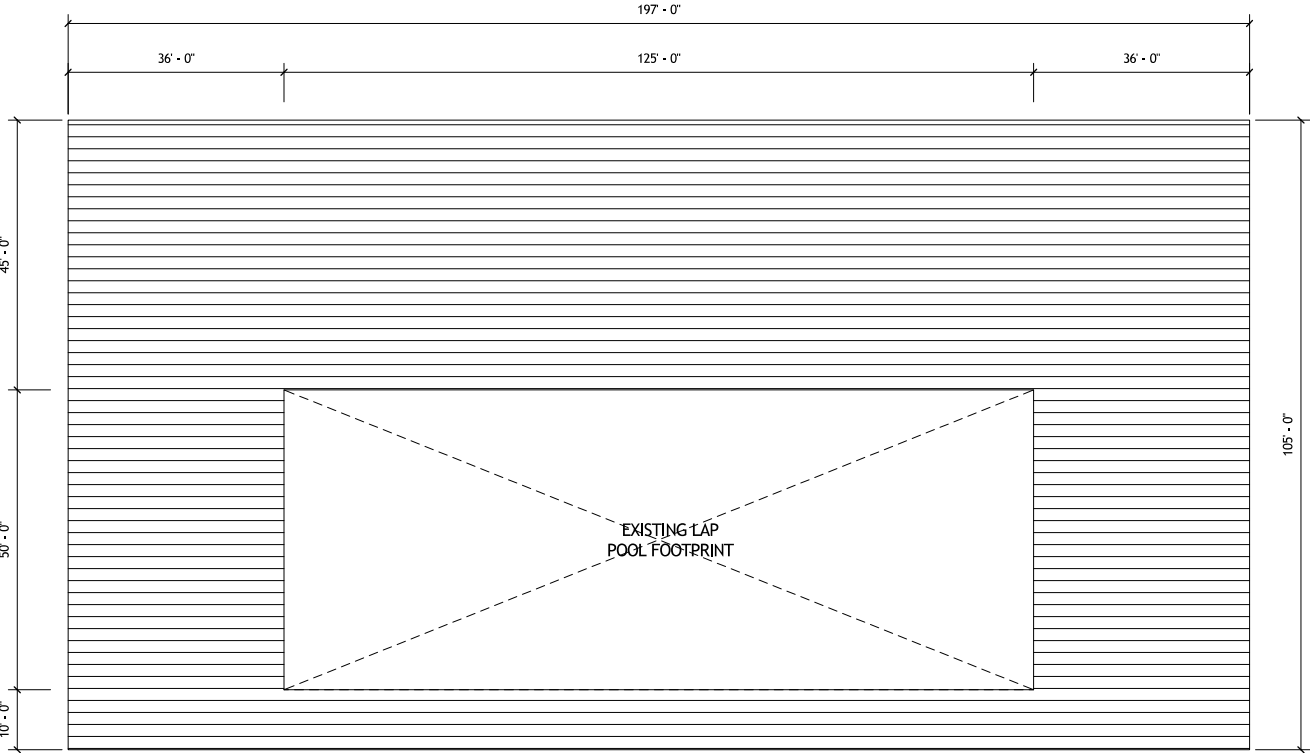
SPACE	Trash/Recycling Room and Service Entrance
NET SF	100
NOTES	<p>“Toters” are currently used for trash and recycling (curbside pickup). 64-gallon size is assumed here.</p> <p>Boston has single-stream recycling and trash pickup. Composting is currently practiced at the pool concession stand; will not be relevant if replaced by vending.</p> <p>Easy access should be provided for loading and unloading deliveries and trash from this space into the building’s main circulatipn area and vice versa.</p>
OCCUPANTS	1
HOURS OF OPERATION	Day
FUNCTION	Deliveries, trash and recycling sorting and storage
SPECIAL FEATURES	Double doors
ADJACENCIES/ RELATIONSHIPS	Proximity to elevator, driveway
FINISHES/ STORAGE	<p>resilient floor, rubber base</p> <p>Storage shelving etc. should not be included, to discourage storage in this space.</p>
EQUIPMENT:	
...FIXED	
...MOVABLE	trash receptacles



Floor Plan Diagram
scale: 1/8" = 1'-0"

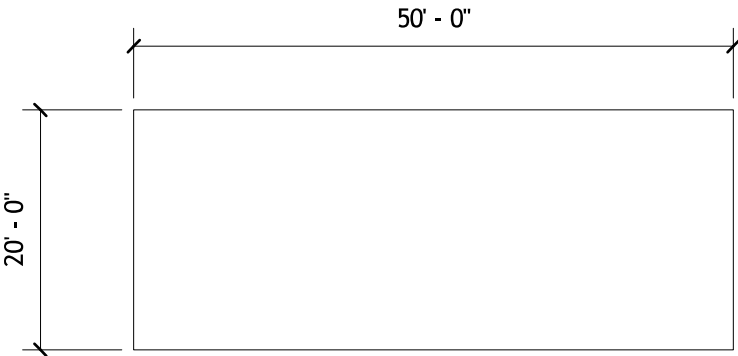
SPACE	Outdoor Maintenance Equipment Storage
NET SF	100
NOTES	Lockable space accessed from the outdoors. Interior access not required.
OCCUPANTS	0
HOURS OF OPERATION	Day
FUNCTION	Storage for landscaping equipment, snow blowers, and outdoor equipment and supplies.
SPECIAL FEATURES	Double doors; 2-hour rated partitions (including ceiling) if gasoline-powered equipment is to be stored in the space
ADJACENCIES/ RELATIONSHIPS	Adjacent to outdoor space
FINISHES/ STORAGE	Sealed concrete floor Storage shelving and racks
EQUIPMENT: ...FIXED	
...MOVABLE	

SPACE	Outdoor Long Pool	NOT INCLUDED IN ALL PROGRAM OPTIONS
NET SF	6250	
NOTES	Shown is the existing long pool footprint at the Mirabella site with the approximate deck area associated.	
OCCUPANTS	125	
HOURS OF OPERATION	Day [Seasonal - mid-June through Labor Day]	
FUNCTION	Recreational	
SPECIAL FEATURES		
ADJACENCIES/ RELATIONSHIPS	Adjacent to other pools, locker rooms	
FINISHES/ STORAGE	Concrete and tile	
EQUIPMENT: ...FIXED	Pool equipment	
...MOVABLE		



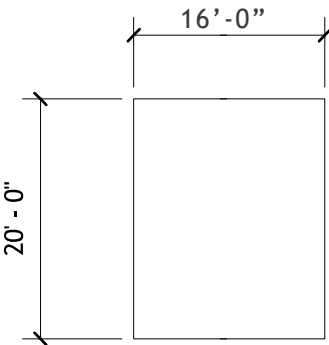
Floor Plan Diagram
scale: 1/32" = 1'-0"

SPACE	Pool MEP/Garage	NOT INCLUDED IN ALL PROGRAM OPTIONS
NET SF	1000	
NOTES	Support space for pool, including pumps, chemicals, filters, etc.	
OCCUPANTS	4	
HOURS OF OPERATION	Day	
FUNCTION		
SPECIAL FEATURES	vehicular access with loading bay and double doors. Size of doors to be confirmed against pool equipment.	
ADJACENCIES/ RELATIONSHIPS	adjacencies to pools, exterior space	
FINISHES/ STORAGE		
EQUIPMENT: ...FIXED		
...MOVABLE		



POOL MEP/GARAGE

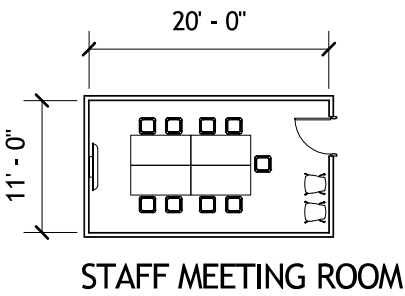
Floor Plan Diagram
scale: 1/16" = 1'-0"



Floor Plan Diagram
scale: 1/16" = 1'-0"

SPACE	Parks and Recreation Department Storage	NOT INCLUDED IN ALL PROGRAM OPTIONS
NET SF	320	
NOTES	Only required at Mirabella site.	
OCCUPANTS	0	
HOURS OF OPERATION	Independent exterior access is required as the fields have different hours of operation than the community center.	
FUNCTION	Support space and equipment storage for athletic programming at the existing Langone facility.	
SPECIAL FEATURES	Separate access Based on an existing 20'x8' storage container @qty: 2 Double doors; 2-hour rated partitions (including ceiling) if gasoline-powered equipment is to be stored in the space	
ADJACENCIES/ RELATIONSHIPS	Exterior space	
FINISHES/ STORAGE	Sealed concrete floor Storage shelving and racks	
EQUIPMENT: ...FIXED		
...MOVABLE		

SPACE	Staff Meeting Room
NET SF	220
NOTES	Replacement of existing space Suggested overlap with community room
OCCUPANTS	15
HOURS OF OPERATION	Day
FUNCTION	Support Space
SPECIAL FEATURES	Glazed interior windows and/or sidelites for visibility
ADJACENCIES/ RELATIONSHIPS	
FINISHES/ STORAGE	
EQUIPMENT: ...FIXED	
...MOVABLE	tables and chairs

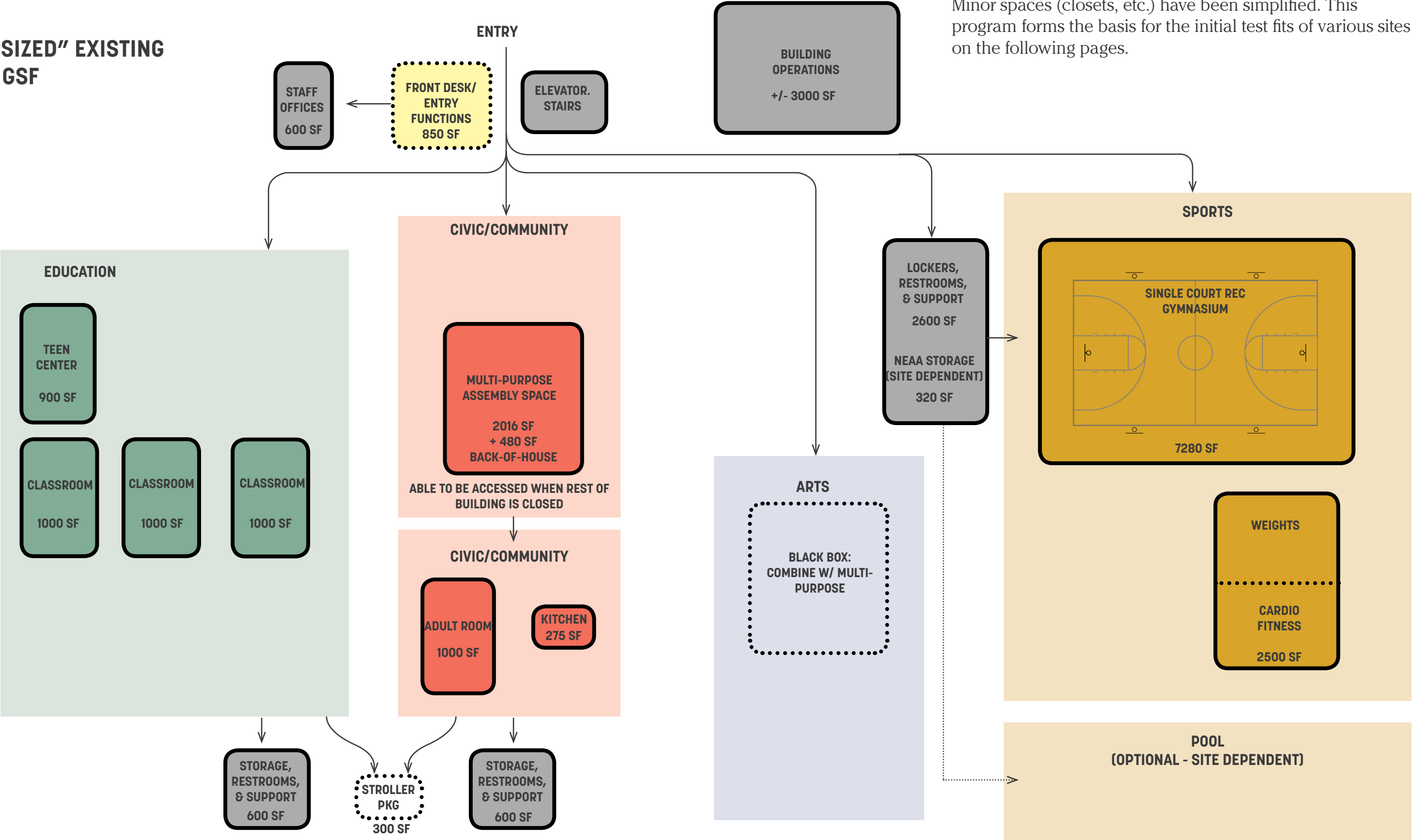


Floor Plan Diagram
scale: 1/16" = 1'-0"

3.4 Program Recommendations

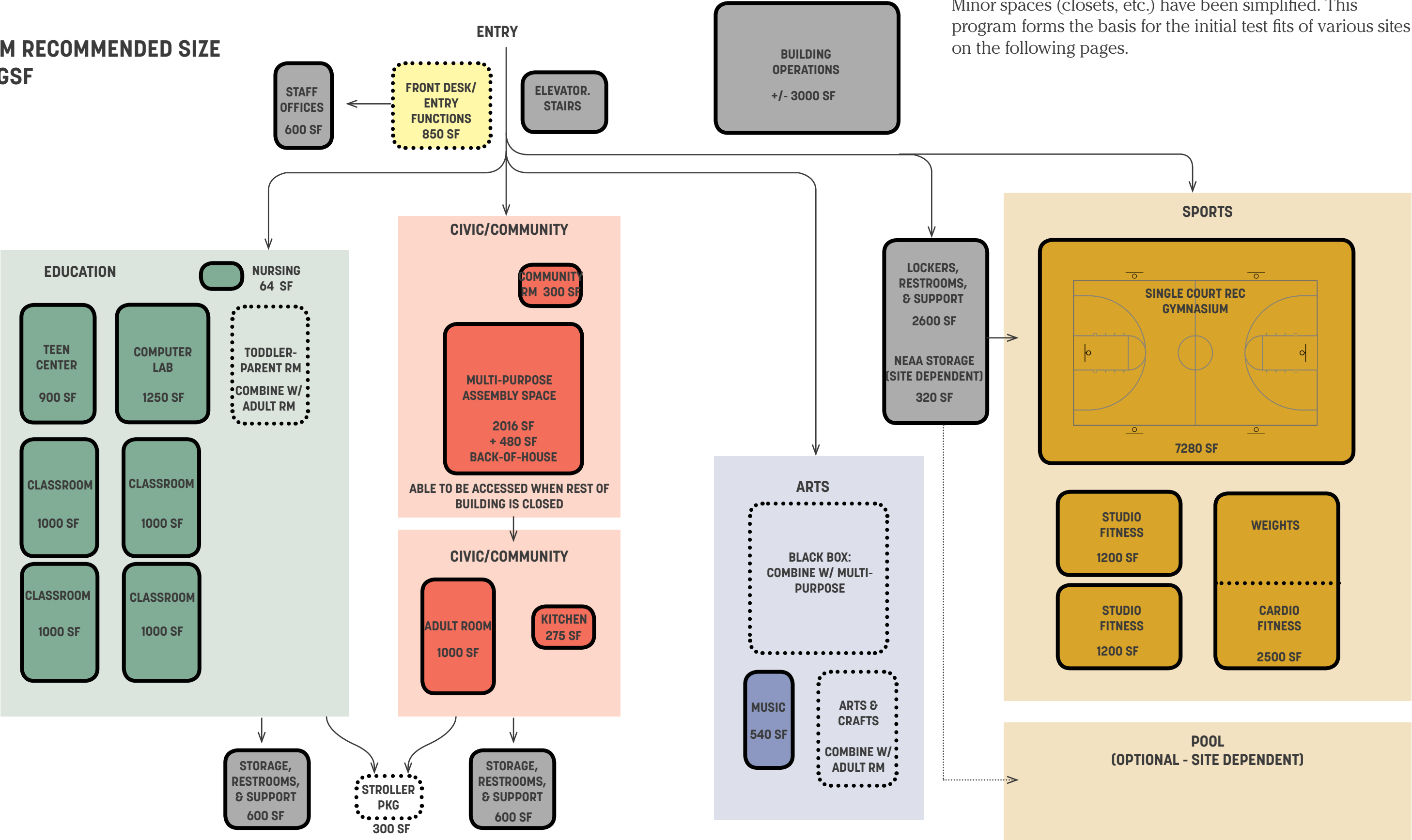
“RIGHT-SIZED” EXISTING
33,000 GSF

This diagram represents the major recommended program spaces organized by zone and recommended adjacency. Minor spaces (closets, etc.) have been simplified. This program forms the basis for the initial test fits of various sites on the following pages.



3.4 Program Recommendations

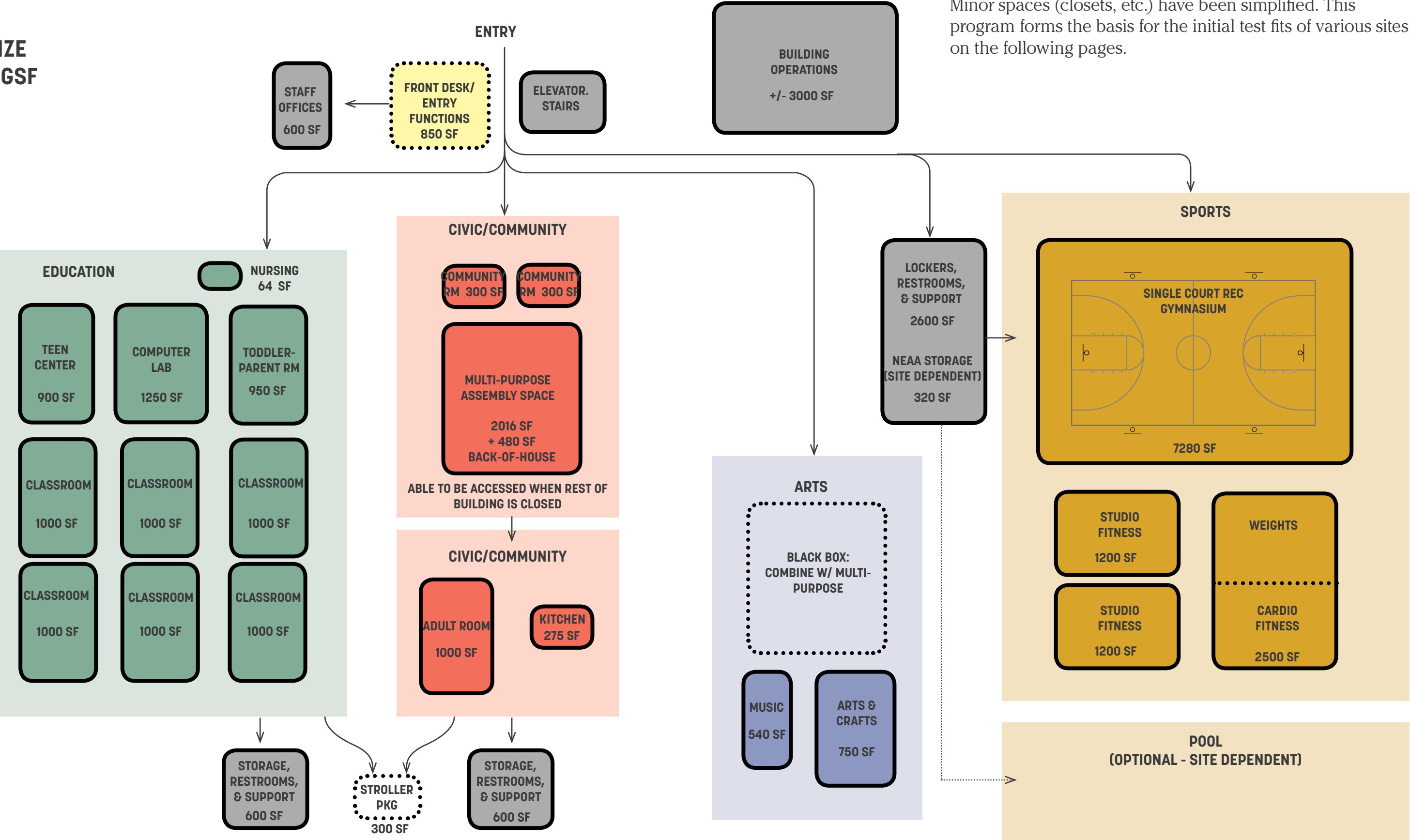
MINIMUM RECOMMENDED SIZE
41,000 GSF



3.4 Program Recommendations


IDEAL SIZE
50,000 GSF

This diagram represents the major recommended program spaces organized by zone and recommended adjacency. Minor spaces (closets, etc.) have been simplified. This program forms the basis for the initial test fits of various sites on the following pages.



Page not used

Section 4



Site Selection



4.1 Sites Considered

- 0 Existing Nazaro Center Site**
Conclusion: Siting option finalist but not the final recommended site.
- 1 Mirabella Site**
Conclusion: Final recommended option for new community center.
- 2 Fulton Street Site**
Conclusion: Not recommended for community center program.
- 3 Cooper Street Site**
Conclusion: Not recommended for community center program. This site is privately owned.
- 4 DeFilippo Playground Site**
Conclusion: Not recommended for community center program.
- 5 Sargent's Wharf Site**
Conclusion: Siting option finalist for new community center and mixed-use development but not the final recommended site.

4.2 Sites In Detail

0 NAZZARO CENTER SITE



For the purposes of the siting study, the adjacent Polcari Playground, which is operated by the Boston Parks and Recreation Department, is considered part of the Nazzaro Center site. Land from the playground would need to be used to expand existing community center to accommodate a full size basketball court.

The Nazzaro Center site consists of two parcels—the existing building and Polcari Playground—owned by the City of Boston. The mid-block site is bounded by North Bennett and Prince Streets.

The playground is zoned Open Space, while the existing building is zoned North End Multifamily Residential. Adjacent zones have FAR of 3.0, and height of 55 feet. The Polcari Playground portion of the site is subject to Article 97 of the Massachusetts State Constitution governing parkland.

Three options were considered including two renovation options and one replacement option. Although the Nazzaro Center site was one of the options selected for pricing, none of the layouts associated with this site can provide close to the amount of program area required by BCYF. For that reason this site was not recommended as the preferred site by the Study Team.

See next pages for detail.

0 NAZZARO CENTER SITE

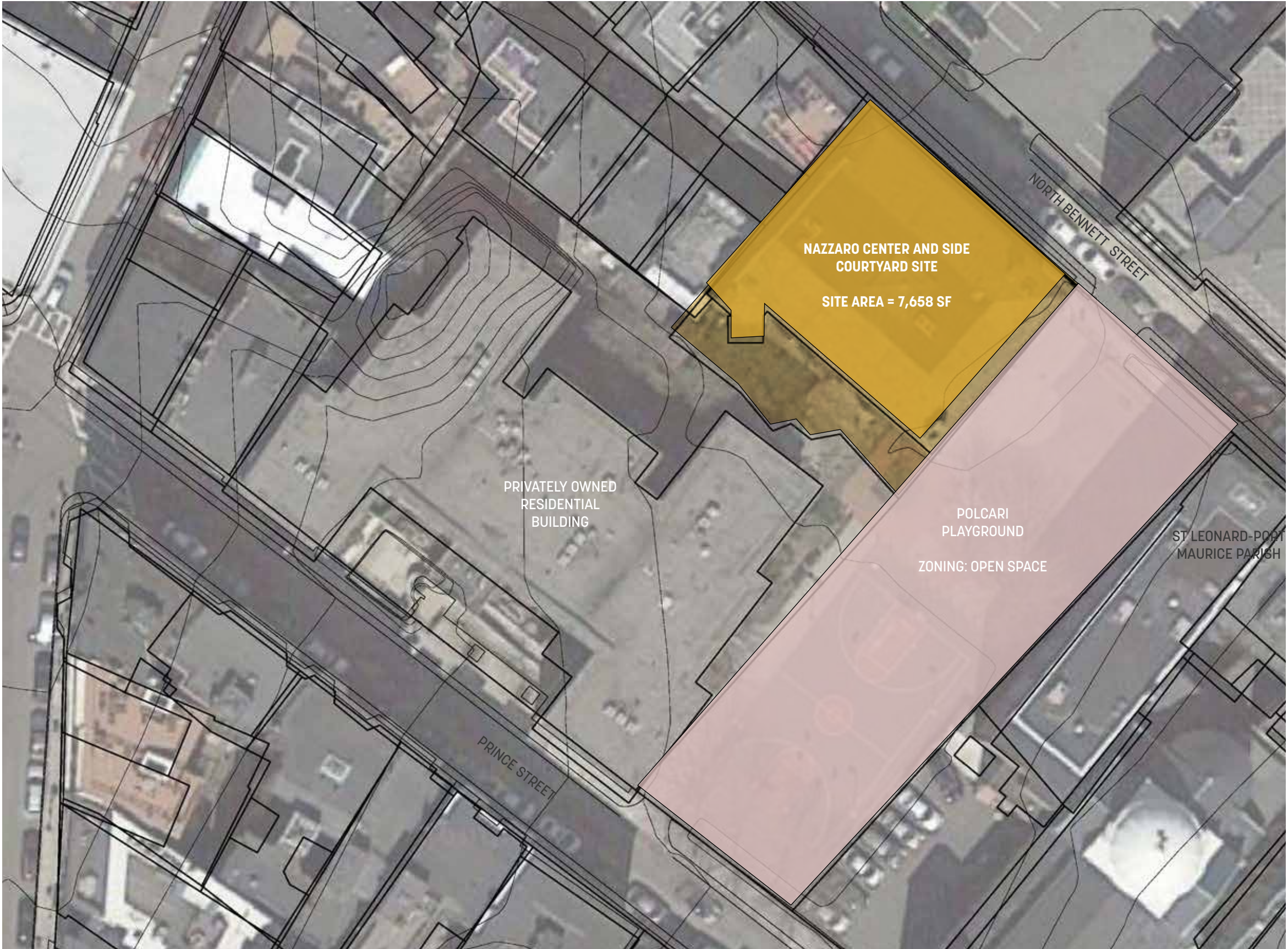
Site area (Nazzaro parcel): 7,658 sf
Site area (Polcari parcel): 12,191 sf

Advantages:
Centrally located in neighborhood
Building has historic character
Contiguous with playground

Site is not located in the FEMA flood hazard area (FHA) nor in the BPDA Sea-Level Rise Flood Hazard Area (SLR-FHA).

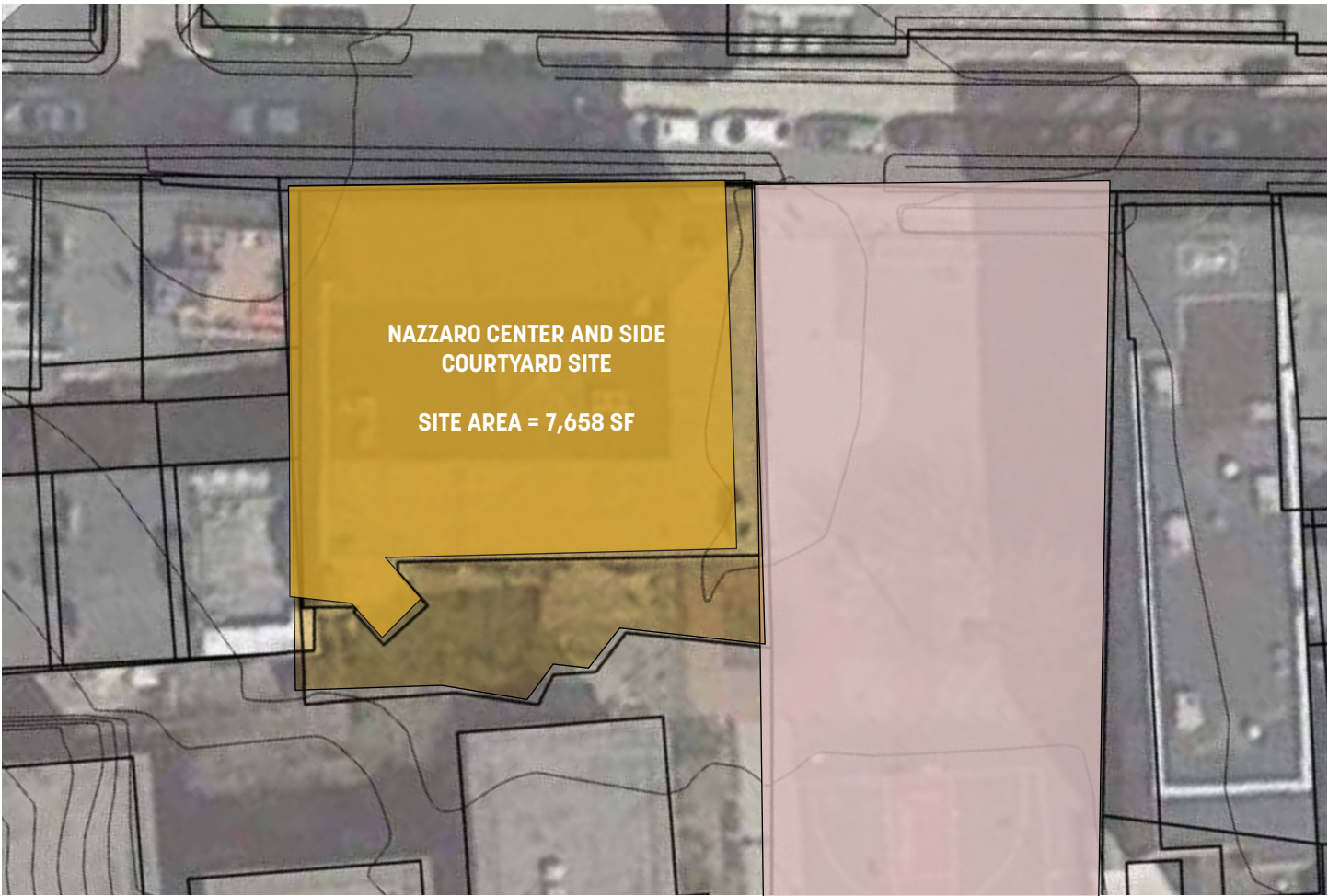
Disadvantages:
Playground portion of site is part of a park; subject to Article 97 requirements, meaning that any expansion to the east will require legislative approval. Nazzaro site and building are too small to fit a recreational basketball court.

Expansion into the playground would cut off mid-block access between North Bennett and Prince Streets, and reduce the already limited amount of open space in one of the densest parts of the neighborhood.



NOT SELECTED FOR PRICING

0 NAZZARO CENTER SITE OPTION 1: RENOVATE EXISTING BUILDING



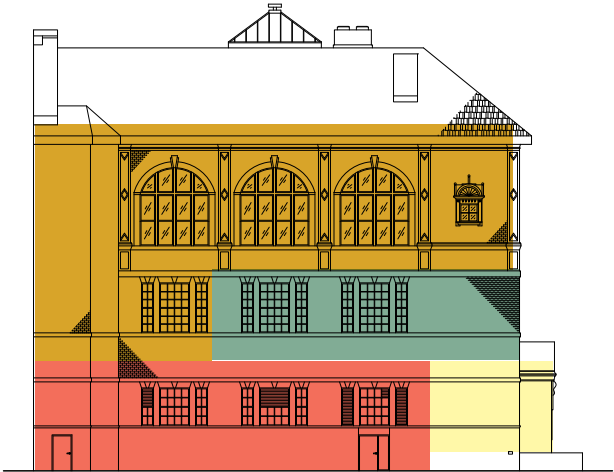
Renovate second floor, reconfigure gym level to use space more efficiently

Proposed building area: Approximately 20,500 sf renovated

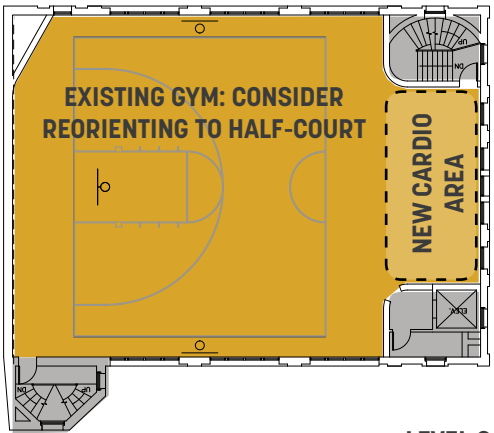
Advantages:
Retain use and character of existing building without significant changes to the exterior
More space for fitness
Small additional space for youth or music

Disadvantages:
Basketball court remains too small;
New teen room is no larger than existing
Only one additional program space added to building; no computer lab, assembly space, studio fitness, etc.
Not as much classroom space provided vs. what is recommended
Office space, locker room space reduced

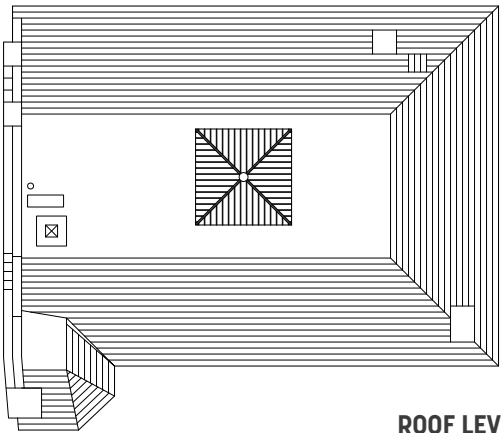
- ARTS
- CIVIC/COMMUNITY
- EDUCATION
- SPORTS
- SUPPORT, OFFICES, ETC.
- PUBLIC CIRCULATION



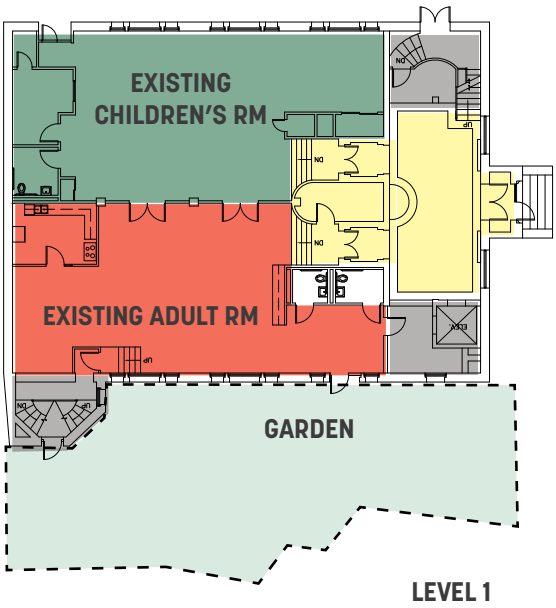
SECTION/ELEVATION



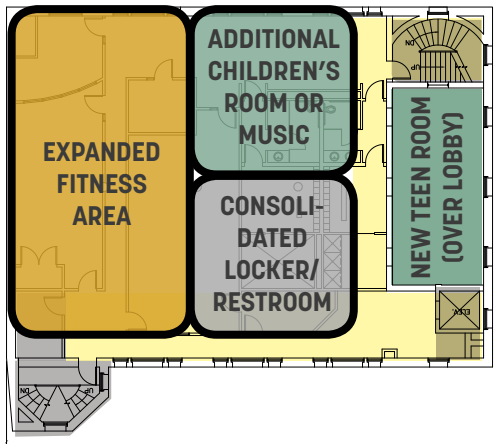
LEVEL 3



ROOF LEVEL



LEVEL 1



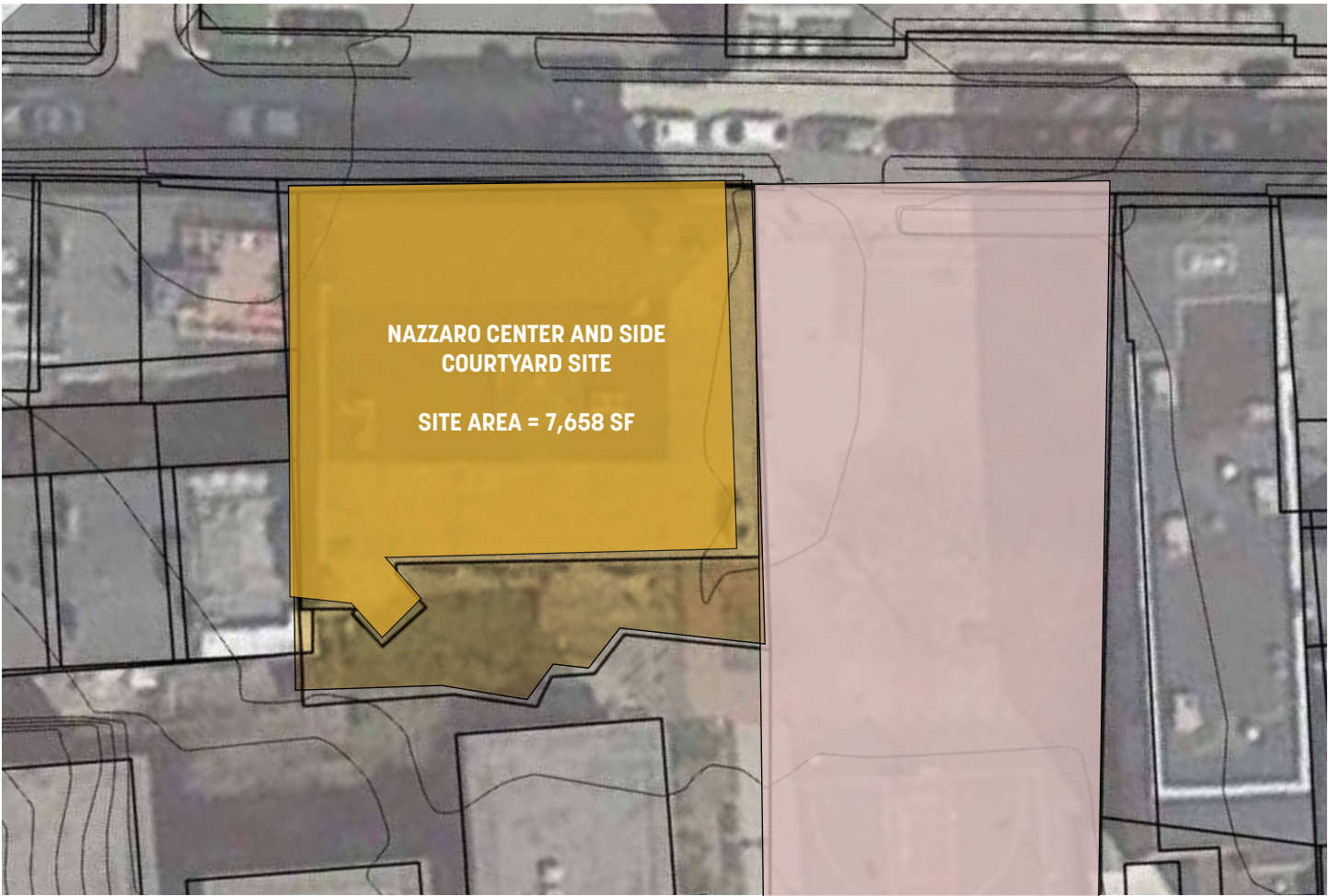
LEVEL 2

SCALE: 1/32" = 1'-0"



NOT SELECTED FOR PRICING

0 NAZZARO CENTER SITE OPTION 2: EXPAND BUILDING VERTICALLY



Replace roof, extend cores, and add a fourth story to accommodate additional youth program space; reconfigure second floor for efficiency

Proposed building area: Approximately 20,500 sf renovated and 5,000 sf new

Advantages:
Retain use of existing building; retain existing façades

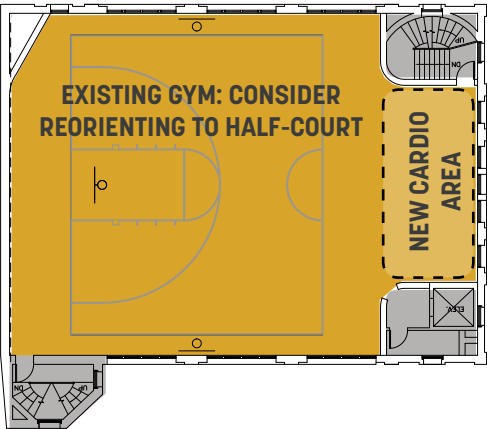
Recommended educational spaces are provided

Disadvantages:
Basketball court remains too small;
New teen room is no larger than existing
Multipurpose assembly space not provided
Cost of renovation may not be commensurate with space gained
Feasibility depends on existing building's structural capacity

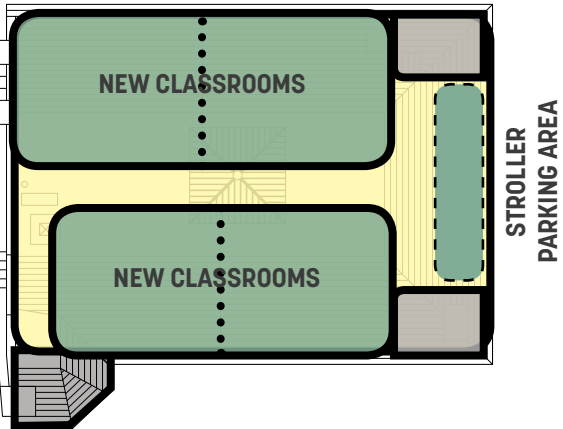
- ARTS
- CIVIC/COMMUNITY
- EDUCATION
- SPORTS
- SUPPORT, OFFICES, ETC.
- PUBLIC CIRCULATION



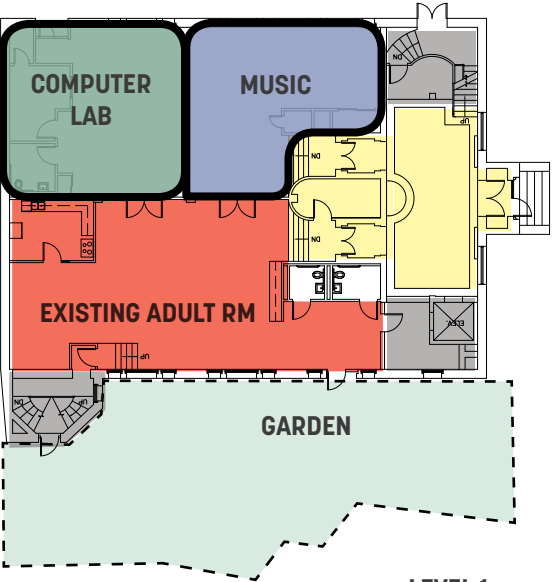
SECTION/ELEVATION



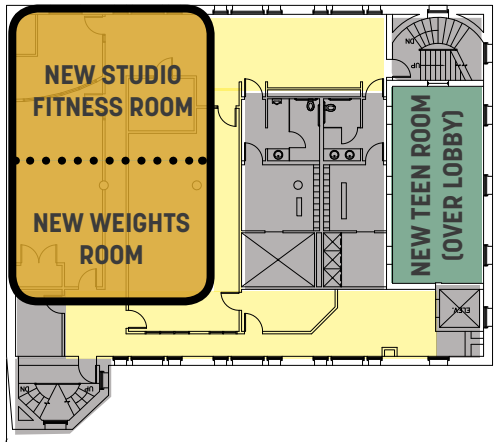
LEVEL 3



ROOF LEVEL



LEVEL 1

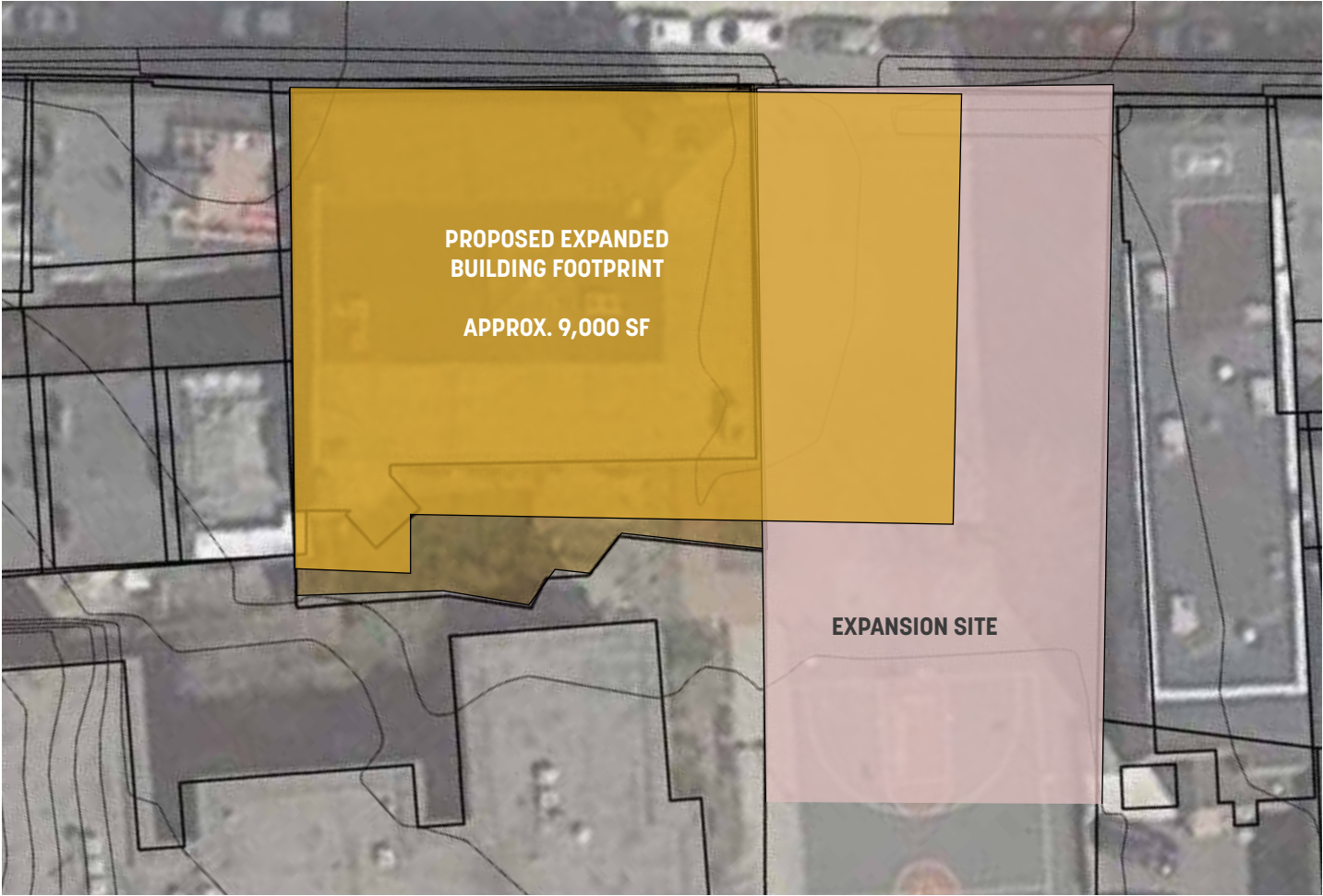


LEVEL 2

SCALE: 1/32" = 1'-0"



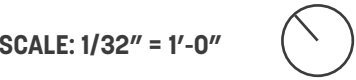
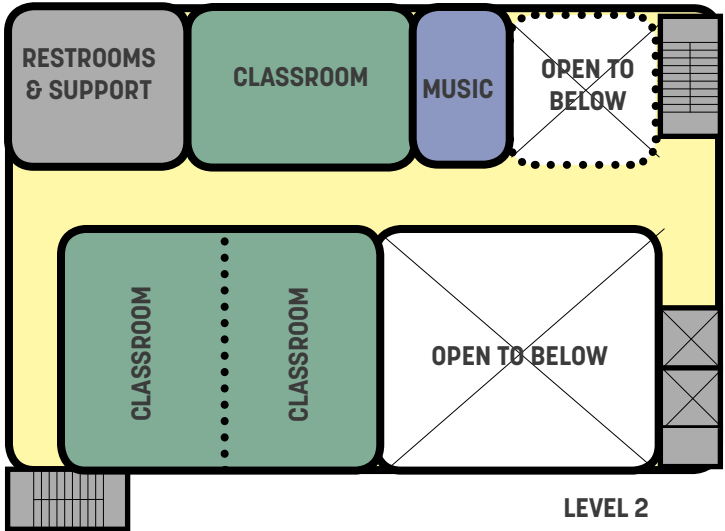
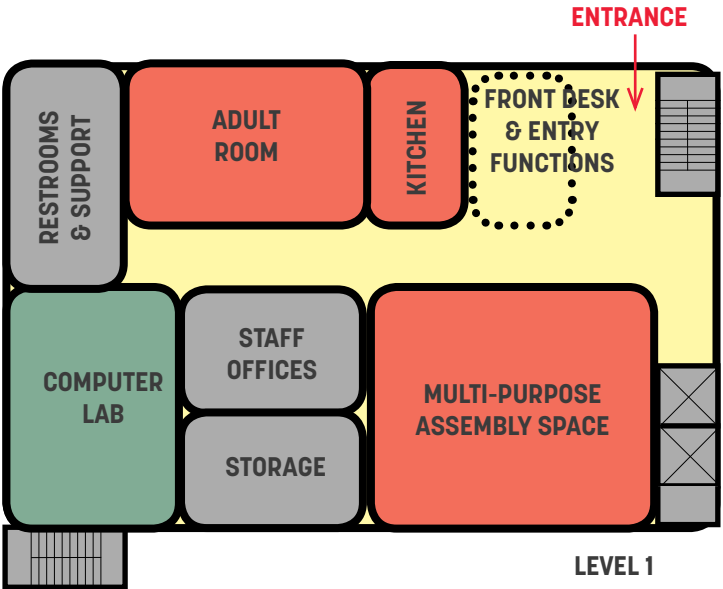
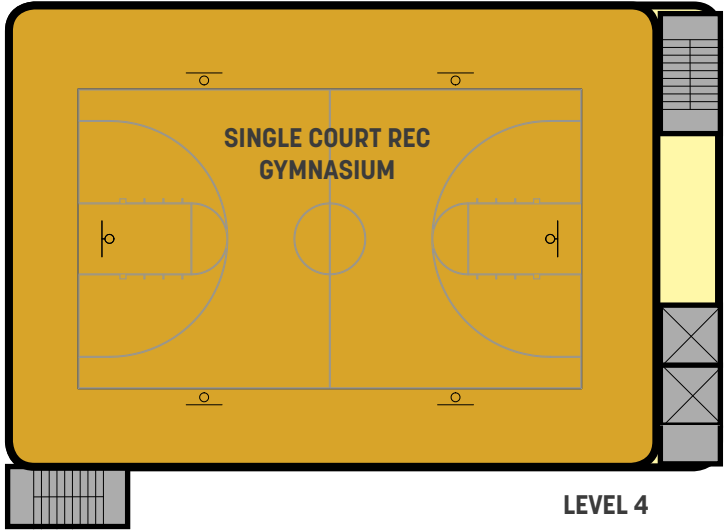
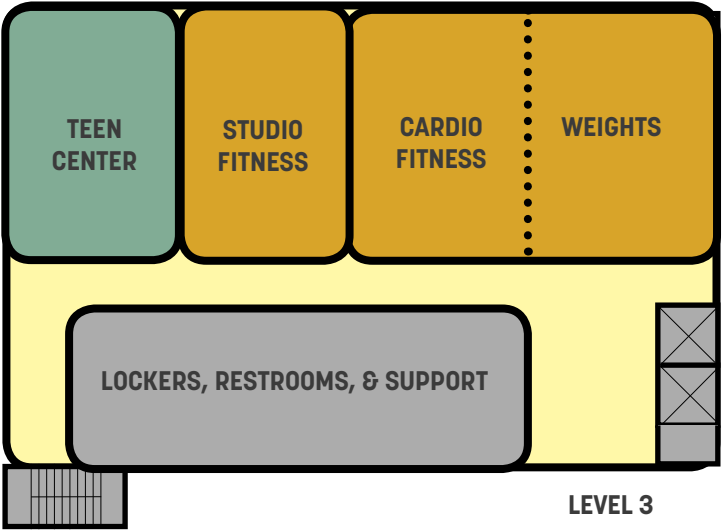
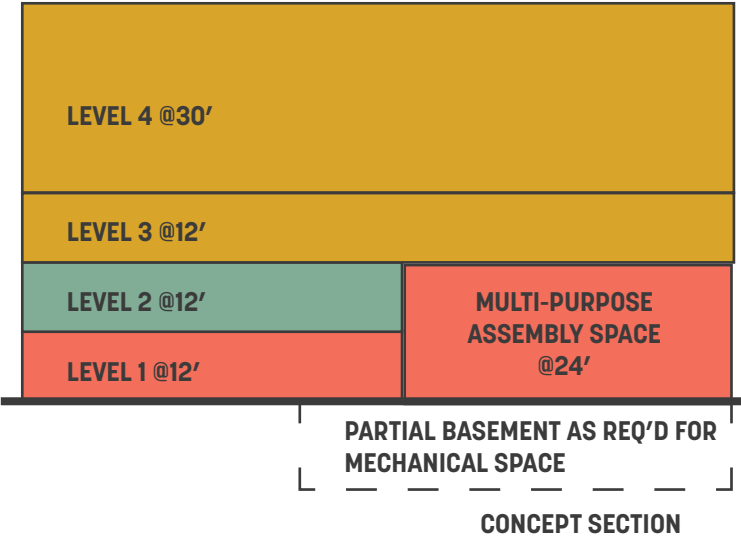
0 NAZZARO CENTER SITE OPTION 3: EXPAND BUILDING INTO PARK



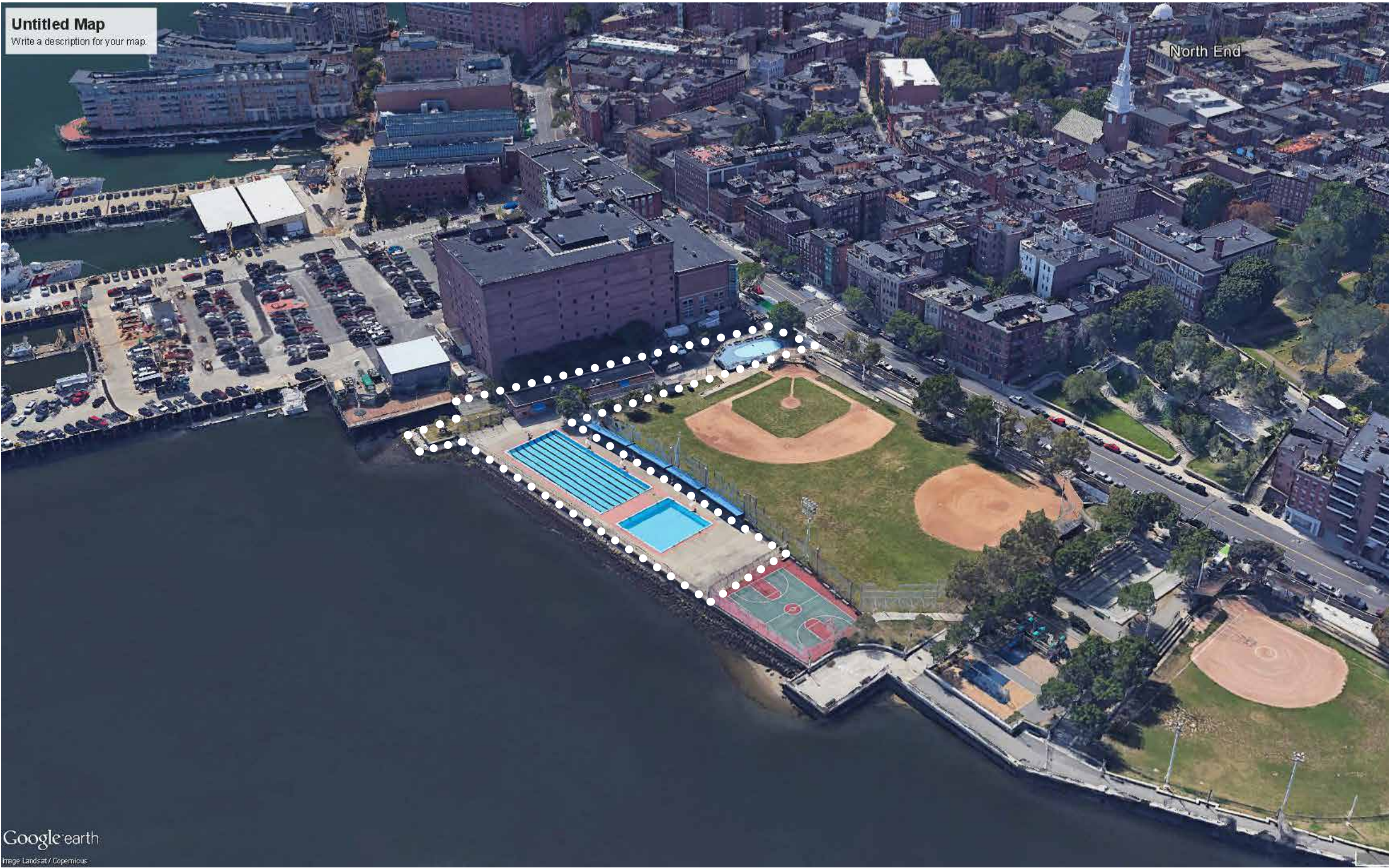
Extend footprint of building into the Polcari Playground parcel to increase its size. In order to provide a right-sized gym, this is a replacement of the existing building, not a renovation.

Proposed Community Center building
GSF: 35,145 sf over 4 stories
Proposed Community Center building
NSF: 24,566 sf (~70% efficiency)

- Advantages:**
- Retain use of existing site
 - Recommended civic, educational and arts spaces are provided; right-sized gym and fitness facilities provided
- Disadvantages:**
- Existing building and facade are destroyed
 - Proximity to other buildings means that openings and daylighting may be limited
 - Not enough space for reservable community room, second studio fitness room
 - No outdoor space; parking/loading reduced



1 MIRABELLA SITE



The Mirabella site consists of two parcels owned by the City of Boston. The site is bounded by Boston Harbor to the north and Commercial Street to the south. To the west are the playgrounds of Langone Park, and to the east is the US Coast Guard base. The site is currently inhabited by athletic courts and fields, as well as the Mirabella pools and poolhouse. The site interrupts the Harborwalk, which picks up again at Battery Wharf.

The site is in the North End Playground Recreational Open Space subdistrict, in which public use on publicly-owned land is not subject to zoning. Adjacent zones have FAR of 3.0, and height of 55 feet. The site is subject to Chapter 91, in which a community center will be allowed as it qualifies as a facility of public accommodation. The site may also be governed by Article 97 of the Mass State Constitution governing parkland.

The test fit proposes using the sliver of land occupied by splash pad, existing Mirabella Pool bathhouse, and part of the Harborwalk for a long, narrow community center building. Replace splash pad and Harborwalk segment as part of the project. This site suggests an optional reconstruction/replacement of the Mirabella Pool but is not dependent on it.

Due to the advantages listed below, the Study team recommends the Mirabella site as the preferred site.

1 MIRABELLA SITE

Site area: 291,500 sf (combined parcels, including water)
Site area (portion identified for community center): 25,000 sf

Proposed Community Center GSF:
54,375 sf
Proposed Community Center NSF:
36,283 sf (~67% efficiency)
Proposed Height:
55' / 4 stories + roof-level enclosure

- Advantages:**
- Contiguous with Langone and Puopolo Parks, MDC rink, new BPS school and related programs
 - Synergies with current redesign of park
 - Prominent waterfront site with great views
 - Community enthusiasm for site
 - Vehicular and pedestrian accessibility
 - Meets recommended program
 - Proximity to Mirabella Pool; ability to shared locker room space and lockable storage space for the park
- Disadvantages:**
- Park site is subject to Article 97 requirements (building requires legislative approval)
 - Demolition of existing bath house required
 - In flood hazard area and FEMA flood plain

See next pages for site-specific processes



1 MIRABELLA SITE
Site-Specific Processes

Article 37
LEED checklist; minimum LEED Silver
Timeline: design phase

Article 97: Building in Park
Requires State Legislature approval
Note: Article 97 was intended to be a legislative ‘check’ to ensure that lands acquired for conservation purposes were not converted to other inconsistent uses. In this case, the Parks Department is in favor of the programmatic synergies of this project, which will support the Article 97 approval process.
Timeline: TBD

Article 80 and MEPA review
Large Project review
Interagency Green Building Committee
Timeline: 6-9 months

FEMA and BPDA Flood Hazard Areas (FHAs)
Requirement that critical infrastructure and facilities min. 24” above Base Flood Elevation; all other elements min 12” above
Timeline: design phase

Waterfront Development
Ch. 91 requires facilities of public accommodation in a waterfront development. *Ch. 91* requirements include a 100’ shoreline setback and review by the Conservation Commission.
Timeline: design phase

The Boston 2030 Plan calls for three major criteria in future waterfront development:

- A Waterfront for All Bostonians calls for prioritizing signature parks and a network of connected open spaces along the water, with a diverse set of experiences and connections back to the neighborhoods. The program synergy of the community center with the park on this site supports this goal.
- A Climate-Resilient Waterfront will anticipate the effects of climate change including extreme precipitation, extreme high tide and stormwater retention. The design of a building on this site must respond to these issues and must be flood resilient. Flood resilience is the use of products and practices that are aimed at making the building resilient to the effects of floodwater that has entered the building
- A Waterfront with Strong Stewardship relates to the entitlement process for waterfront projects. The support of



multiple agencies for this site suggest that it could be a model for thoughtful waterfront development. The BPDA sees this project as an opportunity for the city to implement an example of building excellence on the waterfront.
Timeline: planning and design phases

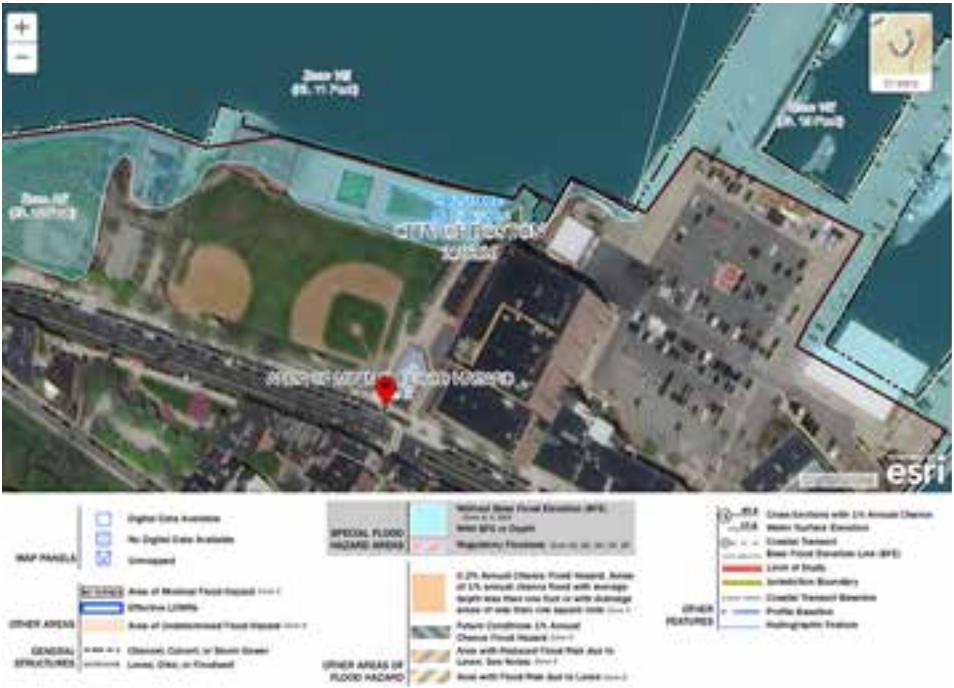
1

MIRABELLA SITE

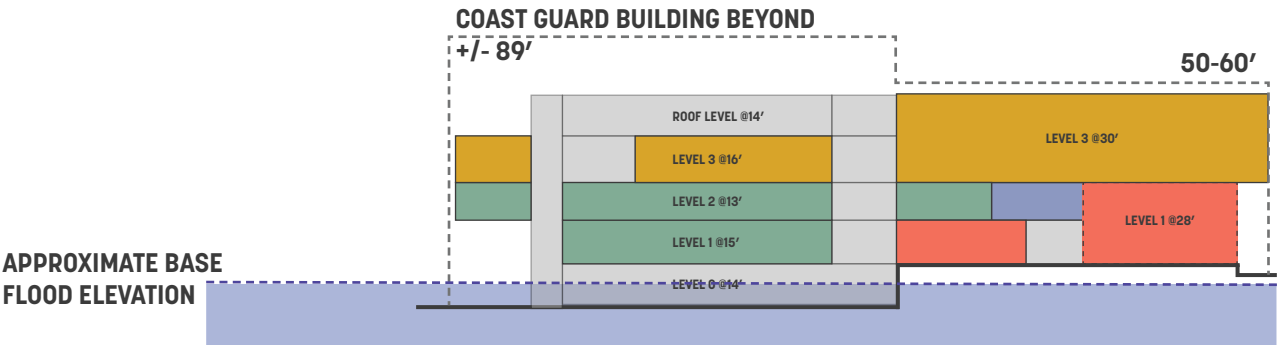
Site-Specific Processes cont'd



SITE PARTIALLY LOCATED IN BPDA SLR-FHA
SLR-BFE = 19.7

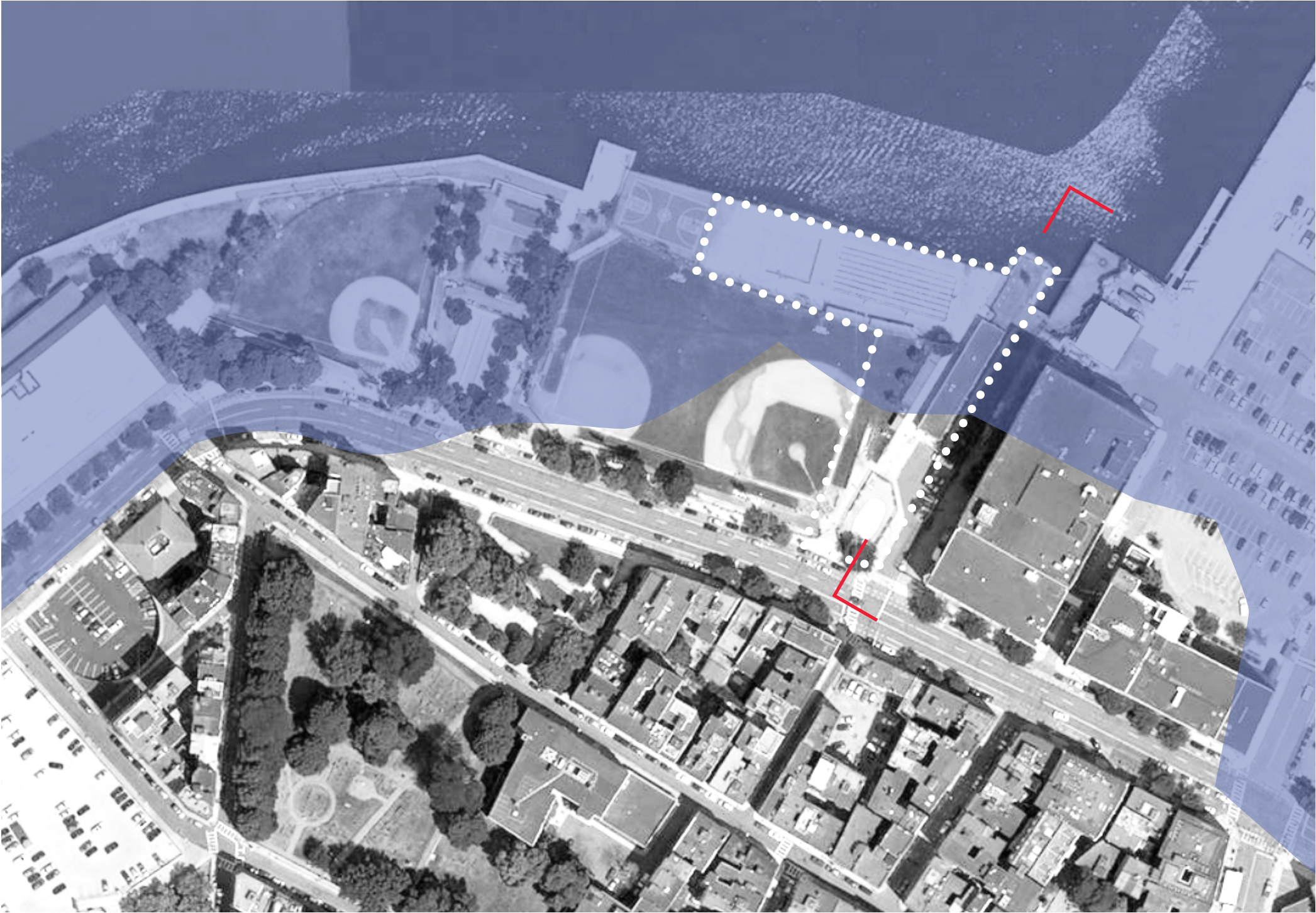


SITE PARTIALLY LOCATED IN FEMA FHA



Program located at the flood elevation will need to be designed to flood regularly with minimal long-term impact to the building.

CONCEPT SECTION
SCALE: 1/64" = 1'-0"





1 MIRABELLA SITE

As of summer 2018, Boston Parks & Recreation was in the process of developing a plan to renovate and enhance the park adjacent to the Mirabella site. With minor changes, this plan complements the proposed community center on this site.



1 MIRABELLA SITE

The study recommends that further coordination with the Park design take place to extend the continuity of the Harborwalk. The community center building bookends the recreational and community uses of the overall waterfront park.

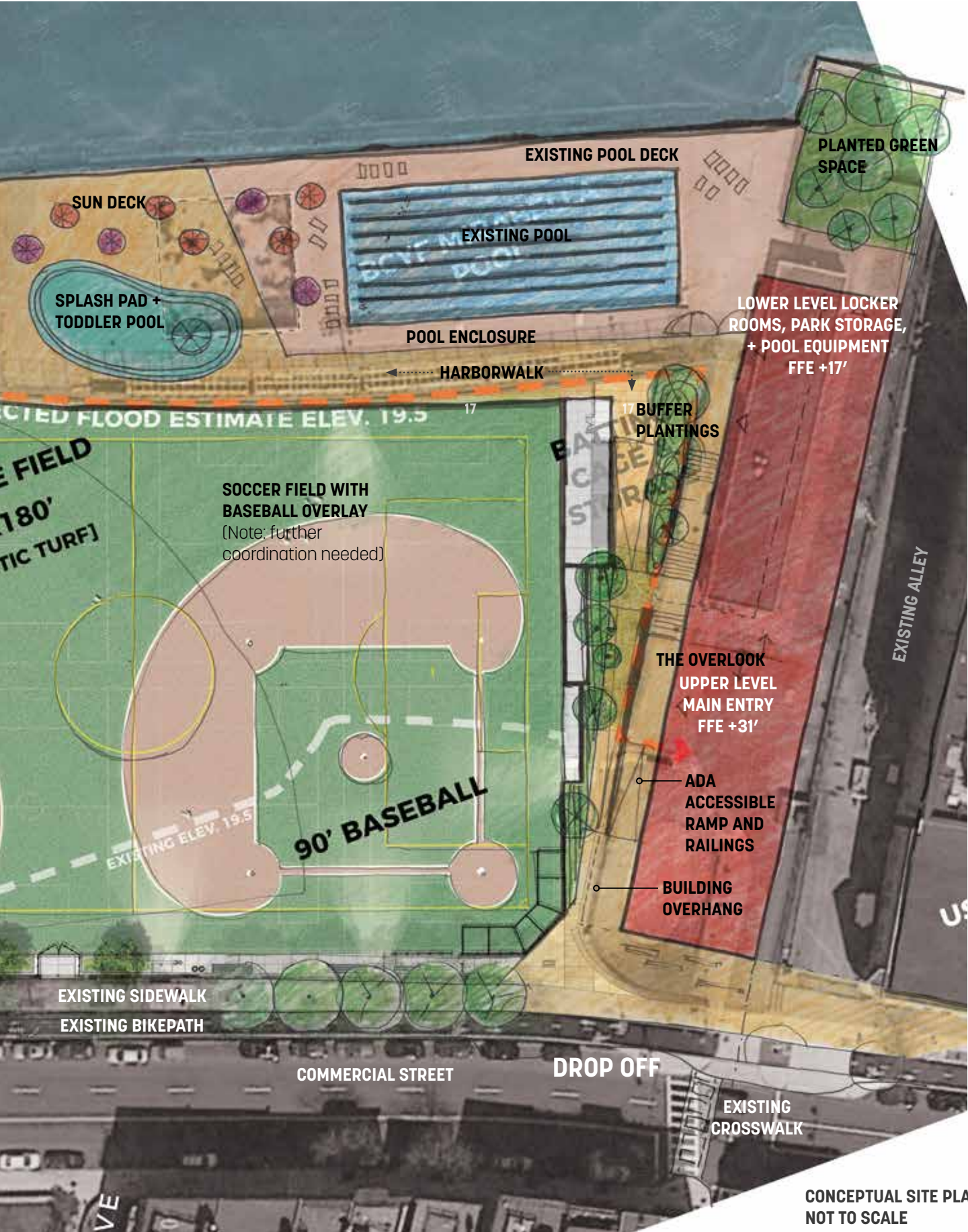


1 MIRABELLA SITE
Landscape Vision

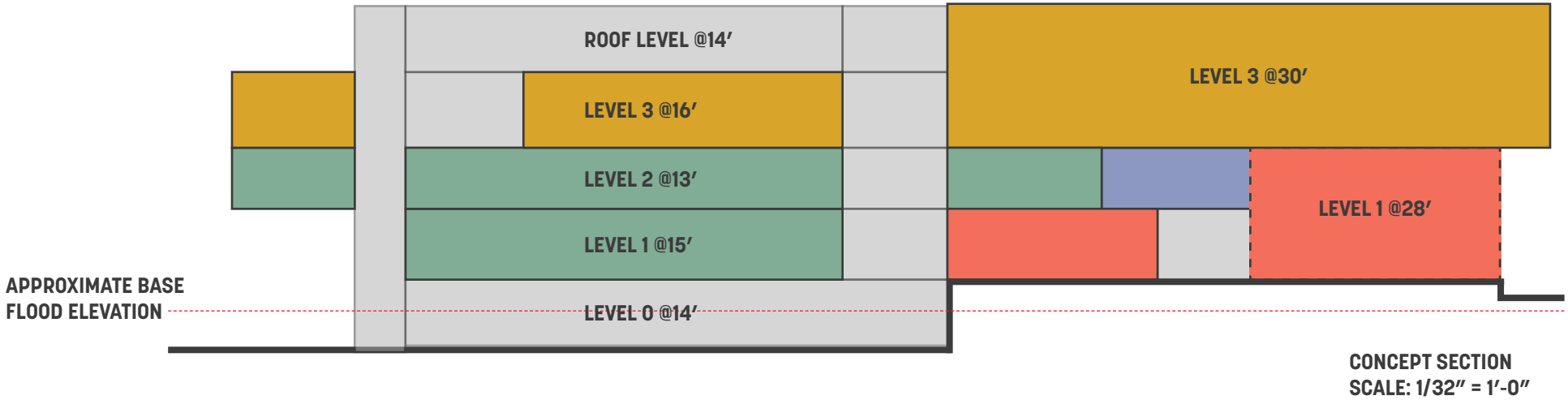
Although further coordination is needed with the new field at the renovated Langone Park, the vision is to connect the Harborwalk and provide room for a front door and front porch for the community center. Fourteen feet of grade change between the main entry level of the community center, and the locker rooms at the lower level are handled gracefully with ramps, landscaped slopes, and graphic wall. An overlook at the main entry provides generous views over the park and the harbor.

FOR FURTHER COORDINATION

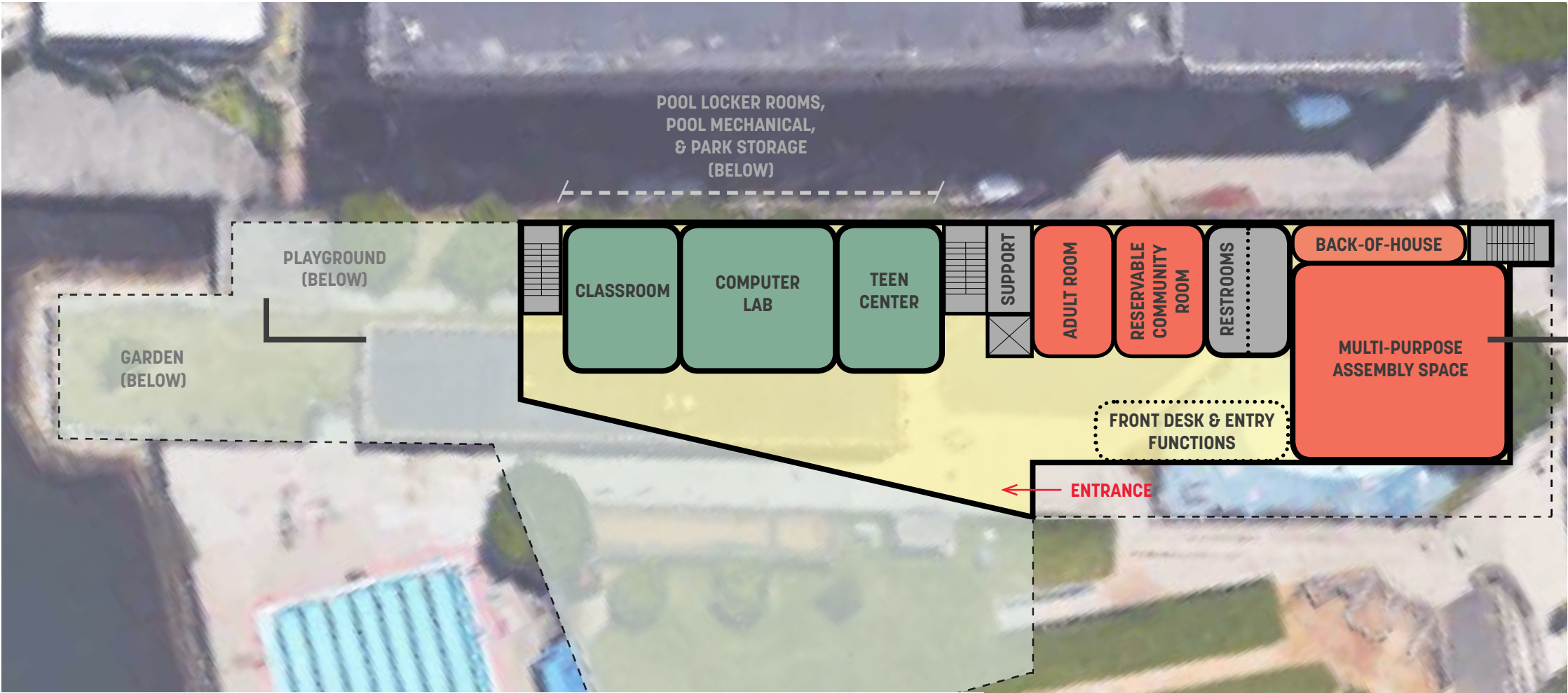
- Final location and grading of field
- Location of Harborwalk connection
- Location of baseball dugout
- Puopolo Family memorial sign
- Sports netting and lighting in relation to building
- Location of and access to batting cages
- Size and scope of splash pad
- Existing pool, pool deck, and perimeter fence
- Geotechnical and subsurface conditions
- Final design flood elevation
- Configuration of street drop-off and pedestrian crossing



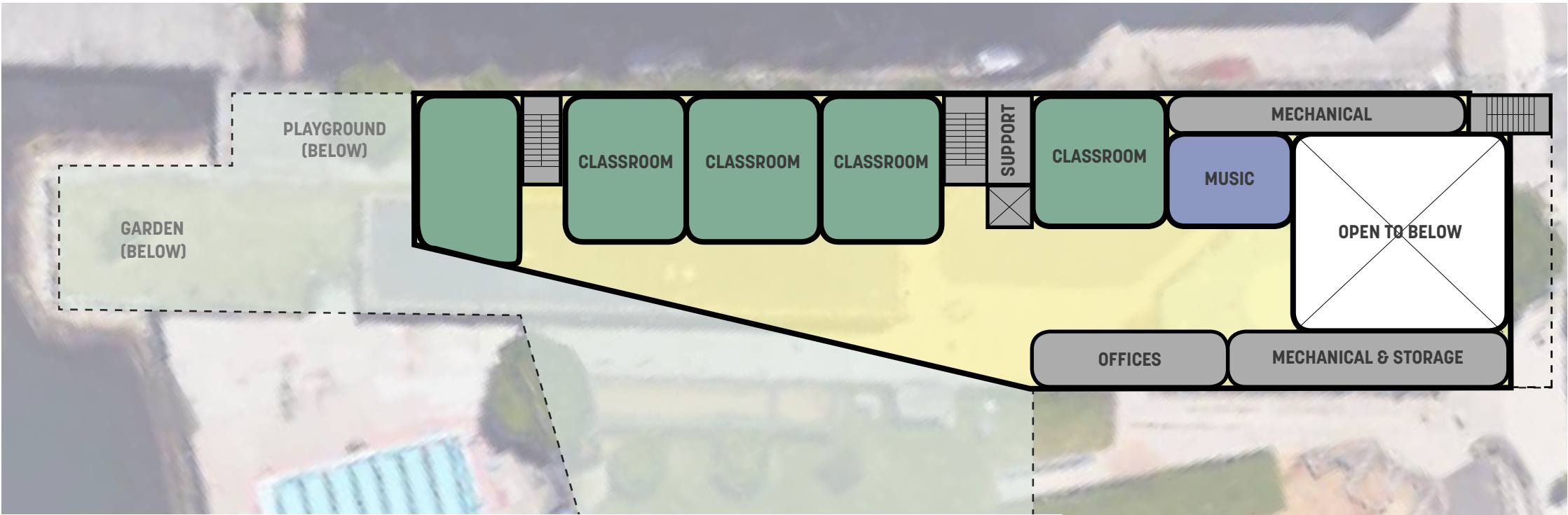
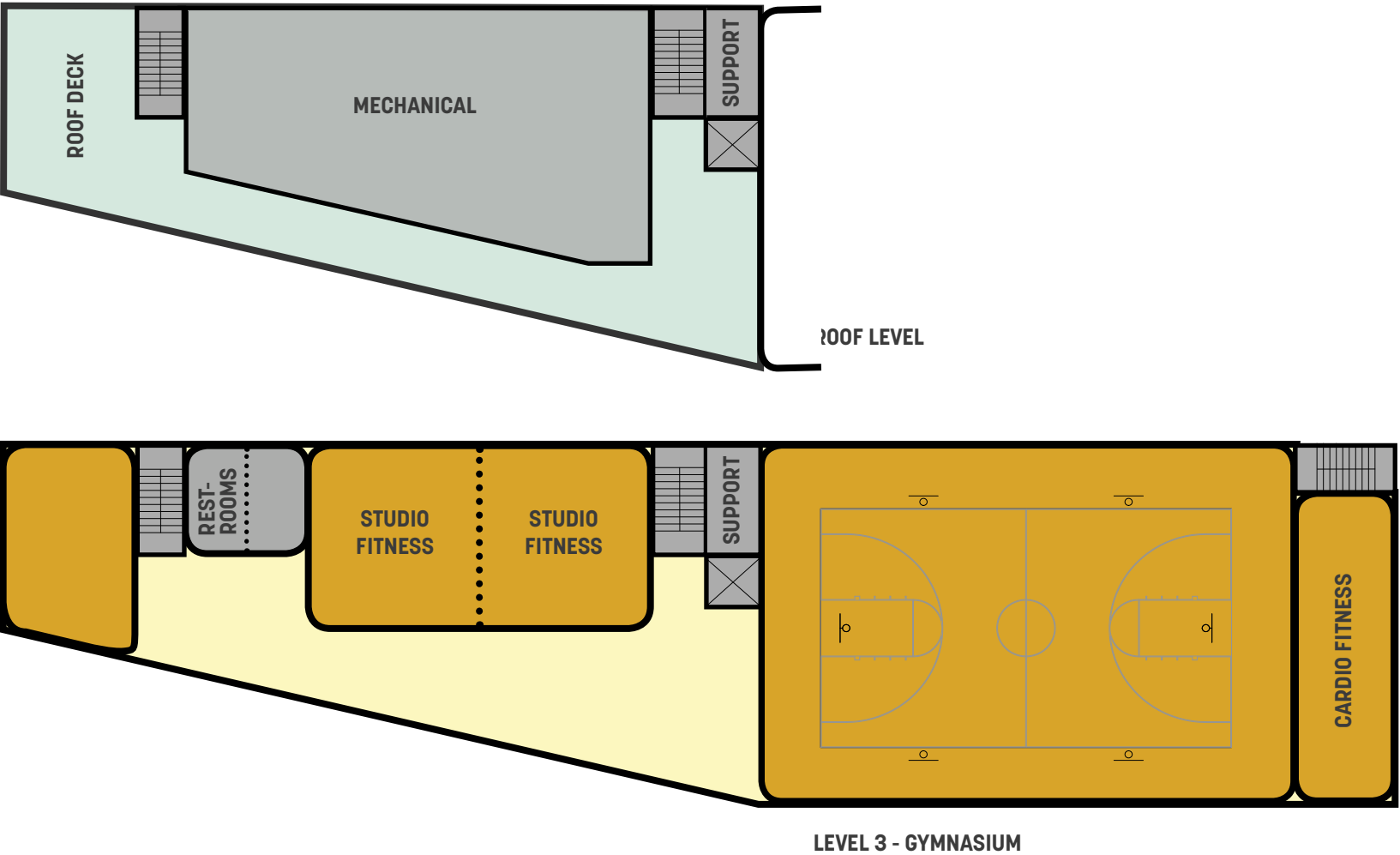
1 MIRABELLA SITE
Building Section & Level 1 Plan



- ARTS
- CIVIC/COMMUNITY
- EDUCATION
- SPORTS
- SUPPORT, OFFICES, ETC.
- PUBLIC CIRCULATION



1 MIRABELLA SITE
Levels 2, 3 & Roof Plan

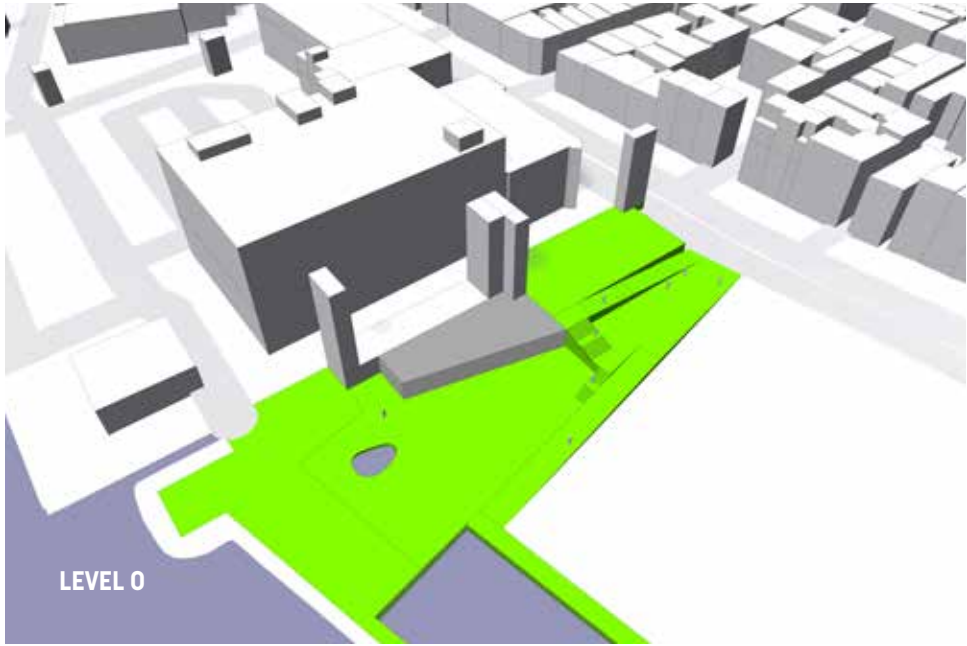
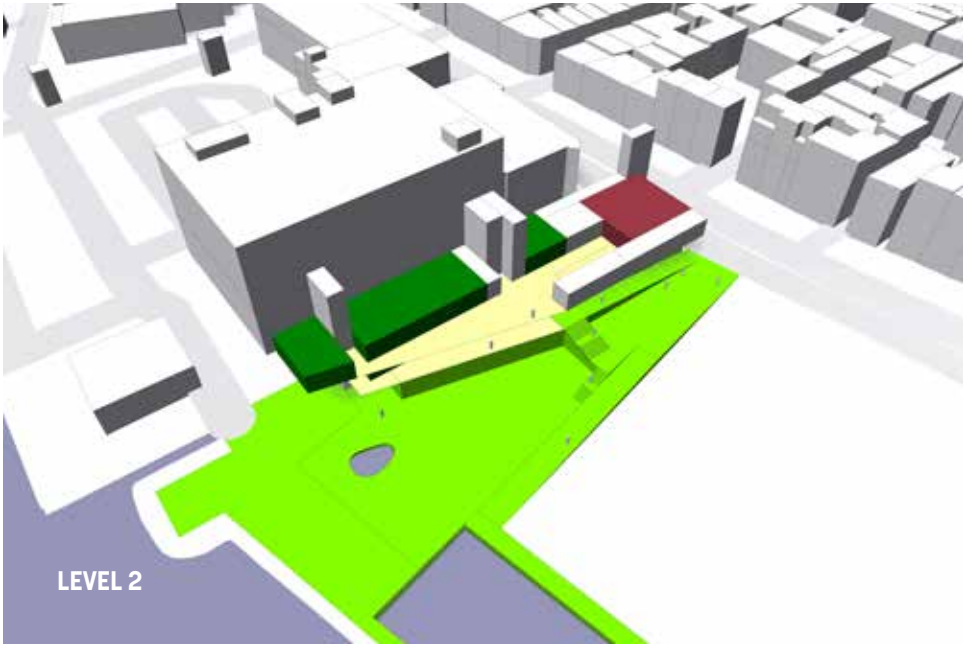
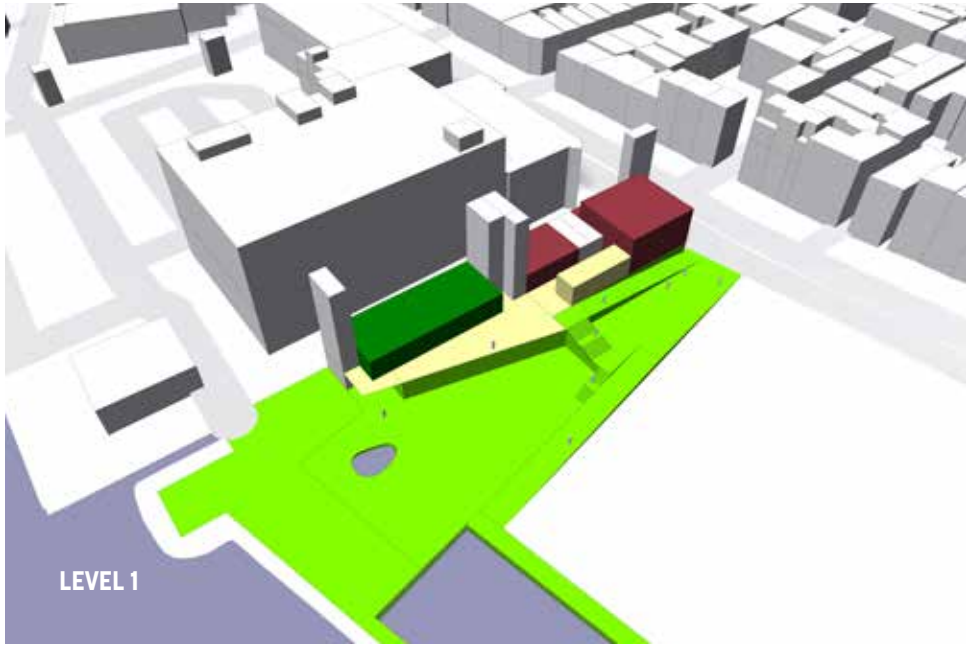
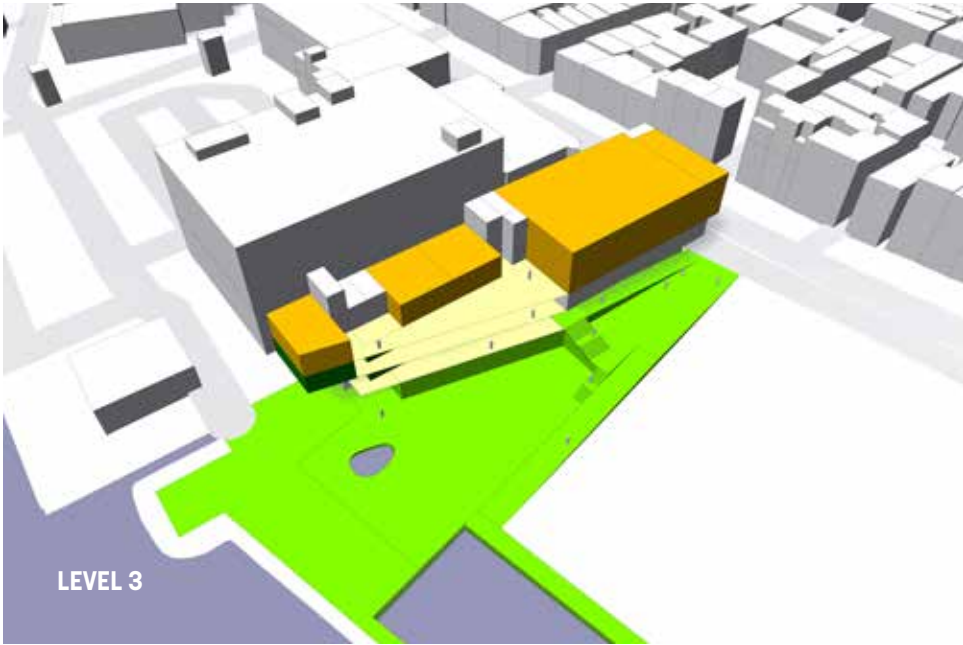


- ARTS
- CIVIC/COMMUNITY
- EDUCATION
- SPORTS
- SUPPORT, OFFICES, ETC.
- PUBLIC CIRCULATION

LEVEL 2
SCALE: 1/32" = 1'-0"



1 MIRABELLA SITE
Program Stacking Diagrams

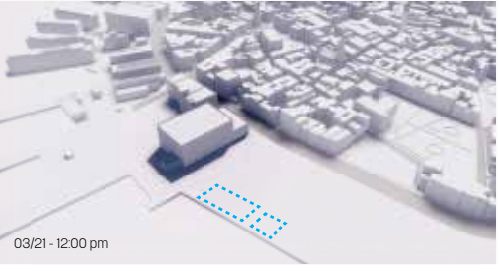
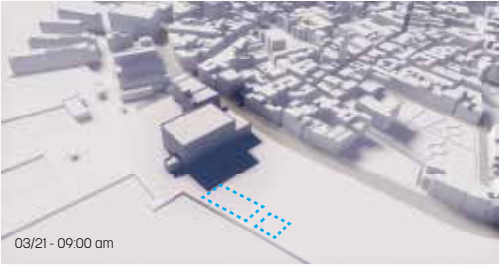


ARTS	SPORTS
CIVIC/COMMUNITY	SUPPORT, OFFICES, ETC.
EDUCATION	PUBLIC CIRCULATION

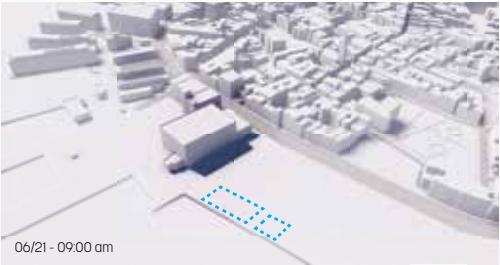
1 MIRABELLA SITE
Shadow Studies



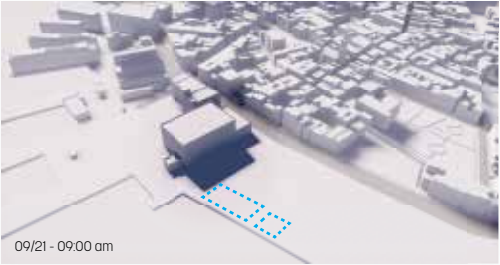
March 21



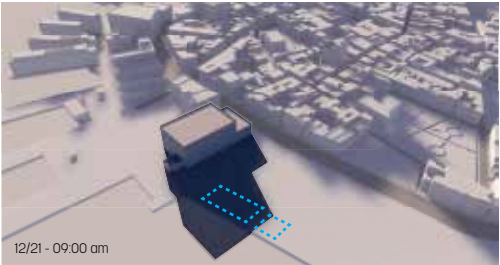
June 21



September 21

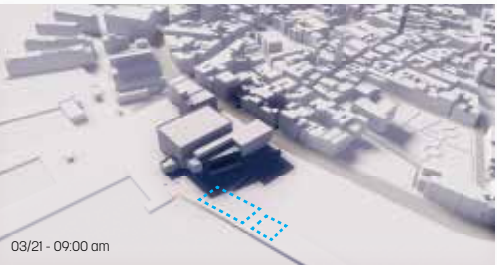


December 21

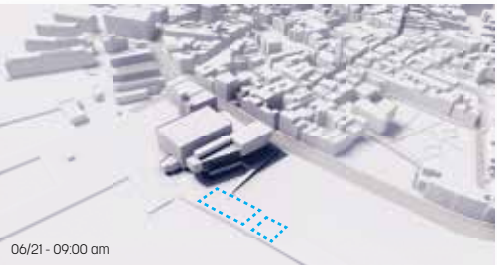


Existing
The shadow study shows that the existing coast guard building impacts sun exposure in the Winter Season from 9 am - 12 pm.

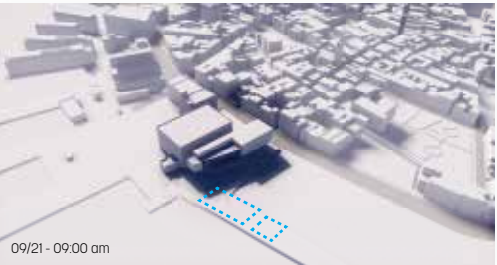
March 21



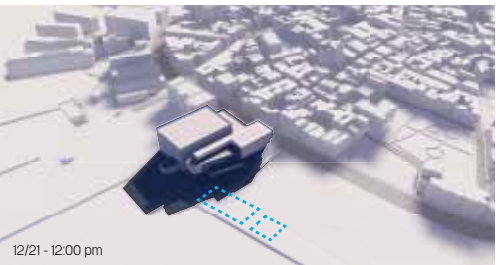
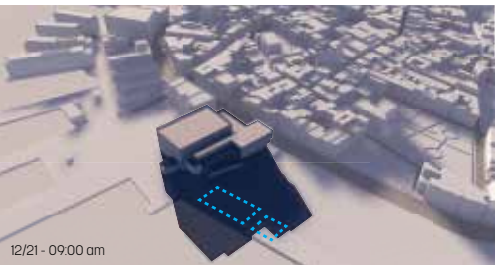
June 21



September 21



December 21



Proposed
The proposed building shadows are not significantly increased during most of the time throughout the year. The swimming pool area is still fully exposed to the sun anytime of the year after 12 pm.

NOT SELECTED FOR PRICING

2 FULTON STREET SITE



The Fulton Street site (currently known as the Cross Street Parking Lot) consists of two parcels owned by the City of Boston. The site is bounded by the hospital to the north, Fulton Street to the East, Cross Street to the south, and the Callahan Tunnel easement to the west.

The majority of the site is located in the North End Multi-Family Residential zoning district, with a height limit of 55’ and an F.A.R. of 3. The southern portion of the site (spanning both parcels) lies in the Central Artery District and has a height limit of 55’ and an F.A.R. of 4.

This site will need to retain revenue-generating potential and is recommended for mixed-use development. See Section 4.3 for more information.

Although the Fulton Street site does have some advantages, it has significant drawbacks as well. After careful analysis and comparison to the other sites it was not chosen as the preferred site by the study team.

2 FULTON STREET SITE

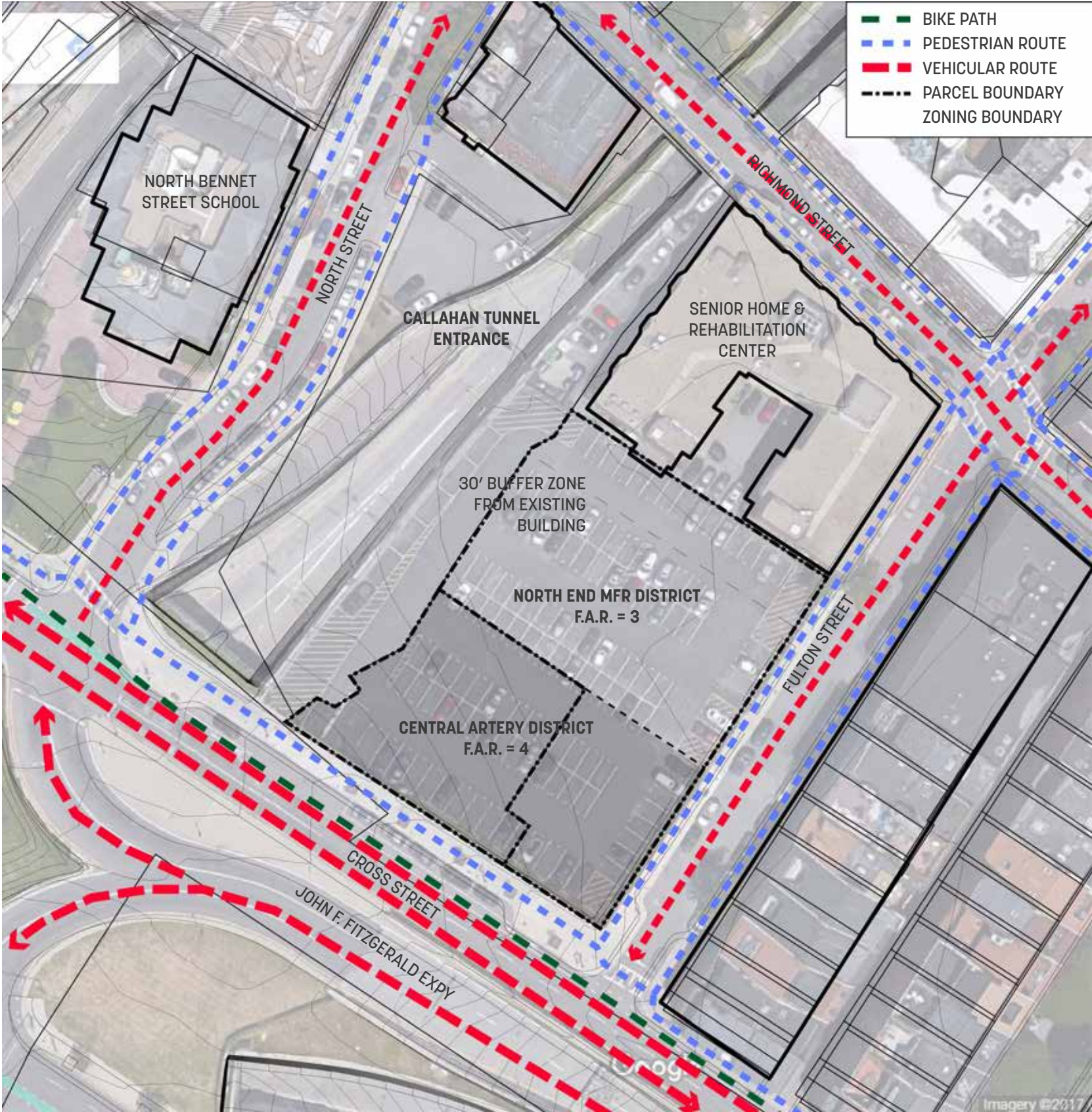


SITE LOCATED IN BPDA SLR-FHA
SLR-BFE = 19.4

Site area: 34,000 sf
North portion at F.A.R. = 3: 18,000 sf
South portion at F.A.R. = 4: 16,000 sf

Advantages:
Mixed-Use potential for public-private development
Vehicular and pedestrian accessibility
Relatively flat site
Proximity to Greenway open space

Disadvantages:
Not centrally located to North End neighborhood; separated by tunnel entrance from parts of the neighborhood
Open space would be shaded by the building
Mixed-use options come with architectural constraints
Located in BPDA SLR-FHA (although not in FEMA FHA)
Surrounded by high volume of vehicular traffic on Cross Street, JFK Expressway and the entrance to the Callahan Tunnel.



SCALE: 1/64" = 1'-0"



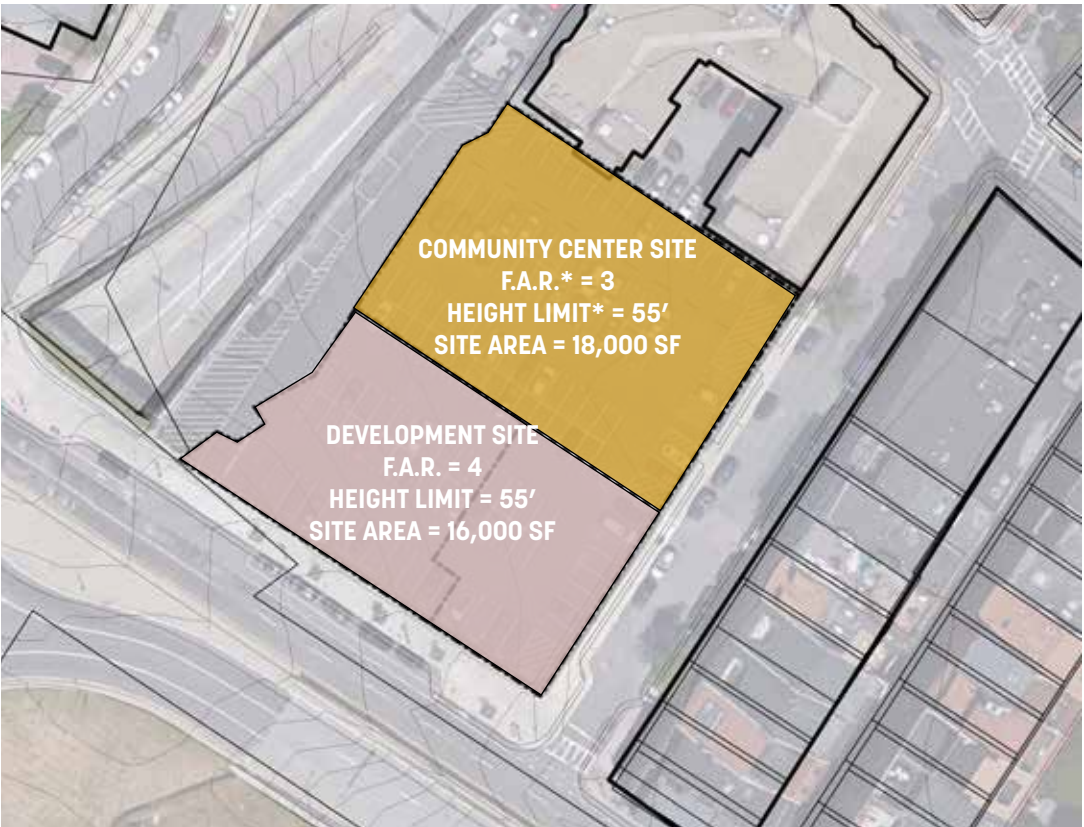
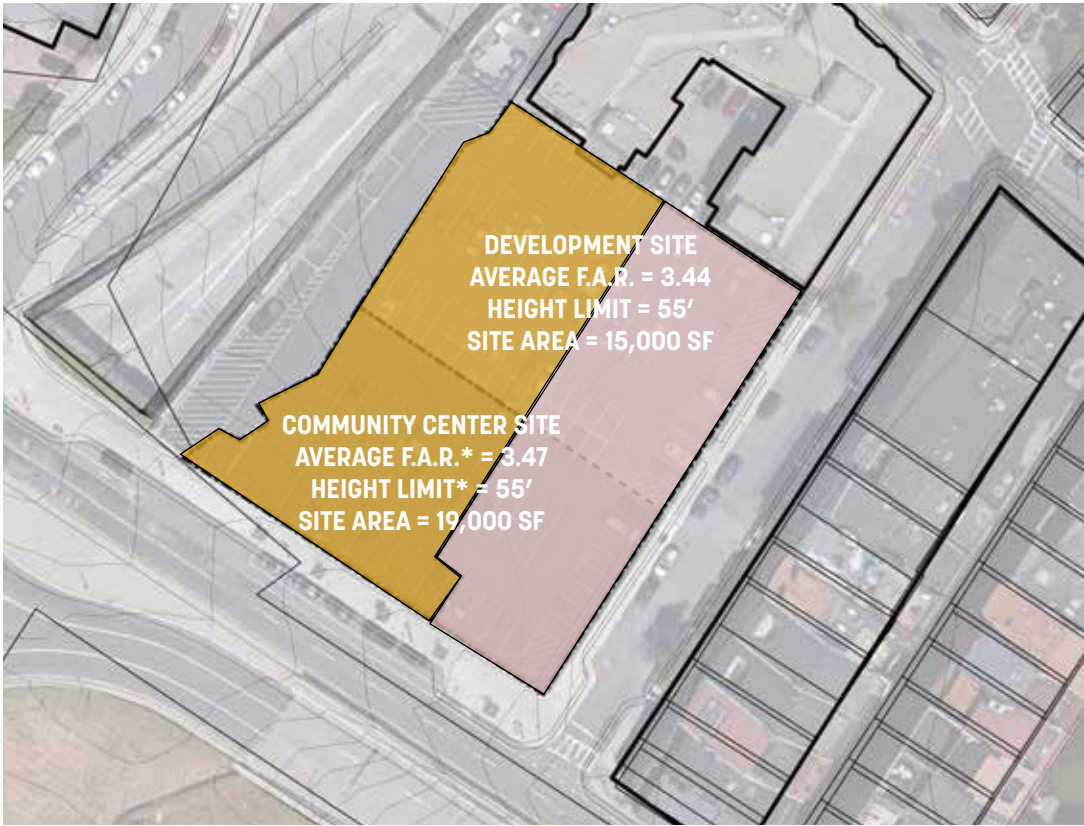
2 FULTON STREET SITE

The team has identified three approaches. Options 1 and 3 are developed in more detail on the next spread:

Option 1: Split by F.A.R.
Proposed Community Center building area: 54,000 sf over 4 stories (see section)
Proposed Public-Private Development building area: 64,000 sf

Option 2: East-West (Not recommended)
Proposed Community Center building area: up to 65,000 sf over 4 stories
Proposed Public-Private Development building area: 51,600 sf

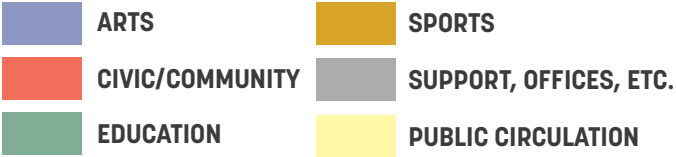
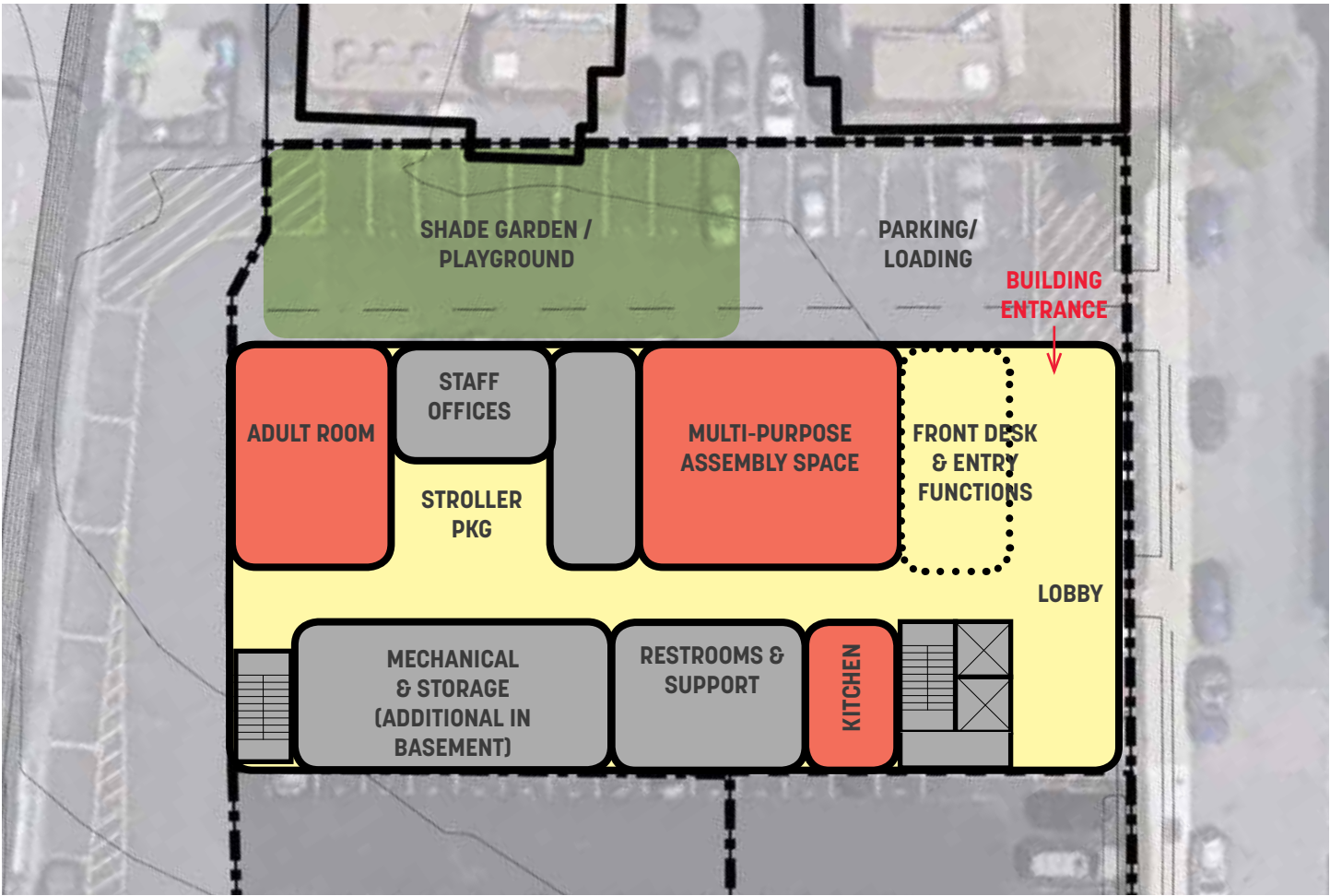
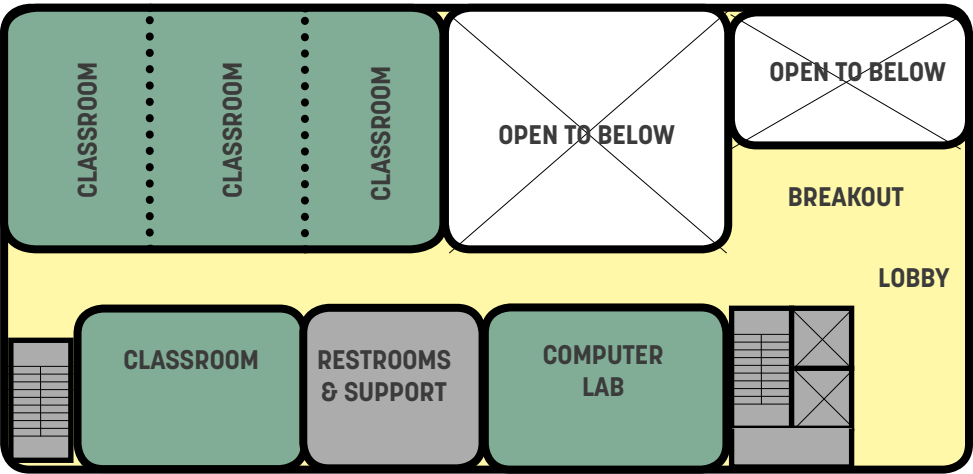
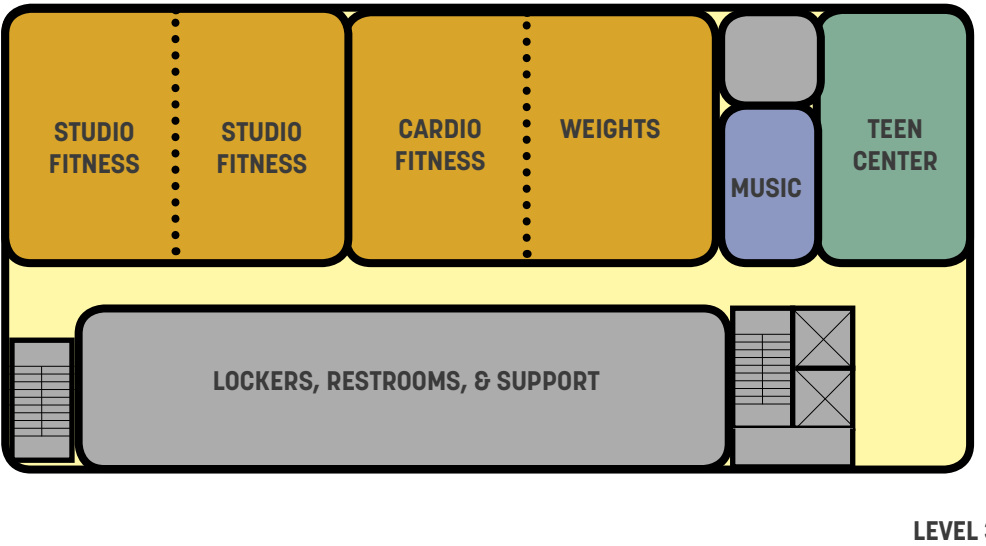
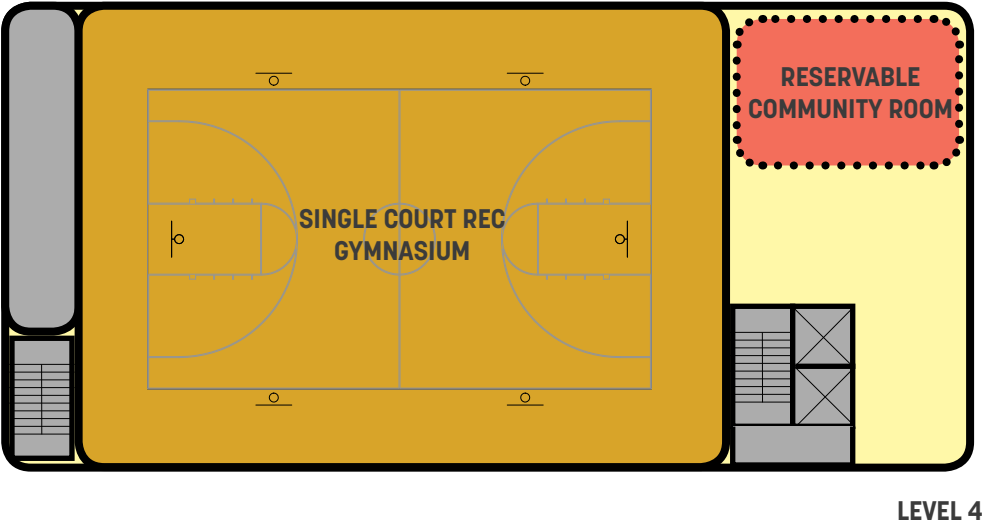
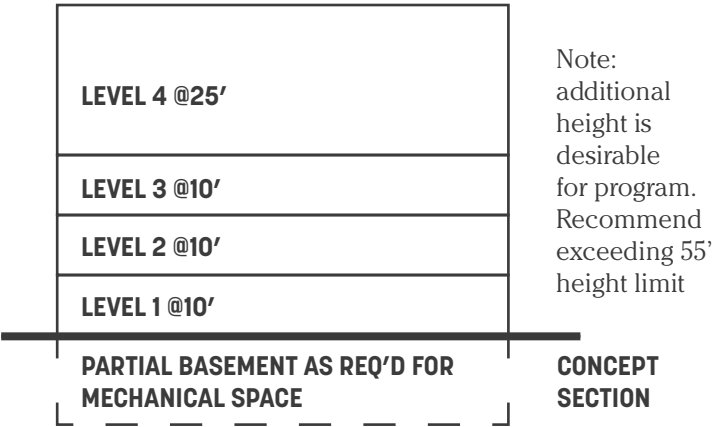
Option 3: Mixed-use
Proposed Mixed-Use Building Area: up to 118,000 sf over 5 stories; single-story gym is proposed in the center; 1-2 story community center podium with residential above.



NOT TO SCALE

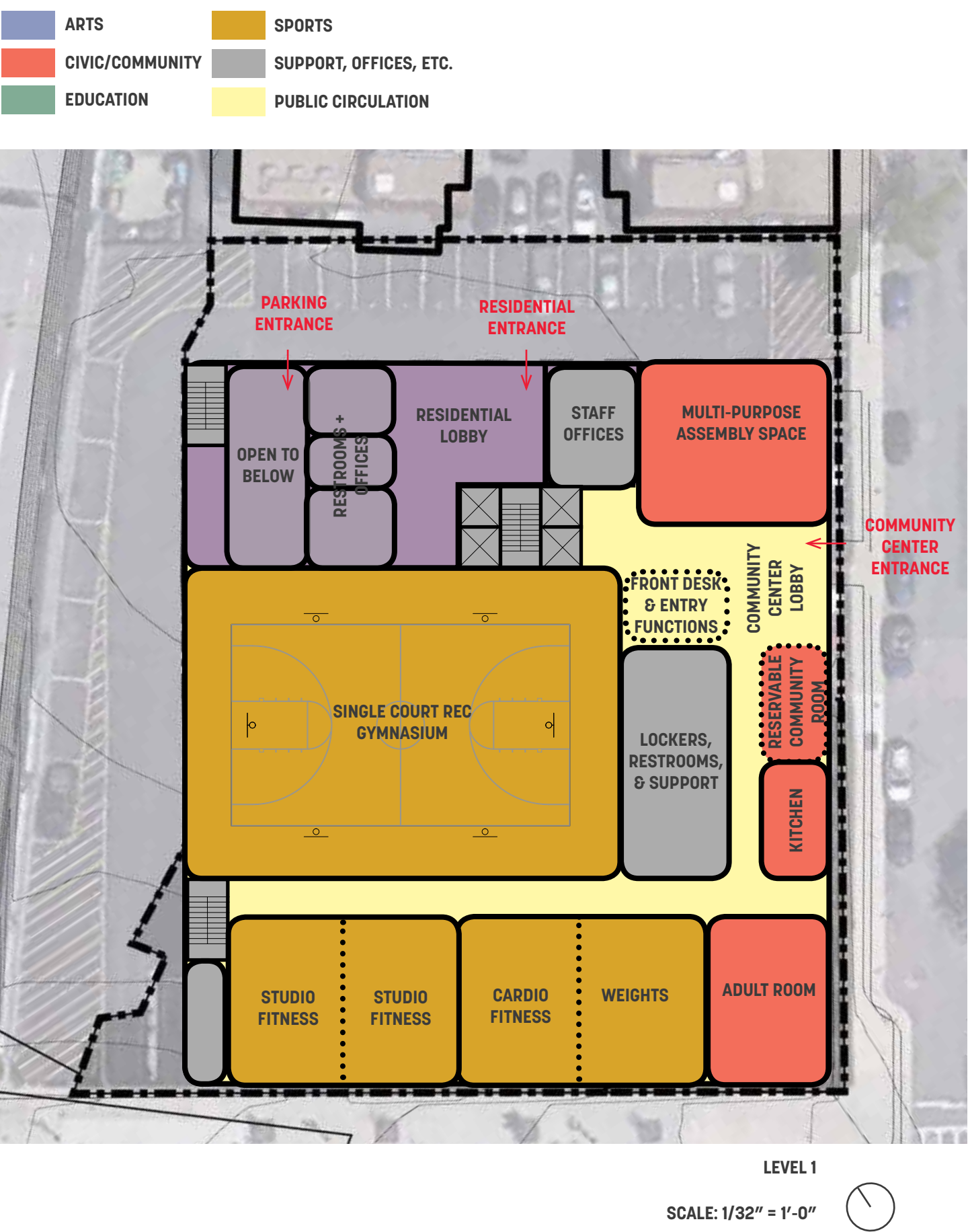
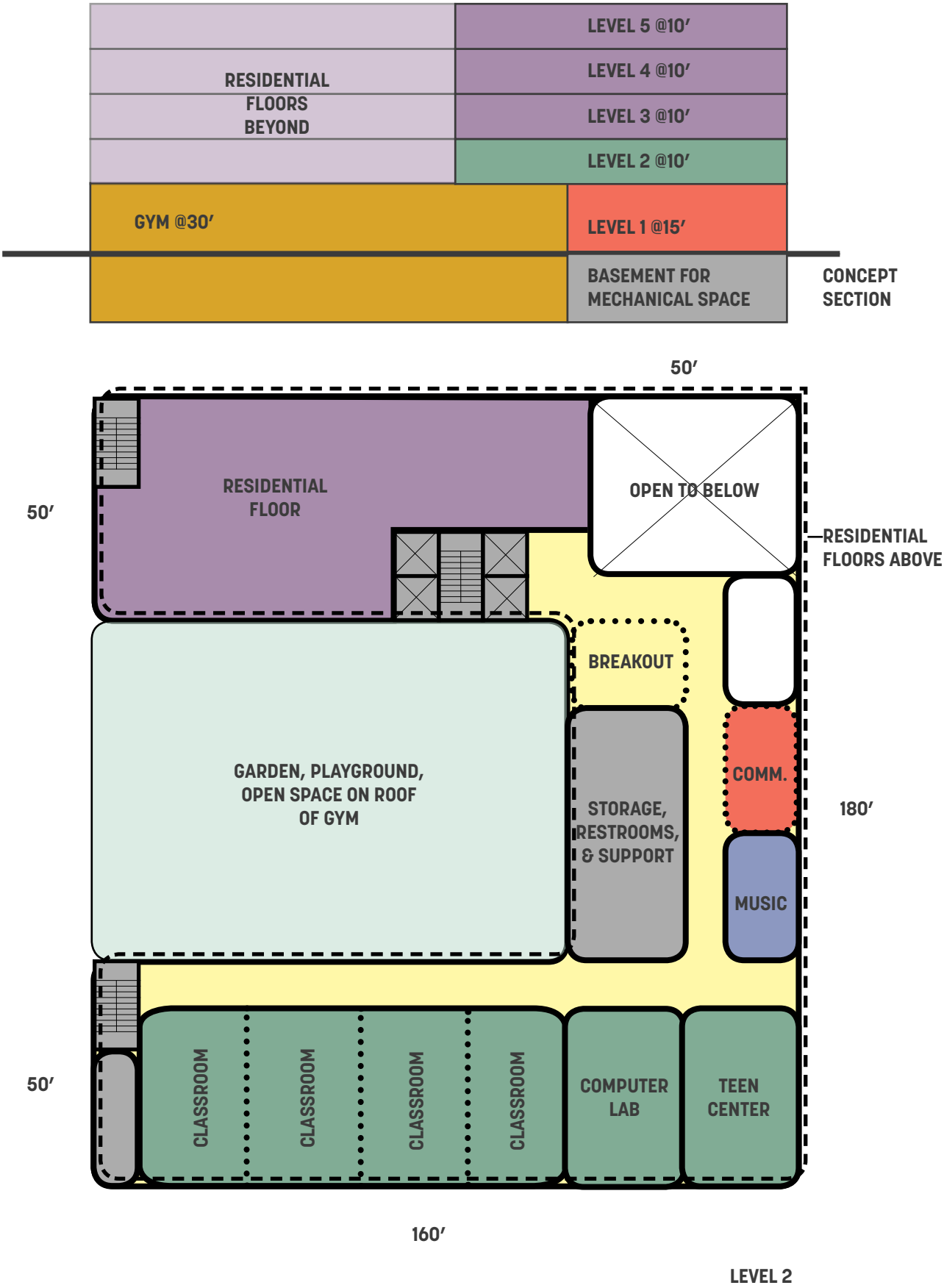


2 FULTON STREET SITE:
PROGRAM TEST FIT OPTION 1



SCALE: 1/32" = 1'-0"





NOT SELECTED FOR PRICING

3 COOPER STREET SITE

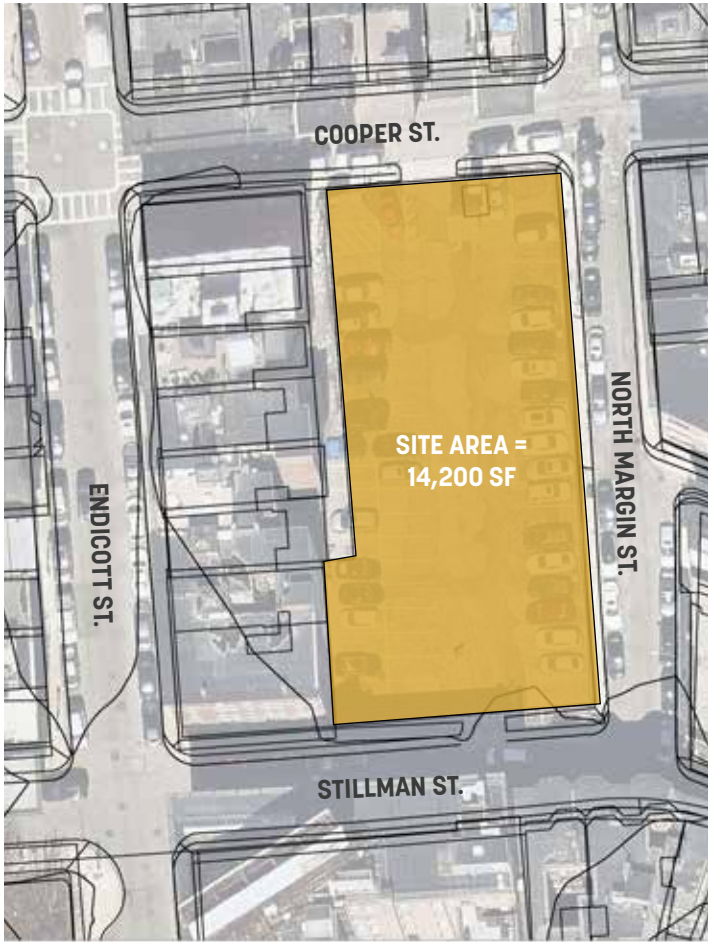
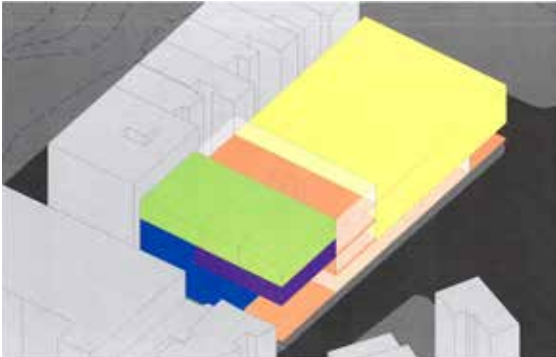
The Cooper Street site is a privately-owned parking lot located in the North End Multi-Family Residential zoning district, with a height limit of 55’ and an F.A.R. of 3.

In order to make the city purchase of this site viable, the project would likely be developed as a mixed-use public-private partnership. However, with 42,600 fs available in total for development, the site does not appear to be large enough to contain a mixed-use building with a community center and private program. Due to the disadvantages below, this site is not recommended for further study.

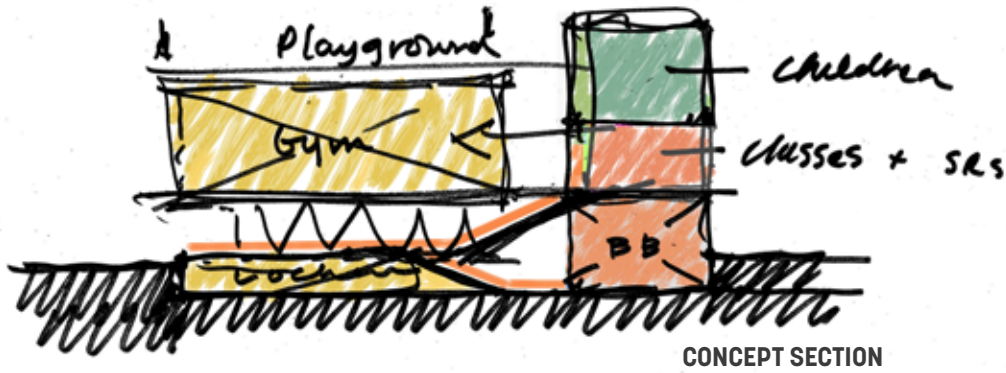
Site area: 14,200 sf
Proposed Community Center building area: 42,000 sf over 4 stories

Advantages:
Relatively flat site

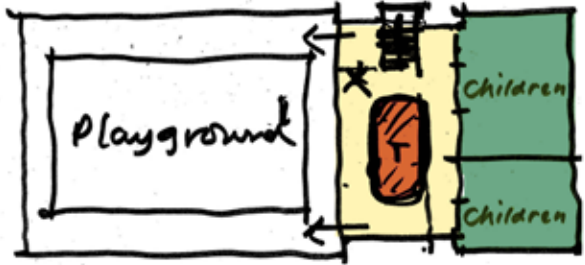
Disadvantages:
Privately owned / high acquisition costs.
Insufficient area for mixed-use option



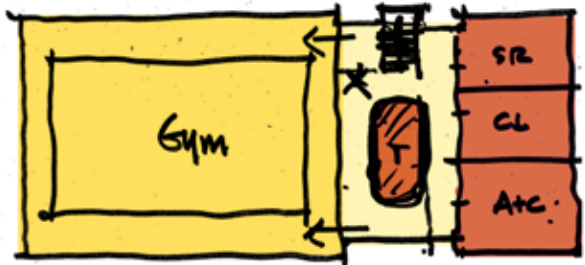
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CONCEPT SECTION



LEVEL 4



LEVEL 3



LEVEL 2



LEVEL 1

- ARTS
- CIVIC/COMMUNITY
- EDUCATION
- SPORTS
- SUPPORT, OFFICES, ETC.

SCALE: 1/64" = 1'-0"



NOT SELECTED FOR PRICING

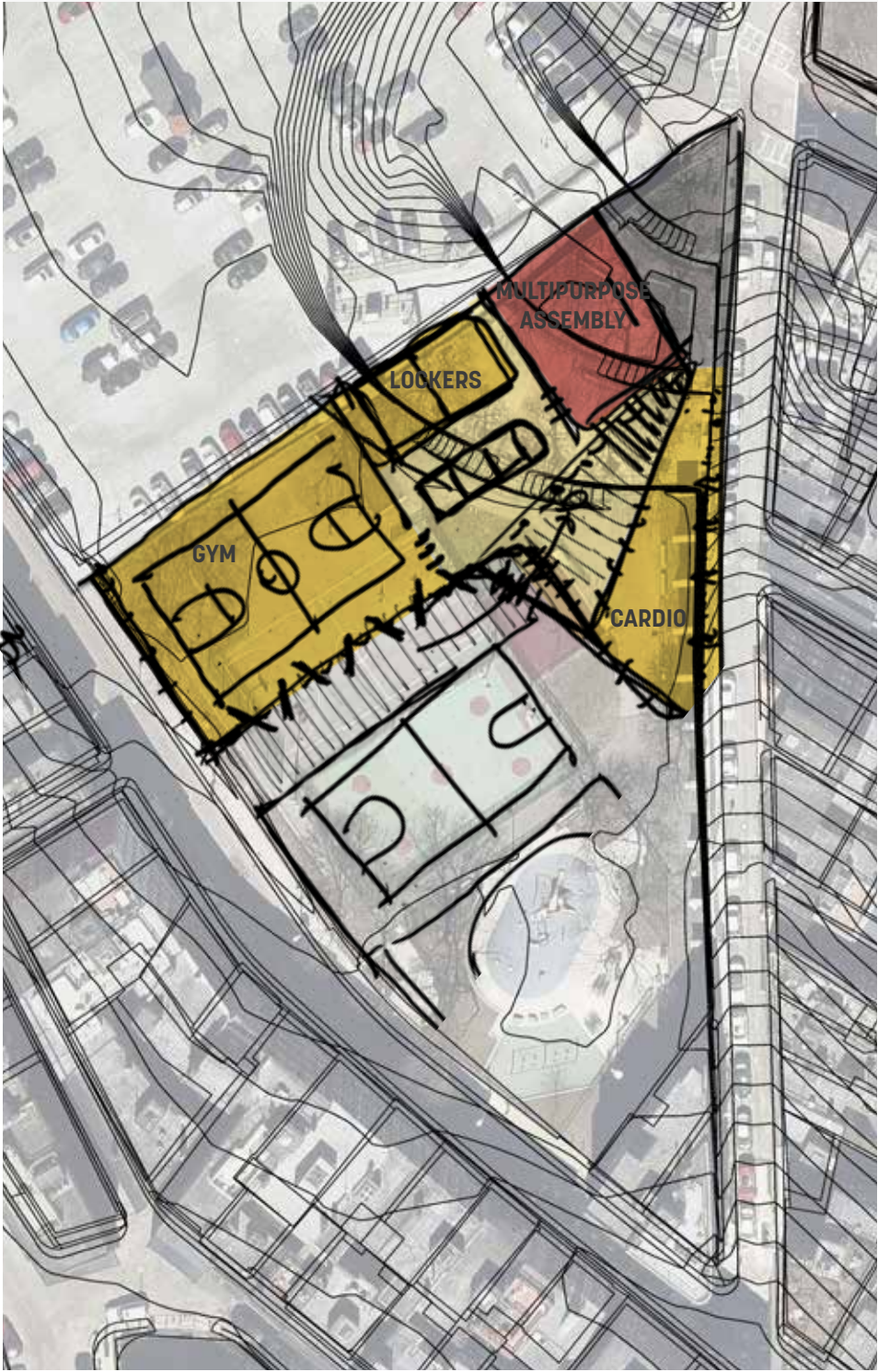
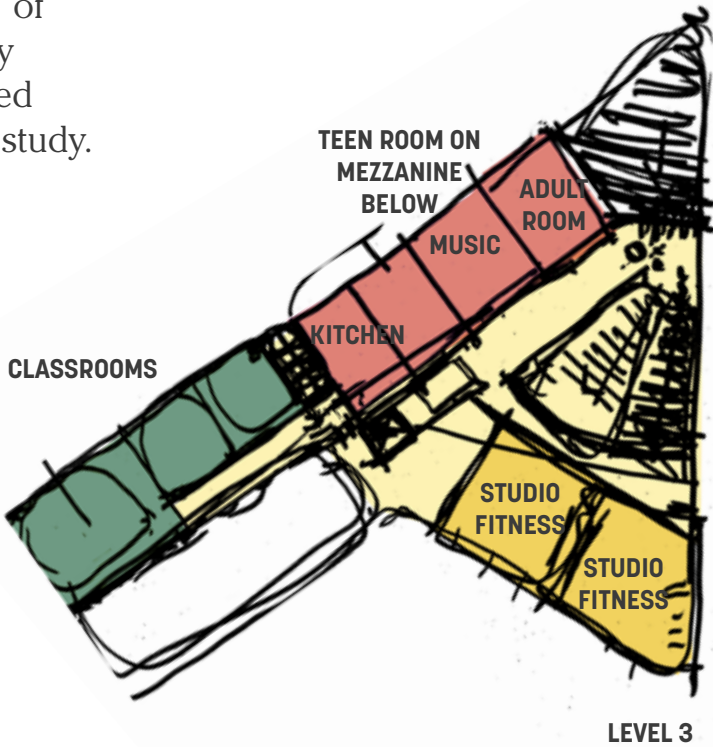
4 DEFILIPPO PLAYGROUND SITE

This city-owned park occupies an area with 30' of grade difference and is bounded to the north by a parking garage. Due to the disadvantages listed below, this site is not recommended for further study.

Site area: 48,700 sf
Proposed Community Center building area: 40,000 sf over 3 stories

Advantages:
City-owned land
Connection to park

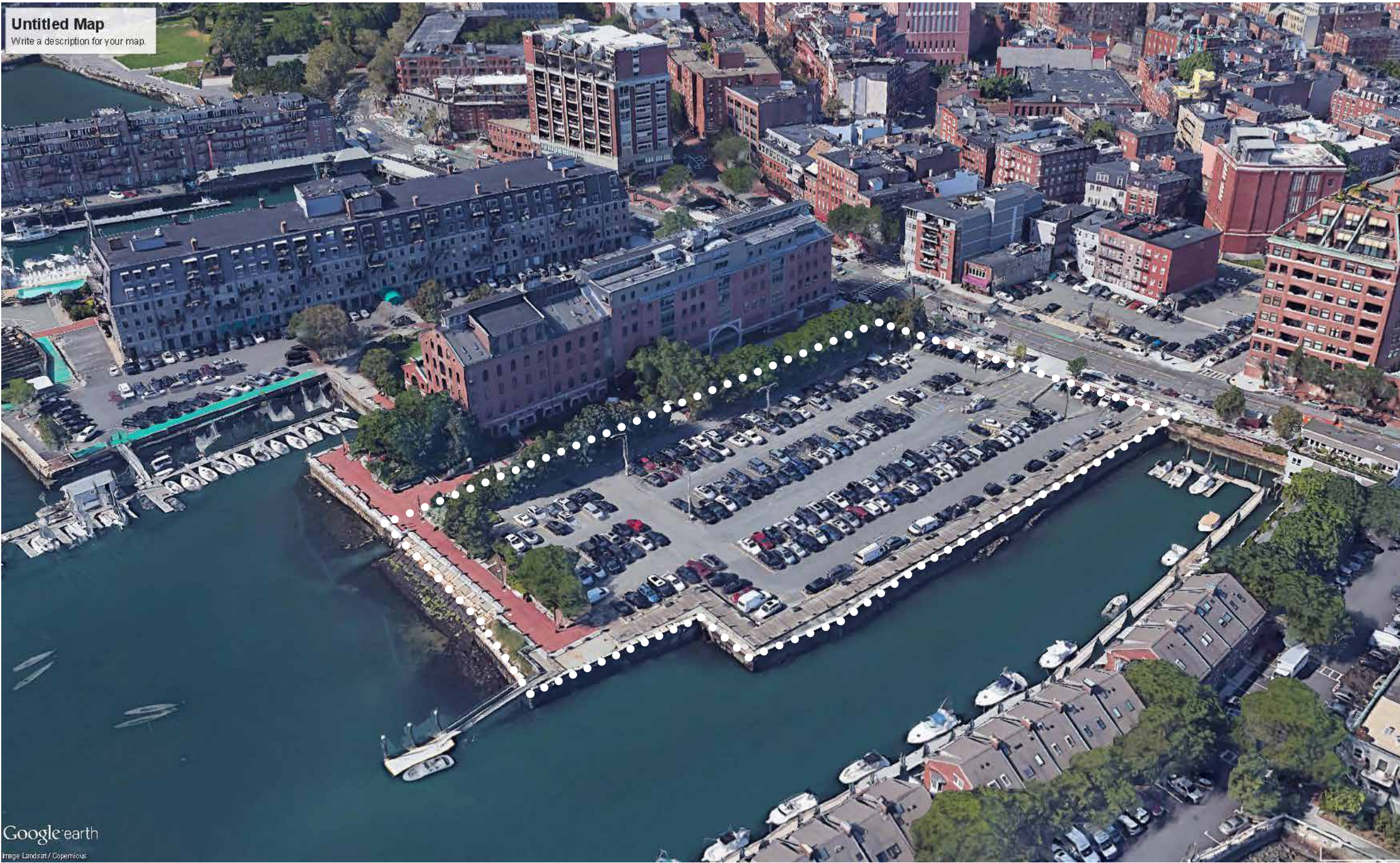
Disadvantages:
Topography will require extensive below-grade construction and earth retention
Building will occupy part of newly renovated park, reducing usable area
Awkward layout will be difficult to accommodate recommended program



LEVEL 1
SCALE: 1/64" = 1'-0"



5 SARGENT’S WHARF SITE



The existing BPDA parking lot at Sargent’s Wharf was suggested by the CAC members as a potential site. The site should retain some income-generating potential for BPDA and is imagined as a mixed-use project including structured parking, private development, a community center, and a reconstructed Harborwalk.

The site is bounded by Commercial Street to the west, the 2 Atlantic Avenue/Pilot House property and Eastern Avenue to the south, and Boston Harbor on the north and east sides. This site is considered for mixed-use development with a 4-story community center adjacent to a hotel or residential building. See Section 4.3 for more information.

The Sargent’s Wharf Site was an option for pricing and its advantages were carefully considered. It as not selected as the recommended site by the study team however.

- Advantages:**
- Prominent waterfront site with great views
 - Mixed-use funding opportunity
 - Vehicular and pedestrian accessibility

- Disadvantages:**
- Loss of current parking lot
 - In flood hazard area
 - Across Commercial Street from the neighborhood proper

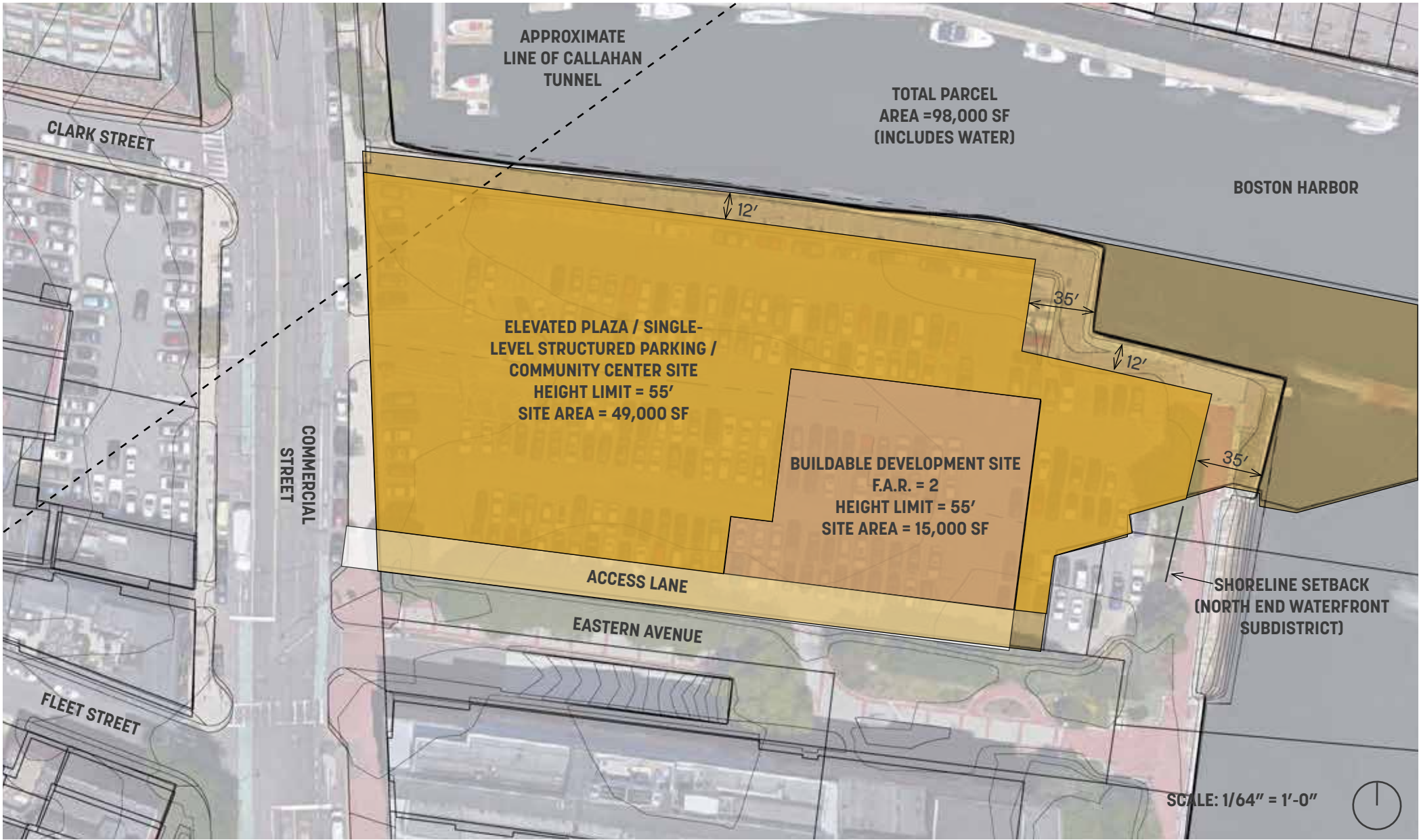
5 SARGENT’S WHARF SITE

The site is located in the North End Waterfront Subdistrict district, with a height limit of 55’ and an F.A.R. of 2. Setbacks shown at left are determined by the subdistrict and by the Wharf designation of the site.

Note that different height and FAR standards apply for the Sargent’s Wharf site if designated as Urban Renewal Areas. If a certain affordable housing threshold is met, private development on the site is eligible for a significant height increase. The developer’s pro forma would test this option.

The mixed-use analysis by Colliers International recommends that side-by-side development

- Site area:** 98,000 sf; 64,000 sf buildable area
- Proposed Community Center GSF:** 50,496 sf (includes lobby at street level)
- Proposed Community Center NSF:** 35,427 sf (~70% efficiency)
- Proposed development GSF:** ~60,000 sf (assuming 55’ height limit)
- Proposed Height:** 3 stories above podium



5 SARGENT’S WHARF SITE
Site-Specific Processes



SITE LOCATED IN BPDA SLR-FHA
SLR-BFE = 19.4



SITE LOCATED IN FEMA FHA

Article 37
LEED checklist
Timeline: design phase

Article 80 and MEPA review
Large Project review
Interagency Green Building Committee
Timeline: 6-9 months

FEMA and BPDA Flood Hazard Areas (FHAs)
Critical infrastructure and facilities min. 24" above Base Flood Elevation; all other

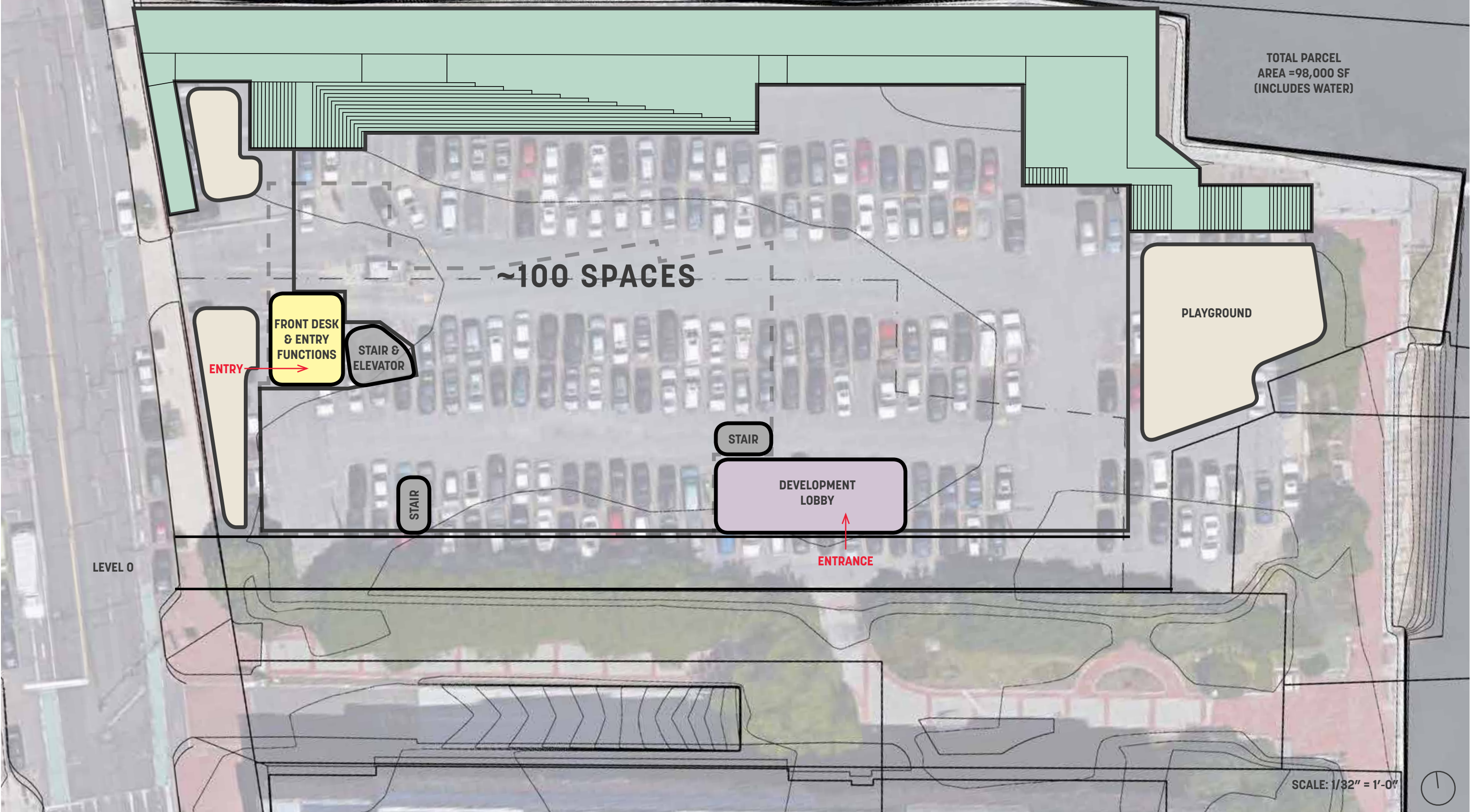
elements min 12" above
Timeline: design phase

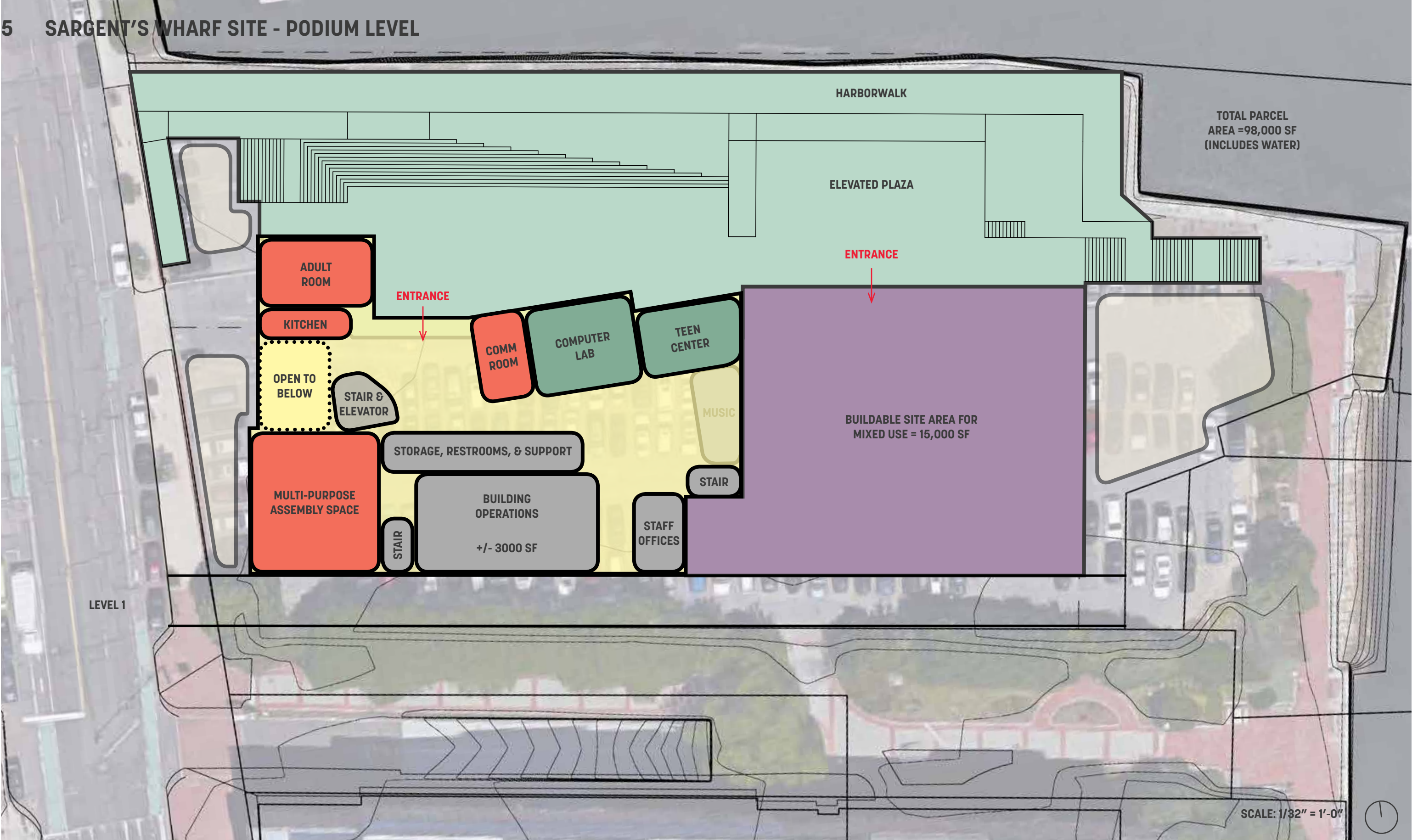
Waterfront Development
Ch. 91 requires facilities of public accommodation in a waterfront development, as well as a 100' shoreline setback and review by the Conservation Commission.
Timeline: design phase

See Site 1 for a discussion of the Boston 2030 Plan relative to waterfront development.



5 SARGENT'S WHARF SITE - PARKING LEVEL

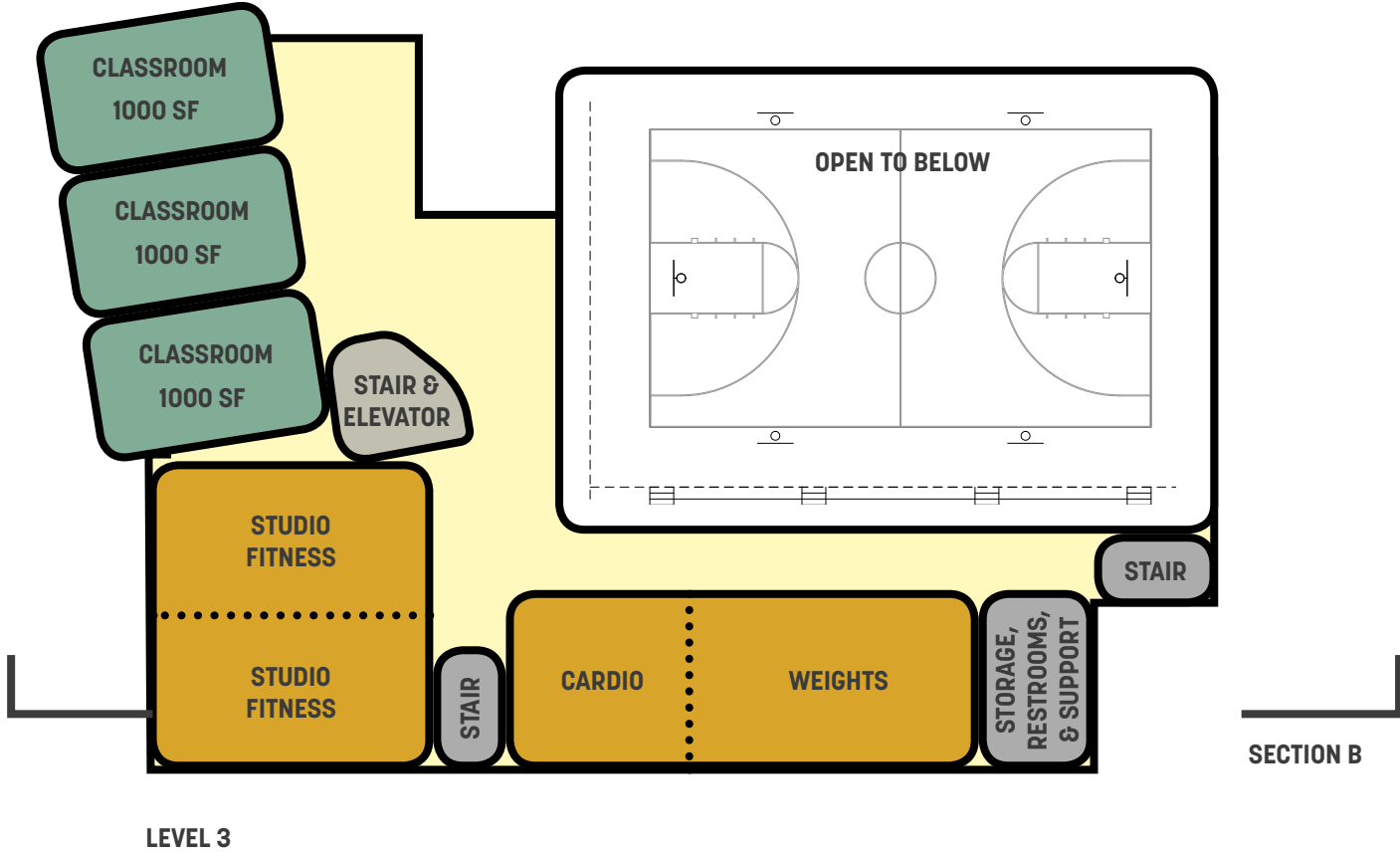
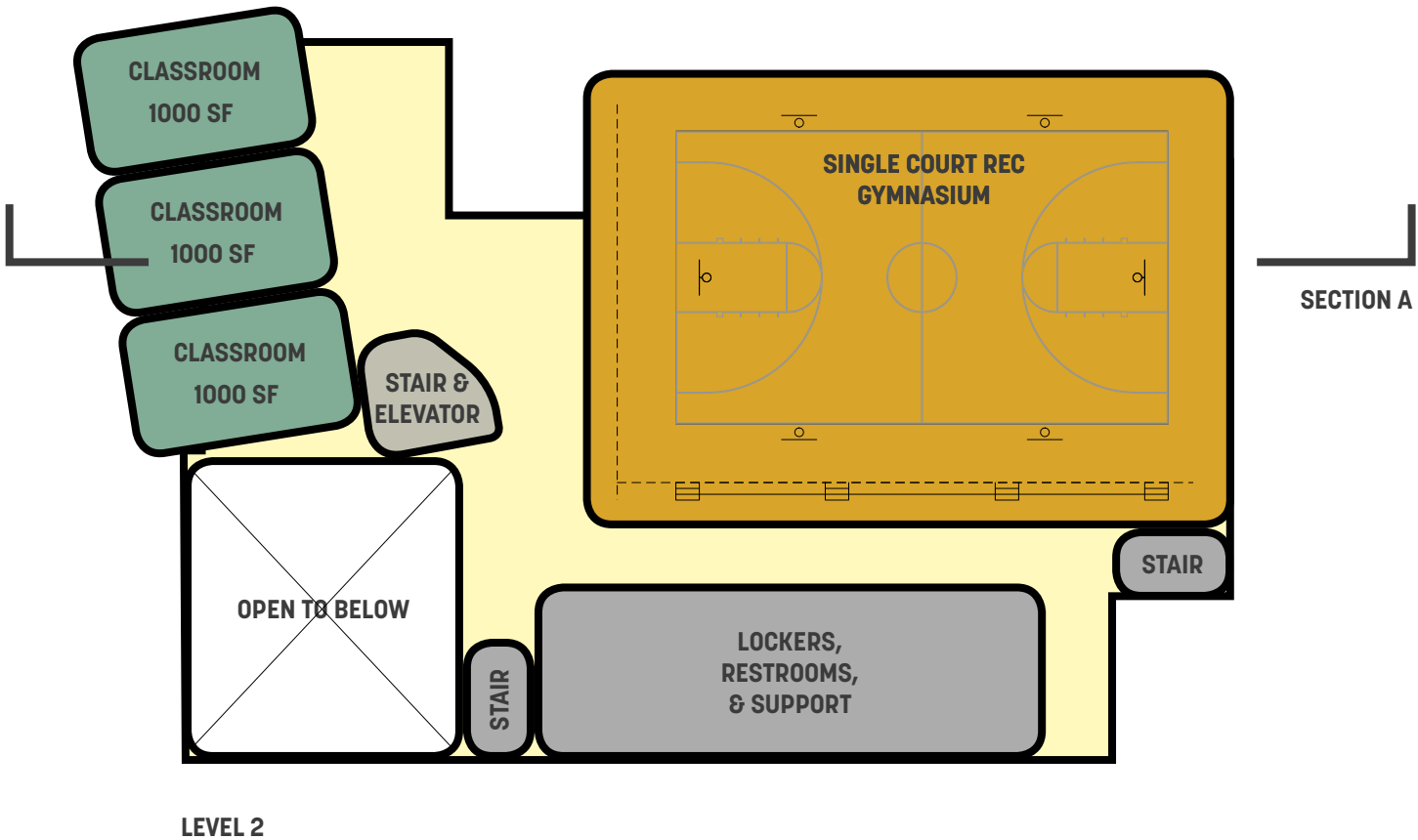




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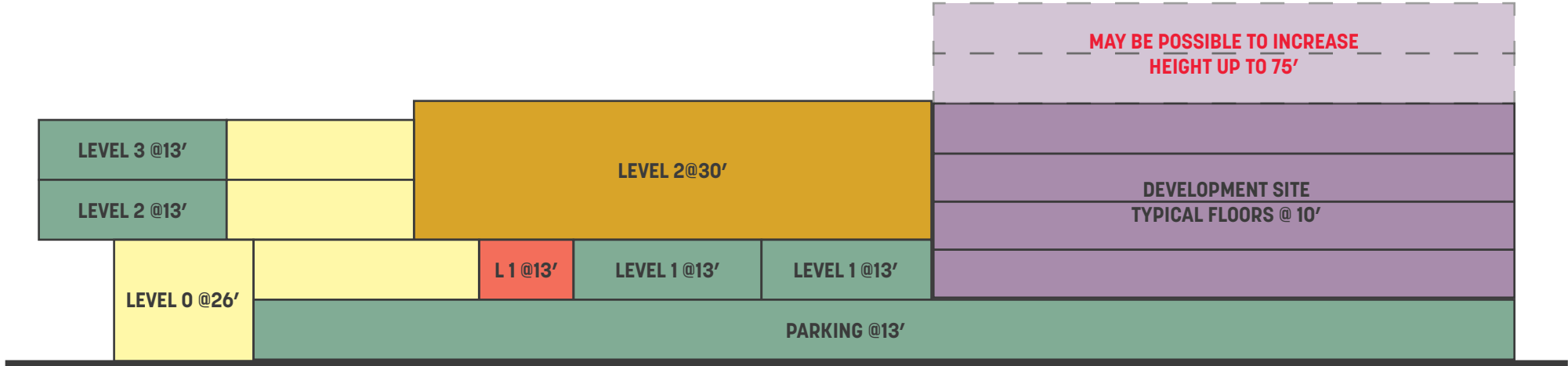
SARGENT’S WHARF SITE

Upper-level plans

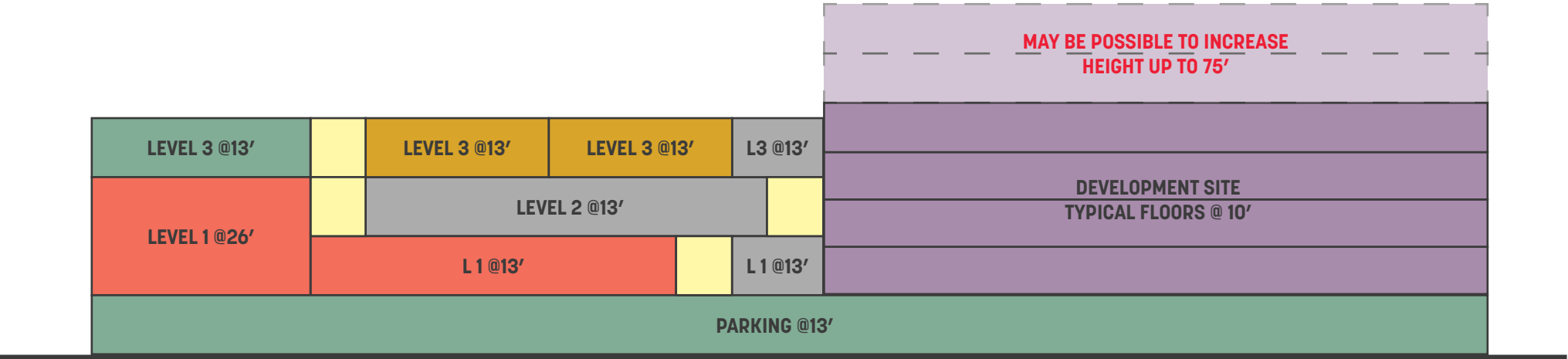


SCALE: 1/32" = 1'-0"





CONCEPT SECTION B
SCALE: 1/32" = 1'-0"



CONCEPT SECTION A
SCALE: 1/32" = 1'-0"

- ARTS

CIVIC/COMMUNITY

EDUCATION
- SPORTS

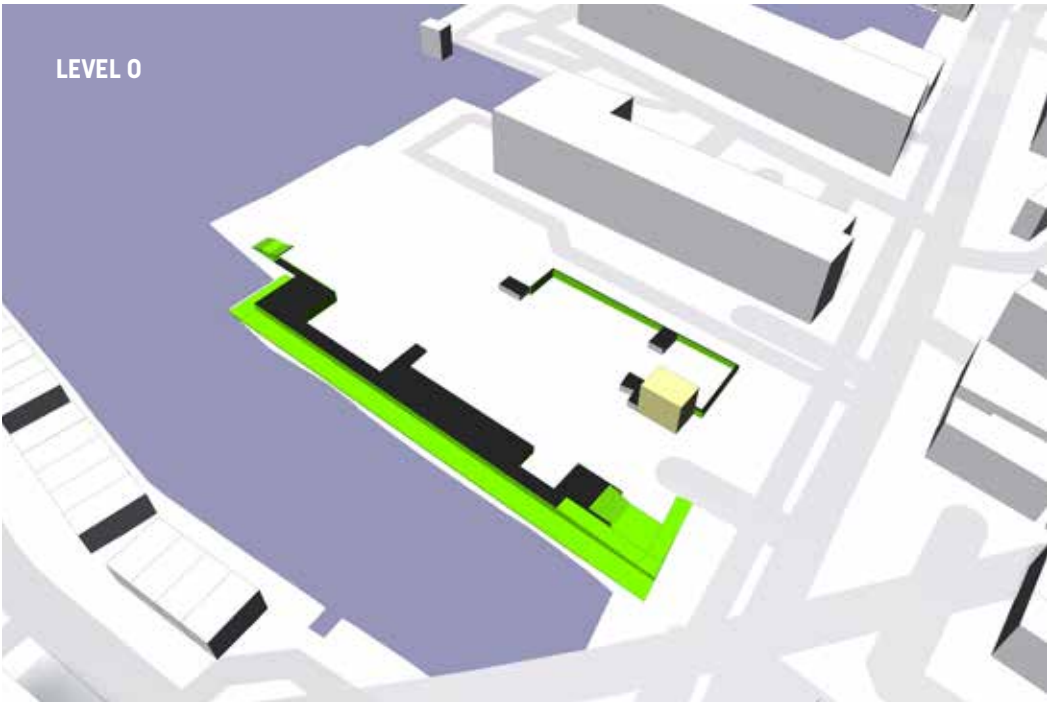
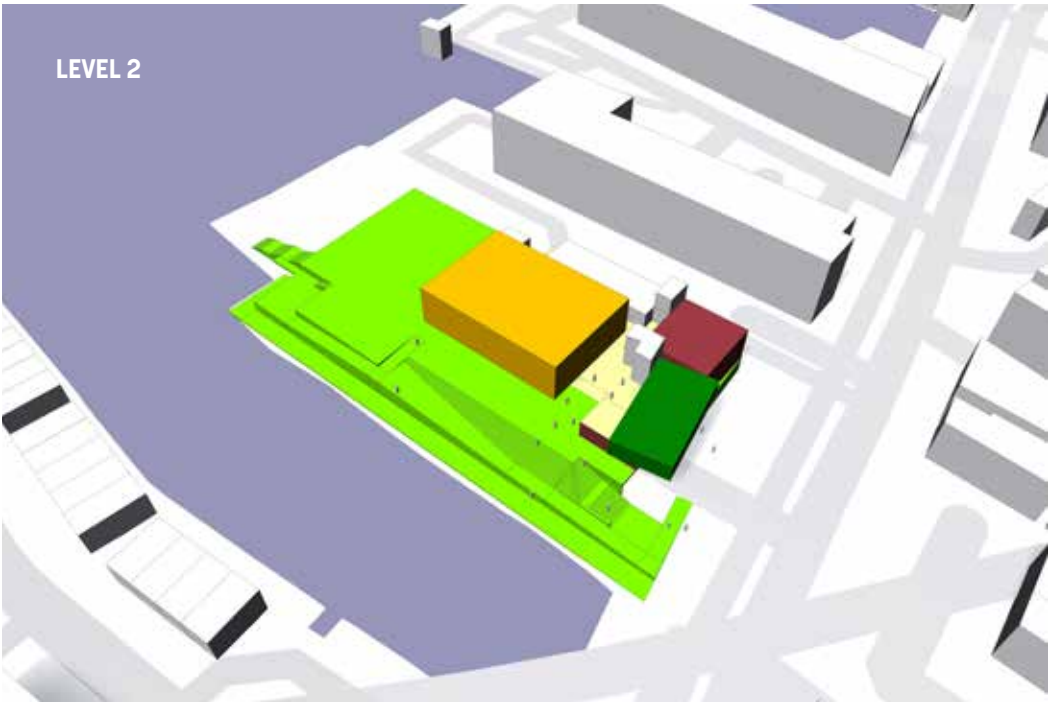
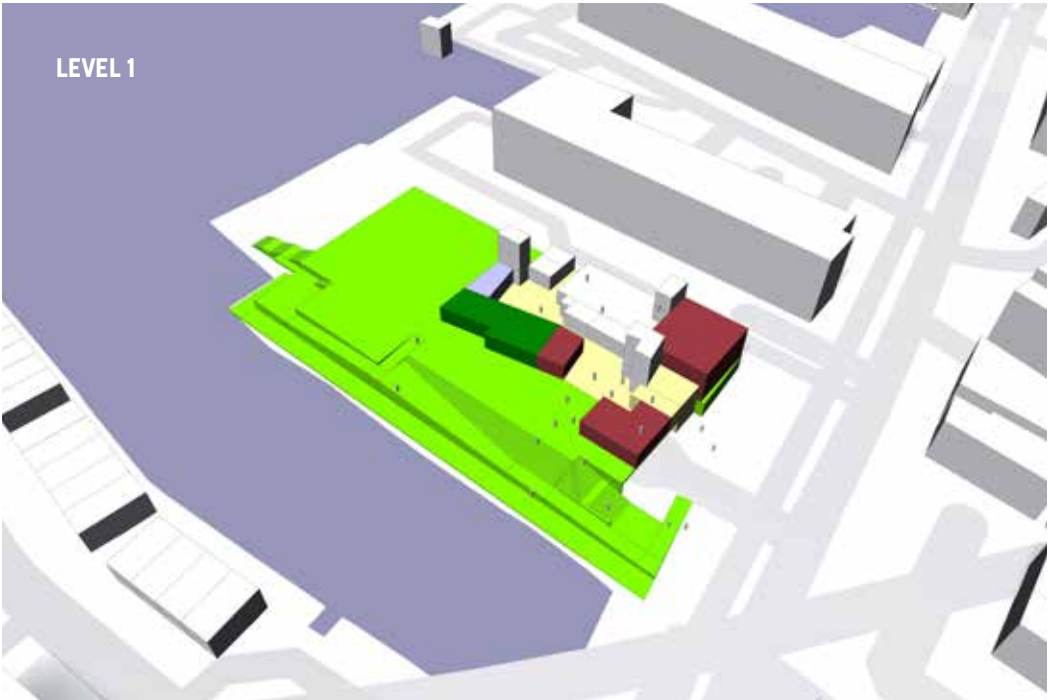
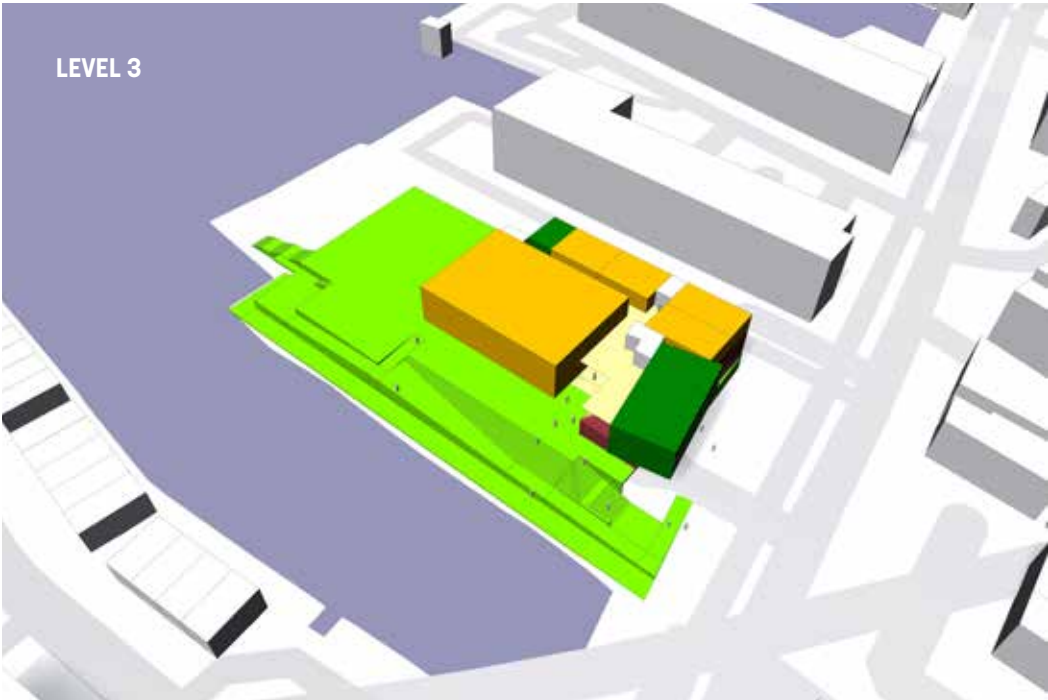
SUPPORT, OFFICES, ETC.

PUBLIC CIRCULATION

SCALE: 1/32" = 1'-0"

5 SARGENT’S WHARF SITE

- | | |
|-----------------|------------------------|
| ARTS | SPORTS |
| CIVIC/COMMUNITY | SUPPORT, OFFICES, ETC. |
| EDUCATION | PUBLIC CIRCULATION |



4.3 Housing with Public Assets: Mixed-Use Process

As described in Section 4.2, two of the sites under consideration are controlled by BPDA and were studied along with the Housing Innovation Lab as potential sites for mixed-use, revenue-generating development that could include workforce housing and the community center project.

As part of the site selection process the study team coordinated with The Mayor’s Housing Innovation Lab to identify potential sites and opportunities to develop workforce housing along with a new or renovated community center. This coordination is part of a larger project within the Housing Innovation Lab called Housing With Public Assets which looks at ways to develop housing along with new or renovated municipal facilities and is part of the Mayor’s effort to increase housing opportunities with the City of Boston.

In terms of process, BPDA would typically hold planning and public hearings about disposing of the land, which would inform design guidelines, allowed uses (if different than zoning) and things like affordability and potential for community uses. The BPDA would then draft a RFP. Revenue generation is a consideration and the BPDA would analyze that and weigh it against expected future revenues from the new development

to the extent it exceeds any money the city would need for the construction of the new community center.

There are, broadly, two possible approaches to the mixed-use project: “stacked” (private development over community center) and “side by side.” For the stacked scheme, the BPDA would issue the RFP with the requirement that the new development include a community center with requirements and specifications well-defined in the RFP. This would influence the revenue calculations.

For side by side, the BPDA would have to subdivide the parcels in a way that supports the design and test fit. They would then direct-designate the Community Center Parcel and put out a RFP for the development parcel. For both processes: developers would respond, one will be picked. This would take about 6 months.

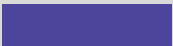
Once a developer is picked, they would be granted Tentative Designation by the BPDA. It’s likely that option rent payments will be made during this time. During this period (potentially 270 days, but extendable by showing progress), the developer would be expected to design and permit the development. The Ground Lease would

also get negotiated during the Tentative Designation. Once the developer is about to receive a building permit, the BPDA will grant Final Designation and execute the Ground Lease for the Parcel.

In the side-by-side scenario, the BPDA would likely transfer the community center parcel outright to the city. The city can then proceed on its pace to build the community center. For logistical reasons as well as maximizing potential revenue from the development site, the study team recommends that if a mixed-use development site were selected as the preferred site, the side-by-side scenario is generally preferable.

Page not used

Section 5

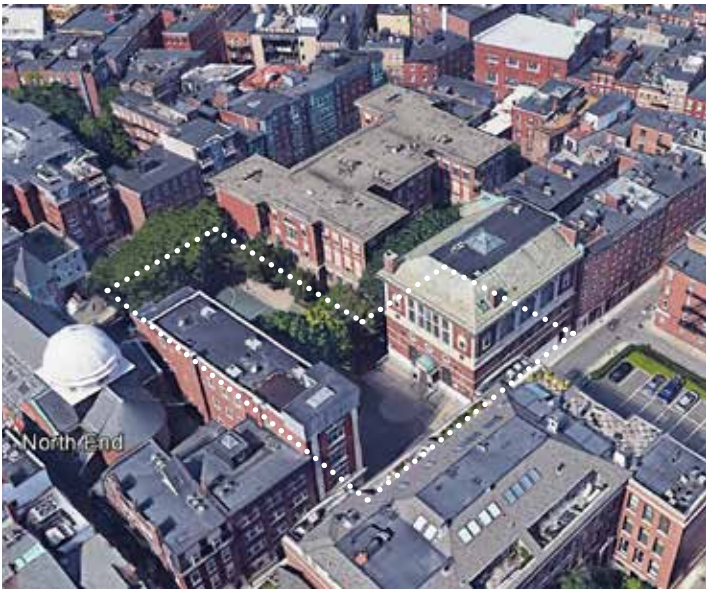


Concept Narratives + Cost Estimates

5.1 Concept Options for Pricing

Refer to Section 4.2 for more detailed information about each site and its corresponding test fit. Refer to Sections 5.2 and 5.3 for more detail on systems.

0 NAZZARO CENTER SITE OPT 3



Extend footprint of existing Nazzaro Center into the Polcari Playground parcel to increase its size. In order to provide a right-sized gym, this option is a replacement of the existing building, not a renovation.

Site area (Nazzaro parcel): 7,658 sf
Site area (Polcari parcel): 12,191 sf
Total: 19,849 sf

Proposed Community Center GSF:
35,145 sf
Proposed Community Center NSF:
24,566 sf (~70% efficiency)
Proposed Height:
55' / 4 stories + partial basement

1 MIRABELLA SITE



Use sliver of land occupied by splash pad, existing Mirabella Pool bathhouse, and part of the Harborwalk for a long, narrow community center building. Replace splash pad and Harborwalk segment as part of the project. This site suggests an optional reconstruction/replacement of the Mirabella Pool but is not dependent on it.

Site area: 291,500 sf (combined parcels, including water)
Site area (portion identified for community center): 25,000 sf
Proposed Community Center GSF:
54,375 sf
Proposed Community Center NSF:
36,283 sf (~67% efficiency)
Proposed Height:
55' / 4 stories + roof-level enclosure

5 SARGENT'S WHARF SITE



Existing BPDA parking lot at Sargent's Wharf suggested by the CAC as a potential site. Site could ideally retain some income-generating potential for BPDA and is imagined as a mixed-use project including structured parking, private development, a community center, and a reconstructed Harborwalk.

Site area: 98,000 sf; 64,000 sf buildable area
Proposed Community Center GSF:
50,496 sf (includes lobby at street level)
Proposed Community Center NSF:
35,427 sf (~70% efficiency)
Proposed development GSF:
~60,000 sf (assuming 55' height limit)
Proposed Height:
3 stories above podium

5.2 Systems Narratives

ARCHITECTURAL + SITE NARRATIVE

PROJECT DESCRIPTION

The project consists of a community center containing a basketball gym, classrooms, a multipurpose assembly space, and other program and support spaces as outlined in the program. Depending on the site option, the gross square footage of the project ranges from 45,000 to 55,000 excluding the Option 5 parking podium.

Options for Pricing

- ▶ Option 0 – New building on the site of the existing Nazzaro Center
- ▶ Option 1 – New building on the site of the existing Mirabella Pool
- ▶ Option 5 – New building and parking podium paired with potential private development on the site of the existing Sargent’s Wharf
- ▶ Within the MEP and structural narratives, alternates are outlined for comparative pricing.

Refer to the preceding test fits for more information.

PROJECT DELIVERY

The delivery method is assumed to be via the public construction alternative delivery methods outlined in Massachusetts General Laws Chapter 149A.

The following items are considered “by owner” and excluded from the construction cost:

- ▶ Site procurement, survey, geotechnical services
- ▶ Furniture, fixtures, and equipment, including movable athletic equipment
- ▶ Movable site furnishings such as seating
- ▶ Tel/data equipment outside the wall, e.g. wireless access devices
- ▶ Audiovisual equipment outside the wall, e.g. speakers
- ▶ Theatrical equipment, e.g. theatrical lighting, movable stage

PROJECT REFERENCES

The list of standards below is provided for reference only. The project will comply with all applicable codes, laws, and standards.

- ▶ 780 CMR Ninth Edition of the MA State Building Code based on modified versions of 2015 ICC codes
- ▶ 527 CMR 1.00 Massachusetts Comprehensive Fire Safety Code based on the 2015 edition of NFPA 1
- ▶ Americans with Disabilities Act 2010 Design Standards
- ▶ ASHRAE 90.1-2010
- ▶ Article 37 Green Building and Climate Resiliency Guidelines, equivalent to LEED certification under the LEED-NC v4 system (see attached draft LEED checklist for more information)

Refer to the test fits for site-specific requirements pertaining to zoning, proximity to waterfront, flood hazard areas, etc.

A SUBSTRUCTURE

A10 FOUNDATIONS

Refer to structural and geotechnical narratives for each site option.

A20 SUBGRADE ENCLOSURES

Refer to structural and geotechnical narratives for each site option.

Walls of all subgrade enclosures will include the following assembly:

- ▶ Foundation wall (see structural)
- ▶ Waterproofing system such as Bituthene 3000 by GCP Applied Technologies
- ▶ Drainage composite such as Hydroduct 220 by GCP Applied Technologies
- ▶ XPS rigid insulation R-20 minimum
- ▶ 24” gravel course with embedded perimeter drain, encapsulated in filter fabric

Coordinate penetration details with selected system. Provide waterstop at slab-to-wall transition.

A40 SLABS-ON-GRADE

Refer to structural and geotechnical narratives for each site option.

For Option 0, slab-on-grade assemblies will consist of

- ▶ Slab (see structural)
- ▶ Membrane vapor barrier
- ▶ XPS rigid insulation R-20 minimum, high compressive strength, continuous throughout slab area, with shiplap joints and spray foam around penetrations
- ▶ 12” gravel course

For Options 1 and 5, all slab-on-grade assemblies will include a waterproofing system such as:

- ▶ Slab (see structural)
- ▶ Waterproofing system such as Bituthene 3000 by GCP Applied Technologies
- ▶ XPS rigid insulation R-20 minimum, high compressive strength, continuous throughout slab area, with shiplap joints and spray foam around penetrations
- ▶ 12” gravel course with embedded below-slab drainage, encapsulated in filter fabric

B SHELL

B10 SUPERSTRUCTURE

Refer to structural narrative.

All primary structural steel members shall be protected with applied fireproofing as required to achieve code-mandated ratings. Assume that 10% of all steel is exposed and treated with intumescent mastic fire-resistant coating; the remainder is treated with spray fireproofing.

B20 EXTERIOR VERTICAL ENCLOSURES

Assumptions:

- ▶ 35% of vertical enclosure is exterior glazing
- ▶ 50% of vertical enclosure is masonry
- ▶ 15% of vertical enclosure is metal rainscreen panel

B2010 Exterior Walls

Masonry assembly

- ▶ Thermal performance criteria: R-25 or better
- ▶ Face brick: Endicott Medium Ironspot #46, 50% smooth and 50% artisan textured, full depth, standard size with 10% of brick laid in special decorative pattern
- ▶ Brick ties: stainless steel H&B “BL-213-HS” or equivalent

- ▶ Assume continuous stainless steel relieving angle suspended from structure 2’ below every floor level
 - ▶ Masonry mortar: Type S, custom color
 - ▶ Mortar net above all through-wall flashings and loose lintels. Provide extruded plastic weeps at 16” o.c.
 - ▶ Air space: 1-1/2 – 2”
 - ▶ Backup: see below
- Metal rainscreen panel assembly
- ▶ Thermal performance criteria: R-25 or better
 - ▶ Metal panel: VMZinc pre-patina finish 5-sided panel
 - ▶ Trim at transitions, openings, cornice, etc.: Reynobond/VMZinc composite metal panel in zinc finish to match metal panel
 - ▶ Subframe: complete manufacturer-engineered subframe system with compatible fasteners and underlayment; thermally broken attachment to backup
 - ▶ Air space: 1-1/2 – 2”
 - ▶ Backup: see below
- Backup
- ▶ Continuous Thermal Insulation: R-16 (4 -inch), R=4/in high-density semi-rigid board mineral wool insulation
 - ▶ Air and Water Barrier Vapor Permeable self-adhering: “Perm-ABarrier® VPS (Vapor Permeable Sheet)”, GCP Applied Technologies or equal
 - ▶ Exposed Through-Wall Flashings: “Freedom Grey”, zinc-coated copper
 - ▶ Sheathing: Fiberglass Exterior Sheathing, 0.5 inch
 - ▶ Cold-Formed Metal Framing, engineered to carry specified loads
 - ▶ Additional Stud Cavity Thermal Insulation: 6-inches batt mineral wool insulation for interior partitions; R=6
 - ▶ Interior Gypsum Board: 5/8” recycled-content gypsum wallboard at interior face of studs; Type X as required; Moisture-resistant at bathrooms and kitchens; impact-resistant at athletic spaces
- B2020 Exterior Glazing
- ▶ Kawneer 1600-UT thermally broken, engineered curtain wall system with fiberglass pressure plate or equal
 - ▶ 3-coat Kynar finish or equal
 - ▶ Double-glazed IGU with low-e coating on surface #2; tempered or laminated as required by code. Viracon 1” Double glazed with Room side Low-E VNE1-63 or equal.
 - ▶ Assume 25% of glazing includes integral exterior sun shade louvers
 - ▶ Medium-stile glazed doors set in curtainwall opening for all exterior doors

B30 EXTERIOR HORIZONTAL ENCLOSURES

Assumptions:

- ▶ 25% of roof is low-slope membrane roof
- ▶ 50% of roof is low-slope Green Roof assembly
- ▶ 25% of roof area is pitched, metal roof

B3010 Exterior Roofs

- ▶ Thermal performance criteria: R-35 or better
- ▶ Rated to resist uplift as required; refer to structural narrative
- ▶ Flashing and trim a combination of formed zinc brake metal and membrane-bonded brake metal
- ▶ Walking pads, guard rails, and tieoff davits as required

Low-slope membrane roof assembly

- ▶ Complete system by Sarnafil or equal
- ▶ Fully-adhered 60-mil membrane
- ▶ Mechanically fastened fiberglass cover board
- ▶ Mechanically fastened, tapered polyisocyanurate insulation
- ▶ Vapor retarder
- ▶ Internally drained

Low-slope green roof assembly

- ▶ 4.25” deep tray system by LiveRoof or equal, combined in a single assembly warranty with Sarnafil IRMA system or equal
- ▶ Drainage and root barrier layers as required
- ▶ Mechanically fastened, tapered extruded polystyrene insulation
- ▶ Fully-adhered 80-mil peel-and-stick membrane
- ▶ Mechanically fastened fiberglass cover board
- ▶ Internally drained

Pitched metal roof assembly

- ▶ Complete system by VMZinc or equal
- ▶ Inverted standing seam assembly
- ▶ Subframing and underlayment as required
- ▶ Mechanically fastened fiberglass cover board
- ▶ Mechanically fastened polyisocyanurate insulation
- ▶ Vapor retarder
- ▶ Externally drained with snow guards, electric snow melt

B3020 Exterior Soffits

B30 EXTERIOR METAL FABRICATIONS

- ▶ Materials: stainless steel

C INTERIORS

C10 INTERIOR CONSTRUCTION

C1010 Gypsum Wall Board Partitions

- ▶ Gypsum Board: ASTM C1396
 - Type: 0625-inch board for tape and joint compound finish
 - Regular, moisture-resistant, abuse-resistant, and fire-rated types as required
 - Full-height to underside of deck, typically; Provide acoustic sealant between gypsum board and slab/deck at all full-height partitions
- ▶ Cementitious Backer Unit:

- ▶ Substrate for tile finish, ANSI A1189
Type: 0625-inch thick cement-coated Portland cement panels
 - ▶ Gypsum Shaftwall Board: ASTM C442
Type: fire-resistant shaftwall board sized to achieve required rating
 - ▶ Steel Framing for Walls and Partitions: ASTM C645,
Stud Thickness: 20 gauge (0.329 inch continuous)
Furring Channel Thickness: 20 gauge (0.329 inch continuous) Auxiliary
Framing Components as required
 - ▶ Steel Framing for Shaftwall: ASTM C645
Stud Thickness: 20 gauge (0.329 inch continuous)
 - ▶ Accessories: Furring channels, hangers and inserts
 - ▶ Gypsum Board Finish: Refer to the Gypsum Association’s GA-214-96 for definition of the 5
levels of finish for drywall finishing. Provide Level 4 unless otherwise noted.
 - ▶ Provide acoustic insulation at bathrooms and classrooms
 - ▶ Fire ratings as required by code
- C1020 Concrete masonry non-bearing partitions (mechanical areas, stair enclosures and elevator shafts):
- ▶ Concrete Masonry Units: ASTM C 90, Normal weight, 1500 f'm compressive strength, Face
Dimension: 8”x16” nominal
 - ▶ Mortar and Grout for CMU:
Mortar Mix: ASTM C270, Type S, for reinforced masonry, masonry below grade and
masonry in contact with earth
ASTM C270, Type N, for above-grade load-bearing and non-loadbearing walls and parapet
walls and for interior loadbearing and nonload-bearing partitions
Portland Cement: ASTM C150, Type I or II
 - ▶ Reinforcing Steel: ASTM A615, Grade 60, deformed, #5 size
- C1030 Interior Doors
- ▶ Hollow Metal throughout mechanical and back-of-house areas
 - ▶ Hollow metal with sidelight at demising walls between corridors and program spaces
 - ▶ Gasketed solid-core flush wood acoustic doors at multipurpose assembly space, music
room
 - ▶ Access doors/panels: As required by MEP systems
- C1040 Hardware and access control
- ▶ Hardwired card access control at building entrances and elevator
 - ▶ Keyed locksets at all interior spaces
 - ▶ Privacy sets at restrooms, locker rooms, and nursing room
 - ▶ “Panic Button” at front desk
- C1050 Signage
- ▶ Code-required signage at each room, stair, and elevator. See Section 101400.

C20 INTERIOR FINISHES

Refer to room data sheets for additional information.

- Circulation spaces, lobby, etc.
- ▶ Floor: epoxy terrazzo
 - ▶ Base: epoxy terrazzo
 - ▶ Walls: Gypsum Wallboard, Level 5 finish, abuse resistant to 6’-8”
 - ▶ Display: (2) 10’x20’ tackboards per floor level
 - ▶ Ceiling: 50% gypsum board, 50% 2x8 ACT plank such as Armstrong Calla or equal
- Adult room, Community Room, Classrooms, Computer Lab, Teen Center, Staff Offices
- ▶ Floor: bio-based resilient tile, sheet rubber, or linoleum
 - ▶ Base: rubber
 - ▶ Walls: Gypsum Wallboard, Level 5 finish
 - ▶ Display: (2) 4’x8’ tackboards and (1) 4’x8’whiteboard per room
 - ▶ Casework: solid wood or wood-veneer open storage cubbies; solid surface countertop
with single-bowl sink in classrooms and adult room
 - ▶ Ceiling: 25% gypsum board, 75% 2x2 ACT such as Armstrong Calla or equal; suspended
acoustic barrier ceiling at spaces directly below gymnasium, cardio/weights, or studio
fitness
- Kitchen
- ▶ Floor: quarry tile
 - ▶ Base: ceramic tile
 - ▶ Walls: Gypsum Wallboard, Level 4 finish, ceramic tile to 6’-8”
 - ▶ Display: (2) 4’x8’ tackboards and (1) 4’x8’whiteboard per room
 - ▶ Casework: p. lam cabinetry with solid surface countertop, single-bowl sink
 - ▶ Ceiling: gypsum board
- Music Room
- ▶ Floor: carpet tile
 - ▶ Base: rubber
 - ▶ Walls: Gypsum Wallboard, Level 5 finish. Internal window with acoustically separated,
double glazed lite. Gasketed, acoustically-rated solid-core internal doors.
 - ▶ Display: (1) 4’x8’whiteboard per room
 - ▶ Paneling: 2” absorptive fabric-wrapped acoustic panel
 - ▶ Casework: solid-surface countertop in booth; lockable phenolic storage cabinets; wall-
hung shelving
 - ▶ Ceiling: x2 ACT such as Armstrong Calla or equal
- Multipurpose assembly space
- ▶ Floor: polished concrete
 - ▶ Base: solid wood, painted
 - ▶ Walls: 50% ground face and 50% polished face CMU
 - ▶ Retractable full-height acoustic partition with fabric panels for subdividing room
 - ▶ Display: oil-rubbed steel AV/lighting grid overhead; slotted metal channel framing and
curtain track around perimeter; single wall of mirrors to 8’
 - ▶ Ceiling: suspended gypsum acoustic barrier ceiling with surface-mounted perforated
acoustic panels

Gymnasium

- ▶ Floor: T&G maple athletic floor with sprung subfloor appropriate for basketball and dance
- ▶ Base: solid wood, painted
- ▶ Walls: ground face CMU to 15” AFF with impact-resistant wallboard above; divider curtain and track; impact-resistant Tectum or equivalent acoustic panels along top 15’ of walls
- ▶ Ceiling: painted exposed structure

Weights and cardio fitness

- ▶ Floor: ¾” Mondo or equivalent sport floor
- ▶ Base: solid wood, painted
- ▶ Walls: Impact-resistant gypsum wallboard above; one wall of mirrors to 8’; impact-resistant Tectum or equivalent acoustic panels along top 4’ of walls
- ▶ Ceiling: painted exposed structure, K-13 acoustic spray

Studio fitness

- ▶ Floor: T&G maple athletic floor with sprung subfloor appropriate for cardio and dance
- ▶ Base: solid wood, painted
- ▶ Walls: Impact-resistant gypsum wallboard above; two walls of mirrors to 8’; impact-resistant Tectum or equivalent acoustic panels along top 4’ of walls
- ▶ Retractable full-height acoustic partition with fabric panels for subdividing room
- ▶ Ceiling: painted exposed structure, K-13 acoustic spray

Locker rooms, restrooms

- ▶ Floor: porcelain tile
- ▶ Base: ceramic tile
- ▶ Walls: ceramic tile over moisture-resistant Gypsum Wallboard; blocking in all grab bar locations
- ▶ Partitions, lockers: 100% recycled HDPE
- ▶ Ceiling: moisture-resistant gypsum board

Nursing Room

- ▶ Floor: bio-based resilient tile, sheet rubber, or linoleum
- ▶ Base: rubber
- ▶ Walls: Gypsum Wallboard, Level 5 finish
- ▶ Casework: solid surface countertop with single-bowl sink
- ▶ Ceiling: 2x2 ACT such as Armstrong Calla or equal

Mechanical, storage, tel/data, custodial, trash/recycling, etc.

- ▶ Floor: sealed concrete
- ▶ Base: rubber
- ▶ Walls: Gypsum Wallboard, FRP at floor sinks and trash room; fire-rated plywood at electrical rooms
- ▶ Casework: built-in shelving as required
- ▶ Ceiling: painted exposed structure

Stairs

- ▶ Painted metal with concrete-filled pans, painted metal handrails and guardrails

- ▶ Walls: painted CMU
- ▶ Ceiling: painted exposed structure

D SERVICES

D10 CONVEYING SYSTEMS

Machine-room-less traction elevator, Otis Gen2 3000# or equivalent, with high-durability cab finishes. Refer to test fit plans for number of stops (varies by option).

D20-70 PLUMBING, HVAC, FIRE PROTECTION, ELECTRICAL, COMMUNICATIONS

Refer to systems narrative.

E FITTINGS & EQUIPMENT

E10 EQUIPMENT

E1010 Fall Protection Equipment

- ▶ Horizontal Lifeline System with Anchor Post and Base Plate, manufactured by Pro-Bel Enterprises Ltd. Materials: Stainless steel, type 304

E1020 Appliances

Residential-quality ADA-compliant appliances; basis of design = Whirlpool; finish = stainless steel

- ▶ Electric range top
- ▶ Vented stove hood
- ▶ Wall oven
- ▶ Refrigerator
- ▶ Dishwasher
- ▶ Microwave Oven

E1030 Toilet partitions and accessories

- ▶ Partitions: floor-supported, overhead-braced with stainless steel hardware and brackets; 100% recycled HDPE
- ▶ Accessories: Basis of design by Bobrick or equal

E1040 Audiovisual equipment

Excluded

E1050 Roller shades

- ▶ Mechanically operated with timeclock and manual override at 50% of glazed envelope areas

E20 FURNITURE

Excluded

F SPECIAL CONSTRUCTION AND DEMOLITION

F10 SPECIAL CONSTRUCTION

F1010 Swimming pool, splash pool

- ▶ For pricing purposes, assume replacement of existing facilities

F30 DEMOLITION

- ▶ Remove all structures and surface improvements. Stockpile topsoil, if any.
- ▶ Removed material should be sorted and recycled if possible per LEED requirements.
- ▶ At Option 0, protect adjacent structures and provide temporary shoring/underpinning if required.

G SITE WORK

G10 SITE PREPARATION

Structurally unsuitable material may need to be removed. Refer to geotechnical narrative for each site for more information.

G20 SITE IMPROVEMENTS

G2010 Roads and parking lots (applicable only to Option 5)

- ▶ Vehicular lanes should be 10'-0" wide, minimum.
- ▶ Provide 6" granite curb and gutter for all roadways.

G2020 Pedestrian Walkways

- ▶ Cast iron detectable warning plates at signalized crossing locations and at all curb ramps.

G2030 Site Paving & Structures

- ▶ Standard Vehicular Pavement – Pavement subject to standard traffic loads shall be 2" bituminous binder course underlying 1 ½" bituminous surface course. A 12" thick layer of 1 ½" minus well-graded Sand Gravel Fill will be provided as a gravel base material.
- ▶ Curbing shall be granite
- ▶ Heavy-Duty Concrete Pavement (Applicable to Option 1 at Harborwalk) – Concrete pavement subject to vehicular traffic shall be 9" thick, 4,000psi concrete reinforced with rebar. Expansion joints will be spaced at 20' maximum on center and reinforced with 2' long #6 stainless steel dowels spaced along the joint 2'-0" on center. Stainless steel for dowels shall be Type 316.
- ▶ Concrete Sidewalks – Pedestrian concrete sidewalks shall be 6" thick, 4,000 psi concrete reinforced with welded wire fabric Expansion joints will be spaced at 20' maximum on center and reinforced with 2' long #6 stainless steel dowels spaced along the joint 2'-0" on center. Stainless steel for dowels shall be Type 316. Control joints to be spaced every 5' on center.
- ▶ Unit Pavers – Pavers shall be precast concrete unit pavers 4" x 8" manufactured by Hanover for plazas at all options and top of parking plinth at Option 5.
- ▶ Stairs – Stairs shall be solid granite with a 15" tread and 6" riser set on a concrete foundation.
- ▶ Handrails – All handrails to be 1 ¼" stainless steel tube railing with 1 ¼"x ¾" solid stainless steel posts. Stainless to be type 316, brushed finish. Handrails to be on both sides of stairs.
- ▶ Guardrails –guardrails to be stainless steel tension cable with 42" x 1 ¼"x ¾" solid stainless steel posts. Stainless to be type 316, brushed finish. Guardrails to be provided at all site walls over 30" high.
- ▶ Site Retaining Walls – Retaining walls shall be architectural grade cast-in-place concrete
- ▶ Screen walls – Screen walls shall be a steel frame with wooden slats infilled. Steel frame to be min. 6"x6" posts with 2x4" lpe wood slats infill.

G2040 Site Furnishings

- ▶ Trash receptacles: Landscape Forms, "Chase Park" trash receptacle, silver metallic finish (quantity: 4)
- ▶ Recycling Receptacles: Landscape Forms, "Chase Park" recycling receptacle, silver metallic finish (quantity: 4)
- ▶ Power: Landscape Forms, "Power Pedestal", 6"x8"x34", silver metallic finish (quantity: 5)
- ▶ Bicycle Racks: Landscape Forms, "Bola" bike rack, embedded mounting, stainless steel satin finish (quantity: 20)
- ▶ Plaques/Monuments: relocate existing monuments as required, and coordinate with Owner
- ▶ Playground equipment and wood chip ground treatment
- ▶ Include allowance for misc. benches, other fixed site elements (quantity: 10)

G2050 Plantings

- ▶ Provide street trees spaced 20' o.c. along public street edge and quantity of 15 canopy trees within plazas and courtyards.
- ▶ Minimum caliper size for street trees: 1-1/2" cal. Refer to American Standard for Nursery Stock for recommended planting depths and spacing.
- ▶ Minimum caliper size for canopy trees within plazas and courtyards: 3 to 3-1/2" cal.
- ▶ Groundcovers, perennials, and lawns shall have a 6" minimum planting soil depth. Shrubs shall have an 18" minimum planting soil depth.
- ▶ Green Roofs: Refer to architectural narrative.

G30 SITE UTILITIES

G3010 Stormwater Management

- ▶ Stormwater will be collected in area drains and catch basins.
- ▶ Catch basins will be precast with bicycle friendly cast iron frames and grates.
- ▶ Area drains will be plastic with ADA compliant cast iron grates.
- ▶ Subsurface detention and infiltration systems will be constructed. These systems are proposed to be prefabricated plastic chambers backfilled with crushed stone and surrounded with filter fabric for soil separation.
- ▶ Prior to infiltration, the stormwater will be treated by hydrodynamic separators.
- ▶ Subsurface fiberglass cisterns will be provided to collect runoff from building roofs for re-use. Pretreatment filter systems will be included at the inlets to the cisterns. The tanks will include submersible pumps to feed water into buildings.
- ▶ The overflow from the detention systems will be directed to existing drainage systems.

G3020 Sewer

- ▶ Sewage from the buildings will be discharged by gravity to existing sanitary sewage systems.
- ▶ It is assumed that no grease trap or pump stations will be required.
- ▶ Sewer manholes will be precast concrete with brick inverts and cast iron frames and covers.

G3030 Water

- ▶ Potable water and fire protection water will be provided from municipal water system.
- ▶ The water main will connect from the existing water main in adjacent public way.



North End Community Center
Boston Public Facilities Dept. - Project # 7111
July 26, 2018

STRUCTURAL NARRATIVE

1.0 Existing Nazzaro Center Site

1.1 FOUNDATIONS

It is understood that the existing structure is supported on shallow foundations, therefore new foundations for this building will consist of concrete spread footings and reinforced concrete foundation walls on reinforced concrete strip footings. There will be a basement under the portion of the building that is located on the footprint of the existing structure.

1.2 SUPERSTRUCTURE

The existing Nazzaro building will be demolished, and a new 4 story building has been proposed. It is believed that there is a party wall between the existing structure and the adjacent building, this will need to be taken into account during the construction of the new building. A seismic joint will be required between the two structures. It is presumed that the basement level slab will be a 5” slab on grade. The above ground floors will be steel framed with structural steel columns and beams, supporting a 3¼” lightweight concrete slab on 3” composite metal deck for the floors. The roof over the classroom and office spaces can be steel beams with metal roof deck. The roof structure over the basketball court can be framed with open web steel joists or steel trusses to achieve the required clear span. Resistance of wind and seismic forces will be provided by steel moment or braced frames. For pricing purposes an allowance of 14 lb/sf can be assumed for the steel framing. This location is not in a flood zone.

2.0 Mirabella Site

2.1 FOUNDATIONS

It is expected that deep foundations, such as piles, will be required at this site due to the type of soils present. The ground level slab will be a reinforced concrete structural slab supported by piles and pile caps. This site is in a FEMA Flood Hazard Area so the foundations and ground level slab will need to be designed to meet the requirements of ASCE 24, including considerations of soil erosion and scour.

2.2 SUPERSTRUCTURE

A 4 story structure has been proposed with the third and fourth floors cantilevering over the second floor by approximately 12’ at the north end of the building. The superstructure will be steel framed with structural steel columns and beams, supporting a 3¼” lightweight concrete slab on 3” composite metal deck for the floors. The roof over

- ▶ All water mains will be ductile iron.
 - ▶ Gate valves will be provided at each junction at 500’ intervals to allow for isolation of water mains.
 - ▶ Hydrants will be provided as required by the local fire department.
 - ▶ Exterior drinking fountains, hose bibs at playground areas
- G3040 Electrical + telecommunications
- ▶ See building systems descriptions for description of proposed electric service to the project.
 - ▶ Site lighting to match surrounding context, conforming to City of Boston Street lighting Division requirements. Provide lighted bollards at plazas, Harborwalk, and elevated parking plinth.
 - ▶ Site power at exterior playground area and building entrance
 - ▶ Site power/data at entrance to parking plinth (Option 5)
- G 3050 Gas
- ▶ Extend natural gas service from the existing local utility lines in the right-of-way.



the classroom and office spaces can be steel beams with metal roof deck. The roof structure over the basketball court can be framed with open web steel joists or steel trusses to achieve the required clear span. Resistance of wind and seismic forces will be provided by steel moment or braced frames. For pricing purposes an allowance of 14 lb/sf can be assumed for the steel framing.

This site is in a FEMA Flood Hazard Area and will need to be designed following the requirements of ASCE 24. One of these requirements is that all critical infrastructure and facilities must be a minimum of 2'-0" above the base flood elevation, including the elevator machine room. Also the lowest horizontal structural member, in this case the bottom of steel of the first floor, is required to be above this level. The steel columns that extend from the first floor down to ground level should be encased in concrete for added protection. All exterior and partition walls from the ground level to the first floor should be concrete masonry units with flood relief vents to provide for the free flow of water during a flood event.

3.0 Sargent's Wharf Site

3.1 FOUNDATIONS

It is expected deep foundations, such as piles, will be required at this site due to the type of soils present. This site is in a FEMA Flood Hazard Area so the foundations and ground level slab will need to be designed to meet the requirements of ASCE 24, including considerations of soil erosion and scour.

3.2 SUPERSTRUCTURE

A 3 story structure has been proposed above the existing parking lot. The first floor of the building will be elevated to preserve the existing parking. There will be an entry space, stair and elevator cores that will extend to the ground level. These elements will require a reinforced concrete structural slab. The elevated first floor and upper floors will be steel framed with structural steel columns and beams, supporting a 3 1/4" lightweight concrete slab on 3" composite metal deck for the floors. The roof over the classroom and office spaces can be steel beams with metal roof deck. The roof structure over the basketball court can be framed with open web steel joists or steel trusses to achieve the required clear span. Resistance of wind and seismic forces will be provided by steel moment or braced frames. For pricing purposes an allowance of 14 lb/sf can be assumed for the steel framing. Along with the structure to house the community center another structure is proposed for a portion of this site to be built at a later time by others. The foundations and elevated first floor of this structure would be built at the same time as the community center. The foundations and first floor will be designed for the proposed loads of the future building provided by others.

This site is in a FEMA Flood Hazard Area and will need to be designed following the requirements of ASCE 24. One of these requirements is that all critical infrastructure and



facilities must be a minimum of 2'-0" above the base flood elevation, including the elevator machine room. Also the lowest horizontal structural member, in this case the bottom of steel of the first floor, is required to be above this level. The steel columns that extend from the first floor down to ground level should be encased in concrete for added protection. All exterior and partition walls from the ground level to the first floor should be concrete masonry units with flood relief vents to provide for the free flow of water during a flood event.



July 31, 2018

Sasaki Associates, Inc.
64 Pleasant Street
Watertown, MA 02472

Attention: Ms. Carla Ceruzzi

Reference: North End Community Center; Boston, Massachusetts
Preliminary Foundation Design Study

Ladies and Gentlemen:

This letter summarizes the results of our preliminary foundation design study for the proposed North End Community Center to be located in the North End section of Boston, Massachusetts. Specifically, this letter discusses the anticipated subsurface conditions and preliminary foundation design recommendations for three (3) potential sites for a new or renovated community center. This letter was prepared in accordance with our proposal dated April 3, 2017 and the subsequent authorization of Ms. Carla Ceruzzi.

The following presents the results of our preliminary foundation design study for 1. Existing Nazzaro Center Site, 2. Mirabella Site, and 3. Sargent’s Wharf Site.

1. Existing Nazzaro Center Site

Existing Conditions

The existing Nazzaro Center site is located at 30 North Bennet Street in the center of the North End, and fronts onto a park identified as the Polcari Playground to the east, North Bennet Street to the north, open space and a property identified as 61 Prince Street to the south, and a five-story building identified as 34 North Bennet Street to the west. The park to the east is currently occupied by a paved area at the northern end, consisting of parking spaces, wide walking areas and park benches, and by a basketball court at the southern end. Grades across the park and surrounding the existing Nazzaro Center site are generally flat, with the exception of North Bennet Street which drops in elevation from east to west.

The Nazzaro Center building is a 3-story historic structure with a single level of below-grade space, which is at grade on North Bennet Street where the grade is lower and does not occupy the entire footprint of the building. The existing structure also shares a party-wall with the adjacent 34 North Bennet Street. It is anticipated that the existing structure foundations consist of spread footings bearing on the natural soil deposits underlying the site. It has also been noted that the existing basement has groundwater intrusion problems and often contains standing water.



Sasaki Associates, Inc.
July 31, 2018
Page 2

Proposed Development

The proposed development is planned to consist of demolition of the existing Nazzaro Center structure and construction of a new 4-story structure. The footprint of the new structure will occupy the existing building footprint and will also expand into the adjacent park. One-level of below-grade space is planned to be constructed within the footprint of the existing basement. The top floor of the new structure is planned to contain a basketball court.

Anticipated Subsurface Conditions

The subsurface conditions underlying the site are anticipated to consist of a shallow layer of miscellaneous granular fill, estimated to be approximately 5 to 10 feet thick. Underlying the fill layer, a marine clay deposit is anticipated to be present. Based on our experience and knowledge of the marine clay deposit it is anticipated that the clay deposit contains a very stiff to hard “crust” and becomes increasingly soft with depth. Groundwater at the site is anticipated to be approximately 5 to 10 feet below the existing ground surface.

Preliminary Foundation Design Recommendations

Based on our understanding of the proposed development and the anticipated subsurface conditions summarized above, it is anticipated that the proposed building can be supported by a foundation system consisting of footings deriving their support directly on the marine clay deposit. For preliminary design, it is recommended that the footings be proportioned utilizing a net allowable design bearing pressure of 2 tons per square-foot (tsf).

Due to the proximity of the adjacent building and party-wall, it is anticipated that underpinning and/or stabilization of the adjacent existing foundation wall will be needed.

The lowest level slab can likely be designed as a conventional slab-on-grade which is directly underlain by a polyethylene vapor barrier spread over a minimum 9-inch thickness of 3/4-inch crushed stone. The crushed stone should be underlain by a thickness of filter fabric such as Mirafi 140N placed directly over the excavation subgrade.

Based on the anticipated depth to groundwater and the lowest level slab elevation, both perimeter and underslab foundation drainage systems are anticipated to be required to protect the below-grade level against groundwater intrusion.

For the purposes of determining parameters for structural seismic design, it is anticipated that the Nazzaro Center Site will be considered as Site Class D as defined in Chapter 20 of American Society of Civil Engineers (ASCE) Standard 7-10 “Minimum Design Loads for Buildings and Other Structures”.



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2. Mirabella Site

Existing Conditions

The Mirabella Site is located at 475 Commercial Street in the northern-most part of the North End. The site is accessible from Commercial Street to the south and is surrounded by the Boston Harbor to the north, the Coast Guard Station to the east and Langone Park to the west. The Mirabella site itself encompasses the existing Andrew P. Puopolo Junior Athletic Fields, bocce courts, playground area, basketball court, and the Mirabella Pool, splash pool and pool house. Surrounding and throughout the site are harbor walks. Also, abutting the Boston Harbor, the site is surrounded by a large granite block seawall to the north.

Proposed Development

The proposed development is planned to consist of construction of a new 4-story steel-framed structure located at the western edge of the site, approximately in the location of the existing pool house. There are currently two options of development, both including renovation of the park and some relocation of the athletic fields, courts, and pools. The proposed Community Center structure is understood to contain no below-grade space, and the top floor of the new structure is planned to contain a basketball court.

Anticipated Subsurface Conditions

The subsurface conditions underlying the site are anticipated to consist of miscellaneous granular fill and a soft dredge fill from when the old Boston waterfront and piers were filled in to expand the Boston peninsula. Underlying the fill layers, which are anticipated to be a combined approximate 20-foot thickness, a natural glacial outwash deposit is anticipated to be present and vary from approximately 5 feet to 20 feet in thickness. Below the glacial outwash deposit, it is anticipated that a relatively thin marine clay deposit is present, overlying a dense glacial till deposit which is anticipated at a depth of about 50 to 60 feet below ground surface. Bedrock is anticipated to be present approximately 70 feet below ground surface.

Groundwater at the site is anticipated to be present relatively shallow at about 5 feet due to the proximity of the Harbor. The groundwater level is also likely to be susceptible to tidal fluctuations. Further, it is understood that the Mirabella Site is located within a FEMA Flood Hazard Area.

It is also anticipated that the subsurface soil layers may contain remnants from piers and seawalls which historically occupied the site.



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Preliminary Foundation Design Recommendations

It is anticipated that the proposed building will require a pile foundation system which transfers the building loads through the compressible fill layers and into the underlying natural soil deposits.

Two potential options for pile foundations are considered pertinent for preliminary foundation design: pressure injected footings (PIFs) and drilled mini-piles.

Due to the site being located within a FEMA Flood Hazard Area, a soil erosion and scour analysis is anticipated to be needed. In consideration of the presence of the miscellaneous fill and compressible dredge fill soils underlying the site, it is likely that the lowest level floor slab be need to be designed as a structurally supported or framed slab. Also, it is anticipated that flexible utility connections and oversized sleeves will be required at the grade beams and building perimeter to accommodate differential settlement between the pile-supported building and the soil-supported utilities. Furthermore, underslab utilities will likely need to be hung from the structurally supported floor slab.

For the purposes of determining parameters for structural seismic design, and for preliminary pricing purposes, it is recommended that the Mirabella Site will be considered as Site Class E as defined in Chapter 20 of American Society of Civil Engineers (ASCE) Standard 7-10 "Minimum Design Loads for Buildings and Other Structures". However, it is noted that the Site may be considered a Site Class D upon obtaining site specific subsurface information.

Pressure Injected Footings (PIFs)

For preliminary pricing purposes it is recommended that the allowable design load for each PIF be 120 tons per unit in compression. A PIF is a type of pile that would be driven through the fill material and then "based up" in the natural inorganic glacial outwash deposit. Based on the anticipated soil conditions underlying the site, a length of 25 feet is recommended to be assumed for the PIFs for preliminary pricing. Further, the PIFs should be installed utilizing cased shafts, having a minimum diameter of approximately 16 inches, and should be spaced a minimum of 4 feet center-to-center.

Drilled Mini-Piles

Due to the likelihood of obstructions being present within the fill layers due to the historical presence of old seawalls and piers, drilled mini-pile foundations could also be considered for preliminary foundation design. The drilled mini-piles would derive their support by skin friction in the glacial till and/or bedrock, depending on the site specific subsurface conditions underlying the site, specifically the thickness of the glacial till deposit, and the required column loads to be provided by the Structural Engineer. It is anticipated that drilled mini-piles would be able to be drilled through the obstructions.



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For preliminary pricing purposes it is recommended that the allowable design load for each drilled mini-pile be 200 tons per unit in compression. However, it is noted that the design capacity of the drilled mini-piles can be increased or decreased by adjusting the length of the bond zone. Also for preliminary pricing, it can be assumed that the drilled mini-piles will extend 80 feet below the ground surface, gaining their capacity in the glacial till and/or bedrock.

Prior to commencement of production pile installation, one drilled mini-pile will likely need to be load tested in accordance with the requirements of the Code to confirm the foundation design assumptions.

3. Sargents Wharf Site

Existing Conditions

The Sargents Wharf Site is located at 269 Commercial Street along the eastern side of the North End. The site is accessible from Commercial Street to the west and is surrounded by the Boston Harbor to the north and east, and 2 Atlantic Avenue to the south. In addition, a harbor walk is located on the northern and eastern sides of the site, adjacent to an existing seawall, and Eastern Avenue separates the subject site from the 2 Atlantic Avenue building. Currently, the generally flat site is occupied by approximately 246 parking spaces. Also, abutting the Boston Harbor, the site is surrounded by a large granite block seawall to the north and east.

Proposed Development

The proposed development is planned to consist of construction of a new 4-story steel-framed structure, with the first level being podium style containing an open-air parking garage accessible from Commercial Street. The three overlying levels will serve as the new Community Center, occupying 49,000 square feet, with the exception of a separate 15,000 square-foot area which will be a buildable area for a future developer. Due to the podium-style parking garage the new structure is anticipated to have relatively large spans between columns and further, the top floor of the new structure is planned to contain a basketball court.

Anticipated Subsurface Conditions

The subsurface conditions underlying the site are anticipated to consist of miscellaneous granular fill and a soft dredge fill from when the old Boston waterfront and piers were filled in to expand the Boston peninsula. Underlying the fill layers, which are anticipated to extend to a depth between 30 and 35 feet, a discontinuous, natural glacial outwash deposit is anticipated to be present, interbedded into a marine clay deposit. Underlying the glacial outwash deposit(s) and marine clay deposit, a glacial till deposit is anticipated to be present approximately 60 feet below the ground surface. The thickness of the glacial till deposit is



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anticipated to be approximately 30 feet, and the glacial till deposit is anticipated to be overlying bedrock at a depth of about 90 feet.

Groundwater at the site is anticipated to be present relatively shallow at about 5 feet due to the proximity of the Harbor. The groundwater level is also likely to be susceptible to tidal fluctuations. Further, it is understood that the Mirabella Site is located within a FEMA Flood Hazard Area.

It is also anticipated that the subsurface soil layers may contain remnants from piers and seawalls which historically occupied the site.

Preliminary Foundation Design Recommendations

It is anticipated that the proposed building will require a pile foundation system which transfers the building loads through the compressible fill layers and into the underlying natural soil deposits.

Two potential options for the pile foundations are considered pertinent for preliminary foundation design: driven prestressed precast concrete piles (PPCP) and drilled mini-piles. Due to the site being located within a FEMA Flood Hazard Area, a soil erosion and scour analysis is anticipated to be needed.

Prior to commencement of production pile installation, it is recommended that one pile be load tested in accordance with the requirements of the Code to confirm the foundation design assumptions.

In consideration of the presence of the miscellaneous fill and compressible dredge fill soils underlying the site, it is likely that the lowest level floor slab be need to be designed as a structurally supported or framed slab. Also, it is anticipated that flexible utility connections and oversized sleeves will be required at the grade beams and building perimeter to accommodate differential settlement between the pile-supported building and the soil-supported utilities. Furthermore, underslab utilities will likely need to be hung from the structurally supported floor slab.

For the purposes of determining parameters for structural seismic design, and for preliminary pricing purposes, it is recommended that the Sargent's Wharf Site will be considered as Site Class E as defined in Chapter 20 of American Society of Civil Engineers (ASCE) Standard 7-10 "Minimum Design Loads for Buildings and Other Structures". However, it is noted that the Site may be considered a Site Class D upon obtaining site specific subsurface information.

Prestressed Precast Concrete Piles (PPCP)

For preliminary pricing purposes, end-bearing piles including 14-inch square prestressed precast concrete piles (PPCP) having a design capacity of 130 tons in compression, or a 16-inch square PPCP having a design capacity of 180 tons in compression are both considered



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appropriate foundation types for the proposed structure because they can support relatively high column loads with a reasonable number of foundation elements driven to end bearing on glacial till and/or bedrock.

It is anticipated that each PPCP location will require predrilling to a depth of about 50 feet below the working ground surface to identify potential obstructions to pile installation, such as the old seawalls and piers. Obstructions encountered within the fill material during the predrilling should be excavated and removed by the earthwork contractor, as feasible. Predrilling the pile locations will also remove a substantial portion of the volume of soil which would otherwise be displaced by the foundation piles and, therefore, the lateral soil displacement and ground heave attributable to pile installation will be reduced. Additionally, pile predrilling will also reduce the transmission of vibrations due to pile driving.

For preliminary pricing, a pile length of 90 feet is recommended, and if the piles are not able to be driven in one section, utilization of at least one pile splice will be necessary. Each splice should be designed in accordance with Section 1810.3.6 of the Code and be capable of developing the full pile capacity in all modes of stress occurring during driving and for design load combinations.

Drilled Mini-Piles

Similar to the Mirabella Site, due to the likelihood of obstructions being present within the fill layers due to the historical presence of old seawalls and piers, drilled mini-pile foundations could also be considered for preliminary foundation design. For specific preliminary recommends for drilled mini-piles, refer to the Mirabella Site Drilled Mini-Piles section of this letter. For preliminary pricing for the Sargent's Wharf Site, it is recommended that the allowable design load for each drilled mini-pile be 200 tons per unit in compression with an assumed length of 90 feet below the ground surface, gaining their capacity in the glacial till and/or bedrock.

Closing Remarks

In summary, the results of our preliminary foundation design study are provided herein for the three potential sites for a new North End Community Center, including 1. Existing Nazzaro Center Site, 2. Mirabella Site, and 3. Sargents Wharf Site. For each site, the anticipated subsurface soil conditions are discussed and preliminary foundation design recommendations are provided.

It is recommended that a final foundation design study be completed once the proposed site is selected. As part of the final foundation design study, we recommend that borings be completed at the site to determine the actual site specific subsurface soil conditions within the proposed building footprint.



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We trust that the above is sufficient for your present requirements. Should you have any questions concerning the above, please call us.

Very truly yours,

McPHAIL ASSOCIATES, LLC

A handwritten signature in blue ink, appearing to read "Olivia C. Deterling".

Olivia C. Deterling

A handwritten signature in blue ink, appearing to read "Jonathan W. Patch".

Jonathan W. Patch, P.E.

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OCD/jwp



NORTH END COMMUNITY CENTER STUDY
HVAC, PLUMBING, FIRE PROTECTION AND ELECTRICAL SYSTEMS

A. General

The following narrative includes MEP/FP system recommendations for the proposed New North End Community Center which will house Educational, Civic / Community, and Sports programs. System sizing is based on the “ideal size” program.

B. HVAC Systems

1. General

The following system description includes three alternates for heating, ventilating, and air conditioning of the building with options within each alternate:

- a. Alternate #1: “All-Air” Systems
- b. Alternate #2: Fan Coil Unit (FCU) Systems
- c. Alternate #3: VRF Systems

2. Alternate #1A: “All-Air” VAV Systems with Outdoor Roof Top Units and Hot Water Boiler Plant

- a. Package rooftop air handling units with gas fired heating furnace, electric air cooled condenser section and DX cooling coil, hot gas reheat, supply and return air fans with VFD’s, MERV13 filtration, controls:
 - Gymnasium RTU – approximately 12,000 CFM (single zone VAV type)
 - Fitness, Weights, Cardio, and Locker rooms RTU - approximately 10,000 CFM (multiple zones VAV type)
 - Classrooms, Lobby, Community spaces RTU- approximately 15,000 CFM (multiple zones VAV type)
 - Multipurpose Assembly Space RTU - approximately 5,000 CFM (single zone VAV type)
- b. Medium pressure supply air duct distribution from the RTU to VAV terminals (multizone systems); single duct VAV boxes for interior spaces and fan powered VAV boxes for perimeter spaces (multizone systems); low pressure duct distribution from VAV terminals (multizone systems) and RTU’s (single -zone systems) to space air distribution devices.
- c. Ceiling cavity utilize as return air plenum, low pressure return air ductwork from all areas (except detainee are) back to RTU
- d. Bathrooms and locker rooms exhaust air system with exhaust fan on the roof.
- e. High efficiency condensing type gas fired hot water boiler plant including (2) 750 MBH boilers and (2) 75 GPM pumps (100% redundancy). Hot water distribution from the boiler plant to heating coils at VAV terminals and to miscellaneous heating equipment.

3. Alternate #1B: “All-Air” VAV Systems with Indoor Modular Air Handling Units with Split Air-Cooled Condensers and Hot Water Boiler Plant

- a. Modular indoor air handling units with hot water heating coils (with freeze protection), DX cooling coils with remote air-cooled condenser (outside), supply and return air fans with VFD’s, MERV13 filtration, controls:

- Gymnasium AHU – approximately 12,000 CFM (single zone VAV type)
- Fitness, Weights, Cardio, and Locker rooms AHU - approximately 10,000 CFM (multiple zones VAV type)
- Classrooms, Lobby, Community spaces AHU - approximately 15,000 CFM (multiple zones VAV type)
- Multipurpose Assembly Space AHU - approximately 5,000 CFM (single zone VAV type)

- b. Medium pressure supply air duct distribution from the RTU to VAV terminals (multizone systems); single duct VAV boxes for interior spaces and fan powered VAV boxes for perimeter spaces (multizone systems); low pressure duct distribution from VAV terminals(multizone systems) and RTU’s (single -zone systems) to space air distribution devices.
- c. Ceiling cavity utilize as return air plenum, low pressure return air ductwork from all areas (except detainee are) back to RTU
- d. Bathrooms and locker rooms exhaust air system with exhaust fan on the roof.
- e. High efficiency condensing type gas fired hot water boiler plant including (2) 1500 MBH boilers and (2) 150 GPM pumps (100% redundancy). Hot water distribution from the boiler plant to the heating coils at Air Handling Units, VAV terminals and to miscellaneous heating equipment

4. Alternate #1C: “All-Air” VAV Systems with Indoor Modular Air Handling Units, Chiller Plant and Hot Water Boiler Plant

- a. Modular indoor air handling units with hot water heating coils (with freeze protection), chilled water cooling coils, supply and return air fans with VFD’s, MERV13 filtration, controls:
 - Gymnasium AHU – approximately 12,000 CFM (single zone VAV type)
 - Fitness, Weights, Cardio, and Locker rooms AHU - approximately 10,000 CFM (multiple zones VAV type)
 - Classrooms, Lobby, Community spaces AHU - approximately 15,000 CFM (multiple zones VAV type)
 - Multipurpose Assembly Space AHU- approximately 5,000 CFM (single zone VAV type)
- b. Medium pressure supply air duct distribution from the RTU to VAV terminals (multizone systems); single duct VAV boxes for interior spaces and fan powered VAV boxes for perimeter spaces (multizone systems); low pressure duct distribution from VAV terminals (multizone systems) and RTU’s (single -zone systems) to space air distribution devices.
- c. Ceiling cavity utilize as return air plenum, low pressure return air ductwork from all areas (except detainee are) back to RTU
- d. Bathrooms and locker rooms exhaust air system with exhaust fan on the roof.
- e. Outdoor Air-Cooled Chiller (200 tons) with two (2) associated pumps (400 GPM each- full redundancy), chilled water piping distribution to chilled water coils at AHU’s. System charged with 40% glycol solution.
- f. High efficiency condensing type gas fired hot water boiler plant including (2) 1500 MBH boilers and (2) 150 GPM pumps (100% redundancy). Hot water distribution from the boiler plant to the heating coils at Air Handling Units, VAV terminals and to miscellaneous heating equipment

5. Alternate #2A: Combination of Single Zone RTU’s and Fan Coil Unit System with Chiller Plant and Hot Water Boiler Plant



- a. Package rooftop air handling units with gas fired heating furnace, electric air-cooled condenser section and DX cooling coil, hot gas reheat, supply and return air fans with VFD's, MERV13 filtration, controls:
 - Gymnasium RTU – approximately 12,000 CFM (single zone VAV type)
 - Multipurpose Assembly Space RTU - approximately 5,000 CFM (single zone VAV type)
 - b. Ventilation energy recovery unit (ERU) providing ventilation to all other spaces: Package rooftop unit with gas fired heating furnace, electric air cooled condenser section and DX cooling coil, enthalpy type energy recovery wheel, supply and exhaust air fans with VFD's MERV13 supply air filtration, MERV8 exhaust air filtration, controls – approximately 5000 CFM
 - c. Low pressure supply and return air distribution from RTU's to spaces served
 - d. Low pressure ventilation supply air duct distribution from ERU to all spaces other than those served by RTU's
 - e. Low pressure exhaust air ductwork from locker rooms, fitness rooms, and public bathrooms back to ERU
 - f. Four-pipe (chilled water /hot water) fan coil units (FCU) in all spaces (other than those served by RTU's) with associated ductwork and air distribution devices
 - g. Outdoor Air-Cooled Chiller (100 tons) with two (2) associated pumps (200 GPM each- full redundancy), chilled water piping distribution to chilled water coils at FCU's. System charged with 40% glycol solution.
 - h. High efficiency condensing type gas fired hot water boiler plant including (2) 750 MBH boilers and (2) 75 GPM pumps (100% redundancy).
 - i. Chilled water and hot water distribution piping to cooling and heating coils at FCU's, and to miscellaneous heating equipment.
6. Alternate #2B: Combination of Single Zone AHU's and Fan Coil Unit System with Chiller Plant and Hot Water Boiler Plant
- a. Modular indoor air handling units with hot water heating coils (with freeze protection), chilled water cooling coils, supply and return air fans with VFD's, MERV13 filtration, controls:
 - Gymnasium AHU – approximately 12,000 CFM (single zone VAV type)
 - Multipurpose Assembly Space AHU- approximately 5,000 CFM (single zone VAV type)
 - b. Ventilation energy recovery unit (ERU) providing ventilation to all other spaces: Modular indoor air handling units with hot water heating coil (with freeze protection), chilled water cooling coil, enthalpy type energy recovery wheel, supply and exhaust air fans with VFD's MERV13 supply air filtration, MERV8 exhaust air filtration, controls – approximately 5000 CFM
 - c. Low pressure supply and return air distribution from AHU's to spaces served
 - d. Low pressure ventilation supply air duct distribution from ERU to all spaces other than those served by AHU's
 - e. Low pressure exhaust air ductwork from locker rooms, fitness rooms, and public bathrooms back to ERU
 - f. Four-pipe (chilled water /hot water) fan coil units (FCU) in all spaces (other than those served by AHU's) with associated ductwork and air distribution devices
 - g. Outdoor Air-Cooled Chiller (200 tons) with two (2) associated pumps (400 GPM each- full redundancy), chilled water piping distribution to chilled water coils at FCU's. System charged with 40% glycol solution.
 - h. High efficiency condensing type gas fired hot water boiler plant including (2) 1555MBH boilers and (2) 150 GPM pumps (100% redundancy).

- i. Chilled water and hot water distribution piping to cooling and heating coils at FCU's, and to miscellaneous heating equipment.

7. Alternate #3: Combination of Single Zone RTU's and VRF System

- a. Package rooftop air handling units with gas fired heating furnace, electric air-cooled condenser section and DX cooling coil, hot gas reheat, supply and return air fans with VFD's, MERV13 filtration, controls:
 - Gymnasium RTU – approximately 12,000 CFM (single zone VAV type)
 - Multipurpose Assembly Space RTU - approximately 5,000 CFM (single zone VAV type)
- b. Ventilation energy recovery unit (ERU) providing ventilation to all other spaces: Package rooftop unit with gas fired heating furnace, electric air cooled condenser section and DX cooling coil, enthalpy type energy recovery wheel, supply and exhaust air fans with VFD's MERV13 supply air filtration, MERV8 exhaust air filtration, controls – approximately 5000 CFM
- c. Low pressure supply and return air distribution from RTU's to spaces served
- d. Low pressure ventilation supply air duct distribution from ERU to all spaces other than those served by RTU's
- e. Low pressure exhaust air ductwork from locker rooms, fitness rooms, and public bathrooms back to ERU
- f. Variable Refrigerant Flow (VRF) indoor terminal units in all spaces (other than those served by AHU's) with associated ductwork and air distribution devices for heating and cooling.
- g. Outdoor air-cooled heat recovery type VRF condensing units – (5) 16 ton units with low ambient option (Mitsubishi Hyperheat or similar) for low temperature heating operation.
- h. Refrigerant piping between condensing units, control units, and terminal units

8. Other HVAC Systems (similar for all alternates)

- a. Split AC systems for cooling of the T/D rooms, electronic equipment rooms, elevator machine rooms with condensing units outdoors on grade or on the roof
- b. Heating and ventilation of the electrical and mechanical rooms
- c. Entrance cabinet unit heaters
- d. Elevator hoistway venting
- e. Building management control system (BMS) of DDC type.

C. **Electrical Systems**

1. Electrical Service

- a. Power will be received from a Utility Company pad mounted transformer at 480/277-volts, 3-phase, 4-wire. Power will be utilized at 480/277 volts where possible and stepped down to 120/208 volts by dry type transformers as required.
- b. A utility company meter will measure consumption.
- c. Power will be distributed to panels located in electric closets within each section of the building.

2. Lighting

- a. Lighting will be by means of high efficiency lighting fixtures with appearances and light sources (LED, HID, fluorescent, etc.) appropriate to the function of the space and to the architecture.



- b. Lighting control systems will be provided to include photocells and timer controls for exterior lighting and vacancy/occupancy sensors for interior lighting as required by energy codes and to lower the energy consumption of the building.
 - c. Daylight dimming will be provided where required by energy codes.
 - d. Occupancy sensors will be provided in stairs to reduce the light level when unoccupied to the code minimum.
 - e. Emergency lighting for means of egress and exit signs will be provided.
 - 1. Provide local battery unit type emergency lighting throughout the public spaces, corridors and other paths of egress.
 - 2. Provide battery units located in mechanical rooms and in electric closets.
 - 3. Provide remote lighting heads in public spaces, corridors and other paths of egress.
 - 4. Provide exit signs with integral battery packs.
- 3. Wiring Devices
 - a. In addition to the receptacle outlets required as part of the electrical power distribution system for specific items of power consuming equipment, a full complement of general convenience receptacles and light switches are to be located throughout the project and will include plates, etc.
 - b. Wiring devices will be specification grade, white in color. Wiring devices will be provided with matching plates.
- 4. Fire Alarm System
 - a. Addressable type fire alarm system which will monitor actuating devices including smoke detectors, manual stations, heat detectors, and sprinkler waterflow devices.
 - b. The system will include smoke and heat detectors where required by applicable building and fire codes.
 - c. Combination audible/visual (strobe) units will alert occupants and will be located in conformance with NFPA 72, MAAB, ADA, and applicable building and fire codes. The system will be capable of voice messaging from a microphone at the system panel and at the remote annunciator panel.
 - d. The fire alarm system will be connected to the municipal fire department via a "master box".
 - e. A remote annunciator will be provided at the main entrance of the building.
- 5. Telephone, Data, and CATV Distribution System
 - a. The building will be provided with an empty conduit system to allow the introduction of Telephone, Data, and CATV distribution system which will provide telephone service, data service, and Cable TV.
 - b. The empty conduit system will connect the building with the telephone and Cable TV distribution duct system in the street.
- 6. Lightning Protection System
 - a. The building will be equipped with a lightning protection system for which an Underwriters Laboratories Master Label will be obtained at completion of the work.
 - b. The system will be provided in accordance with the requirements of UL 96A and NFPA 780.
 - c. The lightning protection system will incorporate all elements necessary to assure that no damage to the project occurs in the event of a lightning strike, and also to assure that no



- metallic parts in the project acquire any hazardous static electricity voltage in the event of a lightning strike.
- 7. Fire Fighter's Communication System
 - a. The building will be provided with a Bi-Directional Radio Amplification system for fire fighter's communication. The system will provide coverage throughout the building. The system will comply with the requirements of the building code and the fire department.
 - 8. Elevator Landing Communication System
 - a. The building will be provided with an Elevator Landing Communication system, with a device located in every elevator landing on floors other than the level of exit discharge. The system will provide two-way voice communication with a constantly attended master station, with a timed automatic dial-out to a remote central station. The system will provide both audible and visual signals for calls placed and acknowledged. The system will comply with the requirements of the building code.
- D. Plumbing Systems**
- 1. Water
 - a. The building will require a new 4" water service including a new water meter.
 - b. The water service will provide cold water to every Plumbing fixture requiring cold water.
 - c. Cold water will supply a direct vented gas fired water heater (located in the mechanical room) which will provide hot water to each Plumbing fixture requiring hot water.
 - d. All hot and cold water distribution will be insulated.
 - 2. Sanitary
 - a. A new cast iron sanitary and vent system will collect the waste from and all vents for all Plumbing fixture and discharge to the sewer main located in the street.
 - 3. Storm
 - a. New cast iron storm drainage system will collect rain water from all roof drains and/or Terrace drains and discharge to the storm sewer located in the street.
 - 4. Gas
 - a. A new gas service including gas regulators and gas meter as required by the utility company will be provided from the street. Gas distribution system will be provided to deliver gas to the boilers and domestic water heater.

Fire Protection System

- 1. The building will be provided with a 6" Fire water service including a 6" double check valve.
- 2. The sprinkler service will be piped to sprinklers in every room.
- 3. The sprinkler main will have a Fire Department connection.



- 4. Sprinklers in finished areas will be white concealed type. Sprinklers in the unfinished areas will be bronze.
- 5. Sprinklers in the areas with complicated ceiling/roof shapes will be piped utilizing Flexhead flexible fire sprinkler connections.
- 6. Fire pump may be required based on the flow test results and hydraulic calculations.

Page not used

5.3 Sustainability Review

Y	?	N				
1			Credit	Integrative Process	1	
12	3	1	Location and Transportation			16
0			Credit	LEED for Neighborhood Development Location	16	
1			Credit	Sensitive Land Protection	1	
	1	1	Credit	High Priority Site	2	
5			Credit	Surrounding Density and Diverse Uses	5	
5			Credit	Access to Quality Transit	5	
	1		Credit	Bicycle Facilities	1	
1			Credit	Reduced Parking Footprint	1	
	1		Credit	Green Vehicles	1	
4	3	3	Sustainable Sites			10
Y			Prereq	Construction Activity Pollution Prevention	Required	
1			Credit	Site Assessment	1	
		2	Credit	Site Development - Protect or Restore Habitat	2	
	1		Credit	Open Space	1	
	2	1	Credit	Rainwater Management	3	
2			Credit	Heat Island Reduction	2	
1			Credit	Light Pollution Reduction	1	
4	6	1	Water Efficiency			11
Y			Prereq	Outdoor Water Use Reduction	Required	
Y			Prereq	Indoor Water Use Reduction	Required	
Y			Prereq	Building-Level Water Metering	Required	
2			Credit	Outdoor Water Use Reduction	2	
1	4	1	Credit	Indoor Water Use Reduction	6	
	2		Credit	Cooling Tower Water Use	2	
1			Credit	Water Metering	1	
10	11	12	Energy and Atmosphere			33
Y			Prereq	Fundamental Commissioning and Verification	Required	
Y			Prereq	Minimum Energy Performance	Required	
Y			Prereq	Building-Level Energy Metering	Required	
Y			Prereq	Fundamental Refrigerant Management	Required	
3	1	2	Credit	Enhanced Commissioning	6	
6	4	8	Credit	Optimize Energy Performance	18	
	1		Credit	Advanced Energy Metering	1	
	2		Credit	Demand Response	2	
	3		Credit	Renewable Energy Production	3	
1			Credit	Enhanced Refrigerant Management	1	
		2	Credit	Green Power and Carbon Offsets	2	



LEED v4 for BD+C: New Construction and Major Renovation
Project Checklist

Project Name: North End Community Center Study
Date: 16-Jul-18

5	6	2	Materials and Resources			13
Y			Prereq	Storage and Collection of Recyclables	Required	
Y			Prereq	Construction and Demolition Waste Management Planning	Required	
	3	2	Credit	Building Life-Cycle Impact Reduction	5	
1	1		Credit	Building Product Disclosure and Optimization - Environmental Product Declarations	2	
1	1		Credit	Building Product Disclosure and Optimization - Sourcing of Raw Materials	2	
1	1		Credit	Building Product Disclosure and Optimization - Material Ingredients	2	
2			Credit	Construction and Demolition Waste Management	2	
7	5	4	Indoor Environmental Quality			16
Y			Prereq	Minimum Indoor Air Quality Performance	Required	
Y			Prereq	Environmental Tobacco Smoke Control	Required	
2			Credit	Enhanced Indoor Air Quality Strategies	2	
1	2		Credit	Low-Emitting Materials	3	
1			Credit	Construction Indoor Air Quality Management Plan	1	
1		1	Credit	Indoor Air Quality Assessment	2	
	1		Credit	Thermal Comfort	1	
1		1	Credit	Interior Lighting	2	
	2	1	Credit	Daylight	3	
		1	Credit	Quality Views	1	
1			Credit	Acoustic Performance	1	
5	1	0	Innovation			6
1			Credit	Innovation - Joint Use of Facilities (modeled after LEED Schools credit)	1	
1			Credit	Innovation - Green Building Education	1	
1			Credit	Innovation - Green Cleaning Program	1	
1				Pilot Credit - Bird collision deterrence	1	
	1		Credit	Innovation - TBD	1	
1			Credit	LEED Accredited Professional	1	
0	2	2	Regional Priority			4
	1		Credit	Regional Priority: Indoor Water Use Reduction	1	
	1		Credit	Regional Priority: Rainwater Management	1	
		1	Credit	Regional Priority: Specific Credit	1	
		1	Credit	Regional Priority: Specific Credit	1	
48	37	25	TOTALS			Possible Points: 110
Certified: 40 to 49 points, Silver: 50 to 59 points, Gold: 60 to 79 points, Platinum: 80 to 110						

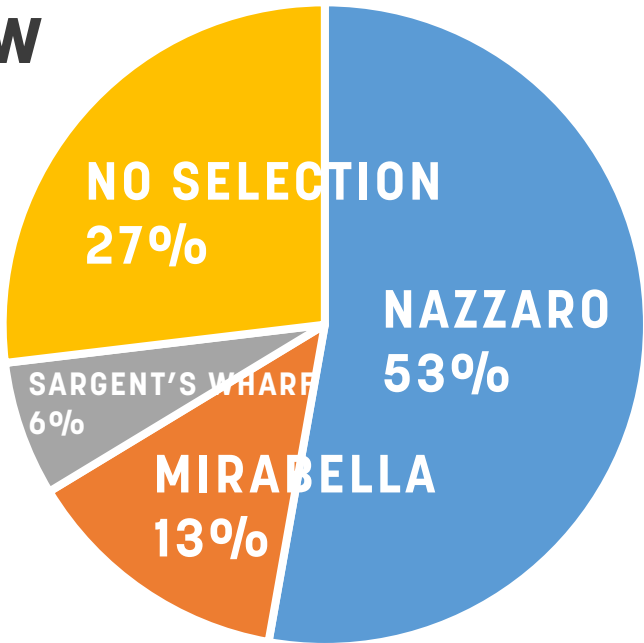
5.4 Community Review

An additional survey issued from October 17, 2018 to November 8, 2018 asked respondents to react to the top options. The surveys were publicized at the Nazzaro center reception desk, at community meetings, and via neighborhood e-mail and Facebook groups. Response was as follows:

- 103 people logged in
- 74 people voted for a favorite site
- 30 did not comment
- 146 comments total

A selection of the comments is shown here.

- There was strong support for the existing Nazzaro site, although it is not clear whether respondents understood that the existing building could not accommodate the proposed program. A number of commenters proposed renovating the Nazzaro center AND building a new center to accommodate larger programs.
- Some mentioned the Fulton Street Site.
- A significant number of people mentioned the dangers of building on the waterfront relative to sea-level rise.
- There were many mentions of the traffic on Commercial Street as a barrier between the neighborhood and the waterfront sites.
- The Sargent’s Wharf parking lot is seen as a significant neighborhood amenity.
- Affection for the existing building as well as the Mirabella Pool, splash pool, and park is evident in the comments.



Comments on the Nazzaro site

Absolutely the best location for our seniors and children. I am willing to sacrifice on size to look out for the young and old of our community.

Why not keep this site for senior activities and then add another site for everything else. Building should be preserved and should remain as a community center of some sort. We have lost too many to private development.

I would prefer this central location. I hope it would be possible to keep the basketball court. It is so great to see pick-up games. It keeps the neighborhood alive.

The Nazaro Center should be retained as an arts center or senior center.

Central location is best choice. Walkable from all over the North End. No need to cross major roads.

Comments on the Sargent’s Wharf site

This option seems like it could potentially work. I like the idea of turning part of the parking lot into a park. It is the biggest footprint, which could provide multi-use options and meet the neighborhood’s needs. One of my concerns is still the fact that it is in a flood zone. Also, it is more central than the Mirabella location but still not in the core of the neighborhood.

A terrible option! Parking issues are already making north end unlivable.

Not ideal with flooding and traffic issues.

More central than Mirabella but not as central as the current location. The parking lot is an eye sore so it would be nice to have a park here. Right next to the water taxi too. If the community center were here it would be nice to have a ferry to East Boston and Charlestown from the community center. I kind of like this location.

Not convenient for residents and particularly seniors and disabled people. It’s difficult to cross causeway street.

Comments on the Mirabella Site

I’m not opposed, but I’m very concerned with the amount of traffic this will generate building it, as well as after with completion. However if this location would be big enough for what we need, then maybe this is a viable option. My concern is I would not want any of the field or grass space taken away for building at this location. We have very little grass or green space here

within the North End, and loosing any of it would be awful.

Where would the pick up and drop off be? The funeral home draws a lot of cars and sports games draw a lot of double parked cars, too. I think it is a terrible idea to add to this mess.

It would be a great use of that space and beautiful to have the center on the water. My only concern is having kids crossing that street from the North End to get to the building.

Ideal if existing building could be converted and flooding issues could be addressed.

no leave the pool area alone

Best of 3 sites

The absolute worst option. Commercial street is difficult for seniors and children to cross - actually it is difficult for anyone to cross. Open space would be eaten up by this monstrosity. Flood zone -on top of it all. I do not like this site as it takes the center out of the neighborhood. Traffic is already congested there, particularly with the new bike paths.

Not convenient and blocks water views for residents. Takes away green space.

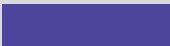
It would create major conflicts between Commercial St auto and bike traffic and pedestrians.

Location not ideal but more space

5.5 Cost Summary

The summary at right includes concept costs for the top three site options. Please refer to the full cost estimate in the Appendix for detail.

		0. Nazzaro 39,645 GSF		1. Mirabella 54,375 GSF		5. Sargent's Wharf 50,496 GSF	
		Cost	Cost/GSF	Cost	Cost/GSF	Cost	Cost/GSF
Direct Trade Costs							
Direct Trade Cost Details		\$16,649,416	\$419.96	\$30,143,863	\$554.37	\$36,031,024	\$713.54
Design and Pricing Contingency	15.00%	\$2,498,000	\$63.01	\$4,522,000	\$83.16	\$5,405,000	\$107.04
Construction Contingency	5.00%	\$958,000	\$24.16	\$1,734,000	\$31.89	\$2,072,000	\$41.03
Direct Trade Cost SubTotal		\$20,105,416	\$507.14	\$36,399,863	\$669.42	\$43,508,024	\$861.61
Burdens and Fees							
General Conditions and Overheads	%varies	\$1,010,000	\$25.48	\$2,370,000	\$43.59	\$2,830,000	\$56.04
01 00 00 Project Requirements	3.00%	\$610,000	\$15.39	\$1,100,000	\$20.23	\$1,310,000	\$25.94
General Liability Insurance	1.25%	\$272,000	\$6.86	\$499,000	\$9.18	\$596,000	\$11.80
SubContractor Bond	1.40%	\$282,000	\$7.11	\$510,000	\$9.38	\$610,000	\$12.08
Fee/Profit	3.00%	\$66,000	\$1.66	\$135,000	\$2.48	\$161,000	\$3.19
Burdens SubTotal		\$2,240,000	\$56.50	\$4,614,000	\$84.86	\$5,507,000	\$109.06
Estimated Construction Cost Total		\$22,345,416	\$563.64	\$41,013,863	\$754.28	\$49,015,024	\$970.67
Escalation Allowances							
Escalation to start of construction; Spring 2021	11.40%	\$2,548,000	\$64.27	\$4,676,000	\$86.00	\$5,588,000	\$110.66
Escalation during construction; incl. in Unit Rates							
Escalation SubTotal		\$2,548,000	\$64.27	\$4,676,000	\$86.00	\$5,588,000	\$110.66
Estimated Construction Cost Total		\$24,893,416	\$627.91	\$45,689,863	\$840.27	\$54,603,024	\$1,081.33
Option: Lap Pool and Pool Deck				\$2,181,000			
HVAC Option: VRF system in lieu of fan coil unit system		(\$2,604,000)		(\$1,007,000)		(\$372,000)	
Contract Option: General Contractor in lieu of CM at Risk		\$23,649,000		\$43,406,000		\$51,873,000	



Appendix

- A.1 Community Advisory Committee & Public Meeting minutes
- A.2 Massachusetts Historic Commission Inventory Listing
- A.3 Cost Estimates